



Farmer Field school

Getting sex-disaggregation right: How MOST has addressed the ‘counting quandary’ to improve its understanding of impact for women

Executive summary

Determining *who* to count as a beneficiary of increased income within mixed-sex households is a challenge faced by all agricultural market systems programmes where impact is measured at individual – rather than household – level. Despite the prevalence of this challenge, very few programmes have developed a robust method for addressing this ‘counting quandary’. In response, this case study aims to provide practitioners with a clear, tested example of how market systems programmes can overcome the challenge of trying to attribute impact to individuals of different sexes within mixed-sex households. It demonstrates how the Malawi Oilseed Sector Transformation (MOST) programme has taken an intervention-based approach to determine who within the smallholding should be counted as a beneficiary of increased income. It also showcases the programme’s survey instrument, which incorporates 11 gender-focused indicators on key production and decision-making activities, to build a more nuanced understanding of who derives benefit from increased enterprise performance and *how*.

Background

AIM OF THE CASE STUDY

This case study aims to provide Monitoring and Results Measurement (MRM) and Market Systems Development (MSD) practitioners with a clear, tested example of how market systems programmes can overcome the challenge of trying to attribute impact to individuals of different sexes within mixed-sex households. It seeks to codify the approach that MOST has taken to counting beneficiaries of increased income, including strategies for disaggregating by sex. In addition to setting out the practical steps MOST takes for attributing impact, this case study also shares the 11 gender-focused indicators used by the programme to build a more nuanced understanding of who derives benefit from enhanced enterprise performance and how.

INTRODUCING MOST

MOST is a DFID-funded market systems programme working across Malawi’s cotton, groundnut, sesame, soybean and sunflower markets. Since its inception in 2014, the MOST programme has increased the incomes of 167,656 poor men and women (as of August 2018) by supporting private sector actors to pilot and scale up innovative and inclusive business practices. These practices – which include facilitating improved access to farm inputs, finance, and agronomic information, as well increasing rural value-addition opportunities – deliver meaningful developmental outcomes for poor smallholder farmers by enabling businesses to identify and implement commercially attractive models. This

MOST
Malawi Oilseeds Sector Transformation



‘win-win’ approach has been critical to ensuring that MOST’s impact is sustainable beyond the programme’s lifetime, avoiding the market distortions inherent in direct delivery, interventionist approaches pursued by more traditional private sector development programmes.

OVERVIEW OF THE PROGRAMME’S GENDER APPROACH

Beyond realising ‘pro-poor’ impact, MOST is committed to ensuring that women – the primary workforce in Malawian oilseed production – benefit from improvements in the competitiveness of market systems. To do this, MOST has adopted a gender approach which recognises the central role of the family-based smallholding in Malawi, and women’s critical position *within* (not separate from) it. The programme’s interventions have been designed therefore to recognise oilseed production as a family-based affair, while simultaneously increasing women’s opportunity to participate in those activities with greatest value capture and personal agency, namely: engaging in transactions (e.g. purchases of inputs, sales of crop); registering as the signatory of a contract-based arrangement; and influencing decision-making as it relates to the income-generating activity and the household.

OVERVIEW OF THE PROGRAMME’S APPROACH TO MONITORING AND RESULTS MEASUREMENT

Since 2014, MOST has followed the DCED Standard for Results Measurement, which provides programmes working in complex market systems with a standardised framework to monitor results. In July 2017, MOST completed the optional DCED audit, receiving a score of 97% for **must** compliance criteria and 93% for **recommended** compliance criteria. Not willing to rest on its laurels, the programme innovated *beyond* the guidance provided in the Standards, making particular efforts to better understand the programme’s gendered impact, many of which will be explored in further detail in this learning paper.

