SDM: Case Report – McCormick Vietnam

Service Delivery Model assessment: short version

March 2020

Location: Vietnam
Commodity: Pepper
Services: Training, Demo Farms, Certification

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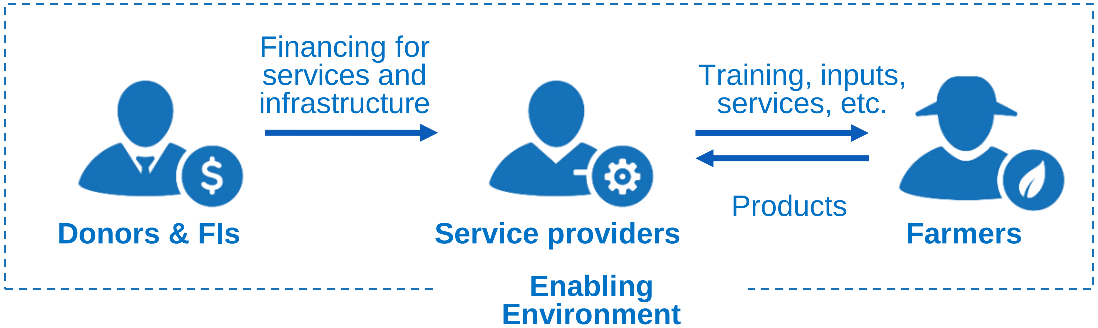
What are SDMs and why are we interested in analyzing them?

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 McCormick SDM and objectives

General SDM information:

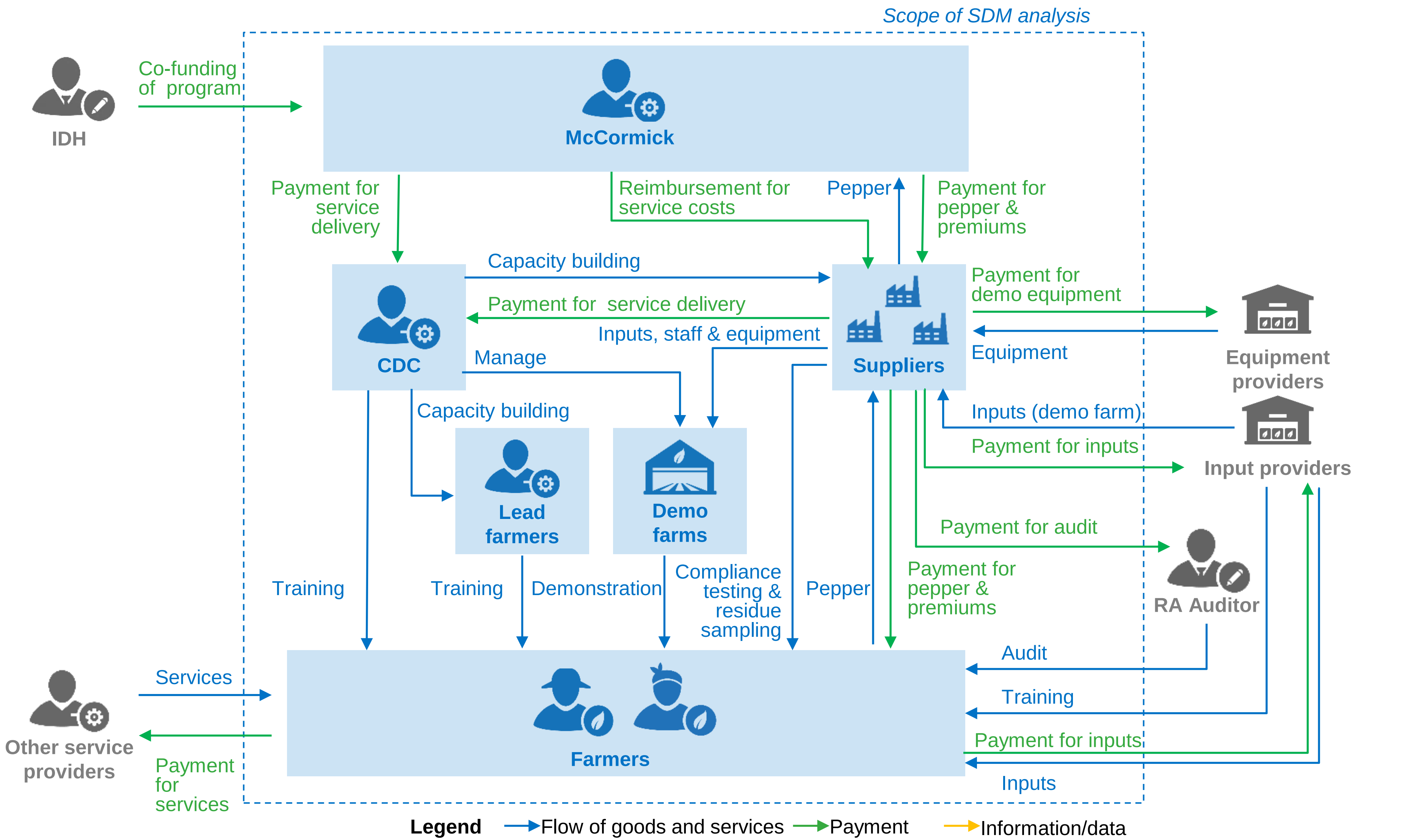
Location:	Vietnam
Timing in analysis scope:	2018-2021
Scale :	633 farmers
Funding:	Service provider, co-funded by IDH
Other:	This SDM focuses on three sub-SDMs operated by local suppliers

