

Increasing the Productivity and Empowerment of Women Smallholder Farmers

Results of a Baseline Assessment from Six Countries in Africa and Asia



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Introduction

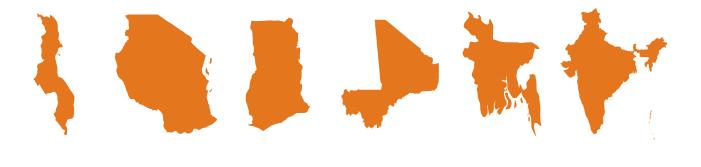
Agriculture can be an important engine of growth and poverty reduction. However, the sector is underperforming in many countries in part because women, who are often a crucial resource in agriculture and the rural economy, face constraints that reduce their productivity. Aggregate data show that women comprise about 43 percent of the agricultural labor force globally and in developing countries (FAO, 2011¹). In Africa, estimates of the time contribution of women to agricultural activities go up to 60-80 percent in some countries. Overall, the labor burden of rural women exceeds that of men, and includes a higher proportion of unpaid household responsibilities related to preparing food and collecting fuel and water.

Despite women playing a critical and potentially transformative role in agricultural growth in developing countries, they often face persistent obstacles and economic constraints limiting further inclusion in agriculture. In some countries, women are often not recognized as farmers and face widespread restrictions on decision making about the basic resources for production i.e., land; access to productivity-enhancing inputs such as credit, fertilizer, improved seeds and extension; and control over the produce resulting from their labor and other investments. Women's ability to produce enough food is further hampered by the physically exhausting labor and drudgery associated with farming practices that have remained unchanged for generations.

By failing to close the gender gap in agriculture, the world is paying dearly. For example, opening up women's access to the resources required to produce, process and market food products could increase yields on women's farms by 20 to 30 percent, according to a recent State of Food and Agriculture report from FAO (FAO 2011). This would raise total agricultural production in developing countries by 2.5 to 4 percent and reduce the number of hungry people in the world by 100 to 150 million people. A further example from Cote d'Ivoire highlights the impact of increasing women's income on child health and nutrition, stating that the improvement in child health and nutrition achieved by a US\$10 increase in women's income would require a \$110 increase in men's income.

Women are clearly an important part of the agricultural labor force, but agriculture and agricultural value chains are equally important to women as a source of employment. Given that gender inequalities run through agricultural systems, action is required at all levels from household and community up to national, regional, and international scales. This action will require: making research, extension, and market systems inclusive and accessible to both men and women farmers; implementing policy actions that reduce barriers to women's access to resources including land; engaging men to change gender relations, community structures and cultural norms that perpetuate gender inequalities; and programmatic interventions that integrate the multiple functions of agriculture (food, nutrition, incomes).

This report is the result of baseline studies carried out in 2012 to establish the status of women in agriculture in six countries; Malawi, Tanzania, Ghana, Mali, Bangladesh, and India as part of CARE USA's Women in Agriculture Project, Pathways.



MALAWI • TANZANIA • GHANA • MALI • BANGLADESH • INDIA

About Pathways

CARE's Pathways program is inspired by the vital roles that women in smallholder agriculture around the world play to meet the economic and nutritional needs of their households and communities. Based on the conviction that women farmers possess enormous untapped potential to make even greater contributions to household, local and national development, growth and social change, Pathways takes into account the daunting constraints that prevent women from more productive and equitable engagement in agriculture. **The goal of Pathways is to increase poor women farmers' productivity and empowerment in more equitable agriculture systems at scale**. The program is being implemented in six countries: India and Bangladesh in Asia; and Tanzania, Mali, Malawi, and Ghana in Africa. These six countries were chosen to represent a diverse set of contexts and challenges, which can broaden the scope and applicability of lessons learned from the program. Each country possesses critical conditions for success, both in terms of CARE's capacity and experience in the country, as well as in conducive environments for agriculture-led development and women's empowerment.

The Pathways Theory of Change

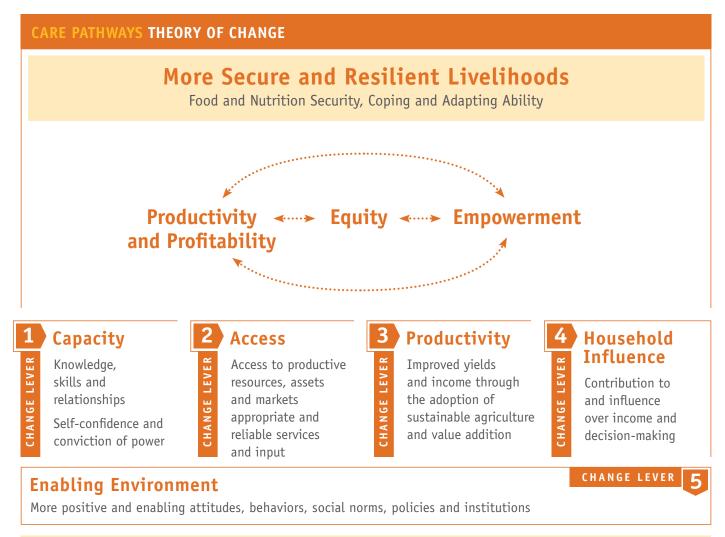
The Pathways theory of change is informed by an extensive analysis of the underlying issues that constrain the productivity, equitable opportunities, and empowerment of poor women smallholder farmers. The theory also draws on CARE's internal Strategic Impact Inquiry on Women's Empowerment in 2004 and 2009, which examined various linkages between CARE's program models and women's empowerment and gender equality.

The key underlying causes of chronic food insecurity, low agricultural productivity, and the marginalization of poor women smallholder farmers that underpin this theory of change are:

- Unequal power relations and male-dominated systems and structures, leading to discriminatory attitudes and norms, social exclusion, and denial of opportunities for women smallholder farmers;
- Lack of leadership, commitment and accountability of government authorities (at different levels) and traditional structures/institutions, coupled with poor levels of investment globally in smallholder agriculture and food security over the past decade;
- **Declining productivity of natural resources**, linked to man-made and natural (including climate-related) causes and therefore increased competition for these resources;
- Market volatility, as markets are constantly changing and food is increasingly being treated as a commodity in the market. Women's participation and benefits from these markets as well as their decision making ability to balance the food and market functions of food is challenged; and
- Failure of development efforts to acknowledge heterogeneity among smallholders, resulting in development programs insufficiently benefiting resource-constrained smallholder households under stress, who are practicing sub-optimal livelihood strategies.