Introducing the ‘counting quandary’ and what this means for understanding sex-differentiated impact

UNDERSTANDING THE ‘COUNTING QUANDARY’

As with many donor-funded market systems programmes, MOST is held accountable for delivering impact for women through the use of sex-disaggregated targets for outreach indicators within the logframe. At impact level, MOST is expected, for example, to report the “number of poor people (disaggregated by sex) experiencing net positive income change”. At outcome level, the “cumulative number of poor people in targeted market systems with improved performance” is one of the indicators for which sex-disaggregated data is required.

But while reporting sex-disaggregated data seems simple – surely, a beneficiary is either a man or a woman? – early into

the programme’s implementation, the MOST team realised that it was not so straightforward.

While it was clear that a woman cultivating her own land and selling the produce herself would count as a beneficiary, in Malawi (outside of female-headed households), this is rarely the case. Instead, the MOST team recognised that it was much more common for both men and women in the household to contribute to the production and sales processes – performing varying and often overlapping roles – in a more collective and collaborative manner. In cases where the husband and wife were operating together, MOST struggled to know who to count as a beneficiary. Should it be both the husband and wife? Did it depend on the division of labour? Or on who receives the revenue? Or on how the money is distributed and used? What about young adults or elderly household members who may also contribute to or benefit from the activity? And second or third wives in polygamous households?

WHY DOES THIS CHALLENGE EXIST, AND HOW CAN IT BE ADDRESSED?

This challenge of knowing ‘who to count’ and ascribing impact to individuals of different sexes, is not unique to MOST. Rather it is a quandary faced by the majority of development programmes focused on income increase, particularly in those working in agricultural markets and/or those using facilitative and systemic approaches.

The reason why MOST has, like other MSD programmes, found it difficult to clearly allocate impact to individuals of different sexes is threefold¹:

- 1) Smallholding households comprise multiple people who may contribute to the production, processing, transport, and sale of a given crop, and may do so in different ways. This means it is often difficult to attribute the adoption of new practices and income increases to one individual, as men and women are likely to have contributed to the income-generating activity.
- 2) Those generating the income may not be those who ultimately or solely benefit from it. So even where income is clearly earned by a sole individual, some or all of it may be brought into a household budget, through which other family members will benefit.
- 3) Programmes rarely have a consistent internal understanding of whether they are measuring (a) income generation, (b) income receipt, or (c) control over income. This has implications for whether we count (a) individual(s) who contributed to the production of the crop b) individual(s) who physically receive the revenue from the sales, or (c)

¹ Adam Smith International (2016) ‘Measuring Gendered Impact in Private Sector Development’. Sonia Jordan, Gareth Davies, Mollie Liesner.

individuals who influence how the revenue is used.

These three factors lead to a lack of clarity over who you count: should MOST be counting the head of the household? The head of the smallholding (who is often the same individual)? All individuals within the family or enterprise? Only those who have a ‘meaningful’ influence over income? Or should MOST seek to understand the distribution of impact based on the different relative inputs of men and women measured through time or activities? Or through their different relative benefits?

Finding a ‘best fit’ solution: MOST’s approach to counting beneficiaries and disaggregating impact

There is no perfect solution to this challenge. This is because the donor requirement to report income change at individual level, when it is typically generated and used at household level, means that no counting approach can be entirely accurate. Nonetheless, MOST has sought to develop a ‘best fit’ solution, which offers a more sophisticated alternative to the widespread practice of either reporting the head of the household, which tends to favour men, hiding potential benefits for women, or crudely splitting beneficiary impact 50:50 between the men and women. This multi-step process is depicted in Figure 1 and explained in detail below.

