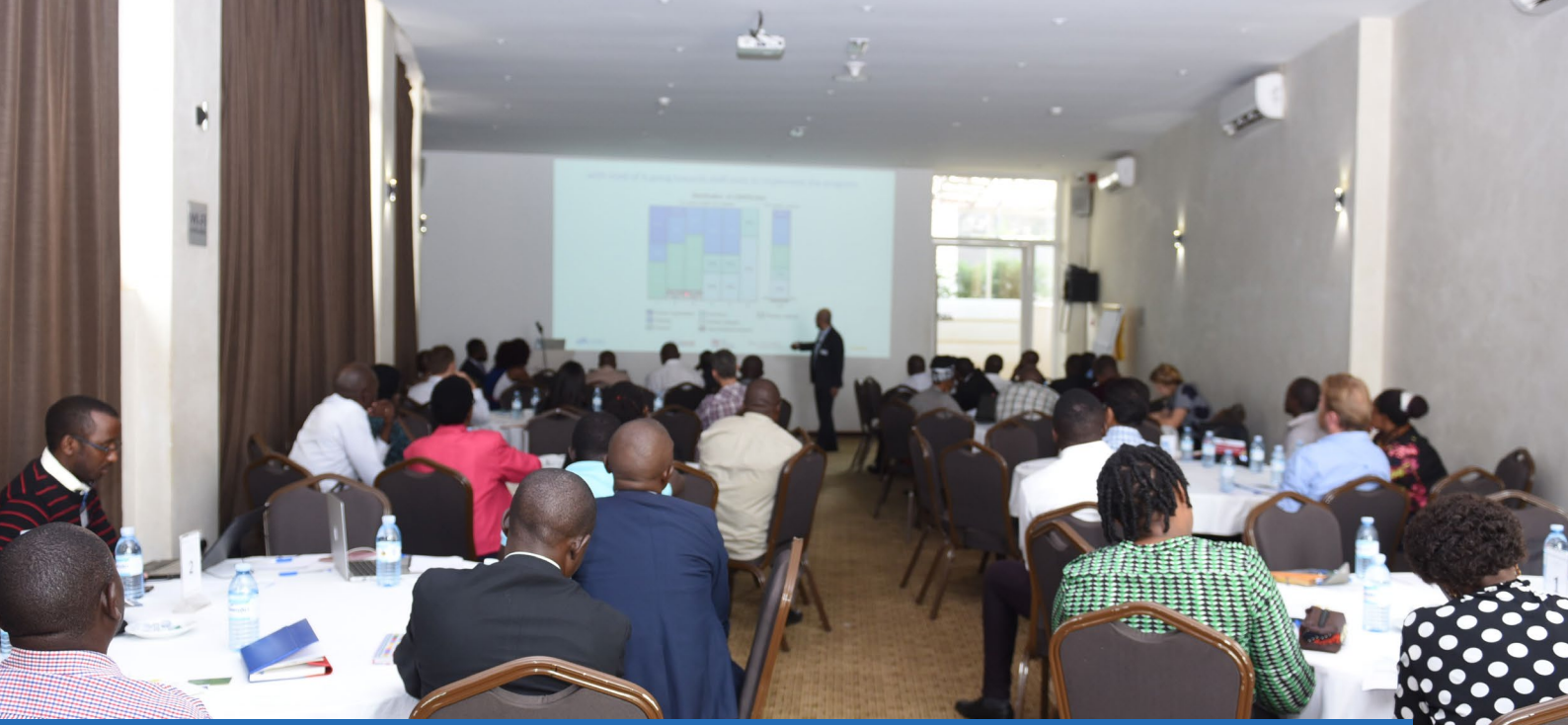
Farmfit

Strengthening agricultural value chains through increased responsible fertilizer use

