

**CARE INDIA  
PATHWAYS ENDLINE EVALUATION  
April 12, 2016**



## Acknowledgements

We dedicate this report to the many households in Kalahandi and Kandhamal districts of Odisha who took time from their busy lives, including harvest, to participate in the Pathways endline evaluation in December of 2015. It is our sincere hope that the findings within will contribute to understanding that improves you and your community's well-being and others in this type of programming.

The TANGO team would like to acknowledge the valuable assistance received from CARE colleagues particularly the fundamental support of Pranati Mohanraj, CARE's Technical Advisor for Monitoring, Learning and Evaluation in the Agriculture and Market System's Team. Dr. Pradip Kumar Mohapatra, CARE's Pathways leader in India, and his very capable team both in Bhubaneswar and in the district capitals of Bwanipatna and Phulbani were extremely helpful in helping to lay the groundwork for this evaluation. The implementing partners of Pathways in Kalahandi and Kandhamal districts inspired us with their commitment to the communities and households in Pathways villages, and helping to problem solve the invariable challenges arising in a complex evaluation involving, literally, thousands of people.

Laurie Star, the quantitative leader, and I are especially grateful to our teams of evaluators for staying on task and securing what we believe is sound evaluation data. This bright and dedicated group of individuals will always occupy a warm spot in our hearts. We also thank the team leaders and management of Indian firm GfK Social Research, contracted to help us carry out this endline evaluation. They were supportive and encouraging every step of the way.

*Gary N. Gamer*  
*Qualitative Team Leader*  
*TANGO International*

## Table of Contents

CARE INDIA.....	- 1 -
PATHWAYS ENDLINE EVALUTION .....	- 1 -
Acknowledgements.....	- 2 -
Acronyms .....	- 5 -
AWC Anganwadi Centers .....	- 5 -
1 EXECUTIVE SUMMARY .....	- 6 -
2 INTRODUCTION AND BACKGROUND .....	- 10 -
2.1 Pathways Theory of Change .....	- 11 -
2.2 Baseline and Endline Comparison Data .....	- 12 -
3 METHODOLOGY .....	- 13 -
3.1 Development of Indicators and Data Collection Tools .....	- 14 -
3.2 Sample size.....	- 15 -
3.3 Survey Training and Logistics.....	- 17 -
3.4 Data Collection and Data Quality Measures.....	- 18 -
3.5 Qualitative Study.....	- 18 -
3.6 Data Analyses.....	- 20 -
3.7 Study Limitations .....	- 21 -
4 Findings .....	- 22 -
4.1 Household Characteristics .....	- 22 -
4.1.1 Dietary Diversity and Intra-Household Access .....	- 25 -
4.2 Impact: Livelihoods Resilience .....	- 27 -
4.2.1 Coping Strategies.....	- 27 -
4.2.2 Household assets.....	- 32 -
4.2.3 Household Income.....	- 35 -
4.2.4 Households and Community Wealth.....	- 38 -
4.2.5 Household Expenditures.....	- 39 -
4.2.6 Savings.....	- 40 -
4.3 Impact: Women’s Empowerment.....	- 41 -
4.3.1 Women’s Empowerment Index.....	- 41 -
4.4 Project Participant Perceptions of Impact.....	- 46 -
4.5 Change Lever 1 - Capacity.....	- 47 -
4.5.1 Women’s Participation in Formal and Informal Groups.....	- 48 -
4.5.2 Self-confidence.....	- 49 -
4.6 Change Lever 2- Access.....	- 49 -
4.6.1 Women’s Access to Financial Services.....	- 50 -
4.6.2 Women’s Access to Agricultural Extension Services.....	- 52 -
4.6.3 Women’s Access to Agricultural Inputs.....	- 53 -
4.6.4 Women’s Access to Output Markets.....	- 55 -
4.7 Change Lever 3: Productivity .....	- 56 -
4.7.1 Women’s Income from Agriculture.....	- 57 -
4.7.2 Crop Diversification.....	- 58 -
4.7.3 Women’s Agricultural Yields.....	- 59 -
4.7.4 Women’s Agricultural and Post-harvest Practices.....	- 60 -

4.7.5	Women’s Livestock Practices.....	- 62
4.8	Change Lever 4 - Household Influence .....	- 62 -
4.8.1	Women’s Control of Income, Expenditure and Asset Decisions.....	- 62 -
4.8.2	Women’s Control of Reproductive and Health Care Decisions.....	- 64 -
4.9	Change Lever 5: Enabling Environment .....	- 66 -
4.9.1	Attitudes about Gender Equality in Family Life.....	- 67 -
4.9.2	Daily Activities.....	- 69 -
4.9.3	Gender-based Violence.....	- 70 -
4.9.4	Women’s Mobility.....	- 72 -
4.9.5	Gender-based Barriers to Group Participation.....	- 74 -
5	Management.....	- 76 -
5.1	Partnerships .....	- 76 -
5.1.1	Government Collaboration with Pathways.....	- 76 -
5.1.2	Pathways Non-governmental Partners.....	- 77 -
5.2	Project Effectiveness Ranking by Impact Population and Households .....	- 79 -
5.2.1	Women’s perspectives on the effectiveness of Pathways activities.....	- 79 -
5.2.2	Men’s perspectives on the effectiveness of Pathways activities.....	- 80 -
5.3	Sustainability.....	- 82 -
6	Conclusions .....	- 83 -
6.1	Impact: Economic Poverty Reduction.....	- 83 -
6.2	Impact: Dietary Diversity and Intra-household Access.....	- 84 -
6.3	Impact: Livelihoods and Resilience .....	- 84 -
6.4	Assets .....	- 84 -
6.5	Impact: Women’s Empowerment.....	- 84 -
6.6	Change Lever 1 – Capacity .....	- 85 -
6.7	Change Lever 2 – Access .....	- 86 -
6.8	Change Lever 3 – Productivity .....	- 87 -
6.9	Change Lever 4 - Household Influence .....	- 88 -
6.10	Change Lever 5 - Enabling Environment.....	- 89 -
6.11	Project Management .....	- 91 -
7	Recommendations .....	- 91 -

## Acronyms

AWC	Anganwadi Centers
BPL	Below Poverty Line
CRPs	Community Resource Persons
CSI	Coping Strategy Index
5DE	Five Domains of Empowerment
FGD	Focus Group Discussion
FRA	Forest Rights Act
HDDS	Household Dietary Diversity
IGA	Income Generating Activity
IHA	Intra-household Access
INR	Indian Rupee
Kg	Kilogram
KII	Key Informant Interview
M&E	Monitoring and Evaluation
MFI	Microfinance Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
NGO	Non-governmental Organization
NTFP	Non-Timber Forest Products
PDS	Public Distribution System
PPS	Probability proportionate to size
RC	Reflect Circles
SC	Scheduled Caste
SHG	Self Help Group (equivalent to VSLA)
ST	Scheduled Tribe
TOC	Theory of Change
USD	United States Dollar
VSLA	Village Saving and Loan Association
WEI	Women's empowerment index
WEAI	Women's empowerment in agriculture index

## 1 EXECUTIVE SUMMARY

The Pathways program seeks to increase poor women's productivity and empowerment in more equitable agriculture systems at scale using a strong gender focus. Pathways works with Scheduled Caste and Scheduled Tribe communities in two rural districts of Kalahandi and Kandhamal of Odisha in India.

This Pathways endline evaluation occurred in December of 2015, a little over three years after the baseline study. The mixed methodology of the evaluation involves a quantitative household survey in 31 villages with 468 households, and a qualitative study in six purposively selected villages (three in each district). TANGO International led the baseline study and endline evaluation. GfK Mode, an Indian research firm, was contracted to provide enumerators and their supervisors.

### General finding conclusion

Pathways India has achieved significant gains in women's empowerment, including attitude shifts in men, rice productivity and improving the overall wellbeing of women and their households. The Pathways approach dovetails effectively with Indian government initiatives in strengthening safety nets for poor rural farmers and messaging in greater gender rights and equality. Livelihoods and resilience are strengthened through Pathways; however, there are significant limitations to building momentum due to poor farmers having limited access to sustainable water sources. Next steps for Pathways-style projects also include moving agricultural products up the value chain.

### More specific findings in this endline evaluation are:

1. CARE India's impact group is *Scheduled Caste and Scheduled Tribe women with monthly per capita household income less and \$7 (325INR) per capita per month from all income sources and having less than 2 hectares of land holding*. The household survey data does not indicate any statistical difference for the percentage of women meeting these criteria in mean per capita income at the endline when compared to the baseline period. However, for female-headed households in the survey (17% of all surveyed households) the percentage of women at this poverty level drops from close to one-half at the baseline to approximately about one-third at the endline period.
2. The household survey does not show statistically significant differences between baseline and endline values for mean or median income from all sources and for non-farm income. Households in the surveys may be underreporting their income due to fear of losing their eligibility to the Below Poverty Line (BPL) status and a potential loss of government benefits.
3. Both male and female-headed households show an increase in mean monthly per capita *farm income* from the baseline to endline period data by approximately \$1.30 over the project period to a little over \$2.00.
4. Over the project period the survey data shows significant growth in the number of households earning incomes from agriculture or related activities. The level of female-headed households with this income more than triples to 82% and male-headed households

nearly tripling to 85%. Qualitative information sources from local communities in the endline study point toward a significant shift in Pathways villages of households out from what they consider the poorest segment of their communities to a middle wealth category. This is due to Indian government work schemes and other support, non-governmental wage labor, and their own farming and income generating activities. Women in focus groups report a trend to greater wage labor equity with men.

5. There is an increase in dietary diversity of all households from 4.1 to 5.4 food groups when comparing the baseline and endline data. At the endline period, the data shows women's dietary diversity approximately equal to that of men. Access to all food groups listed in the survey increases for households, most notably for vegetables, and this correlates with "kitchen" home garden development in Pathways households.
6. The endline evaluation was conducted at a time when a late and limited paddy harvest was occurring due to drought in the project area. Survey respondents say the number of shocks over the five years prior to the endline survey have tripled for the previous five years at the baseline period. Most are climate related. Households reporting not having enough food or money to buy goods in the previous three months jumped from about 23% at the baseline to 88% in the endline period and growth in coping strategies suggesting greater stress in families resulting from recurring shocks. Negative household coping strategies, such as pledging to sell crops or livestock in advance, quadruples to about three-quarters of households comparing base-and endline data. However, nearly all households in the endline survey are using at least one adaptation strategy to reduce the impact of future shocks compared to a little more than half at the baseline period.
7. Asset values rise overall for households by about 15% comparing data from the baseline and endline surveys. There is approximately 21% growth in asset values when calculated without agricultural land. Non-mechanized farm equipment increases in the endline survey to nearly all households from just over half of households at the baseline period. The number of small livestock and poultry owned in households with such animals increase by several animals in each category.
8. The women's empowerment index score for women in male-headed households is unchanged (.16) when comparing data from the baseline and endline surveys. However, for female-headed households it grows 14 points from the baseline data to .75 (full empowerment is 1.0) thus driving up the overall WEI for all women by 6 points to .53. Women in focus groups of the endline qualitative study nearly universally describe themselves as more empowered economically and socially within their households and community.
9. The survey data show significantly more women having empowerment in selling or purchasing household assets growing from 29% to 54% of women between the two surveys. However, the same data indicates there is no growth or decreases in the percentage of women with decision-making or control of money. Women in focus groups of the endline study say they have input into income and expenses, and strong decision-making and control over income they are producing.

10. There is also growth in the baseline to endline data to large majorities of women expressing confidence in speaking about gender and community issues and having greater mobility empowerment. However, less than half of women interviewed in the endline survey express attitudes supporting gender equitable roles, such as if there ever is rationale for a man to hit a woman), the Pathways self-confidence domain and having access and decision-making on credit. Nevertheless, in these and other measurements, generally the empowerment scores improve when comparing the baseline and endline data. Qualitative information at the endline period indicates there is a trend is for women to have greater mobility outside of their village as their economic activities increase and it is becoming more culturally acceptable to move about either individually, in groups or with their husbands.
11. On whether women must tolerate violence in order to maintain stability in the family, the level of disagreement from women on this attitude rises significantly from the baseline to endline data from 28% to 81% and for men from 24% to 58%.
12. At the baseline period, women report alcohol consumption as perhaps the most serious social problem contributing to gender-based violence while also significantly affecting men's economic contributions to their families. By the endline period, important strides against alcohol misuse are evident including community leaders shutting down alcohol production facilities and imposing fines for drinking.
13. Though women are accessing credit through Self Help Groups (SHGs) and occasionally other financial institutions, their use of loans is primarily for basic needs such as medical expenses, food, clothing and education. This is consistent with the region experiencing shocks and the need to use savings and resulting credit to cover for the basic needs of their families.
14. More than three times as many women (89%) are accessing agricultural extension at the endline when compared the baseline period and nearly all express satisfaction with extension. Though there is a greater presence of government extension workers in their communities, women are particularly pleased with the help they receive from Pathways implementing partner Community Resource Person (CRP) staff and village volunteer/animators trained through Pathways. Consistent with this is survey data showing dramatic growth in women accessing agricultural inputs such as seeds and equipment growing from 37% of women at the baseline to 89% in the endline period. Development of Pathways-facilitated agricultural kiosks in close proximity to Pathways and other poor small holding farmers have great potential for more efficient provision of inputs and beneficial agricultural information.
15. Female SHG members across all the villages surveyed in the qualitative study report numerous changes in livelihood activities. Women are going to markets more frequently, both selling their produce from more productive kitchen gardens and buying supplies. Women at the endline period describe improvements in preparing and marketing forest products, such as high value *mahula*. All villages in the qualitative endline study post boards displaying market prices enabling better terms of trade and reducing the adverse role of middlemen (*kuchia*).

16. Yields for rice production, so integral to the diet of the population, has increased by approximately 27% over the project period according to survey data. A significant increase in productivity is verified in the endline qualitative study. This is significant achievement for Pathways. Increased productivity of paddy comes from many more farmers utilizing row cropping and improved seed quality. Unfortunately, persistent shocks, including the drought at the time of the endline may be wiping away the gains in productivity. And fewer women are engaged in post-harvest processes and improved storage when compared to the baseline period. Data do not indicate significant changes in yields of pulses or maize. Farmers are more resistant to growing maize for commercial purposes because of their susceptibility to damage from cyclones.
17. Qualitative discussions with forest rights, farmers and water groups indicate women are more actively participating in these collectives and in some there are greater numbers of women members including those in leadership positions. Women's mobility is a common issue to all of these collectives. They confirm women's mobility is strengthening across sectors, including access to forests, markets, government offices and other locations. They all agree that women's confidence is strengthening due to their having greater knowledge through Pathway's training and support from mechanisms such as animators, Reflect Circles and Community Resource Persons.
18. Female SHG members in each village of the endline qualitative study report an important change in men's perceptions of women's opinions on agricultural production and marketing. Women are more freely expressing themselves and men are now listening to their wives as a part of the decision-making process
19. In both male- and female-headed households, survey data indicate the vast majority of women are the sole or joint decision maker in the endline period for health care and family planning decisions. This is also the case in the baseline period. Female SHG members in all endline focus group discussions report they are often the primary household decision-maker in accessing health services. Decisions surrounding education are generally made jointly with their husbands. Pathways stakeholders give credit to implementing partners for re-enforcing this important government messaging on these issues.
20. Some patriarchal attitudes about family life continue to be held not only by men, but also by women in their opinions of their own roles in family life. On the subject as to whether they should do the work of each other the data shows no change between the base-and endline surveys with a little over half of men and women both groups expressing this attitude. However focus group of men and women in the endline qualitative study, even women who are not members of SHGs, report a general but slow cultural trend toward positive changes in these attitudes over the last three or four years. Men are helping more in the household division of labor over the last three to four years, such as in child care and fetching of wood and water – particularly when women are away from the home. The burden of increased activities of women in collectives and agriculture is eased some by greater involvement of men in household activities, more efficient agricultural production through Pathways and some comfort that comes with a general improvement in household livelihoods.

21. Women are represented in leadership positions of SHGs across all Pathways villages since these collectives are constituted for women under Pathways and training has gone into leadership and management of these collectives. Focus group participants report women are now found in some of the most important community positions including the Sarpanch, and serving as ward members. Focus groups of men leave the impression of an acceptance, or at least non-opposition, to women in such positions, rather than an attitude that they are strongly advocating for this.
22. In project management and approach, Pathways has strong complementarity to agricultural, livelihood and gender priorities of the Government of India and Odisha state and there has been a mutually beneficial learning relationship between CARE India and its implementing partners. Some partners would have liked a more participatory management and planning process allowing for greater focus on lessons learned and project strategy adjustments. The impact population says the project approach is particularly effective in strengthening SHGs to improve women's economic and social empowerment. They do not see effectiveness in land rights and access. Men indicate the project approach is effective in strengthening agricultural knowledge and practices, and bringing greater sensitization to gender relations in their communities.
23. Key among recommendations for Pathways is stronger inclusion of sustainable water access in the project approach to better assist poor farming households in their agricultural activities and thus livelihoods and resilience. Lack of access to water is, by far, the biggest challenge faced by the impact population and their communities. Additionally, having better access and timing to agricultural inputs would improve the effectiveness of training on inputs. The exit strategy for Pathways should consider mechanisms for continued support to SHGs and animators, and advocacy for successful linkages to government schemes and support. These are important project activities the impact population does not have confidence will be sustained in a post-Pathways period. Producer groups, income generating activities and linkages to formal microfinance institutions need to be prioritized in the next iteration of projects for communities Pathways has been working in.

## **2 INTRODUCTION AND BACKGROUND**

CARE's Pathways program seeks to increase poor women farmers' productivity and empowerment in more equitable agriculture systems at scale using a strong gender focus. Pathways, funded through the Bill and Melinda Gates Foundation, is implemented in India (the focus of this study) as well as selected regions of Ghana, Malawi, Mali, and Tanzania. The aim of the Pathways program was a deeper understanding of the pathways that particular segments of poor women smallholder farmers take toward empowerment and toward more secure and resilient livelihoods for their households. CARE hopes to grow the program over time to serve as an effective programming platform with evolving networks of influence and learning partnerships at many levels, and to achieve impact at scale for prioritized segments of smallholder farmers.

TANGO International designed and supported the implementation of an evaluation plan for CARE Pathways that involves:

1. A global evaluation framework;
2. Identification of the most appropriate, rigorous, and ethical impact assessment methodology to use across the different countries allowing for comparability between projects and countries;
3. Support to CARE country offices and their local partners in conducting the baseline and endline evaluations, ensuring quality data collection protocols and supporting data analysis; and
4. Producing publishable comparative and synthesis baseline and final reports.

The Evaluation Plan, provided as Annex 3 in the Supplemental Annex, presents a comprehensive overview of the following:

1. Pathways goals and objectives with corresponding impact and outcome indicators;
2. Data source definitions and collection methods for both quantitative and qualitative data;
3. Frequency and schedule of data collection and analysis;
4. Indicator descriptions, definitions, and analysis approach;
5. Approach and methodologies for analysis and interpretation;
6. Description of and approach for baseline and endline surveys; and
7. Designation of individuals responsible for monitoring and evaluation (M&E) tasks.

## **2.1 Pathways Theory of Change**

CARE's previous work on the Women's Empowerment Strategic Impact Inquiry along with an 18-month analysis process of women in agriculture in all six Pathways countries provides the basis of the Pathways Theory of Change (TOC). This includes five domains of change, or "change levers": a) women's capacity (i.e., skills, knowledge self-confidence), b) access to productive assets/resources (e.g., inputs, financial tools), c) increased productivity, d) increased influence over household decisions and assets, and e) improved enabling environments (i.e., cultural and social norms and attitudes, gender-sensitive policies). Figure 1 represents the Pathways TOC.

Figure 1: Pathways Theory of Change



The program theorizes that marginalized, poor women farmers will be more productive, and that their families will be more food secure when:

- women have increased capacity (skills, knowledge, resources), capabilities (confidence, bargaining power, collective voice), and support;
- local governance and institutions have/implement gender-sensitive policies and programming that are responsive to the rights and needs of poor women farmers; and
- agricultural service, value chain, and market environments of relevance to women are more competitive, gender-inclusive, and environmentally sustainable.

The Pathways results framework in Annex 1 illustrates the program's TOC approach, with positive change toward increases in food security and empowerment resulting from the five change levers: capacity, access, productivity, household influence and enabling environments. Objectives 2 and 3 ensure lessons learned from the Pathways experience contribute to positive change in the global discourse on equitable agricultural programming at scale.

## 2.2 Baseline and Endline Comparison Data

Throughout India, women farmers face inequalities. This is especially true of those in historically poor and disadvantaged Scheduled Tribe (ST) and Scheduled Caste (SC) communities. The Pathways initiative is concentrated in two very poor districts in the state of

Odisha with significant ST and SC populations: Kalahandi and Kandhamal. ST and SC groups face considerable challenges in these districts with livelihoods impacted by often-difficult terrain and shocks, including serious and ongoing consequences of climate change and communal violence occurring in 2008 In Kandhamal.

The initially defined impact group for Pathways in Odisha is 12,000 poor, small women farmers in SC and ST communities.<sup>1</sup> Another 40,000 individuals are to have positive impacts in the households of these women, including men - particularly husbands - in alliance building to change attitudes and social norms to promote equity for women.

The main purpose of the baseline and endline studies is to provide quantitative and qualitative data on food and livelihood security, agricultural productivity and gender equality in CARE India's impact groups. The studies provide information necessary to characterize the status of beneficiaries at the project's start-up and again at the endline period, in order to assess the effect of project interventions. The purpose of both surveys is to estimate and analyze the status of key impact and outcome indicators described in the CARE Pathways Indicator Framework in Annex 2.

Baseline information helps to set short and long-term targets for tracking progress of Pathways activities. Findings also refine and/or prioritize project activities in the operational area. The baseline survey is also explicitly designed to enable an evaluation of program performance through implementation of a directly comparable endline survey. Results for all indicators for which information is collected at baseline and endline periods are presented in Annex 3.

This endline evaluation report first describes the methodology in the studies, including data collection and data analysis, followed by a presentation of results and qualitative findings for food security, resilience, income, and empowerment impact indicators for CARE's targeted program participants and their households. Section 4 present survey results and qualitative findings for CARE Pathways outcome indicators. Section 5 reviews project management followed by Section 6 with conclusions organized by Impact areas Pathways Change Levels. The report concludes with recommendations for Pathways or for similar projects aiming to integrate agricultural productivity and gender equality.

### **3 METHODOLOGY**

The Pathways baseline and endline surveys use a non-experimental design for pre-post comparison of results. The survey is "beneficiary-based" in that the sample is drawn randomly from a sample frame composed of all households with a female member in a collective with which Pathways is working. The sample size is determined to provide statistically representative results for household and individual level indicators at the project level. At the baseline period, in a two-stage selection process, 524 Self Help Group ("SHGs", called VSLAs in some other Pathways countries) clusters were first randomly selected using probability proportionate to size (PPS) based on female membership in CARE's SHGs. In the second-stage of sampling, 12

---

<sup>1</sup> The initial target was 10,000. It was revised in 2014 to include another 2,000 small women farmers.

female SHG members were randomly selected from each SHG cluster. In cases where a SHG did not have 12 or more members, two to three SHGs are clustered based on geographical proximity and the second stage sample is drawn from these clusters. Designed as a longitudinal study, data is collected from the same households for both the endline and the baseline surveys. Due to the project reducing project implementation areas and overall attrition, the endline sample is significantly reduced. This is explained in detail in Section 3.2.

