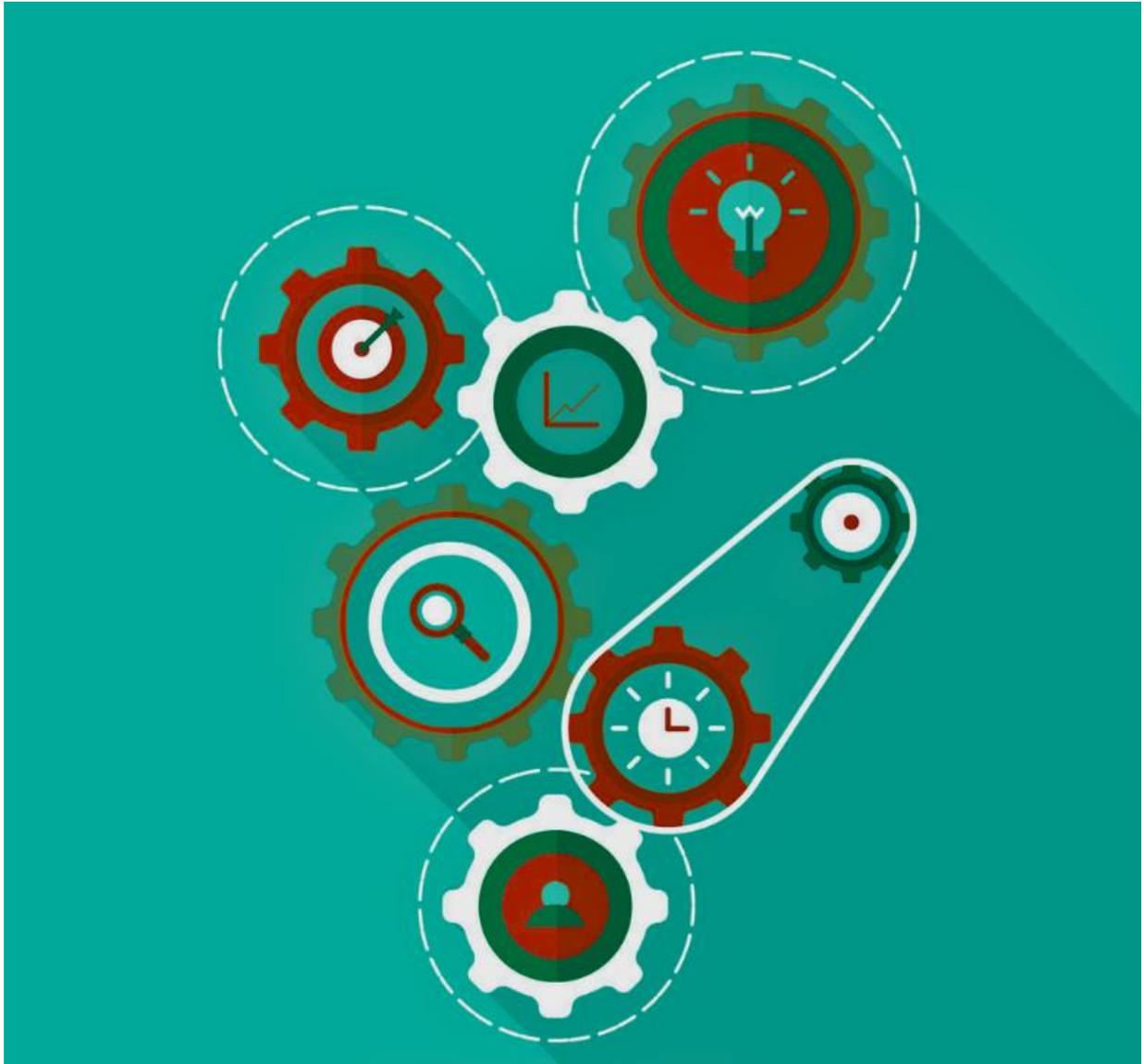


# Visualising System Change



*Many of us find explaining system change clearly and concisely a challenge. The right diagram can help. As inspiration, this brief provides twelve examples of visualising system change sourced from programmes around the world.*

Alexandra Miehlsbradt  
June 2024

# Visualising System Change

## Acknowledgements

This is one of several learning products developed from the Advanced Training Workshop in Results Measurement for Private Sector Development held in October 2023. Thanks to the Donor Committee for Enterprise Development ([DCED](#)), the Ministry of Foreign Affairs of the Netherlands ([MoFA](#)) and the Swiss Agency for Development and Cooperation ([SDC](#)) for sponsoring both the workshop and the resulting publications. A big thank you to all the people and programmes who contributed examples for this collection. Thank you also to Phitcha Wanitphon and Nabanita Sen Bekkers for their valuable input and feedback. Finally, thanks to Isabelle Gore for editing the text. Cover image and icons by Freepik.

*This material has been prepared for discussion purposes only. As such, the material should not be regarded as incorporating legal or investment advice, or providing any recommendation regarding its suitability for your purposes. The views expressed in this publication are those of the authors and do not necessarily represent the views of the DCED, MoFA, SDC or any of the programmes represented at the 2023 workshop.*



## Contents

Introduction.....	1
Maps.....	2
Relationships.....	2
Dimensions of System Change.....	3
Process.....	3
Impacts.....	4
Conclusion.....	4
Examples	
Market Development Facility (MDF) – Fiji – Agricultural Inputs.....	5
Revitalizing Agriculture Incomes and New Markets (RAIN) – Uganda - Agricultural Inputs.....	7
Market Development for the Niger Delta II (MADE II) – Nigeria - Palm Oil Processing.....	9
Endeavor Insight – Bulgaria – Tech Sector.....	11
Quad Tee – Uganda – Financial Services.....	13
The Australia-Indonesia Partnership for Promoting Rural Incomes through Support for Markets in Agriculture (PRISMA) – Indonesia – Maize.....	15
Gatsby Africa – Tanzania – Forestry.....	17
Feed the Future Harvest II – Cambodia - Vegetables.....	19
Feed the Future Naatal Mbay – Senegal – Rice.....	21
Alliances Caucasus 2 (ALCP 2) – Georgia - Honey and Dairy.....	23
Propcom Mai-karfi – Nigeria – Poultry.....	25
Argidius Foundation – Kenya & Uganda – Business Support.....	27

## Introduction

I find it difficult to explain system change clearly and concisely. I have found that others feel the same.

This was a common challenge for participants and facilitators at the 2023 Advanced Training Workshop in Results Measurement for PSD. As the saying goes, “a picture is worth 1000 words” - workshop participants and facilitators agreed that diagrams are particularly helpful for communicating the complex topic of system change and helping decision-makers to act on findings. The right diagram can help convey a strategy for, or progress towards, changes in a market system faster and more effectively than paragraphs of text.

This brief provides a dozen examples of visualising system changes from programmes around the world. The collection is not meant to be exhaustive or definitive in how best to visually represent system change. It aims to inspire you and your colleagues to create and share your own diagrams. Examples can help all of us - practitioners, researchers, evaluators, donors and others working on catalysing system changes – to better communicate with each other and, most importantly, with other stakeholders and those new to our field.

I have chosen the examples using three criteria:

- They are as visual as possible i.e. they have as few words as possible to effectively convey a sense of how a system has changed (or is expected to change).
- They don't require an understanding of a particular system change framework to grasp the types of changes that have happened (or are expected), although some convey more detail if you are familiar with the underlying framework.
- They focus on multidimensional system changes resulting from the introduction of several innovations.

Most of the examples don't meet all these three criteria perfectly. They are simplifications of system change, which is typical of visual representations. But I found them all useful.

I have divided the examples into five groups:

1. Maps – market maps and a geographical map
2. Relationship diagrams (as a key aspect of system change)
3. Diagrams focused on dimensions of system change
4. Process diagrams showing how system changes reinforce each other
5. Impacts of system change

Click on the links below to see the examples. Each is just 1 or 2 pages and includes the diagram(s) and a brief explanation from the diagram author or programme staff member about what the diagram illustrates, why it was created and how it was used.

There are, of course, other good examples of visualising system change. I hope if you have one, or know of one, you will share it with us so we can all benefit!

## Maps

This category includes two market maps and a geographical map.

Market maps are often used to help describe a sector or system that a programme is targeting. The two examples below show how they can also be used to visualise system changes. The simple ‘before’ and ‘after’ diagrams illustrate key changes in a system, demonstrating how the emergence, growth and development of each element supports the others.



### [Market Development Facility \(MDF\) – Fiji – Agricultural Inputs](#)

I was fortunate to witness these market maps being presented and hear audience members say it was the first time they really understood what market system change means.



### [Revitalizing Agriculture Incomes and New Markets \(RAIN\) – Uganda – Agricultural Inputs](#)

These market maps offer a quick and easy way to see:

- the increase in the number of enterprises and farmers in the system
- the increase in the number of relationships in the system
- the greater role of the private sector relative to government and NGOs.

Geographical maps also have potential to show system changes.



### [Market Development for the Niger Delta \(MADE\) – Nigeria – Palm Oil Processing](#)

This diagram superimposes the adoption of a new business model onto a geographical map that shows the populations the new model is designed to serve. It clearly shows spatial strengths and gaps in system change. I imagine geographical diagrams could be further developed to show adoption of multiple new types of business models, demonstrating how different system changes support each other.

## Relationships

Relationships are a key aspect of system change, as well as typically being the mechanism through which market actors learn about innovations in a system. The two examples below focus on relationships in a market system.



### [Endeavor Insight – Bulgaria – Tech Sector](#)

This series of diagrams effectively shows how relationships powered the development of the tech sector in Sofia, Bulgaria. I like how these diagrams show so much detail and yet are simple enough to grasp at a glance.



### Quad Tee – Uganda – Financial Services

This relationship diagram is quite technical. Designed to help identify leverage points, it shows relationships between different elements in the system. I think ‘before’ and ‘after’ diagrams of this type, in a simplified form, could show system changes while also conveying the complexity of systems that programmes have to navigate.

## Dimensions of System Change

There are many dimensions of system change that a programme may aim to influence, such as investment, adoption of innovations, sector coordination, the public enabling environment, efficiency, inclusion and environmental stewardship. The four examples below show progress against multiple dimensions in a single diagram, providing a quick overview of progress as well as information on individual dimensions.



### The Australia-Indonesia Partnership for Promoting Rural Incomes through Support for Markets in Agriculture (PRISMA) – Indonesia – Maize

This spider diagram shows at a glance how PRISMA aimed to improve the maize sector in East Java. While the diagram is simple, it is underpinned by a wealth of data and analysis.



### Gatsby Africa – Tanzania – Forestry

Over the years, Gatsby Africa has developed a framework to both assess and then track ‘sector conditions’ for the underlying health of a sector. This is an early example of applying the framework, showing progress across the conditions in one diagram. While there are many variables that affect the state of each ‘sector condition’, you don’t need particular knowledge of the framework to grasp the essentials of improvements and challenges.