SDM objectives:

1. Source 100% Rainforest Alliance certified pepper in a cost-efficient manner by 2025
2. Improve uptake of good agricultural practices and responsible input use

- McCormick & Company, Incorporated (McCormick) is a global leader in flavor. With $5.3 billion in annual sales, the company manufactures, markets and distributes spices, seasoning mixes, condiments and other flavorful products to the entire food industry – retail outlets, food manufacturers and foodservice businesses
- Headquartered in Maryland, United States, McCormick has nearly 12,000 employees worldwide and sells products in approximately 150 countries and territories
- McCormick & Company (McCormick), is a major purchaser of black pepper from Vietnam, the world's largest black pepper producing country
- Through this Service Delivery Model (SDM), McCormick aims to increase its sourcing of Rainforest Alliance, compliant and sustainable black pepper to meet its 2025 target of 100% sustainably sourced branded black pepper as outlined in its Purpose-Led Performance report. In this SDM, McCormick sources from local suppliers who source directly from Vietnamese farmers
- The SDM is a continuation of McCormick's efforts within the Sustainable Spice Initiative that aims to accelerate the uptake of Good Agricultural Practices (GAP) by Vietnamese Black Pepper farmers through the implementation of the Sustainable Agricultural Standard of the Rainforest Alliance

SDM Overview



Overview of Services

Training & Capacity Building

- Farmers are trained on Good Agricultural Practices, Responsible Agrochemical Use, Integrated Crop Management and Financial Management by local service provider CDC in line with the National Sustainability Curriculum (NSC)
- CDC and suppliers' extension staff also provide recommendations to farmers over the appropriate inputs to use
- Training of Trainers approach used to build the capacity of suppliers to undertake training using their own extension field staff

Demo farms

- Demo farms are established to demonstrate to farmers of a commune how to implement Good Agricultural Practices and their impact
- Demo farms also show the benefits of drip irrigation systems with the aim to increase uptake of drip irrigation
- McCormick paid for the establishment of the demo farms and partially covers the costs of inputs and maintenance. Suppliers incur partial costs in the form their field staff time who visit these demo farms

