

MANDI II Agricultural Livelihood Diaries

Drudgery & harmful tradeoffs

At a Glance

Through the Walmart Foundation-funded Market Access eNabled by Digital Innovation in India Phase 2 (MANDI II) project, Grameen Foundation USA (GFUSA) and its Indian subsidiary, Grameen Foundation India (GFI) (together, Grameen), received funding to strengthen Farmer Producer Organizations (FPO) in the Purvanchal region of Uttar Pradesh (UP) and West Bengal, India. A series of monthly surveys ("diaries") were completed with 30 FPO member households with one man and one woman from two FPOs in UP—AKPCL and Bankelal Bio Energy—resulting in a target of 60 individuals in total to be interviewed.

In addition to quantitative data collected over the twelve months of study, findings from the third and tenth surveys were leveraged to understand drudgery and harmful tradeoffs of working in agriculture among study participants. The results highlight that both genders experience physical and mental hardship due to labor-intensive tasks, but men generally report higher levels of strain or injury. While men report having a knowledge of tools and technologies that would help reduce the burden of their work, and that some are currently used, most are limited in accessing them or choose not to access them. Women tend to engage more in household responsibilities alongside their agricultural duties and express less satisfaction with control over household work. For both women and men, balancing the myriad responsibilities they have is a challenge, but most feel that they can satisfactorily do so.

The findings also highlight that agricultural seasons play a large role in dictating daily schedules, sleep patterns, and time spent working on the farm. These are also impacted by extreme heat, as high temperatures dictate when, how long, and in what conditions individuals work in the field (i.e. what coping methods are used to mitigate heat). In peak harvesting and planting seasons, children are sometimes pulled out of school to assist on the farm.

Shared by a Male Farmer:

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Acronyms

FPO	Farmer Producer Organization
GFI	Grameen Foundation India
GFUSA	Grameen Foundation USA
НН	Household
IGA	Income-generating Activities
MANDI	Market Access eNabled by Digital Innovation in India
SHF	Smallholder Farmer
UP	Uttar Pradesh

Introduction

Through the Walmart Foundation-funded Market Access eNabled by Digital Innovation in India Phase 2 (MANDI II) project, Grameen Foundation USA (GFUSA) and its Indian subsidiary, Grameen Foundation India (GFI) (together, Grameen), received funding to strengthen Farmer Producer Organizations (FPO) in the Purvanchal region of Uttar Pradesh (UP) and in West Bengal, India. A series of monthly surveys ("diaries") were completed with 30 FPO member households with one man and one woman from two FPOs in UP—AKPCL and Bankelal Bio Energy—resulting in a target of 60 individuals in total to be interviewed. This research brief covers one thematic theme—agricultural livelihoods—over the 12-month period, which spanned March 2024 through February 2025, crossing all agricultural seasons.



Results

Toll of farm work

Physical Toll

Both women and men reported that they experienced high or moderate amounts of hardship, strain, or injury due to their work on the farm, be it body pain, back pain, headaches, etc. In all 12 months of study except one, the men's responses indicated greater levels of hardship, strain, or injury than women's responses. However, the trends of both sexes over time follow a similar pattern. Bodily strain or hardship for women and men peaked first during April 2024, the height of the Zaid season. In between seasons, however, the physical toll of work decreased, significantly dropping for both men and women by month 4 (June 2024) as many reported that the question was not applicable during that month likely because of the lack of farm work at that point.

In months of active harvest activities, reports of hardship increased. For example, as the paddy season started in month 5, reports of hardship increased for both women and men. In fact, in both November 2024 and January 2025, all but one man in the study group indicated hardship, strain, or injury from farm work. Similarly, months 8 through 10

correspond to end-of-harvest activities, where work may be more strenuous. In these months, while the increases among women's reports of bodily hardship were not as large, about half of women did report such strain in their work.



Figure 1. High and moderate degrees of hardship, strain, or injury from farm work

Regardless of gender, participants reported difficulties in completing daily activities. While some difficulties arose from the physical strain of activities, lack of technology to ease labor, the effects of extreme heat were most cited as a strain on work. While many respondents mentioned air conditioning as a potential way to reduce some of the difficulty of their day, they also noted that financial and/or infrastructure constraints prevent them from using air conditioning or heating in their homes: "*I don't know about any new technology nor do I use them to make my work or my day today life easy, as these technologies are never used in villages, like there are air conditioners to keep your house cool in summers but people in villages don't use it, because it is expensive, you need money, electricity for this and villagers can't afford it." However, many people mentioned that using fans or other cooling mechanisms like towels were able to help them stay cool and that fires or layers of clothing could help them stay warm in the winter months. Umbrellas, raincoats, boots, and towels were also used to mitigate weather conditions and challenges in farm work.*