### Feed the Future Harvest II – Cambodia – Vegetables

This example is from the final evaluation of the Harvest II programme. The bar chart shows the extent of change in various dimensions of the system relative to the Harvest II vision, as well as the contribution of the Harvest II programme to those changes.



### Feed the Future Naatal Mbay – Senegal - Rice

Another example from an evaluation - the ex-post evaluation of the Naatal Mbay programme. The first diagram ‘zooms out’ providing an overview of the system changes influenced by the programme in the context of the sector and other influences on it. The second diagram ‘zooms in’ to provide more detail on one specific system change.

## Process

System changes often happen at different levels, either simultaneously or over time. Crucially, the changes at different levels reinforce each other so that change becomes ‘systemic’. This is one of the hardest aspects of system change to explain to stakeholders.

The two examples below show changes at different levels of a system, providing a one-page illustration of how system changes build on each other. Despite being relatively text heavy, you can still quickly grasp the process required for a system to transform profoundly.



### [Alliances Caucasus 2 \(ALCP 2\) – Georgia – Honey and Dairy](#)

This ‘winding path’ diagram shows changes at four different levels across multiple elements of two sectors. It aptly synthesises several individual changes at different levels, conveying how they support each other to drive truly systemic change.



### [Propcom Mai-karfi – Nigeria – Poultry](#)

This ‘winding path’ diagram shows how programme interventions promoted interrelated changes over time, ensuring that improvements would become widespread, enduring and resilient. The infographic also summarises the programme’s strategy and impacts in the poultry sector – all on one page!

## Impacts

Conveying the multifaceted nature of systemic change is important, but so is communicating the impacts that result from changes in a system. The example below shows the multiple types of impacts.



### [Argidius Foundation – Kenya & Uganda – Business Support](#)

Argidius develops the ecosystems of business support organisations in countries around the world. This diagram shows how improvements in supported small and growing businesses (SGBs) result in ‘ripples’ of benefits.

## Conclusion

I can see some common themes across these examples.

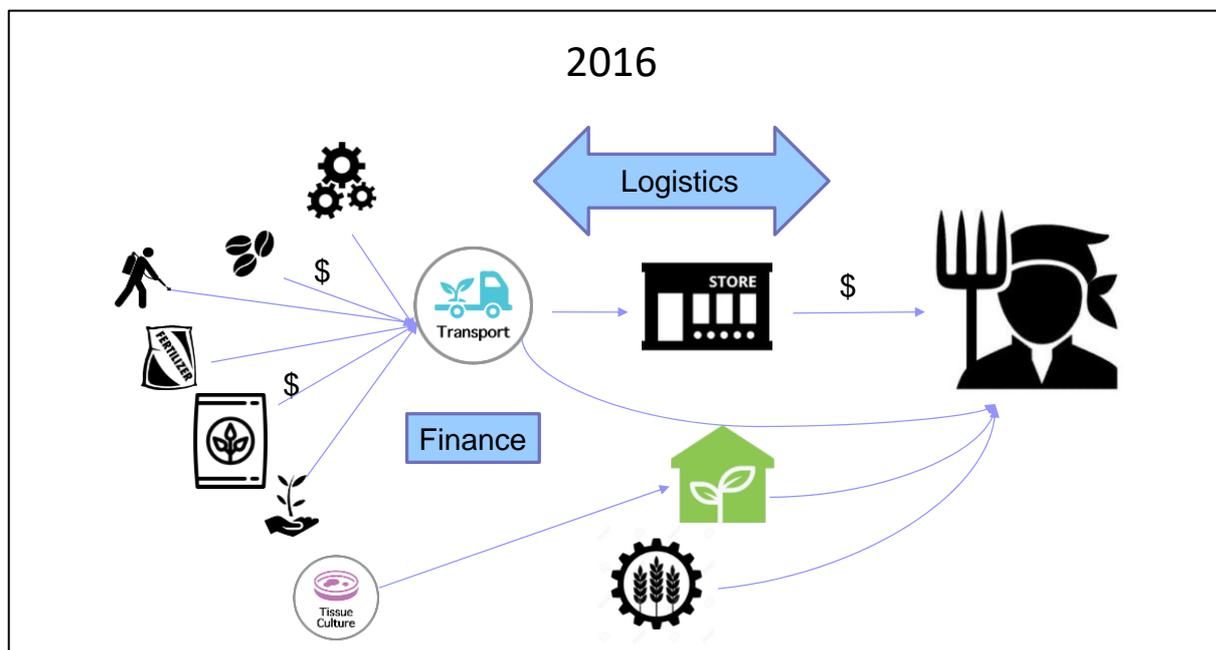
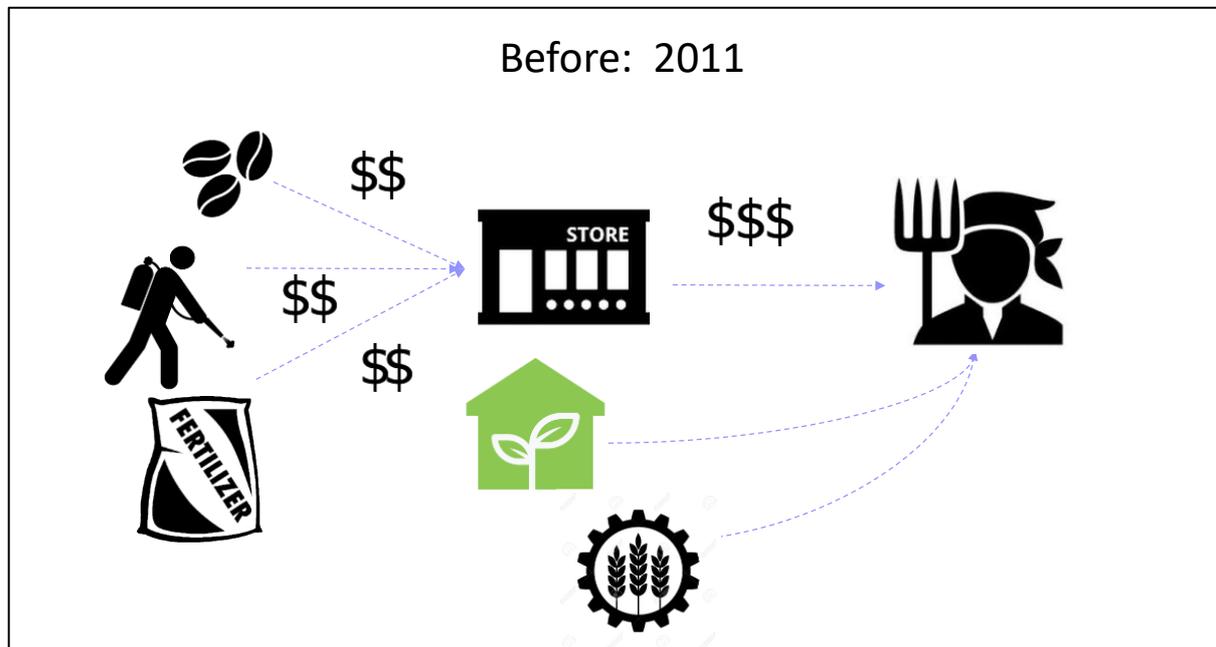
Many of the diagram authors felt the need to show a number of individual changes in a system within the context of the whole system, demonstrating how the changes reinforce each other. Many wanted to communicate a range of qualitative and quantitative data on system changes to their stakeholders ‘at a glance’. Most of them were keen to show simply the complexity of system changes.

I hope these examples have inspired you! I look forward to seeing more as we, in this field, improve our ability to effectively communicate system change.

## Market Development Facility (MDF) – Fiji – Agricultural Inputs

Implementers: Cardno Emerging Markets (2011-2016), Palladium (2017-present)

Donor: Australian DFAT



The visualisations, developed in 2016, show the facilitated development of the agricultural inputs segment of Fiji's horticulture market system over a five-year period.

In 2011, a few input suppliers, mostly importers, offered a narrow range of inputs into the horticulture system- some seeds, some fertilisers and some mechanisation services. These actors were concentrated in urban areas. Farmers seeking inputs needed to travel to retailers- adding to the cost of accessing already expensive inputs. Distribution systems connecting inputs to farmers were virtually non-existent. Input usage remained low (despite demand). Input

retailers were also unclear on the demand for specific inputs because of their distance from their primary customers.

MDF's analysis indicated that it was not enough to increase the diversity of inputs in the market to positively influence uptake. Strategic investments were needed in key support functions such as logistics, finance, and distribution networks to improve availability and accessibility of affordable inputs as close to the farms as possible. Over time, the programme invested in support functions that brought input firms closer to farms - both in terms of supply, as well as in understanding demand for inputs on the ground. The interventions resulted in an increase in input usage as well as investment by input companies to bring more inputs into the market since they were now clearer on what was demanded on the ground. The changes in the way the horticulture system operated included:

- An increase in the demand from farmers wanting more, and diverse, inputs to suit their specific needs,
- Greater investment by retailers in distribution systems to reach more customers across Fiji,
- Increased competition between retailers to increase market share, resulting in development of new products such as financing for inputs, and
- Introduction of new inputs into the market because the private sector had a better grasp of what the farmers wanted.

I made the diagrams for three reasons:

- To visually present the essence of systemic change in the market system. The programme had systemic change pathway narratives. The programme team interpreted these narratives as lists of interventions to implement. With just a text description, the point of strategic investments reshaping the way systems operate got lost. The diagram brought the focus back to strategically facilitating systemic change.
- To highlight to the implementing team that the strength of the concept of systemic change was not additive but multiplicative. For example, adding one input after the other may result in some benefit. However, if we invest in support functions such as logistics, we, as a programme, may not need to invest in inputs as the private sector will see the business opportunity (through the greater reach to farms) and invest in inputs and other services themselves.
- To communicate to outside audiences (including DFAT) how a system develops over time and how a programme's strategic investments can develop a system whose effectiveness is greater than just the sum of its parts.

I used the diagrams:

- To facilitate discussions among implementers on how to invest in the system strategically to catalyse progress towards our expected 'end system state.'
- To communicate to DFAT the quality and quantity of impact of MDF interventions on the horticulture market system in Fiji, as well as to explain how systemic change works.