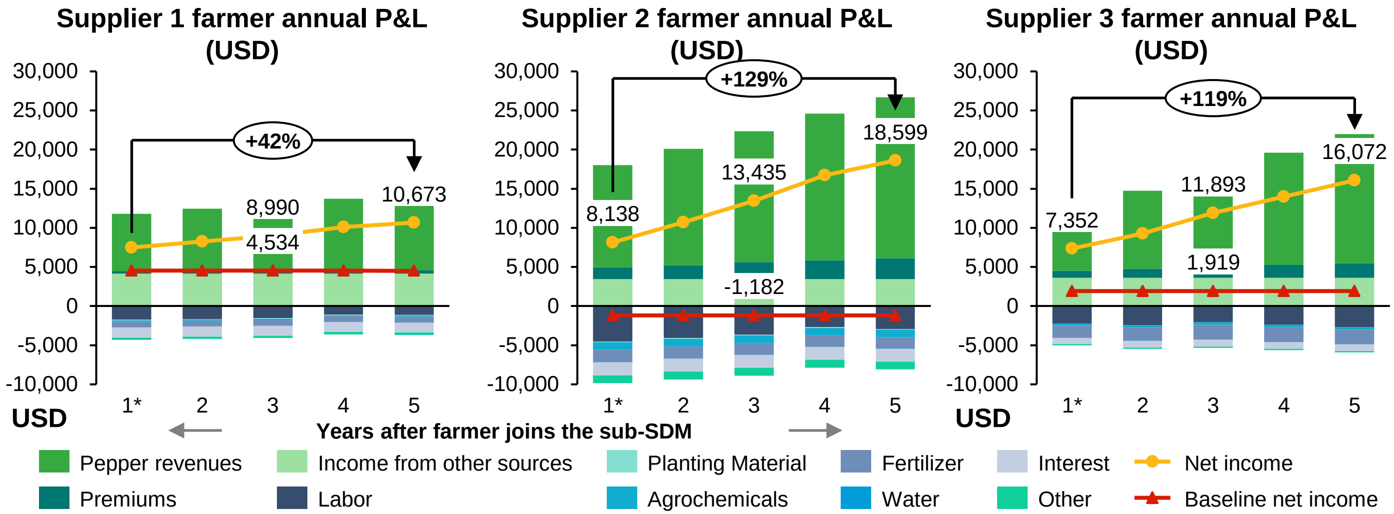
Farm Management System

- Extension agents or lead farmers are responsible for collecting farm-level data through a mobile app
- McCormick pays for implementation of the farm management system
- Suppliers pay for Farmforce licensing costs
- Project partners use Farmforce to quantify producers' progress against the sustainability program

RA Certification & Compliance

- Suppliers are responsible for ensuring that black pepper is Rainforest Alliance certified and compliant in terms of pesticide residue levels
- Internal and external audits are performed on all farmers to ensure compliance with RA
- Suppliers organize residue sampling to ensure that black pepper sourced is of sufficient quality
- Testing of the samples is done by third party companies
- Premiums from certified and compliant pepper are shared between farmers and the cost of service delivery

Farm P&Ls: overall impact



Economic sustainability at farm level

Baseline farmers for supplier 2 and 3 lose on pepper production, while baseline 1 makes very little. The reason they continue to produce pepper with this income is they believe prices will recover in the future and the investment to switch will be too great. Supplier 2 and 3 farmers will not reinvest in pepper if inflicted with disease or death; while supplier 1 farmers will because they believe there will be a marked improvement in price over time.

Supplier 1 farmers are the most diversified to non-pepper income, with it representing nearly half of their household income. While this is the case, these farmers are the most likely to plant to pepper in new areas, and have the greatest opportunity to grow (both in terms of production, but also in terms of premium income). This ability for growth comes from the plan to invest in pepper, current availability to increase the size of production (potentially, from 1.5 ha to 2.3 ha), and significant room for capacity improvement, as can be seen by their profitability per hectare.

Supplier 2 farmers perform the best overall and have the largest farms . These farmers receive strong premiums (for quality and certification), and have the largest share of income from pepper operations (58% of net income). These producers have the largest incomes and have the steepest income growth, but the lowest per/ha income as compared to the other program farmers. The steep growth is a product of quick adoption of better farming practices and improved inputs mix.

Supplier 3 farmers perform well, and have the pepper greatest income/ha and are the most balanced between pepper and other sources for net income (52% of net income from pepper). These farmers have moderate growth opportunities, and are diversified enough to maintain moderate income, even with declining pepper prices. This is because farmers are focused on coffee production, with pepper as a secondary crop. A further focus on pepper may be advantageous though, as they still have room to improve.

Main cost drivers

- **Labor:** Labor represents the greatest cost for all suppliers it is 38%, 41%, and 44% of total expenses for supplier 1, 2, and 3 respectively. The majority of this cost is encompassed by harvesting and crop maintenance labor.
- **Fertilizer:** Fertilizer is the second highest contributing cost factor across the 3 suppliers farmers, representing 18% of total expenses for 1, 17% for 2, and 32% for 3. Overtime fertilizer cost shrinks, as farmers start increasing their organic fertilizer usage, at which time, interest expenses become the other main cost driver.