Lessons from a workshop in Uganda



INTRODUCTION

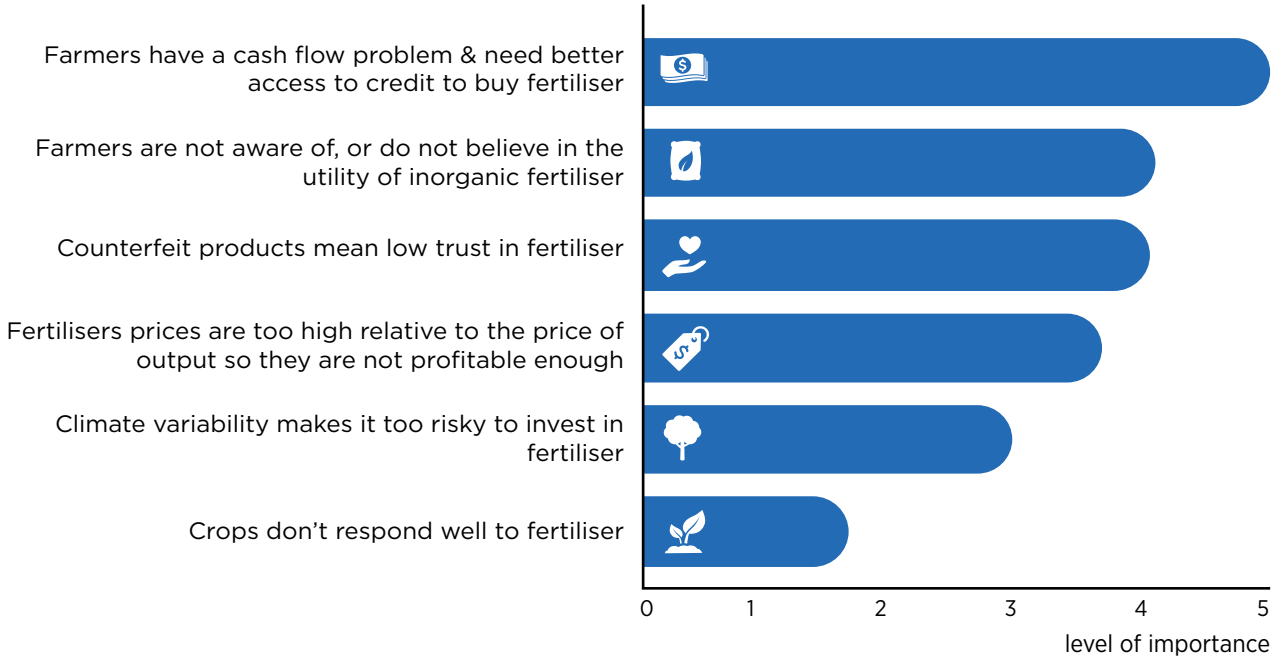
Fertilizers, both organic and non-organic, are a widely used input in agriculture, playing an important role in global food security and improving farmer livelihoods. While incorrect and imbalanced use of fertilizers can have negative impacts on environment, human, animal and soil health, the responsible usage of fertilizer is essential in strengthening agricultural value chains, benefitting farmers primarily through increased agricultural productivity. Other value chain actors also benefit through improved sales, increased sourcing volumes and greater demand for enabling services such as finance.

The IDH Coffee Program works with actors across the coffee value chain to build on each others' strengths, align strategies, share best practices and pilot new methodologies to make coffee farming profitable, environmentally friendly and climate resilient. A key element to the IDH Coffee Program's convening activities is to demonstrate how best the provision of economically viable fertilizers to farmers can help smallholders to increase their yields and income from coffee. IDH Farmfit has extensive experience in evaluating and designing the provision of services, such as fertiliser, to smallholder farmers. From analysing over 75 Service Delivery Models, IDH Farmfit provides insights into how service provision can be made more efficient, impactful and resilient.

Low fertiliser usage is particularly acute in Uganda, with fertiliser usage rates amongst the lowest in sub-Saharan Africa contributing to reduced agricultural productivity. In February 2020, IDH Farmfit and Coffee Program, together with the National Fertilizer Platform of Uganda (NFPU) and the African Fertilizer and Agribusiness Partnership (AFAP) convened a group of diverse stakeholders in the Ugandan agricultural sector to discuss and highlight the best practices in increasing responsible fertilizer usage through commercially viable service delivery models. The results of this workshop are presented in this document, providing insights valuable both to the specific Ugandan circumstance as well as fertilizer provision on a universal basis.