**MDF (Mujaddid Mohsin, Country Director – MDF Fiji 2015-2019)**

[marketdevelopmentfacility.org](http://marketdevelopmentfacility.org)

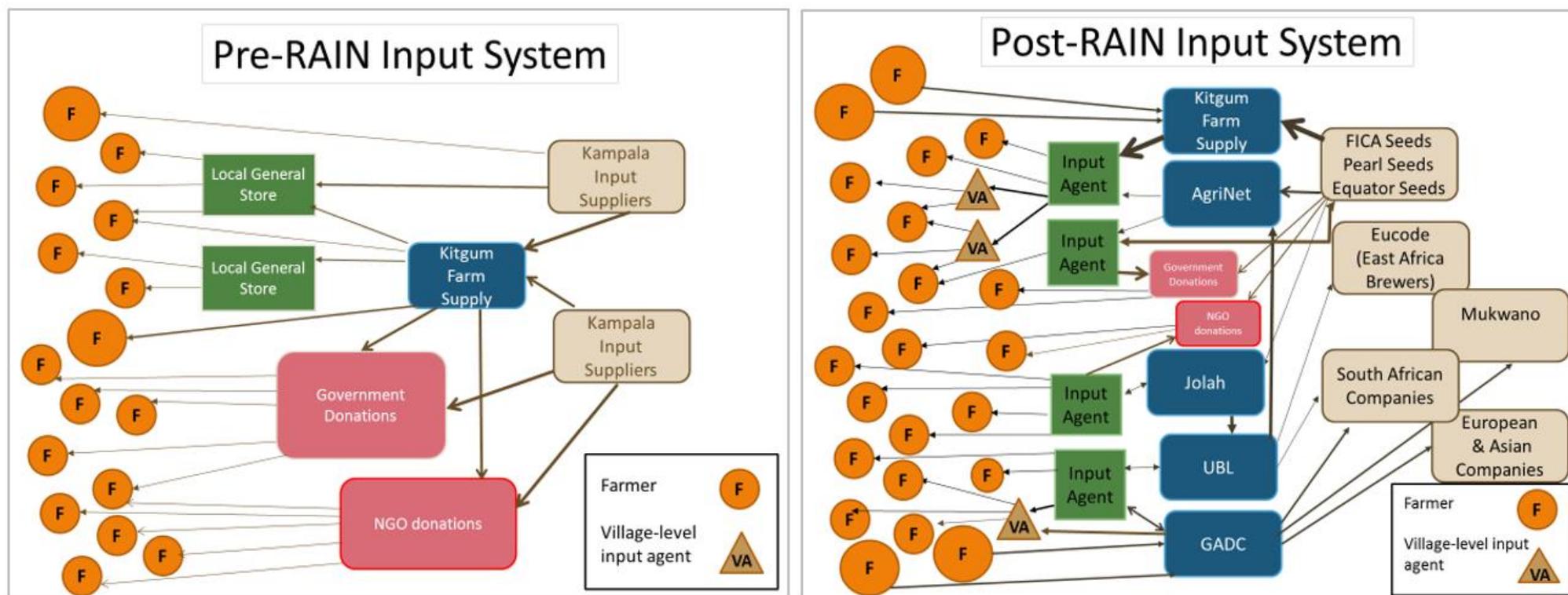


[Click here to return to the main text.](#)

## Revitalizing Agriculture Incomes and New Markets (RAIN) – Uganda - Agricultural Inputs

Implementer: Mercy Corps

Donor: USDA



The graphic was developed to illustrate the changes that had taken place in the market system as a result of the RAIN programme. Not only were there many more farmers accessing inputs and acquiring knowledge of new practices, they were also doing it in new ways: through new market actors supplying inputs to the region, as well as through new intermediaries (village-level agents) in the system. Mercy Corps' work had built up the knowledge of local input businesses and farmers, as well as supported larger input suppliers to develop a network of village-level agents who could reach the "last mile" with this new business model. It was a real win-win for farmers

and businesses. The graphic was designed to help the viewer understand the changes in both type and volume of market actors using the agriculture inputs system in the Acholi region.

***Mercy Corps (Karri Byrne)***

[www.mercycorps.org](http://www.mercycorps.org)

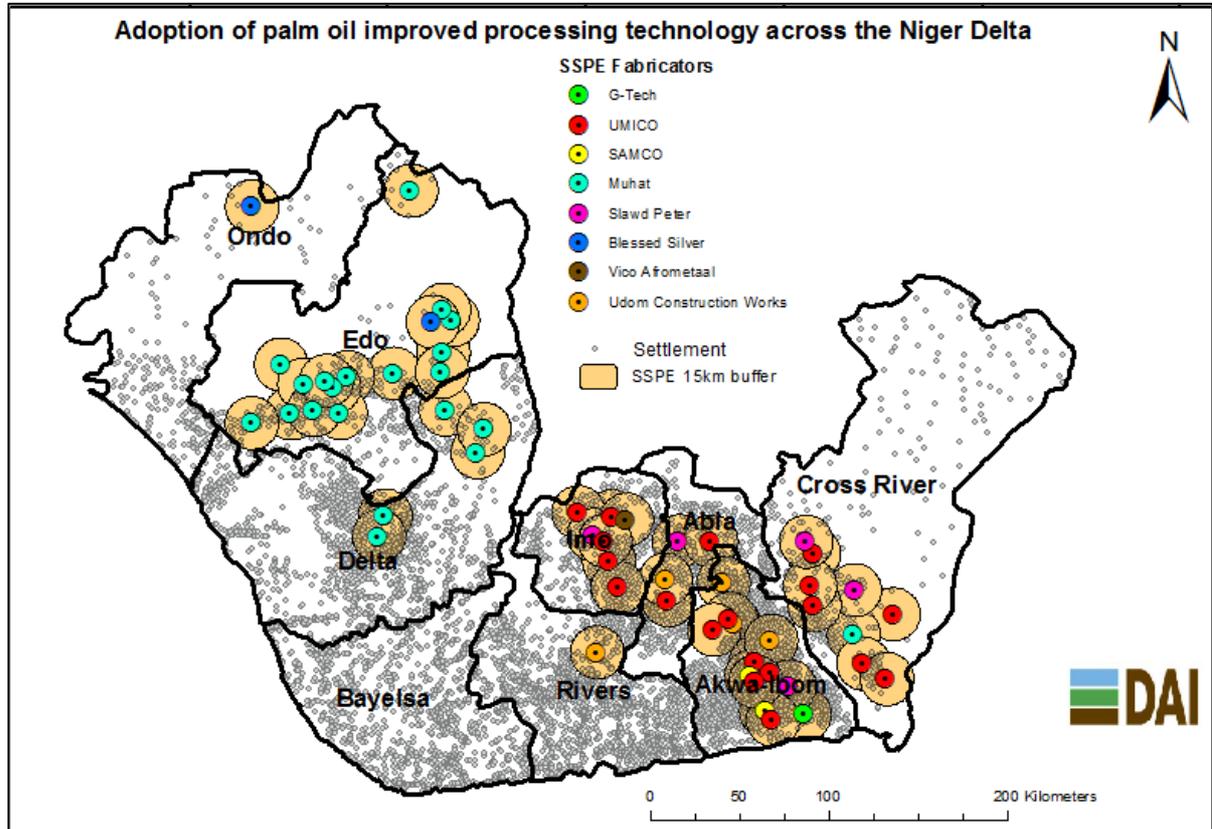


[Click here to return to the main text.](#)

## Market Development for the Niger Delta II (MADE II) – Nigeria - Palm Oil Processing

Implementer: Development Alternatives Inc. (DAI)

Donor: FCDO



This map shows the adoption of palm oil small-scale processing equipment sold by MADE II partners in target states of Nigeria. It is made using GPS data and geographical information system (GIS) software. The coloured circles are palm oil millers using the equipment. The grey points are settlements. The orange circle around each mill shows the area within 15 km of that mill.

We included the settlement data on the map as a proxy for market size so that we could show the fabricators of the processing equipment where there were still opportunities for sales. We planned to also show oil palm production on the map to see which high production areas were served by the new technology, and which were not. Including palm oil production would also have shown that context and comparative advantage matter in catalysing systemic change. Market information, such as market size, further influences private sector actors to expand into underserved areas because it helps them increase their market share - a key incentive for continued expansion after the project ends.

We found, as expected, that there was a correlation between population density and the number of the small-scale processing units sold. We also found that fabricators sold small-scale processing equipment to other locations beyond their 'zone of influence.' For example, Muhat, based in Edo State, had supplied units to processors in Delta State. Slawd Peters had served his base in Akwa Ibom but also millers in Abia, Imo and Cross River states. Later we realised that

Umico had supplied units to Lagos State and some states in Northern Nigeria which were outside the project location, and so represent unplanned impacts.

The 15 km range around each mill using the technology was an operational definition of access for farmers. In other words, it indicated the area that it would be reasonable for millers to source from. If farmers had to haul their palm fruits further than 15 km, that would be a sign of insufficient access to the new technology. It also showed where the oil palm farmers who will likely benefit were located.

We made this and other maps to help the MADE II team plan and adjust interventions to drive systemic change. As the programme was going into a second phase, we particularly wanted information to help us increase the scale of impactful innovations. The maps were created to help us answer strategic questions such as:

- In which areas have partners continued to invest independently of MADE?
- How do impacts (as measured by net additional income changes) correlate with the preconditions for impacts (i.e. the adoption of innovations and practices introduced and the consequence of increased productivity that follows)?

We found the maps helped us to:

- Make decisions, such as where to scale up interventions for maximum results,
- Show results in ways that were compelling to stakeholders, and
- Save costs on results measurement.

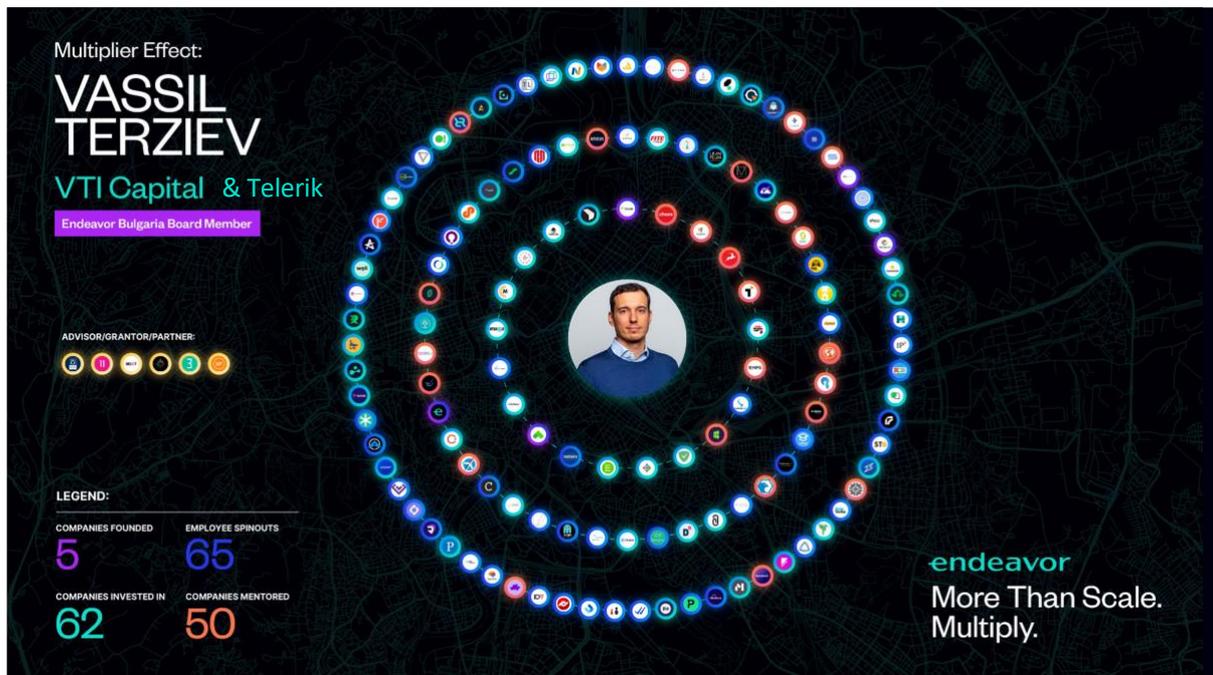
## ***MADE II (Sylvanus Abua)***

### [Project Description](#)



[Click here to return to the main text.](#)

## Endeavor Insight – Bulgaria – Tech sector



This is Vassil Terziev's multiplier map. Terziev was a co-founder of Telerik, a software development company in Sofia, Bulgaria. He later started VTI Capital. He was also a founding board member of Endeavor Bulgaria and is now the mayor of Sofia. He inspired 65 Telerik employees who went on to start their own companies, especially because he installed a widespread Employee Stock Ownership programme, and the company was acquired by Progress Software in 2014. He also has made investments in 62 companies and mentored 50. He is a serial founder, having started five companies, and has contributed to several more as an advisor, grantor and partner. He is also a generous benefactor, including to NGOs, universities and scholarships.

