

FSP Resilience Learning Brief #02 IMPROVING SMALLHOLDER PO VIABILITY AND SALES

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This brief examines three learning questions on the South Kivu Food Security Project (FSP) resilience learning agenda: (1) How can we conceptualize smallholder producer organization viability in South Kivu? (2) What are the viability strengths and weaknesses of participant POs/YBGs? (3) What relationship exists between viability and sales? The brief uses a complementary mixed-methods approach, leveraging data from consultations, FGDs and the 2020 Season A FSP Producer Organization Viability Evaluation (POVE).

The brief defines viability as the ensemble of necessary conditions to sustainably increase sales per member and profitability. 5 viability dimensions, 15 sub-dimensions and 34 criteria are developed through qualitative analysis and confirmed through quantitative monitoring. FSP participant POs and YBGs can increase their viability by manifesting their legal status, improving their business plans, improving business documentation practices, accessing output market information, increasing engagement with potential buyers, and increasing access to land. The brief further uncovers that POs and YBGs with a higher viability score are significantly more likely to have higher sales. If viability scores were maximized and theoretical assumptions confirmed, we could expect an increase in sales of 30.6 USD per PO member and of 41.2 USD per YBG member from Season A harvest. The brief recommends improving PO/YBGs' understanding of viability and pivoting to individual coaching rather than general training to boost viability and sales.





Background

The South Kivu Food Security Project (FSP) is a five-year USAID/FFP-funded Development Food Security Activity (DFSA) aimed at increasing the food security, nutritional status and economic wellbeing of 210,000 participants in the three health zones of Kalehe, Katana and Miti-Murhesa in South Kivu, DR Congo. FSP works across three purposes: (1) Agriculture and value chain development, (2) nutrition, health and WASH and (3) governance and conflict resolution. The three purposes are supported by a cross-cutting gender and youth approach and apply a resilience lens for sustainable maximum impact despite shocks and stresses. One key focus in FSP is the design and implementation of the FSP Value Chain Strategy, the core of which is centered around enabling producer organizations (POs) and youth business groups (YBGs) to meet agricultural product demand in the intervention zone, thus increasing their profitability and sales, as well as increasing food availability while decreasing food prices.

Design and methodology

This learning brief uses a complementary mixed-methods design to explain how a sustainable increase in sales and profitability can be achieved for smallholder POs/YBGs in South Kivu. To this end, we apply an inductive qualitative analysis of secondary documents, qualitative interviews, and consultations to develop a "viability" construct and confirm the construct's validity through a confirmatory monitoring exercise.

To define necessary conditions of viability, we leveraged findings from a literature review of existing PO assessments, 4 unstructured expert interviews with Mercy Corps program and regional staff conducted in November 2019, 4 participatory ground-truthing workshops with FSP program and semi-structured focus group discussions (FGDs) with 6 POs and 3 YBGs between December and May 2020.

Based on the findings from our qualitative analysis, we then developed a composite viability score and developed the FSP Producer Organization Viability Evaluation (POVE) toolkit to test how well the "viability" construct explains higher sales per member. The POVE toolkit consists of a POVE monitoring tool measuring the composite viability score, as well as the seasonal production and sales commercialized through a given PO/YBG. The POVE monitoring tool is supported by 3 custom-built quality improvement and verification checklists (QIVCs) that assess three key components of the viability construct: (1) business plan viability, (2) correct agricultural technique application, and (3) post-harvest storage practices. The first prototype of the POVE toolkit was administered to all 72 POs and 11 YBGs in April 2020.

