LEARNING FOR GENDER INTEGRATION INDIA:
COMBINED PHOTOVOICE AND MOST SIGNIFICANT
CHANGE METHODOLOGIES

PROJECT SUMMARY
Action for Social Advancement (ASA) and LWR worked with 505 men and 505 women from smallholder farming households to increase agricultural production, ensure year-round food availability and increase income through the sale of agriculture surplus. The project strove to improve both men’s and women’s productivity by emphasizing collaboration in agricultural work and household chores and creating better on-farm opportunities for both men and women. The project was implemented in nine tribal villages in the Jamui District of Bihar State, India from February 2013 to March 2016.

The Gender in Agriculture project was a part of Learning for Gender Integration (LGI), an initiative of LWR aimed at ensuring that men and women have equal opportunities to benefit from LWR’s work. The goal of the initiative is to enable LWR to better contribute to full human flourishing through gender-integrated programming. LGI projects are funded by LWR and the Foods Resource Bank. Cultural Practice, LLC provided technical support to the initiative.

Lutheran World Relief (LWR) has piloted its Learning for Gender Integration (LGI) initiative in three projects around the world in Uganda, Nicaragua and India. This is a summary of the evaluation findings from the India pilot project. With technical support from Cultural Practice, LCC (CP), a team of Evaluation and Gender specialists from LWR and peer organizations used a combination of evaluation methodologies to assess the impact of the Gender in Agriculture project in India. The findings presented here also draw on the endline data collected by Geo Climatic Risk Solutions. All quantitative findings in this summary were drawn from that endline report.

Photo by Baburam Hasda (right) of a couple threshing rice together with a threshing machine introduced by the project. The stone to the left is what farmers used to use to thresh, and was much more difficult to use and prone to wasting grains.
EVALUATION METHODOLOGY

This evaluation combines quantitative and qualitative evaluation methodologies. The quantitative methodologies included surveys (validated through focus groups and interviews) and project record reviews. The two qualitative methodologies are PhotoVoice (PV) and Most Significant Change (MSC). PV is an empowering methodology that uses images to convey issues that are important to stakeholders. (See Wang, C., & Burris, M.A., “Photovoice: Concept, methodology and use for participatory needs assessment.” Health Education & Behavior, 24(3), 369-387, June 1997.) MSC is a bottom-up process of generating stories about change that was brought about through the project. (See Rick Davies and Jess Dart, “The ‘Most Significant Change’ (MSC) Technique: A Guide to Its Use.” London, U.K., and Hastings, Australia: Clearinghouse and Mande, April 2005.) The evaluation used an adapted combination of these two proven evaluation methodologies in a multi-stakeholder approach to identify and assess changes in gender roles, decision-making and food security outcomes for men and women.

PV was used with project participants. Twelve participants, half women and half men, were chosen from two communities. They were equipped with cameras, trained to use them and asked to photograph people and things in their community that, in their opinion, showed how men’s or women’s roles had changed since the beginning of the project. After presenting their photos to one another, the photographers identified common themes in the photos that were important to their community. Some of these themes were concrete (e.g. new planting practices introduced by the project) and others were more abstract (e.g. confidence). They selected a few photos that they considered to best visualize the themes.

MSC was used with project staff from ASA. Four staff members chose stories from the project that reflected significant changes that had taken place in the roles of women compared to roles of men in the project communities. They shared their stories with each other and discussed the major themes those changes reflected. They chose two stories that represented the most significant changes based on their self-selected criteria for what they considered “most significant”.

The evaluation was intentionally designed with two similar but different methodologies for its two main stakeholder groups. PV does not require literacy while MSC is more effective with literate participants. Both methodologies respond to a question, and the evaluation team crafted questions that would allow for similar types of responses. Facilitators using either methodology guide participants through a process to identify important themes that present themselves as part of the analysis, which allowed for cross-analysis by both sets of participants. In fact, the facilitators were not responsible for performing the analysis but for guiding the two groups to conduct the analysis themselves.