Main revenue drivers

- **Production:** The majority of all producers income comes from pepper for all supplier's farmers. That being said, supplier 1's farmers are the most diversified, while supplier 2's are the least. The increases in production come from improved input usage, and from optimized agricultural practices.
- **Certification & Quality Premiums:** All producers in the program receive premiums, however, they differ for certification and quality, having different implications on net income. For 1 RFA and quality are 4% and 1% respectively, for 2 they are 5% and 7%, and for 3 they are 8% and 2%, of total revenues.

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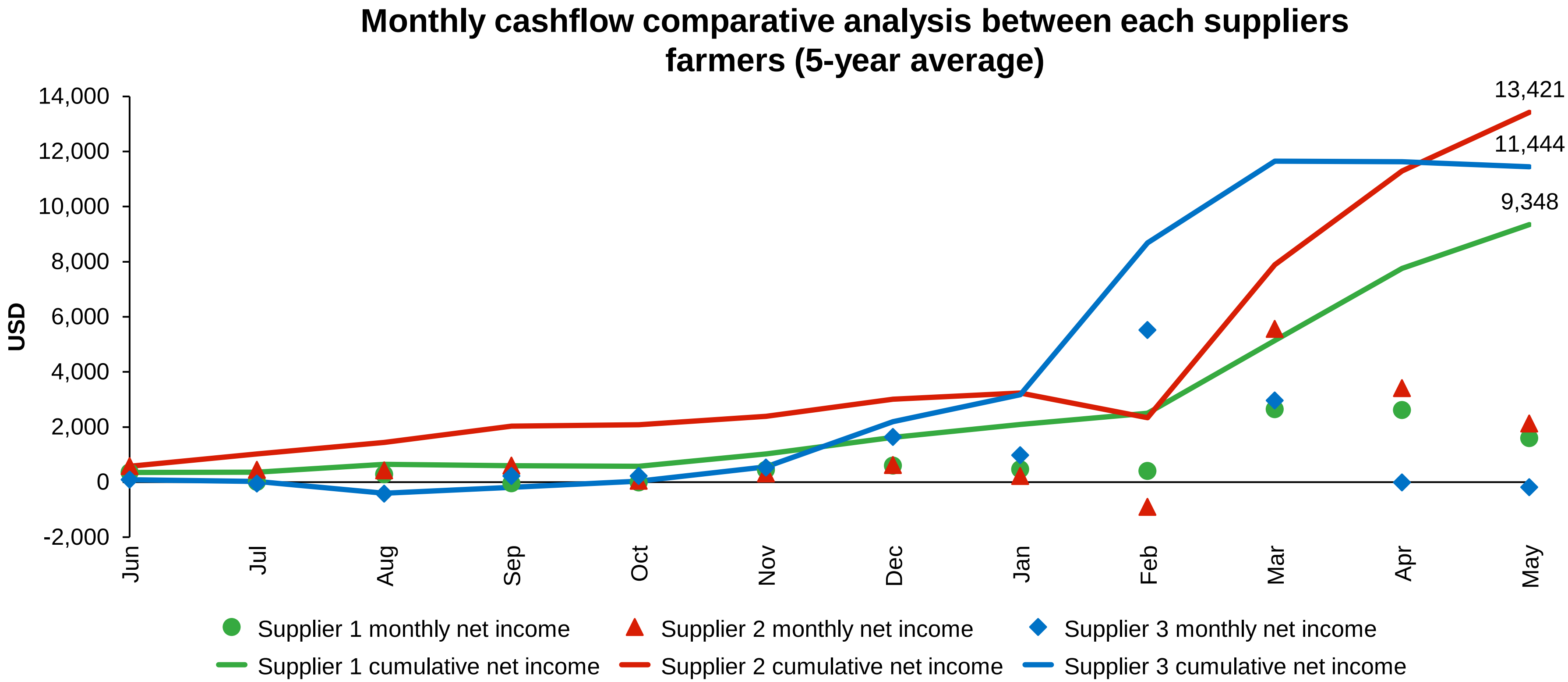
*Year 1 refers to 2019 ** Year 3 figures

Farm cash flow cycle throughout the year



Comparative analysis

All farmers, to varying degrees, have large income fluctuations throughout the year. Supplier 1 farmers have the smoothest monthly cashflow, while supplier 3 farmers have the largest monthly variance. The reasons for the significant variance is the lack of warehousing of pepper. Because farmers sell pepper within a month of harvesting, they see significant income during harvest season, but little-to-none throughout the rest of the year. The other income comes from other crops, but in some cases is not sufficient to cover expenses at that time (see July-Sept). Encouraging farmers to distribute sales more evenly, through helping cover loans (which are to be paid after pepper harvests) or supplying inputs (where 75% of loan value is dedicated) could be one solution.