Central to the program's theory of change are **five critical change levers believed to be necessary** to lead to increases in poor women farmers' productivity and empowerment and more equitable agriculture systems. These levers are considered **applicable across multiple contexts**, although the relative emphasis on each lever, the triggers that enable or impede their fulfillment, and the sequencing of these changes vary in different contexts and for different household types. These are shown in Figure 1.

FIGURE 1: The Pathways Theory of Change



CARE'S PATHWAYS APPROACH is based on a global theory of change that addresses the underlying causes of poverty and women's exclusion in agriculture through increased productivity and empowerment of women farmers and more equitable agriculture systems at scale. Across each of the implementing countries, CARE has identified five common and closely inter-related change levers that must be impacted to achieve the Pathways goal of more secure and resilient livelihoods.

Baseline Methodology

CARE contracted with TANGO International, a consulting firm based in Tucson, Arizona, USA, to design and support the implementation of a global evaluation framework for Pathways and to lead the baseline survey evaluation in all of the program countries. The focus of the baseline studies was to establish the status of women smallholder farmers, using the key outcome and impact areas and the change levers outlined in the Pathways theory of change.

The baseline used a mixed methods approach, combining both quantitative and qualitative methods. The quantitative baseline research used a non-experimental design for pre-post comparison of results. The surveys were "beneficiary-based" in that the samples were drawn randomly from sample frames composed of all households with a female member in a collective with which Pathways is working. The sample sizes were determined to provide statistically representative results for household and individual level indicators at the project level. Using a combination of participatory methods and tools, the qualitative studies offer complementary information on norms that affect women's empowerment and power relationships.

The development of the indicators and tools started with a workshop in India in May 2012, which was attended by representatives from the six countries, Pathways core team members, and TANGO. CARE drew on various sources to develop the indicators, including CARE's Strategic Impact Inquiry on Women's Empowerment², Feed the Future's *Women's Empowerment in Agriculture Index*,³ and IFPRI's *Engendering Agricultural Research, Development and Extension*.⁴ The baseline field activities took place between July and November 2012.⁵

TABLE 1: Number of households surveyed and focus group discussions per country

	MALAWI	TANZANIA	GHANA	MALI	BANGLADESH	INDIA	TOTAL
# of Households Surveyed	763	849	175	785	454	923	3949
# of Focus Group Discussions	36	36	12	36	40	48	208

Key Results

After the description of the characteristics of the households surveyed, the results section of this report is organized around the key impact areas of the Pathways program and the five levers of change in the theory of change. The key impact areas of the Pathways program as described in the theory of change are (i) food and nutrition security; (ii) economic poverty reduction; (iii) livelihood resilience; and (iv) women's empowerment. The five key levers of change are (i) women's agency; (ii) access to productive resources; (iii) influence over household decisions; (iv) productivity and profitability; and (v) an enabling social, cultural and policy environment.

Household Characteristics

Across all countries, the majority of women report growing crops, with slightly lower percentages in Ghana (85%) and India (72%). Mali data shows the greatest number of women per household who are engaged in agricultural activities, likely related to the large family sizes reported, and the high number of females reported in each household. Bangladeshi households report less than one female household member who is engaged in farming activities.

Literacy, as measured by self-reported ability to read and write, appears highest for household heads in Tanzania (83%) and Malawi (79%).

In Bangladesh, 58.1% of all heads of households have no formal education, and only 11% of heads of households report that they can read and write.

A large majority of Pathways beneficiaries in all countries have been married more than two years, ranging from 63% in Tanzania to 89% in Mali. However, a relatively large number of households are headed by women, particularly in Tanzania (33%), Malawi (25%) and India (23%). About 7% of women in Tanzania report to be single, and Tanzania's reported divorce rate of the surveyed women (16%) is almost double that of Malawi (7%). Divorce rates in India, Ghana, and Mali are almost non-existent. Approximately half of surveyed women in Mali (48%) and Ghana (51%) are involved in polygamous relationships.

	MALAWI	TANZANIA	GHANA	MALI	BANGLADESH	INDIA
Female-headed households (%)	24.8	33.0	16.8	9.8	11.7	22.6
Number of household members (mean)	5.1*	4.1	6.4*	10.7*	4.1*	4.5*
Number of females in household (mean)	2.6	2.3	3.1	5.8	2.1	2.3
Number of females engaged in agricultural activities (mean)	1.5	1.3	1.1	3.0	0.1	1.2
Age of head of household (years)	43.0	49.3	49.5	53.6	37.9	46.1
Female respondents reporting they are in a polygamous marriage (%)	10.6	15.9	51.4	48.0	-	-
Literacy of head of household (%)	79.3	82.8*	0.0	40.0	11.0	53.7*
Household heads with no education (%)	9.4	23.1	71.5	51.3	58.1	51.4

TABLE 2: Household demographics

* Significantly different between male- and female-headed households within individual countries at p < .10.

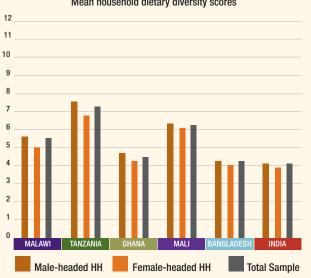
Program Impact Areas

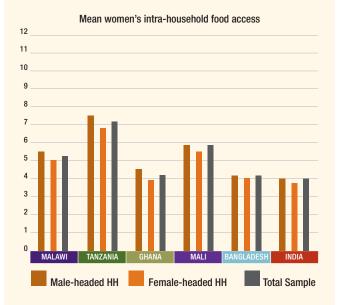
Food and Nutrition Security

The primary indicators used in this study to measure levels of food security are: (i) the household average dietary diversity score (HDDS), a proxy for food access, and (ii) the mean women's intra-household food access score, which reflects gender inequality in intra-household food distribution. To collect dietary recall data, the main food preparer was asked to report on 12 different food groups consumed by any household member over a 24-hour period. The HDDS scores

FIGURE 2:

Household dietary diversity and women's access to food





Mean household dietary diversity scores

range between 0 and 12, with the higher score demonstrating greater access to diverse food groups.