### 3.1 Development of Indicators and Data Collection Tools

Pathways impact and outcome indicators were developed through discussions at the CARE M&E workshop held in Pondicherry, India in May of 2012 and subsequent comments from CARE-USA management and staff. As a result of the May workshop, indicators were developed that would allow for assessing the broader impact of CARE’s work with systems that affect women’s productive engagement in agriculture, and in particular with the CARE Australia WE-RISE program because of its strong gender focus, similar program approach and methodology, and overlapping countries of implementation. Thus, a set of “global” indicators is designed to align with better practices and is validated by experts from FANTA-2, USAID, IFPRI, and others. Detailed descriptions of indicators, along with direction of change targets, are summarized in the CARE Pathways Evaluation Plan.<sup>2</sup> Indicators included in the matrix represent those that are tracked at the impact and outcome levels. Some are composite indicators that require the combination of two or more variables. Some indicators are disaggregated by sex or sex of the household head; others target women beneficiaries only; and some are disaggregated by male and female respondents within the same household.

Impact indicators are in the side box. The full set of indicators (impact and outcome levels) and results are found in Annex 3.

Pathways India developed “Progress Markers of Outcome Challenges” early in the project period through a participatory process with the impact population and other stakeholders in their local communities. The outcome challenge for women is “A women independently makes decisions for her household. She is able to travel from her village and regular access to institutions like the bank and market as well as opportunities to expand her skill level. She is

<b>Pathways Impact Indicators</b>	
<b>Food and Nutrition Security</b>	
<ul style="list-style-type: none"> <li>● Mean household dietary diversity scores</li> <li>● Mean women’s intra-household food access</li> </ul>	
<b>Livelihoods Resilience</b>	
<ul style="list-style-type: none"> <li>● Coping strategies index</li> <li>● % households adopting negative coping strategies in last 3 months</li> <li>● % households using adaptation strategies to reduce the impact of future shocks</li> </ul>	
<b>Economic Poverty Reduction</b>	
<ul style="list-style-type: none"> <li>● Per capita monthly household income in USD (farm and non-farm combined)</li> <li>● Per capita monthly household expenditures</li> <li>● % households with savings</li> <li>● % women with savings</li> <li>● Mean asset index</li> </ul>	
<b>Women’s Empowerment</b>	
<ul style="list-style-type: none"> <li>● Women’s empowerment index</li> </ul>	

<sup>2</sup> TANGO International. 2012. CARE Pathways Evaluation Plan.

economically independent and communicates freely with anyone. Her decisions are fully recognized by members of her household. She may occupy a leadership position in her household. “

The outcome challenge for men is “A man consistently and voluntarily engages in domestic tasks. He wakes up early to help his wife with household activities. He does not drink alcohol and commits no violence against women.”

The categories of Progress Markers are: 1) Gender division of labor, 2) Intra-household negotiation, communication and decision-making; 3) Sharing control of income and productive assets/resources; 4) Role modeling and respecting women’s rights/values (public); and 5) Intimacy and harmony in the relationship.

Specific progress marker statements are made that Pathways would *expect, like or love* to see. Findings on progress markers exist throughout Section 5 of this report.

Monitoring and Evaluation indicators and targets were also developed by Pathways India as found in Annex 4. These indicators are highlighted in Section 6 Conclusions of this report, along with process made toward the targets identified for the indicators.

### 3.2 Sample size

The baseline survey design is developed from the Pondicherry workshop and subsequently reviewed by CARE USA before implementation of the survey. India (and all other Pathways countries) independently calculated their sample size based on household expenditures, with a targeted improvement of 30% ( $X_2$ ) over the life of the activity. A design effect of 2,  $Z_\alpha = 1.282$  (Z-value corresponding to a 90% significance level), and  $Z_\beta = .84$  (Z-value corresponding to 80% power) were used for all country-level calculations. India set the non-response factor at 3%, attrition rate at 15%, and  $X_1$  at 1.

The minimum sample size required was computed using the formula for means provided in the FANTA Sampling Guide:  $n = N * D [(Z_\alpha + Z_\beta)^2 * (sd_1^2 + sd_2^2) / (X_2 - X_1)^2] * A$ , where:

$n$  = required minimum sample size per survey round or comparison group

$N$  = non-response factor

$D$  = design effect

$A$  = attrition factor (baseline to endline)

$X_1$  = the estimated mean of the indicator at the time of the first survey

$X_2$  = the *expected* mean of the indicator either at some future date or for the program area such that the quantity  $(X_2 - X_1)$  is the size of the magnitude of change or comparison-group differences it is desired to be able to detect

$Z_\alpha$  = the Z-score corresponding to the degree of confidence with which it is desired to be able to conclude that an observed change of size  $(X_2 - X_1)$  would not have occurred by chance ( $\alpha$  - the level of statistical significance)

$Z_\beta$  = the z-score corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size  $(X_2 - X_1)$  if one actually occurred ( $\beta$  - statistical power)

$sd_1$  = the expected standard deviation of the indicator the time of the first survey

$sd_2$  = the expected standard deviation of the indicator at some future date

Using these values,  $n$  (the minimum baseline sample size) was computed as 887. The total number of households surveyed at baseline was 925, keeping the sample within the 3% non-response rate that India had budgeted for, but not allowing for any non-response at endline. Due to the project reducing project implementation areas and updating participant rosters to exclude households who are longer participating in the program or who had migrated out of the program area—resulting in an endline target sample of 530 (42.7% attrition versus the 2% the country office had budgeted for).

This much smaller endline sample was due to two main factors. First, during and following the 2012 baseline activities CARE Pathways determined that some of the collectives targeted (previously promoted by Pathways subgrantees and under different government schemes did not meet targeting criteria for the Pathways program—they were from better-off households and/or resided near urban hubs where access to land was difficult. In October 2012 the project determined to stop all activities in these areas. The 393 women from the baseline sample who resided in these communities were dropped from the endline sample. Second, attrition was much higher than anticipated from the baseline to endline period. About 4% of the baseline sample (24 households) no longer participated in the program either because they had moved to another area, died, or willingly dropped out. Together these two factors resulted in a reduction of the baseline sample by almost half (42.7%), putting the endline target sample size at 530. The endline survey experienced an 11.7% non-response rate, resulting in 468 households total interviewed, for an overall 49.4% rate of attrition and non-response compared to households interviewed at the baseline period.

Table 1. Sample Sizes

	<i>Baseline achieved sample size</i>	<i>Endline target sample size<sup>1</sup></i>	<i>Endline achieved sample size</i>	<i>Attrition and non-response rate<sup>2</sup></i>
Pathways	925	530	468	49.4%

<sup>1</sup>This list is based upon all households to complete the baseline survey, and is updated for project staff to exclude households no longer participating in program or to have migrated away from program area

<sup>2</sup>This figure includes non-response and attrition since baseline. Households who could not be located, households where the female interviewed at baseline was not available, households who were located but stated they had not participated in the program in over a year, and households who did not consent to participate in the survey.

Following discussions between CARE headquarters and TANGO, it was agreed that the baseline and endline comparisons would not include households who reside in communities where Pathways ceased to operate in 2012. The restricted baseline sample is the source of data for estimates presented in this report. Point values for the baseline are recalculated to better

reflect the status of the project participant population. Annex 3 presents original and restricted baseline values for all impact and outcome indicators.

Table 2 Endline analysis sample size

	<i>Baseline Sample Size</i>	<i>Restricted Baseline<sup>1</sup></i>	<i>Endline Sample Size</i>
All households	925	554	451
Female-headed households	209	130	84
Male-headed households	715	424	384

<sup>1</sup> Households who reside in communities where Pathways ceased to operate are omitted from endline analysis. Point values for the baseline are recalculated to better reflect the status of the project participant population.

The data collection tools originate from a standardized set of global tools developed in collaboration with CARE-USA and CARE-Australia. CARE India helped to contextualize the standardized tools to the local context. The quantitative survey instrument is designed to ensure that baseline information on project indicators is sufficiently captured. The indicators emphasize women’s empowerment across the five domains identified in Feed the Future’s *Women’s Empowerment in Agriculture Index*<sup>3</sup> (WEAI), including agricultural production, access to and ownership of resources, control over income and expenditures, leadership and community participation, and allocation of time. TANGO and CARE also drew on other sources to develop the indicators, including CARE’s Strategic Impact Inquiry on Women’s Empowerment<sup>4</sup> and IFPRI’s *Engendering Agricultural Research, Development and Extension*.<sup>5</sup> The quantitative survey tool is found in the Supplemental Annex.

### 3.3 Survey Training and Logistics

CARE India recruited 25 Indian enumerators and five supervisors to carry out the household survey, and twelve qualitative facilitators and interpreters (half male and half female) to carry out the complementary qualitative research. CARE India and its Pathways implementing partners provided administrative and logistical support for the quantitative and qualitative teams throughout the survey.

TANGO International trained all endline survey team members – household interviewers, team supervisors, and program M&E staff responsible for coordinating the data collection and aggregation. Training took place over a total of six days (December 3 – 8, 2015). A field visit

<sup>3</sup> USAID. 2011. Women’s Empowerment in Agriculture Index.

<sup>4</sup> 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.

<sup>5</sup> IFPRI. 2011.

served as a pilot test of the survey. A progressive system of strengthening the qualitative team's interviewing and focus group facilitating skills and tools occurred over the course of the evaluation.

Quantitative training covered the following topics:

1. Overview of CARE's Pathways program and Country Project
2. Review of the objectives of the endline evaluation
3. Detailed discussion of the survey tool (question-by question)
6. Training on administering the questionnaire with tablets
7. Pilot testing of the survey tool
8. Modifications to the survey tool in response to the pilot test

Enumerators and supervisors received basic training on the use of computer tablets, including how to enter data, recharge batteries, and navigate the survey using ODK software. Supervisors also received training on how to transfer data files from tablets to the TANGO server via wireless connection. Training modules on tablets are based on similar materials developed by TANGO for quantitative surveys. The questionnaire is programmed into the tablets in both Oriya and English. During the course of training, several modifications are made to the Oriya translation and to specific questions to make them relevant to the local context. Enumerators practiced the questionnaire in Oriya repeatedly to ensure that they understood the questions, and had practice in conducting interviews using the tablet.

The M&E supervisors and staff from the CARE Pathways program and implementing partners were responsible for logistical coordination of the field-based survey teams.

### **3.4 Data Collection and Data Quality Measures**

Survey data were collected December 9 – 17, 2015 in 16 villages of Kalahandi district and 15 villages in Kandhamal of CARE India's Pathways project. Quantitative data is collected using Nexus 7 tablets programmed with ODK. Each enumerator used the Oriya version of the questionnaire to record interviews. Supervisors conducted one spot check per day, per enumerator. This allowed them to check regularly the quality and accuracy of the data entered by the enumerators. Supervisors regularly communicated the results of spot checks to TANGO.

TANGO provided direct oversight for the quantitative teams for the first four days of fieldwork. For the remainder of the study, TANGO provided comprehensive daily feedback to CARE and the quantitative survey supervisors on the quality of data collection. The feedback highlighted issues with specific questions or enumerators in a way that enabled supervisors to work with individual enumerators to improve data collection efforts.

### **3.5 Qualitative Study**

#### ***Qualitative Tools***

A variety of qualitative participatory tools were developed to explore contextual factors, including agency, structure, and relations and their impact on poor smallholder women farmers. The qualitative tools allowed the team to capture information on norms that affect women's empowerment and power relationships, particularly as these factors relate to

women's ability to actively engage in and have control over agricultural production and marketing activities. The tools are designed to provide insight to better understand and interpret the quantitative indicators and to help identify the key factors critical to the success of the program, including progress markers defined at midterm by participants and country team.

Topical outlines are developed for female members of collectives, their husbands or male relatives, nonmembers of collectives, land and forest rights committees, water user groups, male champions, animators, community resource persons and leaders, partner (including government) and project staff.

In addition to topical outlines, the following participatory tools for adapted specifically to the Pathways project: a ranking exercise capturing the perceived effectiveness of Pathways project activities, a wealth ranking tool, daily activity record for women and a social gender mobility mapping tool. These tools are found in the Supplemental Annex.

### ***Qualitative Team and Training***

The qualitative data collection team was led by a second TANGO International consultant and an Indian group leader among the twelve Oriya speaking members of the team. Originally the qualitative team numbered six facilitators, but they were found to have limited English skills, particularly in writing and word processing information into topic outline reporting forms. This required the additional interpreters who were also used to take notes on interviews and focus groups. The TANGO consultant returned to the United State just prior to the final village researched and two days of group summary lead by the Indian team leader. For every day spend in the field with research, the group spent a day recording the information. In addition to the joint training with the quantitative team on the first day of training, the qualitative team spent four additional days reviewing, self-testing and adjusting the group topical outlines and tools. Training also focused on effective group facilitation, probing for content and recording of information in matrices developed for data collection.

### ***Site Selection***

The qualitative sample (six communities) was a subset of the quantitative sample involving three villages each in Kalahandi and Kandhamal districts of Odisha. Additionally key informant interviews were held with officials, project and partner staff in the district cities of Bhanipatna and Phulbani, and in Odisha's capital city of Bhubaneswar. The villages are purposively selected by TANGO in collaboration with CARE India staff by maximizing a diversity of relevant criteria listed below:

- Scheduled Caste and Scheduled Tribe population proportionality
- Forest and agro-livelihood zones
- Relative number of villages connected to Pathways within jurisdictional Blocks of a district
- Road accessibility and proximity to cities
- Coverage of other development programs
- Availability of specific Pathways project initiatives such as agri kiosks, male champions, and water users groups
- Length of time village stakeholders connected to Pathways and access to services

- Project staff perception of success / lack of success of marketing initiatives

A file accompanying the Supplemental Annex provides more detail on the selection of villages by the qualitative team.

### **Data Collection**

Participatory methodology is in use throughout the assessment to secure information from program participants, including their views of changes in their lives and communities over the project period, and what is most valuable and relevant. Qualitative data collection occurs through three main focus group discussions (FGDs) in each of the six villages visited. The three focus groups are with a) female SHG<sup>6</sup> members, b) husbands or male relatives of female SHG members, and c) female non-members. The ranking exercises are done with female SHG members and the men’s group. Additionally, in each district approximately two focus groups or participatory exercises are done with local stakeholders involving male champions, animators, water user groups, land and forest rights committees, wealth ranking, daily activity and social gender mobility. All focus group discussions were conducted in Oriya and occasionally there was interpretation help in the local tribal dialect of Kui

Pathways India staff at all levels were interviewed in an on-going basis throughout the endline evaluation, including on road trips to villages and as other opportunities presented themselves in the field work. Women and men farmers were occasionally asked for “mini-interviews” for case stories or other information. The more formal qualitative information gathering sessions are found in the following table.

#### **Focus Groups, Participatory Group Exercises and Key Informant Interviews**

<b>Category</b>	<b>Focus Groups of Farmers</b>	<b>Participatory Group Exercise</b>	<b>Focus Groups or Key Informants</b>	<b>NGO Pathways Partners</b>	<b>Government Key Informants</b>
Specific groups or individuals	Female SHG Members, Male counterparts, Female nonmembers	Project Activity Ranking (Men and Women), Mobility Mapping, Wealth Ranking, Daily Activity	Animators, land and forest rights committees, Community Resource Persons, Reflect Circles, Male Champions, Water Committees, Ag Kiosks	Strategic and Implementing Partners	Sarpanch, Agriculture Officers, Welfare Extension Officers
<b>Total</b>	<b>16</b>	<b>24</b>	<b>16</b>	<b>10</b>	<b>8</b>

Topical outlines and tools for the above group discussions and interviews are found in the Supplemental Annex.

### **3.6 Data Analyses**

**Quantitative analysis:** The quantitative data were collated and configured by TANGO International staff using SPSS v20.0 software. This included organization of the data to align to the common indicator framework, calculation of secondary variables (asset index, coping

<sup>6</sup> Self Help Group is the term used in India to describe what is the equivalent of Village Saving and Loan Associations in other Pathways countries. SHGs have their origins in the national movement to form micro-credit collectives by the Government of India and civil society in the early 1990s.

strategy index, etc.) from primary variables where appropriate,<sup>7</sup> and formulation of tables and charts. Analysis and reporting is consistent with the CARE Pathways Evaluation Plan, therefore some data are disaggregated by sex of respondent, some data are reported for female respondents only and are disaggregated by the sex of their households' head, other data are reported for female respondents only and are not disaggregated, and finally some data are reported for the household, disaggregated by the households' head (e.g., demographic data, savings, etc.)

Statistical differences are determined with t-tests or non-parametric tests (e.g., Mann-Whitney U). Probability levels are reported for statistically significant differences only.

**Qualitative analysis:** With each day of data collection, the team spent approximately one day reviewing all data collected, cross check information and its interpretation, and to sharpen inquiry tools as necessary. All notes are electronically captured in English into informational matrices. This information is synthesized into a variety of summaries and is integrated with the quantitative analysis in this report by the TANGO consultant.

### 3.7 Study Limitations

The endline survey is programmed into the tablets in Oriya language. The baseline survey was programmed in English and translated by enumerators as they administered the questionnaire. While this greatly improves the accuracy and reliability of the endline data (all enumerators asked questions exactly the same way) it may also mean that baseline and endline questions were asked slightly differently. If so, survey participants may have elicited different types of responses due to differences in translation. The effect of this is unknown.

Various communities were busy with harvest during the endline evaluation due to abnormal weather patterns. Project implementers had a challenging time bringing together community members for some of the participatory information gathering exercises, particularly for wealth ranking and daily activities, and for focus groups of women who are not SHG members. Information from the limited number of participants in these groups is not as strong as focus groups and ranking exercises with SHG members and their husbands.

---

<sup>7</sup> Annex 5 provides a description of how the asset and coping strategy indices are computed. Annex 6 describes the computation of the WEI, as well as how it aligns to and differs from the WEAI.

## 4 Findings

### 4.1 Household Characteristics

This section summarizes the household characteristics of the sampled SHG members.

#### Core Impact Groups

CARE India defines its core impact group for Pathways as “women with household income less than \$7 (325 INR) per capita per month from all income sources with less than 2 hectares of land and belonging to either a scheduled caste or scheduled tribe.”

The data as found in Table 3 do not indicate any statistically significant difference between the baseline and endline survey time for all households and male-headed households in the poverty criteria that define the core impact group. However, there is a significant difference for female-headed households in their income and/or land ownership with about one-half of these households meeting the criteria decreasing (improving) to approximately one-third.

Table 3. Percentage of households meeting criteria for Pathways impact group

Indicator	% Households		Sample Size	
	Baseline (BL)	Endline (EL)	BL	EL
All households	45.1	44.2	554	468
Female HHHs	49.2	34.5*	130	84
Male HHHs	43.9	46.1	465	384

As would be expected in a longitudinal study over a period of just three years, household demographics are similar between baseline and endline surveys. Table 4 shows the average number of household members reported at endline is 4.2 compared to 4.5, presumably due to the number of children under 18 years of age in the household reduced from 1.7 to 1.4. National awareness building initiatives to reduce family size and the gender approach to Pathways may also explain the fewer number of children and reduced family size. Polygamous marriages have dropped since the baseline from 4.5% to 2.6% for perhaps the same reasons.

The percentage of female-headed households in the sample has decreased from 23.5% to 17.9%. This could be due to a change in demographic from the original members of collectives given villages added and dropped in the project since the baseline study.

As expected, the increase in mean age of the household head (currently 48.8 years) is relative to the three years between the two surveys. Levels of education of household heads remain constant.

Approximately four of five households in the surveys are Scheduled Tribe and one of five is Scheduled Caste.

Table 4. Household demographics

Indicator	#s of individuals, % of households, years in age			Sample Size	
	BL	EL		BL	EL
Household size	4.5	4.2	***	554	468
Number of children (under 18)	1.7	1.4	***	554	468
Number of females in household	2.2	2.2		554	468
Number of females involved in Ag in HH	1.2	1.3		554	468
% of female headed households	23.5	17.9	**	554	468
Age of head of household	46.0	48.8	***	554	468
Education of head of household (%)					
No formal education	52.7	48.3		554	468
Lower primary (class 1-4)	15.7	16.5		554	468
Upper Primary (Class 5-7)	11.4	13.3		554	468
High school ( 8-10)	16.8	18.6		554	468
Intermediate (11-12)	2.0	2.4		554	468
Graduation	1.4	1.1		554	468
Marital status of head of household (%)					
Single	0.4	0.9		554	468
Married (Less than or equal to two years)	4.7	11.8	***	554	468
Married (More than two years)	82.5	75.4	***	554	468
Divorced	0.5	0.2		554	468
Widow/Widower	11.9	11.8		554	468
Class					
Scheduled caste	19.7	19.0		542	468
Scheduled tribe	80.3	79.1		542	468

Other backwards class	0.0	1.7	***	542	468
General	0.0	0.2		542	468
Polygamous marriage	4.5	2.6	*	553	468

Note: the above asterisks are used in tables throughout this report to demonstrate statistical differences of endline data from those at the baseline at the 10% (\*), 5% (\*\*) or 1% (\*\*\*) levels. The asterisks indicate the probability of being wrong when reporting two different underlying population means. More asterisks are for higher levels of statistical significance. One asterisk (\*) =10% and corresponds to a probability <=.10. This means that there is a 10% probability of being incorrect when reporting different means. Two asterisks (\*\*) means there is a 5% probability of being incorrect. The best case, three asterisks (\*\*\*), corresponds to a probability of .01-only a 1% chance of being incorrect when reporting different means.

Prior to moving into evaluation findings on food security, livelihoods and resilience it is important to note the Government of India is taking important steps in building a national safety net system for poor farming families and communities and conducting awareness campaigns to protect women against abuse and violence. The national Forest Rights Act aims to protect the rights of Scheduled Tribes. Pathways is strongly complementary to these government priorities. The Public Distribution System (PDS) is an Indian food security system. It is established under the Ministry of Consumer Affairs, Food and Public Distribution and managed jointly with state governments. The PDS distributes subsidised food and non-food items to India’s poor, such as staple food grains, rice, sugar and kerosene, through a network of shops and networks. Families gain access by being established as “below the poverty line” (BPL) and ration cards are issued. The PDS exists for all families eligible for BPL status, which is considerable in the Pathways project regions. Widespread concerns exist about inefficiencies, inconsistencies and black marketing of goods in the PDS. Additionally, income reported by households in the baseline and endline surveys may be distorted out of fear that families may be disqualified from BPL status.

There are additional important safety net systems in India. Notable are the Anganwadi Centers (AWCs) existing since the 1970s, and a public works scheme starting in the 1980s and enacted in 2005 by the Indian Parliament in 2005 as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). The latter guarantees up to 100 days of work at a rate of about Rs. 174 a day in Odisha for rural adult Indians willing to do unskilled work. Examples of work include watershed and road development, as well as tree planting/reforestation. AWCs are part of the Integrated Child Development Services program to combat child hunger and malnutrition. Services can include contraceptive assistance, nutrition education and supplementation and pre-school activities. Many if not most households in Pathways project areas are accessing this support.