The two groups came together on the last day of the evaluation for a joint discussion. The discussion created a space for both photographers and staff to engage in a conversation about the themes that seemed important to them. Both groups were able to contribute equally to the evaluation’s analysis by using their photos or stories to explain why the identified themes were important. Because each group used a different methodology and therefore had different products, the power dynamic was somewhat balanced. Leveling the playing field allowed for a more nuanced representation and understanding of changes in gender-based power relations that play out in agricultural and nutritional practices and project outcomes. The final step in the analysis was the triangulation of findings using quantitative data.

Through the generous support of the Technical and Operational Support Program (TOPS), this evaluation was able to provide a space to test this new approach of two combined methodologies. Facilitation guidance has been developed that provides details on how to facilitate this combined methodology approach, and is available at lwr.org/gender. The reports of the other two LGI project evaluations and a PhotoBook documenting the photos and stories generated through PV are also available at that site.
SUMMARY OF FINDINGS

FOOD SECURITY LED TO PROSPERITY

One of the themes identified by the photographers was Prosperity. This concept meant different things to different people but is founded in two very important project results:

- Before the start of the project, households in the target communities could only grow, on average, four to five months’ worth of food. By the end of the project, these same households grew more than 12 months’ worth of food. In other words, they could grow enough to feed themselves year round and have some surplus to sell.

- At the beginning of the project, household annual incomes averaged 1,800 rupees per year (less than 30 USD). By the end of the project, incomes averaged 14,500 rupees per year (over 200 USD), which is more than a 700% increase.

These results changed everything for these communities. The project was designed to increase and diversify agricultural production. It accomplished that by introducing new agricultural techniques, providing access to new agricultural tools and, most importantly, introducing irrigation systems in each community. The project did this in ways that examined the existing gender roles in tribal communities in Bihar and emphasized the impact of gender on food security and economic prosperity. Along with the ‘hard’ interventions around irrigation and agricultural practices, the project also provided ‘softer’ interventions in the form of training to husbands and wives about ways to make efficient use of their time, such as by sharing farming tasks to increase productivity.

By the end of the project, 62% of targeted households had access to irrigation systems and 95% of households had adopted the improved agricultural techniques introduced by the project. Some of these agricultural techniques focused on sowing rice in rows (the staple crop), which allowed for the use of simple lightweight tools to improve weeding, apply inputs and harvest more quickly. The project also introduced new crops to the communities, including vegetables and grains other than rice. The diversification of crops not only provided impressive results in terms of greater food security and opportunities for selling crops but also significantly improved household diets. Increased production, which provided a marketable surplus, also allowed several families to get out of the cycle of debt with local money lenders who charge very high interest rates.

Project staff used MSC to share stories about how the introduction of new tools and crops combined with training on gender sensitivity allowed farmers to become better informed and better equipped. Photographers were able to demonstrate additional changes in their households as a result of more reliable food security and incomes. Their photos included new crops,
new tools and new ways of sharing responsibilities within their households and greater harvests. But they also explored how the irrigation system made it possible to keep their homes cleaner, how they could grow flowers in addition to crops to string together to welcome visitors and how they gained more security and were less worried about how they would feed their children. Most importantly, as shown by the fact that nearly all photographers found a way to capture it, the concept of prosperity meant they could afford to pay for school fees to send their children to better schools. Whether their children grew up to be farmers or left the village to pursue other kinds of employment, the photographers were confident that educating their children meant they would be independent and not easily victimized by unscrupulous strangers. One photographer summarized the experience as, “Literate children, full stomachs and families living together are the most important changes in our lives.”

The photo to the left shows the family of Sanji Hembrem working together to harvest rice. Kisun Hansda, one of the photographers, took it to show how households now grow so much rice that many people have to work together to harvest and carry it. The family includes Sanji, her son, her two daughters and her niece. Her son has a full-time job but took off time to come back and help his family with the harvest. Normally, the harvest would have been so small that only one or two people would be needed to collect it, but with the improved growing techniques, more family members had to get involved. This harvest can feed the whole family throughout the coming year.

**BY WORKING TOGETHER, COMMUNITIES AND HOUSEHOLDS ACHIEVED MORE**

- Nine Water User Groups (WUGs), one in each participating community, successfully manage the irrigation systems introduced by the project. These groups are governed by a committee of 10 people (half men and half women) who ensure the systems are functional.