The vast majority of Bangladeshi (93%) and Ghanaian (74%) households report food insecurity. In Malawi and Tanzania few households (5% and 11%, respectively) report food and income shortages in the past three months, whereas Mali and India experience somewhat greater food insecurity (31% and 26%, respectively).

Surveys were conducted in the lean season for the majority of the countries; however in Tanzania and Malawi, the survey was conducted just after or somewhat coincident with the harvest season. Findings therefore may not accurately reflect the depth of food insecurity experienced during leaner months for these two countries.

Dietary diversity scores in each country range from around 4.0 in India and Bangladesh to 7.3 in Tanzania. In Malawi, Tanzania, Ghana, and Bangladesh, very small but significant differences are noted for the dietary diversity scores between male-headed households compared to female-headed households, with female-headed households accessing slightly fewer food groups. Within households, however, the intra-household food access score indicates that, on average, women have access to the same number of food groups as other household members.

Economic Poverty Reduction

To measure economic poverty reduction the program used multiple indicators including income, savings, and assets.

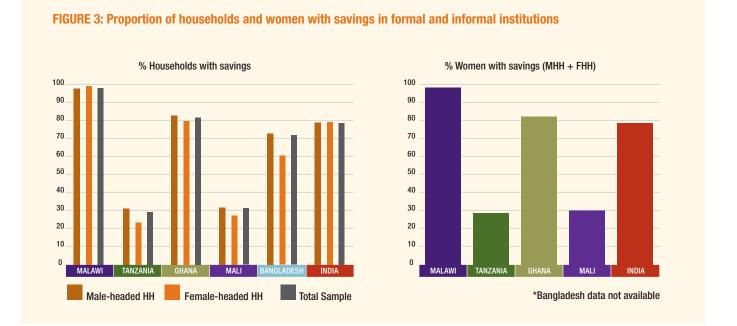
In all countries for which income data were collected, non-farm income vastly exceeds farm income, ranging from 2.5 times higher in Mali to 7.5 times higher in India. All female-headed households, except Mali and India, report less mean income than male- headed households. These differences are only significant in Ghana and Bangladesh. Mean monthly per capita income from farm and non-farm sources appears lowest in Bangladesh and Mali (\$12 USD) and highest in Malawi and Tanzania (\$20 USD).

There are variations in mean income earned by women in male- and female-headed households with women in female-headed households earning much less income across countries. Women in female-headed households in Malawi earn an annual income of \$74 compared to \$195 earned by women in male-headed households. The ratio for Mali is \$191:\$494 while that for India is \$41:\$60. Women's reported mean annual net agricultural income ranges from \$56 USD in India to \$465 USD in Mali. All country results show an extreme difference between women's mean and median net income confirming widely distributed income among the surveyed households, with the exception of India.

The most common income source for surveyed households in the four African Pathways countries is crop sales, although this activity does not result in significant earnings. The majority of surveyed households in Ghana (68%) and Malawi (55%) also earn income from agricultural wage labor. In India and Bangladesh, in contrast, the selling of labor (agricultural and non-agricultural) is reported as the most common source of income for their families. In fact, income diversification appears limited in these two countries, with very few households claiming they earn income from crop sales or small business. Qualitative data in Malawi and Tanzania reveal that women are more limited than men in their ability to generate income both because of restrictive social customs/norms and because they are over-burdened with other household activities. In Mali, qualitative findings indicate that women are more engaged in various income-generating activities (IGAs) than are men. The main IGA for women is growing garden vegetables, processing agricultural products or wild resources (such as shea nuts and baobab leaves), and petty commerce (such as sale of doughnuts, condiments, spices, crafts etc.). In most communities, women's activities are seen as providing support to the men's main economic activities.

Rather than establish new groups for the program, Pathways works with existing groups and collectives (including CARE's village savings and loan associations (VSLAs)) in project areas. Most of the women baseline survey participants in Malawi and Ghana were from VSLAs or producer groups, where they are part of savings and loan activities. It's not surprising, therefore, that a majority of households (72% to 97%) and women within these households (78% - 97%) in Ghana, India and Malawi reported having savings.

In Tanzania and Mali, only 28.4% and 31.7% of women respectively reported that they have savings in any formal or informal institution.



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	MALAWI	TANZANIA	GHANA	MALI	BANGLADESH	INDIA			
		MEAN VALUE							
Mean asset index (with land)	194.5*	451.8	352.4*	424.0	206.0*	167.1*			
Mean asset index (without land)	93.3*	187.3*	129.2*	325.8	55.4*	119.7			
N	756	816	173	776	454	921			

TABLE 3: Household asset ownership

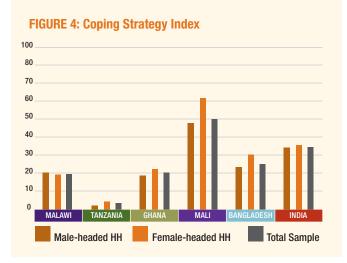
Qualitative findings suggest that the low percentages of women who report savings in Mali may be due to seasonal expenditures. In Tanzania, which has a mix of women from both VSLAs and producer groups, the low income-generating capacity within communities limits women's ability to save. assets such as land, or selling seed held for the next season. In Mali and India about one-fourth of surveyed households report resorting to such means (29% and 25%, respectively) compared to only 10% of households in Malawi and Tanzania.

The mean asset index is a proxy for household wealth and measures the number and weighted value of animal and other productive and household assets. Data suggest that asset ownership with land included is high in Mali, Tanzania, and Ghana, and is considerably low in India, Malawi, and Bangladesh. In Malawi, Ghana, Bangladesh, and India, the value of assets owned by Pathways households with a male head are significantly greater than the value of assets owned by female-headed households, indicating that in these countries, the female-headed households have reduced potential to offset shocks.

Livelihood Resilience

The Coping Strategy Index (CSI) is a tool used to measure behavior in households when adequate or preferred foods cannot be accessed. Often used as a food security and early warning indicator, the CSI can also be used as an indicator of longer-term food security resilience. The mean CSI is highest in Mali and in India (50 and 34 out of a possible 100, respectively), suggesting households must frequently alter their food consumption patterns in order to deal with temporary food shortages.