According to Pathways strategic forest rights partner Vasundhara, forestry is the backbone of tribal communities as a primary source of livelihoods and food security. India’s landmark Forest Rights Act (FRA), passed in 2006, is designed to restore the rights of tribal peoples to the forest land and resources. Pathways, in collaboration with Vasundhara and government officials with FRA responsibilities, seeks to raise awareness of tribal rights to forest land consistent with the Act, including transference of titles of land to include women. Additionally, Pathways is

working for inclusion and leadership of women in a variety of forest rights, management and conservation committees. Tribal women spend a great deal of time in forests gathering food and other resources. As a result Pathways works with women to strengthen their livelihoods in these activities.

Critical to realizing the overarching long-term Pathways impact goal of “*more secure and resilient livelihoods for poor women farmers*” are improvements in food and nutrition security. The primary indicators used in this study to measure levels of food security are: 1) the household average dietary diversity score (HDDS), a proxy for food access, and 2) the mean women’s intra-household food access score. Table 5 illustrates that there are noteworthy improvements in these two indicators.

#### 4.1.1 Dietary Diversity and Intra-Household Access

The main food preparer (typically the sampled SHG member) is asked to report on 12 different food groups consumed by any household member over a 24-hour period (the day and night prior to the interview). The responses produce a HDDS between 0 and 12, with the higher score demonstrating access to diverse food groups. After determining whether *any* household member consumed each of the 12 food groups, the main food preparer is asked if all, some, or no female household members over the age of 15 ate the food item. The responses for “all women” or “some women” produce an intra-household access (IHA) score between 0 and 12, with the higher score indicating greater access to diverse food groups.

The mean HDDS for all surveyed households increases from 4.1 to 5.4 food groups from the baseline to endline period - meaning households are on average accessing about five different types of food daily. The biggest jump is for female-headed households increasing food access by about 40% over the increases in male-headed households. Access to food diversity between these two groups moves from inequitable to close to equitable status over the period of the project. The same picture exists for women’s intra-household dietary diversity, meaning women within households are benefiting from greater dietary diversity. This is especially evident for female-headed households where women are now reporting nearly the same dietary diversity as men (5.3 for women, 5.4 overall for the overall household).

Table 5. Food & Nutrition Security

Indicator	# of food groups			Sample Size	
	BL	EL		BL	EL
IM 1.1: Mean household dietary diversity scores					
All households	4.1	5.4	***	552	445
Female HHHs	3.8	5.4	***	130	78
Male HHHs	4.2	5.4	***	422	367
IM 1.2: Mean women’s intra-household food access					

All households	3.9	5.3	***	552	445
Female HHHs	3.5	5.3	***	130	78
Male HHHs	4.0	5.3	***	422	367
Statistically different from baseline at the 10% (*), 5% (**) or 1% (***) levels.					

Table 6 demonstrates how access to specific food items changes since baseline period. There are increases in some important food items though the data do not indicate statistically significant differences between the baseline and endline values for some items. Women, not just households, are benefiting from this increase in access. The most significant growth in household food access is in vegetables (57.1% to 75.7% in the project period), fruits (2.2% to 15.3%), fats and oils (39.3% to 62.3%) and sugars (25.9 to 53.7%). All of these increases are in key categories of nutritional diversity. There is little consumption of meat, eggs and fish; however, the growth of consumption of fish is significant increasing by nearly 400% to 6.5% of households. The endline qualitative study in Pathways villages did not learn of any fish pond initiatives, so fish consumption could be resulting from fishing in local waterways or being purchased from markets.

Table 6. Food categories

Indicator	BL	EL		BL	EL	
Food categories consumed day prior to survey						
	% of HH reporting someone consumed item			% of HH reporting women consumed item		
Cereals	99.8	100.0		97.6	98.9	
Tubers	73.0	86.5	***	71.0	85.6	***
Vegetables	57.1	75.7	***	55.4	75.1	***
Fruits	2.2	15.3	***	2.2	15.3	***
Meat	3.3	4.0		2.5	3.8	
Eggs	2.4	2.5		1.8	2.3	
Fish	1.6	6.5	***	1.6	6.3	***
Pulses	58.5	61.6		57.1	60.9	
Dairy	2.4	7.4	***	1.6	7.4	***
Fats/Oils	39.3	62.3	***	37.5	61.6	***
Sugars	25.9	53.7	***	23.7	52.6	***
Condiments, etc.	42.4	60.2	***	38.2	59.1	***
n	552	445		552	445	

## 4.2 Impact: Livelihoods Resilience

To understand progress toward the long-term goal of “more secure and resilient livelihoods,” Pathways tracks information to inform four key areas: the coping strategy index (CSI), adoption of negative coping strategies in past three months; adaptation strategies to reduce the impact of future shocks, and household asset holdings, reflected in an asset index. Measuring the resources that individuals and households can draw upon to reduce vulnerability, provides insight on household capacity to absorb a range of different risks and adapt to various external drivers of change (e.g., ecology, economics and socio-cultural).

### 4.2.1 Coping Strategies

*Coping Strategy Index (CSI):* The CSI is a tool used to measure behavior change in households when they cannot access adequate or preferred foods. It is a food security and early warning indicator, including longer-term changes in food security status.<sup>8</sup> The CSI attempts to answer the following question: “What do you do when you don’t have enough food, and don’t have enough money to buy food”? The various answers to this question comprise the basis of the CSI score. The lower the score, the greater food security. CSI’s maximum score is 100. Annex 5 provides more details on how the CSI is computed.

Kharif is the main rice-growing season for Odisha farmers, “normally” occurring from June - November. Due to erratic rainfall widely considered a consequence of climate change, many farmers in the project area were just bringing in their harvests with 40%-60% reduced productivity rates, according to a variety of Pathways stakeholders. The baseline survey was conducted about one month earlier than the endline. Farmers at the baseline period had relatively normal production from their recent harvest. This helps to explain the higher CSI score as seen Table 7 growing from approximately 3 to 10 over the project period, with only marginal differences between male and female-headed households.

As a result of the shock at the endline period, households reporting not having enough food or money to buy goods in the previous three months jumps alarmingly from 23.2% at the baseline period to 87.8% during the endline period. Female-headed households go from fewer in this situation (16.9%) to more not having enough money or food (90.5%). This corresponds with the increase in CSI and means there is a greater level of household stress with the shock. Results presented in Table 9 verify farmers reporting dramatic increases in the number of shocks since the baseline period from major drought, erratic weather and rising food prices.

Data in Table 7 show the percentages of households using eight common consumption coping behaviors one or more times per week in the last 30 days. All categories show significant data increases in coping behaviors. In addition to about four in five families having to borrow food or money at three times the levels as in the baseline period, the number of families doubled to about 40% eating less preferred or expensive foods and reducing the quantity of foods eaten per day. Nearly one in four households (24.6%) restricted consumption in the household so

---

<sup>8</sup> Developed by CARE and field tested by WFP and CARE, the CSI has been used for early warning and food security monitoring in African and Asian countries, in addition to several Middle Eastern countries.

that others could eat normally and one in five households (18.9%) report a respondent skipping a meal for an entire day.

Table 7. Coping with food shortages

Indicator	% of households			Sample Size	
	BL	EL		BL	EL
IM 1.3: Coping strategies index					
All households	3.2	9.7	***	554	468
Female HHHs	3.1	9.5	***	130	84
Male HHHs	3.2	9.8	***	424	384
Households who did not have enough food or money to buy food in past 3 months					
All households	23.2	87.8	***	552	468
Female HHHs	16.9	90.5	***	130	84
Male HHHs	25.1	87.2	***	422	384
% of HHs to use consumption coping strategy at least once a week					
Borrowed food or borrowed money to buy food	22.3	79.3	***	552	468
Relied on less preferred or less expensive foods	20.9	41.2	***	554	468
Reduced the number of meals or the quantity eaten per day	17.0	39.3	***	554	468
Skipped eating due to lack of money or food for entire day	9.6	18.6	***	554	468
Consumed taboo food, wild food, famine foods which are normally not eaten	5.1	19.0	***	554	468
Restricted consumption of some family members so that others could eat normally or more	5.6	24.6	***	554	468
Eat seed stock held for next season	5.1	26.1	***	554	468
Beg or scavenge	0.4	5.6	***	554	468

Statistically different from baseline at the 10% (\*), 5 %(\*\*) or 1 %(\*\*\*) levels.

Table 8 shows that the number of households who report using at least one of these “negative” coping strategies has quadrupled across the sample population (18.8% versus 75.9%). Female-headed households started and ended at marginally lower rates of these strategies when compared to male-headed households.

About half of the households (51.7%) pledge crops or livestock sales to meet their household needs up from practically nil (2.5%) at the baseline period. About one-third of households take

loans with interest, 17.2% slaughter an animal and 15.9% participate in a cash or food for work program.. All of these coping strategies at the endline period are double or triple what they were during the baseline period.

Table 8. Non-consumption coping strategies adopted by households

Indicator	% of households			Sample size	
	BL	EL		BL	EL
IM 1.4 : % households adopting at least one negative coping strategy in past 3 months					
All households	18.8	75.9	***	554	468
Female HHHs	13.8	73.8	***	130	84
Male HHHs	20.3	76.3	***	424	384
Percentage of households to utilize specific "negative" coping strategies:					
Pledge or sell labor/crops/livestock in advance	2.5	51.7	***	554	468
Take a loan with interest	12.6	32.3	***	554	468
Sell seed stock for next season	1.4	7.9	***	554	468
Lower school attendance or drop out from school	0.0	1.3	***	554	468
Unusual sales (household assets, firewood, charcoal, etc.)	2.3	3.6		554	468
Send children away to better-off relatives and friends	0.4	3.0	***	554	468
Slaughter more animals than normal	5.8	17.1	***	554	468
Migrate	0.9	9.2	***	554	468
Reduce expenditure on livestock and agricultural inputs	0.9	2.8	**	554	468
Sell a higher number of livestock than usual	0.7	8.5	***	554	468
Reduce expenditures (e.g., health care, education )	3.8	1.3	**	554	468
Percentage of households to utilize "other" coping strategies:					
Participate in food or cash for work programs	4.9	15.8	***	554	468
Use own savings	7.8	15.0		554	468

Statistically different from baseline at the 10% (\*), 5 %(\*\*) or 1 %(\*\*\*) levels.

Shocks and Adaptation Table 9 shows that number of shocks households experienced in the five years prior to the endline interview is nearly triple over the previous five years from the baseline period with four shocks...averaging nearly one a year. The incidence of shocks for female-headed households is marginally lower. Households report an increase in all twelve categories of shocks over the baseline period. The most dramatic rise is in severe storms, such as hail and cyclones, impacts 72.2% of households, compared to 5.6% at the baseline period. Drought more than doubles to impacting 85.6% of households; diseases impacting humans, crops or livestock rises from an impact on about one-quarter of households to approximately one-third of households; and dramatic increases in food prices more than double to impacting 72.9% of households.

Table 9. Shocks

Indicator	# and type of shocks			Sample size	
	BL	EL		BL	EL
Number of shocks in past 5 years					
All households	1.4	4.0	***	552	468
Female HHHs	1.4	3.7	***	130	84
Male HHHs	1.4	4.0	***	422	384
Types of shocks experienced in the past 5 years					
Death of HH income earning members	9.6	11.8		552	468
Chronic illness or severe accident of HH member	20.8	22.0		552	468
Loss of a regular job of a HH member	2.7	1.1	*	552	468
Divorce or abandonment	0.0	0.9	**	552	468
Hailstorm/ cyclone/ or other severe storms	5.6	72.2	***	552	468
Major drought	40.8	85.7	***	552	468
Issues with division of father's property	0.7	2.4	**	552	468
Failure or bankruptcy of business	1.3	4.1	***	552	468
Decreased or cut off regular remittances	0.0	1.9	***	552	468
Major conflicts / theft	0.4	1.1		552	468
Epidemic disease (crop, livestock, human)	25.9	36.3	***	552	468
Sudden or dramatic increase in food prices	29.7	72.7	***	552	468

Nearly all the households (94.8%) at the endline period are using at least one adaptation strategy to reduce the impact of future shocks, as compared to the baseline period when over half did so (56.5%), with little difference at the endline period when comparing male and female-headed households.

Table 10. Adaptation

Indicator	% households			Sample Size	
	BL	EL		BL	EL
IM 1.5 % households using at least one adaptation strategies to reduce the impact of future shocks					
All households	56.5	94.8	***	434	465
Female HHHs	62.8	94.0	***	102	83
Male HHHs	54.8	95.3	***	332	382

At the baseline period, nearly one-half of the households do not engage in any adaptation strategy. Table 11 shows this significantly changes at the endline period with only 14.2% not doing so. For all of the twelve categories of adaption, there are significant increases in activity since the baseline period with the exception of no households reporting conflict resolution practices.

The number of households approximately doubles from the baseline to endline survey periods in the following practices: investing in savings (to 72.7%), changing crops (to 57.6%), diversifying income (38.3%) and livestock purchase (22.6%). Very few Pathways villages have access to irrigation or other significant water resources. Malik Pada is the only village in the qualitative study with such access. Farmers in all villages report their most serious and persistent livelihood challenge is the lack of water systems to minimize the impact of drought, enable second growing seasons including summer cropping, and have strongly producing kitchen gardens. Therefore, it is noteworthy that the number of households involved irrigation infrastructure has grown from about 6% to 42% from the baseline to endline period. To date the overall impact of these activities appears to be minimal, with the exception of the wage labor earnings of workers for this activity. It is beyond the scope of this evaluation to determine how effectively the infrastructure development will impact this most serious issue.

At the baseline period no households report investing in animal care, improved water capturing or drainage or food storage. At the endline period, more than a one-quarter of the households report these adaptation practices.

Table 11. Household adaptations to cope with future shocks

Adaptation strategies	% of households		
	BL	EL	
Accessed additional land	2.3	28.8	***
Changed crops	22.1	57.6	***
Invested in irrigation infrastructure	5.8	41.5	***
Diversified income generating activities	18.2	38.3	***
Purchased additional livestock	8.3	22.6	***
Invested in savings	44.0	72.7	***
Invested in human health care <sup>1</sup>	-	0.0	
Invested in animal health care <sup>1</sup>	-	29.5	
Participated in conflict resolution <sup>1</sup>	-	0.0	
Improved drainage or constructed dams or dykes <sup>1</sup>	-	26.2	
Stored food for future use <sup>1</sup>	-	30.1	
Reinforced housing <sup>1</sup>	-	3.7	
Did nothing	46.8	14.2	
N	434	465	

Statistically different from baseline at the 10% (\*), 5 %(\*\*) or 1 %(\*\*\*) levels.

<sup>1</sup>Questions were not included in baseline survey.

#### 4.2.2 Household assets

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. This index is computed by multiplying the number of each type of household asset by the index value for that particular asset type. Index values of household assets used for construction of the asset index are presented in Annex 5. A higher asset index value indicates that households have been able to accumulate assets over time. Households are able to accumulate assets if income is greater than the necessary expenditures to meet household subsistence requirements. Assets also provide households with a cushion to adjust to shortfalls in incomes, or sudden increases in necessary expenditures. Thus, households with a higher asset index are less vulnerable than households with lower asset index values. The asset index is critical to understanding the resilience capacity of Pathways participants at endline.

Table 12 below shows asset values rise overall for households from the baseline to endline periods by about 15%. The data does not indicate a statistically significant difference between the baseline and endline values for female headed households. There is approximately 21% growth in asset values when calculated without agricultural land.

Table 12. Assets

Indicator	Asset value			Sample Size	
	BL	EL		BL	EL
IM 1.6: Mean asset index (w/ ag land)					
All households	148.9	171.7	***	552	467
Female HHHs	146.6	128.7		129	84
Male HHHs	149.6	181.1	***	423	383
IM 1.6: Mean asset index (w/o land)					
All households	115.5	139.5	***	552	467
Female HHHs	113.4	106.9		129	84
Male HHHs	116.2	146.7	***	423	383

Statistically different from baseline at the 10% (\*), 5 %(\*\*) or 1 %(\*\*\*) levels.

Table 13 provides insight on the differences in asset ownership over the past three years for special asset categories, including into what type of assets households are investing. The percentage of households owning land grows by 6% to 83.5% when comparing data from the baseline to endline surveys.

The data shows most households owning small consumer durables, but they lose value in having fewer of these assets at the endline period. The percentage of households owning mechanized farm equipment drops considerably when comparing baseline to endline data (from 16.2% to 4.5%) and the number of these assets for those who report still owning these assets decreases as well. Pathways collaboration with government schemes is providing equipment to Pathways farmers. However, much of the equipment accessed by farmers in this way is through ownership by the SHG.

Aside from land, the differences in ownership patterns between female-headed and all households are minimal.

Since the baseline period, ownership dramatically increases in non-mechanized farm equipment from just over half (55.6%) to nearly all households (95.6%), and more than triples for non-farm business equipment (14% to 40.2%). Cell phone ownership for households doubles from 25.5% to 51.3% of households. Households in the endline qualitative study say they use their phones sometimes to check on market prices.

The survey data shows small livestock and poultry ownership grows less dramatically. However, for the 34.2% households owning goats and sheep the number of animals owned has increased from 3.7 to 6.1 when comparing baseline and endline data. For the 62.8% owning poultry, the number of birds owned increases from 4.9 to 6.4. Growth in these potential sources of income and food are consistent with Pathways priorities.

Table 13. Mean number of assets owned

Asset	Female-headed HH		All households			All households			
	BL	EL	BL	EL	BL	EL			
	Mean # of assets owned		Mean # of assets owned			% of HH owning asset			
Agricultural land (decimals)	228.4	149.1	206.5	187.3	78.7	83.5	**		
Large livestock (oxen, cattle)	3.7	3.2	3.4	3.3	60.8	64.5			
Small livestock (goats, sheep)	4.4	7.0	3.7	6.1	***	26.0	34.2	***	
Poultry	4.4	7.0	**	4.9	6.4	***	52.0	62.8	***
Fish ponds or fishing equipment	1.0	1.3		1.3	1.8		1.8	4.9	***
Farm equipment (non-mechanized)	3.9	5.2	***	3.7	5.8	***	55.6	95.9	***
Farm equipment (mechanized)	7.2	1.0	*	5.6	1.9	***	16.2	4.5	***
Nonfarm business equipment	2.9	2.8		3.7	3.2	*	14.8	40.2	***
House (and other structures)	1.5	1.4		1.5	1.5		87.2	82.9	*
Large consumer durables	1.6	1.9		1.4	1.9	**	11.6	19.9	***
Small consumer durables	6.6	3.3	***	7.9	4.3	***	63.2	70.3	**
Cell phone	1.2	1.2		1.1	1.1		25.5	51.3	***
Non-agricultural land (decimals)	43.9	35.2		43.7	42.0		19.0	26.3	***
Bicycle	1.1	1.4		1.1	1.1		52.5	56.6	
Motorcycle or car		1.0		.	1.0		0.0	6.0	***
n	129	84		552	467		552	467	

Statistically different from baseline at the 10% (\*), 5%(\*\*) or 1%(\*\*\*) levels.

As women become widowed, sometimes relatives of their husbands move in to take over the land. The qualitative endline study learned of several instances where recently widowed women were protected by Pathways stakeholders from such encroachment.

A Progress Marker for men that Pathways India *would love to see* is “men put the name of their wives as primary title holder in claim applications for forest land rights.” Scheduled Tribe men and women in Pathways villages are increasingly more informed about forest land rights. However, many express dissatisfaction at the lack of progress in accessing forest land titles. Pathways strategic partner in forest rights Vasundhara reports this is especially important for widows and female-headed households. Of approximately eleven thousand titles processed in Kandhamal, approximately two thousand titles are held with women’s names. Impact: Economic Poverty Reduction

### 4.2.3 Household Income

Monthly per capita income<sup>9</sup> is presented in Table 14 as mean and median farm and non-farm income. The data do not indicate statistically significant differences between baseline and endline values for mean income from all sources and for non-farm income. Female-headed households have approximately \$6- \$7 greater mean income from all sources than those households headed by men at the time of both surveys. This difference is from non-farm income.

For median per capita monthly household income for all households there is no statistically significant difference between the baseline and endline values (\$7.49). Female-headed households show \$1.64 greater median income at the endline than do those headed by males. The difference between mean and median income trends is likely due to extreme outliers that would impact the mean figures.

The data shows approximately 84% of the mean income is coming from non-farm sources at the endline survey compared to 95% from the baseline period. Both male and female-headed households increase their per capita mean farm income by approximately \$1.30 over the project period to a little over \$2.00.

An indicator for the Pathways India M & E framework is to increase by at least 10% the change in net household income of SC & ST poor women smallholder farmers from agricultural production & collection of forest produce promoted by Pathways. This indicator is easily met with all households growing farm income by 165% in the project period (mean per capita farm income), and female-headed houses having 149% growth. It is important to acknowledge that results related to income are only indicative; conclusive findings on the relative profitability of different income sources requires a more comprehensive analysis of expenses for each source of income.<sup>10</sup>

---

<sup>9</sup> Average amount of household income from all income sources/earners earned per month, divided by the total number of individuals living in the household.

<sup>10</sup> This type of analysis is beyond the scope of the final evaluation of the Pathways project.

Table 14. Income (2015USD)

Indicator	US \$		Sample Size	
	BL	EL	BL	EL
IM 1.7: Mean per capita monthly household income (All sources)				
All households	15.47	13.25	554	468
Female HHHs	21.29	17.82	130	84
Male HHHs	13.68	12.25	424	384
IM 1.7: Mean per capita monthly household income (farm)				
All households	0.80	2.12 ***	554	468
Female HHHs	0.56	1.90 ***	130	84
Male HHHs	0.87	2.17 ***	424	384
IM 1.7: Mean per capita monthly household income (non-farm)				
All households	14.67	11.13	554	468
Female HHHs	20.72	15.92	130	84
Male HHHs	12.82	10.08	424	384
IM 1.7: Median per capita monthly household income (All sources)				
All households	7.30	7.49	554	468
Female HHHs	6.43	8.67	130	84
Male HHHs	7.46	7.03	424	384
IM 1.7: Median per capita monthly household income (farm)				
All households	0.00	1.25	554	468
Female HHHs	0.00	1.10	130	84
Male HHHs	0.00	1.25	424	384
IM 1.7: Median per capita monthly household income (non-farm)				
All households	6.65	5.09	554	468
Female HHHs	6.01	6.95	130	84
Male HHHs	6.77	4.73	424	384

As seen in section 4.2.5 below, household expenditure data exceeds household income in both the baseline and endline surveys. Possible reasons for this are explored in the expenditure section. It is likely that expenditure data are more reliable than income data.<sup>11</sup>

Sources of income as reported to by focus group participants in the endline qualitative study vary considerably. Though much of the produce from kitchen gardens is being consumed by the household, many women are taking their products to markets for sale. This is also true of forest products, such as higher quality *mahula* (used for flavoring liquor) being sold. Marketing boards in each village are enabling women to have a clearer picture of market prices to avoid being taken advantage by middlemen (*kuchia*) coming to villages.

