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Kellogg's

TechnoServe Initiative for Inclusive Agricultural Business Models

The Kellogg Company: Bolstering Emerging Markets Growth and Improving Livelihoods through Sustainable Local Sourcing

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EXECUTIVE SUMMARY

Multinational companies have made bold sustainability commitments with the potential to effect substantial poverty-reduction. Through a grant from the Ford Foundation and matching company investment, TechnoServe supported four multinational companies in designing win-win approaches to meet their sustainability commitments related to smallholder farmers. This involved developing inclusive and sustainable business models that both improve farmer livelihoods and reduce their vulnerability to climate change, while creating commercial value for the company. This case study documents the experience of one of these four companies, Kellogg Company, outlining the company's specific opportunity, the model designed to capture this opportunity and takeaways for consideration by other industry players.

Sustainable local sourcing in emerging markets supports not only Kellogg's global sustainability commitments, but also its growth in emerging markets. Kellogg saw an opportunity for investment in local smallholder farmers that could both improve farmer livelihoods and climate resilience, while also bolstering growth in its emerging market business through multiple channels, including: 1) Securing access to reliable, cost-effective, high-quality commodities that meet Kellogg specifications; 2) Strengthening government relations and license to operate; 3) Improving consumer brand perception; and 4) Advancing the company's global sustainability commitments.

Using Egypt as a platform, Kellogg designed a partnership-driven approach to strengthening the sustainability of its local smallholder supply chains. To do so, Kellogg adopted TechnoServe's five-step approach to enhancing the commercial value and social impact of local sourcing in emerging markets. After defining concrete commercial and social objectives and analyzing priority supply chains in Egypt, TechnoServe supported Kellogg in designing tailored models to strengthen its local rice and date supply chains in partnership with other ecosystem actors. The rice supply chain model focuses on training smallholder farmers on agronomic practices that can increase yields and reduce water usage. It also builds farmer-association capacity to acquire storage facilities and manage direct contracts with mills supplying Kellogg in order to reduce price volatility across the supply chain. The date supply chain model centers on increasing quality at the farm and primary processing levels and developing direct sourcing relationships in order to expand Kellogg's impact on farmer livelihoods and climate resilience, while reducing supply chain risk. Implementation of the rice and date models is projected to increase smallholder farmer incomes by 100 percent and 40 percent, respectively, while securing a 15 percent and 65 percent return on investment to Kellogg in addition to less quantifiable reputational benefits. Kellogg plans to pilot both the rice and date models and is in the process of formalizing the partnerships required to do so.

Going forward, Kellogg aims to replicate this approach across other emerging markets to continue advancing its sustainability commitments. Kellogg plans to utilize the Egypt case internally as a proof point for how its sustainability objectives can be achieved in practice while delivering both operational and reputational commercial value to the company. It will also use a how-to guide and toolkit developed by TechnoServe to empower other parts of the company to take a leadership role in advancing Kellogg's sustainability commitments through local sourcing in emerging markets.

BACKGROUND

In recent years, an increasing number of multinational companies have made bold sustainability commitments with the potential to effect substantial poverty reduction. In recognition of this great potential, the Ford Foundation and TechnoServe have partnered to support multinational companies in achieving their sustainability commitments related to smallholder farmers. Through a grant from the Ford Foundation and matching company investment, TechnoServe supported four multinational companies in developing inclusive and sustainable business models that could improve farmer livelihoods and reduce their vulnerability to climate change, while creating commercial value for the company. This case study documents the experience of one of these four companies, Kellogg Company, outlining the company's specific opportunity, the model designed to capture this opportunity and takeaways for consideration by other industry players.

Building upon its long tradition of promoting social and environmental sustainability, Kellogg has committed to responsibly sourcing its top 10 ingredients and materials by 2020. In line with this objective, Kellogg has committed to supporting the livelihoods of 500,000 farmers through partnerships, research and training on climate-smart agriculture, which helps farmers adapt to climate change while assuring productivity of their yields and reducing greenhouse gas emissions from their agricultural practices. This commitment includes supporting 15,000 smallholder farmers specifically to improve their livelihoods and climate resiliency, a goal the company has achieved four years ahead of schedule.

Field waiting to be cleared to plant rice.