- Households have access to agricultural tools and machines through their wives or mothers who are members of one of the 28 Self Help Groups (SHGs) developed by the project. These groups use collective savings to purchase and manage the use of agricultural equipment that households would not be able to afford on their own.

Before the project, none of the communities had formal groups organized. The project helped each community set up a WUG to manage and maintain their irrigation system. The groups were required to have men and women members who met regularly and set rules for the system’s use and maintenance. Building trust within communities was an important component of making the WUGs function.
The project also organized women in the communities into SHGs. By charging small membership fees, the groups created joint accounts from which they could provide loans to members or purchase agricultural tools and equipment. Beyond the joint savings aspect of the SHGs, women found that they could work together to solve problems. For example, one SHG wanted to pave the road between their village and the main road, which led to the nearest market and school. The SHG had to lobby the local government for permission to pave the road. None of the women would have been likely to go to the government officials alone, but they were bolder when organized as a group. Collective action through the WUGs and SHGs was an important aspect of ensuring the adoption of techniques introduced by the project. These groups were one way to ensure the project’s sustainability. Once the project ended, staff wanted to be sure the groups would be strong enough to continue managing themselves in order to provide the coordination needed to build on the project’s successes.

Within households, cooperation also improved. Nearly all the participants were engaged in gender-equality training. As men became aware of the drudgery associated with much of the work that women did (weeding, carrying water, carrying rice paddy, foraging for forest products, etc.), they began to share these chores with the women in their households. Men and women worked together on time-consuming tasks such as threshing rice paddy. They began making more decisions together and many set aside time in the evenings to plan which person would complete which task the following day. As education became a higher priority, families decided to pen their animals so that their children were free to go to school. Both men and women PV photographers highlighted these changes, indicating that increased cooperation in the household is valuable for both men and women.

One of the MSC stories shared by the project staff exemplifies both the community-level and the household-level cooperation inspired by this project:

A woman named Rani Tudu had a very small plot of land, less than half an acre. It was not sufficient to produce food for her whole family. Her husband migrated for work and she depended on the forest for forage materials, which she used to make plates and bowls to sell at local hotels. Rani joined an SHG, which gave her a small loan to buy seeds so she could grow vegetables to sell. Her land was too uneven to productively cultivate, so the SHG sought outside assistance to level the land. The irrigation system installed by the project and managed by a WUG also helped Rani increase her rice production. She used techniques introduced by the project such as organic fertilizer and staking methods, which helped stabilize crops during the monsoon. She earned 13,000 rupees (almost 200 USD) selling winter tomatoes and her only cost was seeds. After selling the tomatoes, she had enough money to pay her children’s school fees, at 500 rupees (7.50 USD) per child per year, and send both her son and her daughter to the nearby mission school. Now, her family can grow enough food for their own needs and have some left to sell. Her husband no longer has to migrate, she no longer forages in the forest, and her children are getting a good education.
BELIEFS ABOUT WHAT WOMEN CAN ACCOMPLISH ARE SLOWLY CHANGING

Project staff saw that attitudes and beliefs about women changed over the course of the project.

- By the end of the project, women (and some men) believed that women were farmers, too. Even though women had always been engaged in agricultural activities and generally spent more time in the fields than men, they were hesitant to think of themselves as farmers.

- By the end of the project, some aspects of household decision-making were more readily shared between husbands and wives, including women’s participation in trainings, women’s engagement in community-level groups and their adoption of some agricultural tools. Other decisions remain under men’s responsibility.

The project used Village Resource Persons (VRPs) as extension agents. Over time, members of the communities came to accept the training and guidance provided by men and women VRPs.

The survey data collected at the end of this project showed that some aspects of decision-making are still predominantly held by men, including crop selection, inputs and especially produce sales. Women did not, neither in their own households nor through the SHGs, become involved in selling outside their own communities.

The PV photographers, however, were quite positive about the shifts in their own households related to women’s decision-making. They shared images and stories of women engaged in their children’s education and interactions with the local school; sharing agricultural tasks with their husbands, sons and brothers; and inspecting, identifying and treating pests among crops. This may reflect that individuals interested in participating in an activity like PV tended to be more open to women making decisions in their households.
NEW KNOWLEDGE INCREASED WOMEN’S CONFIDENCE

- Among project participants, 42% of women surveyed said that women’s confidence increased over the course of the project; 29% of men surveyed agreed.