The CSI scores for Malawi and Tanzania are relatively low (2.0 and 2.5, respectively), as would be expected as both surveys were conducted at the end of the harvest season. In the three months prior to the baseline survey, the majority of house-holds in Bangladesh (89%) and in Ghana (73%) had to employ at least one coping strategy that was more likely to contribute to longer-term irreversible effects, such as sale of productive



Women's Empowerment

Pathways formulated a Women's Empowerment Index (WEI) that was modeled after the Women's Empowerment in Agriculture Index (WEAI). Similar to the WEAI, the Pathways WEI includes the Five Domains of Empowerment (i.e production, access to resources, control over income, leadership, and autonomy). However, for the Pathways program, the index was adapted to include additional indicators within these broad domains in order to measure social relations dimensions of empowerment. For example, the domain on autonomy includes indicators on mobility and women's perceptions of gender norms and social relations. The overall empowerment score is calculated from a total of 13 weighted indicators within the five domains. A woman who achieves an empowerment score of 0.80 or greater on this index is considered to be "empowered." In the development of the WEI, CARE also adjusted the WEI indicators to allow for country-specific thresholds.

The WEI score for women's empowerment ranges from lows of 0.29 in Bangladesh and 0.32 in Mali to a high of 0.66 in Malawi. Less than 1% of all women surveyed in Bangladesh and fewer than 5% of women surveyed in Ghana, Mali, and India are considered to be empowered, according to this index.

Even in Malawi, the country with the highest score, only 23% of women surveyed are considered to be empowered.

Combining women living in male- and female-headed households can give a skewed picture and mask the intra-household dynamics that influence their empowerment. With the exception of Bangladesh, women living in female-headed households have statistically significantly higher empowerment scores compared to women in male-headed households. For example: in Tanzania, only 4% of women in male-headed households are considered to be empowered, compared to 33% of women residing in female-headed households are considered to be empowered, compared to 60% of women residing in female-headed households are considered to be empowered, compared to 60% of women residing in female-headed households; and in India, 0.01% of women living in male-headed households are considered to be empowered compared to 17% of women residing in female-headed households.

Further analysis also shows a relationship between the type of groups that women belong to and their empowerment score. Women who are involved in agriculture, livestock or fishing related groups are more likely to be empowered than those who are in other types of groups such as VSLAs and self -help groups that are traditionally female-only groups, are an acceptable forum for women to congregate, and barriers to entry/membership are relatively low.

FIGURE 5: Relationship between women's group membership and their empowerment



TABLE 4: Women's empowerment scores

	MALAWI	TANZANIA	GHANA	MALI	BANGLADESH	INDIA
WEI Score	.66	.58	.47	.32	.29	.46
% of women achieving empowerment (score of .80 or greater)	23.2*	13.1*	1.7*	2.2*	0.0	4.4*
Mean empowerment score for all female respondents	0.62*	0.57*	0.47*	0.32*	0.29	0.45
Mean empowerment score for disempowered women	0.53*	0.50	0.46*	0.31*	0.29	0.43*

Program Change Levers

Women's Agency

The first lever of change in the program theory of change is women's agency. To measure women's agency, we use three key indicators: women's self confidence; participation and leadership in groups; and women's mobility. To capture self-confidence and self-efficacy, women were asked the degree to which they (dis)agreed/or strongly (dis)agreed with seven statements that CARE defines as reflecting self-confidence. These include the ability to solve household problems; access agriculture resources and information; take actions to improve one's life; and to influence community decisions.⁷

Women's self-confidence in these domains appears to be most challenged in Mali and India, and greatest in Malawi and Ghana. Notably, Mali has the lowest threshold for achievement of this indicator, agreeing with only three of the seven statements. Most women in Malawi express confidence related to all the statements. Women in Ghana, Mali, and Tanzania are less confident in their ability to access skills, information, resources, and services to improve their agricultural production. It is less common for women to flatly disagree with the statements than to agree; although, with the exception of Malawi, frequently women would respond "no difference," indicating they neither agree nor disagree with the statements.

Across the six countries, the majority of women report participation in at least one formal or informal group that exists in their community. This is not surprising given criteria for participation in the Pathways program is based, in part, on membership in a collective group. The proportion of women that hold a leadership position is relatively high in Malawi (53%) and Tanzania (43%) and lowest in India (20%).

To better understand the status of women's potential for leadership and influence in the communities where they live, the baseline survey asked women about their comfort level in speaking up about three topics and whether they had expressed their opinion in a public meeting (other than in their own group meetings) any time in the last 12 months (Table 5). Respondents who responded positively to three of the four questions are considered to be confident speaking about gender and other community issues at the local level. In Bangladesh, respondents were not asked about their comfort level speaking about gender issues, thus, achievement of the outcome indicator in Bangladesh is based on confidence in only two of the three questions asked.

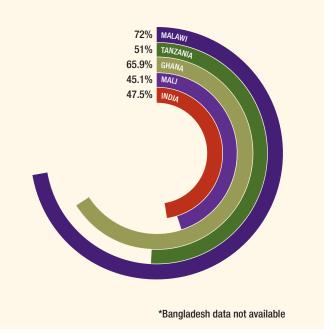


FIGURE 6: Proportion of women expressing self confidence

Just over 70% of women in Tanzania and India meet the indicator threshold; slightly more than half do in Malawi. Approximately one-third of surveyed women are confident expressing their opinions in public in Ghana (34%) and Mali (33%), and less than one-fifth are considered so in Bangladesh (19%). Of note is the discrepancy between the hypothetical confidence and the actual practice of women speaking out in public. While the majority of women in Malawi, Tanzania, and India state that they are comfortable speaking up about infrastructure decisions, gender issues, and misbehaviour of authorities or elected officials, only a minority state that they

Challenges in women speaking out...

A Self Help Group composed of women found some firewood stolen from the forest. They contacted forestry officials. At first they told the women to file a formal complaint against the culprits. Then threats were made to harm their husbands if action was taken. The women decided not to proceed.

