IFPRI Discussion Paper 02413

April 2026

Under the Weight of Provision

Gendered Mental Load Among Smallholder Farmers in Kenya

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ABSTRACT

Invisible mental strain affects women and men, especially in rural areas. The effects of this strain can influence collective and economic decisions, impacting resilience in low-resource agricultural communities. Using qualitative data collected from focus group discussions with smallholder farmers in Western Kenya, we explored gendered strains of women and men, their social and psychological consequences, and the gender empathy gap. We conducted focus group discussions with 56 farmers and found that expectations of the roles of women and men in the household were clear. The "invisible burden" was present in the pressure to be hardworking and to provide financial means for the family as a man; and to care for the family and farm as a woman. The strain led to stress, worry, and deterioration of mental health, contributing to despondency, isolation, household conflict, and even mental breakdowns. Household members coped with the psychological strain in different ways. Men tended to use avoidance mechanisms, isolate themselves, or turn to alcohol consumption. Women mentioned talking to others about the strain. Both women and men also reached out to other people, took some kind of action, made plans or relied on their faith in God. Both women and men showed empathy toward one another; that is, they recognized the strain and the effects on their spouse. However, women appeared to show more empathy than men. Thus, the breadwinner strain borne by men and the family load borne by women was an important factor in rural areas, affecting household relations and decisions, which can ultimately affect household resilience. Given the negative social and psychological consequences of this invisible burden, mental health literacy trainings, gender transformative approaches, community dialogues, and gender-responsive extension services can be employed to help households to better cope with strain.

Keywords: Gender, mental load, breadwinner strain, empathy gap, rural Kenya

ACKNOWLEDGMENTS

This work was undertaken as part of the CGIAR Science Program on Multifunctional Landscapes. We would like to thank all funders who supported this research through their contributions to the CGIAR Trust Fund: https://www.cgiar.org/funders/.

We also thank the farmers who participated in this study and the research assistants for the excellent data collection, translation, and transcription. The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of CGIAR.

1. INTRODUCTION AND BACKGROUND

"I faced a big challenge this season. There's no food from the farm, and the needs have become too many. Maybe you have nothing, and the children come asking, 'Mama, what will we eat?' Another one comes saying, 'Tomorrow we were told to bring school fees,' or we were asked to bring something specific. That's when I get filled with thoughts, wondering 'What will I do for these children? How will it be?'" —A female participant, mixed group, Itumbu

"It's the man. Because when he wakes up in the morning, he's thinking of how the family will eat. He is also thinking how he'll get school fees for the children and how to sustain himself and his family, and how he will work to get what's needed to support the family. The expectations are heavy on him that he needs to do for his family." — A male participant, mixed group, Itumbu

People around the world face invisible burdens as they go about their life and work. These burdens are invisible because they are borne internally (Dean et al. 2021). Such mental strain can stem from many sources, including economic insecurity, caregiving responsibilities, social expectations, and uncertainty about the future. Among the various social structures that shape how these burdens are experienced, gender norms play a particularly powerful role. Socially defined expectations about what women and men ought to do within households and communities influence not only the division of labor but also the cognitive and emotional responsibilities attached to those roles. As a result, invisible burdens often take gendered forms. Women frequently carry what has been described as the mental load or family load—the psychological burden associated with planning, organizing, and emotionally sustaining household life (Dean et al. 2021; Vitellozzi et al. 2025). Men, in turn, may experience breadwinner strain—the stress linked to societal expectations that they serve as primary financial providers (Brown and Roberts 2014). In rural areas, there are additional strains on providers and carers due to higher poverty prevalence (World Bank 2024), which creates a mental load (Badio 2025). In addition, infrastructure is lacking in rural areas and basic services—such as drinking water, education, health—are difficult to provide as a result of market, state, and community failures in the rural areas (Madhvani and Pehu 2010). Women and young girls are often responsible for fetching water and firewood for the household, and men and boys often care for grazing livestock in rural areas (Kinuthia et al. 2024). Formal work is difficult to find in the countryside. Women face additional strains due to the feminization of agriculture, with men often seeking

work or migrating for jobs, leaving women to care for the farm and livestock in addition to their more traditional reproductive tasks (Onyalo 2019).