Rice productivity per hectare has increased, as described in upcoming sections of this report. However during this period of on-going shocks much of these gains are reported to be lost by lower overall production levels and consumption (vs. selling or storing) of rice.



Women in all the villages (members and non-members of SHGs) of the qualitative study report significant advances in wage equality with men since the baseline period. This is attributed to both government and NGO (including Pathways) awareness building and advocacy for equity. Women at the endline period are also reporting much greater mobility than at the time of the baseline study due, in part, to their greater involvement in household economic activities.

Wage labor comes from working in fields owned by other households, and in public work schemes administered by the government and through NGOs. Wage rates reported by women range from about 80 INR per day providing day labor on someone else's farm, to 100-120 INR for government schemes to up to 160 INR in wages provided by NGOs in their work schemes. Some SHGs are taking a portion of the wages of its members for SHG savings and investment in group initiatives undertaken by the collective, such as purchasing a piece of agricultural equipment or buying raw materials for brick making and sales.

Most households in the qualitative endline study report their standard of living has gone up over the last three to four years as a result of the benefits they receive in Indian government programs and their own farming and income generating activities. This is reported by both SHG-member and non-member households. Collective member households give Pathways credit for some of their standard of living improvement.

---

<sup>11</sup> Expenditure data are often more reliable than income data. (See Deaton, 1997; The analysis of household surveys). Consumption and associated expenditures are used by the World Bank in estimating poverty.

#### 4.2.4 Households and Community Wealth

Below are summary bullet points identifying changes in wealth characteristics over the project period, economic and social, consistent with Pathways priorities. They are identified from the most to least significant changes. Input in this participatory exercise uses the following wealth-ranking categories for households: the “poorest,” “middle” and “better off.” Input from women and men in four of the six sampled villages (two in each district) of the qualitative endline study is somewhat consistent from village to village and between the two districts of the Pathways India project.

1. Most significant changes:

- There has been a significant shift in the percentage of households in the sampled villages from what is considered the poorest wealth categories to middle wealth categories as per the table below.

Village/District	Baseline/Endline	Poorest % of households in village	Medium % of households	“Better off” % of households
Dedar, Kalahandi	Baseline	80	19	1
	Endline	60	32	8
Kitpader, Kalahandi	Baseline	58	33	9
	Endline	25	54	21
Dokedi, Kandhamal	Baseline	55	25	20
	Endline	5	65	30
Malik Pada, Kdhml.	Baseline	50	25	25
	Endline	25	50	25

- Income and wealth of households have increased for all three wealth groups to due government safety net support for poorer families, greater livelihood opportunities assisted by groups like Pathways and growth in the Indian economy.
- Diversity of income is better, in part due to Pathways. Earlier people were doing wage labor and crop cultivation, but these days people are selling more NTFP, have more livestock to sell when needed, benefit from increased *Redha* (group work), and renting of machines such as through SHGs or individually.
- Crop production and variety has increased resulting in better food diet compared to three to four years ago when most poor people were just having rice, water, chilly and mandia (finger millet) but now they are taking rice, pulses, vegetables, and sometimes eggs. The middle wealth group is consuming more chicken.
- Households can now more readily avail themselves of loans, seeds, fertilizers and other inputs.
- The decision making of women in poor, middle and better off families has increased significantly due to gender training of Pathways. The potential for drudgery to adversely impact women, who now report even greater activities from the baseline period, is reduced in last three to four years because of men helping them. It has happened in all the wealth groups.

2. Moderate Changes:
  - A few households have received housing support under government schemes.
  - Many people have applied for land under the Forest Rights Act, a few have received land but most are still in process with little idea when land titles are to be provided.
  - In the lean season households have better food security these days. For example, in Upernuagaon (Kalahandi) it is noteworthy that a Grain Bank is formed which helps members fight shocks.
  - Mobility and communication have increased for men and women because of people having cycles, mobile phones and access to vehicles, including being more able to afford buses and other transportation.
  - Chronic illness and disability is reduced in all the wealth categories because of health training and improved access to services and medicines.
3. Least amount of change:
  - In some of the villages surveyed the extreme poor still suffer from food insecurity during the lean season.
4. Practically no change:
  - There is no progress in the problem of fencing or structures for cattle to prevent them from trampling crops and other environmental destruction.

#### 4.2.5 Household Expenditures

Mean monthly per capita expenditures increase for households over the project period by approximately \$2. As with income data, female-headed households surpass male-headed household in per capita figures, in both mean (23.96% vs. 17.84% at the endline period). Mean monthly per capita expenditures are significantly over income for both sets of households: approximately \$5 over the mean and \$10 over median figures. As indicated earlier, this is possibly due to underreporting of income for fear of households jeopardizing their BPL status enabling access to government safety-net benefits. As a result, expenditures as a proxy may be a more accurate indicator of income. However, it is possible that over the shock-prone period of the project, particularly the severe one existing at the time of the endline survey, household expenditures could have exceeded income as families incur greater debt as a coping strategy. The significant income/expenditure disparities, if accurate, are unlikely to be sustained very long into the future given the poverty levels of the Pathways population.

Table 15 Household expenditures

Indicator	% households			Sample Size	
	BL	EL		BL	EL
IM 1.8: Per capita MEAN monthly household expenditures (2015 USD)					
All households	16.91	18.94	**	553	468

Female HHHs	20.16	23.96		130	84
Male HHHs	15.91	17.84	**	423	384
Per capita MEDIAN monthly household expenditures (Current 2015 USD)					
All households	12.97	14.80		553	468
Female HHHs	13.32	16.85		130	84
Male HHHs	12.93	14.65		423	384
Statistically different from baseline at the 10% (*), 5%(**) or 1%(***) levels.					

SavingsTable 16 demonstrates that the number of households with savings drops significantly when comparing the baseline and endline survey periods. This is likely due to use of savings to fund basic needs due to the financial impact of shocks on livelihoods. At the baseline period, approximately four out of five households held savings, while at the endline period the comparable figure is about half of the households. Women have lost savings more so than men. With little gender disparity in savings in the baseline period, at the time of the endline evaluation female-headed households reporting savings drop 30 percentage points compared to 20 points for male-headed households. Approximately the same disparity exists for all women associated with Pathways whether in female- or male-headed households. Some women in focus groups of the endline qualitative study report having some difficulty in repaying their loans.

Table 16. Savings

Indicator	% households			Sample Size	
	BL	EL		BL	EL
IM 1.9: % households with savings					
All households	79.1	56.8	***	554	468
Female HHHs	77.7	48.8	***	130	84
Male HHHs	79.5	58.6	***	424	384
IM 1.10: % women with savings					
All households	78.8	53.2	***	553	468
Female HHHs	77.7	46.4	***	130	84
Male HHHs	79.2	54.7	***	423	384
Statistically different from baseline at the 10% (*), 5%(**) or 1%(***) levels.					

## 4.3 Impact: Women's Empowerment

### 4.3.1 Women's Empowerment Index

TANGO constructed a Women's Empowerment Index (WEI) for CARE modeled after the Women's Empowerment in Agriculture Index (WEAI).<sup>12</sup> Similar to the WEAI, two sub-indices comprise CARE's WEI—the Five Domains of Empowerment (5DE) and Gender Parity.

The 5DE reflects the percentage of women who are considered empowered, based on their empowerment score. This score is from 13 weighted indicators within five domains: production, resources, income, leadership, and family life (Annex 6 presents the domains, their total weight within the index, and the weight of each indicator). CARE's WEI includes 9 of the 10 indicators that comprise the WEAI,<sup>13</sup> as well as indicators for political participation, mobility, self-confidence, and attitudes on gender, for a total of 13 indicators distributed among the five domains. A woman who achieves an empowerment score of .80 or greater is considered to be empowered.

The 5DE index is based on the following formula calculation:

$$5DE = H_e + H_d A_e = (1 - H_d A)$$

Where:

$H_e$  is the percentage of empowered women

$H_d$  is the percentage of disempowered women

$A_e$  is the average absolute empowerment score among the disempowered

Data in Table 17 shows a very mixed story for female participants in the Pathways project in terms of empowerment. In the quantitative survey the gain for women in male-headed households is miniscule, while for those in female-headed households is significant. The .16 empowerment score for women in male-headed households is unchanged at the endline period from the baseline period, while for women in female-headed households it grows from .61 to .75. This corresponds with the prevalence of women achieving empowerment (.80 score or better) with women in female-headed households nearly tripling to 42.9% contrasted to less than 4% of women in male-headed households.

Though women may not have reached empowerment thresholds established by Pathways, women in focus groups of the endline qualitative study nearly universally describe themselves as more empowered economically and socially within their households and community.

---

<sup>12</sup> International Food Policy Research Institute. 2012. *Women's Empowerment in Agriculture Index*. Feed the Future.

<sup>13</sup> The WEI does not include the indicator for workload, however this topic was explored by the qualitative team.

Table 17. Women's empowerment index

Indicator	WEI Score			Sample Size	
	BL	EL		BL	EL
IM 1.11 Women's 5 domains of empowerment - mean score for all women in sample					
All households	0.47	0.53	***	528	418
Women in female HHHs	0.61	0.75	***	130	84
Women in male HHHs	0.16	0.16	***	424	384
-----					
% of women achieving empowerment (.80 or greater)					
All households	4.7	10.7	***	554	468
Female HHHs	16.2	42.9	***	130	84
Male HHHs	1.2	3.7	**	424	384
-----					
Statistically different from baseline at the 10% (*), 5%(**) or 1%(***) levels.					

Achieving a score of .80 provides only a partial picture of the differences in empowerment over the project period. In fact, women report gains in empowerment in all but one of the statistically probable indicators in the five domains found in Table 18. The one loss is a decrease in control of household income and expenditures (it must achieve 70% empowerment of decision-making domains) from 56.2% to 48.8 %. This decrease is not validated in the endline qualitative study in focus groups of Pathways women. The vast majorities of women in focus groups indicate at a minimum they can discuss and provide input into such decision-making, if not share some in it.

The gains in empowerment are significant. The data show women reporting gain in control over purchase or sale of household assets grew from 29.3% to 54.3% between the two surveys. Nearly 90% of women report decision-making input for at least three out of five decision domains, up from 78.4% at the baseline period. Sole or joint ownership of household assets moved from just less than half at the baseline period to two-thirds at the endline, nearly three-quarters of women express confidence in speaking about gender and community issues at the local level (up from 61%), and those meeting the Pathways mobility empowerment threshold grew from one-fifth of women to one-third.

Less than half of women (48.7%) are expressing attitudes supporting gender equitable roles in family life, such as if there is any rationale for a man to hit a woman, a similar figure to the baseline period (45.9%). Just less than half of the women in Pathways meet the project's self-confidence threshold or have access and decisions on credit. However, women in focus groups of the qualitative endline study describe themselves as having a strong influence on the use of credit they secure from SHGs, and they use it to purchase food, clothing, education and health care for their families.

Table 18. Domains of empowerment

Domain	Indicator	% of women achieving indicator			Sample Size	
		BL	EL		BL	EL
Production	With decision-making input for 3 out of 5 HH productive decision domains	78.4	89.9	***	513	465
	With autonomy in one or more HH production domains	14.6	26.7	***	513	465
Resources	With sole or joint ownership of at least 50% of household assets	45.1	67.5	***	550	462
	With sole or joint control over purchase or sale of 80% household assets	29.3	54.3	***	550	462
	With access to and decisions on credit <sup>1</sup>	44.7	49.7		266	286
Income	With control over household income and expenditures in 70% of HH decision-making domains	56.2	48.8	**	553	467
Leadership & community	Participating in formal and informal groups	90.5	99.1	***	539	465
	Confident speaking about gender and other community issues at the local level	60.8	74.9	***	553	466
	Demonstrating political participation	50.1	68.0	***	525	462
	Who express self-confidence in 5 of 7 statements	41.4	48.7	**	553	466
Autonomy	Satisfied with the amount of time available for leisure activities	89.2	85.8		553	466
	Achieving a mobility score of 16 or greater	20.0	33.3	***	456	357
	Expressing attitudes that support gender equitable roles in family life	45.9	48.7		553	466

Statistically different from baseline at the 10% (\*), 5%(\*\*) or 1%(\*\*\*) levels.

<sup>1</sup>Includes households which took out loans or wanted to take out loans.

The WEI also examines parity for men and women in each empowerment domain. Gender parity measurements are based only on households in which a man and a woman answered questionnaire modules respective to their sex. Thus, no female-only households are included, and no households where a man was unavailable to respond to the male portion of the questionnaire are included. Empowerment scores are constructed (as defined above) for all men and women.

Generally, many of the gaps between men and women narrowed between the baseline and endline periods. In many of the production and resource indicators, at the baseline period the data shows the percentages of women are significantly under 50% in achieving empowerment,

whereas at the endline period they were at or above 50%. Women have drawn nearly equal to men with decision-making input for all household production decision domains (89% for women, 91% for men).

Few men or women report autonomy in one or more household domains in either period (23% for men, 17% for women), perhaps due to a sharing of responsibilities. However, the gap has narrowed since the baseline period. Both men and women report losses in empowerment in control of household income and expenditures (as per being empowered in 70% of the domains), and women have only marginally narrowed the gap (43% for women, 68% for men). This may result from shocks-induced loss of assets.

Due to the project design of involving women in SHGs with savings and credit mechanisms, it is not surprising that a greater percentage of women than men are involved in a formal or informal group (99% vs 78%) and have access and decision-making in credit (43% vs 30%).

Greater levels of both men and women meet the Pathways gender attitude threshold of empowerment, though this is below 50% for both sexes and the 10 percentage point gaps between the sexes has not narrowed (49% women vs 39% men).

Table 19. Gender parity

Domain	Indicator	% achieving indicator at baseline			% achieving indicator at endline				
		Female respondents	Difference between M/F at BL	Male respondents	Female respondents	Difference between M/F at EL	Male respondents	Diff between females BL/EL	Diff between males BL/EL
PRODUCTION	With decision-making input for all HH productive decision domains	78.9	***	96.6	88.7		91.1	***	***
	With autonomy in one or more HH production domains	6.4	***	36.6	17.0	*	22.6	***	***
RESOURCES	With sole or joint ownership of 50% of household assets <sup>1</sup>	39.8	***	91.8	64.3	***	82.0	***	***
	With sole or joint control over purchase or sale of 80% household assets <sup>1</sup>	24.3	***	57.0	52.6	***	63.1	***	*
	With access to and decisions on credit	41.1	***	53.7	46.8	***	29.5		***

INCOME	With control over household income and expenditures in 70% of HH decision-making domains	54.1	***	83.6	42.6	***	67.9	***	***
LEADERSHIP & COMMUNITY	Participating in formal and informal groups	89.2	***	61.1	99.4	***	78.2	***	***
	Confident speaking about gender and other community issues at the local level (3 of 4 topics)	62.5	***	23.8	77.5	***	9.5	***	***
	Demonstrating political participation	46.7	***	42.3	65.5	***	86.7	***	***
	Who express self-confidence in 5 of 7 statements	40.9	***	56.7	51.9	***	69.1	***	***
AUTONOMY	Satisfied with the amount of time available for leisure activities	89.7		91.5	86.1		85.8		**
	Expressing attitudes that support gender equitable roles in family life (Scoring 4 of 4)	43.5	***	33.5	49.3	***	39.2		
	Achieving a mobility score of 16 or greater	8.9		-	22.8		20.5	***	
n		360		355	336		336		

<sup>1</sup>excluding poultry, non-mechanized farm equipment, & small consumer durables as in WEAI. This indicator is based on the female respondent's perception of who makes decisions on household assets. Male respondents were not directly asked questions about asset ownership and control.

Expenditure indicator in income domain excluding minor household expenditures as modeled in the WEAI.

Credit indicator in resources domain includes households that have taken out a loan or want to take out a loan of at least 1500 Indian rupee

The endline qualitative study conducted interviews and focus groups from a variety of Pathways collectives. The primary source of information comes from Self Help Groups. Additional input comes from members of forest rights committees, farmers committees, water committees and Reflects Circles. The information is similar from one collective to another in terms of Pathway's gender and economic empowerment priorities for women. Discussions

with forest rights, farmers and water groups indicate women are more actively participating in these collectives and in some there are greater numbers of women members including those in leadership positions. Women’s mobility is a common issue to all of these collectives.

Members confirm women’s mobility is strengthening across sectors, including access to forests, markets, government offices and other locations. There is consensus that women’s confidence is strengthening due to their having greater knowledge through training and support from Pathways mechanisms such as animators, Reflect Circles and CRPs.

The qualitative findings in the upcoming sections on capacity, access, productivity, household influence and enabling environment are based on focus group discussions and interviews on all of the collectives and groups mentioned above.

#### 4.4 Project Participant Perceptions of Impact

Table 20 shows that the primary venue for participation of women is through the SHG for practically all women in Pathways (94%) followed by kitchen gardens (27%) and agricultural kiosks (23%), note that a discussion of the kiosks occurs in section 4.6.3 below). Around 15% of women participated in each of the following: marketing committee, gender dialogue and reflection circles. Around 9-10% participated in a resource-based group or male champion activity. Few spouses or other household members are involved in SHGs and spouses participate at about the same levels as women in resource-based groups and male champion activities, and from half to two-thirds the levels of women in other activities listed in the table below.

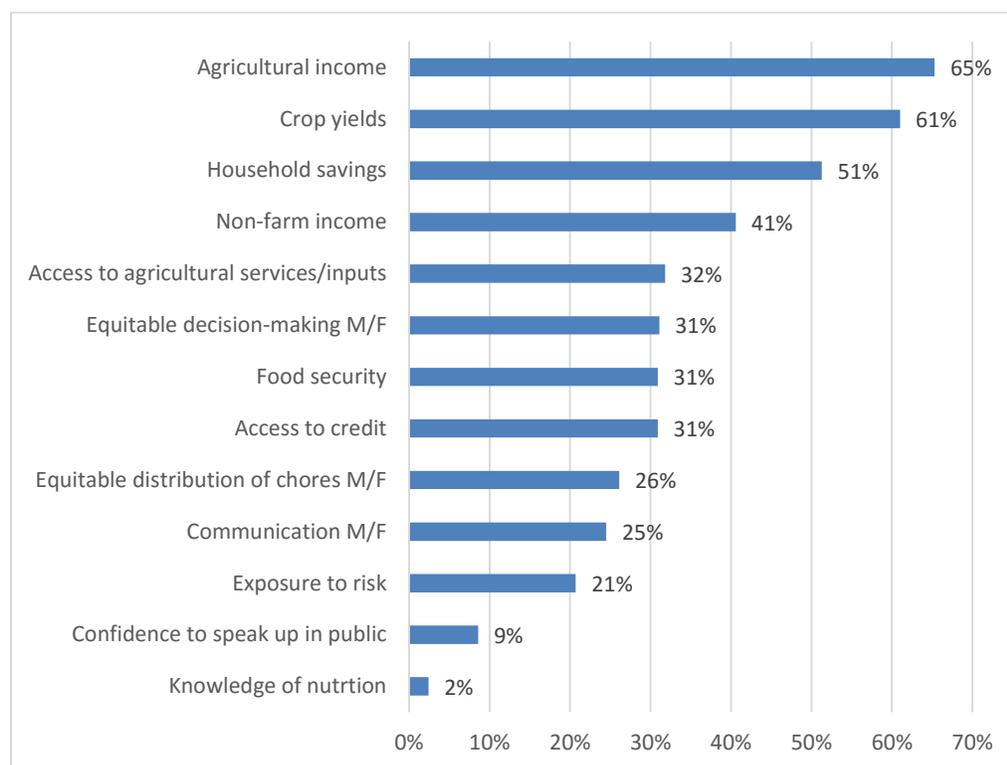
Table 20: Women reporting HH participation in CARE activities

	Self	Spouse	Other HH member	No one	sample size
SHG	94.1	2.7	0.8	2.3	475
Resource-based group	9.0	7.5	1.5	82.0	477
Marketing committee	16.5	6.7	2.1	74.7	478
Reflection circle	15.1	7.2	3.1	74.5	483
Male champion	9.7	10.1	2.7	77.5	475
Gender dialogue	15.7	8.1	2.5	73.7	483
Kitchen garden	26.8	10.0	1.6	61.7	512
Agricultural kiosks	22.5	14.7	2.4	60.4	503

Figure 2 identifies the benefits of Pathways in 13 different categories as measured in the endline survey. Nearly two-thirds (65%) of Pathways women report increasing in agricultural income (Table 28 indicates about 85% of households in the survey report women deriving

income from agriculture or related processing) , 61% of women are increasing crop yields, about half improving household savings and 41% increasing non-farm income. Approximately one-third report improvements in each of the following: access to agricultural services or inputs, more equitable decision-making between men and women, food security, improved access to credit. About one-fourth to one-fifth of women indicate more equitable distribution of household chores for men and women, communication between men and women, and reduced exposure to risk. Less than 10% indicate increasing confidence to speak up in public and improved knowledge of nutrition.

Figure 2: % of women reporting benefits of Pathways activities



## 4.5 Change Lever 1 - Capacity

The anticipated outcome for Pathways Change Lever 1 is improved knowledge, skills, relationships, self-confidence and conviction of poor women farmers. To determine if change has taken place since baseline in any of these areas, the surveys explored women’s participation and representation in formal and informal groups; women’s leadership within these groups; women’s comfort level with speaking up in public about important issues; women’s political participation; and women’s self-confidence.

### 4.5.1 Women’s Participation in Formal and Informal Groups

To understand change to women’s participation and leadership in formal and informal groups, the surveys first determine whether 10 different types of groups existed in the community. If groups exist, women are asked about their active participation, reasons for not participating,

amount of decision-making input they contribute, and whether they hold a leadership position. This section presents the results.

Data in Table 20 show nearly all (98.9%) women sampled are active members of at least one formal or informal group existing in their community. Women in the endline qualitative study report the main obstacles for women joining or staying members are an inability to save, having very young children to care for, and/or they lack cooperative husbands, particularly the time commitment required during busy times like harvest. However, the vast majorities of men in the study and nonmember women recognize the benefits of SHGs and want to be connected to these collectives. Women members of SHGs are understood by the community to have greater access to credit, involved in greater number of income generating and cooperative activities and they are growing in leadership and confidence. Caste and tribal affiliation is not reported to be an obstacle to joining. A number of SHGs in Kandhamal district that shut down during the communal violence of the last decade have been resuscitated through Pathways.

Household heads holding leadership positions these groups has gone down for both men and women. Women have slipped to below 10% in the endline after around 15% in the baseline period. This data could not be validated in the qualitative study. To the contrary, input from focus groups suggest the trend is for women gradually moving in more leadership positions in the government and civil society affiliations particularly as their education levels and knowledge increases. This includes participation in forest, farm and water committees.

Table 20. Women’s participation and leadership in groups

Indicator	% households			Sample Size	
	BL	EL		BL	EL
OC 1.1: % women participating in formal and informal groups					
All households	90.5	98.9	***	539	466
Female HHHs	94.4	97.6		126	83
Male HHHs	89.4	99.2	***	413	383
OC 1.2: % women holding leadership positions in formal and informal groups					
All households	22.1	14.3	***	488	461
Female HHHs	15.1	9.9		119	81
Male HHHs	24.4	15.3	***	369	380

Statistically different from baseline at the 10% (\*), 5%(\*\*) or 1% (\*\*\*) levels.