Focus Group Participant – India

TABLE 5: Women's confidence expressing opinions in public

53.7	70.1	33.5	33.4	19.6	71.1
70.6	69.5	45.9	34.8	22.9	72.5
65.0	69.1	42.4	35.2	N/A	73.3
60.1	64.8	35.5	25.6	33.1	66.6
34.9	34.2	32.9	1.9	3.6	16.3
762	722	173	765	444	924
	70.6 65.0 60.1 34.9	70.6 69.5 65.0 69.1 60.1 64.8 34.9 34.2	70.6 69.5 45.9 65.0 69.1 42.4 60.1 64.8 35.5 34.9 34.2 32.9	70.6 69.5 45.9 34.8 65.0 69.1 42.4 35.2 60.1 64.8 35.5 25.6 34.9 34.2 32.9 1.9	70.6 69.5 45.9 34.8 22.9 65.0 69.1 42.4 35.2 N/A 60.1 64.8 35.5 25.6 33.1 34.9 34.2 32.9 1.9 3.6

have actually expressed an opinion in a public meeting in the last 12 months. Fewer than 5% of surveyed women in Mali and Bangladesh report having expressed an opinion in a public meeting in the last 12 months.

Focus group findings offer other facets to understand women's self-confidence and meaningful participation in public spaces. For example, in Ghana, although quantitative findings show that a minority of women speak out on the full range of issues asked about in the survey, qualitative input indicates that Ghanaian women feel comfortable publically addressing topics that fall within the acceptable domain of women's domestic duties and interests, such as education (inadequate teachers), lack of health facilities, and water issues. In India, female focus group participants state that when issues are discussed at the local level, women's participation may be nominal rather than meaningful, as they sometimes believe they are "rubber stamping" men's opinions and often there are threats of violence when women speak out.

Restrictions on women's mobility (due to domestic workload burdens as well as cultural norms) are common across the countries and can limit their participation in community and market-related activities. Women were asked whether they consistently required a family member's permission to visit a range of public places; their responses were scored on a scale on which women with a score of 16 or more (out of 32) were considered to be "mobile." About half of the female respondents in Malawi (49.6%) and Tanzania (42%) achieve CARE's mobility indicator, while less than one in six women in all other Pathways countries are considered to be mobile.

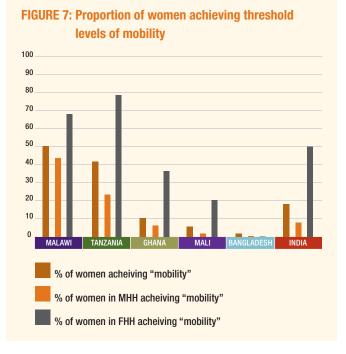


TABLE 6: Women's views on mobility

% of women who must always or most often have to seek permission from spouse or another household member to go to:	MALAWI	TANZANIA	GHANA	MALI	INDIA
Church, Temple or Mosque	29.2	45.7	82.5	90.8	79.9
Health care provider	44.6	56.4	90.7	95.8	54.3
Public village meeting	45.4	53.8	86	92.7	63.9
A meeting of any group of which she is a member	44.8	55.8	85.5	92.4	58.1
Female friend's home	43.3	51.5	80.2	90.9	77.4
Market	49	50.6	76.7	92.8	78.5
Local social event	50.3	59.4	89	93.7	82.6
Leave the house to earn money	55.7	59.2	80.2	92.8	83.9
Family member's home	54.8	55.3	85.5	93.2	81.1
Outside their village	61.2	69.5	92.4	97	80.4
Bangladesh data not available					

Aside from Bangladesh, significant differences in mobility between women in male- and female-headed households are seen in all countries, with female heads of household being far less likely to require permission to move outside of the household. Across the board, over 80% of women always or most often have to get permission to leave the house to earn money or to travel outside of the village.

Access to Resources, Services and Inputs

The second lever of change is increasing women's access to resources, services and inputs. The program focuses on different types of resources and services including agriculture and household assets, financial services, agriculture extension and inputs.

WOMEN'S OWNERSHIP OF AGRICULTURE AND HOUSE-HOLD ASSETS AND THEIR MANAGEMENT OF INCOME

Relative to men, women are less likely to have control over valuable household or productive assets, a disparity that limits their intra-household bargaining position and constrains their productivity and access to a range of opportunities and services. Narrowing the gender gap is thought to have positive outcomes for indicators such as food security, agriculture productivity. In this survey, "control" of assets was defined as women who state they are either a "sole" or "joint" decision-maker regarding the sale or purchase of various household or productive assets. For these outcome indicators, a range of country specific thresholds from 50-80% of the asset domains relevant to her household was used.

The baseline data indicates that there is a gender gap in how many of a household's assets are controlled solely or jointly by women. This gap is amplified between women in male- and female-headed households.

Women in Mali have the least control over household assets, with only 18.9% of women reporting having sole or joint control over household assets. The other two countries in which less than 50% of women have sole or joint control over household assets were India and Ghana. As with the decision-making domain, the concept of "joint" asset ownership or "joint" control should however be treated with caution, as it can be a subjective understanding, and ultimate veto power or decision-making authority may rest with the male head of household even when decisions are identified as 'jointly' made. During focus group discussions, for example, there were indications that men can still unilaterally dispose of assets that women felt they had joint control over.

Agricultural assets followed a somewhat similar pattern. Mali and Ghana had the lowest proportion of women with sole or joint control over agricultural assets while Tanzania and Bangladesh had the highest.





Included in the decision-making domain of "Household Assets" are:

- House
- Cell phone
- Means of transportation
- Non-agricultural land
- Non-farm business equipment
- Small consumer durables
- Large consumer durables

TABLE 7: Proportion of women with sole or joint control over household assets

	MALAWI	TANZANIA	GHANA	MALI	BANGLADESH	INDIA
Women with sole or joint control over household assets	57.6*	61.1*	40.3ª	18.9*	64.9	42.8*
Women with sole or joint control over agricultural assets	45.2*	82.4	36.2	24.5*	86.6 ^a	54.6*

* Significantly different between women living in male- and female-headed households within individual countries at p < .05.See country reports for details.

^a Sample of female-headed households too small to conduct statistical tests between MHH and FHH.