KELLOGG'S OPPORTUNITY

BOLSTER EMERGING MARKETS GROWTH AND IMPROVE LIVELIHOODS THROUGH SUSTAINABLE LOCAL SOURCING

Sustainable local sourcing supports not only Kellogg's sustainability commitments, but also its growth in emerging markets. Kellogg has set an ambitious business goal of doubling its emerging market sales, including tripling its business in the Middle East and North Africa. The company took one of its first steps towards this goal in 2015 by purchasing two Egyptian food companies, Bisco Misr and Mass Food Group[1]. In light of its bold emerging markets growth strategy, Kellogg saw an opportunity for investment in local smallholder farmers that could improve both farmer livelihoods and climate resilience, while also driving value for the company's emerging markets business across multiple dimensions, including:

- **Securing access to reliable, cost-effective, high-quality commodities that meet Kellogg specifications.** As Kellogg's emerging markets business grows, its volume requirements for locally sourced ingredients will increase. Investing in improving the productivity and climate resilience of smallholder farmers in emerging markets and supporting them to meet Kellogg's specifications increases the volume of local ingredients available to Kellogg. Improved quality of local ingredients also boosts conversion rates from raw materials to finished goods, reducing waste and procurement costs.
- **Strengthening government relations and license to operate.** Investing in local smallholder farmers supports government agricultural agendas in emerging markets and reinforces Kellogg's commitment to the growth and development of the countries in which it operates.
- **Improving consumer brand perception.** Investing in smallholder farmers in emerging markets provides a platform for greater supply chain transparency, enabling Kellogg to demonstrate its corporate responsibility to consumers and to other stakeholders that affect the company's local and global reputation.
- **Advancing the company's global sustainability commitments.** Investing in smallholder farmers in emerging markets aligns directly with Kellogg's responsible sourcing commitment to build programs that help small-scale producers improve their livelihoods and climate resilience.

Simple changes to harvesting techniques – such as using a basket to collect dates instead of dropping them on the ground – can reduce post-harvest loss and increased farmer income.

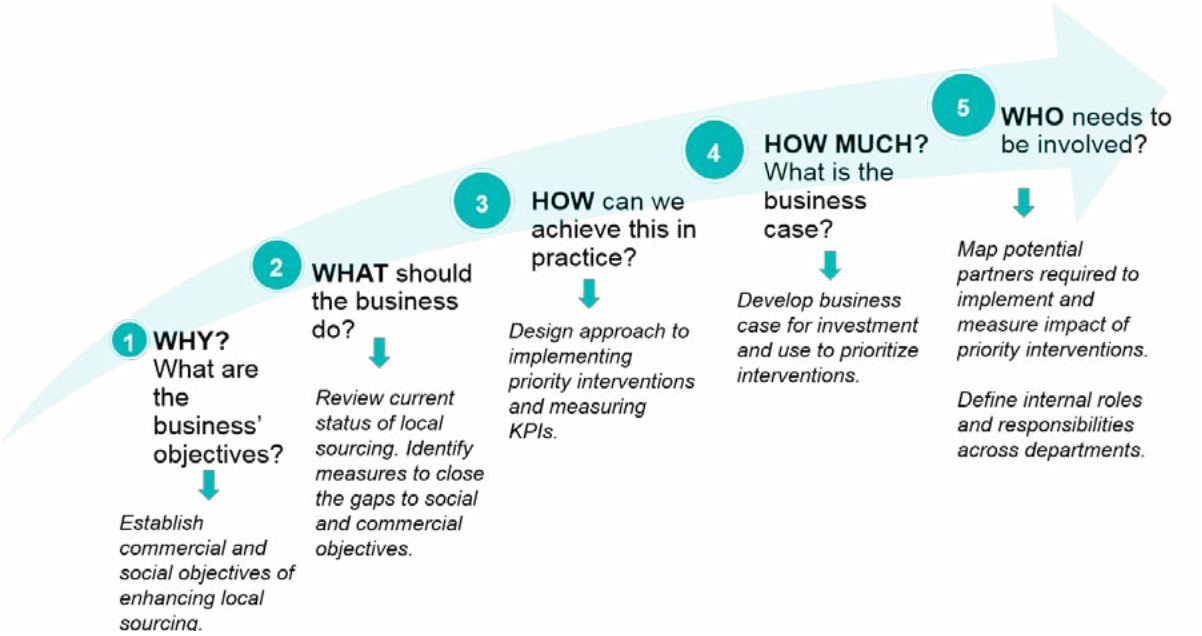
1. *February 2016 Kelloggs'* Investor Relations Report*: http://investor.kelloggs.com/~/media/Files/K/Kellogg-IR/reports-and-presentations/2016/2016-cagny-presentation.pdf*

CAPTURING THE OPPORTUNITY

STRENGTHENING LOCAL SMALLHOLDER SUPPLY CHAINS THROUGH PARTNERSHIPS

Using Egypt as a platform, Kellogg sought to design a partnership-driven approach to strengthening the sustainability of its local smallholder supply chains. To do so, Kellogg adopted TechnoServe's five-step approach to enhancing the commercial value and social impact of local sourcing in emerging markets. Kellogg established a multi-department steering committee to oversee the project, including members from its Sustainability team, as well as Leadership and Procurement representatives from its local subsidiary, Mass Food Group.

Exhibit 1: TechnoServe's 5-step approach for enhancing the commercial and social value of local sourcing



WHY ENHANCE LOCAL SOURCING?