PROJECTING RESULTS – HOW MOST FORECASTS THE BREAKDOWN OF MALE AND FEMALE BENEFICIARIES

Prior to measuring impact, MSD programmes must firstly project their anticipated results to demonstrate how interventions will lead to the desired outcomes and achieve the targets set. To determine sex-disaggregated projections, MOST uses the ratio of women engaged in a particular

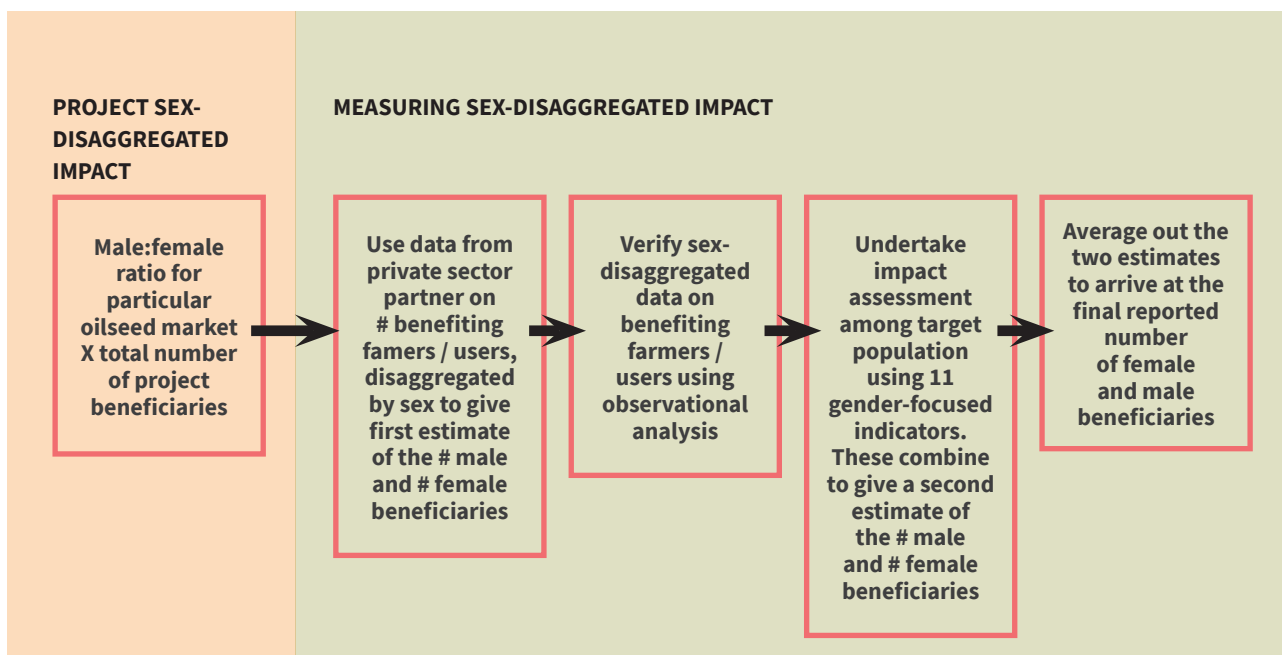
oilseed market (e.g. soybean) within a specific geographical region. This ratio is determined by triangulating several data sources including market system analyses, relevant sector publications, and consultation with sector experts. This ratio is updated annually based on impact assessments carried out for the majority of interventions². The male : female ratio is then applied to the total number of projected beneficiaries, to determine the likely number of female and male beneficiaries anticipated to be impacted by the programme.

MEASURING RESULTS – HOW MOST DETERMINES THE BREAKDOWN OF MALE AND FEMALE BENEFICIARIES

While the approach for determining sex-disaggregated projections is consistent across all markets and interventions, when it comes to measuring results, MOST has developed an intervention-specific approach for validating the breakdown of male and female beneficiaries. This recognises that ‘who benefits’ within a smallholding is likely to depend on the nature of the intervention and what it seeks to do. One feature that has been incorporated into the majority of interventions’ counting approaches over time is an impact survey of the target population. This supplements data acquired through MOST’s private sector partners (where available) and offers a more rounded view of who within the smallholding is contributing to – and influencing decisions made about – oilseed production. Below is a table summarising the counting approach taken for each intervention.

² IBCF is an exception as Afrisian has a sex-disaggregated list of contract farmers, and MOST relies on the final validated number from partners, who closely monitor these figures.

