



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

DO THE IMPACTS OF MSD ACTIVITIES SUSTAIN AND SCALE AFTER CLOSE?

*An Evidence Synthesis from
Recent Ex-Post Evaluations*

August 2024



Feed the Future Market Systems and Partnerships Activity (MSP)



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As part of a **series of ex-post studies** conducted 3+ years after implementation ended, USAID is building the evidence base for **sustainability, scale, and impact** on target populations from use of the market systems development (MSD) approach.



KEY FINDINGS

- The majority of system changes underway at Activity closure **sustained, evolved, and scaled**.
- These are contributing to sector competitiveness and growth.
- Despite withdrawal of USAID support, impact on **yields, income, and scale** of involvement for target populations (e.g. smallholders) maintained or increased.
- This evidence **bolsters the case for investing in MSD**.



Studies in West Africa assessed the lasting legacy of change in two areas: **strengthened networks** and shifts in **business norms**.



In Senegal, improvements in agricultural financing models in the domestic rice sector have now expanded to **five more value chains**, are formerly endorsed by the national government, and are enabling **37%** more companies to access **377%** more in inventory-backed lending.



In northern Ghana, a **higher presence of input companies, buyers, and processors** – enabled in part through an outgrower aggregation model that shifted market organization – is fueling **agricultural growth**.







Applying core MSD approach principles (such as market facilitation) **has been critical to this legacy**. For example, where heavy subsidies were given to farmers to purchase agricultural equipment without addressing systemic finance constraints, few changes remained.

What System Level Changes Were Assessed?

Overall, the studies looked at changes that strengthened networks as well as shifts in business norms at a system level. Each study assessed four specific changes, detailed below. In both cases, evidence showed that three changes had sustained and continued to evolve, while in each case one change was not sustained.





STRENGTHENING NETWORKS



-  Contracting between producers and processors is a widespread practice in the rice sector. *(Senegal)*
-  Farmers have enhanced and expanded digital access to agricultural information. *(Senegal)*
-  Input companies and dealers see a profitable business case for promoting quality inputs to remote farmers. *(northern Ghana)*
-  There is better and more timely access to agricultural inputs and services targeting smallholder farmers. *(northern Ghana)*

SHIFTING BUSINESS NORMS



-  Senegalese rice effectively competes in higher value local markets. *(Senegal)*
-  Market actors accept signed contracts and secured crop as collateral on which to provide increased amounts of credit at reduced risk. *(Senegal)*
-  Buyers and processors consider northern Ghana an attractive and consistent source of high-quality cereals. *(northern Ghana)*
-  Agricultural lenders see smallholder farmers as viable borrowers for agricultural equipment. *(northern Ghana)*

Background to the Ex-Post Series



Market Systems Development (MSD) programming is expected to create **greater scale and sustainability** through facilitation, market-orientation, and focus on systems change.

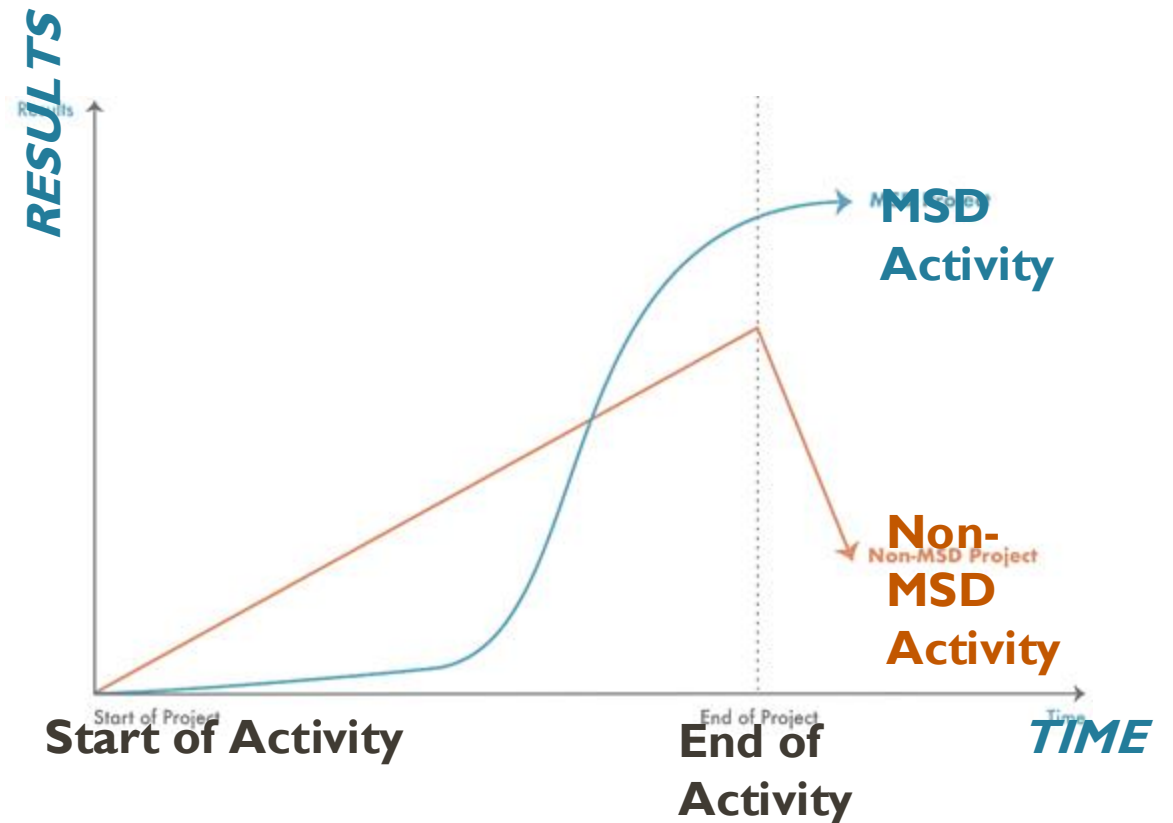


The **MSD "Hockey Stick"** shows the trajectory that an MSD activity is expected to take after Activity end as compared to a non-MSD Activity. However, there has been **limited evidence** to test that understanding.



USAID, through its Feed the Future Market Systems and Partnership (MSP) Activity, is funding a **series of ex-post studies** of programs using elements of an MSD approach to generate this evidence. Available [here](#).

The MSD "Hockey Stick" Trajectory of Results



Adapted from Fowler, Ben (MarketShare Associates), and Jake Lomax. "Measuring what matters: Monitoring and results measurement." In *Making Market Systems Work for the Poor: Experience inspired by Alan Gibson*, 45-57. Edited by Joanna Ledgerwood. Warwickshire: Practical Action Publishing, 2021.