Many men also mentioned that they were aware of tractors or threshers that could make their lives easier. Some were opposed to their use, preferring natural methods of farming. Others were aware of them and indicated a desire to use them, but didn't currently have access to them, as one man described: *"There is a lot of technology and equipment which I have seen but we don't have facilities to avail them."*

A handful of respondents shared that they were already using technology to reduce the burden of their work: "We use tractors and there are cutting machines for wheat and paddy. We are well informed about it and we are also using it." While these machines and tools did help lessen difficulties in field work, it was also pointed out that the work can still be burdensome because of extreme heat even with the support of technologies. This was described by one participant when he stated that "while working in the field, there is no such technology to make things less difficult. Harvesters are being used now also. It is not anything new. When threshing is done with the tractor, it becomes little easier. It is already happening. Apart from that there is no other technology regarding relief from hot summer, particularly in the field. At home, people make arrangements. But outdoors, these are the things."

Mental toll

Over the twelve months, more men reported engaging in work they considered to be particularly tedious or mentally exhausting, except in survey 7. Men's responses were high across all 12 months, with all respondents indicating that their work was mentally exhausting or tedious during months 4 and 10, during the Zaid and Rabi seasons. It is interesting to note that between months 4 and 7, the Kharif season, less men reported that they engaged in tedious or mentally

exhausting work as compared to the Zaid or Rabi seasons. For women, however, this was not the case. In fact, it was during this same reporting period that women's engagement in mentally exhausting or tedious work peaked. This difference may be due to the fact that other economic activities headed by women, such as dairy farming and agricultural labor work, are key the focus during this season (Kharif).

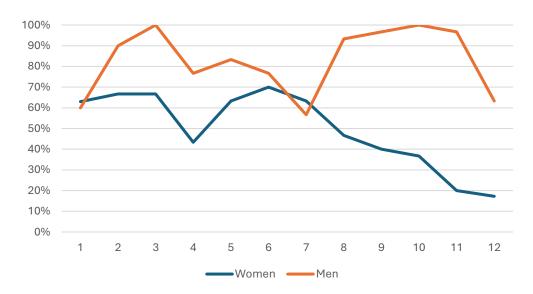


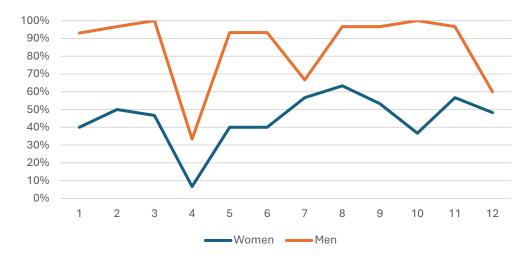
Figure 2. Engaging in tedious or mentally exhausting work

Satisfaction with control over work

Farm work

At all points during the year of study, women reported less satisfaction with the amount of control they had over what work they did on the farm than men. Both men and women's satisfaction dropped drastically during month 4, as both reported satisfaction was not applicable in this month due to the lack of farm work between seasons. Inverse satisfaction (with men indicating higher satisfaction and women reporting less) occurred between months 2 to 3 as well as between months 9 to 10. The opposite was true (with women indicating higher satisfaction and men reporting less) between months 7 to 8.





Household work

For most surveys, a higher percentage of men reported high or moderate satisfaction with their control over what work they did at home as compared to women. However, both men and women reported high levels of satisfaction throughout the 12 months with the lowest reported satisfaction (60%) by women at month 4.

Women's and men's satisfaction with control over household work are inverse for much of the year, with women reporting higher levels of satisfaction when men report lower levels, and vice versa. Of note is the low satisfaction women report in month 4. As indicated in previous sections, month 4 was between seasons when there was less farm work to do. In other briefs in this series, it has become apparent that fewer men and women reported having IGAs in month 4, and decision-making power likely shifts with men's time less consumed by work. The fact that women also indicate decreased satisfaction with their control over household work corroborates this finding, since less satisfaction with their control over household work corroborates this finding power and that someone else (potentially a spouse) is dictating how her time is spent.