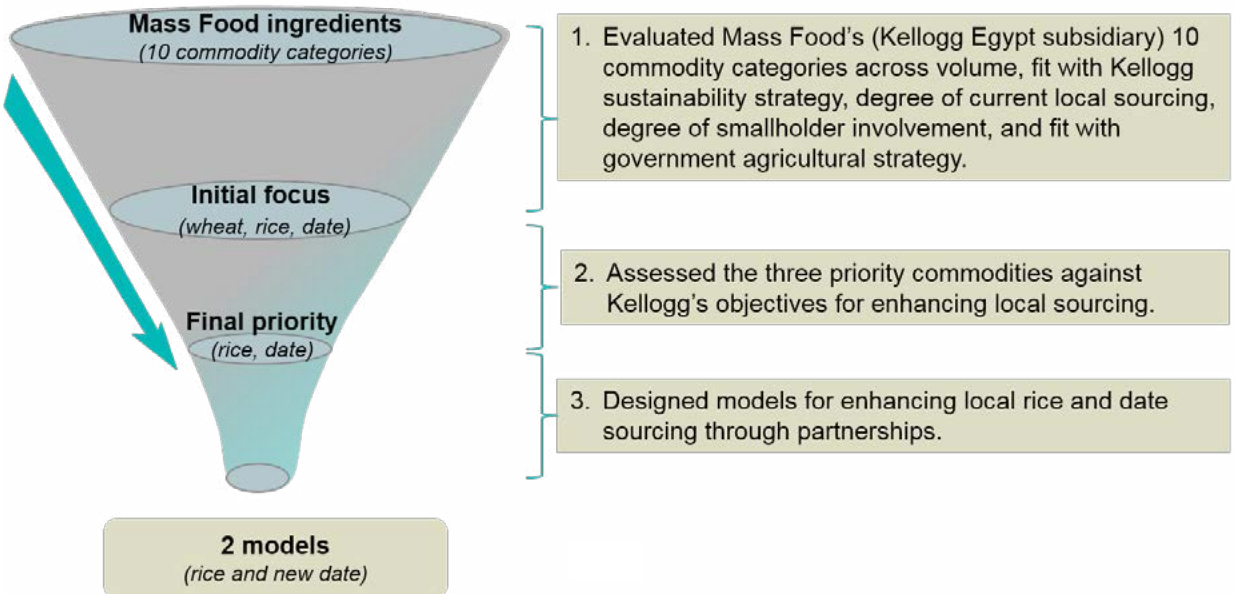
Kellogg's first step was to establish the commercial and social objectives of strengthening local sourcing in Egypt. Kellogg's primary ingoing commercial objective was to strengthen the company's local license to operate and support growth in the market. In keeping with its sustainability commitments, Kellogg's social objectives were to improve smallholder livelihoods and climate resilience. Aligning internal stakeholders – including the Sustainability, Local and Regional Business Unit Leadership, Procurement, and Government Relations teams – around these objectives helped to guide subsequent analysis and provide direction for vetting different solutions.

WHAT SHOULD THE BUSINESS DO TO ENHANCE LOCAL SOURCING?

TechnoServe supported Kellogg in short-listing a set of focus commodities for in-depth analysis of opportunities to enhance local sourcing. In partnership with ADCI/VOCA's Egypt team, TechnoServe evaluated each commodity sourced by the company's Egyptian subsidiary, Mass Food Group, against a set of prioritization criteria, including: procurement volumes, fit with Kellogg's sustainability strategy, degree of current local sourcing, degree of smallholder involvement in local crop production, and alignment with the Egyptian government's agriculture strategy. Wheat, rice, and dates were initially short-listed as a result of this

prioritization exercise. While wheat is a priority crop for Kellogg's sustainability agenda, the focus commodities were ultimately narrowed to rice and dates. This was because Kellogg's opportunities in local wheat sourcing would be severely limited by the level of government intervention in the market, which included setting prices and mandating that all locally grown wheat be used for domestic bread production, rather than for other processed consumer goods.

Exhibit 2: Focus commodity prioritization process



TechnoServe then mapped each priority supply chain through field research in order to identify inefficiencies and potential solutions. TechnoServe and ACDI/VOCA conducted site visits and interviewed key stakeholders in Egypt, including: farmers, Kellogg's suppliers (e.g. mills and primary processors), agricultural experts, government agencies, and Mass Food's Leadership and Procurement teams. Mapping the value chains brought to light important considerations regarding general feasibility and key components of effective models for enhancing local sourcing.

Low farm-gate prices, inefficient water use, and heavy reliance on middlemen in the rice supply chain are sustainability issues for both smallholder farmers and Kellogg. Kellogg's existing rice supply chain in Egypt – including procurement from Mass Food and Kellogg's European operations – reaches an estimated 3,000 smallholder farmers. Egyptian rice smallholders lack access to secure storage and cash reserves. As a result, they typically resort to selling their full crop to traders during the harvest season, when prices are low, instead of waiting for higher prices post-harvest. Prices can increase by between 20 and 30 percent post-harvest, and traders physically hold supply until they can secure their preferred price from millers. Additionally, Egyptian rice smallholders rely on water intensive flood irrigation rather than more efficient irrigation practices, and achieve yields an estimated 15 percent below their practical potential.