Identifying Activities to Study

Selected Activities in the ex-post series shared these elements:

- ✓ USAID-funded and closed for at least 3 years
- ✓ Had a delay prior to follow-on USAID programming
- ✓ Intentionally sought to facilitate systemic change
- ✓ Had emerging evidence of systemic change at closure

To focus resources, the ex-posts studied specific intervention areas and related systemic changes rather than the entire Activity.

More information on research methods and lessons learned is [available here](#).

Studies Conducted So Far



Feed the Future Naatal Mbay

Country: Senegal

Period of performance: 2015 to 2019

Study conducted 3.5 years ex-post

Focus intervention area: Integrated Finance Mechanism (IFM)

Related sector: Domestic rice



Feed the Future ADVANCE II

Country: Ghana

Period of performance: 2014 to 2020

Study conducted 3 years ex-post

Focus intervention area: Outgrower Business Model (OB)

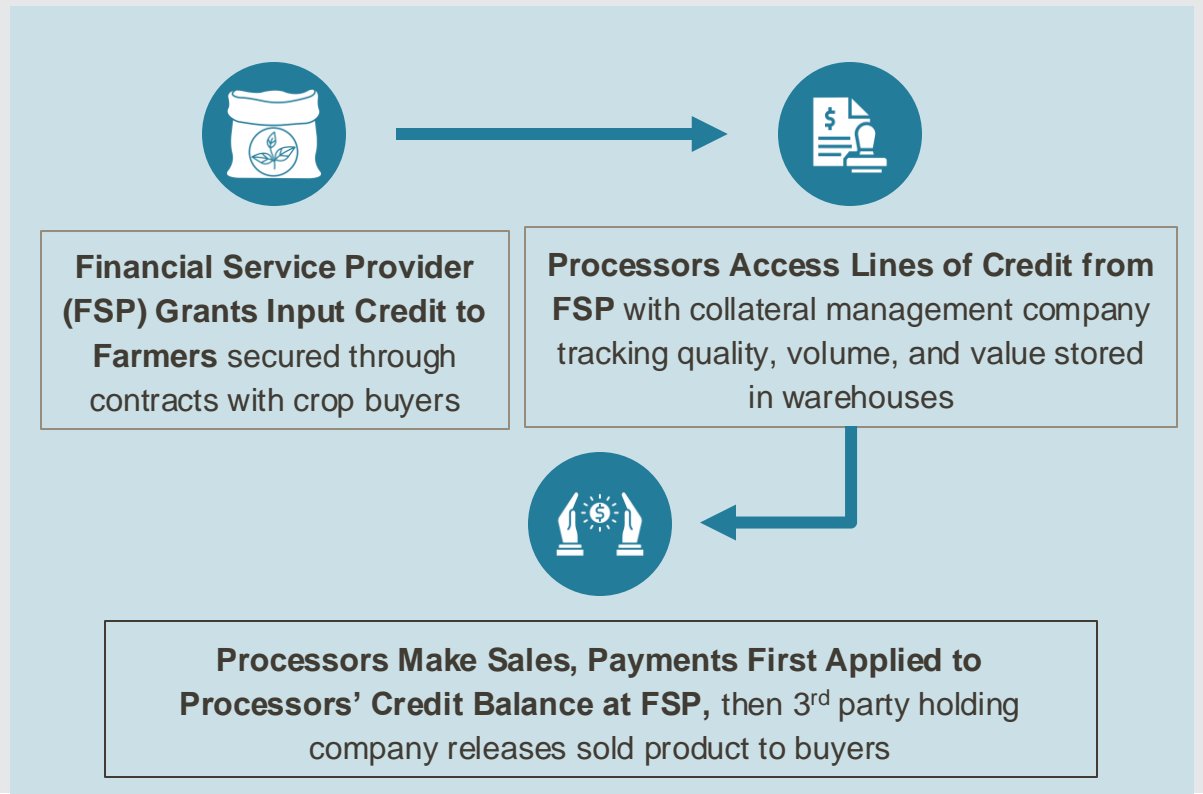
Related sectors: Rice, soybean maize

Additional studies will be conducted in 2025, and an updated cross-study synthesis published in early 2026.



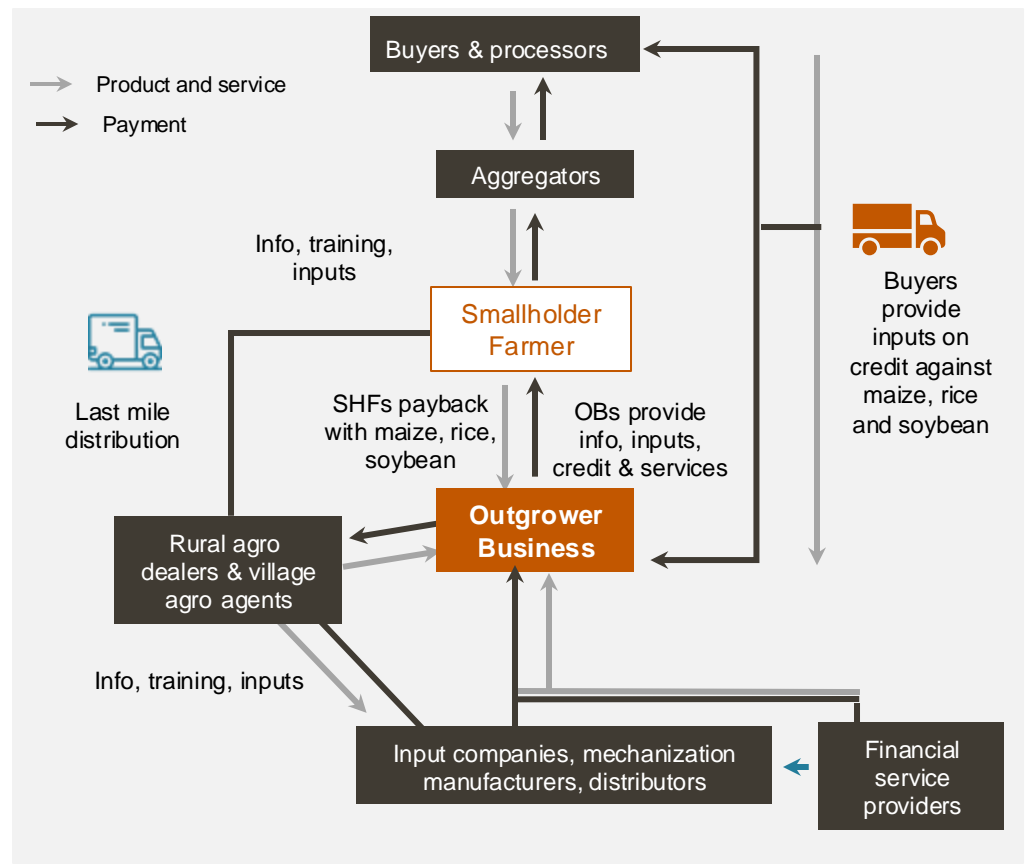
Overview of the Integrated Finance Mechanism (IFM) Model

The model unlocked bank financing by allowing rice processors to borrow against the value of their rice stock, and rice farmers to borrow input financing based on their loans with processors. It also supported formalization of contracting between rice farmer groups and rice processors.