How do these burdens and loads affect women and men in rural Kenya? How do they affect participation in practices or mechanisms that can increase resilience in such fragile rural settings? What are their coping strategies? How do men and women perceive their partner's burden within the household? These are areas that are largely unexplored in literature.

This study was intended to investigate how gendered burdens affect women and men in smallholder agricultural communities, and their social and psychological consequences. We used focus group discussions to collect rich qualitative data on these burdens and their social and psychological consequences. Our contribution to the literature is to investigate these two strains in a rural, nonwestern context, and to explore the themes and effects of these strains, including coping mechanisms and the gender empathy gap.

2. LITERATURE REVIEW AND RESEARCH OBJECTIVE

Much work has been done examining women's and men's uptake of agroecological and nature-positive practices in low-income settings, looking for ways to increase the sustainability of agricultural systems while equitably providing incomes and livelihoods for smallholders (Guettou Djurfeldt et al. 2024; Elias et al. 2021; Kinuthia et al. 2024; Termote and Kettle 2023). Attention to the mental health of farmers has been increasing, particularly in qualitative research examining topics such as masculinity and societal expectations (Garner et al. 2025). However, mental health research is mainly focused on individuals (e.g., Kang et al. 2025), much of it in high-income countries, and there is limited research examining how stress and burdens can influence collective action and the interaction between strain and collective action (Bartoš 2021; Boonmanunt et al. 2020). Psychological strain can undermine resilience and collective action (Kremer et al. 2019). In the context of collective action for sustainable livelihoods, "social resilience" is the capacity of communities to respond to or recover from challenges (Ventriglio et al. 2025) with the help of social networks and community structures, which can buffer people from the consequences of stress or strain (Norris et al. 2008). Community structures have been shown to assist farmers in dealing with strain (Riethmuller et al. 2023, 2025).

Community seedbanks are an important mechanism to enhance food security, climate resilience, and biodiversity conservation in rural communities. They require collective action. However, despite documented benefits (e.g., de Falcis et al. 2022; Vernooy et al. 2015), seedbanks remain underutilized, raising critical questions about the behavioral, economic, and social barriers to their adoption. While adoption literature points to barriers such as infrastructure limitations, lack of awareness, and social trust deficits, an equally critical but less explored factor is how financial strain and psychological stress influence farmers' decision-making processes and investment behaviors, particularly for collective action.

Poverty is another factor affecting how smallholder farmers make decisions about engaging in collective action or taking up new practices. Poverty encompasses both material and psychological deprivation, with documented effects on cognitive abilities (Mani et al. 2013), decision-making (Ronzani et al. 2024; Ronzani et al. 2018), and mental health (Ridley et al. 2020). In the context of agricultural decision-making, financial strain can impair individuals' ability to plan, invest, and manage resources effectively. The negative consequences of living in poverty can be further exacerbated by gender norms and societal expectations around men's and women's roles (Addis 2008; Randles 2021).

Poverty can also lead to stress and strain within the household (Barrington et al. 2022). Gender role conflict and stress is the psychological strain associated with expectations of people based on their gender (Gottert et al. 2018). This concept comes from the Gender Role Strain Paradigm developed by Pleck (1981, 1995). Scales to measure this strain include the Gender Role Conflict Scale (O'Neil et al. 1986).

A major source of potential strain is the expectation that one serve as the principal household income earner or breadwinner. Fulfilling this role often entails significant social and psychological strain (Brown and Roberts 2014). When individuals struggle to meet personal and societal expectations as financial providers, they can experience "breadwinner strain," which adds to the stress of financial instability and could increase anxiety and depression (Syrda 2019).

While men have historically borne the bulk of this financial responsibility, women increasingly feel similar pressures as their labor market participation grows (Goldstein et al. 2024). In addition to women's own breadwinner strain, they face the mental load of family care (Dean et al. 2021). In rural areas, where income-generating opportunities are often limited, women's growing role in household finances can result in a "double burden"—balancing income generation with the ongoing demands of household management and caregiving (Pereira et al. 2023).

The psychological strain of these two burdens can lead to various negative results, such as mental health deterioration, household conflict and domestic violence (Gottert et al. 2018), non-adoption and

risk aversion (Cecchi and Vitellozzi 2024), and reduced cooperation (Kremer et al. 2019), social participation, and openness to innovation.