Figure 1: MOST’s process for projecting and measuring sex-disaggregated impact



DESCRIPTION OF INTERVENTION	COUNTING APPROACH
<p>Incentive-Based Contract Farming (IBCF) scheme in which smallholder farmers incrementally receive additional inputs for each season that they sell an agreed increasing level of crop to the aggregator. The aim is to increase yield and disincentivise side selling.</p>	<p>First step: MOST's partner, Afrisian (a crop processor), provides data on the number of smallholder farmers registered on IBCF, disaggregated by sex of the contract signatory. This gives the first estimate of the # male and # female beneficiaries.</p> <p>Second step: This data is crosschecked during input distribution at each location as inputs are given out against the names. This validation step highlights instances where the contract signatory (often male) is different from those providing more of the labour. If in the second step, there is significant inconsistency with Afrisian's data, then a third step is carried out (as set out below).</p> <p>Third step: An annual impact survey can be carried out, which includes 11 indicators focused on understanding the sex-disaggregated breakdown of activities and decision-making within participating smallholdings. These are weighted equally, and combined to give a second estimate of the # of male and female beneficiaries.</p> <p>Fourth step: If required, the two estimates (from the first and third set) are then averaged out to arrive at the final reported number of female vs male beneficiaries. To date this has not been required for this intervention as there has not been significant variance in the figures reported in the first and second steps.</p>
<p>Spray Service Providers (SSPs) - innovative chemical distribution & application systems made available to smallholder farmers to increase yield by reducing losses.</p>	<p>Direct beneficiaries: To measure the number of male and female <i>direct</i> beneficiaries (i.e. the individual Spray Service Providers), data is simply provided by MOST's partner.</p> <p>Indirect beneficiaries: To measure the number of male and female <i>indirect</i> beneficiaries, MOST follows two differing approaches:</p> <p>Beneficiaries accessing spray services through IBCF: As historically, 90% of the spray service recipients have been engaged in the IBCF intervention, MOST has determined the number of female beneficiaries based on the male : female ratio of IBCF farmers.</p> <p>Beneficiaries accessing spray services outside of IBCF: However, for the 2017-18 season, as MOST anticipates SSPs to have started serving a high number of <i>non-IBCF farmers</i>, a second counting approach has been introduced. This involves an impact survey among SSP users (identified by asking "who is the person using the spraying service?"). These individuals were asked the same 11 questions as in the IBCF impact survey to build understanding of the male : female breakdown of activities and decision-making within participating smallholdings. These are weighted equally, and combined to give a second estimate of the # of male and female beneficiaries.</p>
<p>Inoculant Production and Seed Stocking - inoculant and certified seed made available to smallholder farmers to increase yields.</p>	<p>First step: As no data is available from the partner (AISL), the female beneficiary count is drawn from an impact survey. This uses the average value of male : female ratios calculated from 11 gender-focused indicators including five indicators on male : female distribution of responsibility/ activities performed in soybean cultivation and six indicators on the distribution of decision making in soybean cultivation. These are weighted equally, and combined to give a first estimate of the # of male and female beneficiaries.</p> <p>Second step: The male : female ratio is also informed by the sex of the sampled respondents in the same impact survey. This provides a second estimate of the # of male and female beneficiaries.</p> <p>Third step: The final breakdown of male : female beneficiaries is calculated by using the average of the figures generated in the first and second steps.</p>
<p>Chithumba Model – inputs including inoculant and certified seed made available to smallholder farmers through credit arrangements in which repayment is made through grain deposited at the Agricultural Commodity Exchange (ACE)</p>	<p>First step: MOST's partner, ACE, provides data on the number of smallholder farmers registered to receive inputs on credit, disaggregated by sex of the contract signatory. This gives the first estimate of the # male and female beneficiaries</p> <p>Second step: This data is crosschecked during input distribution at each location as inputs are given out against the names. This validation step highlights instances where the contract signatory (often male) is different from those providing the labour. If there is significant variance between the ratio determined in the first step and the ratio determined in the second step then the third and fourth steps are carried out (see below).</p> <p>Third step: An annual impact survey is carried out, which includes 11 indicators focused on understanding the male : female breakdown of activities and decision-making within participating smallholdings. These are weighted equally, and combined to give a second estimate of the # of male and female beneficiaries.</p> <p>Fourth step: The two estimates (from the first and third set) are then averaged out to arrive at the final reported number of female vs male beneficiaries.</p>