#### 4.5.2 Self-confidence

Important to the achievement of Pathways Outcome 1 are the self-confidence and conviction held by poor women farmers. Pathways India intended to support community advocacy to

ensure citizens understand their rights and responsibilities, and are able to engage with local government structures on issues that affect them.

Pathways decided to measure changes to agency. To do so the surveys asked men and women about their comfort level in speaking up about three topics (gender issues, infrastructure decisions, and the misbehavior of authority figures) and whether they had expressed their opinion in a public meeting (other than SHG/VSLA or producer group meetings) any time in the last 12 months. Respondents who responded positively to three of the four questions are considered to have achieved the empowerment threshold indicator of confidence in speaking on these issues.

At the baseline period a greater level of women had confidence than men. The data show both sexes increasing their confidence at the endline period but percentage of men who had done so surpasses those of women (83.7% vs. 74.8%).

Table 21. Women expressing opinions in community affairs

Indicator	% Respondents			Sample Size	
	BL	EL		BL	EL
OC 1.3: % respondents confident speaking in public about gender and other community issues at the local level					
Female respondents	60.8	74.8	***	553	468
Male respondents	43.7	83.7	***	554	338

Statistically different from baseline at the 10% (\*), 5 %(\*\*) or 1 %(\*\*\*) levels.

## 4.6 Change Lever 2- Access

The realize the outcome for Change Lever 2 -- *increased access to productive resources, assets, markets, and appropriate and reliable services and inputs for poor women farmers*—the India Pathways Project made efforts to improve the linkages between service providers (private sector, institutions, and government) and women farmers. Key efforts to increase access to reliable services include training community-based extension agents in technical skills (agronomy, processing, storage, etc.) and extension skills (capacity to train others); equipping extension agents with materials and equipment to support training and their own mobility; and facilitating linkages between agents and district-level structures for recognition, certification and support. Key efforts related to increasing access to inputs include facilitating collective buying of seed, fertilizer and other productivity enhancing inputs through the SHGs; enabling capable SHGs and/or individual members to operate as input suppliers; and linking SHGs with relevant input suppliers and information sources.

To explore the success of attempted linkages between farmers and productive resources, assets, markets, and services, the baseline and endline surveys include a range of questions. These include women’s access to financial services to support income generation; their access to and satisfaction with agricultural extension services; women’s access to agricultural inputs;

and the types of output markets women are using for sale of agricultural products. This section presents the results.

#### 4.6.1 Women’s Access to Financial Services

Table 22 reports on the percentage of women having access to and control over loans for income generation activities (IGA). This indicator combines a variety of useful information. When comparing the sample size in the table to the overall sample, a larger share of women took out loans or wanted to take out loans at endline than baseline: 266 out of 553 at baseline and 286 out of 468 at endline period.

The indicator also includes whether or not the loan was used for IGA. A smaller share of women used loans for IGA at endline (31.7%) than baseline (47.4%). The indicator includes whether a woman by herself decided how to use the loan. Most women decide jointly, with spouses, other family members, or people outside the family. This last element of the indicator is why the shares are so small for households overall and male-headed households. As a result, the data in Table 22 shows only 7% of women in Pathways reporting access to and control over IGA loans at the baseline. This has dropped to 5.2% at the endline.

Women’s use of loans in male-headed households is geared more towards covering other significant family needs as reported further below. However, women in female-headed households are much more prone to use loans to finance income generating activities, though the percentage doing so has not grown when comparing the baseline and endline data. Half of these women report use of loans for IGA purposes both at the baseline and endline period.

SHGs are saving money as a group and making investments as collectives. Examples found in the qualitative study include making and selling sanitary items and bricks for construction. In Taldanaju village (Kandhamal), one SHG took a bank loan of 2000 INR and started a puffed rice business selling product to another business. Within three months they had a net profit of 3,000 INR.

Table 22. Women's access to and control over loans for IGA

Indicator	% women		Sample Size	
	BL	EL	BL	EL
OC 2.1: % women with access to an control over loans for IGA <sup>1</sup>	7.1	5.2 *	266	286
Female HHHs	49.0	51.0	49	51
Male HHHs	5.5	2.1 **	217	235

Statistically different from baseline at the 10% (\*), 5 %(\*\*) or 1 %(\*\*\*) levels.

<sup>1</sup>Includes households that have taken out a loan or want to take out a loan of at least 1500 Indian rupee

Women’s use of loans appears to shift in the endline period to covering basic needs of the family, including more land for cropping, perhaps due to persistent shocks, as opposed to investing in other income generating activities. Data in Table 24 shows purchasing agricultural

inputs like seeds remain the biggest use among women accessing loans (around 60% at both the base- and endline periods). From the baseline to endline periods, use of loans to pay for medical expenses has gone up by about 28 points to 43%, 10 points to 40% to buy food and 11 points to 21% for clothing. There is increase use of loans to lease or buy land for agriculture moving 17 points to 18% of women reporting use of loans. Loans to help pay for school expenses grows by 10 percentage points to nearly 18% of women reporting this use. Use of loans for all of the above purposes is verified by information in the endline qualitative study.

Investing in livestock has gone down by 13 percentage points to 8% and other business capital for income generating activities by 12 percentage points to 7%.

Table 23. Women's use of loans

Use: multiple response	BL	EL
Business capital (IGA, etc.)	18.9	7.0***
Purchase agricultural inputs/seed	62.7	56.5
Purchase/lease of land for agriculture	1.2	17.7***
To purchase livestock	21.9	8.1***
To buy food	30.2	39.8
Pay for school expenses	7.1	17.7***
Pay for medical expenses	14.8	43.0***
Clothing	8.9	21.0***
Furniture/utensils	1.2	1.1
Housing	10.7	11.8
To repay other loan	1.2	5.4***
Funeral expenses	0.6	2.7
Wedding/ marriage	1.8	5.4
Other	3.6	3.2
N	169	186

Similar to baseline period, data in Table 24 shows the vast majority of women interviewed who are farmers, at the baseline and endline period, report accessing financial services to support agricultural activities in the last 12 months (approximately 95%).

Table 24. Women's access to financial resources

--

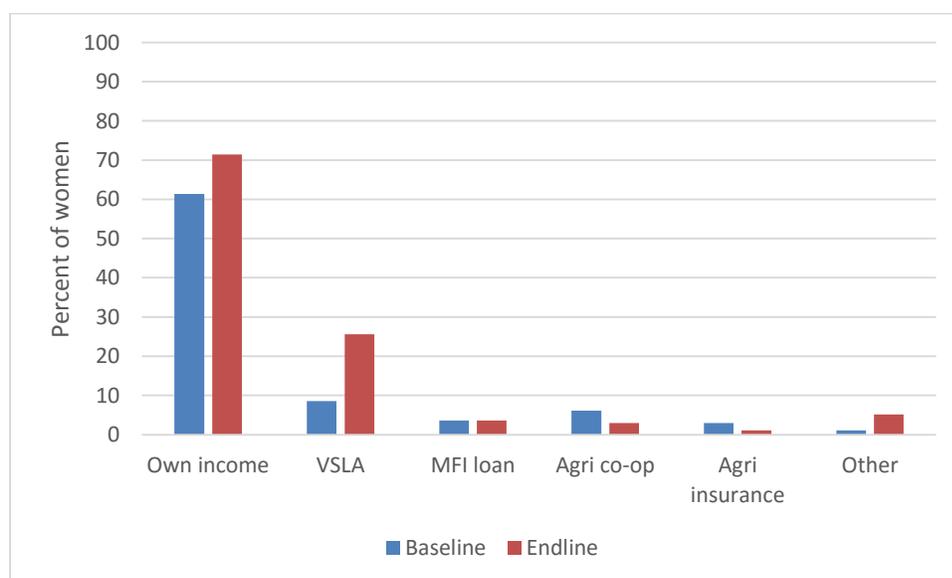
Indicator	% of women		Sample Size	
	BL	EL	BL	EL
OC 2.5: % women accessing finances for agriculture (loans, savings, crop insurance) in last 12 months <sup>1</sup>	96.2	93.9	469.0	458.0

Statistically different from baseline at the 10% (\*), 5 %(\*\*) or 1 %(\*\*\*) levels.

<sup>1</sup> Female farmers only

The strong majority of women farmers are financing their agriculture through their own income and savings, growing from just over 60% to 70% of respondents over the project period. SHG group financing has also increased since the baseline period, growing from just under 10% of women farmers utilizing this source to about 25% of such farmers.

Figure 3. Women's sources of finances for agriculture



#### 4.6.2 Women’s Access to Agricultural Extension Services

The percentage of women stating have met with an agricultural extension worker or a livestock worker in the last 12 months has increased dramatically. At baseline only 24% of female respondents responded “yes” while at the endline period this increases to 89%. Nearly every woman respondent reports satisfaction with the service (95%). This is verified by information in the endline qualitative study. Women are particularly satisfied with extension provided by the Community Resource Persons of the implementing partner agencies, though they report increase interest and involvement of government extensionists though this is far more limited in scope. Women who are not members of SHGs indicate their household farming activity is benefiting from this expanded extension presence in the community.

Table 25. Women's access to agricultural services

Indicator	Point Estimate			Sample Size	
	BL	EL		BL	EL
OC 2.4: % women with access to agricultural extension services over last 12 months <sup>1</sup>	23.8	89.1	***	554	468
OC 2.6: % women reporting satisfaction with agricultural extension services <sup>2</sup>	83.9	95.0	***	137	424

Statistically different from baseline at the 10% (\*), 5 %(\*\*) or 1 %(\*\*\*) levels.

<sup>1</sup> Female farmers only

<sup>2</sup> women who met with agricultural extension

### 4.6.3 Women's Access to Agricultural Inputs

There has been significant growth in women accessing agricultural inputs such as seeds and fertilizers over the project period, growing from about 37% to 89% as seen in the table below.

A Pathways Outcome Challenge and Progress Marker for women is an expectation to see “women along with men apply fertilizer in farm land” and like to see “women use mechanical agricultural implements (i.e. weeders)” and “women apply fertilizers as per the prescribed dose.” Information from women farmers in focus groups indicate women are using fertilizers, particularly composting in their home gardens. Women in about half of the villages of the qualitative study mention the availability and use of mechanical implements facilitated through Pathways (subsidized with government support). Though there is some knowledge of proper fertilizer dose, women in a number of villages of the qualitative study say they need more demonstration and practice about doses.



Table 26. Women's access to agricultural inputs

--

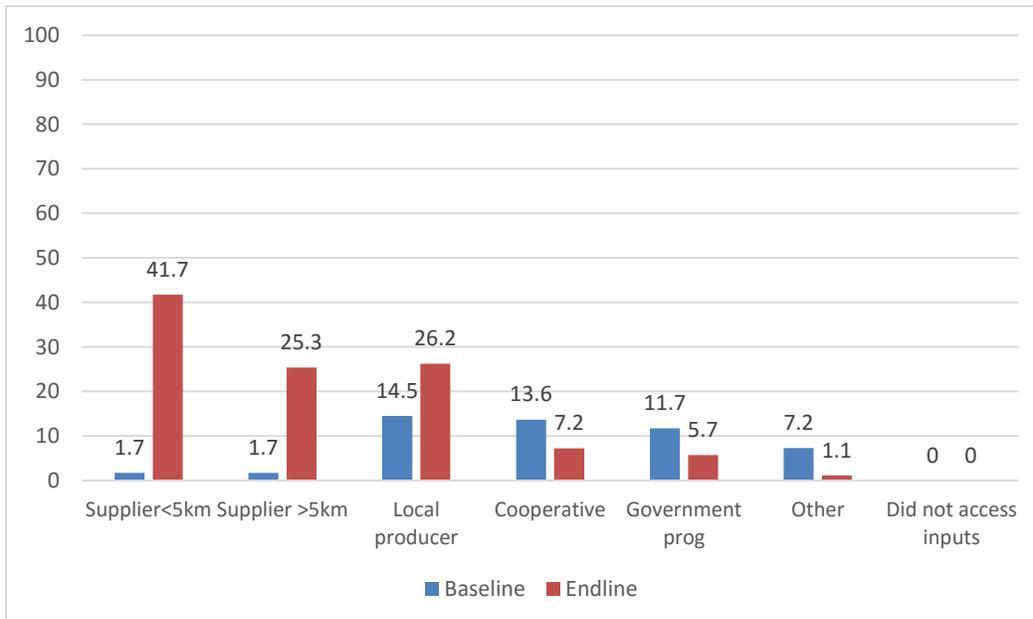
Indicator	Point Estimate			Sample Size	
	BL	EL		BL	EL
OC 2.2: % women accessing agricultural inputs (seeds, fertilizers, etc.) over the last 12 months <sup>1</sup>	36.5	89.1	***	469	458

Statistically different from baseline at the 10% (\*), 5 %(\*\*) or 1 %(\*\*\*) levels.

<sup>1</sup> women who met with agricultural extension officer

Survey data shows women at the baseline period were primarily sourcing inputs from local producers, cooperatives and government programs, in the range of 12-14% of female farmer respondents for each of these groups. While sourcing from cooperatives and governments goes down since the baseline period, inputs from local producers nearly double to 26%, move 23 percentage points to 25% from suppliers five or more kilometers away, and move a huge 40 points to 42% for closer-in suppliers.

Figure 4. Sources of agricultural inputs in last 12 months



Farmers in focus groups of the endline qualitative study indicate producer groups are in short supply to assist in securing timely and cost effective inputs. Government suppliers, other than facilitating subsidized mechanical implements, are not very effective – particularly their inability to provide inputs on a timely basis to meet the farmer needs.

However, agricultural kiosks being facilitated through CARE (see side-photo) have great potential as sustainable providers of inputs and



information to assist farmers. CARE is promoting these kiosks with non-Pathways funding.

Two kiosks were visited in the qualitative endline study in Kalahandi. One provides inputs to 13 surrounding villages. Ownership is by successful middle-income farmers who are very familiar with the needs of small farmers. The kiosks are in close proximity to Pathways villages and are easy to get to on good roads. They eliminate the burden of farmers travelling 25+ kilometers to blocks where previously they had to go to for inputs.

Paddy seed, inputs for kitchen gardens, fertilizers and pesticides are products selling well at the kiosks. However, sales are seasonal and a challenge for kiosk owners is to maintain cash flow over these slower periods. One kiosk is estimated to have a net profit of approximately Rs. 1lac (\$1,400) in its second year of operation.

Input prices at kiosks are approximately equal to those at input shops in the blocks, but farmers accessing kiosks save in time and transportation costs. Most farmers pay with cash though credit is also sometimes extended at little or no interest.

The kiosks also serve as important information sources on market conditions. They post market boards provided by Pathways. One owner regularly visits the farms of customers and provides hands-on advice on input use to meet certain soil and parcel size conditions and challenges faced by farmers. At least half of kiosk customers are women who are particularly interested in paddy and kitchen garden inputs.

The kiosks are an informational source for government officials to learn about local conditions and needs of farmers. Kiosks also serve to provide farming communities with information on special government schemes and campaigns, and weather conditions.

Implementing partners of Pathways intend to continue working with “Ag Kiosks” after the project period as an important mechanism to support poor farmers in extension and other activities.

#### 4.6.4 Women’s Access to Output Markets

Through the development of clusters and networks of producer groups, CARE Pathways aims to not only improve purchasing for poor women farmers, but also to improve their marketing and negotiation power.

Data in Table 27 shows at baseline period approximately three-quarters of women selling agricultural products to markets were doing so outside of their local markets in “output markets.” At endline period, this drops to about half of the women. Pathways staff explain this is due to the collectivization of produce and bargaining with traders who are buying produce from the village. Women in focus groups indicate they are selling produce to traders at better market terms.

Table 27. Women's access to output markets

Indicator	Point Estimate		Sample Size	
	BL	EL	BL	EL

OC 2.3: % women accessing output markets to sell agricultural production over the last 12 months <sup>1</sup>	75.6	50.5	***	127	378
Statistically different from baseline at the 10% (*), 5%(**) or 1%(***) levels.					

<sup>1</sup> Female farmers who reported selling products themselves

#### 4.7 Change Lever 3: Productivity

To realize Change Lever 3, CARE Pathways Outcome 3 aims for “*Improvement in yield and income through adoption of sustainable and intensified agriculture and value addition*”. Project activities are designed to sensitize smallholders on crop production, conservation agriculture, soil and water conservation, and irrigation; and to train smallholders in improved practices for production of target crops according to needs. The project promotes crop diversification for women with available land by procuring and distributing seed for demonstration purposes, training collectives on relevant practices for advance crop production and processing opportunities, and facilitating links to relevant input providers for higher-level commodities.

To determine change in the status of poor women farmer’s agricultural productivity this evaluation compares

- baseline and endline values for women’s net income from agricultural production and/or related processing activities;
- the number and type of crops grown;
- the agricultural yield of crops supported by the project; and
- whether women are adopting agricultural, livestock, storage, and post-harvest practices that promote sustainable production and value addition.

Women who engage in any agricultural activity were interviewed to understand numerous aspects of their involvement in and experiences with production. Women whose only involvement in agriculture is wage labor were not interviewed about these topics. This section summarizes the baseline to endline results from surveyed female farmers.

A Progress Marker for women related to control of income and productive assets and resources that Pathways India *would expect to see* is “women small holders undertake diverse livelihood activities.”

Female collective members across all the villages surveyed in the qualitative study report numerous changes in livelihood activities. Women are going to markets more frequently, both selling their produce and buying household supplies. Though many or most households had kitchen gardens at the baseline period, women report these gardens are now more productive and providing more benefit for household consumption. Women at the endline period describe improvements in marketing NTFP, such as better quality and packaging of mahula (a flavoring for a popular liquor) to command better market prices. Perhaps the most significant change in livelihoods for women is greater pay for their work in agricultural day labor and public work schemes. Their pay, according to women and men in focus groups, is becoming equal to that of men.

### 4.7.1 Women's Income from Agriculture

Over the project period the household survey data show significant growth in the number of households earning incomes from agriculture or related processing activities. The level of female-headed household with this income more than triples to 82% with male-headed households nearly tripling to 85%.

Table 28. Women earning income from agricultural production

Indicator	% households		Sample Size	
	BL	EL	BL	EL
Percent of households with women earning income from agricultural production and/or related processing activities				
All households	31.8	84.8***	554	468
Female HHHs	24.6	82.1***	130	84
Male HHHs	34.0	85.4***	424	384

Data in Table 29 show that women's mean annual net income from agricultural production<sup>14</sup> has increased over the past three years from about \$64 to \$77. Though no statistically relevant conclusion can be drawn comparing the trend for median income, for women in all households it stands at \$46.2 at the time of the endline survey with women in female-headed households reporting less median income and those in male-headed households.

Table 29. Women's net annual income from agricultural production

Indicator	Income		Sample Size	
	BL	EL	BL	EL
OC 3.1 Mean annual net income of women from agricultural production and/or related processing activities (INR 2015)				
All households	3621.9	5113.9	***	176 394
Female HHHs	2458.7	4191.9		32 69
Male HHHs	3880.4	5309.6	**	144 325

<sup>14</sup> Women's reported mean annual net agricultural income is calculated from women's estimated sole and/ or joint earnings from agricultural sources, minus estimated annual costs of inputs for each income source.

Median annual net income of women from agricultural production and/or related processing activities (INR 2015)				
All households	2152.6	3075.0	176	394
Female HHHs	2359.0	2100.0	32	69
Male HHHs	2123.1	3400.0	144	325
OC 3.1 Mean annual net income of women from agricultural production and/or related processing activities (USD 2015). Base year 2012				
All households	64.2	76.9	176	394
Female HHHs	32.0	69.0	32	69
Male HHHs	58.20	79.64	144	325
Median annual net income of women from agricultural production and/or related processing activities (USD 2015). Base year 2012				
All households	38.2	46.2	176	394
Female HHHs	41.8	31.6	32	69
Male HHHs	37.6	51.1	144	525
Statistically different from baseline at the 10% (*), 5%(**) or 1%(***) levels. Only conducted for mean values				

#### 4.7.2 Crop Diversification

The mean number of crops grown by women has increases from 1.2 to 2.0 as found in data presented in Table 30. Women in male-headed households have taken up more crop diversity than those in female-headed households. Table 31 shows that Pathways participants cultivate a larger variety of crops at endline than baseline. For every crop except maize and turmeric, the share of women who report that they grow it increased. From the baseline to endline surveys the level of women growing rice grows from less than half to over three-quarters; approximately for pulses (to 31% of women at the endline period), mahula flower (to 52%), sal/siali leaves (to 26%) and potatoes (19%); and significant increases of women growing fruits, tamarind and sweet potatoes.

Table 30. Crops grown by women

Indicator	% of Households			Sample Size	
	BL	EL		BL	EL
OC 3.3: Number of different crops grown					
All households	1.2	2.0	***	469	458
Female headed households	0.9	1.5	***	97	80
Male headed households	1.3	2.2	***	372	378
Statistically different from baseline at the 10% (*), 5%(**) or 1%(***) levels.					

Table 31 Crops grown by Pathways participants

Indicator	% of women		
	BL	EL	
Crops grown by Pathways participants <sup>1</sup>			
Rice	47.1	77.9	***
Maize	24.0	24.0	
Pulses (dal)	14.1	31.4	***
Mahula flower	20.8	51.7	***
Turmeric	0.0	0.0	
Millet	1.5	10.8	***
Sal/siali leaves	11.1	26.2	***
Cotton	0.4	3.7	***
Mango	1.9	15.8	***
Jackfruit	2.3	11.0	***
Potato	10.5	19.0	***
Sweet potato	1.9	9.3	***
Tamarind	1.9	9.7	***
n	533	462	

Statistically different from baseline at the 10% (\*), 5%(\*\*) or 1%(\*\*\*) levels.

<sup>1</sup> Female farmers

### 4.7.3 Women's Agricultural Yields

Yields in kilogram (kg) per hectare, calculated for rice, maize and pulses are reported in Table 32 below based on production in the 12 months prior to the survey. These are crops promoted by the project. Rice production, so integral to the diet of the target population, has increased by nearly 27% over the project period to 1081 kg per hectare. Data do not indicate significant changes in yields of maize or pulses. Maize is promoted in Kalahandi district as a commercial crop. However, Pathways staff report production is down in last year due to two consecutive cyclones resulting in less number of farmers opting for maize cultivation. The increase in production for rice is a significant achievement for Pathways and is verified by information from the qualitative study. Unfortunately, persistent shocks, including the drought at the time of the endline may be wiping away the gains in productivity.

Table 32. Yields from crops supported by Pathways

Indicator	Yield in kg.	Sample Size
-----------	--------------	-------------

	BL	EL		BL	EL
<b>OC 3.2: Agricultural yield in crops supported by Pathways (kg. per hectare)<sup>1</sup></b>					
Rice	851.9	1080.6	***	194	244
Maize	356.9	320.5		104	77
Pulses	194.6	193.2		51	95

Statistically different from baseline at the 10% (\*), 5%(\*\*) or 1%(\*\*\*) levels.