Overview of the Outgrower Business (OB) Model

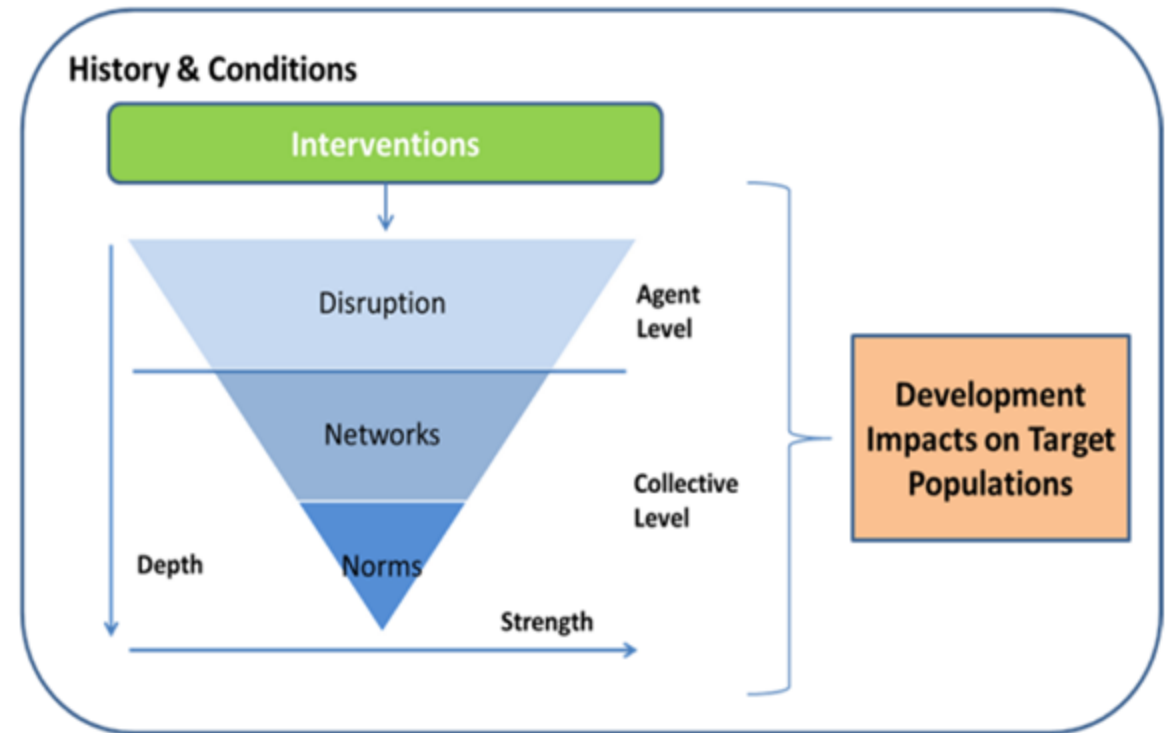
The model filled a missing link between smallholder farmers and market actors: e.g., input companies, institutional buyers and processors, extension, and financial institutions. OBs also offer some services directly at village-level.



Understanding Sustainability Using the Disrupting System Dynamics (DSD) Framework

- » The research used USAID's DSD Framework to guide an understanding of whether systemic changes had occurred following Activity closure.
- » The framework points to **changes in networks and norms** as signs that systemic changes are becoming more deeply rooted and therefore sustainable.

Boundaries



MarketShare Associates. *Disrupting System Dynamics: A Framework for Understanding Systemic Changes*. Washington: USAID Leveraging Economic Opportunities (LEO), 2016.



Evidence for the **Sustainability** of Systems-Focused Approaches

Continuation of business models, shifts in norms, and institutionalization

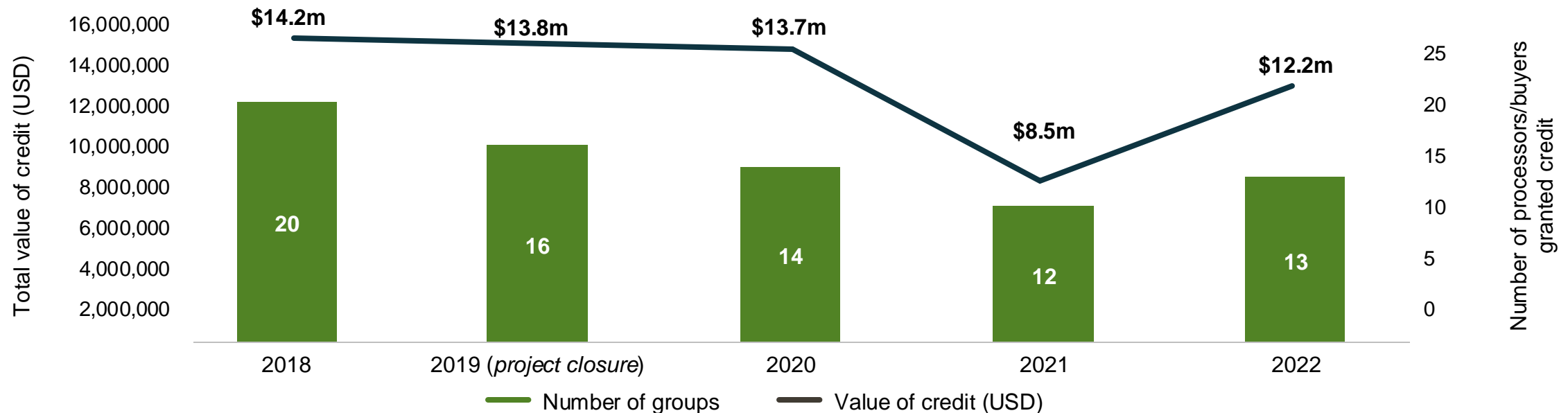
Continuation and Resilience of the Facilitated Business Models: Senegal

The study explored whether the business model endured or not and found that it did.

The IFM was developed through significant subsidies for third-party holding agents to begin monitoring rural warehouses. Subsidies gradually declined, reaching 60% in the final year; and post-closure, banks made third-party holding a condition to continue accessing funding.