These challenges can be addressed by building rice farmer capacity to increase their incomes and optimize water use, while developing more direct linkages between Kellogg's millers and farmers. Providing farmers with training and access to technology for water use optimization, yield improvement and post-harvest handling can enable them to sustainably increase incomes. Additional shared value could be created by simultaneously building and/or strengthening the ability of farmers' associations to aggregate, sort, and store rice, while establishing contracts directly with Kellogg millers as anchor buyers. Finally, farmers' associations could be equipped to facilitate additional training and technology adoption among their members.

Reliance on a single local date supplier limits the reach of Kellogg's impact and creates security

Exhibit 3: Overview of rice supply chain mapping and assessment

Mass Food supply chain overview	 **Smallholder farmers** grow rice and accept a fixed price from traders for their entire harvest. Traders take possession of the entire crop at harvest and pay farmers in installments throughout the year.	 **Traders** purchase rice from farmers and store it in their warehouses. They set the prices paid to farmers and those paid by millers, which depend on season, supply, demand and export regulations.	 **Millers** purchase rice from traders on a monthly basis throughout the year. Millers grade and grind rice into rice flour per customer specifications.	**Mass Food** receives rice from two millers with whom they have strong relationships.
Challenge	**Smallholder farmers** lack access to secure storage and cash reserves. They sell their crop during the harvest, when prices are low, instead of waiting for higher prices post-harvest. They also rely on water-intensive flood irrigation and have sub-optimal yields.	**Traders** physically hold the rice supply, allowing them to control price. Traders charge millers $1.1 per MT over the market price, increasing prices 20 to 30 percent over the farm gate price post-harvest.	**Millers** pay the prevailing market price at time of purchase, which can increase 20 to 30 percent post-harvest.	**Mass Food**'s price for rice flour reflects higher procurement costs incurred by millers due to their reliance on traders.
Potential Kellogg program activities	**Provide farmers** with training and access to technology for water use optimization, yield improvement, and post-harvest storage so that they can capture higher prices by spreading sales out throughout the year.	Provide capacity building to **farmers associations** to aggregate, sort and store rice; to establish contracts directly with MF millers; and to facilitate training and technology adoption among members.	Work with MF **millers** to serve as anchor buyers for farmers associations. Both of Mass Food's primary mills expressed interest in sourcing directly from farmers associations.	

of supply risks. Mass Food's existing local date supply chain reaches approximately 80 smallholder farmers in Giza. These farmers receive inputs and extension support from a vertically integrated processor that operates its own farm and tops up in-house production by sourcing from surrounding smallholder farmers. This processor is currently the only local source of dates meeting Kellogg's specifications and as a result has historically had very strong supplier power. In the past, prices from this supplier had been raised so high that one of Kellogg's Egyptian subsidiaries had to resort to importing dates rather than sourcing them locally.

Developing an additional source of high-quality and reliable local date supply could expand Kellogg's impact while securing local supply. Kellogg could develop a second local date source in the Siwa Oasis by training smallholder date farmers on practices that could increase yields and quality while reducing environmental impact. Additionally, existing Siwa-based primary date processors would need training to meet Kellogg's quality specifications so that they could begin supplying to the company. Finally, Kellogg would need to develop direct contracts with Siwa-based primary processors and support local date farmers' associations in developing and fulfilling contracts with these primary processors.

Date processing facilities offer employment opportunities to both young women and young men.

Exhibit 4: Overview of date supply chain mapping and assessment

Mass Food supply chain overview	 In Giza, **80 smallholder farmers** have informal agreements to sell their date crop to MF's local processor, who provides pre-harvest partial payment and ad hoc farmer training. Other smallholders are sourced from as required.	 The **single local processor** aggregates dates from a vertically-integrated farm and from 80 nearby small farmers. The dates are washed, dried and ground into paste. The company's procurement agents visit its smallholder farms daily during the harvest season to advise on post-harvest handling.	**Mass Food** receives date paste from the local processor.
Challenge	**Smallholder farmers** rely on local market inputs retailers or the vertically-integrated processor for information regarding agricultural practices.	The **single local processor** is providing valuable support to smallholders, but cannot expand the number of farmers it sources from without additional customers. As the sole supplier to Mass Food processor, it has monopoly power over pricing.	**Mass Food** mostly sources date paste for a single public buyer.
Potential Kellogg activities	Develop a secondary date source by training 200 **farmers** on pruning, inputs optimization, post-harvest handling and pest management. There is the potential for a climate-smart agriculture element by using palm waste as cooking fuel or furniture.	Provide **processor** capacity building to reliably meet Mass Food and Bisco Misr product specifications and volumes.	Negotiate a contract between **Mass Food / Bisco Misr** and new processors to diversify the date paste supplier base and reduce prices by introducing competition.