Limitations and possibilities of measurement error

(1) Data collected from FSP participants could be subject to interviewer effects, since the data collectors were program or MEL staff associated with FSP. We mitigated against this possibility of error by ensuring that PO/YBG participants would be interviewed by staff who they know and trust. (2) Although the viability construct was identified through an inductive process and strengthened through ground-truthing, it is possible that saturation was not yet reached and other, non-observed factors explaining a sustainable increase in sales and profitability exist (possible omitted-variable bias). (3) The viability scoring methodology was not statistically analyzed to increase its internal validity as this could reduce its practicability. Hence, the viability score should not be confused with the construct seeks to measure (reification fallacy). (4) We found that two viability criteria included in the POVE (value-added processing and access to finance) were subject to insensitive measurement bias. They should be removed or replaced in future iterations of the POVE.

Findings

1. How can we conceptualize producer organization viability in South Kivu's smallholder farmer context?

Necessary conditions to sustainably increase sales per member

Based on our qualitative inquiries, we suggest defining viability as the ensemble of conditions necessary to sustainably increase PO/YBG sales per member, as opposed to profit, in the South Kivu context. Smallholder farmers' livelihood portfolios in South Kivu appear to be characterized by complex financial, material, and social interactions that are difficult to grasp through a financial profit lens. For instance, a commercially oriented farmer could receive reciprocal help, thus increasing her/his productivity for "free". In addition, free seeds distributions from IOs and NGOs can incentivize POs/YBGs not to invest in inputs, thus destabilizing the input market and reinforcing aid dependency. For example, a PO deemed as "vulnerable" could receive free seeds distributions, thus becoming more profitable than a more professionalized PO despite lower sales for as long as it receives external resource transfers. Given these limitations, we recommend defining and measuring viability against sales, not profit, in South Kivu.

Five dimensions of smallholder PO viability

Using qualitative data from interviews and participatory consultations, we identified five dimensions of smallholder PO/YBG viability: (1) Management organization, (2) use of input and extension services, (3) post-harvest management, (4) output market engagement, and (5) access to financial and physical capital.

We further identified 15 sub-dimensions explaining the viability of each of the five dimensions, as well as a total of 34 criteria operationalizing these 15 sub-dimensions for measurement. All 34 viability criteria are normalized on a scale from 0 to 100. Each viability sub-dimension is calculated as the average of all scores from the criteria operationalizing it. Each viability dimension is calculated as the average of all subdimension scores to it. The composite viability score is calculated as the average of all dimension scores contributing to it. No weights have been applied yet to specific components of the viability score.

Management organization viability

The management organization dimension captures the extent to which an organization applies good management practices and processes. Management organization criteria were identified across five subdimensions: (1) legal status, (2) business planning, (3) internal representation, (4) membership participation, and (5) business process documentation.

Four criteria were identified to assess a PO/YBG's legal status viability: The existence of a notarial status, the existence of a notarized internal order regulation, the existence of a legal operating permit, and the existence of a trade register and tax number. To have any legal status, a PO/YBG needs to at least have an internal order regulation and a notarial status. To be allowed to operate as a profit or non-profit making organization, a PO/YBG also requires a legal operating permit. Lastly, to be allowed to function as a forprofit entity, it also needs to obtain a trade register and a tax number. While the short-term utility of this last step depends on transparent taxation, it appears to be necessary to mitigate against legal risks if an organization functions outside the taxation system.

Three criteria were identified to assess a PO/YBG's business plan viability: First, the business plan needs to contain an analysis of market demand specifications for the organization's products. This analysis needs to include a list of potential buyers/markets, buyer/market locations, demand quality specifications, demand

quantity specifications, demand frequency specifications and current product pricing. Second, it should contain an analysis of the organization's product offering This needs to include an analysis of the surface accessible to the organization, of the surface each member can access, a calculation of germination rates, an estimation of agricultural yields, an analysis of post-harvest storage, of post-harvest treatment possibilities, a strategy to reduce pre and post-harvest loss, and an estimation of the overall production that can be commercialized. Third, it needs to contain an analysis of the organization's competition and a detailed strategy to achieve competitiveness and profitability. This should include a strategy explaining how the products offered by the organization will be competitive, a cost-benefit calculation, an estimation of revenues, and an analysis of profit margins.