The IFM proved resilient to COVID-19 following a one-year drop in 2021. Rice processors accessing the IFM were not static. The total value of credit declined, but not by much during COVID-19, and is on the rebound.

Total value of credit provided to rice processors through IFM



Continuation and Resilience of the Facilitated Business Models: Ghana

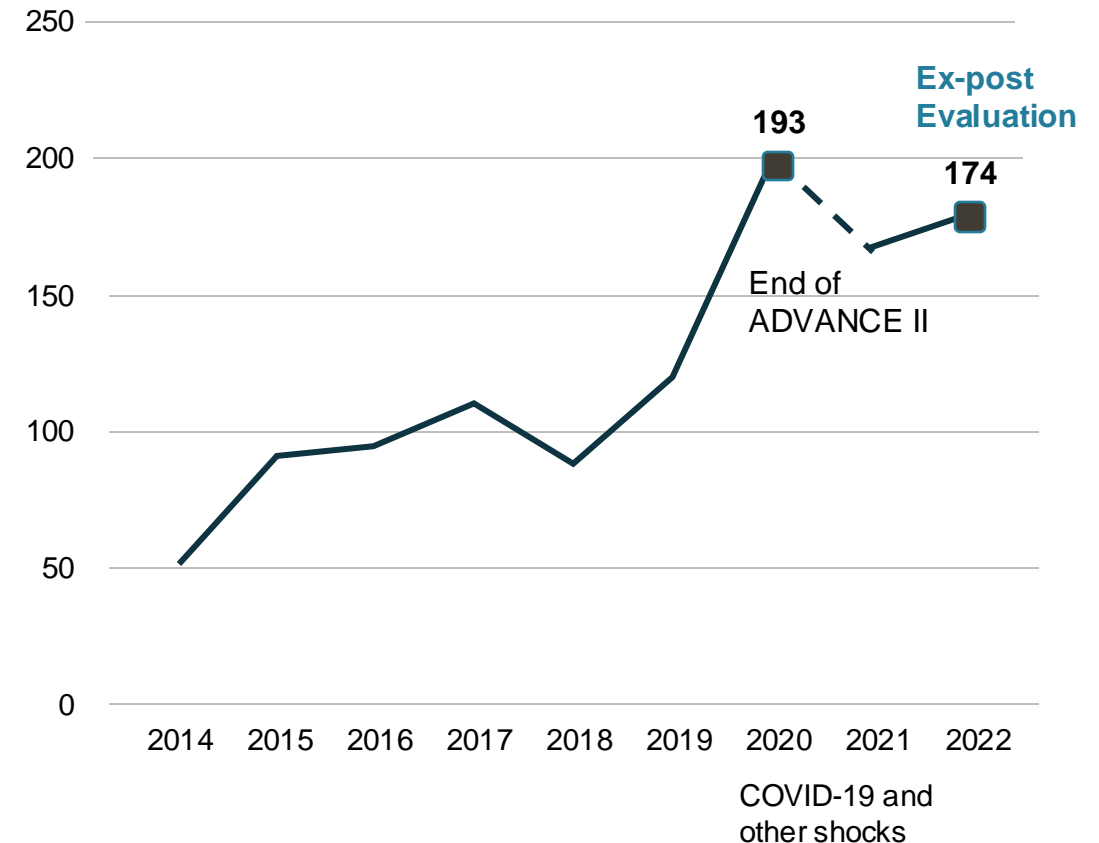


In Ghana, the OB model continues to operate and grow even after activity close in 2020.

Although there was a slight dip in the number of active OBs, the model showed signs of sustainability, with most OBs still active. In addition, nearly 80% of all OBs report offering at least two or more services to their outgrower buyers.

The model also demonstrated signs of resilience. Nearly 70% of all OBs report an increase in investment to grow their business activity, even after the economic downturn due to COVID-19 and Putin's war in Ukraine.

Number of Active OBs



Unsustained Changes: The Case of **Agricultural Equipment Finance** in Ghana

Both programs in Senegal and Ghana used subsidies to tackle financing barriers in the agricultural sector. In Senegal, the Activity initially used heavy subsidies (declining to 60% in the final year) to develop the infrastructure that supported the IFM, and in Ghana, the Activity also tried to tackle financing barriers for agriculture equipment by subsidizing these by 70%.

Yet, **a contrasting story of sustainability emerges.**

While the IFM model in Senegal endured and even strengthened after Activity close, Ghanaian financial institutions did not assume this critical function post-closure. No replacement source of financing emerged for potential buyers of medium and large machinery, like tractors and combine harvesters. This was one of the more costly components of the Activity; yet results were less enduring.



Continuation and Growth of Norms

- » In Senegal, collateralizing agricultural commodities to access credit has become an established norm. Urban consumers no longer view Senegalese rice as inferior to imports.
- » In Ghana, a key change in the norms that contributed to model sustainability was that OBs now maintained financial records and were willing to take risks and invest in business growth and expansion.

Strength of Normative Changes Since Program Close

Less Prevalent

Stable

More Prevalent

Senegal: Inventory lending backed by a third party holding system has become institutionalized as a norm for agricultural commodity lending

Senegal: Consumers see domestic rice as competitive with imported rice

Ghana: Farmers continue to trust OBs as a source of timely and quality inputs and services in Ghana

Ghana: OBs view themselves first as business owners instead of farmers

Institutionalization



SENEGAL

- The infrastructure of third-party holding agents' monitoring warehouses enabled the development of a warehouse receipt system that emerged following Activity closure. Thousands of farmers are now borrowing up to 80% of their harvested crop's value when stored in warehouses monitored by third-party holding agents introduced by Naatal Mbay.
- As a sign of valuing the IFM, in 2022 the Government of Senegal began underwriting a portion of the cost of the IFM for rice processors.



GHANA

- Better-quality cereal production in northern Ghana has led to a surge in national and local aggregators, processors, and buyers.