<sup>1</sup> Female farmers

#### 4.7.4 Women's Agricultural and Post-harvest Practices

Women have mixed results over the project in adapting a more integrated approach to improved agricultural production. Data shows about half of female farmers at the endline period are now using three or more improved agricultural practices, compared to about one-third at the baseline period. Line sowing and improved seed quality and preparation are the three most commonly cited practices by farmers in the endline qualitative study that are improving agricultural production. Use of two or more post-harvest processes has dropped from about four-fifths of farmers to one-half, and improved storage techniques from about one-half to one-third of farmers.

Table 33. Women's agricultural practices

Indicator	% Women			Sample Size	
	BL	EL		BL	EL
OC 3.4: % women adopting 3 or more improved agricultural practices	33.0	52.4	***	469	458
OC 3.5: % women farmers adopting 2 or more post-harvest processes	83.8	53.3	***	469	458
OC 3.6: % women adopting improved storage practices	48.4	37.1	***	469	458
OC 3.7: % women using one or more improved livestock practices	31.8	52.0	***	469	458

Statistically different from baseline at the 10% (\*), 5%(\*\*) or 1%(\*\*\*) levels.

An Outcome Challenge and Progress Marker for women that Pathways India *would expect to see* is “women share information and knowledge on improved agriculture practices and marketing with their husband.” Women members of collectives are sharing this information within their households and with husbands. The information they are receiving from Pathways is significant. It comes primarily in training and support from Pathways animators in each village and CRPs of the implementing Pathways project partner. CRPs and animators are very involved in providing technical assistance such as use of improved inputs like seeds, better planting techniques, use of tools and assistance in marketing. Government extension support has grown in at least four of the six villages of the qualitative study (Dokedi and Kitpader in

Kalahandi district; Taldanaju and Malik Pada in Kandhamal), though it is not considered nearly as effective as more direct extension through Pathways.

Animators are the primary Pathways functionaries at the village level. The animator in the Kandhamal village of Malik Pada described her role as “checking how the group (SHG) is operating, saving, conducting meetings and also on whether row plantation and cultivation is being properly carried out.”

Animators interviewed in the endline qualitative study say their skills and knowledge will be applied at the village level in the post-Pathways period, an

important indicator of project sustainability. However, other stakeholders in the community are not so sure of this. Animators assisted in the rejuvenation of several SHGs assessed in the qualitative study, including those closed down due to the communal violence of the previous decade. They report an emergence of women leaders within SHGs and the community, success in savings and loan activities of benefit to members and growth in basic agricultural techniques to improve production through such activities as row cropping and improved seeds. Animators indicate the two biggest on-going needs of collectives is increasing income generating activities for SHG members and strengthening record keeping systems and other organizational capacities of the collectives.

A Progress Marker for men that Pathways India *would like to see* is “men working alongside with women in agricultural activities such as transplanting and weeding.” Men in all of the villages of the endline qualitative study say both men and women are involved in these cultivation activities. Men report working with women when weeding machines are in use. However, it was difficult to discern in the endline study if there is a greater overall trend of working together. With some villages engaged in harvesting during the endline period, the evaluation team observed women and men working both together and in separate groups in a number of functions such as separating rice from stalks, cleaning and transporting production.

Progress Markers for men that Pathways India *would expect to see* is “men support women to adopt improved agricultural practices to access agricultural tools and information” and “men supporting women financially in income generating activities.” Men in focus groups in all of the villages studied in the endline evaluation are very supportive of women adopting new practices and accessing tools and market information. There is no evidence men are contributing financially to women’s income generating activities. Men are supportive of women’s involvement in SHGs to save and potentially use these savings and access credit for income generating activities. However, the evidence is that use of SHG financial resources is going to basic needs of the household, such as health care, food, clothing and education (see Table 24).

Challenges articulated by Pathways animators in three different villages:

- *We need training on tailoring and use of sweeping equipment.*
- *We aren’t getting enough equipment to meet the needs of the SHGs in our area.*
- *We need training on mushroom cultivation and precaution to avoid bird flu.*
- *After this year’s draught and bad impact on crops, our members are having difficulty in repaying loans.*

### 4.7.5 Women’s Livestock Practices

Table 33 also shows the number of female farmers using one or more improved livestock practices has grown from about one-third of these farmers to one-half comparing the end-and baseline survey data. These improved practices correlate to improved health of livestock and growth in the average number of goats and sheep per household (see Table 13).

## 4.8 Change Lever 4 - Household Influence

The focus of Pathways Change Lever 4 is to ensure that poor women farmers have increased contributions to and influence over household income and decision-making. To determine if there have been changes to women’s contributions to and influence over household income and decision-making, the surveys measure women’s control of household and agricultural income and expenditures<sup>15</sup>; women’s control of household and agricultural assets<sup>16</sup>; and women’s decision-making related to health care and reproductive health.

### 4.8.1 Women’s Control of Income, Expenditure and Asset Decisions

At the endline period, the overall percentage of women who gain in sole or joint decision-making and control of assets (both household and agricultural) increases since the baseline survey. For women in male-headed households the growth is significant, nearly doubling to two-thirds of women for household assets and three-quarters for agricultural assets at the endline period. However, when comparing data from the baseline and endline periods, there has been no growth or decreases in the percentage of women with decision-making or control for income and expenditures for both categories. In the qualitative endline study women who are earning from their own income generating activities report they have decision-making and control over these resources.

The subset of female-headed households increases empowerment in both income/expenditure and asset categories, generally increasing from about half or three-quarters of women at the baseline to around 90% or more at the endline period.

Table 34. Gender-equitable decision-making for income, expenditures, and assets

Indicator	% of respondents		Sample Size	
	BL	EL	BL	EL
	OC 4.1: % women with sole or joint control over household income and expenditures			

<sup>15</sup> Women’s control of income and expenditures is defined as women who have input into most or all decisions relative to a household or agricultural domain AND who have input into most or all decisions regarding the use of income from the activity (if it is an income-generating activity). For CARE India, the outcome indicator is computed as the percentage of women who have control in 70% or more of the domains in which the household reports that decisions are made, excluding minor household expenditures.

<sup>16</sup> Women’s control of household assets is defined as women who state they are a sole or joint decision maker regarding the sale or purchase of various household and agricultural assets. For CARE India’s Pathways project the outcome indicator is computed as the percentage of women who have control in 80% or more of the domains in which the household reports they hold assets.

All households	58.4	52.5	*	553	467
Female HHHs	73.8	84.5	**	130	84
Male HHHs	49.6	42.3	*	423	383
OC 4.2: % women with sole or joint control over agricultural income and expenditures					
All households	53.4	52.9		530	467
Female HHHs	72.4	94.0	***	116	84
Male HHHs	48.1	43.9		414	383
OC 4.3: % women with sole or joint decision-making and control over household assets					
All households	40.0	67.8	***	550	456
Female HHHs	55.1	87.7	***	127	81
Male HHHs	35.5	63.5	***	423	375
OC 4.4: % women with sole of joint decision-making and control over agricultural assets					
All households	52.8	76.7	***	506	464
Female HHHs	75.2	87.8	**	75	88
Male HHHs	46.6	74.3	***	47	74

Statistically different from baseline at the 10% (\*), 5%(\*\*) or 1%(\*\*\*) levels.

A Progress Marker for women that Pathways India *would love to see* is “women engage or participate equally in household decision-making around producing and marketing of crops and livestock.” Female SHG members in each village of the endline qualitative study report an important change in men’s perceptions of women’s opinions on agricultural production and marketing. Women are more freely expressing themselves and men are now listening to their wives as a part of the decision-making process. Women attribute this to the training they are receiving from CRPs, animators and others. They have a body of knowledge that is now valuable to men. Additionally, women have greater access to improved agricultural inputs and training in their use.

*Earlier women were afraid of men. They weren’t allowing women to attend meetings. Now (through Pathways) we are taking decisions together about cultivation, income generation, household purchases and children’s education.*  
– Women in an SHG in Dedar

A Progress Marker for women Pathways India *would love to see* is “women negotiate with their spouse to access productive resources like land, finance and agricultural implements/tools.” When asked about this marker, women in the qualitative study talk about the use of these resources in conjunction with their husbands since very few are purchasing or renting land and tools. Women are receiving loans from SHGs and they report they have considerable say use of these financial resources, particularly for children’s education, health services and basic household goods including food.

Women and men say there are still traditional gender practices very much in play, such as men plowing and women tending to kitchen gardens. However, with women having increased knowledge and access to agricultural inputs and market information they are much more involved now, as compared to three years ago, in discussing management of land and

production with their husbands. Through Pathways, women in SHGs are gaining access to more advanced tools such as weeders and thrashers. These tools are being rented out by some SHGs to the community as an income source for the collective.

Progress Marker for men that Pathways India *would love to see* is “men seek suggestions and views from their wives during decision making around incomes and expenditures at the household level.” Men in all the villages of the endline qualitative study say women are more involved in decision-making on these uses of income and purchases. Men are seeking suggestions for very practical reasons: women are more knowledgeable, such as about market conditions and fetching better prices, and they are more involved in income producing activities. In the baseline study women were playing important roles in purchasing basic household items like groceries and clothes. The shift through Pathways is men are now at least consulting with women more in agricultural production and sales, though decision-making may still largely be with men.

*These days, because of the SHG, the ladies know the rates of our produce and we always need their suggestion before selling so that we get the best price.* (Taldanaju in Kandhamal district)

*Because both men and women are earning these days, joint decisions are taken more.* (Dedar in Kalahandi district)

- Quotes from men in focus groups of the endline qualitative study

#### 4.8.2 Women’s Control of Reproductive and Health Care Decisions

In both male- and female-headed households, survey data indicate that the vast majority of women are still the sole or joint decision maker in the endline period for health care and family planning decisions (91% or more at both the baseline and endline periods for all categories in Table 35).

Table 35. Gender-equitable decision-making for health care and reproductive health

Indicator	% of households		Sample Size	
	BL	EL	BL	EL
OC 4.5: % women making sole or joint decisions about health care				
All households	93.8	94.7	529	451
Female HHHs	91.1	97.5	123	80

Male HHHs	94.6	94.1	406	371
OC 4.6: % women reporting sole or joint decision-making over reproductive health decisions				
All households	97.6	98.0	415	394
Female HHHs	98.4	96.4	64	56
Male HHHs	97.4	98.2	351	338
Statistically different from baseline at the 10% (*), 5%(**) or 1%(***) levels.				

A Progress Marker for women that Pathways India would like to see is “women have an equal part in decision-making around education and health care of children.” Female SHG members in all focus group discussions of the qualitative endline study report their decision-making in education and health is far more gender equitable than in previous years. Many women describe themselves as the primary household decision-maker in accessing health services and the decisions surrounding education are made jointly with their husbands.

The trend is for more joint decision-making on reproductive health decisions between husbands and wives. This corresponds with the government’s push on family planning. Government slogans are well known, for example: *samajaremahilamanankar bi samanadhikarachi* - meaning women have equal rights in our society; or *ame dui amara dui* - meaning “we two; our two” (two parents; two children). Pathways participants give credit to implementing partners for re-enforcing this important government messaging.

*Earlier girls were married at a tender age. They were barred from education. Now they realize it is difficult to deliver a baby at a very young age. Some used to die in this process. Men used to ask for dowry. In case it wasn’t given, women were tortured. Now the community realizes more that girls must be educated and encourage to stand on their own and marry after the age of 20 without dowry. They are awakened through different trainings like in Pathways and by government advertisements.*

*Previously husbands weren’t listening to the desires and wishes of women. The requirement of women like food and clothes weren’t fulfilled. They used to say, “Children are gifted by God.” Now they say it is difficult to manage a family with many children. They (husbands) are able to receive positive messages about women and family. By looking at each other and learning from good examples, they are changing themselves. - from female SHG members in Dokedi village*

#### **4.9 Change Lever 5: Enabling Environment**

The aim of Pathways Change Lever 5 is to facilitate the social changes necessary to create more positive and enabling attitudes, behaviors, social norms, policies and institutions that promote women’s rights. For CARE India, the SHG is a key entry point for women to discuss gender equality issues, challenging traditional gender and cultural related barriers in social and economic activities. To determine whether there has been any change in men’s and women’s attitudes toward gender-equality, male and female respondents were asked questions about

their attitudes, perceptions, and practices related to gender roles, household violence,<sup>17</sup> and women’s mobility. The surveys also explored whether sex was a barrier to participating in various local groups.

Women in focus groups in the endline evaluation were asked if they can communicate somewhat easily about their feelings with husbands, including if they feel they are being listened to. Responses to this general open-ended inquiry vary in each village. In Taldanaju, most of the women interviewed indicate husbands have become more responsive to their needs, particularly in family planning. In Malik Pada, the consensus is that changes have taken place but not in a “great way.” In Dokedi, women say earlier men were not respecting their feelings. Now they fulfill our wishes “even before we express” them. Both there and in Dedar women say they can now freely visit parents, go to markets and recreational places.

Men and husbands were also asked if they are more responsive to women’s feelings and if there is any recent change in communication about feelings between men and women. In every village surveyed in the endline qualitative study, men in focus groups acknowledge there is change in the last four years. Women have greater rights to speak, they are being listened to more and involved in greater decision-making.

*Earlier we used to think women are just for cooking; now their role and responsibility has changed. (Taldanaju, Kandhamal district)*

*Women were thought to be fools earlier by men, but that is not the case now. They speak more and involve themselves in important matters these days. (Kitpader, Kalahandi district)*

- From men in Pathways villages

Both nongovernmental and government Pathway partners agree Pathways is making a very important contribution to creating an enabling environment for women, particularly in their own knowledge in the relationship between gender equality and livelihoods. Their input is summarized in section 5.1 of this report.

Reflect Circles (RC) are an innovation in Pathways that tie together gender equity with action to address challenges existing in local communities. RC members interviewed in the qualitative study were selected from collectives because they “are vocal” and “can go outside the village” for training and advocacy “without hesitation.” They constitute an important leadership activist group addressing difficult issues, and set examples of how organized women can impact their communities. In Dedar of Kalahandi district RC leaders go to houses where women have been beaten by their drunken husbands and provide counseling. They are also organizing women in joint activities to strengthen SHGs and other collectives and individual families in need. In Upernugaon members of the Reflect Circle succeeded in securing emergency food for the village during a drought period and seeds from the government for cultivation for many families in the community. The group claims to have been a part of nearly eradicating traditionally harmful caste perceptions in the village. Men in both of these villages voice support for RC activities and women are especially appreciative of RC leadership strengthened

---

<sup>17</sup> Male and female respondents are asked to agree or disagree with two statements: 1) *There are times women deserve to be hit*, and; 2) *a women should tolerate violence in order to maintain stability in the family*. For this study, disagreeing with both qualifies as a rejection of household gender-based violence and serves as the underlying measurement for the outcome indicator.

gender equity on their behalf. RC members indicate a need for their continued training to remain a vibrant force in their communities.

#### 4.9.1 Attitudes about Gender Equality in Family Life

In the household surveys, respondents are asked whether they agreed or disagreed with four statements that reflect men and women's roles in family life. On the statement "most household decisions should be made by the man," data shows the percentage of women disagreeing from the baseline to endline period rises from 47% to 67% and for men from 34% to 58%. However, for "there is men's work and women's work and the one should not do the work of the other" there is no change in attitude between the baseline and endline data with about 51-53% of both groups disagreeing. On the statements "if a woman works outside the home, her husband should help with child care and household chores" and "a husband should spend his free time with his wife and children" the level of agreement of both sexes decreases from about 98% at the baseline to around 80% at the endline period. Taken all together, the data in Table 36 show that patriarchal attitudes about family life are held not only by men, but also by women in their opinions of their own roles in family life. This was true at baseline, and at the endline period with fewer males and females meeting the threshold of expressing empowering attitudes to all four statements.



However, the endline qualitative study does not detect any less empowering attitudes. To the contrary, every focus group of men and women, even women who are not members of SHGs, report positive changes in these attitudes over the last three or four years.

Selection and training of "male champions" is a Pathways activity to help promote more equitable gender attitudes in local communities. Champions were interviewed in two villages of the qualitative endline study. Men are selected as "champions" with community input and receive training through Pathways on gender issues. They are expected to set good examples, such as assisting their wives in household activities such as child care. They are advocates for women's reproductive rights. They are also called on to assist in problem solving when needed with other men, such as conflict resolution. It appears one of the more effective involvements of male champions is helping to reduce alcohol misuse in Pathways villages. In the Kandhamal village of Taldanaju, a male champion says, "a lot of the men in our village are probably male champions like us. There's not really much difference between us and them."

A Progress Marker for women that Pathways India would love to see is "women asking support from men on household chores (like cooking cleaning,

*Previously women didn't have courage to speak to their husbands about household work. We were not supported in any way even when we were having babies. Recently husbands are supporting wives like cooking during our time cycle and taking care of children.*  
– Female SHG member in Dokedi

washing clothes.” Another Progress Marker for women that Pathways India *would like* to see is “woman ask for more of husband’s time with them and children.”

Women SHG members in each village of the qualitative study describe important changes in the household division of labor over the last three to four years. This is happening more as women are ill or having babies, and when women are busy with SHG and income generating activities. Women attribute this to Pathways gender sensitivity awareness building. This burden sharing includes caring for children, helping to prepare them for school, fetching water and firewood, and cooking. Non-SHG member women in focus groups affirm this general societal trend in their villages, though with less intensity.

A Progress Markers for men that Pathways India *would love* to see are “men spend more leisure time with their spouses and children,” and “men do household work (cooking, cleaning, washing clothes, child care) to reduce their wife’s burden and wake up early to help with household chores.” Men in every village of the study indicate in recent years there is more joint activity with wives in agricultural production (such as weeding and harvesting), and they sometimes collect water and wood. They also say they are caring for children and cooking when needed if their wives are away involved with other important activities. This helps to minimize women’s burden to handle a more diverse set of responsibilities, including their involvement in Pathways activities. However, when women return home they take over being the primary household chore worker. Men acknowledge women have greater burden on their time than in earlier years. Men do not admit to waking earlier to handle household chores, or they are washing clothes other than their own when needed if their wives are away.

Tables 18 and 19 both report data showing women with high levels of leisure satisfaction ( in the high 80s%). However, the qualitative endline study did not hear from women they were satisfied with their leisure time, perhaps due to the pressing needs of harvest many were engaged with at the time. To the contrary, women report they have more responsibilities than ever before as they have greater involvement with economic activities and those associated with SHGs. In addition to husbands assisting wives more in household chores, women also report mechanized and other agricultural tools facilitated through Pathways are burden-reduction mechanisms.

#### **4.9.2 Daily Activities**

Groups of men and women were brought together in four villages of the qualitative endline study, two in Kandhamal and two in Kalahandi districts. In these participatory information gathering exercises, members of the community identify key activities in daily, monthly and yearly life and are asked to compare the time devoted to each activity to the time three to four years ago and gender differences. Below is a summary of findings reviewed in categories from the most to least significant changes in daily activities.

##### **1. Most significant changes:**

- To varying degrees in each village, men are devoting more time in assisting household chores, cleaning the household compound, collecting water, taking care of children and elders particularly when women are involved in income generating

activities, SHG meetings, and went women are not feeling well or are in pre or post child birthing periods.

- Earlier men were not helping the women in the paddy land for weeding, sowing and harvesting. These days, men are helping women more in such agricultural work. This is due to Pathways gender sensitization efforts. Compared to earlier times, this assistance can amount to at least two to three hours a day when these activities need to be done.
- Women are more confident and free to travel alone or in groups with other women, and are definitely spending more time doing this than before. These days they travel to the block, hospitals, government offices and other villages to visit relatives without much difficulty.
- Leisure time and sleeping for some women has increased, whereas for men it is approximately same or there is a slight change (either more or less).
- Women are giving more time to personal care and grooming because of they are going out, meeting people and attending meetings. On some days, women are spending 20 to 40 minutes more for personal care.
- Men and especially women are attending more time in meetings and being more responsible for community and social issues such as land rights and water related issues.

## 2. Moderate changes:

- Time spent collecting NTFP, firewood and selling goods to the market has increased. In some areas men are more involved in these activities than earlier years, in some locations women are spending more time and still other both are more involved. The overall amount of time collecting NTFP is the same.
- The time caring for livestock is same as earlier years, with some exceptions, but men are also helping a little more in these activities. In Dokedi village (Kandhamal), households hired a herder for their large livestock. However, men there have organized themselves to rotate these responsibilities among themselves. Women are a little more involved in helping them tie and free the livestock.
- More time is being spent on kitchen gardens than earlier years and men are assisting women more than they used to in gardening. It varies from 10 to 15 minutes per day to per week depending on family and size of garden. In some areas like Kitpader (Kalahandi district) households are aware of kitchen garden benefits but the lack of water in the community prevents their development.
- Women in SHGs are spending more time marketing their own produce and products whereas the nonmembers are not spending time with such activities. The men in the villages like Dedar (Kalahandi) and Kitpader district say they sell their own produce without help from their wives. In Upernuagaon (Kalahandi), men say they sell paddy

to the market directly not through middlemen. Everyone confirms Pathways has helped them knowing the best rate and time for selling produce like paddy, mahula, and kendu leaves. Their time is much better spent in these activities, and burden is reduced.

3. Least amount of changes:

- The hours spent on wage labor is the same as earlier years. In some areas, men and women are getting more work while in some other areas women are shifting to other work through SHGs instead of going for wage labor.
- *Redha* work existed in earlier years like now, but there is a slight increase in time spent on this work because people prefer working as a group these days. The hours spent on this varies depending on the requirement.
- People were worshipping earlier in recent years and there is a slight increase in this activity because of people being more awareness of its importance.

### 4.9.3 Gender-based Violence

Respondents in the household surveys are asked if they agree or disagree with two statements relating to gender-based violence. For “I think there are times when a woman deserves to be hit” the survey data shows level of women disagreeing is approximately same at the baseline (79%) compared to the endline period (81%). Disagreement among men with the statement rose to 74% from 70%.

On the statement “I think a woman must tolerate violence in order to maintain stability in the family”, there was significant change with the level of disagreement of females rising from 28% to 81% over the project period, and for men from 24% to 58%. Nearly half of the women respond with empowering attitudes to both statements at the endline period, compared to about one-quarter at the baseline. For men, it more than doubles to 38% at the endline period.

Table 36. Attitudes about gender equity

Indicator	% respondents		Sample Size	
	BL	EL	BL	EL
OC 5.1: % respondents expressing attitudes that support gender-equitable roles in family life				
Female respondents	35.7	25.2	554	468
Male respondents	19.3	13.7	554	468
OC 5.2: % respondents expressing attitudes that reject gender-based household violence				
Female respondents	26.5	49.4	554	468

Male respondents

15.3

37.6

\*\*\*

554

468

Statistically different from baseline at the 10% (\*), 5%(\*\*) or 1%(\*\*\*) levels.