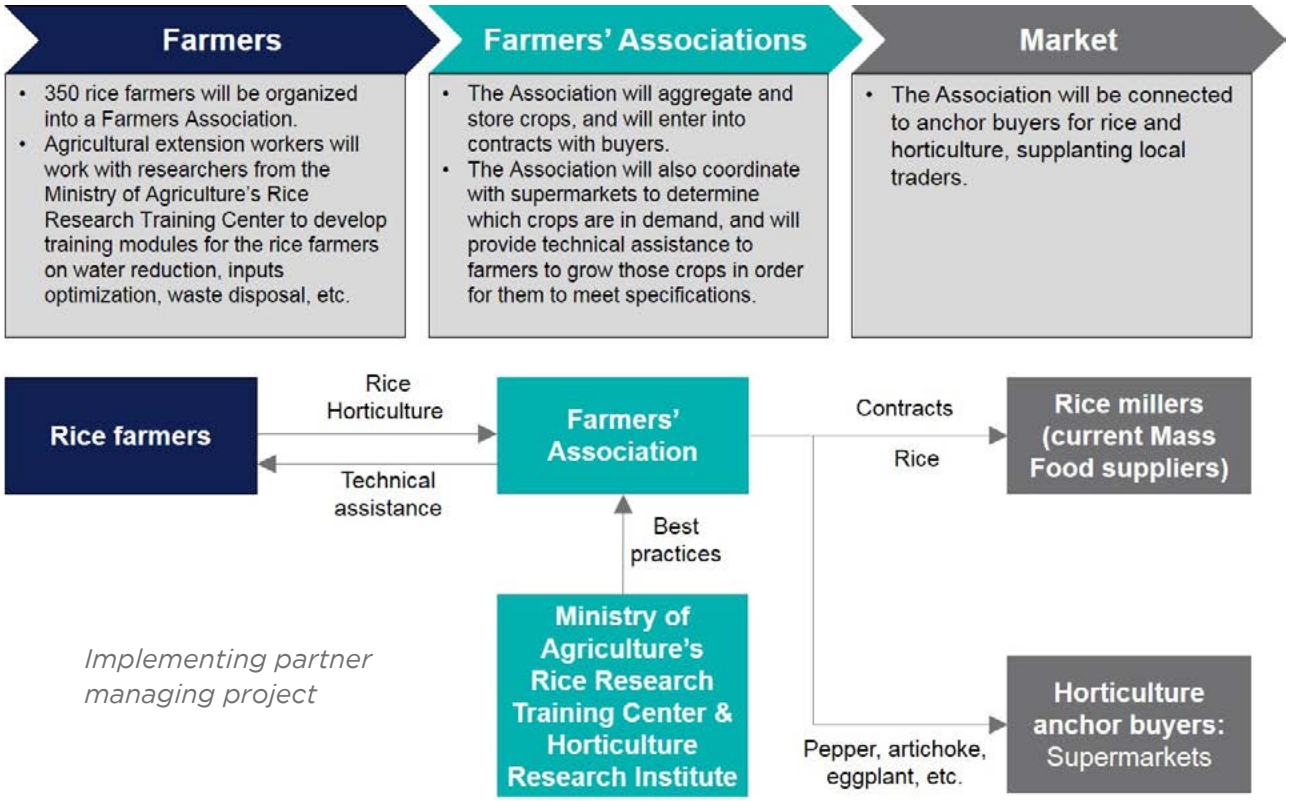
HOW CAN WE ACHIEVE THIS IN PRACTICE?

TechnoServe, with support from ACDI/VOCA, designed tailored models to enhance local date and rice sourcing through partnerships with other ecosystem actors that address the unique challenges in each supply chain. Kellogg sought to design models that leveraged the strengths and expertise of external partners, particularly government agencies. Coordinating closely with these agencies would be critical in strengthening the broader ecosystem within which local smallholder farmers operate, rather than more narrowly limiting the benefits to Kellogg's specific supply chain.

The rice supply chain model centers on farmer training, storage and direct contracts between farmer organizations in the Nile Delta and mills supplying Kellogg. An implementing partner organization would work with researchers from the Egyptian Ministry of Agriculture's Rice Research Training Center to develop and deliver an agronomic training program for farmers in the Nile Delta, enabling farmers to improve yields, manage costs and reduce environmental impact. This program would include topics such as: reducing water use, optimizing the use of other inputs, and proper waste disposal. Given low existing levels of organization among smallholder rice farmers in the region, the implementing agency would also support the development of farmers' associations that could aggregate member production and manage supply by acquiring storage facilities. Additionally, Kellogg's implementing partner would support farmers' associations in entering into and fulfilling direct contracts with anchor commercial buyers. Bolting on support for high value horticultural crops that could also be produced in rice growing regions – such as pepper, artichoke and eggplant – would further improve farmer livelihoods and climate resilience while bolstering their loyalty to the association. Therefore, the model also includes farmer training on high value horticultural crops between rice seasons and farmer association support to secure formal purchase contracts with local supermarkets. Implementation of this model is predicted to double farmer incomes.