Typical work days

For both women and men, a typical day begins early, often between 4:00 and 6:30 AM and ends between 9:00 and 10:00 PM. For the female respondents, work throughout the day is a blend of household responsibilities and agricultural tasks. Work in the home often includes preparing meals, washing dishes, sweeping, mopping, and taking care of the children. Once these tasks are complete, many women then go to do other work in the fields or to tend to their cattle. However, a typical schedule for a woman is largely dependent on the household tasks she is expected to complete. Whether or not she engages in other agricultural work or income-generating activities is more likely to be dictated by the needs in her home and her responsibilities with household tasks than anything else. One woman described this when she said: *"The first thing I do after I get up is to complete my household chores after that I look after the cattle, that we have, cleaning the shed, preparing for the fodder for the cattle, I get ready by children for their school, prepare lunch for them, after this I go the field to bring fodder (grass) for the cattle, and then feed the animals. In the entire day I have a lot of work to do, and now during winters as the days are shorter, I don't even get time for myself, I don't even realize what the day gets over, I have my lunch nearly at 12pm."*

A man's typical day revolved primarily around agricultural work, with a significant amount of time spent working in the fields and engaging in tasks like planting, harvesting, or maintaining crops and livestock. As one man reported, *"I basically engage myself in my farming or looking after my cattle, in summers I grow vegetables in my field, vegetables like brinjal, bitter gourd, radish etc. so I spend my time in looking after them, in general for me a typical day would be the same as I said I spend my time in farming and looking after my cattle and sorting the vegetables grown in my field (onion, garlic) or storing the grains as per requirement." In addition to these, many male respondents included travel to the market during a typical day. Several also noted that in peak agricultural seasons like July and August, a typical day involves even more time spent in the field.*

On average, respondents work between 2-4 hours on the farm, followed by household chores or other responsibilities like animal husbandry or social activities. Time on the farm was often split and somewhat limited due to additional household or business responsibilities (i.e. managing produce or childcare). As one respondent put it, *"This may vary, approximately, if you see I work for some 4 to 5 hours in a day. In the free time I look after my cattle, cleaning the shed, collecting cow dung and getting fodder for my cattle."*

Variations in time spent farming (more or less time spent) were also shared by participants, but these were largely dependent on seasonal demands. During peak seasons—July and August (rice), November and December (paddy), and March and April (wheat and chickpea)—labor is intensive, involving sowing, irrigation, and harvesting. These variations were summarized by one man when he explained: *"There are three seasons where we spend maximum time in the fields. One is during April, one is monsoon season, and one is winter during November-January. But maximum time is spent during monsoon season because we grow paddy during that time. It is because it takes a lot of labor the growing of paddy. It requires weeding, cleaning and lots of stuff. So maximum time is spent during July."*

Both women and men sleep between 5-8 hours each night, and many reported that the amount of sleep they were getting is sufficient for them. The amount of sleep people get is largely dictated by the amount of work they need to complete during the day, which in turn varies depending on the seasons and their demands—men and women get less sleep during busy periods due to planting and harvesting. Varying heat throughout the year also changes how much sleep people get at night and during the day. One respondent explained it as follows: "Let's say it's the cold season right now, so we easily sleep for 7 hours. But during the summer, it's even more; we sleep in the afternoon as well as at night. In the summer months, to avoid the heat, we stay indoors. Whether we sleep or not, we are still inside."

These patterns are evident when comparing sleep in July and August with December and January. Most individuals did report sleeping more in July and August because of less farm work, longer days, and extreme heat, such as one man who observed that "there isn't as much work during that time [in July and August], so people generally take it easy in the months of July and August. The sun and heat are intense during this period, so nobody prefers to go out. If they have the time, they choose to rest." Others, however, disagreed and asserted that more sleep and rest happened during the winter since working more in July and August is critical to complete all busy harvest season tasks like sowing and irrigation.

Balancing family and work responsibilities

While women and men both acknowledge that balancing work and family responsibilities can be a challenge, most of the respondents noted that they felt that they were successful in doing so. The exception was respondents who suffered from physical ailments that impaired their movement or sense of self-efficacy.

Men's responses indicate that their top priority is focusing on income-generating activities. While some men did say that their work was flexible enough to allow them to assist sick children, for example, their responses focused more on the financial pressure to provide for the family and that such pressure takes precedence. Even when men's responses discussed time management, they were more focused on managing work first and fitting family time in later, unless emergencies arose. As one male respondent put it *"[the] first priority is farming. Rest, everything can be managed after that."*

Women, on the other hand, spoke more of familial and social duties and tended to highlight the expectation that they focus first on family responsibilities before moving on to other work. Most shared that they were able to balance both family and work responsibilities, but that family responsibilities, such as cooking and cleaning, needed to be completed first before other work. This was reflected in the words of one woman who said: "Yes one has to do the household work first and then only can do the other work. They have to give food to children and then only will work outside. I do it and can manage it. Yes, I can successfully balance both work and family. I do all my work responsibly, give tea, food and look after their requirements. I see that the health remains good. I manage everything. I store the grains for 1-2 years and adjust all my work. I fulfill all the duties of a housewife."