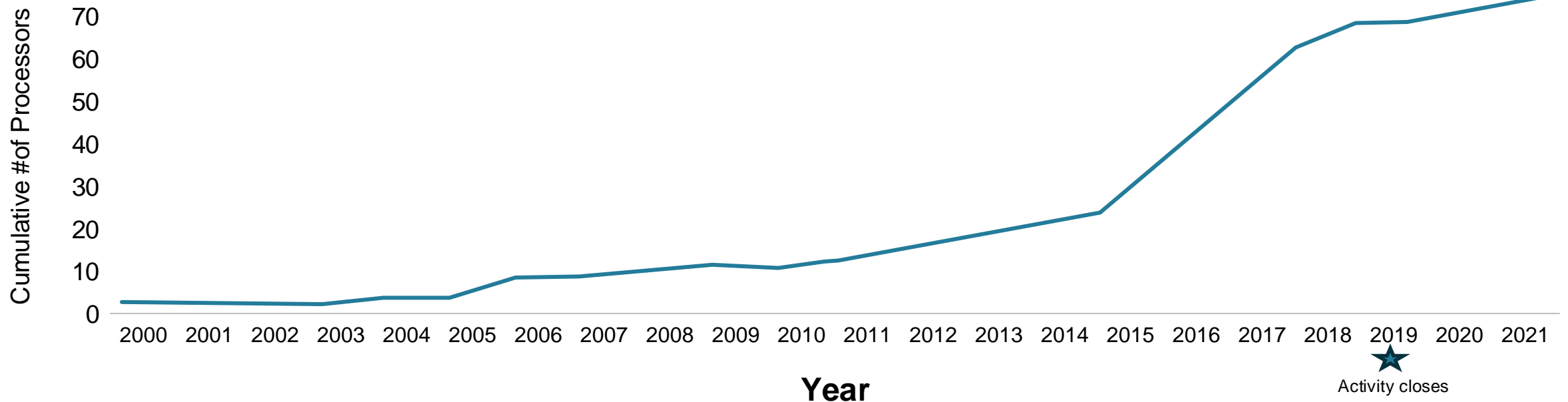
Evidence for the Continued **Scale** of Systems-Focused Approaches

Growth in market actors, value of financing, spread to other value chains/sub-sectors, and clients/service users

Change in Scale: Growth in Number of Processors in Senegal's Rice Sector

The number of formal rice processors has exploded, transforming the Senegalese rice industry. Contracts via the IFM model provided new processors with stability of supply and was an important driver of investment. Similar growth patterns only happened in one other West African country.

Cumulative # of Processors Launching from 2000-2022

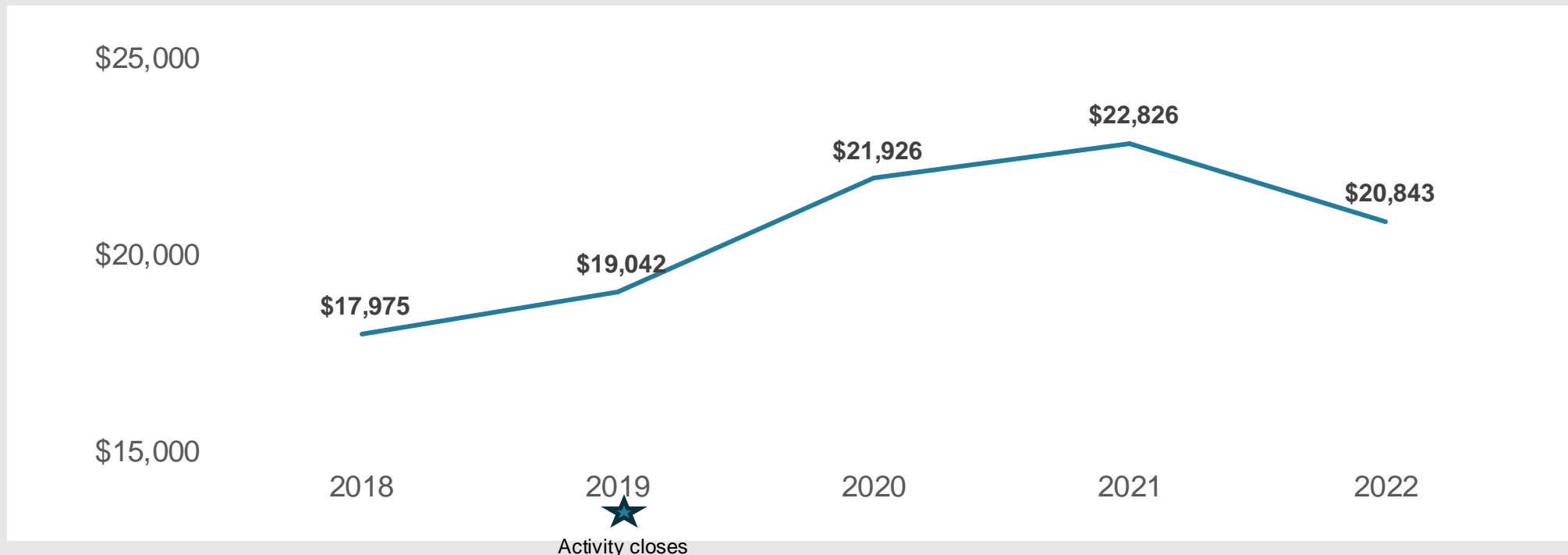


Change in Scale: Financing remains stable for farmer groups through IFM in Senegal's Rice Sector

COVID-19-related repayment challenges caused the number of farmer groups benefiting from the IFM to drop, as banks would not lend to farmer groups who did not fully repay.

However, the growth in processors and strong competition for paddy led rice processors to offer their own financing to farmers who cannot access the IFM. **Farmers' access to financing has not been significantly affected.**

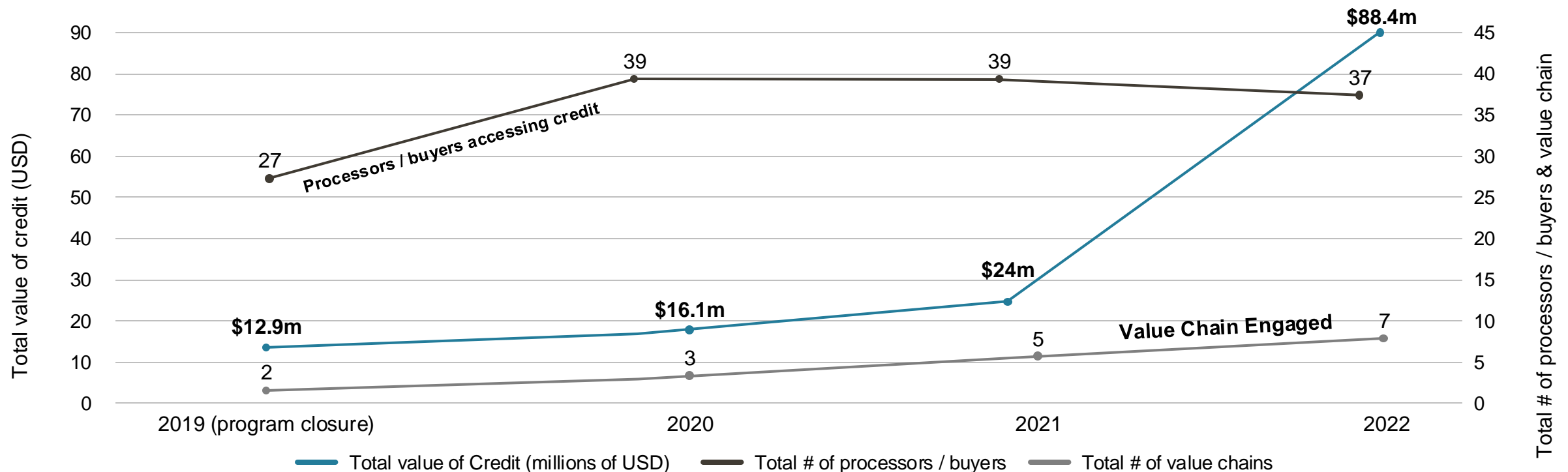
Value of credit provided per farmer group through IFM