Using impact surveys to build a more accurate view of sex-differentiated impact

MOST commissions annual impact surveys that include the 11 gender-focused indicators that have been incorporated into the counting approach for each of MOST's interventions. The introduction of this impact survey has helped MOST to get away from the widespread practice of reporting the 'transacting' individual (e.g. the registered contract farmer, or purchaser of seed) or the head of the household as the beneficiary of increased income. Both of these practices tend to favour the reporting of men, hiding the potential benefits for women. Instead the survey offers a much more nuanced view of who derives overall benefit, allowing for the possibility of

this being partially allocated to different individuals – of different sexes – within a household-smallholding.

THE SURVEY INSTRUMENT IN CLOSE-UP

The annual impact survey comprises 11 gender-focused indicators, including six on the male : female distribution of decision-making and five on the distribution of production-related activities. Please see Table 1 and Table 2 as an example of the survey questions, with sample respondents' data for soybean farming in 2016-17. The sampling distribution and male to female ratio is shown in Figure 2.

3 Nitrofix is a seed inoculant.

Who in your household.....?	Treatment Group (those using inoculant)						
	Member	Men said:	Percent (%)	Women said:	Percent (%)	Overall total:	Percent (%)
1.decided to grow soybean?	Female	24	14.6	65	48.1	89	29.8
	Male	87	53.0	37	27.4	124	41.5
	Jointly	53	32.3	33	24.4	86	28.8
	Base	164	100.0	135	100.0	299	100.0
2.is responsible for managing the crop?	Female	11	6.9	57	41.9	68	23.0
	Male	86	53.8	39	28.7	125	42.2
	Jointly	63	39.4	40	29.4	103	34.8
	Base	160	100.0	136	100.0	296	100.0
3.decided to use Nitrofix? ³	Female	17	10.4	63	46.7	80	26.8
	Male	109	66.9	49	36.3	158	53.0
	Jointly	37	22.7	23	17.0	60	20.1
	Base	163	100.0	135	100.0	298	100.0
4.paid for Nitrofix?	Female	7	4.9	43	40.2	50	19.9
	Male	113	78.5	53	49.5	166	66.1
	Jointly	24	16.7	11	10.3	35	13.9
	Base	144	100.0	107	100.0	251	100.0
5.decided how to use income?	Female	11	7.3	44	34.1	55	19.6
	Male	62	41.1	35	27.1	97	34.6
	Jointly	78	51.7	50	38.8	128	45.7
	Base	151	100.0	129	100.0	280	100.0
6.decided how to spend the income?	Female	9	5.5	43	33.3	52	17.8
	Male	54	33.1	31	24.0	85	29.1
	Jointly	100	61.3	55	42.6	155	53.1
	Base	163	100.0	129	100.0	292	100.0