The negative months, which occur in the summer, can be attributed to the time when investments in the farm are made, and when farmers purchase inputs and other operational needs. During this time, the only income is from other crops or labor, which can be less than the investments. This leads farmers to utilize savings or require further loans. McCormick has the ability to facilitate finance, or inputs, which can prevent these negative periods, and may help to ensure that the farmers receive high quality inputs, that improve production and are below MRL levels.

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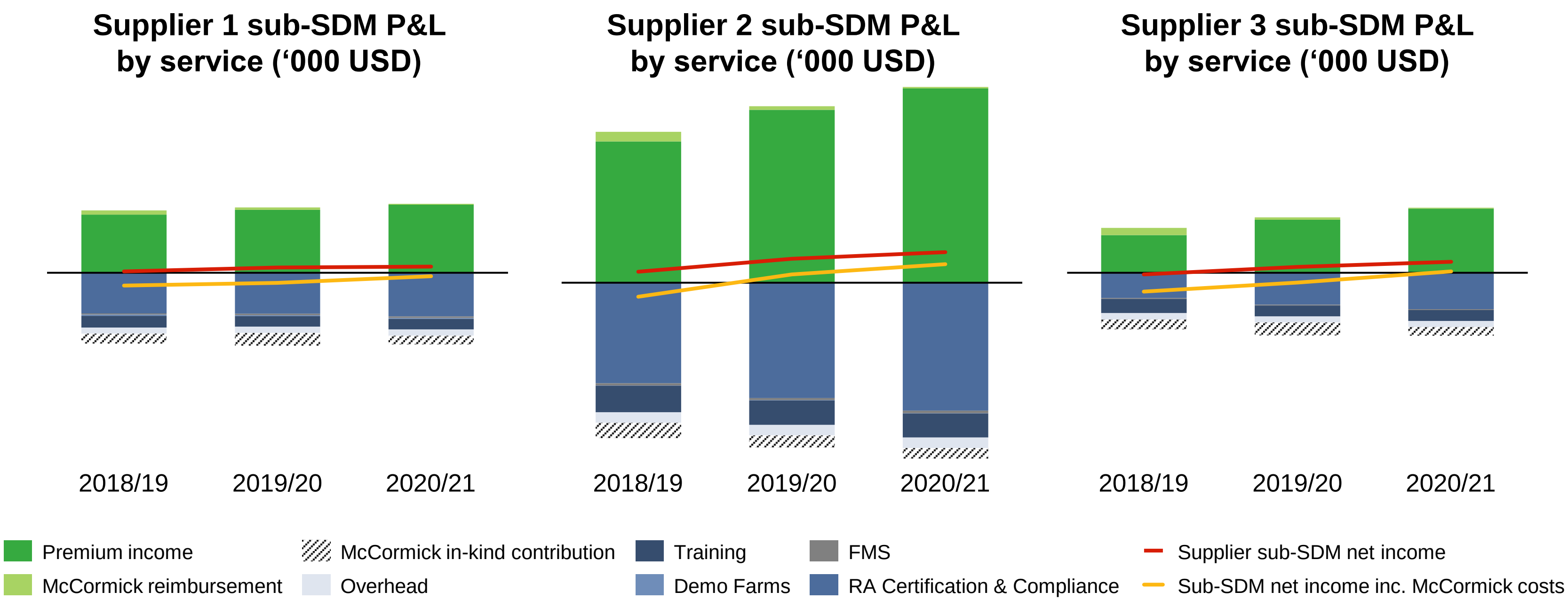
Supplier sub-SDM profitability improves over the course of the SDM as volumes sourced increase



Economic sustainability of the sub-SDM

- Each supplier benefits from the support of McCormick in three ways: 1) A reimbursement of training costs (reducing from 80% in the first year, to 50% and then 20% in the third year); 2) McCormick pays an above market premium for RA compliant pepper; and 3) McCormick contributes certain elements of service provision free of charge (management, demo farms and Farmforce)
- From the perspective of suppliers, all are profitable from the second year of the program. However, absent of the reimbursement and in-kind contributions, only Suppliers 2 and 3 are independently profitable SDMs at the end of the period
- Supplier 2's relatively stronger performance is driven mainly by their ability to source higher volumes from each individual farmer