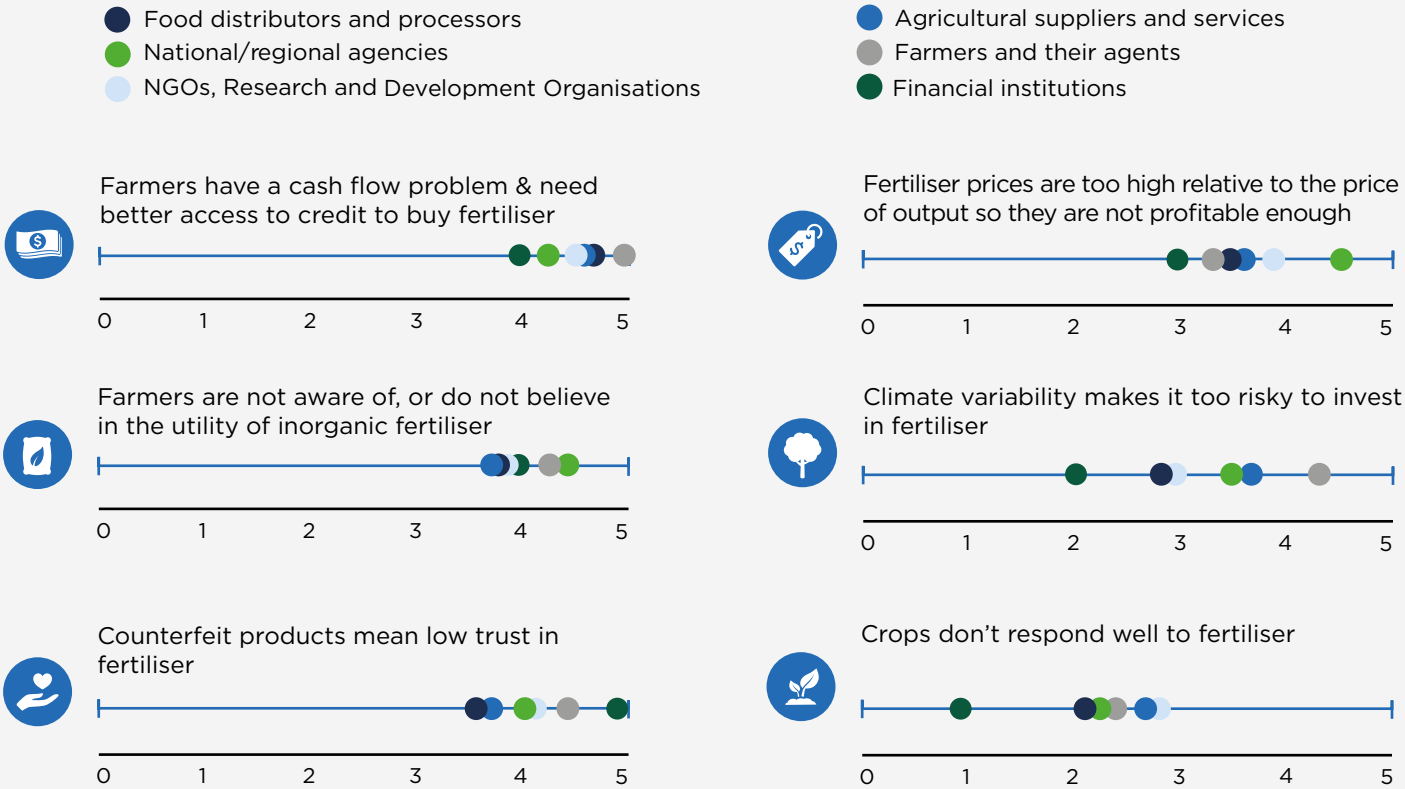
MAIN CHALLENGES TO INCREASED FERTILIZER USAGE

When asked about the main challenges to increased fertilizer usage, poor farmer cash flow, a lack of adequate knowledge and counterfeit products were cited as the most important



HOW DIFFERENT STAKEHOLDER GROUPS PERCEIVE THE MAIN CHALLENGES

All groups recognised the importance of farmer cash flow as a challenge to increasing fertilizer usage, yet financial institutions rated farmer cash flow the lowest, whereas farmers and their agents rated it the highest. An even larger disconnect was present in perceptions on the importance of climate variability.