Change in Scale: Tremendous Growth in Sector Financing As IFM Spreads Beyond Rice in Senegal

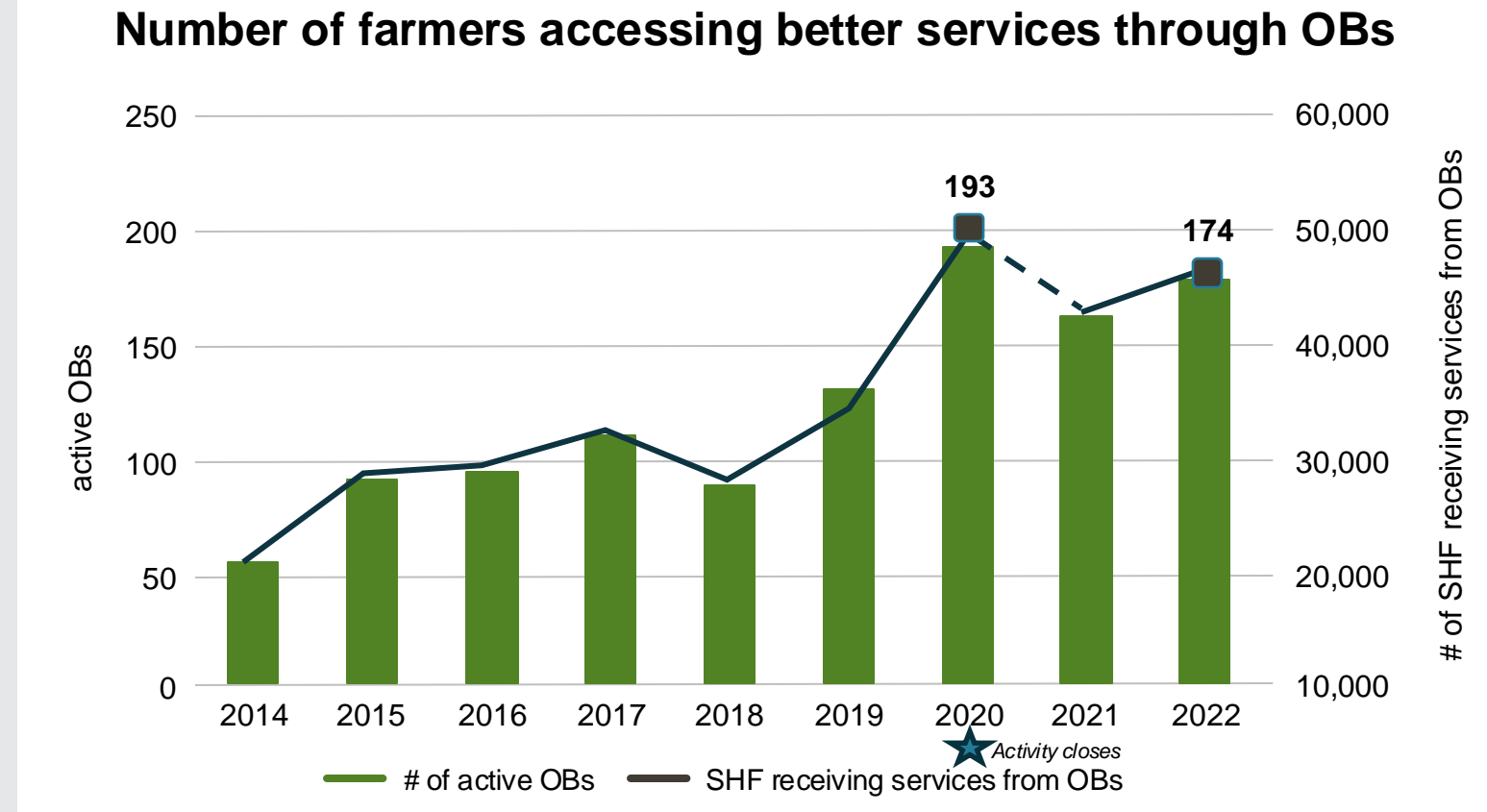
IFM financing spread from two to seven value chains following Activity closure. Nearly 685% more credit was issued in 2022 vis-à-vis 2019.

Scalable Growth of Collateralized Finance Following Project Closure



Change in Scale: Growth in Farmers Using OB Services in Ghana

- » In 2020, each OB on average served 221 farmers; by 2022, that increased to 353 farmers.
- » 94% of OB farmers expressed satisfaction with threshing and shelling services, in comparison to 63% of non-OB farmers.
- » Although the number of farmers was still higher at the activity closure, it remained steady through COVID-19 and bounced back in 2022.





Evidence for the **Impact on Target Populations** of Systems-Focused Approaches

Impact on Target Populations: Smallholder Farmers

These evaluations examined **sustained impacts** (e.g., **income, yields**) on the target population of the two programs.



These evaluations captured evidence supporting **resilience and economic gains** by the target group.



These evaluations measured target group's **satisfaction with the business models**.



Farmer **Incomes** Have Sustained



In Senegal, farmers' gross margins were sustained since program close.

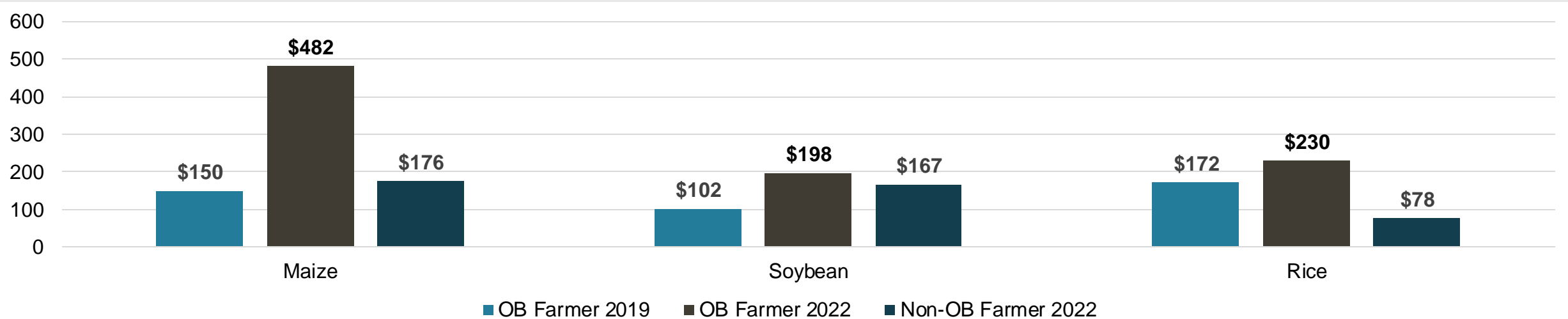
An increase in the sale price of rice has offset productivity challenges due to COVID-19 and climate-related shocks; although overall, financing accessed via the IFM has supported increased productivity (see next slide). Farmers also reported lower financing costs, contributing to higher incomes.