Endeavor Insight creates multiplier maps to demonstrate a single founder can inspire an entire generation of other entrepreneurs. The team collects data from publicly available sources and the founders to create the graphic that displays the companies' logos. For more examples of multiplier maps, visit the interactive website: [multipliereffect.endeavor.org](http://multipliereffect.endeavor.org).

The diagrams below are network maps of the tech sector in Sofia, Bulgaria over time. Each teal bubble represents an entrepreneurial company, and the size of the bubble is its relative influence on other founders. The arrows represent how they are connected to one another including former employment, mentorship, investment, and serial entrepreneurship. Endeavor has been mapping entrepreneurial ecosystems using this technique for more than a decade, and this analysis has revealed two patterns in markets all around the world: (i) up-and-coming founders who receive support from successful entrepreneurs are more likely to scale, (ii) founders of those scaled companies are more likely than smaller businesses to pay it forward. Endeavor studies these dynamics to understand what drives long-term ecosystem development and recognises the leadership role of founders. Network mapping involves primary data collection (i.e. interviews with hundreds of founders) and extensive secondary data collection, social network analysis methodologies using Python, and image rendering using custom software. For more information about network mapping and interactive examples, go to [endeavor.org/research](http://endeavor.org/research).

**endeavor**  
INSIGHT

## Sofia Tech Map

[endeavor.org/sofiatechmap](http://endeavor.org/sofiatechmap)

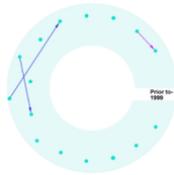
**Actors:**

- Local Entrepreneurial Companies

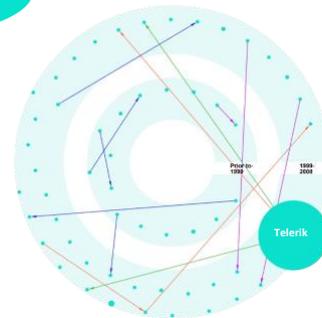
**Connections:**

- ➡ FORMER EMPLOYMENT
- ➡ MENTORSHIP
- ➡ ANGEL INVESTMENT
- ➡ SERIAL ENTREPRENEURSHIP

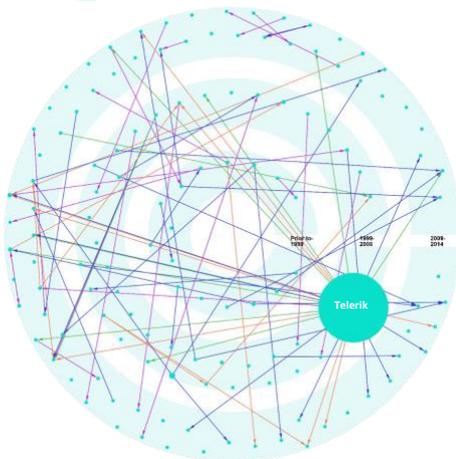
Before 1999



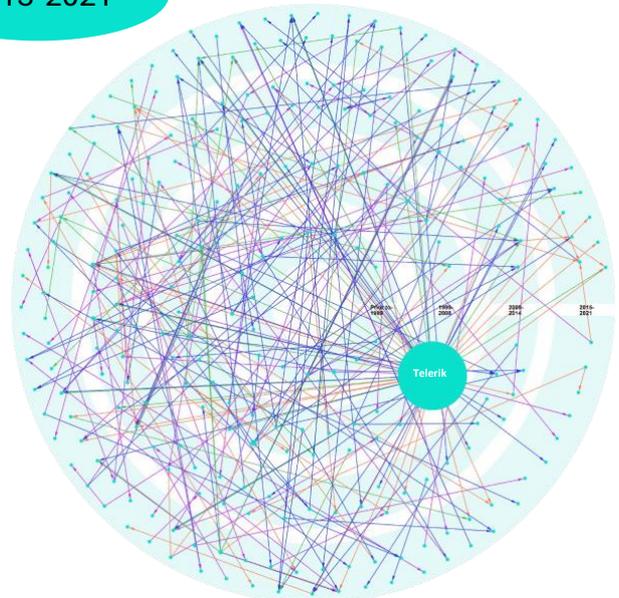
1999-2008



2009-2014



2015-2021



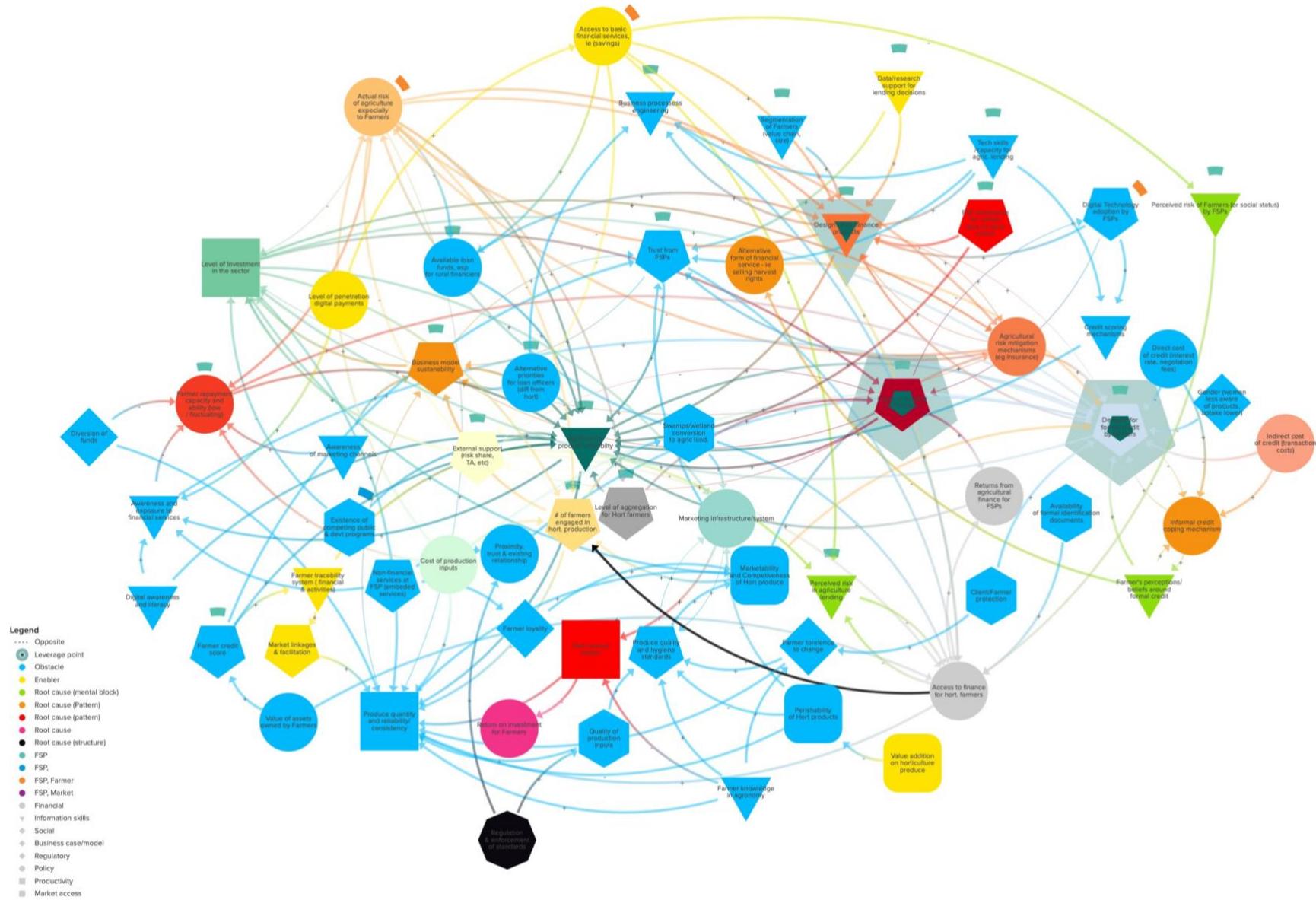
**Endeavor Insight (Leah D. Barto)**

[Mapping the Sofia Tech Sector Report](#)



[Click here to return to the main text.](#)

# Quad Tee – Uganda – Financial Services



The diagram is a systems map of the access to finance ecosystem in Uganda. It uses a systems thinking approach, which provides a framework to assist in thinking about challenges within the context of a system. The map represents different elements, connections and leverage points within the access to finance system.

NB: “A system is a set of interacting or interdependent components forming an integrated whole”.

The map was developed by Quad Tee following a comprehensive assessment of the access to finance ecosystem in Uganda. The team reviewed the demand-side (farmers & agribusinesses), supply-side (lenders) and enabling environment for access to finance. Stakeholder mapping and in-depth interviews were conducted. In the process, various elements (obstacles and challenges) influencing access to finance were identified. Subsequently, a root cause analysis was undertaken to assess the obstacles identified. To really understand why the system was leading to certain outcomes (particularly lack of access to finance), the team looked further at the type of relations between various elements, how one element interacted with and influenced the others, as well as direct and indirect effects. Further consideration was given to elements strengthening one another or countering each other. (These are called feedback loops).

NB: [Kumu.io](https://kumu.io) tool was used to map out and represent the system.