Main revenue drivers

- Sourcing more effectively, either through increasing loyalty or farm productivity has the most significant impact on profitability as suppliers as premiums are the primary source of income in the SDM

Main cost drivers

- Each of the three suppliers approaches training and extension services with a different level of intensity – both Suppliers 1 and 3 spend approximately 40% less per farmer than Supplier 2
- For Supplier 1, lower expenditure is driven by a mixture of less interaction with farmers as well as lower compensation packages for field staff
- Supplier 3's lower costs are mainly a factor of having the lowest level of full time equivalent employees dedicated to its sub-SDM

Key insights

Key drivers of success

- **Volumes sourced per farmer and sold to McCormick**
  — Increasing volumes sourced per farmer (by increasing yield, land dedicated to pepper, and loyalty) and total volume sold to McCormick can stimulate profitability and longer-term sustainability due to the higher overall premium income and lower per farmer cost
- **Investment on farmer engagement**
  — Relationship development with farmers is the key lever to change farmer behavior towards compliance, GAP, improved yield and higher loyalty

Key factors in replication

- **Sufficiently attractive levels of premiums and subsidies** from the buyer to suppliers and suppliers to farmers seem essential for sustainability of the SDM and sub-SDMs in the start-up phase, given the significant shift in the behavior of the farmers and suppliers required
  Strong farmer engagement by Supplier 2 by employing well remunerated and locally hired and stationed extension staff seems to be correlated with superior incomes of SDM farmers and the sub-SDM. Local staff is able to connect with farmers better, visit more and, thus, drive behavior shift effectively

Key risks

- **Financial sustainability**
  — Without the support from McCormick, Supplier 1 will find it difficult to financially sustain the sub-SDM, at least within the program time-horizon. Increasing compliant volume sold to McCormick and sourced per farmer, and optimizing the service delivery costs (especially, training/extension and sampling costs) are critical for achieving sustainability
  — Supplier 3's profitability improvement assumes a significant increase in farmer yield. Failure to obtain these improvements may also result in a loss-making sub-SDM
- **Loyalty**
  — Dependence on local collectors for access to credit and inputs is leading to side-selling (as the repayment against the credit given by collectors)

Opportunities for improvement

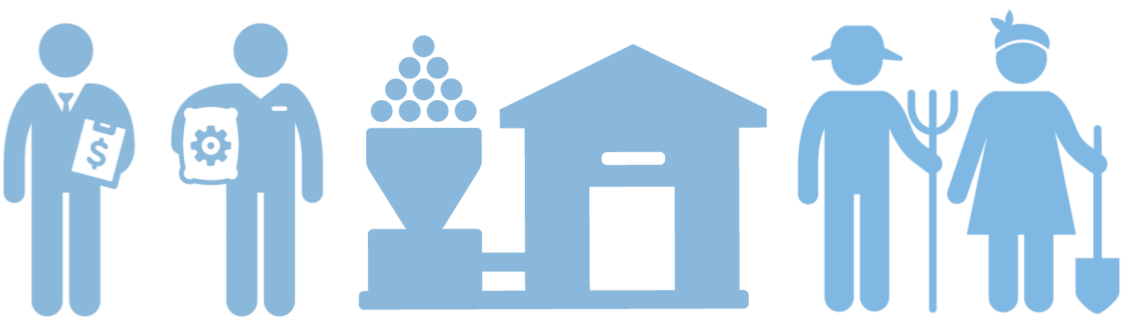
- **Service provision**
  — Access to input finance service can save farmers from high interest rates charged by collectors, leading to net farm income increase.
  — Input provision (facilitation) by suppliers will also drive uptake of good quality inputs and, thus, enable more leverage towards RFA compliance
- **Training**
  — Training staff to conduct more parts of the training can further reduce the fairly substantial CDC costs
  — By involving input providers in training, SDM operators can reduce the training burden on their staff.
  — Suppliers can use technology more (cost-)effectively to deliver training and extension

Kafui Adjogatse
Data Analyst

Nguyen Cam Thuy
Program Officer, Spices

Apoorve Khandelwal
Service Delivery Model Manager

Peter Chauvel
Service Delivery Model Analyst



For more information and insights on SDM's, see the [Farmfit Insights Report]