Related to the effects of these burdens are the ways that men and women in the household perceive one another's strain. Lack of empathy can lead to misunderstandings, blame, and increased household tension and can limit cooperation. Thus a better understanding of the gender empathy gap can lead to avenues for better interhousehold relations and more effective cooperation. While researchers claim that women tend to show more empathy than men (Aarts 2020), a review of sex differences in empathy show highly variable results depending on how it was measured (Eisenberg and Lennon 1983). Little research had been done on how two people of different sex in the household empathize with each other regarding their strain.

To better understand the invisible burdens faced by women and men in rural areas and how they affect individuals, households, and communities, we explored these strains, coping mechanisms, and the gender empathy gap using qualitative data collected in rural western Kenya.

3. DATA AND METHODS

Based on the reviewed literature and identified gaps, we asked the following research questions:

1. What invisible burdens are borne by women and men smallholders in rural Kenya?
2. What are the effects of women's mental load and men's breadwinner strain on individuals, households, and communities?
3. What coping mechanisms are used to deal with the strain?
4. Is there a gender empathy gap between women and men?

Study location

The study was conducted in Vihiga County, Kenya, where previous work had engaged smallholder farmers to provide gender-sensitive nature-positive solutions, including community seedbanks, for their low-income farming communities. Vihiga is a densely populated agricultural area in western Kenya with a population of just over half a million inhabitants. Most of the population are subsistence farmers, and 62 percent live in poverty (Vihiga County Government 2022).

We collected qualitative data in three sites where the main seedbank and satellite seedbanks were located: Itumbu (main), Essunza, and Vigulu. The sites were purposively selected to include farmers who lived close to existing community seedbanks, but who were not members. This allowed us to engage participants who came from a similar situation and understood how seedbanks operate while reducing potential biases linked to direct seedbank participation.

Instruments

Prior to data collection we undertook a two-phase co-design and adaptation process to ensure cultural and contextual relevance. In the first phase, we held a three-day workshop with enumerators from western Kenya. They contributed to refining the narrative tone, language, and framing to align with locally meaningful expressions of sociocultural norms. Their insights helped us capture the subtle, everyday forms that invisible burdens take in the rural context of Vihiga.

In the second phase, we conducted two sex-disaggregated semi-structured focus group discussions with farmers from Vihiga County. These discussions were used to pre-test and further adapt both the narrative stimuli and survey instruments. The discussions ensured that our materials were both understandable and resonant with participants' lived experiences, while also avoiding framing that could induce unnecessary discomfort or bias.

Qualitative data were collected through focus group discussions as part of the debriefing process following face-to-face, computer-assisted interviews that incorporated experimental treatments (Vitellozzi et al. 2025). The experimental and quantitative results are not presented here. The focus group discussions were designed to both enhance data collection and ensure ethical engagement with participants. The focus group interviews took place the day after the experiment.

The International Food Policy Research Institute's Institutional Review Board and the African Medical and Research Foundation (AMREF Health Africa) in Kenya provided ethical approval to conduct the study. Informed consent was obtained from all respondents. Prior to data collection, facilitators explained the objectives of the study, the partnering research organizations, potential risks and benefits, whom to contact with questions, and clarified that personally identifiable information would not be shared.

Sampling

We recruited participants using a random selection approach among smallholder farmers that ensured principles of fairness and equal chances of inclusion. We engaged local community leaders and agricultural groups to facilitate recruitment.

For the larger experiment, our target population was 413 married/cohabiting individuals in Vihiga, roughly half women and half men. Following the experiment, we selected a sample of participants who were exposed to stress during the experiment to participate in focus group discussions based on their sex and their village location (for the convenience of travel to the interview location). We targeted 60 participants (10 per group) and conducted six focus group discussions which lasted 90–120 minutes. Each group consisted of 8–10 participants and were either all male, all female, or mixed sex. Each group

also had a facilitator and a notetaker. We interviewed 56 farmers in total in the focus groups (28 men and 28 women), using Kiswahili for the discussions. Data collection took place in July 2025.

Analysis

Focus group discussions were audio recorded with permission from the participants and transcribed by the study team conducting the interviews. Following a protocol developed by the study team, the transcription was done manually *ad verbatim* (word-for-word), and the transcripts were coded for purposes of identification. Transcription took place shortly after data collection and was completed in July 2025. The transcripts were translated into English for analysis. Personal information was removed from all transcripts before uploading to NVivo 15 for analysis.