In Ghana, farmers served by OBs earned higher gross margins than non-OB farmers.

Maize and rice farmers' gross margins were 174% and 195% higher respectively, while soybean farmers' margins were 18% higher than non-OB farmers in 2022.

Gross Margin Comparison in Ghana (USD/Acre)



Target Populations' Yields Remained Strong



In Senegal, shifts in the dominant rice production period (from winter to summer) enhanced farmers' yields.

Although more costly due to the irrigation costs associated with cultivating rice in the summer season, yields during that season are considerably higher than those achieved in the winter season (7-8 tons/ha compared to 3-4 tons/ha).

The IFM enabled producers to access loans and make the necessary investments to benefit from these higher yields generated by controlled irrigation.



Target Populations' Yields Have Shown Resilience

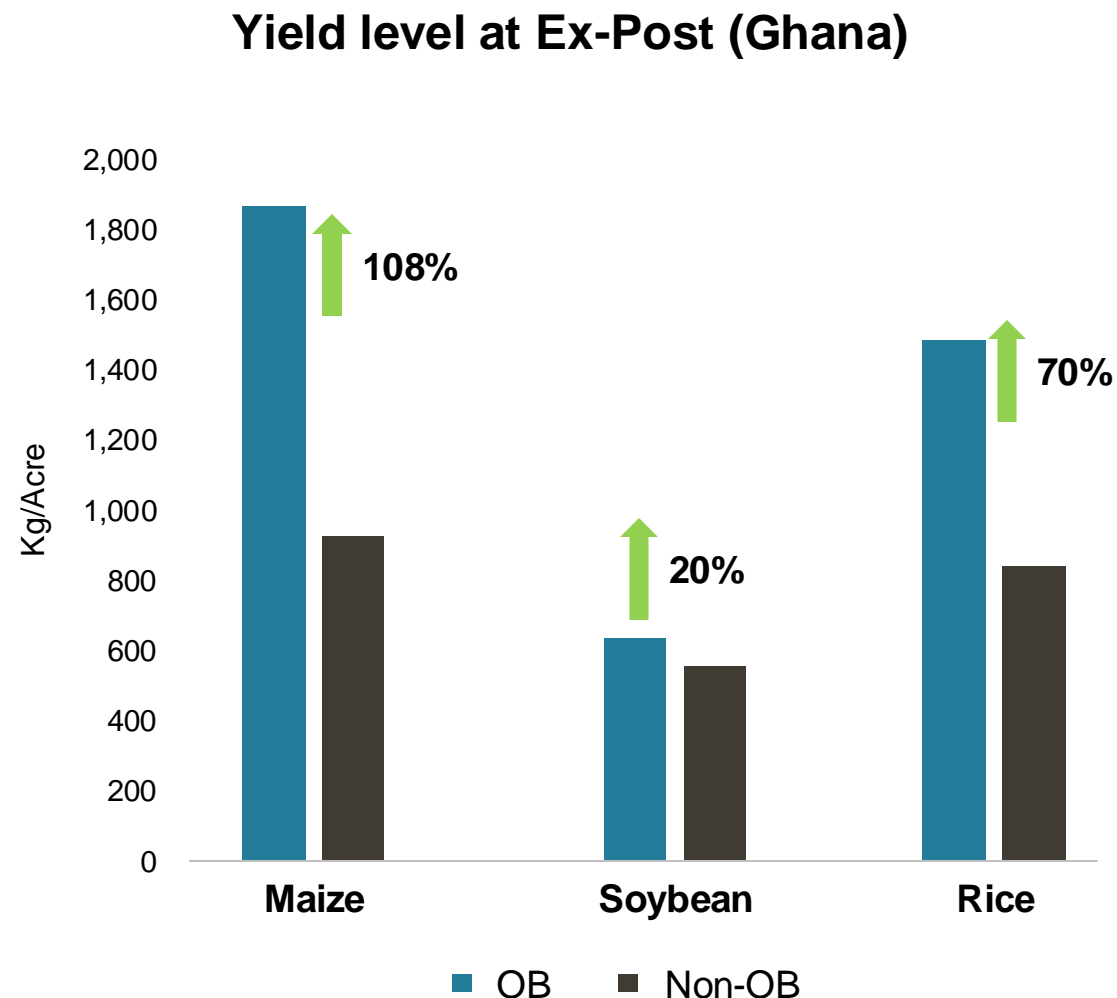


In Ghana, OB farmers achieved better yields compared to non-OB farmers.

In 2022, farmers (OB and non-OB) could not meet 2019 yield levels because of high input costs resulting from COVID-19 in 2020 and economic shocks in 2021-2022.

Yet the 2022 quantitative survey shows that OB farmers achieved better yields compared to non-OB farmers.

Farmers attributed the use of hybrid seeds, quality fertilizer, and pesticides towards higher yields.



Target Populations Show Significant Satisfaction



In both Senegal and Ghana, farmers reported significant satisfaction.