Internal representation viability can be conceptualized through four criteria: First, a PO/YBG needs to have an elected management committee. Second, the management committee should be inclusive of women and youth to ensure inclusive and representative decision-making. Third, it should hold periodic and documented meetings. Fourth, a general assembly should exist and hold regular, documented meetings.

Active member participation can be conceptualized through the existence of regular contributions of members in accordance with the notarized status or internal order regulation. Particularly in the context of South Kivu, where development actors routinely provide free handouts to POs, we found that active paid membership serves as a good proxy indicator for members' willingness to invest in agriculture as a business.

Five necessary components of business process documentation were identified through qualitative inquiries. First, a viable PO/YBG needs to have an up-to-date registry of anticipated and actual production to facilitate business planning and output market engagement. Second, it needs to have an up-to-date storage registry distinguishing between individual and group-level production. While potentially context-specific, we found that almost all POs/YBGs have both individual and group-level production and use or seek to use post-harvest storage to increase revenues by selling at a later point. Third, members should receive entry and exit receipts to establish trust among PO/YBG members and members of the management or storage committee, and to maintain transparency and mitigate against fraud. Fourth, an up-to-date sales registry distinguishing between individual and group sales needs to exist. Fifth, a cash book documenting the organization's revenues and expenditures needs to exist, be consistently maintained and be up to date.

Input and extension viability

The input and extension service dimension captures both the way in which a PO/YBG uses input and extension services, as well as the extent to which it applies and replicates the knowledge gained through extension services internally to guarantee consistent quality of production. Four sub-dimensions were identified: (1) financially sustainable use of extension services, (2) internal coherence and quality management, (3) application of agricultural techniques, and (4) financially sustainable access to inputs.

Two criteria were identified through qualitative inquiries to assess extension service viability. First, a PO/YBG requires regular technical advice. More research should be conducted to understand what factors best enable knowledge transmission through extension services, what extension techniques are the most appropriate in a given context, and what frequency is appropriate. It may therefore be arbitrary to simply set an "optimal" frequency for technical advice. However, program teams reached consensus that if a PO/YBG receives advice less frequently that once a month, it would likely not achieve optimal production outcomes in the South Kivu smallholder farmer context. This statement also assumes that "internal extension" mechanisms for knowledge transmission from the management committee to members are in place.

Second, the extension services should be directly or indirectly paid for by the PO/YBG, to ensure the financial viability of these extension services in the absence of development actors. While program and PO members agreed on the importance of paying for extension services either stand-alone in cash or in-kind, or as a "package" together with paying for inputs, more formative research needs to be done to understand what payments and what exact extension business models will be the most viable.

Three criteria assessing internal coherence and quality management were identified: First, in the South Kivu smallholder farmer context, a PO/YBG needs to have a group plot used to demonstrate the usefulness of promoted agricultural techniques to foster their adoption by its members. 1 Second, the organization needs to have a pool of agricultural technicians who regularly provide advice to its members to foster the correct application of promoted techniques. Third, to ensure that promoted techniques are well documented and accessible, the organization's technicians need to conduct regular quality visits using pre-defined checklists of promoted agricultural techniques.

The agricultural technique application sub-dimension can be measured by assessing whether or not promoted agricultural practices known to sustainably increase productivity are being applied correctly by PO members. Although very time-consuming, this would ideally be measured for each PO member or a representative sample of members. For monitoring purposes, program staff argued that it could be sufficient to assess agricultural technique application on the group plot, while ensuring that internal coherence and quality management mechanisms exist. 15 resilient agriculture practices applicable to all plots and 3 additional practices applicable to plots on slopes were identified by program team member in a participatory process, based on a technical review of the TOPS Permagarden Technical Manual² and the Resilience Design in Smallholder Farming Systems Toolkit³. These include (1) cultural practices, (2) soil fertility practices, (3) integrated pest and disease management, and (4) anti-erosion techniques.