Systems thinking is an effective approach for tackling the complex, interdependent challenges that characterise our modern world. Instead of looking at individual aspects of a problem in isolation, a systems approach looks at how different parts of a system interact. A critical part of systems thinking is understanding and acting on feedback loops. For example, by breaking out of reinforcing feedback loops (such as the lack of appropriate financing products, high agricultural risk and lack of funds for on-lending,) which keep the system locked into undesirable outcomes. On the other hand, reinforcing feedback loops can also be leveraged to create systemic change from smaller coordinated actions. Looking for feedback loops can help us identify how to create significant impact with minimal effort, or help us flag risk areas that could result in unintended consequences.

**Paul Kweheria**

*Managing Director*

**Quad Tee Corporation - Inclusive Finance and Project Management**

[pkweheria@quadteecorp.com](mailto:pkweheria@quadteecorp.com)

+254 722974786

[www.quadteecorp.com](http://www.quadteecorp.com)

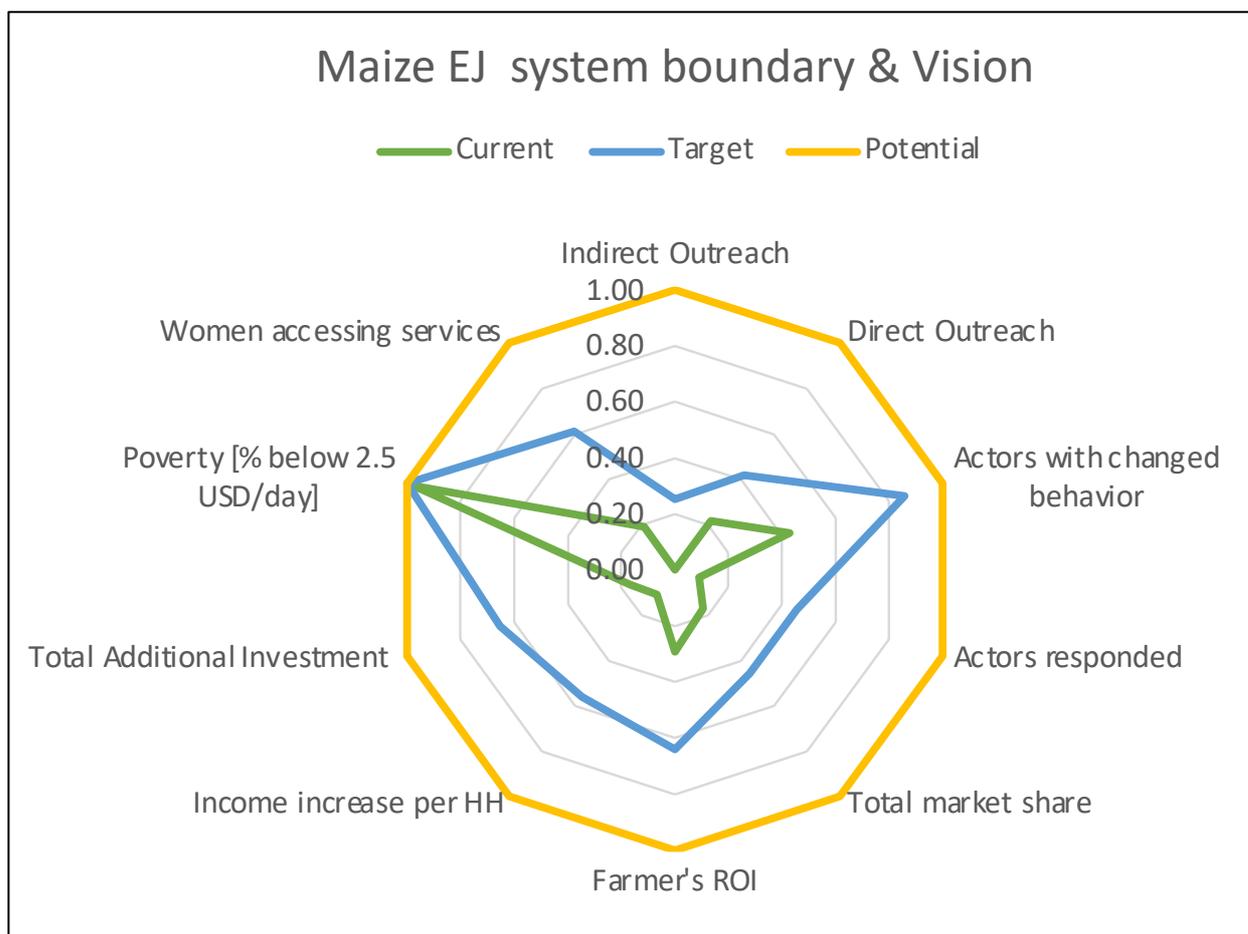


[Click here to return to the main text.](#)

## The Australia-Indonesia Partnership for Promoting Rural Incomes through Support for Markets in Agriculture (PRISMA) – Indonesia – Maize

Implementer: Palladium

Donor: Australian DFAT



### Vision for PRISMA-2 Maize East Java

#### Key Actors

- **Seed companies.** In Madura other seed companies will start crowding-in as the penetration rate will go over 25% by 2020. On the mainland, seed companies will focus on developing new disease-resistant and drought-resistant varieties that can save up to 20% of farmers' yields.
- **Financial institutions** will tap into the mainland market since farmers need to intensify fertiliser usage. Currently 45% of farmers use far less than the recommended amount of fertiliser. Access to finance is the main constraint to farmers buying fertiliser.
- **Fertiliser companies** will work together with financial institutions to ensure product availability, acceptability, and its distribution in a timely manner. Proper fertiliser could double farmers' yields.
- **Feed mills** will absorb more maize from East Java since the maize surplus will start to cover the maize shortfall experienced by the feed association and poultry farmers.

- **An ICT provider** will start business in East Java, providing a marketplace for aggregation, information on products and weather forecasts, to help increase farmers' competitiveness.
- **Machinery distributors and service providers** will expand their businesses by promoting affordable and time-efficient technology to reduce the high production costs of manual labour, and to increase the quality of end products.

### **Target Farmers**

By 2023, **at least 97,000 maize farmers in East Java** will have increased their incomes by at least 40% because of reduced production costs as a result of adopting simple machinery, having an additional planting season and improving fertiliser use.

### **Comments**

I was assigned to demystify systemic change concepts and suggest a simple diagram to show the progress towards systemic change over time. In 2019, we decided to use a spider diagram with a narrative to show a systemic change vision in a particular sector. The spider diagram was helpful in showing progress over time and guiding the implementation teams to adapt their strategies. We used the diagram to stocktake progress, identify gaps, and develop or adjust strategies. It was easy for external audiences to understand what we did and why.

### ***PRISMA (Mohasin Kabir)***

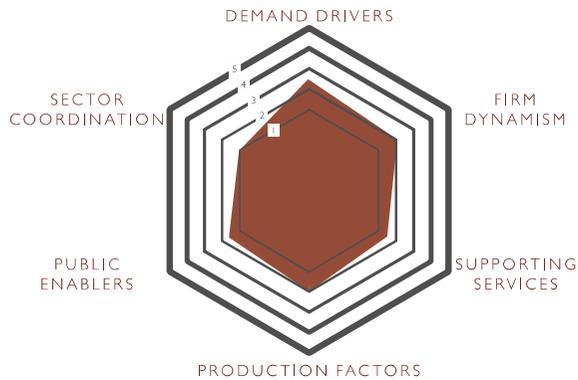
[aip-prisma.or.id](http://aip-prisma.or.id)



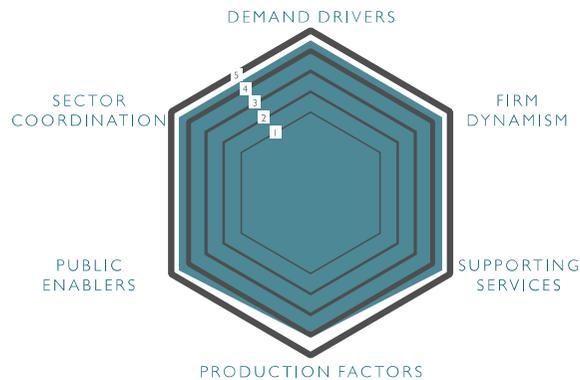
[Click here to return to the main text.](#)

# Gatsby Africa – Tanzania – Forestry

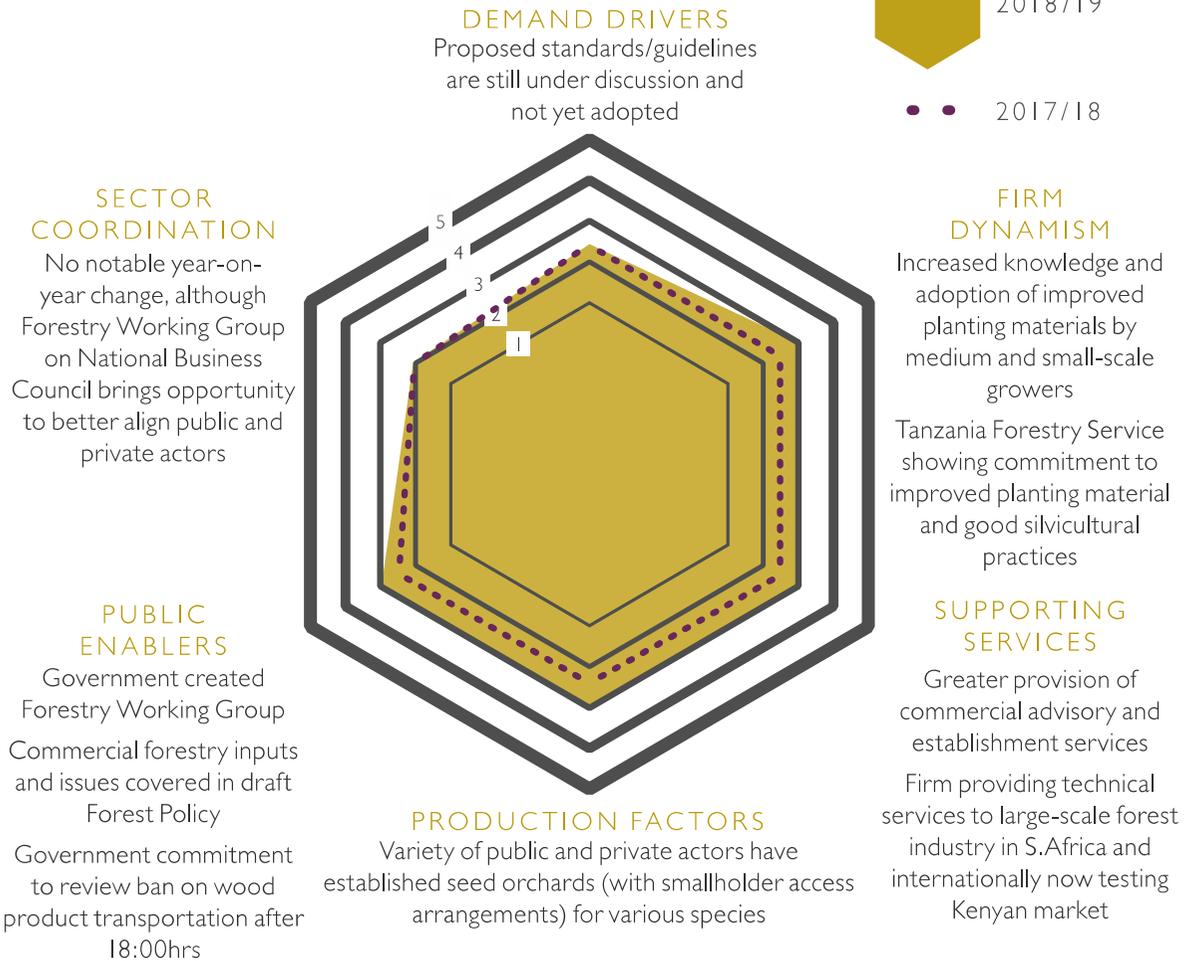
## BASE POSITION OF SECTOR



## LONG-TERM GOAL FOR TRANSFORMATION



## CURRENT PROGRESS TO TRANSFORMATION



These diagrams were used in Gatsby Africa's 2018/19 Progress Report. Excerpts from the report:

We focus on transforming sectors through sustained competitive growth; ensuring they impact large numbers of people; and they become resilient and able to innovate and evolve, ensuring they can survive and thrive in the long- term. As such, while we track the ongoing impact of our programmes, the critical objective for success is a sector developing the underlying capabilities, governance and resilience that ensure it is not just thriving now but is able to dynamically adapt to overcome challenges and take advantage of new opportunities in the future.