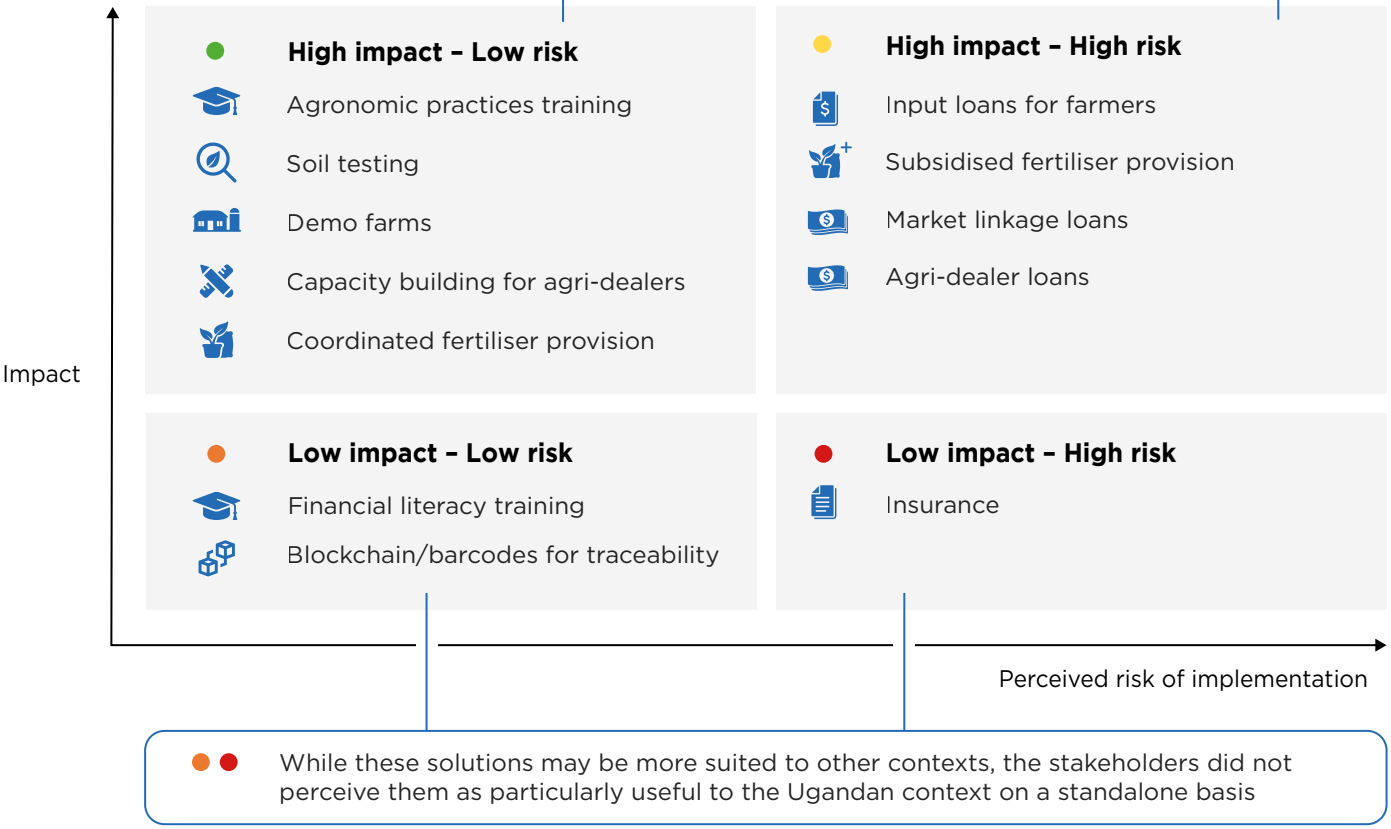


DESIGNING SOLUTIONS FOR THE LOCAL CONTEXT

Ensuring that groups contained different stakeholders, we wanted to see how groups perceived different solutions when given a specific problem to resolve. Groups had to consider the impact of that solution in resolving the problem, while also assessing the degree of risk to the implementer when carrying out that solution