Through MSC stories and PV photos, project staff and participants gave many examples of women whose confidence increased or households in which husbands’ confidence in their wives increased. Instances of increased confidence were present in other stories. Women shared how their confidence had increased through stories about SHGs and lobbying local government officials, access to new agricultural equipment and their empowered women neighbors who knew how to grow enough food for themselves and their families. Men shared stories about how their wives’ confidence increased through participation in organized groups, irrigation pump operation and increased interest in seeing their children become educated because they had a renewed hope in the future.

One male PV photographer spoke at length about how much he respected his wife because she had applied what she learned from the project to grow a very profitable vegetable. This enabled him to stop migrating for work outside their community.

Both photographers and staff identified confidence, especially women’s confidence, as an important theme of change in the communities. Despite the survey finding that only 29% of all men participants thought women’s confidence increased, the qualitative processes drew out this aspect heavily from men and women participants.

WOMEN AND MEN CHANGED HOW THEY SPEND THEIR TIME

- Women’s time shifted from foraging in the forest to working in their family’s agricultural fields. Women PV photographers said they preferred to spend their time this way.

- Men spent significantly more time in their own communities as a result of increased food production. Before the project, 70% of men in targeted communities migrated for at least part of the year while after the project, some communities reached zero percent migration.

Before the project, women spent 6 to 8 hours each day foraging in nearby forests. They went there to collect firewood and also leaves and small materials to create plates and bowls that could be sold to local businesses. They spent many hours per day crafting the leaves into the desired shape and sold them for 70-80 rupees per 1,000 plates (just over 1 USD). The amount they earned in a week covered approximately one-sixth of the income needed to cover household expenses. Because crop yields were relatively small, they did not spend much time in their fields except during specific times of year when additional labor was required to sow, weed or thresh.

With the introduction of irrigation, new techniques and new crops, women began prioritizing working in their fields over foraging and making plates. In particular, new agricultural techniques coupled with new equipment made certain time-consuming tasks like weeding faster. Irrigation meant women and children spent less time fetching water. The project also introduced tools made of lighter materials, which reduced the burden on women to use them.

While women still go to the forest, they now go only two or three days per week and for shorter periods of time. They go mainly to collect firewood for cooking.

Greater production means that men no longer need to seek temporary employment in nearby cities. Men prefer to stay home because the work in the cities is hard and they are not always treated fairly. When asked if he preferred staying home to migrating, PV photographer Upendra Soren responded, “Every human wants to be home.” Beyond the changes in migration, higher incomes meant families could afford to purchase and use bicycles. Men use them more often but women also use them sometimes. Men use them mainly to bring the harvest into the threshing area and to carry produce to market.

While women and men continue to work the same number of hours they did before the project, they are more satisfied with the way they spend their time because they see increases in their crop production and household incomes. They know they are working toward better futures for themselves and their children.
FEATURE ON MSC

In this evaluation, the MSC methodology was used with project staff from ASA. Four staff members chose stories from the project that reflected important changes in the communities.

The staff were asked to think of stories about individuals or groups that responded to a specific question: “What is the most significant change that has taken place in the roles of women compared to the roles of men as a result of the project?” Each person wrote the story or drew a picture that represented the change they considered most impactful and presented it to the other staff and the evaluation team.

The group generated a total of six stories. After listening to one another’s stories, they created a list of themes that appeared in all of the stories shared. The table on the right is a summary of the themes. It also shows whether that theme was expressed in the stories about men or women, and how many of the stories about that group were shared. Each story is featured in multiple themes.

The theme discussion was valuable to the evaluation team for a number of reasons, not least of which was that it provided space to explore unintended outcomes of the project. For example, increased incomes were one of the objectives of the project. One outcome of increased incomes was a reduction in the community members’ reliance on money lenders. This outcome was not written into the project’s objectives but it obviously had a considerable effect on the participants’ ability to ensure their households’ food security which led to improved diets and facilitated participants’ ability to save money and open formal bank accounts.