To address this, we are trying to develop a framework of 'sector conditions' to track the underlying health of a sector. We see six critical conditions that are required for a sector to be competitive, inclusive and resilient: public enablers, sector coordination, production factors, demand drivers, firm dynamism, and supporting services. Across our sectors, we are putting in place measures to track improvements across the six conditions and give a subjective – but informed – score against each. This will help show whether our programmes are successfully building the underlying conditions to achieve resilience and true transformation.

### **Summary of Progress in Tanzanian Forestry**

The Forestry Programme has built significant credibility within the sector. Its efforts on tree improvement have highlighted the substantial gains to be made from improved planting material, and energised stakeholders about the sector's potential. Government is showing increased interest in commercial forestry, and exciting possibilities are opening up to influence policy and unite stakeholders behind a comprehensive vision and strategy for the sector's future - including through a new commercial forestry working group of a key platform for public-private collaboration in Tanzania.

### ***Gatsby Africa (James Foster)***

[www.gatsbyafrica.org.uk](http://www.gatsbyafrica.org.uk)

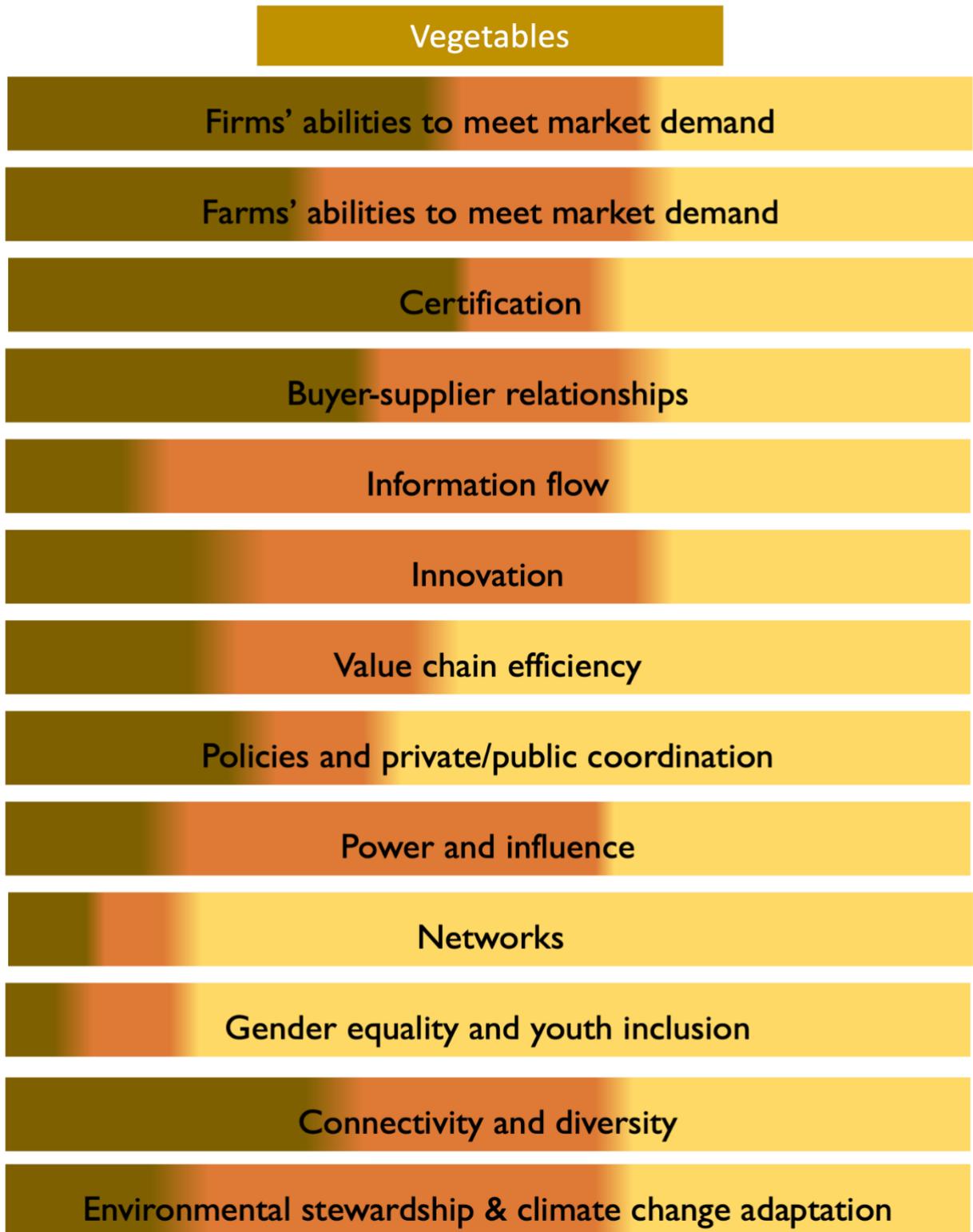


[Click here to return to the main text.](#)

## Feed the Future Harvest II – Cambodia - Vegetables

Implementer: Abt. Associates

Donor: USAID



Harvest II contribution to systems change
  Overall systems change
  No systems change yet

This diagram was developed as part of the [final evaluation of the Harvest II program](#) managed by Feed the Future Market Systems and Partnerships and implemented by Just Results. It presents dimensions of system change that could lead to enhanced competitiveness, inclusion and resilience in the vegetable sector. For each type of change it visualises the evaluators' assessment on the extent to which the change is happening overall (**orange**) and Harvest II's contribution to this change process from 2017-2022 (**brown**).

For over a decade, Cambodia has been making progress in substituting locally produced vegetables for those imported, primarily from Thailand and Vietnam. Harvest II made valuable contributions towards this trend, particularly during the pandemic when restrictions and a focus on safe vegetables boosted the trend. Harvest II was a key driver of change in several dimensions such as firms' abilities to meet market demand, certification, connectivity among firms and diversity of products, services and business models. In other dimensions, including environmental stewardship and climate change adaptation, Harvest II activities were one of a number of factors encouraging changes.

We developed this diagram to provide an overview of system changes in the sector and the contribution of Harvest II towards them. While the report went into detail on each of the dimensions, we felt it was important to show them together to emphasise the multifaceted change required to increase competitiveness, inclusion and resilience. We also wanted to convey that more progress can be expected in the future as improvements in some dimensions fuel others. For example, improvements in connectivity and diversity are likely to contribute to information flows and innovation in the future.

***Just Results Harvest II Evaluation Team (Aly Miehlsbradt)***

**[Harvest III website](#)**



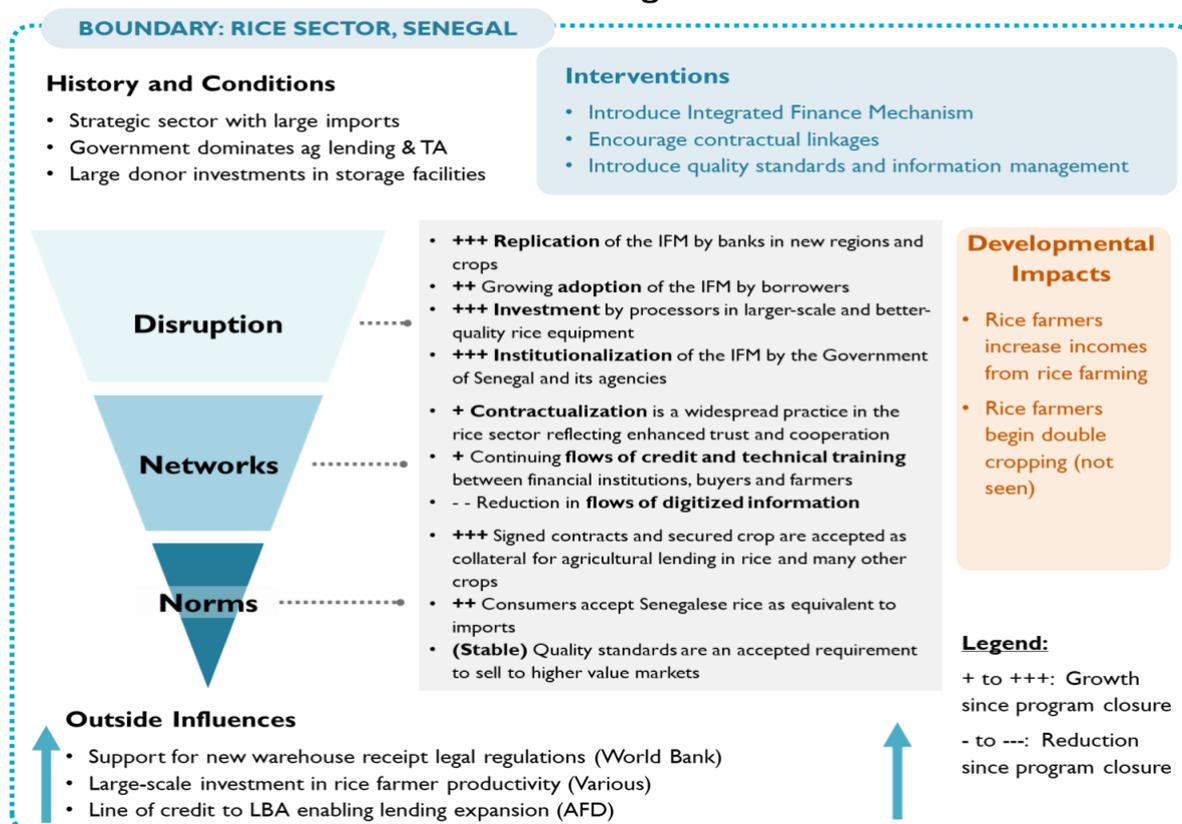
[Click here to return to the main text.](#)