Many responses from women also indicated that they seek or have the option of asking for help from family members, such as daughters-in-law or children, in certain responsibilities at home. One woman shared, "We all work in tandem. We manage the household chores altogether. So, that is not an issue. I can take care of the children as well as of the elderly people at home...There are other people at home to keep an eye on my baby while I am working. I can do all the work with the help of the other family members."

Even though the majority of respondents did agree that they did or that they could satisfactorily complete all tasks required of them in family and work life, one woman's response highlighted the tenuous balance of these responsibilities: "Sometimes if I get an urgent phone call the night before and have to leave the next morning, then the work which needs to be done in the morning, gets compromised. So that becomes a problem. So, it is not possible for me to carry out both responsibilities. Sometimes I don't have time to have meals. Hence, I am not able to manage my work and household responsibilities or cooking or work at the farm on time."

During busy seasons, completing all tasks is more difficult. Though many respondents shared that their children focus on education rather than farm labor, some children are occasionally pulled out of school to help with farming during peak planting and harvesting seasons. While several children only miss a few days, others are in the fields for several months to help in the fields depending on the financial constraints facing the family and the ability of the family to afford paid labor. This was reflected in one man's statement when he said "I do tell my children to not to go to school, around 2-3 months I do stop them from going to school, when I am not able to do it alone and can't afford labor then I tell my son to help me out. We don't have money to pay the laborers. It does affect their studies but what to do? I have to compel them." When they help with farming, children typically plant, harvest, assist with general farm maintenance, and carry supplies.

Mitigating climate challenges

In times of extreme heat, participants reported adjusting their schedule to work in the field to avoid working in the heat of the day and instead do field work in the morning, before 10 am, and the evening when the temperatures cool slightly. Most report being extra cautious about hydration and mindful eating in order to take care of themselves in the heat. In addition to these measures, several men discussed the importance of having inner stamina to make it through the summer times when they face extreme heat.

To protect themselves from the sun while working, most people wear a gamcha (headscarf), towel, or use an umbrella. As a farmer shared, "In the summer months, if we have to work in the morning, we create a routine for it. We wake up, do our morning chores, and then head to the fields. We work there until we can tolerate the sun, and when the heat becomes unbearable, we return home. By 5 PM, we're back home, and we don't go out again until 8 PM. It happens sometimes that we have to work even if it is very hot and sunny. We don't have any special conveniences. We only have a gamcha, and we use it to tie a turban. This helps protect us from the sun."

In the home, fans and coolers are widely used when electricity is available. As one person put it: *"We have a cooler, it works when there's electricity or else we use the fan. What other option is there. If there's more heat, we can use the hand fan. No, there's no other option to cool the house either we use the cooler or fan, that's it."* When power cuts happen, individuals use hand fans and natural ventilation the home to cool indoor temperatures and make the heat bearable. Alternative strategies include sprinkling water on the walls, floors, and terraces; using wet cloths to cool the air; keeping doors and windows open at night and closed during the day; and ensuring that the house is well insulated to keep temperatures cooler inside.

During the rainy months, individuals take measures to protect themselves from the rain and mud. Many stay indoors, but if they need to go out, they make sure to wear appropriate footwear and use raincoats, umbrellas, and/or plastic covers. Farmers wear minimal footwear as needed. Work continues, though, even with poor weather conditions. This was reflected in the sentiments of one farmer who shared, *"I've already said that only a farmer who can face nature's challenges is a successful farmer. We don't take any special precautions; whatever the situation may be, we face it head-on and keep working."*

Conclusion

The results highlight that both genders experience physical and mental hardship due to labor-intensive tasks, but men generally report higher levels of strain or injury. While men report having a knowledge of tools and technologies that would help reduce the burden of their work, and that some are currently used, most are limited in accessing them or choose not to access them. Women tend to engage more in household responsibilities alongside their agricultural duties and express less satisfaction with control over household work. For both women and men, balancing the myriad responsibilities they have is a challenge, but most feel that they can satisfactorily do so.

The findings also highlight that agricultural seasons play a large role in dictating daily schedules, sleep patterns, and time spent working on the farm. These are also impacted by extreme heat, as high temperatures dictate when, how long, and in what conditions individuals work in the field (i.e. what coping methods are used to mitigate heat). In peak harvesting and planting seasons, children are sometimes pulled out of school to assist on the farm.