Two criteria were identified to assess **input service viability** in the South Kivu smallholder farmer context. First, a PO/YBG needs to use biofortified seeds of at most the third generation from a recognized supplier. The FGDs conducted with PO and YBG found no agreement on what supplier in South Kivu could best be trusted, pointing to potential difficulties in the rules and regulations governing the local input market system.⁴ However, there appears to be consensus that one could expect a higher quality of seeds provided by seeds multipliers, the Institut National pour l'Etude et la Recherche Agronomiques (INERA) or specialized not-forprofit organizations, or of seeds approved by the Service National de Semences (SENASEM). Second, a PO/YBG should pay for input services, to ensure the financial viability of these services in the absence of development actors. As with extension services, the qualitative interviews found that there appears to be a trade-off between short-term profitability and long-term sustainability: As long as development actors hand out inputs for free, POs/YBGs might achieve greater profit margins by trying to obtain these free inputs, especially if their quality is acceptable. However, this could undermine the long-term profitability of the seeds market system.

¹ For more information about the importance of demonstration plots in fostering internal coherence and quality management, see: Mbure, Gitau and Sullivan, Claire (2017). Improving the Management of Agriculture Demonstration Sites in Food Security Programs. A Practitioner's Guide. Washington, DC: World Vision.

² The Technical and Operational Performance Support (TOPS) Program (2017). TOPS

Permagarden Technical Manual (second edition). Washington, DC: The TOPS Program and Mercy Corps.

³ The Technical and Operational Performance Support (TOPS) Program (2017). Resilience Design (RD) in Smallholder Farming Systems Approach Toolkit. Washington, DC: The TOPS Program and Mercy Corps.

⁴ Also see: Mercy Corps (2020 forthcoming). Sustaining the Gains: Qualitative Evidence on the Sustainability and Resilience of Outcomes in FSP-Enyanya. Prepared by Bratz, Arno. Bukavu, DRC: Mercy Corps. Chapter 3.5.

Post-harvest management viability

The post-harvest management dimension of PO/YBG viability captures the extent to which an organization applies improved harvest storage and processing techniques.

Three criteria could be identified to capture **harvest storage viability**: First, a PO/YBG needs to have access to a storage unit, such as a depot, container, or agricultural collection center (ACC). Second, the majority of PO/YBG members should store a part of their production in the storage unit. Consultations with program team members found that prices for agricultural products would skyrocket two months after harvest, since FSP intervenes in a food deficit zone with limited storage and processing capacities. Consequentially, the existence and use of agricultural storage units contributes to meeting market demand and to positive PO/YBG cash flows, enabling virtuous development cycles. Third, minimum storage standards needs to be met in order to mitigate against post-harvest loss and achieve positive sales margins through storage. 30 storage minimum standards applicable to smallholder POs and YBGs were identified through consultations with program, commodity management and post-distribution monitoring teams, based on a review of the TOPS Commodity Management Toolkit.⁵

Although consensus was established that **value-added processing** is a necessary contribution to sustainably increasing PO/YBG sales per member, we could not identify a prescriptive set of value-added processing techniques that could reliably increase sales margins. This is partially because different processing techniques are applicable to different agricultural products, and partially because the profitability of a given processing technique depends on regularly changing market demand dynamics. As such, only one criterion could be identified through qualitative methods to assess processing viability: POs/YBGs needs to apply at least one value-added processing technique, such as sorting or calibrating production, drying or grading. Note that the quantitative Producer Organization Viability Evaluation (POVE) monitoring tool showed that 95% of all participant POs and YBGs already apply at least one value-added processing technique. The criterion is thus subject to insensitive measurement bias and should be removed or replaced in future iterations of the POVE.

Output market engagement viability

The output market engagement dimension captures the extent to which a PO/YBG accesses relevant and up-to-date output market information, and the extent to which it engages with potential buyers or market platforms.