- While often expensive, these are considered low risk to implement
- They are often a feature of many SDMs that incorporate fertiliser provision

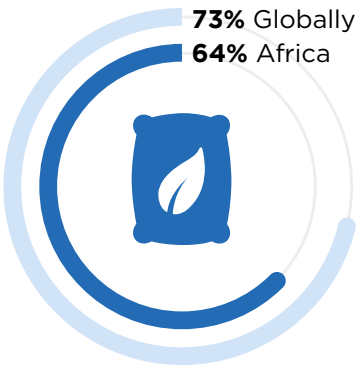
- These solutions, which are mainly around financial service provision are deemed as higher risk despite the potential impact
- Loan provision can drain working capital, providers are faced with the risk of default and there is a significant operational burden to managing portfolios

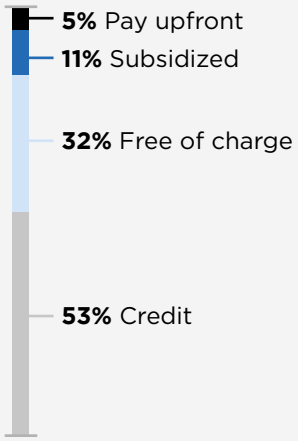


While these solutions may be more suited to other contexts, the stakeholders did not perceive them as particularly useful to the Ugandan context on a standalone basis

FERTILIZER SOLUTIONS[1] AT THE GLOBAL LEVEL

Percentage of SDMs including fertilizer provision





Of these SDMs with fertilizer provision, the method of paying for inputs varies, from those which provide fertilizers free-of-charge to those charging full price with and without credit. Interestingly, we only see only 5% of these SDMs charging fully upfront for fertilizers without financing, highlighting the fact that many farmers don't have the cash flow to purchase fertilizers upfront

[1] IDH Farmfit database of 45+ SDMs

BEST PRACTICES FROM SDMs AROUND THE WORLD

From analyzing over 75 different SDMs around the world, IDH Farmfit has identified best practices that are useful both in increasing the impact and reducing the risk of fertilizer provision. These best practices can be categorized under the following areas

Bundling
Making fertilizer available alone often is not enough to increase usage. By integrating it with the delivery of other services, multiple barriers can be overcome at once, facilitating increased usagev

Connecting inputs
Integrating capacity building and fertilizer provision more closely either through timing, the format of delivering training, the targets for training or the type of training can instigate responsible fertilizer practices

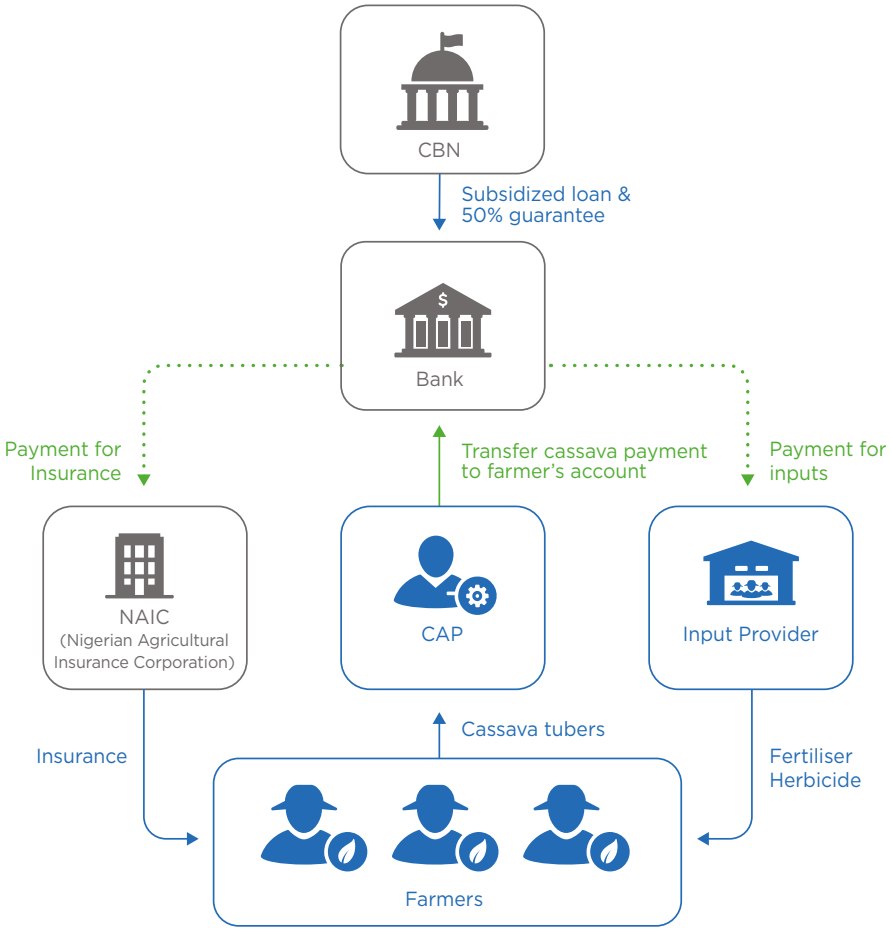
Segmentation
Delivering different services to different farmers on the basis of certain criteria can improve service delivery efficiency and farmer adoption