After initial themes were developed, transcripts were reviewed again and alternate themes were added. Themes were agreed by all members of the research team.

Reflexivity

As qualitative researchers, we recognize that we are also instruments within the study (Brodsky and Brodsky 2008). We approached the research as outsiders, aware of power asymmetries and the fact that our positionality in terms of gender, experience, and worldview may influence the analysis (Berger 2015). It was important that our positions and biases not unduly affect the analysis.

We ensured reflexivity first through recognizing our positions vis-à-vis the participants in the study. The team then worked collaboratively to review the study and the setting, to analyze the data, and to discuss our findings and assumptions. Because we were all outsiders to that part of Kenya, we also engaged with colleagues who lived and worked in Vihiga to review our assumptions and findings. We also provided the results to the community members in the form of a flyer in Kiswahili.

4. FINDINGS

Broad themes: Invisible burdens

The burdens felt by men and women—women's family load and men's breadwinner strain—were apparent from the data.

The breadwinner strain of men

Respondents felt that men's responsibilities are to provide for the wife and children. Men should feed the family and get a job. This was voiced by a female participant from a mixed group in Vigulu, who stated, "*You know the man is the head of the home, so there is no way a man should fail to provide*." Both women and men mentioned that the husband should protect the wife. School fees were mentioned in all the interviews. A man from Itumbu stated in a men's focus group discussion that, "*For a man, you must think of how to get sugar, flour, clothing, school fees…*" Men also felt responsible for women in the household and considered them to also be children—a man in Itumbu mentioned that a wife is thought of as one of the children that must be cared for.

Men perceived they are required to work hard. "*Women are happy to see a hardworking man,*" said a man from Essunza. A male participant from a mixed group in Itumbu stated, "*It means you fight hard to take care of the responsibilities in any way possible.*"

Men are ultimately the ones considered responsible for providing for the family. Some of these beliefs are based in religion: "By the sweat of your brow you will eat your food" (Genesis 3:19, Holy Bible 1973). However, the man from Essunza misquoted this, saying that "*a woman shall eat from the sweat of a man,*" implying that he was the one ultimately responsible to care for the family and works hard to provide for them.

The family load of women

Women felt the same type of burden: feeding children, and worrying about crops and school fees. They worried more about laundry and cooking, and they were expected to cook and wash for their husband. "*A good mother who knows how to take care of her home, you can't even go to the neighbor and stay for two*

hours or even half an hour, because you are always thinking about everything, like us we have livestock, the children [in] school," said a participant from a mixed group in Itumbu.

Some women perceived that the burden of provision was more on them. "*For me, my thoughts are too many. I am overwhelmed with so many worries because in my home, everything is on the mother,*" stated a woman in a mixed group in Itumbu. Some said that the man does not help, forcing the woman to go find work.

Women sometimes felt that they must step in if the husband has failed to provide, becoming the de facto head as stated by a woman in a woman's focus group discussion in Vigulu: "*When my husband, the father of my children, doesn't put in effort,…I get overwhelmed with thoughts…, because you have stress and the person who is supposed to push you as the head of the household is low, and now you as the woman who left your parents' home and came, now you become the head. Then he is the one who asks, 'What are we going to eat?' and everything falls on you as the woman. You get such challenges that make you stressed a lot.*"

Another woman from the group said: "*That's why I said, when you see he is down, you have to get active. If you don't, the family will collapse*."

A woman in this situation might use her savings or asks a neighbor for help, according to a mixed group in Itumbu. But this could make a woman bitter that she must care for her husband like a child, using the money earned from casual labor to feed him, according to a woman in a mixed group from Vihiga. She stated, "*When the husband has completely failed to get work, you just take him as he is. You go out to search and bring food.*"

Community perceptions

If a man cannot provide, he could be looked down on by the wife and the community. This was clear from a statement from the men's focus group discussion in Essunza: "*You know some people will take you with contempt since you can't provide for your house, and even as you walk out there, you are not seen as a man.*"

Men who cannot provide for their families were perceived negatively by the community: "*People see him as useless because he isn't helping his family with anything. For example, if he gets a little money, instead of using it for home use, he'll buy drugs, and the drugs will not help him. After getting drunk, he comes back intoxicated, starts a conflict with his family, and that's what destroys many homes,*" said a male participant in a mixed group from Itumbu.