A Progress Marker for women Pathways India *would love to see* is “women raise their voices against gender based violence and collaborate to protest against alcohol consumption.” At the baseline period, women reported alcohol consumption as perhaps the most serious social problem underlying gender-based violence while also significantly affecting men’s economic contributions to their families. By the endline period, important strides against alcohol misuse are evident. This is one of Pathway’s top achievements. For example, from the Kandhamal village of Taldanaju comes the following case story:

*Previously drunkard husbands used to create violence at the home. They used to cross a hill because liquor was made there. They used to drink & die, because they were unable to cross the hill. That’s why they started preparing alcohol within the village. Even school going children started drinking and suffered from many diseases. So all the members of SHG group unanimously decided to stop alcohol preparation. They tried to convince their husbands but they didn’t heed to them. So they informed SHG members of nearby villages. They agreed with them. Together they destroyed all the alcohol fermentation centers. They charged a fine of Rs 5000 against those preparing alcohol and a Rs 1000 fine for those who are consuming. They decided to make an awareness campaign on the ill effects of alcohol consumption. After these steps, alcohol has been reduced drastically.*

Though less dramatic, each village in the qualitative study at the endline period report restrictions made on alcohol resulting in less consumption and related abuse. Non-SHG member women in Malik Pada (Kandhamal) report anti-alcohol activities are having village-wide impact due to women’s leadership and mobilization coming out of the SHG. In the Kalahandi village of Dedar, non-member women say, “earlier husbands used to consume alcohol, snatch money from home and physically abused their wives. Now after receiving the training husbands have changed a lot. They are coming to understand it is better to spend money in a productive way rather than consuming alcohol. Children are also making them understand. Group members have broken the liquor making places and are moving to every household to explain the ill effects of alcohol.” In the Kandhamal village of Dokedi, female SHG members say, “We first raised our voice against alcohol selling and consumption and it was stopped. With the help of our animator we moved to every house and explained about this.”

*“Swami stree gote gardira dita chaka” – meaning “husband and wife are like two wheels of a cart”*  
Traditional saying used by women to describe the importance of gender equality between men and women

Reports of alcohol abuse still exist in Pathways villages. As one woman says, “husbands now only drink *mahula* stealthily.” However, noteworthy progress is occurring and it is strongly attributed to community organizing stimulated through Pathways.

*Strides against alcohol misuse in local communities is one of Pathway’s top achievements*

Focus group participants also give credit to the evangelical Christian church and government messaging in reducing this social malady.

A Progress Marker for men Pathways India *would love to see* is “men consume less alcohol and stop violence against women.” Men in all the Pathways villages of the endline qualitative study corroborate what women are saying in the above paragraphs. Drinking alcohol is still common in some villages, though there is a reduction due to greater awareness of its misuse and strong opposition from wives and others in the community to alcohol production and consumption. Couples still argue, but most agree there is less violence. Pathways gets some credit for this.

#### 4.9.4 Women’s Mobility

To understand freedom of mobility, female SHG members are asked in the household survey if they have to ask permission from their spouse or another family member to go to ten different locations. Four responses were possible: ‘Yes, always’ ‘Yes, most often’ ‘yes, but only now and then’, and ‘No, never’. Table 37 presents the data as a mean score of women’s individual answers.<sup>18</sup> The maximum score is 30. Women with a score of 16 or greater are considered mobile.

Results in Table 37 indicate that across the sample freedom of mobility has risen from about 17% of women surveyed in the baseline to 25% in the endline period. The percentage of women in male-headed households nearly tripled from very low levels to 18%, while for women heading their own households there is much greater mobility but the data cannot verify a statistically significant change.

Table 37. Mobility

Indicator	% of women mobility empowered			Sample Size	
	BL	EL		BL	EL
OC 5.3 women's mobility					
All households	16.5	25.4	***	553	468
Female HHHs	48.5	58.3		130	84
Male HHHs	6.6	18.2	***	423	384

Statistically different from baseline at the 10% (\*), 5%(\*\*) or 1%(\*\*\*) levels.

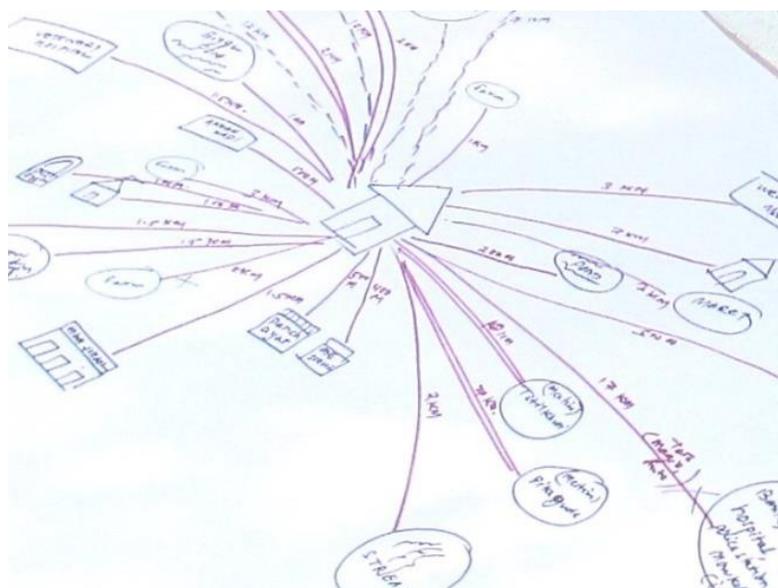
<sup>18</sup> The scores for women’s mobility are calculated by taking the mean across women’s individual scores. They are calculated using the following categories and score values from 3 (most mobile) to 0 (least mobile): "Never" (3), "Yes, but only now and then" (2), and "most often" (1) and 'always' (0).

The results of qualitative information gathering at the endline period suggest greater mobility gains for women over the Pathways project period than those indicated in the household survey on the question of whether permission for mobility is required. The mobility is not just a function of having to ask permission, but a more complex dynamic of informing husbands and other household member of mobility intentions, the type of destinations and who to go with, and setting in of regular patterns of mobility that are commonly understood and agreed to.

Women and men in focus groups explain mobility is less about asking permission and more about women informing where they would like or need to go with joint discussion and decision-making on the timing, expense, security issues and the needs of the family to go. Women having greater economic and civic activity, such as occurring through Pathways priorities, is understood by men and women as positively linked to greater mobility of women to markets, government offices and financial institutions. With greater mobility to these destinations, households become more accustomed to women able to move about to other destinations.

#### A Progress Marker for women

Pathways India *would like to* see is “women travel outside the village, such as going to the bank and market.” To assess this and related mobility issues a special participatory “social gender mobility mapping” tool was designed and used for the evaluation. Women were facilitated in drawing a map showing distinctions between men and women in mobility to places away from the home, and to understand reasons for these differences and patterns.



The tool also diagrams changes of gender patterns over the last three - four years to places people go for work, leisure, selling, buying, health, social services and other activities. Gender patterns are shown relative to activity, location on the map, and distance highlighted in meters or kilometers.

This tool was applied to four villages in the endline qualitative study, two in each district of the study. Images of these maps and the topical outlines with participant input are found in the Supplemental Annex.

Results from this participatory tool indicate a trend for women to have greater mobility outside of their village as their economic activities increase and it is becoming more culturally acceptable to move either individually, in groups and with their husbands. Results are approximately consistent from one village to another and between the districts as summarized below.

1. *What are destinations where women can now go alone, where previously they were unable to approximately three to four years ago?*

Women can now go to the block office, health clinics, schools, the bank, markets and closer-by relative homes. This is a result of having better roads and joining SHGs, which are enabling women to become more knowledgeable and confident to go to these places.

2. *What are destinations where women can go in groups of other women when previously they were unable to?*

Women can go in groups to the forest these days for grazing of livestock, collecting firewood and NTFP. Women are now also going in groups to more distant block and other government offices, banks, temples, post offices and markets. Participating in SHGs gives women more freedom to operate and move about as a group.

3. *What are destinations where women can now go only with men, where previously they were unable?*

Women and men can now go to the villages of relatives because of better roads. Women are also accompanying men to deep forest areas for collecting NTFP and for other income generating activities. Men are now more frequently taking women to hospitals, theater and festivals normally happening in other villages.

A Progress Marker for men that Pathways India *would like to see is*, “men take up responsibility for household work when women are traveling outside the village.” In all the villages of the endline qualitative study, men in focus groups say this is now occurring with greater frequency than in the previous four years. As to why this is occurring men indicate women are more involved in worthwhile meetings and earning income for their families. In addition there is some attitude shift that there is less stigma attached to men being involved in household chores, and at times “we don’t have any other options or choice in the matter” (paraphrased from several responses).

#### 4.9.5 Gender-based Barriers to Group Participation

To better understand changes to gender-based barriers to group participation, the surveys ask women who report they are not a member of an existing group in their community about the reasons they are not a member. One potential response is they cannot join the group due to their sex. Data in Table 38 shows none of the women interviewed see this as a barrier, compared to about 11 % at the baseline period. The endline qualitative study supports this finding. However, husbands in a number of focus groups complained about the amount of time their wives were spending in SHG activities and at times seemed to feign ignorance about what SHGs were up to.

Table 38. Women reporting their sex as a barrier to participation in local groups

Indicator	% of women respondents		Sample Size	
	BL	EL	BL	EL
OC 5.4 % women reporting their sex as a barrier to participation in local groups				

All households	10.6	0.0	***	554	468
Female HHHs	10.0	0.0	***	130	84
Male HHHs	10.8	0.0	***	424	384
Statistically different from baseline at the 10% (*), 5%(**) or 1%(***) levels.					

A Progress Marker for women Pathways India *would like to see* is “women speak freely with men and boys in meetings.”

Women SHG members in the villages of the endline qualitative study say that their ability to talk with men in meetings has strengthened due to their involvement in Pathways. This is due to having greater confidence that comes through greater awareness of activities such as savings and loans and agricultural production,

*Previously we used to be ashamed of moving outside and talking to outsiders. But this has changed now. – Women members of SHG in Kitpader*

engagement with project staff and government extension workers who are mostly men, and gender sensitization of men in Pathways villages. In Dokedi, women say they gain confidence in by achievement through working together such as sharing rice when food supplies are low, helping each other at harvest time and going to markets together. They draw the link of this group involvement to no longer being afraid of men and being able to talk with them openly.

Progress Markers for women Pathways India *would love to see* are “women are represented and take up leadership position in governance systems,” and “women play a leadership role in the community development process (like sanitation and hygiene activities at the village level and setting up tube wells).”

Women are represented in leadership positions in SHGs across all Pathways villages since these are collectives constituted for women under Pathways. In at least two villages of two districts in the qualitative study (Dokedi and Dedar) focus group participants report women are now found in some of the most important community positions including the Sarpanch, serving as ward members and in leadership positions in water use, forest rights and land committees. Women are involved in public works programs serving to strengthen water access infrastructure.

A Progress Marker for men Pathways India *would like to see* is “men vote and publically speak for women’s leadership position in collectives and local governance.” Men in focus groups across all the villages of the endline qualitative study says they “don’t have problem with women taking leadership positions and they support this leadership” (paraphrased). They leave the impression of an acceptance or at least non-opposition to women in such positions, rather than an attitude that they are strongly advocating for this. Men associated with Pathways say women are now more qualified for these positions since they are more knowledgeable and engaged in agricultural production and community issues through Pathways, sometimes more so than their male counterparts.

## 5 Management

Pathways management is assessed in this section through the lenses of key partners, including the government, and impact household perceptions of project effectiveness. It concludes with findings on sustainability of project initiatives. Input from Pathways staff are woven into this section as are issues of staffing, lessons learned, monitoring and evaluation, gender and other strategies.

### 5.1 Partnerships

The qualitative endline study interviewed eight government authorities involved in agriculture, forest rights and community affairs. Ten Pathways non-governmental partners were interviewed.

#### 5.1.1 Government Collaboration with Pathways

Pathways has strong complementarity to priorities of the Government of India, including increasing production, promoting savings and loan programs through collectives, initiatives to address adverse consequences of climate change and social-cultural norms that are harmful to women.

At the baseline period, government extension workers were limited in number and focused on the needs of men and larger more productive farms in the districts of the project. Pathways brought officials more closely to the realities of very poor farmers and especially female farmers. This is done by successful inclusion of agriculture and forest officials in Pathways training as presenters. They are also beneficiaries of training. “Every time they invite me for training I am very happy, I learn a lot,” says one agricultural officer. Another says with appreciation of Pathways female animators who they meet at trainings, “women will listen better to women.”

The gender focus of Pathways is seen by government partners as particularly effective. This includes overcoming traditional roadblocks for women to be more actively involved in production, the development of kitchen gardens to improve dietary diversity and SHGs accessing mechanized tools available through government. Agriculture and engineering officials are pleased their subsidy schemes for equipment such as weeders and thrashers are taken up by women active in SHGs. This has been an important Pathways priority since the midterm. Pathway India’s Director indicates 148 SHGs have accessed this machinery in a deal with the government whereby the government subsidizes 75% of the cost, CARE provides 20% and the SHG funds. “These machines are connecting women to agriculture while at the same time helping to reduce their burden,” says one official.

*We now see every one of our activities through a gender lens.*

*Women now have the courage to speak to government.*

*Decision-making of women is changing the live of the village.*

*There is now strong realization that alcohol consumption reduces income of the family.*

- Comments from various Pathways partners on the impact of Pathways gender approach

Women’s agricultural literacy is increasing, according to agricultural officers and women are more active in advocating for their needs and rights. “I have never seen so many women,” says one official.

Agricultural officers are unanimous in believing Pathways is increasing rice production capabilities of Pathways households. This is especially important at a time when shocks are posing serious difficulty in rural communities. In Kalahandi, one agricultural office estimates rice production is down 60% in 2015 due to the drought. However, improved agricultural practices helps to reduce the adverse impact of shocks.

Officials encourage Pathways to consider stepping up development of summer cropping not requiring much water, including those grown in kitchen gardens, and other commercial crops such as ground nuts and sunflowers. Though training is important, demonstration plots are encouraged along with exposure trips to successful farms. The government confirms that capturing and utilization of water is the biggest obstacle farmer’s face to improve their livelihoods.

Interviews with officials with forest rights responsibilities, such as Welfare Extension Officers, indicate they are less knowledgeable of the overall scope of Pathways and impact. They complain the government is short handed in being able to move much beyond awareness building collaboration with Pathways on the Forest Rights Act to desired levels of securing land titles with names, including those of women, and economic empowerment of communities with rights to these forest lands. Clearly this is a long term bureaucratic process that at least one Pathways implementing partner says detracts from other agricultural priorities in Pathway’s overall design.

### **5.1.2 Pathways Non-governmental Partners**

The implementing partners of Pathways bring a diversity of experiences, strengths and weaknesses into the project. This has been a mutually beneficial relationship. Implementing partners have gained from strong capacities CARE brings into partnerships such as gender strategies and management of collectives. CARE has gained from the expertise of partners in agricultural development and working with Scheduled Caste and Scheduled Tribe communities, particularly those in relatively remote areas, and in their forest livelihoods.

All implementing partners interviewed in the endline study agree that Pathways support has increased rice production capacity of project farmers, in a range from 17-30%. This is occurring primarily through uptake of row cropping for higher density yields and improved seeds and their preparation. They say use of fertilizers, insecticides and pesticides has been limited for paddy, though composting has been effective for kitchen gardens.

Project-promoted income generating activities is occurring. However, there is little household profit since families are dealing with drought and other shocks. Rice productivity may be up but overall production may be down due to weather conditions. Produce from kitchen gardens is largely being consumed rather than sold at local markets. Goats and poultry are being more effectively managed, such as through

*Every farmer, implementing partner and government official interviewed says the lack water remains as a major obstacle to improving livelihoods and resilience of the target population.*

vaccinations. They are being used more as a coping strategy than for income generating purposes.

Kalahandi-based Karrtabya, one of the stronger implementing Pathways partners in agricultural production, recommends enabling farmer access to solar-based systems for pumping water from deep bore wells. According to the NGO, 75% of the costs will be subsidized and 25% can come from a combination of NGO and farmer funding. Cost effectiveness for farmers comes with five to six farming families benefitting from the water

All partners agree that the next stage of Pathways-type activities should prioritize capacity building for income generating activities, producer and marketing group activities. Linking farming groups to banks for larger-scale financing has been difficult for Pathways due in part to past difficulties of collectives to repay their loans.

Each implementing partner brings Community Resource Persons into the project area to provide handholding support. Without exception, partners indicate CRPs are learning a great deal about what they describe as the hallmark of Pathways work: a strong gendered focus in agriculture, including the perceptions of men in supporting women in the household. Reflect circles, they say, are a particularly promising tool for women to be involved in improving life in their homes and communities. All partners say their Pathways gender-based learnings and approaches are being applied to their non-Pathways projects.

Case story from Karrtabya implementing partner...

*A CRP assisting farmers with better market information was accused by a prominent kuchia of improperly posing as a kuchia. The CRP was actually put in jail until Pathways women threatened to demonstrate, upon which he was released. A result of better market information and women advocating for their economic rights led to a tripartite agreement between the mahula collectors, kuchia and government to secure a fair market price for the product.*

Implementing partners agree that gains are being made in marketing activities in Pathway's villages. In each village of the qualitative study, market boards are displayed in prominent locations identifying agricultural products and the prices these are fetching. Farming families, both collective members and non-members, say these boards are instrumental in securing better prices for their products. *Kuchia* (middleman) have far less capacity to exploit the farmers – particularly in times when families desperately need money.

Implementing partners are working to add

value to products coming from Pathways areas such as Fair Advantage Quality and Collective Marketing. An example coming from the Kandhamal partner Swati is working with women in collecting and selling the fruit coming from *mahula* trees. Previously when *mahula* fell to the ground, it became discolored and of lower quality when sold. Pathways worked with the collectors of the forest products to keep areas around the trees free of debris causing discoloration and the quality of the bulk being sold. This increases the price being fetched.

Implementing partners critique the Pathways approach as being too training-intensive at times and the paperwork is excessive – resulting in taking away some valuable time for project implementation. Some the trainings had little relevance in the absence of inputs being available

to put training into actual practice. Additionally, meetings with partners sometimes had the tendency to be less participatory than desired at the cost of missing out on having valuable discussions on lessons learned and project strategy readjustments.

## 5.2 Project Effectiveness Ranking by Impact Population and Households

In each of the six villages of the qualitative assessment, focus groups of women SHG members and groups of their husbands or male relatives ranked the effectiveness of 12 project priority activities. The list of activities was developed with input from Pathways staff input. Participants in this exercise were facilitated in discussions leading to ranking from one (most effective) to twelve (least effective) through the use of 12 different sized circles. The figures on the next page show the rankings aggregated for all



villages for women and men in the focus groups. Summaries of specific village rankings are in the Supplemental Annex. The groups struggled in understanding what *should* be important for them vs. the intended ranking of what is most effective and impactful through Pathways. However, facilitation techniques strengthened with each additional village surveyed. There are important differences between villages in a district and between districts in the rankings. This is understandable due to differences in implementing project partner capacities, availability of water, longevity of SHGs, local leadership and other factors. However, there was approximate consensus in eight or nine of the rankings made by the women and by the men.

### 5.2.1 Women's perspectives on the effectiveness of Pathways activities

The top two activities for women in terms of effectiveness are “access and use of savings and credit/lending” and “support to strengthen SHG governance and management.” This is not surprising given the centrality of working through collectives to achieve Pathways social and economic empowerment results. The third highest ranking for women is “sensitization on gender relations” with three out of the six focus groups ranking this first and the others more in the mid-range. “Improving agricultural practices and skills,” “access to market information and markets” and “access to extension services and inputs” come in a close bundle of rankings at fourth, fifth and sixth place effectiveness respectively.

Surprisingly and inexplicably, kitchen gardens ranked last in the rankings for women given the success the project has had with increasing the percentage of women growing fruits and vegetable and diversifying the diets of Pathways households. Women in other endline qualitative discussion settings report Pathways helped them in diversifying vegetables through provision of seeds and other inputs, and crop management practices. Perhaps the magnitude of impact of the gardens is weakened with the lack of water and an inability to maintain

gardens at productive levels throughout the year. Kitchen gardens are not a new activity introduced by Pathways. They are an age old practice of tribal families.

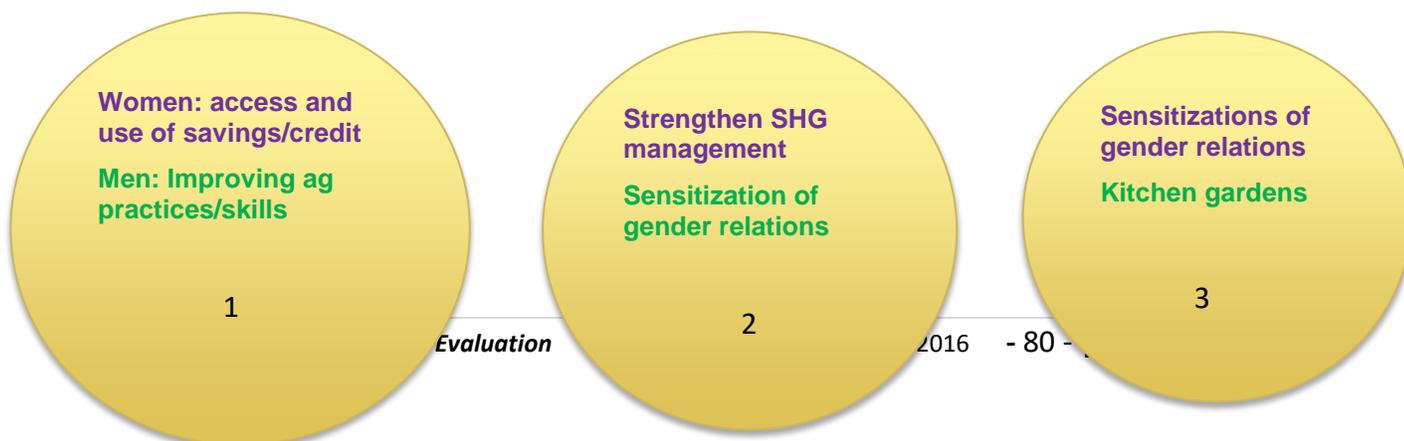
In about half the villages women indicated they achieved better “linkages with government schemes” (ranking in the top five, including a ranking of 2), while the other half of the villages ranked this as relatively ineffective at eighth or ninth place. Performance on this is spotty in Pathways, dependent on local civil society leadership and government authorities. Women were also not feeling much impact on “land rights and literacy and access” (ranking 11<sup>th</sup>). Focus groups indicate that awareness is up on these issues, however concrete results of accessing land has not materialized, nor is it expected to in the near future given the extended process for achieving these gains.

### 5.2.2 Men’s perspectives on the effectiveness of Pathways activities

For men’s groups, “improving agricultural practices and skills” ranked first, with “sensitization on gender relations” second. More distant third to sixth places for men in a tight bundle was “kitchen gardens,” “support to strengthen SHG governance and management,” “access and use of savings and credit,” and “financial and business skill training.” Two activities are ranked as relatively ineffective: “informal women’s agricultural cooperation” and “business development planning.”