## Feed the Future Naatal Mbay – Senegal – Rice

Implementer: RTI

Donor: USAID

### Enduring Systemic Changes in Senegal's Rice Sector 3.5 Years After Program Closure



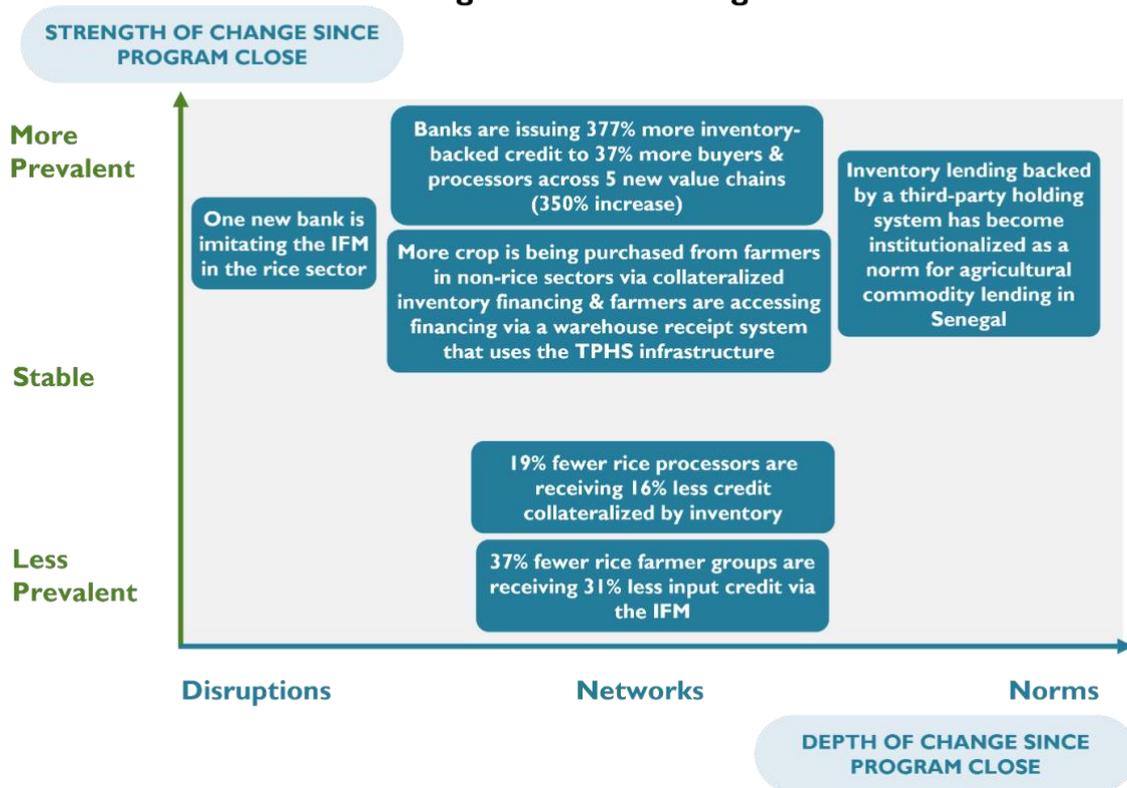
The diagram above was developed as part of the [ex-post evaluation of the Naatal Mbay program](#), an evaluation implemented by MarketShare Associates through the Feed the Future Market Systems and Partnerships Activity. It synthesises the systemic changes observed 3.5 years after the closure of the programme along three dimensions that represent steadily deeper signals of systemic change: (i) disruptions put in place by specific actors, (ii) shifts in the way networks, and the relationships therein, operate, and (iii) the changes in the norms influencing market actors' behaviours. It is an application of the [Disrupting System Dynamics framework for assessing systemic change](#). The diagram summarises changes observed across four system functions: crop aggregation; access to agricultural finance; crop standard-setting and enforcement; and commodity information collection, sharing and learning.

For each of these dimensions, it presents the evaluators' assessment of whether the early signs of systemic changes observed at the time of programme closure had grown (denoted by plus signs) or shrunk (denoted by minus signs). The framework also notes outside influences on the observed systemic changes, relevant historical factors, the boundary of the system being assessed, and the developmental impacts of these systemic changes on the programme's target populations.

This diagram is complemented by a second set of diagrams that zoom in to examine specific systemic changes of focus within those priority system functions. The following example looks at a normative shift that Naatal Mbay influenced in which signed contracts and secured inventory

became accepted as collateral for the purpose of agricultural lending. The diagram presents the identified evidence of that systemic change, organised by whether they became more prevalent, less prevalent or stable vis-à-vis programme closure. These changes are also organised along the three dimensions of disruptions, networks and normative changes. The diagram shows that the Integrated Finance Mechanism (IFM) became less prevalent within the rice sector where it was first applied, but grew to be applied across five more value chains by many more borrowers using much more credit. The diagram also reveals how the system for third party monitoring of agricultural warehouses put in place by the IFM was leveraged to support the emergence of a complementary warehouse receipt system following the closure of the programme in which farmers could borrow up to 80% of the value of their crop deposited in those warehouses.

### Signed Contracts and Secured Inventory are Accepted Collateral for Agricultural Lending



We developed these diagrams to provide an overview of how the target systems had changed at-a-glance, but also to examine the nuances within specific systemic changes.

**MarketShare Associates Evaluation Team (Ben Fowler)**

[USAID’s MSD Ex-Post Study Series](#)



[Click here to return to the main text.](#)

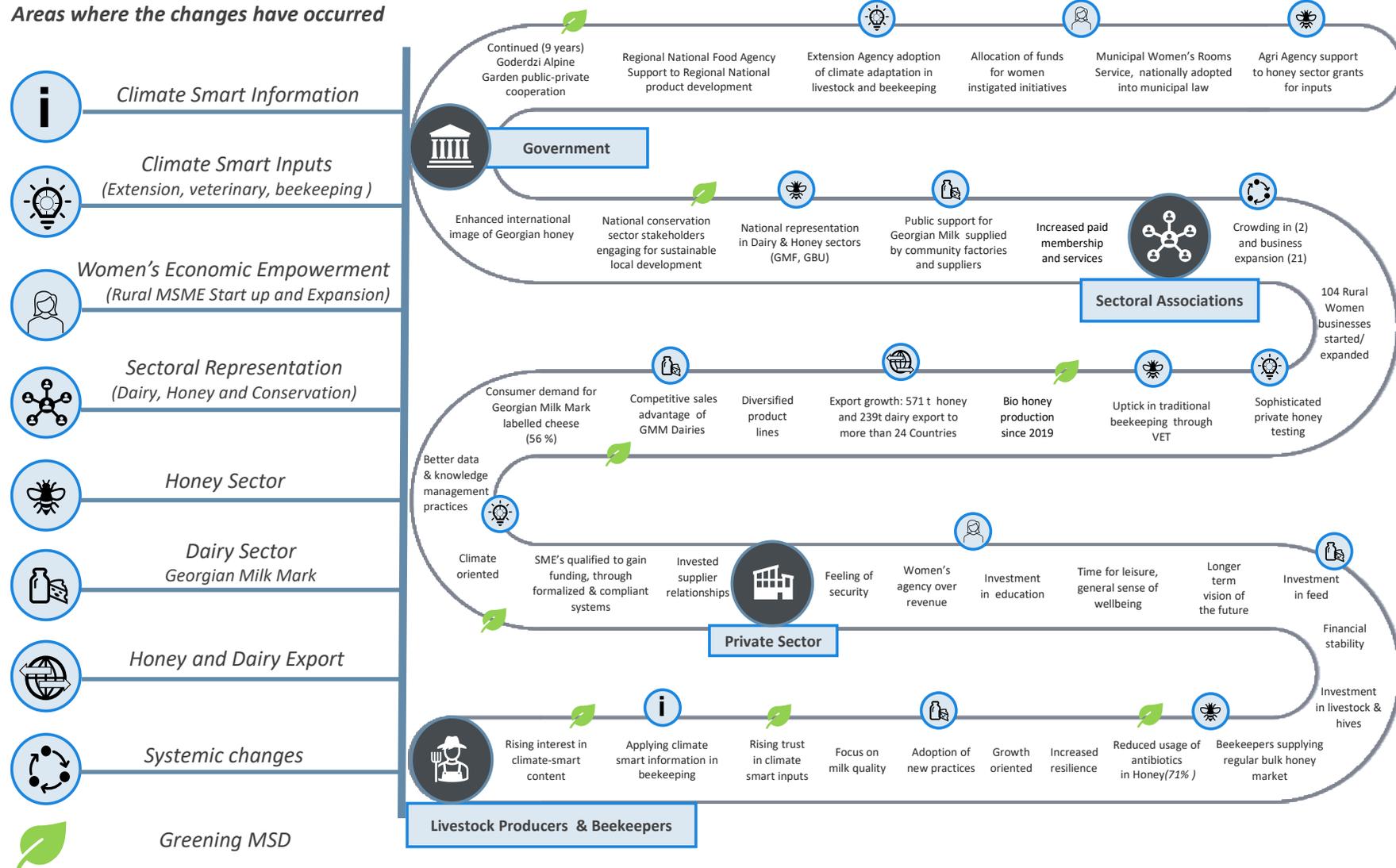
# Alliances Caucasus 2 (ALCP 2) – Georgia - Honey and Dairy

Implementer: Mercy Corps

Donors: SDC, ADC, Sida

## Systemic CHANGES 2022 –2024

### Areas where the changes have occurred



This diagram shows behavioural and system changes at the main levels in which we have effected change across the areas on the left of the diagram. This is our second version of this diagram updated from ACLP 1, reflecting a progression in the programme environment at the four levels. We wanted to show what sustainable change looks like at those levels. The ‘winding path’ element is not so much to imply one change leading to another, but rather to emphasise that changes at the four levels are occurring fluidly. Each change is independent but also part of the whole of the change effected by programme interventions. The changes at each level reinforce each other. For example, funding for women’s initiatives at the government level supports women’s greater investment in livestock ventures and greater sense of wellbeing going forward. Farmers’ rising interest and trust in climate smart solutions feeds into more climate-orientated business and climate-based information and training at sectoral, association and government extension levels. The diagram shows pervasive changes in the private sector, which effect both businesses themselves and the target group.

By the time we made this diagram, we had a lot of evidence of changes, gathered, for example, through the *USAID Leo Testing Tools for Assessing Systemic Change Outcome Harvesting* and an ILO business formalisation *Better Cheese Better Work* review. We were recording ‘traditional’ system changes - copying, crowding-in, business expansion, as well as detailed ‘individual’ behaviour changes across different sectors and interventions. We could see and ‘feel’ the changes happening at all levels and sense their cohesion as adding up to a ‘thickened sector’ i.e. systemic change. We wanted a way to synthesise them and get an overview of the whole of the changes occurring in the programme environment.