FIGURE 8: Proportion of women with sole or joint control over household assets

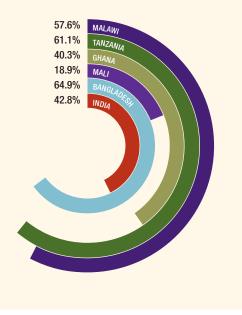
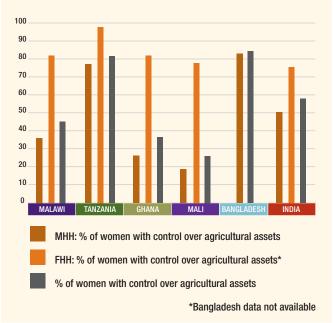
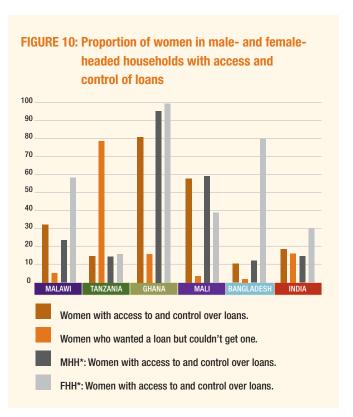


FIGURE 9: Proportion of women with sole or joint control over agricultural assets



ACCESS TO FINANCIAL SERVICES

In addition to their access and control over assets, women were asked about their access to and control over financial services and instruments. Most women report having access to financial services from their own savings and VSLA/SHGs. In the five countries for which sufficient data are available, the vast majority of women surveyed have used their own savings or credit from a VSLA or self-help group to finance agricultural activities in the last 12 months. Very few women in Tanzania and India claim they took out a loan in the last 12 months (19% and 29%, respectively). This highlights an access rather than a control challenge. However, even among households where women can access loans in these two countries, it appears that men are largely controlling those loans.

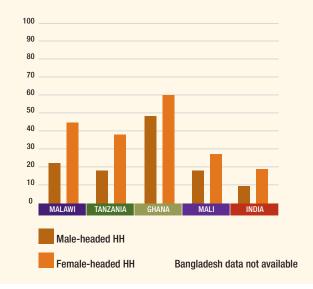


ACCESS TO AGRICULTURAL EXTENSION SERVICES AND INPUTS

The greatest percentage of women reporting access to agricultural extension services occurred in Ghana (38%). Across all other Pathways countries, typically only one-fourth of interviewed women report they have met with an extension worker within the last 12 months. Nonetheless, among the small numbers of women who have had contact with extension workers, the vast majority (ranging from 73% in Tanzania to 98% in Ghana) are satisfied with the services they received.

In Malawi, extension workers interviewed stated that services are insufficient compared to population needs, and that retaining extension providers in the Pathways operational area remains a challenge. In Bangladesh, focus group participants asserted that extension services are generally delivered to male farmers by male extension workers.

FIGURE 11: Proportion of women with access to agricultural extension services and inputs



Compared to agriculture extension services, access to agricultural inputs is much higher in all the Pathways countries, particularly in Malawi, where respondents report receiving inputs primarily from a government productive safety net program. Notable for India, is that although the overall percentage of women accessing inputs is small, the primary input source, cited by 14% of female farmers interviewed, is a cooperative or producer group. Qualitative findings from Tanzania reveal a lack of satisfaction by community members generally, and by women specifically, with "local" input suppliers. Focus groups in Bangladesh indicate that, when accessed, agricultural inputs are under the control of male farmers.

Access to output markets for women is highest in Ghana at 56.2% and lowest for India at 14.3%.

COUNTRY	Loans	Extension Services	Agriculture Inputs	Output Markets
MALAWI	31.8*	26.4	77.1	39.9
TANZANIA	14.0	28.0	33.3	23.8
GHANA	82.1	37.8	59.2	56.2
MALI	55.9	21.2	53.4	22.8
BANGLADESH	7.6*	-	-	-
INDIA	17.3	23.3	38.3	14.3

TABLE 8: Proportion of women with access to different inputs and services

*Significantly different between women living in male- and female-headed households within individual countries at p < .001.

Household Influence and Decision-Making

The third lever of change on the Pathways program theory of change is women's decision making and influence within their households. Women's decision making influence was defined as women who have "sole" or "joint" control over a range of household decisions. The wide range of responses among categories and across countries may reflect the question itself. It should be noted that while qualitative findings affirm most of the quantitative findings in the rest of the survey, they contrast the findings in this section, drawing a more nuanced picture of intra-household bargaining and decision-making control. For these outcome indicators, a range of country specific thresholds from 50-80% of the asset domains relevant to her household was used. While social norms and ideals may indicate that couples should discuss most important household decisions together, the degree of women's actual voice and veto power in that decision may not be captured in the "joint" response. A woman may play a role in suggesting or consulting on a decision (and thus consider it to be a "joint" decision), although the final decision might be made by a man. During focus groups, women (and particularly women in households headed by men) report that for decisions about the use of income from major cash crops, major agricultural and household expenditures, and major asset sales, their participation is often nominal or consultative, rather than equal.

COUNTRY	Household Income & Expenditure Domains	Ag Income & Expenditure Domains	Household Asset Domains	Agricultural Asset Domains	Health Care	Reproductive Health
MALAWI	64.2*	55.5*	57.6*	45.2*	86.2*	94.6
TANZANIA	52.2*	62.1*	61.1*	82.4	85.6*	92.3
GHANA	45.1	18.5	40.3	36.2	33.1	66.7
MALI	33.6*	13.4*	18.9*	24.5*	37.5*	74.6
BANGLADESH	63.4	59.9	64.9	86.6	78.5	88.4
INDIA	54.2*	49.3*	42.8*	54.6*	93.5	97.2

TABLE 9: Women's household influence and decision making

*Significantly different between women living in male- and female-headed households within individual countries at p < .001. Response for each domain is for women with sole or joint control of domains

Within households, men are more likely to control the income regardless of whether it was earned by men or women. And while it is more straightforward to measure amount or proportion of income earned by men, women and jointly by household members, the measurement of who controls that income is much more complex. As expected, women's control of income, assets, and expenditures is higher in female-headed households than in male-headed households. In some countries like Tanzania, women expressed doubts about their ability to make good decisions especially decisions related to marketing.