Two criteria were identified to assess a PO/YBG's **access to information**. First, it needs to possess a list of buyers or target markets, for instance as part of its market research documentation or its business plan. Second, if it targets output markets with no pre-defined prices, it needs to have access to a list of recent market prices to assess sales and profit margins.

In addition to accessing market information, participants and staff stated that a PO/YBG needs to have market or **buyer engagement**. This may be in the form of a spoken or written sales protocol. Contract farming, a common mode of formalized business partnerships between producers and buyers, appears not to be a realistic option yet. Our qualitative interviews and consultations suggest that producers' level of trust

⁵ The Technical and Operational Performance Support (TOPS) Program. (2019). Commodity Management Toolkit. Version V2.2 January 2019. Washington, DC: USAID and TOPS.

in buyers is still low, whereas potential buyers are not convinced that producers can deliver the agreed upon quantity and quality of agricultural products.

Financial and physical capital viability

The financial and physical capital dimension of PO/YBG viability captures the extent to which an organization has sufficient access to savings or credit to finance business operations throughout the agricultural season, and the cultivatable surface it accesses. Note that financial and physical capital appear to be complementary goods: An organization that can access more financial capital can invest in more land, therefore increasing overall production, therefore obtaining higher sales and profit margins, therefore accessing more financial capital.

Two types of (informal) access to financial capital were identified: Formal credit through a microfinance institution, financial cooperative or bank, and informal credit and savings through village savings and loan associations (VSLAs). However, no POs or YBGs interviewed already have access to formal credit, and program staff were not optimistic that this could be achieved by POs/YBGs in a time-sensitive manner. This criterion was thus omitted to avoid insensitive measurement bias in the PO/YBG viability score. Instead, to capture informal access to savings and credit, program team members and PO/YBG participants reached consensus that a PO/YBG should either manage a VSLA or the majority of members should be in a VSLA. However, quantitative data from the POVE confirmed that in 89% of all participant PO/YBGs, an internal VSLA already exists (usually to help members pay their membership fees) or the majority of members are already in a VSLA in their village. This criterion is therefore equally subject to insensitive measurement bias and should be removed or replaced in future iterations of the POVE.

Two criteria were identified to assess a PO/YBG's **access to physical capital**: plot sizes and land access modes. Specifically in the FSP context, where the average land area accessed by farmers is between 0.24ha and 0.30ha, program teams reached consensus that to achieve the sales increase targeted in the FSP Value Chain Strategy⁶ from 6 USD per year to 72 USD per year, a minimum surface of 0.35 would be required. While grounded in objective target setting, this value would most likely need to be re-assessed if the POVE was to be applied in other project contexts. Regarding land access modes, ground-truthing with PO management committees showed that it would be impossible to reliably keep track of the proportion of members' agricultural surface under secure and free land access (cadastral ownership, customary ownership or the traditional donation practice *kalinzi*) and under paid land access (rent, sharecropping). While these dynamics continue to be explored through the FSP Seasonal Farmer-based Survey (SFBS), the land access mode criterion had to be removed from the POVE due to its lack of operationalizability.

2. What are the viability strengths and weaknesses of participant POs/YBGs?

General findings

The average viability score across all 83 organizations monitored in April 2020 is 50.7 on a scale from 0 to 100. We found only slight variations across the three health zones where FSP intervenes, with an average score of 48.2 in Kalehe, 56.3 in Katana and 48.8 in Miti-Murhesa. The average viability score among the 72 POs is 52.71. The average viability score among YBGs is 37.74.

⁶ Mercy Corps (April 2020). Enyanya – South Kivu Food Security Project. Value Chain Strategy. Prepared by Powell, Tristan; Bratz, Arno; Muliri, Justin; Odinga, Daniel; Daniel, Jean. Bukavu, DRC: Mercy Corps.

Strengths and weaknesses per viability dimension

With respect to the five viability dimensions, the POVE data indicates that the biggest opportunity for improvement lies in improving the output market engagement of POs and YBGs: On average, POs and YBGs obtain a score of only 18.4 on this dimension. Another opportunity appears to lie in management organization, where the average score is 46.3. There is only limited variance across the three health zones.