To develop the diagram, we collated all our findings, ensuring each was backed by actual proof of significant impact, and then summarised them. We identified patterns, for example based on multiple individual target group member behaviour changes, which, taken together, indicate a powerful change. These types of findings are often ‘relegated’ to ‘qualitative measurement’ and not always synthesised effectively. We wanted to make sure that patterns of behaviour changes are recognised for what they are: definitive evidence of system change. We have also included quantifiable measurements, like tonnes of exports, and business expansion cases alongside significant behavioural changes, such as growth orientation in livestock and beekeeping ventures.

The diagram serves as an intuitive check of our ongoing sectoral strategies. It helps us think and reflect. It is used with other system change tracking documents which are often extremely detailed and focused on an ‘intervention view’. It is not comprehensive in that sense, but provides a very useful synthesis - a ‘helicopter view’.

### **ALCP 2 (Helen Bradbury)**

[www.alcp.ge](http://www.alcp.ge)



[Click here to return to the main text.](#)

# Propcom Mai-karfi – Nigeria – Poultry

Implementer: Palladium

Donor: FCDO

## Evolution of Propcom Mai-karfi's Poultry Intervention

### The Problem:



Rural poultry farmers lose 60-100% of their flocks to Newcastle disease (NCD), a viral disease that can be prevented using affordable thermo-tolerant NDV-i2 vaccines

### Underlying constraints:



**Limited distribution network:** Veterinary companies do not see smallholder farmers as a viable market and lacked the strategy for reaching the bottom of the pyramid



**Lack of information** on the availability of NDV-i2 vaccine: where and who to buy from



**Absence of service delivery agents** to provide the vaccination service to farmers

### Solution:



Propcom Mai-karfi introduced a grassroots model by bringing together various private and public sector actors in a mutually beneficial arrangement that is also beneficial to rural farmers, sustainable and able to reach scale

### Evolution of Propcom's grassroots model:

Formed partnership with Agriproject Concept International Ltd. (ACI) and started pilot in Jigawa state



Trained local distributors and vaccinators on use of NDV-i2 vaccine



Scaled-up grassroots model to other states: Kaduna, Benue, Taraba, Gombe, and Adamawa



Adocated grassroots model to Veterinary Council of Nigeria (VCN) and Nigerian Veterinary Medical Association (NVMA)



Produced video clips to raise awareness of NCD and help with marketing of NDV-i2



ACI distributors started training village-based vaccinators



Partnered with Jigawa state govt. to include NCD vaccination in the state vaccination programme



Introduced a cost-recovery model to ensure better buy-in of trainees and allow trainers to recover their costs



Campaigns and sensitisation events to raise awareness about NCD vaccination



Engaged National Veterinary Research Institute (NVRI) outstations as regional supply hubs



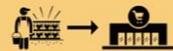
2013

VCN trained vets on the CAHW curriculum.



2014

Facilitated linkages between rural poultry farmers and formal markets, bringing packaged local chickens to retail and online stores.



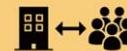
Built capacity of women on improved production and management of local chicken to increase their output of local chicken by 6 fold



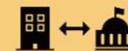
Worked to make NVRI outstations in Kano and Katsina commercially viable to support distribution network and service provision



Linked ACI to CBOs to establish distribution points



Facilitated links between ACI and Niger state department for veterinary services



2015

Partnered with VCN to review curriculum on community animal health workers (CAHW)



Leveraged on existing channels such as fertiliser rural promoters to expand the distribution network

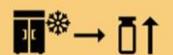


Leveraged non-traditional channels (CBOs and faith-based organisations) to raise awareness about NCD, recruit vaccinators, and distribute vaccines

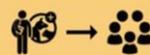


2017

Provided technical assistance to support the installation of freeze drying machine which increased the vaccine production capacity of NVRI



Partnered with a distributor, Ambuvet Konsult, to leverage on the CAHW network to provide ambulatory services in communities.



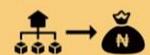
Kaduna and Benue states initiated the CAHW programme



Expanded the training of women to the North East and other regions working with co-facilitators.



Worked with NVRI to reposition Bauchi outstation as a business operation



Expanded the network of distributors and community vaccinators working with partners



Consolidate existing partnerships to focus on the North East (NE) and DFID partner states (Kano, Kaduna, Jigawa)



2016

Identify new private sector partners and INGOs to replicate and scale-up the grassroots model in new locations



Work with NVRI to expand vaccine supply and vet services through the NE outstations in Borno, Bauchi and Adamawa



Support VCN and programme states to establish the CAHW programme



### Key Results (from 2013 to June 2018):



**1,877** vaccinators trained



**53.7k** vials of NDV-i2 vaccine sold



**2.5M+** chickens vaccinated against NCD



**128k** GBP additional income generated for vaccinators



**61,900** farmers benefitted through vaccination



**16,100** women trained on improved production & rearing practices

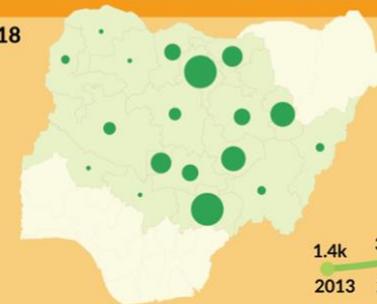


**61%** of all beneficiaries are women



**656k** GBP additional income generated for all beneficiaries

2018



NDV-i2 sales by location and year



In a nutshell, we created the infographic to depict Propcom Mai-karfi's journey in the poultry sector in a visual way. We had done a whole bunch of activities in the sector and I often found it difficult to remember all of them and the order in which they happened. So I created the infographic to showcase Propcom Mai-karfi's journey in chronological order, as well as present some of the key results of the intervention.

These infographics were mostly used for reporting and communication purposes. For instance, I remember that we used this particular one during the visit of the FCDO Secretary of State at the time, Penny Mordaunt. Generally speaking, FCDO really liked these infographics as they helped them to understand as well as communicate our results quite effectively. It was especially popular with our Senior Responsible Owner (SRO) at the time and he encouraged us to do more of these!

### **Propcom Mai-karfi (Mohammed Nurul Azam)**

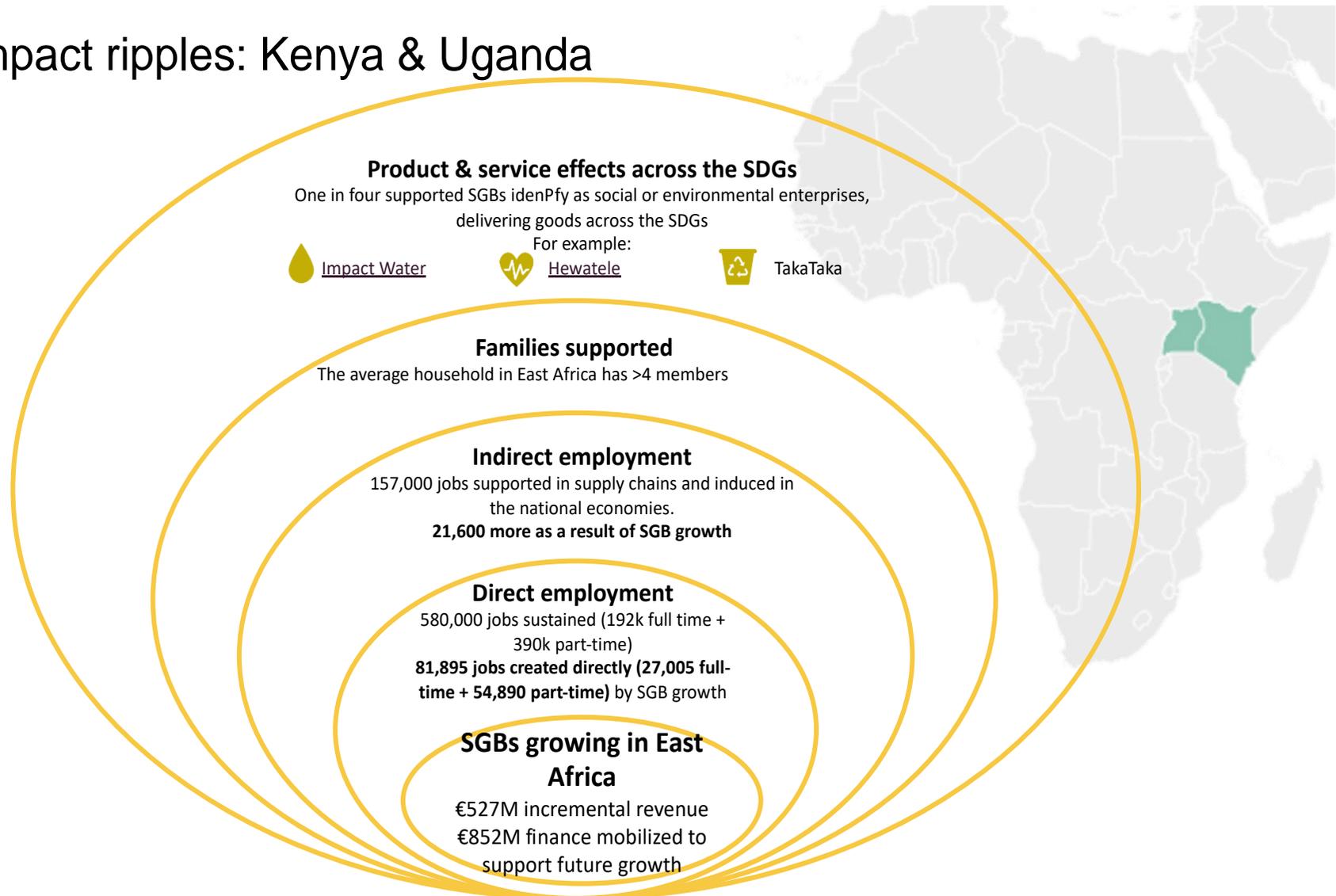
[Programme Profile \(BEAM Exchange\)](#)



[Click here to return to the main text.](#)

Argidius Foundation – Kenya & Uganda – Business Support

# SGB impact ripples: Kenya & Uganda



This slide is part of a presentation on the Argidius Foundation approach and results worldwide. It shows how improvements in small and growing businesses (SGBs) who have received services from Argidius partner business support organisations in turn lead to a range of benefits for workers, families and consumers. The diagram was put together to show our governors how impact ripples out beyond the key performance indicators (KPIs) we directly report. What is not in here, of course, are the productivity gains that are another key ripple, nor the new businesses and models that are performing market creation roles. We choose a limited set of KPIs to better focus on what we are trying to learn (what does and does not work in supporting enterprises to grow). They are a departure point for further enquiry as well as useful proxies, accompanied by external evaluations that look at what's changing, why and our contribution.

**Argidius Foundation (Harry Devonshire)**

[www.argidius.com](http://www.argidius.com)



[Click here to return to the main text.](#)