In addition to discussing the themes that came out of the stories, the staff also determined two stories that best represented the most significant change in the project. An important aspect of this methodology that makes it especially participant-driven is that discussion participants set their own criteria for what makes a change ‘significant’. The evaluator’s role was to facilitate the discussion, not to assess the significance of a given story. The group was to decide whether ‘significant’ means the story is representative, interesting or exemplary, or some other criterion, of what they viewed as the most important change that resulted from the project.

There were two sets of criteria that the staff used to select the story that represented the most significant change. First set of criteria was based on the themes they thought were most important:

- Beliefs about how to use time
- Participation
- Decision-making
- Collectivism
- Adoption of technology
- Change in thinking

After grading the stories according to these criteria, however, the staff discovered that there were other criteria that were more important to them that had not been reflected in the themes. These criteria were used to select the final two stories and included:

- **Sustainability**: Whether the project’s results, as expressed in the story, could last for the foreseeable future and be maintained by the participating communities.

- **Replicability**: Whether the project’s results, as expressed in the story, could be successfully replicated in other communities.
After assessing all stories according to these additional criteria, two stories stood out:

**STORY 1: VILLAGE RESOURCE PERSONS**

Before the project, community members in this area believed that only men could be extension agents. Village Resource Persons (VRPs) were employed by this project to provide community-based agricultural extension services. They thought the constraints on women were too great as they included restrictions on when and where they could travel, beliefs that they could not conduct trainings and a widely shared view that women were not really farmers. Agriculture was the men’s domain. Even the project staff thought it would be easier if the VRPs were all men.

After the concept of women VRPs was introduced, the project participants saw that it was acceptable for women to travel and to train both men and women, and that women can be farmers just like men. The participants expressed a shared opinion that the women VRPs helped with the success of the project.

**STORY 2: WATER USER GROUP**

The project used Water User Groups (WUGs) to manage the lift irrigation systems installed in each community to provide water for crops. The project introduced the concept of the WUGs to the communities, stating that the groups would manage the use and maintenance of the lift irrigation system and operate the pumps that made the system work. Each group was required to have five men and five women join a WUG. The communities had to select the group members, and the staff were not sure that the men in the communities would be supportive of the selection of women for this group, but the communities did select women to participate.

At first, the pumps were all operated by men only. The staff invited women from the user groups to be operators, but the women said they were not strong enough and were not interested. The staff conducted a training about how women could also operate the pumps and over time women became more interested in operating them. By the end of the project, 16 women had operated the pumps.

**FEATURE ON PHOTOVOICE**

The PhotoVoice (PV) initiative was used with project participants. Twelve participants were chosen from two communities. They were equipped with cameras, trained on how to use them and asked to photograph people and things in their community that, in their opinion, showed how men’s or women’s roles had changed since the beginning of the project. Then they discussed the themes reflected in those changes and selected a few that they considered to be most important.

Each of the PV photographers chose five of their photographs as the ones that demonstrated the most important changes they saw during the course of the project. Within each community, the photographers then shared these top five photos along with the stories that went with them with their fellow photographers. After all the photographers had shared their photos and stories, the group discussed the themes that appeared most often or stood out as most important to them. Based on these themes, they chose one to two photos that best exemplified each theme and presented them to the broader community for discussion. In both communities, the broader group validated the chosen themes.

Because this method was used in two different communities, it generated two different sets of themes. These themes are listed below.

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<tr>
<th>THEMES FROM COMMUNITY 1</th>
<th>THEMES FROM COMMUNITY 2</th>
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<tbody>
<tr>
<td>Women have control over income</td>
<td>Confidence (especially for women)</td>
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<tr>
<td>Family participation</td>
<td>Self-organization</td>
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<tr>
<td>Women have new knowledge</td>
<td>The importance of education</td>
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<tr>
<td>Prosperity</td>
<td>Increased food security reduced the need for men to migrate</td>
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<td>Time-saving</td>
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The photos and captions below serve as a small sample of the types of photos and stories that were chosen to represent these themes.

**CONFIDENCE | SANJI**

Chemical pesticide. Before they applied it with the broom but now it is done with the sprayer machine. All the women know about this technique. In the family, they discuss with their daughters, their son and their daughter-in-law when it is time to spray. There was no uniformity before as some farm areas got more or less of the pesticide, and the task was very boring. Sanji enjoys doing it now with the sprayer.