Table 1: Total viability scores and dimension scores, by health zone.

Dimension	Kalehe	Katana	Miti-Murhesa	All Zones
Management Organization	44.9	51.0	43.7	46.3
Inputs and Extension	43.3	55.9	52.8	50.2
Post-Harvest Management	66.21	76.64	67.3	69.6
Output Market Engagement	16.9	24.0	15.2	18.4
Financial and Physical Capital	69.4	74.0	65.2	69.3
Total Viability Score	48.2	56.3	48.8	50.7

Strengths and weaknesses per sub-dimension

A more detailed analysis of the sub-dimension scores reveals that on average, participant POs/YBGs perform well (scores of 70 or above) on internal representation, value-added processing and informal access to financial capital. This is not surprising: FSP has invested strong efforts into gender and youth-equitable decision-making in all participant groups. Moreover, as noted above, the criteria used to measure valueadded processing and informal access to savings and credit appear to suffer from insensitive measurement bias.

The analysis of the sub-dimension scores also shows that on average, participant POs/YBGs perform poorly (scores of 40 or below) do not perform well on legal status, business plans, business process documentation, access to market information, buyer engagement, and access to physical capital. In addition, in Kalehe, POs/YBGs do not perform well on the use of extension services, coherence and quality management and storage practices. In Miti-Murhesa, POs/YBGs do not perform well on storage practices.

In addition to variance by health zones, we also identified strong variance (standard deviations of over 30 points) between the POs/YBGs in each health zone. Strong variance can be observed regarding organizations' legal status, business plans, membership participation, storage practices and access to financial capital. These results indicate that POs/YBGs face individually different viability challenges and consequentially require different types of capacity building to improve their viability.

Table 2: Viability sub-dimension scores, by health zone. High performance (>=70 pts) marked in green, low performance (<=40 pts) marked in red.

	Dimension	Kalehe	Katana	Miti- Murhesa	All Zones
Management Organization	1.1 Legal status	37.1	31.3	12.5	26.9
	1.2 Business Plan	40.9	37.6	37.6	38.7
	1.3 Internal Representation	75.0	76.6	85.3	78.9
	1.4 Membership Participation	54.8	69.4	61.9	62.1
	1.5 Business Process Documentation	16.8	40.0	21.1	25.9
	2.1 Use of Extension Services	28.2	56.3	42.9	42.4
	2.2 Coherence and Quality Management	34.8	47.6	46.3	42.9
	2.3 Agricultural Techniques	44.9	52.1	46.1	47.7
	2.4 Access to Inputs	65.3	67.7	75.9	69.6
Post- Harvest Management	3.1 Storage Practices	38.9	57.5	38.2	44.8
	3.2 Value-added Processing	93.5	95.8	96.4	95.3
Output Market Engagement	4.1 Access to Information	25.8	22.9	25.0	24.6
	4.2 Buyer Engagement	8.1	25.0	5.4	12.8
Financial & Physical Capital	5.1 Access to Financial Capital	90.3	95.8	82.1	89.4
	5.2 Access to Physical Capital	48.4	52.1	48.2	49.6

3. What relationship exists between viability and sales?

Organizations with higher viability scores have higher sales per member

A linear regression analysis shows that POs and YBGs that have higher viability scores also had higher sales per member from the Season A harvest commercialized through them. The results are significant at a level of p=0.02 among POs and p=0.04 among YBGs. On average, with every additional point on the viability scale, a PO has a 98% likelihood of earning 0.66 USD more in sales per member. YBGs have a 96% likelihood of earning 0.69 USD more in sales per member with every additional point on the viability scale.