The date model focuses on increasing quality at the farm and primary processing levels in the Siwa Oasis. An implementing partner organization would work with the Egyptian Ministry of Agriculture's Date Lab to develop and deliver an agronomic training program to existing date farmers in the Siwa Oasis. This training would focus on practices that could improve quality levels, thereby enabling farmers to secure higher prices while meeting Kellogg's quality specifications. Key training topics would include: pruning, inputs optimization, post-harvest handling, pest management, and proper palm waste disposal. Kellogg's implementing partner would also train existing farmer associations in aggregation and off-taker contracts. To address processor capacity, Kellogg's partner would work with experts from the Ministry of Trade and Industry's Food Technology Center to train 2 to 3 existing date processors in the Siwa Oasis on best food processing and business management practices. Implementation of this model is predicted to increase smallholder date farmer income by approximately 40 percent.

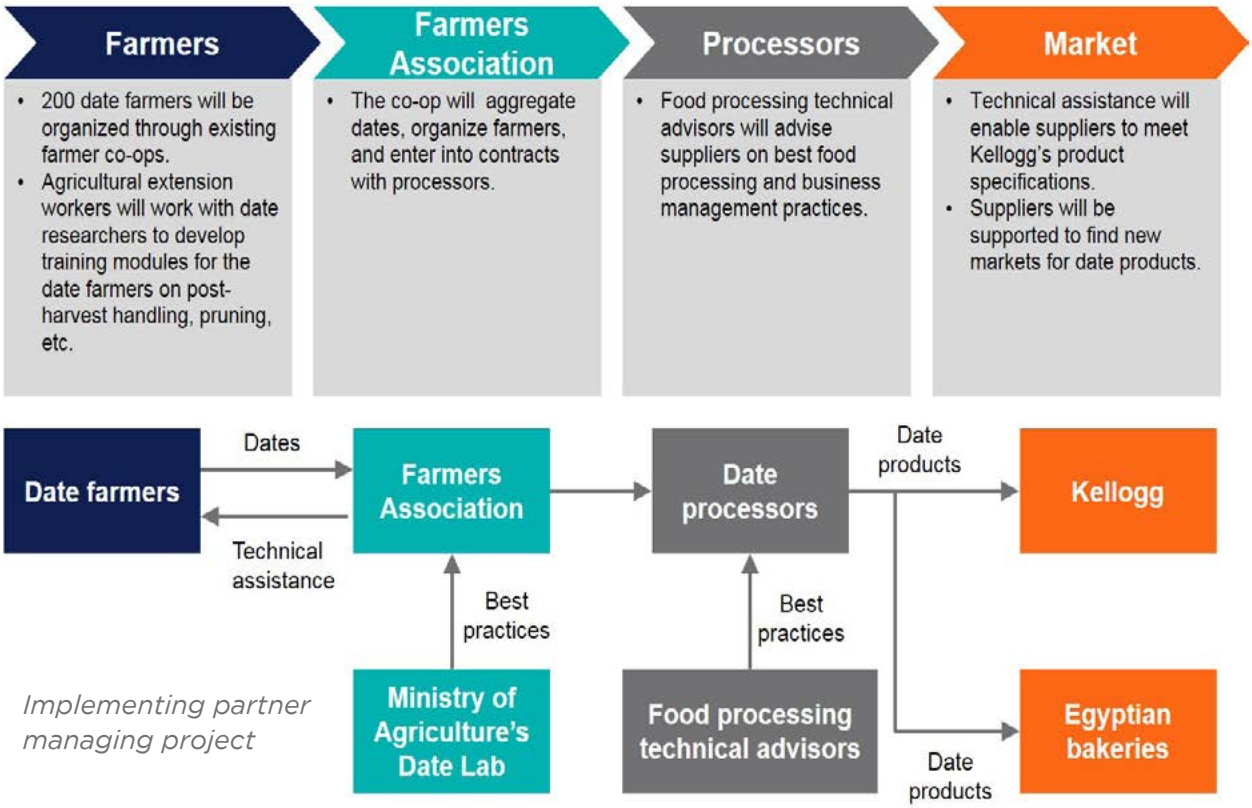
Exhibit 5: Model for enhancing local rice sourcing