Men and women agreed that “sensitization of gender relations” is effective through Pathways and, less so but effective, “strengthening the management of SHGs” and “access and use of savings and credit.” Men and women have different perspectives on “extension services and input.” with men much less satisfied. This is perhaps due to extension as provided by implementing partners to Pathways targeted women in these services. “Business development planning” for income generating activities is understood as relatively ineffective by both sexes along with land “rights, literacy and access” for reasons cited above. Men perceive “kitchen gardens” impact as much more effective as women with a third place ranking for men, and a last place ranking for women.

### Ranking of Pathways Priority Activities By SHG-member women and their husbands/male relatives:





### 5.3 Sustainability

When asked about the sustainability of project activities in the post-Pathways period, a number of important capacities are projected by staff and local implementing partners to be long lasting.

Most importantly, women are organized, earning income and advocating for their rights. Men are increasingly recognizing the value of sharing the decision-making and involvement with women in economic and household activities. Women are becoming increasingly more involved in linking to government schemes designed for poor rural farmers. Alcohol misuse and gender-based violence is down and communities are more strongly mobilized against resurgence.

A cultural shift in gender attitudes is occurring.

In the agricultural realm, animators represent a new cadre of community organizers that will be engaged into the foreseeable future. Ag kiosks are thought to have great potential as centers of market information, reasonable prices for inputs and technical assistance if they are profitable into the future. Kitchen gardens and the importance of the nutrition of products coming from these gardens are likely to be sustained, and they are beginning to stretch into the summer season. Learnings in row cropping and seed preparation are here to stay. However, all agricultural activities have limitations due to the persistent water problems faced by poor farmers.

Community members in Pathways villages were asked about sustainability in the qualitative endline study. Below is a summary of input organized by what will likely and not likely sustained, and areas of uncertainty in terms of lasting impact of the project.

1. *What will likely be sustained?*

- The trend toward greater gender equality will prevail in Pathways communities, along with recognition of the important role women can play in agriculture and income generation and greater leadership in their communities.
- The farming knowledge practice of Pathways farmers will carry assisting in high production levels through practices like row cropping, improved used of seeds and mechanical implements. Additionally, improved livestock practices and kitchen gardens will continue to benefit households. There is greater knowledge and use of practices like soil testing, use of fertilizers and pesticides but these are dependent on affordability and continued extension services.
- Selling of crops and NTFP with a proper market price in the market. Also, recognition of the importance of collective marketing in future activities.
- Whether individually or in a group, both men and women will continue to save to finance household needs and community-wide development.

2. *What will not likely remain without further support?*

- Continued advancement in the functioning and management of SHGs.
- Linkages and interaction with the political and government officials. This includes advocacy for impact population to government schemes

3. *Where is there uncertainty about sustainability?*

- Animators are a committed group that provides a great deal of support to SHGs. Without continued nurturing and support from an NGO, we are not sure they will last beyond several years.
- Men may increase the consumption of alcohol if regular awareness program is not done and closing of liquor making factory isn't ensured.

## 6 Conclusions

Pathways India has achieved significant gains in women's empowerment, including attitude shifts in men, rice productivity and improving the overall wellbeing of women and their

households. The Pathways approach dovetails effectively with Indian government initiatives in strengthening safety nets for poor rural farmers and messaging in greater gender rights and equality. Livelihoods and resilience are strengthened through Pathways; however, there are significant limitations to building momentum due to poor farmers having limited access to sustainable water sources. Next steps for Pathways-style projects also include moving agricultural products up the value chain.

## 6.1 Impact: Economic Poverty Reduction

The household survey does not show statistically significant differences between baseline and endline values for mean or median income from all sources and for non-farm income. Households in the surveys may be underreporting their income due to fear of losing their eligibility status to the BPL and a potential loss of government benefits.

However, data from the household survey shows a shift in the percentage of non-farm income to overall income from about 5% at the baseline to 17% at the endline period.

The household survey data does not indicate any statistical difference overall for the percentage of women rising above the impact group criteria at the endline when compared to the baseline period. However, for the 17% of female-headed households in the survey, the data shows positive change. The percentage of women meeting this poverty criteria dropped to about one-third (34.5%) at the endline from close to one-half (49.2%) at the time of the baseline survey.

CARE India's impact group is SC and ST women with monthly per capita household income less and \$7 (325INR) and having less than 2 hectares of land per capita per month from all income sources.

Both male and female-headed households show an increase in mean monthly per capita *farm income* by over a \$1 (over 100% increases), well above the Pathways India indicator target. At the endline period, mean per capita household income for all households is \$2.12 and the median figure is \$1.25.

A Pathways M&E indicator target is 10% growth in household income for SC and ST poor women smallholder farmers in crops supported by Pathways. This target has been easily achieved with an increase of over 100%.

Qualitative information sources from local communities in the endline study point toward income generally increasing for Pathways families. Wealth ranking and focus group discussions report the standard of living going up over the last three to four years resulting from benefits households receive in Indian government including work schemes, other wage labor, and their own farming and income generating activities. The latter is strongly attributed to Pathways. Community members estimate the poorest households have decreased from 50-80% of households in their communities to 5-60%, and the middle wealth category has increased from 20-40% to 30-65% of community households.

Women in focus groups report greater labor wage equity with men from government, non-government and private sources over the project period, nearly to the point of wage equality.

## **6.2 Impact: Dietary Diversity and Intra-household Access**

There is an increase in dietary diversity of all households from 4.1 to 5.4 food groups when comparing the baseline and endline data. At the endline period, the data shows women's dietary diversity approximately equal to that of men. Access to all food groups listed in the survey increases for households. Noteworthy is greater access to vegetables with 57.1% of all households at the baseline reporting access and 75.7% at the endline period. Endline qualitative findings indicate this is correlated to growth of household kitchen gardens.

## **6.3 Impact: Livelihoods and Resilience**

Survey respondents say the number of shocks over the five years prior to the endline survey have tripled for the previous five years at the baseline period. Most are climate related. Drought had seriously affected harvests at the time of the endline evaluation. Households reporting not having enough food or money to buy goods in the previous three months jumped from 23.2% at the baseline to 87.8% in the endline period. This corresponds with growth in the survey's coping strategy index from the baseline period meaning there is greater stress in families resulting from recurring shocks. Data indicates household negative coping strategies, such as pledging to sell crops or livestock in advance, has quadrupled to about three-quarters of households in the survey using such strategies from the baseline period. However, nearly all households in the endline survey (94.8%) are using at least one adaptation strategy to reduce the impact of future shocks compared to a little more than half at the baseline period (56.6%). When compared to the baseline, double the numbers of households at the endline period are investing in savings, changing crops, diversifying income and purchasing livestock.

## **6.4 Assets**

Asset values rose overall for households by about 15% comparing data from the baseline and endline surveys. There is approximately 21% growth in asset values when calculated without agricultural land. Non-mechanized farm equipment has increased in the endline survey to nearly all households (95.5%) from just over half of households (55.6%). Small livestock and poultry ownership has grown less dramatically, but the number of such animals owned per household has increased by several animals in each category.

## **6.5 Impact: Women's Empowerment**

The women's empowerment index score for women in male-headed households is unchanged (.16) when comparing data from the baseline and endline surveys. However, for female-headed households it grows 14 percentage points from the baseline data to .75 thus driving up the overall WEI for all women by 6 points to .53. Though many women in male-headed households may not have reached empowerment thresholds established by Pathways, women in focus groups of the endline qualitative study nearly universally describe themselves as more empowered economically and socially within their households and community. Qualitative information does not validate the survey data showing a decrease in control of household income and expenditures from 56.2% at the baseline to 48.8% at the endline period. The vast majority of women in focus groups indicate they, at a minimum, can discuss and provide input into such decision-making and their ability to influence this decision-making is increasing.

The survey data show significant gains from the baseline to endline data in women's empowerment relating to sale or purchase of household assets (29.4% -54.3%), and growth of strong majorities of women expressing confidence in speaking about gender and community issues and have greater mobility empowerment. However, less than half of women interviewed in the endline survey express attitudes supporting gender equitable roles (i.e. is there ever rationale for a man to hit a woman), the Pathways self-confidence domain and having access and decision-making on credit. However, in these and other measurements, generally the empowerment scores improve when comparing the baseline and endline data.

Quantitative data show many of the empowerment gaps between men and women in the same families (gender parity) have narrowed. In most of the production and resource indicators, at the baseline period the level of empowered women were significantly under 50% but at the endline period they were at or above 50%.

Key to the Pathways approach to empowerment is through collectives at the village level. Self Help Groups comprised of women are the lynch pin to this approach. Pathways also actively engaged other collectives involved with forest rights, farming and water. Members of these groups report women are more actively participating in these collectives and in some there are greater numbers of women members including those in leadership positions. Women's mobility is a common issue to all of these collectives. They confirm women's mobility is strengthening across sectors, including access to forests, markets, government offices and other locations. They all agree that women's confidence is strengthening due to their having greater knowledge through Pathway's training and support from mechanisms such as animators, Reflect Circles and Community Resource Persons. Common approaches to productivity are being applied to the collectives, contextualized to the specific focus of the group.

### **6.6 Change Lever 1 – Capacity**

As expected nearly all women in the endline survey are members of a formal or informal group, by virtue of their membership in SHGs. Endline survey data shows nearly three-quarters of women express confidence in speaking about gender and community issues up 14 percentage points from the baseline period.

### **6.7 Change Lever 2 – Access**

Though women are accessing credit through SHGs and occasionally other financial institutions, their use of loans is primarily for basic needs such as medical expenses, food, clothing and education. This is consistent with the region experiencing shocks and the need to use savings and resulting credit to cover for the basic needs of their families. The use of loans by women of at least 1500 INR for *income generating purposes* decreased from 7.1% of women in the baseline survey to 5.2% at the endline period. About half of the women in female-headed households are accessing such loans both at the baseline and endline periods.

Pathways M&E indicators include women collectives have strong governance and managerial systems in place and collectives have improved member participation in collective decision-making (no targets are listed). Focus groups of collective members indicate strengthening in both of the above indicators.

About 95% of women in the baseline and endline surveys are accessing finances for agricultural purposes. This is coming primarily from their own savings, though 25% is coming from SHGs. More than three times as many women (89.1%) are accessing agricultural extension at the endline when compared the baseline period and nearly all express satisfaction (95%). Though there is a greater presence of government extensionists in their communities, women are particularly pleased with the help they receive from Pathways CRPs and animators trained by the project.

A Pathways M&E indicator target is 30% of the impact group report responsiveness to their needs by service providers. This target is overwhelmingly achieved.

A Pathways M&E indicator target is the impact group report better access to productive resources such as water, land, forest, tools, technology, finance and input (increase by 30%). The endline evaluation did not measure each of these resources, however qualitative information indicates there is much stronger access to tools, technology, finances through SHGs and inputs. Some communities report greater access to water, though there is high frustration on the lack of sustainable water access to strengthen agriculture.

Consistent with this, is survey data showing dramatic growth in women accessing agricultural inputs such as seeds and equipment growing from 37% of women at the baseline to 89% at the endline period. Women in focus groups express some frustration in not knowing proper fertilization doses and the timing of inputs for their needs. However, they are very pleased with having greater access to Pathways facilitated mechanical implements like weeders to reduce their work burden and increase productivity.

Inputs at the endline period are coming less from the government or cooperatives and more from closer in suppliers. Development of CARE-facilitated agricultural kiosks in close proximity to

Pathways and other poor small holding farmers are seen as having great potential for more efficient provision of inputs and beneficial agricultural information.

Women are not accessing output markets (at least 5 km away from their homesteads) at the same rate in the endline as in the baseline period, according to the household surveys. About 75% were doing so at the baseline vs close to 51% at the endline period. Instead, qualitative information indicates women are negotiating better terms with traders coming to their villages.

### 6.8 Change Lever 3 – Productivity

Female SHG members across all the villages of the qualitative study report numerous changes in livelihood activities. Women are going to markets more frequently, both selling their produce from

A Pathways M&E indicator is the impact group has improved access to services and products, and women increase access to output markets by 50%. Women’s access to output markets decreased over the

project work and Pathways M&E indicators are greater terms of trade for the impact group and improved by awareness of markets by everyone in the impact group. These targets are achieved. All villages in the qualitative endline study post boards displaying market prices enabling better terms of trade and reducing the adverse role of *kuchia* in local communities. The quality of forest products such as *mahula* is improved and Pathways women are selling this product at better price points.

more productive kitchen gardens and buying household supplies. Women at the endline period describe improvements in marketing NTFP, such as better quality and packaging of mahula.

Over the project period there is significant growth in the number of households earning incomes from agriculture or related processing activities. Survey data show the level of female-headed household with this income more than tripled to 82% with male-headed households nearly tripling to 85%. Women's mean annual net income from agricultural production has increased over the past three years from about \$64 to \$77.

The mean number of crops grown by women has increased from 1.2 to 2.0. Women in male-headed households have taken up more crop diversity than those in female-headed households.

Rice production, so integral to the diet of the target population, has increased by nearly 27% over the project period. This increase is significant achievement for Pathways and is verified by information from the qualitative study. Unfortunately, persistent shocks, including the drought at the time of the endline may be wiping away some gains in productivity. Data do not indicate significant changes in yields of maize or pulses.

A Pathways M&E indicator target is 25% increase in yield per unit land by the impact population. This target is achieved for rice and pulses.

Women farmers in the surveys have mixed results over the project in adapting a more integrated approach to improved agricultural production. About half of female farmers at the endline period are now using three or more improved agricultural practices and also improved livestock practices, compared to about one-third at the baseline period for both practices. Row cropping and improved seed quality and preparation are the three most commonly cited practices by farmers in the endline qualitative study that are improving agricultural production.

Pathways M&E indicator targets include 50% increases in the awareness and practice of more sustainable agricultural practices, and use of call centers for extension assistance. The endline evaluation has no basis for judgement on use of call centers. The target is met for greater awareness and practice in sustainable agricultural practices, with the exception of post-harvest and storage practices.

Improved practices correlates better health of livestock and growth in the average number of goats and sheep per household when comparing data in the baseline

and endline surveys. However, fewer women are engaged in two or more post-harvest processes and improved storage.

A Pathways M&E indicator target is collectives influencing policy makers, local authorities and service providers on sustainable agriculture. It is unclear to what degree this has occurred through Pathways. However, service providers all agree they have learned a great deal about a gendered approach to agricultural production for small landholding farmers. Additionally, inclusion of local authorities and agricultural and forest officials in project trainings has brought them closer to the needs of this population as well. Instances of the impact population advocating for their rights to public officials are occurring.

SHG-member women are sharing agricultural information learned through Pathways from their husbands. It comes primarily in training and support from Pathways animators in each village and CRPs

with home the animators are learning from. Men in focus groups in all of the villages studied in the qualitative endline evaluation are very supportive of women adopting new practices and accessing tools and market information. However, there is no evidence that men are contributing financially to women's income generating activities.

## **6.9 Change Lever 4 - Household Influence**

At the endline period, the overall percentage of women who have gained in sole or joint decision-making and control of assets (both household and agricultural) has increased since the baseline period. For women in male-headed households the growth has been significant, nearly doubling to two-thirds of women for household assets and three-quarters for agricultural assets at the endline period. However, when comparing data from the baseline and endline periods, there has been no growth or decreases in the percentage of women with decision-making or control for income and expenditures for both categories. In the qualitative endline study women who are earning from their own income generating activities report they have decision-making and control over these resources.

A Pathways M&E indicator target is an increase by 10-20% of women reporting sharing of domestic and farm workload, and at least 50% of women reporting men are consulting with women in household level decision-making. Qualitative and quantitative findings at the endline indicate these targets have been achieved in Pathways.

Female SHG members in each village of the endline qualitative study report an important change in men's perceptions of women's opinions on agricultural production and marketing. Women are more freely expressing themselves and men are now listening to their wives as a part of the decision-making process

Traditional gender practices in agriculture are still prevalent. However, with women having increased knowledge and access to agricultural inputs and market information they are much more involved now, as compared to three years ago, in discussing management of land and production with their husbands.

Men in all the villages of the endline qualitative study say women are more involved in decision-making on uses of income and purchases. Men are seeking suggestions for very practical reasons: women are more knowledgeable, such as about market conditions and fetching better prices, and they are more involved in income producing activities.

In both male- and female-headed households, survey data indicate that the vast majority of women are the sole or joint decision maker in the endline period for health care and family planning decisions. This was also the case in the baseline period.

Female SHG members in all focus group discussions report their decision-making in education and health is far more gender equitable than in previous years. Many women describe themselves as the primary household decision-maker in accessing health services. Decisions surrounding education are generally made jointly with their husbands.

The trend is for more joint decision-making on reproductive health decisions between husbands and wives. This corresponds with the government's push on family planning. Pathways

stakeholders give credit to implementing partners for re-enforcing this important government messaging.

### **6.10 Change Lever 5 - Enabling Environment**

Responses about whether women can communicate more easily about their feeling with their husband in recent years varied in each village of the endline qualitative study from strongly so to not very much. Men in focus groups acknowledge there is change in recent years. Women say they generally have greater rights to speak and are being listened to more.

The percentage of women disagreeing from the baseline to endline period that most household decision should be made by men rose from 47% to 67% and for men from 34% to 58%. Some patriarchal attitudes about family life continue to be held not only by men, but also by women in their opinions of their own roles in family life. On the subject as to whether they should do the work of each other the data shows no change in attitude between the surveys with a little over half of men and women both groups disagreeing. The endline qualitative study did not detect any less empowering attitudes. To the contrary, every focus group of men and women, even women who are not members of SHGs, report a general but slow cultural trend toward positive changes in these attitudes over the last three or four years.

Women SHG members and their husbands in each village of the qualitative study describe important changes in the household division of labor over the last three to four years, such as in child care and fetching of wood and water – particularly when women are away from the home. However, when women return home they take over being the primary household chore worker. Non-SHG member women in focus groups affirm this general societal trend in their villages, though with less intensity.

Household survey data shows most women (about 86%) expressing high levels of leisure satisfaction at the baseline and endline periods. However, the qualitative endline study did not hear from women they are really very satisfied with their leisure time. Women report they have more responsibilities than ever before as with greater involvement in economic and community activities associated with SHGs. However, the burden of this is eased some by greater involvement of men in household activities, more efficient agricultural production through Pathways and some comfort in that comes with a general improvement in household livelihoods.

About 80% of women in the baseline and endline surveys disagree there are times when a woman deserves to be hit, and disagreement among men with the statement rose to 74% from 70%. On whether women must tolerate violence in order to maintain stability in the family, the level of disagreement from women rose significantly from the baseline to endline data from 28% to 81% and for men from 24% to 58%. Nearly half of the women respond with empowering attitudes to both

A Pathways M&E indicator target is 20% of the impact group report a reduction in domestic violence. Qualitative information suggests the vast majority of women in Pathways would agree there are recent trends of reductions in domestic violence.

statements at the endline period, compared to about one-quarter at the baseline. For men, this more than doubles to 38% at the endline period.

At the baseline period, women reported alcohol consumption as perhaps the most serious social problem underlying gender-based violence while also significantly affecting men's economic contributions to their families. By the endline period, important strides against alcohol misuse are evident. Some alcohol production facilities have been shut down over the project period and penalties for alcohol misuse exist in villages of the qualitative endline study. Women give credit for these advances to organizing through Pathways activities.

The Pathways mobility empowerment measurement in the household survey show women's freedom of mobility rising from about 17% of women surveyed in the baseline to 25% in the endline period, with significant growth for women in male-headed households. Qualitative information suggests perhaps even greater mobility gains for women over the Pathways project period. Women and men in focus groups explain that mobility is less about asking permission and more about women informing husbands where would like or need to go with joint discussion and decision-making on the timing, expense, security issues and the importance for the family for women to go places. The trend is for women to have greater mobility outside of their village as their economic activities increase and it is becoming more culturally acceptable to move either individually, in groups and with their husbands. There are significant mobility gains being reported by women in all of these modes in the villages of the endline qualitative study.

Women SHG members in the villages of the endline qualitative study say that their ability to talk with men in meetings has strengthened due to their involvement in Pathways. This is due to having more confidence that comes through greater awareness of activities such as savings and loans and agricultural production, engagement with project staff and government authorities who are mostly men, and gender sensitization of men in Pathways villages. Women report they also gain confidence by working collaboratively as a group together.

Pathways M&E indicator targets are an increase by 50% of men in households recognizing women as farmers and men supporting participation and leadership of women in collectives. Qualitative findings indicate an overwhelming number of men associated with SHG-member women recognize women as farmers with their greater knowledge and skills in agriculture and support their SHG participation and are at least tolerant of women's leadership.

Women are represented in leadership positions in SHGs across all Pathways villages since these collectives are constituted for women under Pathways. Focus group participants report women are now found in some of the most important community positions including the Sarpanch, and serving as ward members. Focus groups of men leave the impression of an acceptance, or at least non-opposition, to women in such positions, rather than an attitude that they are strongly advocating for this.

## 6.11 Project Management

Pathways has strong complementarity to priorities of the Government of India and there is a mutually beneficial learning and capacity building relationship between CARE India and its

implementing partners. All agree project management and approach has resulted in important and desired gains in women's empowerment, agricultural production, livelihoods and resilience.

Partners critique the Pathways approach as being too training-intensive at times with excessive paperwork is excessive taking away time for project implementation and some of the training had little relevance in the absence of inputs being available to put training into actual practice. Some partners would have liked a more participatory management and planning process allowing for greater focus lessons learned and project strategy adjustments.

The impact population sees the project approach as particularly effective in strengthening the operations of SHGs to improve their economic and social empowerment as women. They do not see effectiveness in land rights and access. Their husbands and male relatives indicate the project approach was particularly effective in strengthening agricultural knowledge and practices and bringing greater sensitization to gender relations in their communities. Business development and land rights and access approaches are not seen as effective relative to other project priorities.

## **7 Recommendations**

For strengthening future Pathways-style projects the following is recommended:

1. Stronger inclusion of sustainable water access in the project approach to better assist poor farming households in their agricultural activities and thus livelihoods and resilience. Lack of access to water is, by far, the biggest challenge faced by the impact population and their communities. In most project areas the impact population and households are dependent on rain water for agriculture. In areas where infrastructure exists, much is in disrepair, not being utilized properly or poorer farmers have limited access. Increased access will enhance not only the primary paddy growing season, but also second season farming and kitchen gardens, and agricultural production with greater commercial viability.
2. Ensure better linkage of agricultural training and access to inputs. The training farmers received in agricultural production was at times ineffective because there were not proper implements to increase production. This included seeds, use of fertilizers, insecticides and pesticides. The timing of the training should coincide with the availability of inputs. Additionally, sometimes inputs were not provided at the time of the year needed for seasonal agricultural activities.
3. The exit strategy for Pathways should include mechanisms for continued support to women's collectives and village organizing volunteers such as animators and Reflect Circles, and advocacy for successful linkages to government schemes and support. These are all important project activities the impact population lacks confidence in their sustainability in a post-Pathways period.
4. Support is especially important to not lose momentum in women's social empowerment. CARE should consider means to include Pathways implementing

partners by keeping them informed and involved in advancing the gendered approach to livelihoods resilience.

5. Producer groups, income generating activities and linkages to formal microfinance institutions need to be priorities in the next iteration of projects for communities Pathways has been working in. Though there are examples of success in these activities, their overall impact of has been limited.