Creating partnerships
Offering a wide range of services requires different expertise, resources and risk appetites. Creating long term partnerships can integrate a range of high quality services from different value chain actors

Loans
Poor cash flow and limited access to finance often inhibits the purchase of fertilizer. Creating access to affordable finance can increase fertilizer usage

FEATURED BEST PRACTICE 1

Crest Agro Products Farms in Nigeria provides services as part of a holistic package consisting of fertilizers, loans, crop insurance, farm mechanization and training. The costs of the services are covered by the farmers through a credit system subsidised by the Nigerian Central Bank.



Impact

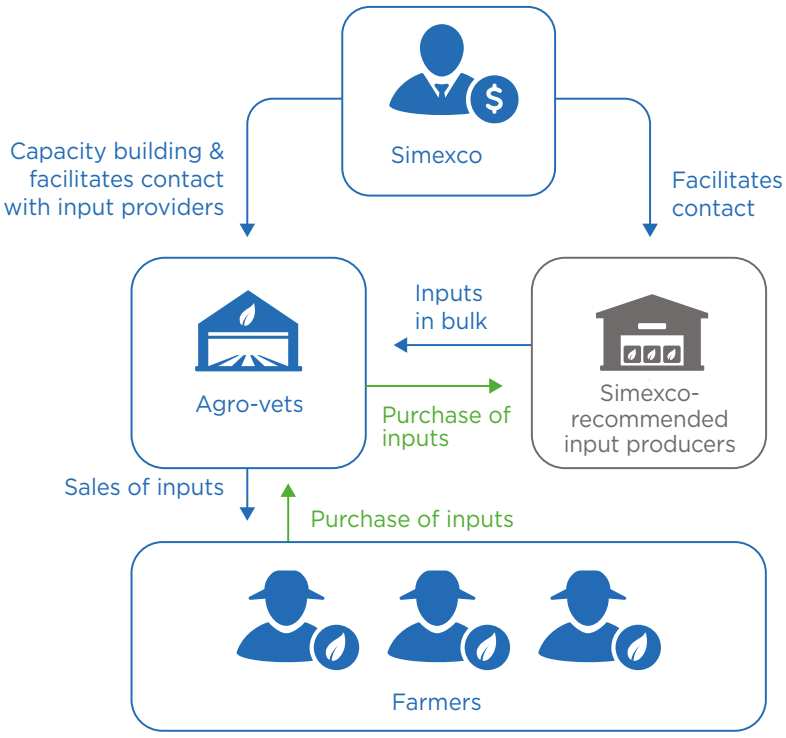
The bundling allowed farmers to access input credit at below market rates

Key Risk and Mitigant

Side-selling: Use incentives such as loyalty bonuses to limit side-selling

FEATURED BEST PRACTICE 2

Simexco addressed the issue of farmer capacity and counterfeit or wrongly labelled products being sold to farmers in Vietnam by working through the agro-vets. Training, quality monitoring and other services were provided directly to agro-vets which then helped improve the advice they gave to farmers and the products sold to farmers.