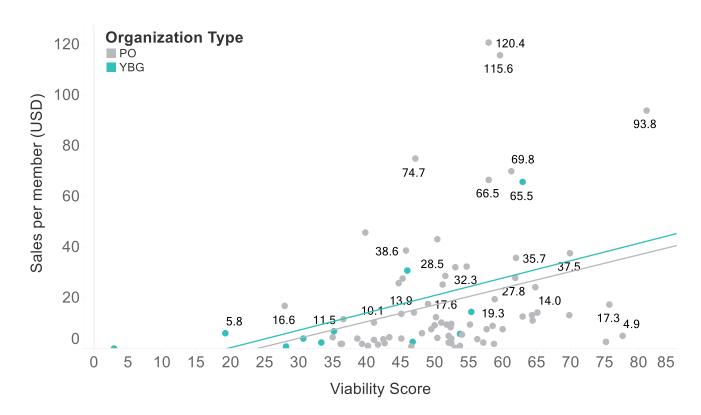


Figure 1: Linear regression of sales per PO/YBG member and viability scores.

In theory, FSP could expect an average increase of 30.6 USD in sales per PO member and of 41.2 USD in sales per YBG member if the average viability score were improved to 100 points. This estimation, however, assumes that there is a causal effect between viability and sales, that each component of the viability score accounts for an equal increase in sales per member, and that all variables not accounted for remain stable.

Although the viability score is grounded in qualitative analysis and although we have found a strong correlation, these results are still insufficient to assume that an improvement in viability does indeed cause an improvement in sales. Longitudinal analyses should be conducted after the 2021 Season A harvest to examine this learning question. In addition, the data includes some outliers that may point to unobserved variables omitted from the analysis, which might result in measurement error. Another possible explanation could be that the number of POs and YBGs in FSP is too small to sufficiently account for random variance. Lastly, we have noted that our viability criteria used to measure value-added processing and access to

financial capital suffer from insensitive measurement bias, and that there appears to be no currently reliable way of knowing which suppliers provide the highest-quality inputs. If these three criteria are further refined to better represent the concepts they should measure, and if relevant unobserved variables are identified and included in future iterations of the POVE, we can expect more precise explanations of increases in sales per PO/YBG member.

Observed variables other than viability cannot explain higher sales per member

Although causal analysis is not yet possible with the cross-sectional data from the first POVE collection, we have conducted additional analyses to understand if other observed variables other than viability could explain higher sales per member. None of these variables – e.g. the age of the organization, the number of members or its total agricultural surface – can explain higher sales per member.

Recommendations

Program Recommendations

1. Improve PO/YBGs' understanding of viability to enable local ownership.

The currently available evidence confirms that organizations that are more viable also have higher sales per member. Although we cannot investigate causality due to the absence of longitudinal data, the qualitative and quantitative findings from this brief appear to provide "good enough" evidence to consider the "viability" construct as a solution to boosting sales and profit. FSP P1 teams should hold structured meetings with PO and YBG committees to introduce them to the viability dimensions and sub-dimensions, in order to help them self-assess their strengths and weaknesses and develop appropriate action plans.

As part of this exercise, FSP P1 teams should provide all three quality improvement and verification checklists (QIVCs) so that PO and YBG committees themselves can assess their business plans, promoted agricultural techniques and storage practices, and implement corrective actions if needed. The POVE monitoring tool itself should not be provided before the end of the project to prevent response bias in future collection rounds.

2. Prioritize market engagement and management organization in the PO capacity building strategy.

Although some variance is noticeable between POs and YBGs in all three health zones, there appears to be a general need for improved market engagement and management organization. FSP P1 teams should prioritize closing these two most obvious gaps in the upcoming months.

3. Improve PO/YBGs' legal status, business plans, business process documentation, access to market information, buyer engagement and access to land.

On average, POs and YBGs score 40 points or less on a scale from 0 to 100 on the sub-dimensions of (1) legal status, (2) business plans, (3) business process documentation, (4) access to market information, (5) buyer engagement, (6) access to physical capital. FSP P1 teams should facilitate reflective sessions with PO and YBG committees to formulate and implement improvement plans so that these six items can be addressed effectively.