HOW MUCH? THE BUSINESS CASE FOR ENHANCING LOCAL SOURCING

Kellogg's Sustainability team built buy-in from relevant internal stakeholders by sharing the business case for operationalizing the models, including a projected return on investment. TechnoServe developed a business case articulating the four commercial value drivers explained above, including operational sources of value (securing access to reliable, cost-effective, high-quality commodities), as well as reputational sources of value (strengthening government relations and license to operate, improving consumer brand perception, and advancing the company's global sustainability commitments). TechnoServe then calculated a return on Kellogg's investment (ROI) by estimating the cost of piloting the rice and date models and quantifying the operational value it would generate for the company. The operational value to the company would be generated by securing access to reliable, cost-effective and high-quality local supply, and was estimated as the difference between the cost of expected procurement volumes

Exhibit 6: Model for enhancing local date sourcing



over five years under existing conditions and the enhanced sourcing model. A positive return on Kellogg's investment was expected in each model, as demonstrated in the exhibit below. While the date model was expected to produce a higher quantifiable commercial ROI, the rice model anticipated a larger effect on farmer incomes. Both models were expected to deliver reputational value to Kellogg across government relations, license to operate, brand perception and sustainability leadership, as they were aligned with both the country's agricultural priorities and with Kellogg's sustainability commitments. Kellogg ultimately decided to implement both models.

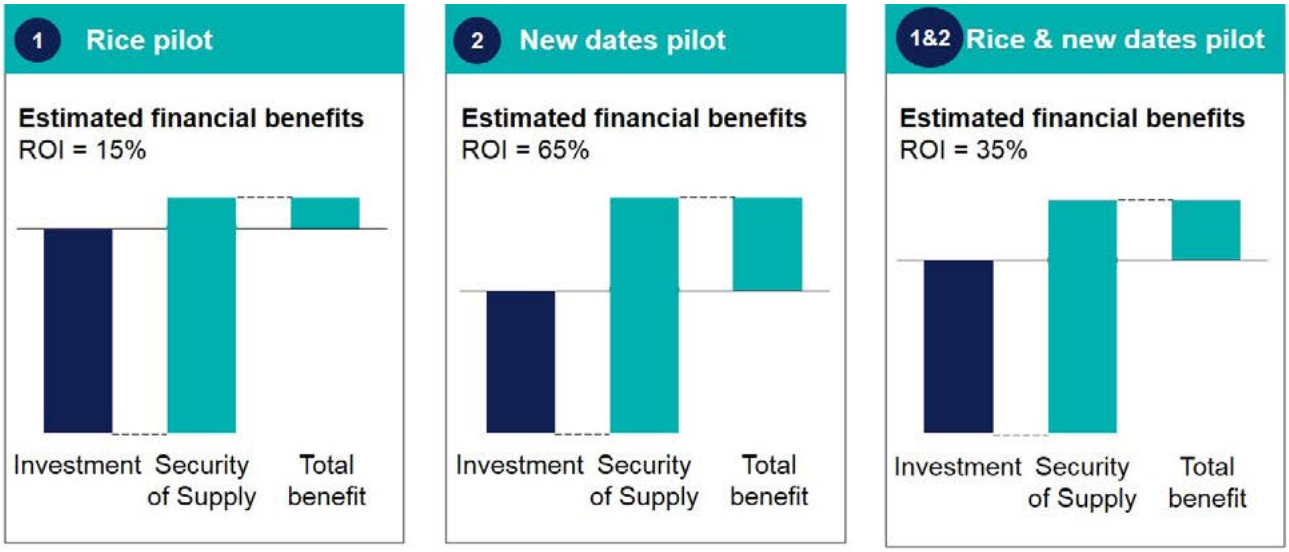
WHO NEEDS TO BE INVOLVED?

Kellogg aimed to take a partner-based ecosystem approach to enhancing local sourcing from the outset. Through its in-country research, TechnoServe identified a range of partners to support the implementation of both models, including: potential co-funders (public donors, private foundations, and other companies), implementing partner organizations (including both local and international organizations), government agencies, and agricultural advisors. TechnoServe conducted an initial assessment of potential partners, provided Kellogg with specific partner recommendations and facilitated initial conversations between the two parties. Kellogg is currently moving forward with ACDI/VOCA[2] as its implementing partner and is pursuing co-funding from a European embassy in Cairo.

TechnoServe also supported Kellogg in defining internal roles and responsibilities across the company. This included internal roles in moving the pilot in Egypt forward, as well as roles that would be required to replicate the approach in other emerging markets. Key functions included Kellogg's Local and Regional Business Units, Sustainability, Procurement, and Government Relations, as well as Food Research, Quality, and Nutrition Technology. Successful implementation and strong positive results from the Egypt pilot will motivate full adoption of these roles and replication of the approach in other geographies.

2. While TechnoServe does implement models like the ones designed in this project in a number of emerging markets, it does not have permanent operations in Egypt and therefore could not serve as an implementing partner for Kellogg in Egypt.