Who (in the household) was involved in.....?	Treatment Group (those using inoculant)						
	Member	Men said it was:	Percent (%)	Women said it was:	Percent (%)	Overall total:	Percent (%)
1.planting	Female	9	5.3	43	29.9	52	16.6
	Male	20	11.8	7	4.9	27	8.6
	Jointly	140	82.8	94	65.3	234	74.8
	Base	169	100.0	144	100.0	313	100.0
2.harvesting	Female	9	5.3	45	31.3	54	17.2
	Male	23	13.5	8	5.6	31	9.9
	Jointly	138	81.2	91	63.2	229	72.9
	Base	170	100.0	144	100.0	314	100.0
3.threshing	Female	12	7.3	45	35.4	57	19.5
	Male	26	15.8	7	5.5	33	11.3
	Jointly	127	77.0	75	59.1	202	69.2
	Base	165	100.0	127	100.0	292	100.0
4.selling	Female	7	4.8	41	34.7	48	18.1
	Male	83	56.5	43	36.4	126	47.5
	Jointly	57	38.8	34	28.8	91	34.3
	Base	147	100.0	118	100.0	265	100.0
5.land preparation	Female	8	4.9	40	28.8	48	15.9
	Male	25	15.3	8	5.8	33	10.9
	Jointly	130	79.8	91	65.5	221	73.2
	Base	163	100.0	139	100.0	302	100.0

Figure 2: Sampling distribution and male to female ratio for soybean inoculant in 2016-17 season

The sampling distribution of respondents is as follows:		
Sex	Count/number	%
Male	163	54
Female	137	46
Total	300	100

The male:female ratio calculated by using the 11 gender-focused indicators is:		
Sex	Count/number	%
Male	160	57
Female	131	43
Total	291	100

Combined, these average out to provide an approximate male : female beneficiary ratio for soybean inoculant intervention in 2016-17 season of:		
Sex	Count/number	%
Male	161	55
Female	134	45
Total	295	100

To avoid sampling bias based on the sex of the respondent, the male : female ratio calculated from the 11 gender-focused indicators is then averaged with the male : female ratio of the respondents. This is then considered the sex-disaggregated beneficiary ratio for soybean inoculant intervention in 2016-17 season, which in this case saw women constituting 45% of the total beneficiary count.

Importantly, the data from the 11 indicators do not only serve as a means for rigorously assessing and reporting the sex of those benefiting from increased income, rather they are a critical finding in and of themselves. They provide valuable qualitative data offering an insight into women’s broader empowerment outcomes (particularly if measured over the course of the programme), which can be written up to complement the quantitative logframe results.

Conclusion

MOST has developed, tested, and refined a series of intervention-based counting approaches and disaggregation strategies that – as accurately as possible – determine who within smallholding households benefits from improved enterprise performance and increased income, and how. By developing an intervention-based ‘best fit’ approach to counting beneficiaries and determining their sex, combined with a rigorous impact survey, MOST has avoided the common over-reliance on using ‘female-headed households’ as a mechanism for quickly and easily targeting female beneficiaries. Instead the more nuanced approach has helped to focus on the much higher number of poor women ‘hidden’ in what was conventionally understood to be male headed, mixed-sex households.

KEY LESSONS FOR PROGRAMMES WANTING TO ACCURATELY MEASURE SEX-DIFFERENTIATED IMPACT

Developing a multi-step process for identifying beneficiaries and their sex by using partner data, observational research, and surveys of target populations (where feasible) can be a powerful strategy to more accurately report sex-differentiated impact, and, as demonstrated above, need not be overly burdensome.

Conducting household-level surveys with the individual identifying as the ‘primary labourer’ rather than the ‘head of the household’ can minimise the risk of participant bias and misrepresentation of who contributes to – and benefits from – improved oilseed cultivation.

Complementing quantitative logframe results with qualitative findings remains essential for building a more nuanced view of how enterprise performance improvement and increased income affect the household and different individuals in it.

This case study has been authored by Sonia Jordan, with additional technical input from Sushanta Kumer Sarker, Tapiwa Chitwere, Jason Agar, and Cuan Opperman.

About the MOST Programme

The Malawi Oilseed Sector Transformation (MOST) Programme, a £7.39m, five-year market systems programme, aims to increase the incomes of poor women and men working in Malawi’s cotton, groundnut, soybean, sesame and sunflower markets. MOST seeks a transformational impact by supporting changes in the market system that fundamentally alter the way business is done to ensure greater benefits for the poor. MOST works with a range of market actors – private, public and development – to pilot and scale up new business models and to stimulate a more competitive market system.