Impact

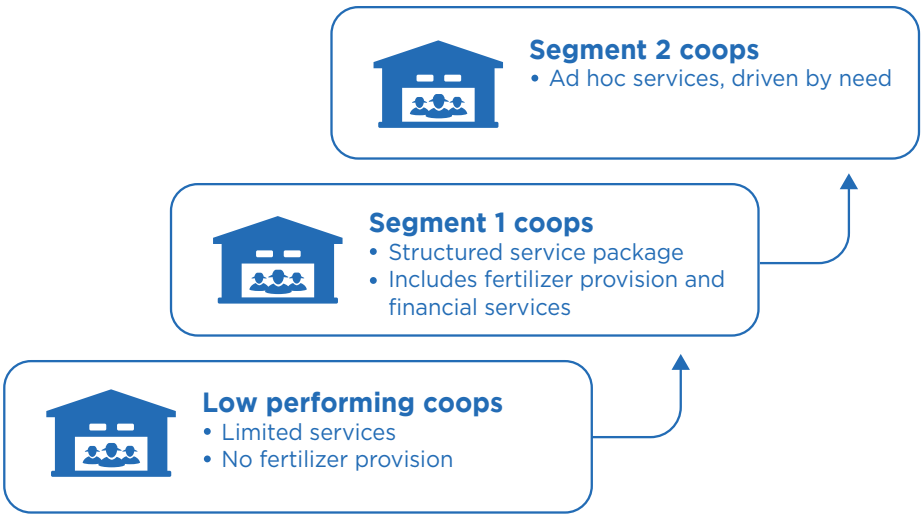
Farmers replace larger quantities of poor quality chemical fertilizers with lower quantities of higher quality fertilizers

Key Risk and Mitigant

Misaligned incentives: Negotiate bulk discounts from fertilizer producers to increase agrovets' margins on high quality fertilizer to compensate for lower volumes sold

FEATURED BEST PRACTICE 3

Ibero Kenya segmented the farmers and co-ops they work with and providing different services based on the needs and capacity of each segment. Fertilizer provision and other value-added services were targeted towards groups of farmers that are more willing and more likely to increase usage, reducing the costs when compared to provided the same services to all farmers.



Impact

The average SDM farmers saw an increase in coffee cherry yield of over 50% partly due to more appropriate fertilizer use

Key Risk and Mitigant

Reduced farmer income from improper fertiliser use: Provide GAP training to farmers and organisational support to cooperatives to ensure farmers adopt best practices

FERTILIZER PROVISION SERVICE DESIGN

When designing fertilizer provision services, there are different cost elements to be considered that go beyond just the cost of the fertilizer itself. These could include the following:

Facilitation

- Demand Aggregation
- Supplier Management
- Quality Control

Service Delivery

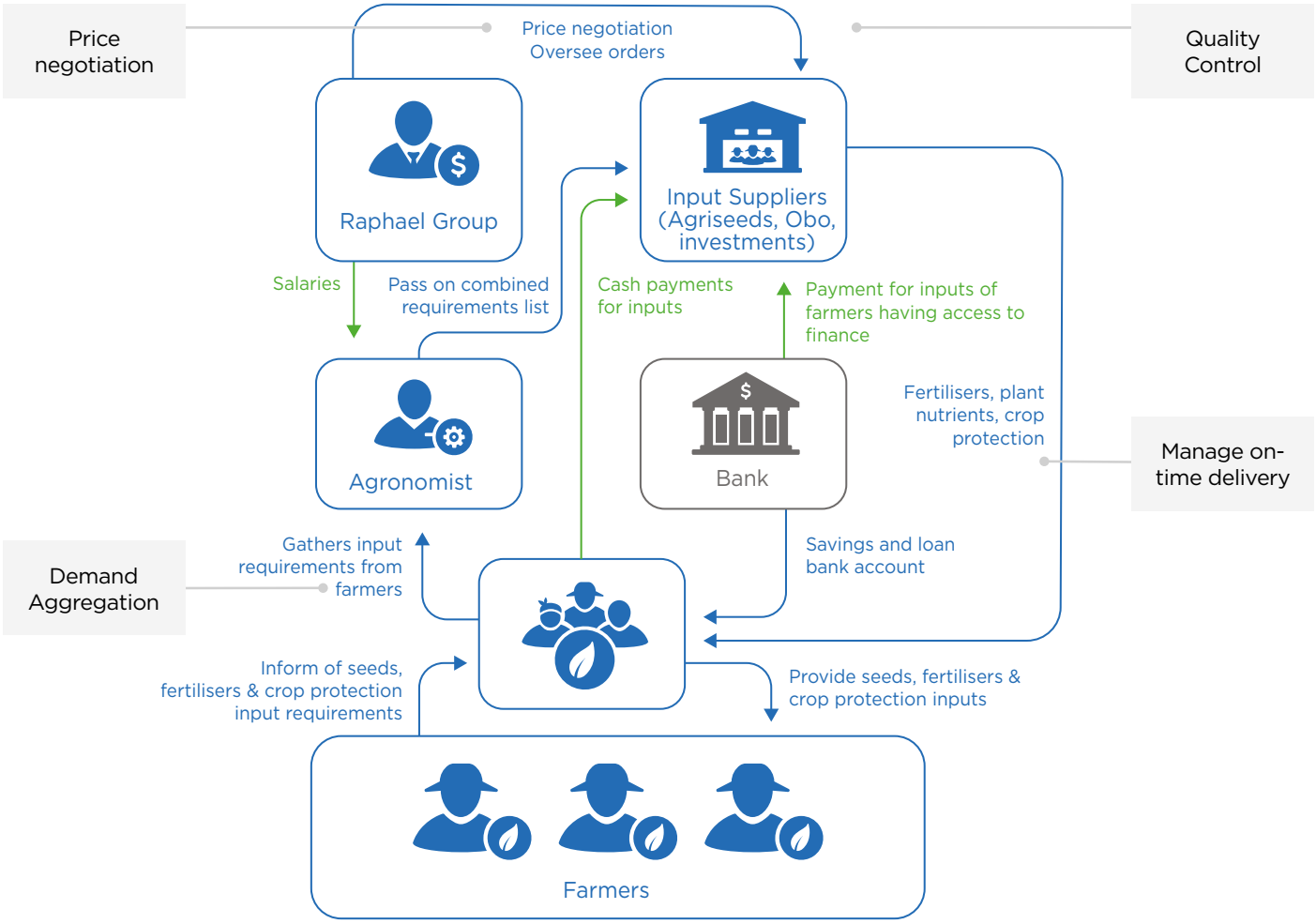
- Training
- Soil Sampling
- Financing
- Distribution

Working Capital

- Warehousing
- Pre-financing

COST CONSIDERATIONS OF FERTILIZER PROVISION – CASE STUDY

Developing a deep understanding of the economics of service provision is a key part of the analysis of an SDM. In the workshop, the economics of fertilizer provision by organizations such as Raphael Group ltd., Syngenta and Smart Logistics were showed to highlight the different cost elements that participants need to consider. Below is in example of Raphael Group demonstrating the different areas in the fertilizer service delivery cycle where facilitation costs need to be considered.



PARTNERSHIPS

IDH collaborated with the NFPU and AFAP to support the development of fertilizer service provision in schemes similar to the ongoing Uganda Ministry for Agriculture , Animal Industry and Fisheries (MAAIF)-World Bank Agriculture Cluster Development Project (ACDP).

IDH also invites readers and participants to visit the Farmfit Intelligence web portal, where publications of SDM insights are shared and organizations can benchmark their SDMs against IDH's database.

IDH FARMFIT

Interested in seeing how an SDM analysis can improve your service delivery?
Get in touch with IDH Farmfit Business Development – Richard Muli (Muli@idhtrade.org)

For further enquiries, please consult the following:
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IDH Farmfit Intelligence: Kafui Adjogatse (Adjogatse@idhtrade.org)

Farmfit

Commercially viable and effective service delivery models are key to resolving many of the challenges prevalent in agriculture such as increased responsible fertiliser usage. IDH Farmfit works to design, invest in and share learnings from different service delivery models as a means to achieving more equitable and sustainable agricultural value chains