Exhibit 7: Return on investment of sustainable smallholder sourcing models



Note: ROI calculations assume two years of fixed investment, and give five years of security of supply value

Moving forward, Kellogg aims to apply the approach used in Egypt to design new business models for sustainable local sourcing in other emerging markets. Based on the Egypt model, TechnoServe developed a case study and a how-to guide for internal training within Kellogg, complete with the tools used throughout the application of the five-step process, such as the commodity prioritization framework, ingredients databases, value chain overview, interview guides and return on investment model. The internal case study will be used by Kellogg's Sustainability team as a proof point to raise awareness among internal stakeholders around the benefits of enhanced local sourcing models and to demonstrate how these can be achieved. The how-to guide is designed to be used by any department (e.g., Sustainability, Emerging Market Business Units, Procurement) to develop and implement models for strengthening local sourcing in emerging markets.

Exhibit 8: Internal roles for local sourcing enhancement initiatives

Role	Suggested Members	Responsibilities
Project sponsor	• Business unit head	Approve pilot and partners, authorize funding
Project steering committee	• Sponsoring department member • Country head • Chief Sustainability Officer	Make strategic decisions to guide research and pilot design
Project working group	• Sponsoring group member • Local procurement	Provie feedback on research and pilot design
Sustainability representative	• Sustainability manager	Provide guidance on sustainable sourcing
Local procurement representative	• Senior procurement managemer	Provide procurement data, make introductions to suppliers
Regional procurement representative	• Senior procurement manager	Provide procurement data
Regional leadership	• Regional Vice President	Set strategic goals for region, authorize funding
Marketing/Communications Representative	• Marketing Manager • Regional PR	Develop marketing messaging, external communications
Government relations representative	• Regional government relations manager	Introduce project team to relevant public stakeholders
Research, quality, nutrition and technology representative	• Researchers for priority crop	Share best practices for farmers and processors

KEY TAKEAWAYS

Local sourcing in emerging markets can serve as a platform for broadening ownership of a company's sustainability agenda across the organization. Kellogg's Sustainability team engaged various functions across the company (Middle East leadership, Egypt local operations, Procurement, Government Relations) throughout the process of determining how to strengthen local sourcing in Egypt, from defining initial commercial and social objectives and prioritizing focus areas, to designing the models, articulating commercial value drivers, quantifying the return on investment to the company, and determining what to take forward. Additionally, having a concrete example of how a company's sustainability objectives can be achieved in practice while delivering both operational and reputational commercial value can serve as an effective proof point for internal stakeholders. Using the Egypt case study as an example, Kellogg's Sustainability team clearly articulated the value proposition of sustainable local sourcing in emerging markets to a variety of internal functions. Finally, developing a how-to guide and toolkit for designing and implementing sustainable local sourcing can also empower other parts of the company to take a leadership role in advancing the company's sustainability commitments.

Building more direct relationships between multinational companies and smallholder farmers is often a key driver of social impact and commercial value in local sourcing models; while this can enable farmers to secure higher prices, it also exposes them to new risks. Smallholder farmers in commercial supply chains are typically required to meet stringent quality requirements; however, smallholders are extremely vulnerable to factors outside of their control. For example, changing weather or rainfall patterns can inhibit their ability to meet quality standards even when employing good agricultural practices. Therefore, the long-term sustainability of commercial supply chains reliant on smallholder farmers will also depend on the continued development and adoption of approaches to mitigate and distribute the risk posed to smallholders by external factors, such as climate change. Buyers subsidizing weather index based crop insurance is one example of how farmer risks can be mitigated and more equally distributed along the supply chain. In the Egyptian context specifically, the government's plans to pilot a smart ID card for collecting information from and distributing subsidies to farmers could eventually also serve as a channel for crop insurance, particularly in light of the government's 2014 mandate to create an agricultural insurance fund for damage caused by natural disasters.[3]

Sustainable local sourcing in emerging markets often requires high-touch models, reinforcing the importance of external partnerships and ecosystem approaches. As multinational companies seek to achieve sustainability goals that create value beyond their immediate supply chain or customer base, they are increasingly recognizing the need to work with a wide spectrum of partners - from government to NGOs, research institutes, peers, and donors – to improve the broader ecosystems that surround their global operations. In particular, securing co-investment from public entities or private foundations is a growing priority for companies. However, companies sometimes design sustainability initiatives without a deep understanding of the priorities of relevant government actors or other potential co-funders. Kellogg recognized the importance of this alignment from the beginning and worked up front to understand the priorities of the Egyptian Ministry of Agriculture and of key potential donors, and then designing an approach to strengthening its local sourcing that would align with those priorities. For example, by incorporating a horticulture component into the rice model, Kellogg would not only catalyze a greater improvement in farmer livelihoods and climate resilience, but would also ensure alignment with the funding priorities of a European embassy in Cairo that had expressed initial interest in the project. As a result, the embassy has invited Kellogg to submit a proposal for pilot co-funding.

3. Abraham online, "egypt's El-Sisi ratifies two agricultural and health insurance laws," 18 Sept 2014; Al-Monitor, "Egypt to cultivate digital data from the agricultural sector," 5 July 2016.