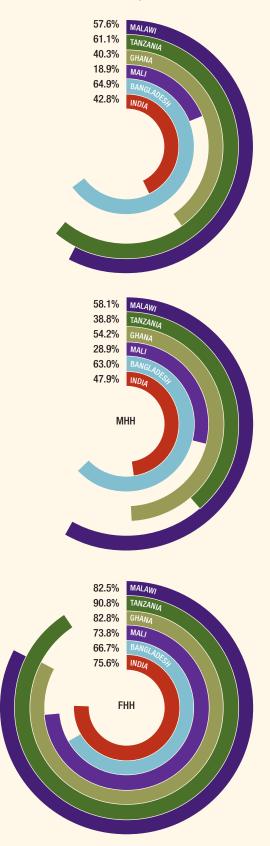
In Tanzania, according to focus groups, men control cash crops, sale of food crops, and livestock. Women typically only control land if they are widowed; otherwise, they have a right to use their husband's land only as long as he permits it. If he refuses, then she has no right to access the land. This type of arrangement may underscore why men feel entitled to sell crops their wives have grown, without their wives' knowledge or consent. Women in India also related land constraints which limit agricultural decision-making. In spite of legal land protections for widowed women, at times the real control of land remains in the hands of in-laws, particularly brother in-laws. Qualitative findings from India also indicate that because women's names are not on official documents, their claims to land are limited.

"Important decisions are made by men. This is because the men are culturally the head of the households and also because women are not capable of making good decisions."

Focus group discussion participant - Tanzania

Across all domain areas and countries, women have greatest decision-making control in the domain of their reproductive health, although qualitative findings from Malawi, India, and Bangladesh indicate that ultimately men decide whether or not a couple will have children. Only one in three women interviewed in Mali and Ghana have some decision-making role regarding health care for their families. Conversely, the vast majority of women surveyed in Malawi, Tanzania, Bangladesh and India report they are the sole or joint decision maker for health-care decisions.

FIGURE 12 : Women's control over income and household expenditure



In most decision-making domains, women who reside in a female-headed household have significantly greater decision-making authority than do women in a male-headed household. In Tanzania, for example, the vast majority (91%) of women from female-headed households report having sole or joint control over 60% of relevant household decision-making domains. In contrast, only 34% of women residing in male-headed households report similar control of household resources. As noted above, however, despite their greater autonomy, women in female-headed households tend to have greater vulnerabilities in terms of asset and income poverty.

Enabling Social and Cultural Environment

The fourth lever of change is enabling social and cultural environment. The program uses two main indicators for this (i) perceptions of men and women on gender roles and relations and (ii) attitudes towards gender based violence.

GENDER EQUITABLE ATTITUDES

CARE's approach to women's empowerment posits a gender-transformative approach, which encourages both men and women to understand gender roles as flexible and to encourage both men and women to try non-traditional gender roles (ie, engaging men in care giving and women in business management) that are more equitable for both. To assess the enabling environment for change at baseline, respondents (both men and women) were asked whether they agreed or disagreed with four statements that reflect men's and women's traditional roles in family life.

Respondents' agreement or disagreement with each of the four statements listed below are tallied; respondents receive a score of one for disagreeing with statements one and two,

FIGURE 13: Proportion of women expressing attitudes that support gender equitable roles



and for agreeing with statements three and four, for a maximum score of four. Those who achieve a score of four are considered to have attitudes that support gender-equitable roles in family life.

- 1. Most household decisions should be made by the man.
- 2. There is men's work and women's work and the one shouldn't ever do the work of the other.
- 3. If a woman works outside the home, her husband should help with childcare and household chores.
- 4. A husband should spend his free time with his wife and children.

Results show that patriarchal attitudes about family life are ingrained in women's opinions of their own role in family life. Less than half of all surveyed women express attitudes supporting gender-equitable roles, as defined by this indicator.

	- J					
% of women agreeing with statement	MALAWI	TANZANIA	GHANA	MALI	BANGLADESH	INDIA
Most household decisions should be made by the man	38.2	50.6	32.4	74.0	58.6	52.7
There is men's work and women's work and the one shouldn't ever do the work of the other	39.9	53.8	33.5	64.3	49.5	45.1
If a woman works outside the home, her husband should help with childcare and household chores	93.6	88.9	91.3	82.4	91.7	97.4
A husband should spend his free time with his wife and children.	98	96.2	96.5	94.3	98	98.6

TABLE 10: Women's perceptions of roles and decision making within the household

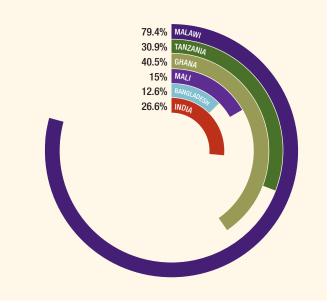
Gender norms on these issues seem least rigid in Malawi and Tanzania, where almost half (46%) of women express "gender equitable attitudes." In contrast, only 3% of women in Mali voice attitudes supporting gender-equitable roles within the household. Across all countries, the difference in overall attitudes regarding gender equity stems primarily from women's perceptions regarding who should make household decisions and division of household labor. Women generally agree that men should make most decisions and that gender roles and workloads are fixed. The majority of surveyed women in all the six countries state they agree that men should spend time with the family and help with child care and household chores-when a woman works outside the home. However, this attitude masks that women's daily work inside the home and non-wage-earning work in agriculture (particularly when the husband's income is more significant) may not be considered "work" or meriting support from male spouses.

GENDER BASED VIOLENCE

Attitudes on gender based violence suggest that the wording of the question may have influenced the ways people responded to the acceptability of violence. While very few women agree with the statement that there are times when a woman deserves to be hit, when framed as part of women's duty to preserve family harmony, more than twice as many women in each country feel that a woman should tolerate violence. There are also differences in men's and women's perceptions with regards to the two statements. As is often the case, men's attitudes on this question are generally more equitable, which may reflect their greater exposure to outside information on gender based violence or their knowledge of the appropriate response.

The vast majority of women in Malawi report attitudes that reject household gender-based violence, whereas respondents in India and Bangladesh express the highest tolerance for gender-based violence.