**SELF-ORGANIZATION | KISUN**

In this photo, Kisun wanted to show that there is more paddy so more people are harvesting together. In the past, they had less so only one or two people were needed to collect the harvest. Both men and women participated before and both participate now. It is mainly the domain of men but women help.
CONCLUSION

The final step in the combined methodology approach was to have the PV photographers present their themes and example photos to the staff and have the staff present their MSC stories to the photographers. This was also the first time photographers from the two communities were able to share their photos with one another. The selected themes and the main points discussed during this exchange shaped much of the analysis for this evaluation.

There were several overlapping themes between the photographers and MSC participants, including confidence, time savings, adoption of new knowledge and participation. Many of these overlapping themes were the outcomes of the project expected by both the staff and the photographers. However, some of the themes selected by the photographers surprised the staff, such as the ability to self-organize and lesser reliance on money lenders.

One major theme that was repeated by staff as well as by photographers was the feeling of confidence that was brought about by the project and also by the evaluation process. Several people confessed how nervous they had been when they first heard about the evaluation or received their camera. However, as they became more aware of the process and remembered how much had changed in their communities over the course of the project, they felt confident that they could figure out what to do in the evaluation and how to address the new challenges that could present themselves in the future. Because they have confidence from their previous successes and what they have already learned, they can rely on themselves and each other.

The communities are involved in setting up a producer company that is intended to help them better market their surplus crops, and they are hopeful and confident in their ability to set it up and make it work.

Nunua Hasda is working on aerating the potato plant in his field. The change is that now the community is growing potatoes. They can use the potatoes for selling and consumption.

Baburam is happy because the cultivation of potatoes helps them make additional income from potato sales and potatoes can also be used for consumption.
CONSIDERATIONS FOR IMPLEMENTATION AND LEARNING

LWR MANAGEMENT RESPONSE

One of the findings of the evaluation is that the Self Help Groups (SHGs) need stronger leadership to provide more services to their members. In particular, the project had envisioned that the SHGs would support women to help them become more involved in produce marketing. This will continue to be a priority for ASA as the project support in the area ends.

EVALUATION ACTION ITEMS

The VRPs and some SHGs are collaborating with farmers in nearby villages to create a producer company that would link the produce in these communities to markets in nearby cities. ASA will continue to support this effort and serve as an advisory body. This company would also be an opportunity for SHGs to expand to promote livelihood diversification, which could support the community to become more resilient.

ORGANIZATIONAL LEARNING

LWR approached all three LGI projects as learning opportunities to better integrate gender considerations into our food security programming. This evaluation, in conjunction with the other two LGI projects, has provided a great deal of insight into how best to work with partners, communities and individuals to ensure that all project participants reap benefits. In terms of project design, LWR has learned that both sides (LWR and implementing partners) must be committed to thorough needs assessments, interventions that simultaneously address food security and gender imbalances and monitoring and evaluation systems that provide sufficient data to analyze changes for men and women. LWR has also learned that the contexts in which communities and households function vary and these differences must be respected and taken into account by the project. Gender is one facet of those contexts and it closely interacts with other facets such as power structures, politics, poverty and education. LWR is committed to its vision of a world where every person lives in justice, dignity and peace, and we know that gender-sensitive programming enables this vision.

GRATITUDE

LWR thanks its peer partners who contributed time, resources and talent to this evaluation. Specifically, we thank Meena Bilgi, private consultant, India and Patricia de Leon, Project Concern International (PCI), Guatemala.

Lutheran World Relief has nearly 75 years of demonstrated expertise helping to transform some of the hardest-to-reach places in the developing world. LWR helps communities living in extreme poverty adapt to the challenges that threaten their livelihoods and well-being, and responds to emergencies with a long-term view. Our international team of experts develops the most effective tools to help people achieve self-sufficiency. We apply solutions specific to the needs of each community, such as providing access to capital for small businesses or helping farmers adapt to changing climate conditions. Our long history of partnership with local communities, businesses, and governments enables in-country professionals to lift up local knowledge and leverage relationships that drive results. And by working across issues such as gender, climate change adaptation, and agriculture, LWR continues to learn, share, and innovate with the global development community. By investing in people, their skills, and strengthening their ability to adapt, LWR enables those living in extreme poverty to build the resilience they need to thrive.