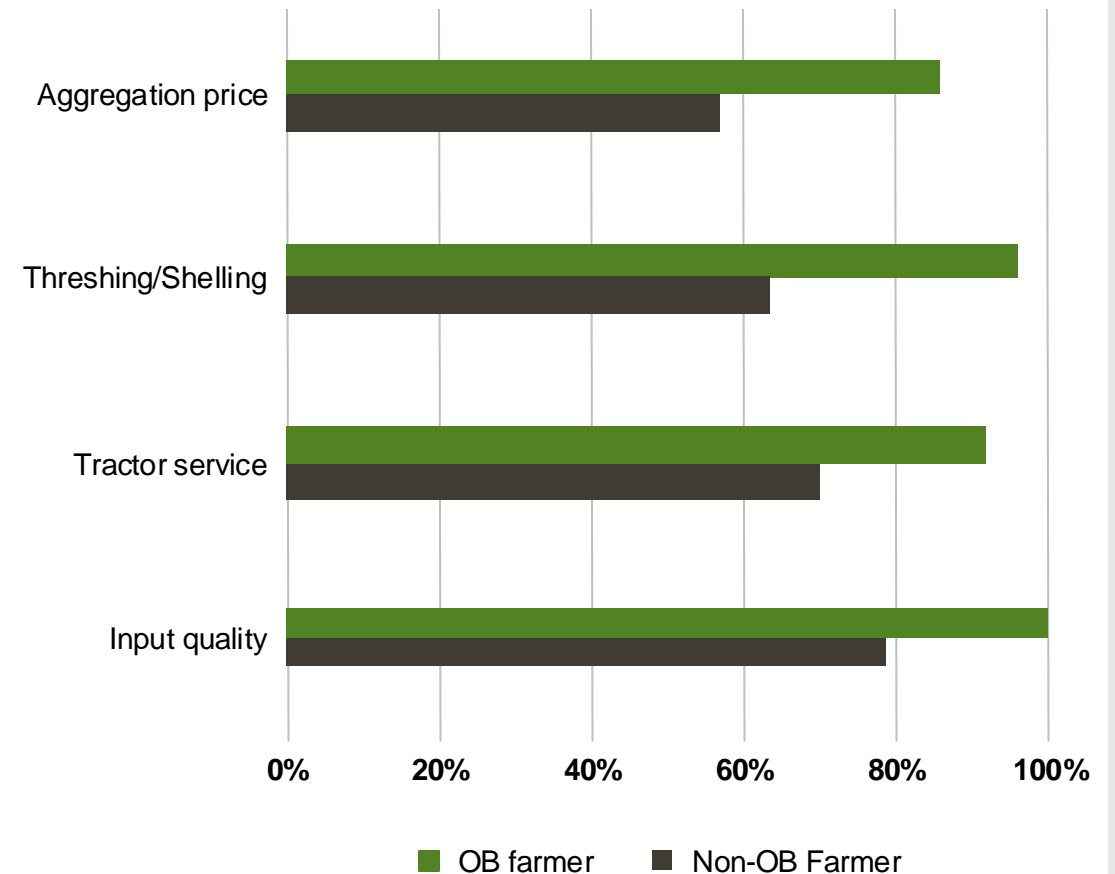
In Senegal, farmers report significant satisfaction with the IFM and benefits accrued. The ability to access input credit is particularly pertinent to farmers given the rising cost of agricultural inputs in recent years. Bank records reflect a 13% increase in the average value of credit provided per rice farmer group through the IFM, from 2019 to 2022. Banks' ability to respond to credit needs of farmers has greatly contributed to farmers' satisfaction with the model.

Farmers value the IFM model as it has continued to create a secure market for them, allowing them to sell their paddy at a stable price, and removing barriers to timely payment.

In Ghana, farmers are highly satisfied with services from OBs and continue to trust OBs as a source of timely and quality inputs and mechanization. OB farmers expressed much higher satisfaction compared with the non-OB farmers for all major services.

OB farmers indicated timeliness as among the top three reasons why they would continue to work with OBs. (34% of non-OB farmers indicated delays as the primary reason for dissatisfaction). Farmers also value access to credit, information, and processors and large buyers via OBs.

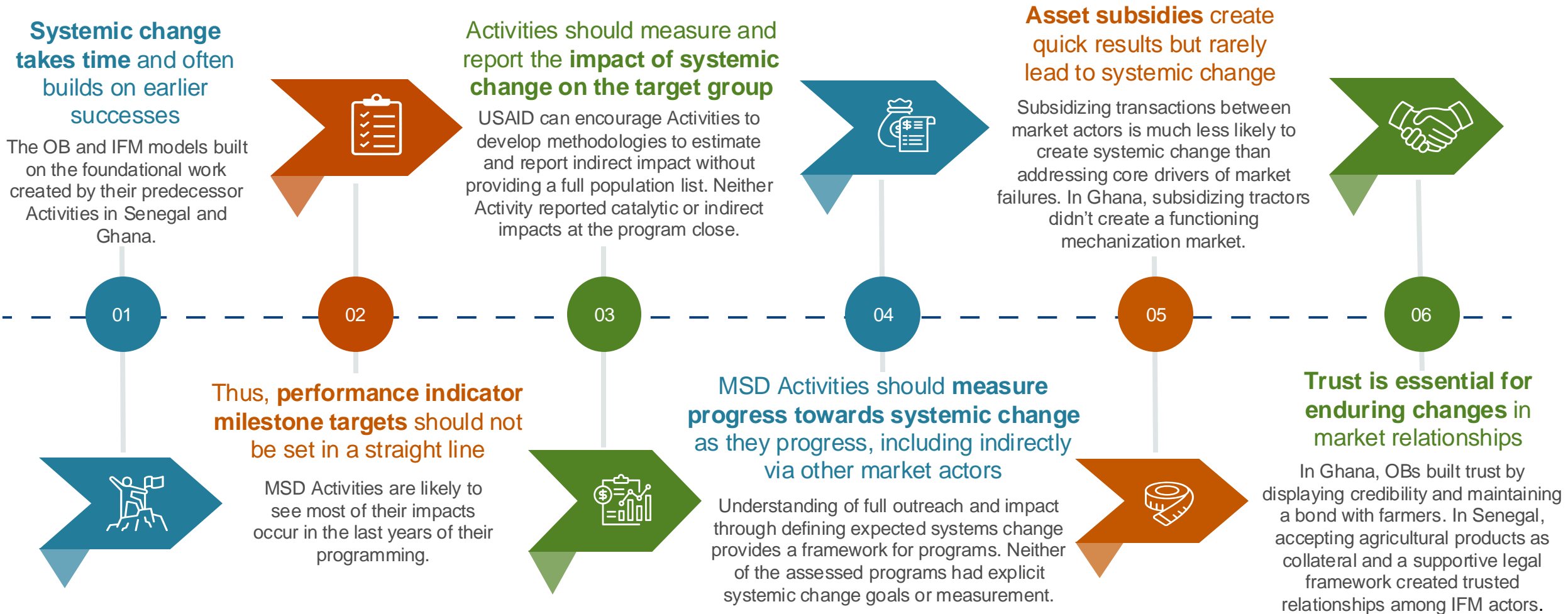
Satisfaction Level at Ex-Post (Ghana)





Implications for Systems-Focused Programs

Six Implications for System-Focused Programming



Acknowledgements

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Access this publication and the full Senegal and Ghana ex-post studies at

<https://agrilinks.org/post/usaid-ex-post-study-series-sustainability-and-scale-change-market-systems-development>



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