In addition to these six items, FSP P1 teams should help POs and YBGs improve the regular, paid use of extension services, establish coherence and quality management processes, and improve their storage practices. In Miti-Murhesa, FSP P1 teams should also help improve POs' and YBGs' storage practices.

4. Pivot from static training curricula to individualized coaching.

Given that we found strong variance in POs' and YBGs' performance across multiple sub-dimensions, it will likely not be very effective to train all POs and YBGs on the same themes. For instance, a PO that has already acquired a tax number does not require training on how to obtain a legal status. FSP P1 teams should pivot away from static training curricula after having established a common understanding of viability, and instead prioritize individualized coaching to each participant PO and YBG to realize their specific opportunities for improvement.

5. Invest into input market system analysis and strengthening.

The POVE does not lend itself well to identifying input viability challenges, since our current knowledge of what input suppliers and what underlying market systems are the most promising to boost market profitability and resilience is still severely limited. The FSP P1 (Agriculture and Value Chains), P3 (Governance and Conflict Resolution) and MEL teams should consider conducting an analysis of the input market system in South Kivu, in order to better guarantee high-quality input supply and strengthen the input market system's resilience against potential shocks.

Measurement Recommendations

1. Reduce insensitive measurement bias in future iterations of the POVE.

Two criteria in the POVE suffer from insensitive measurement bias: applying at least one value-added processing technique and having access to informal savings and credit through VSLAs. It would be challenging for FSP to drop or replace these criteria during the next round of the POVE data collection, as future viability scores wouldn't be comparable to the base value collection anymore. However, when the POVE monitoring tool is revised again, these two criteria should be dropped or replaced.

2. Conduct further qualitative inquiries to identify potential omitted viability variables.

Although the viability construct was identified through an inductive process and strengthened through ground-truthing, a large degree of unexplained variance in sales per member remains. This could be an indication of other, non-observed variables. When facilitating structured sessions to improve PO/YBGs' understanding of viability, the FSP P1 team should create space for PO and YBG members to propose additional measurable criteria or sub-dimensions that could explain a sustainable increase in sales and profit. This could help to inform future iterations of the POVE and create more precise viability scores.

3. Explore conducting exploratory statistical analyses to further improve the internal validity of the POVE.

The POVE has been designed through inductive qualitative analysis, with a focus on ground-truthing and ecological validity. While this approach has helped to improve the understanding and ownership of the "viability" construct, it is possible that some components of this construct should be aggregated or weighted differently to reach higher levels of internal validity. The FSP-MEL team should explore conducting exploratory statistical analyses to assess the benefit of improved viability measurement options against the risk of reducing its understandability and ownership by FSP teams and participants.

4. Conduct longitudinal analyses to establish or falsify causality between viability and sales per member.

The FSP Value Chain Strategy and the above program recommendations are based on the assumption that an improvement in viability will cause an improvement in sales. This assumption should be tested through longitudinal regression analyses as soon as the 2021 Season A POVE data becomes available.

5. Explore creating guidance to help transport and adapt the POVE to other smallholder PO contexts.

In researching producer organization monitoring toolkits to help improve PO viability, sales and profit, we noticed a general lack of publicly available and appropriate tools for smallholder POs. The FSP POVE could potentially serve as a starting point to fill this gap, although its transportability to smallholder PO contexts in other regions should first be confirmed. The FSP P1 and MEL teams should consider creating process quidance to help transport and adapt the POVE to smallholder PO contexts in other regions.

Cover photo: Two producer organization members who participate in FSP sort harvested corn. Credit: Rudy Kimvuidi Nkombo. March 2020.



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ABOUT MERCY CORPS

Mercy Corps is a leading global organization powered by the belief that a better world is possible. In disaster, in hardship, in more than 40 countries around the world, we partner to put bold solutions into action — helping people triumph over adversity and build stronger communities from within. Now, and for the future.



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