FIGURE 14: Proportion of women expressing attitudes that reject gender based violence



Productivity and Profitability

The fifth lever of change is increasing productivity and profitability of agricultural activities managed by women smallholder farmers. Sustainable increases in productivity are a cornerstone of the Pathways change model. At baseline, women were asked to report on the type of crops they grew and practices they followed. At baseline, women report growing, on average, two to four different types of crops. An integrated approach to improved agricultural production seemed most common in Malawi and Ghana, where approximately half of surveyed women report following three or more improved practices (45% and 54% respectively). The use of improved practices appears less common in India (33% reporting the use of three or more practices), Tanzania (22%), and Mali (18%). The most commonly reported practices are the use of compost or manure, crop rotation, and minimum tillage. Over half of female farmers surveyed in India (78%),

% of women (and men) who agree with statement	MALAWI	TANZANIA	GHANA	MALI	BANGLADESH	INDIA
There are times when a woman deserves to be hit	6.8	23.4	19.1	35.2	33.8	20.4
	(3.2)	(23.4)	(28.6)	(59.0)	(48.5)	(31.9)
A woman must tolerate violence in order to maintain stability in the family	18.2	65.1	53.2	82.9	85.6	72.2
	(15.2)	(65.8)	(49.1)	(89.6)	(84.2)	(75.4)

TABLE 11: Men and women's perceptions of gender based violence

Malawi (63%), and Ghana (55%) say they practice two or more improved post-harvest practices, although the reported practices varying widely across countries. A minority (less than 40%) of female farmers report using improved storage practices, such as granaries, cribs, silos, or sealed airtight containers. In Mali, where ownership of large livestock is highest, almost 91% of female respondents report using at least one method to enhance livestock management. The use of such practices by women who raise livestock in India (28%), Ghana (40%), and Malawi (44%) is less common. In most Pathways countries, the improved livestock practices most frequently followed by female farmers are vaccination and food complementation.

TABLE 12: Women's adoption and use of agricultural practices

	MALAWI	TANZANIA	GHANA	MALI	BANGLADESH	INDIA		
% of women adopting three or more improved practices	45.2	22.0	53.8	18.0	-	32.7		
Mean number of practices adopted	2.4	1.4	2.7	1.5	-	1.5		
% of women adopting different practices (multiple responses)								
Manure or compost	43.8	9.4	67.4	73.0	-	69.1		
Crop rotation	60.3	23.9	60.7	14.6	-	36.1		
Minimum tillage	3.6	31.1	37.8	44.9	-	50.1		
Alley cropping/intercropping	30.8	53.2	36.3	2.5	-	12.7		
Cover crops	19.8	16.4	40.0	1.0	-	12.5		
Improved seeds	37.1	11.5	18.5	11.8	-	36.3		
Soil erosion control	39.1	11.2	21.5	4.8	-	4.2		
Mulching	5.0	9.7	26.7	4.9	-	45.1		
Increased number of crops	18.0	4.8	26.7	10.3	-	4.2		
Irrigation technologies	4.2	0.9	2.2	5.1	-	2.2		
Other	0.9	2.1	1.5	4.8	-	2.0		

Considerations for Program Implementation

The baseline findings indicate that Pathways objectives are relevant to the targeted areas and populations. There appears to be ample opportunity to improve agricultural productivity both through increased yields and increased income from related activities, such as post-harvest processing and marketing. However, such increases will not accrue to women until and unless they have greater mobility and control over the income generated from such activities, particularly from crop sales. Men's dominance in decision-making related to agricultural activities, particularly in terms of using money from sales for their own purposes, undermine women's ability to contribute to increased household food security and resilience. Furthermore, as long as women continue to see themselves as subservient, there is no reason for men to change their attitudes. While improved knowledge and skills, and increased access to loans and agricultural inputs are steps in the right direction, they will not be sufficient for women to sustainably improve household food security and resilience. To realize the Pathways Theory of Change, all project activities must place increased focus on raising gender awareness among men, women, and communities. Differences between females residing in male- and female-headed households should be noted and activities aligned to each.

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The success of this assessment owes inestimable credit to the outstanding qualitative and quantitative teams that carried out the fieldwork across the six countries.

Finally, we wish to acknowledge the generosity and hospitality of the many communities and households that took the time to explain their lives to us and patiently sat by as we asked question after question. We dedicate this report to the thousands of Pathways program participants in Bangladesh, Ghana, India, Malawi, Mali, and Tanzania who took hours out of their day to be a part of this assessment.

Jemimah Njuki, Elizabeth Kruger, Laurie Starr

Notes

- 1. FAO, 2011: The State of Food and Agriculture 2010-11. Women in agriculture: Closing the gender gap for development. FAO, Rome, Italy
- 2. CARE International. 2006. The Courage to Change: Confronting the limits and unleashing the potential of CARE's programming for women. Synthesis Report: Phase 2. CARE International Strategic Impact Inquiry on Women's Empowerment.
- 3. International Food Policy Research Institute. 2012. Women's Empowerment in Agriculture Index. Feed the Future.
- 4. International Food Policy Research Institute. 2011.
- 5. As might be expected in a complex mixed-methods study spanning six countries, several limitations to the baselines were identified. While not constant across the six countries, these limitations include: the accuracy of sampling frames, an insufficient sample size of female farmers and potential selection bias in Bangladesh; the timing of fieldwork; the duration of the interview for all countries. Budgetary limitations precluded a stratified sample design that would allow for cross country comparison therefore the reader is cautioned against making such comparisons. No statistical tests were carried out to compare results between the six countries.
- 6. International Food Policy Research Institute. 2012. Women's Empowerment in Agriculture Index. Feed the Future.
- 7. To allow for country-specific improvement, baseline values were adjusted to country-specific thresholds ranging from agreement with at least five of seven statements to at least three of seven statements.
- 8. Bangladesh data were insufficient for reporting purposes.
- 9. These figures are for women who have access to and control loans for income generating activities. Control over loans is defined as having sole determination regarding how the borrowed capital is used. IGAs are defined as investments in a business enterprise, the purchase of agricultural inputs or production assets, or the lease or purchase of land for agricultural purposes.













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