Women who do not fulfil their family responsibilities were looked down on and disrespected. "*When a woman reaches a point where she is failing on her duties toward her husband, her society sees her as a bad person who has failed to take care of her household,*" stated a man from the men's group in Essunza. One woman told a story of another woman who did not provide. She called her foolish and talked to her, saying the husband would leave if she carried on like that. The woman changed her ways. The storyteller stated, "*If you leave all responsibilities to him, you are a useless woman. Marriage means you help each other: he goes out to work, and you handle the home.*"

Results of strain on women, men, and households

The results of the strain led to social and psychological consequences for women, men, and households. Stress, worry, and deterioration of mental health arose from the strain, leading to despondency, isolation, and even mental breakdowns. Women felt worried, with a lot of thoughts and felt overwhelmed. "*You will be lonely. You will think, 'What is the problem?' You will even ask God, 'God, what is wrong with me?'*" stated a woman from a mixed group in Vigulu.

"*There are times you feel like your head is about to burst ten times, and it is worse when you look into your pocket and there is nothing. You look at the granary and there is nothing,*" said a female respondent from a mixed group in Vigulu. A member of the mixed group in Itumbu stated, "*A man who has failed in his duties sometimes talks to himself where he is sitting, it's like his mind has snapped. If you ask what he's saying, he can't answer; he's just muttering to himself.*"

The mental load and breadwinner strain resulted in conflict within households. "*You get another one who has failed to provide food, and when he enters the home, he starts beating the children and shouting,*

beats the wife. The fights start and even escalate to violence between husband and wife. So from that point, things don't go well," said a male member of a mixed group in Itumbu. A female participant said, "*That's why, if you are a wife with a husband at home, that's where the biggest issues come. That's even why you see some women get beaten or some women beat their husbands. That's the most dangerous place.*" Participants also mentioned one spouse or the other leaving, at least temporarily, as a result of the conflict.

Coping mechanisms

A number of coping mechanisms were mentioned to offset stress. Some people reached out for help from other family members or the church with the strain. Some prayed to God. One participant mentioned taking time away to calm down. Another mentioned planning ahead.

Others took action and did something about it, for instance, buying chickens to provide for the family. Another coping mechanism was planning ahead: "*As a provider, you should plan before stress gets to you because there is no way you will run from the responsibilities,*" said a man from Essunza. Participants mentioned making a plan, for instance, getting a loan, looking for casual work, or buying some chickens.

Several respondents mentioned avoidance mechanisms. Men especially tended to feel alone in their responsibilities or intentionally isolated themselves when feeling strain. "*There is no one I can run to for help in life,*" stated one participant in Essunza. "*I will start thinking alone,*" stated another man in the same group, when faced with stress. They wanted to be alone, apart from the family. However, they sometimes got advice from someone else, from seminars, or from the church if needed. Women noted that a man might avoid the household and the demands by staying somewhere else or sitting alone. "*For me, if I have no money, I sit somewhere quietly. I don't want noise; I don't want too many words. I just want to be alone because if you bring me noise, my stress will increase*," said a man from a mixed group in Itumbu. Another man from Itumbu stated, "*I mean, just removing myself from the system, like deleting an app from a phone so you don't see it.*" Sometimes men went off to look for work to avoid stress and quarrels at home.

Women tended to cope in a very different and much more social way, as can be seen by the following statements by women from Vigulu:

"*When I have stress, I go to a neighbor and make stories so the stress reduces. Because if you sit alone, it can kill you. It's better to go out and talk. Like the way we are sitting here now, if I had stress, it would go away because hearing people talk makes me feel okay.*"

"*When I see I'm really overwhelmed, because I used to be a choir singer, so I just start singing. The songs I remember, I sing and talk to myself, and slowly, I cheer myself up. Before I knew it, the stress I had was gone, and I just focused on what I was doing.*"

They also just talked to their family about the problem when they can't provide, as explained by a woman from Essunza: "*I usually talk to [the family]. When there is no food. I just talk to them calmly, that today I don't think I got enough money, we will drink porridge and tomorrow, when it pleases God, I will wake up early and put effort so that we will get something tomorrow.*"

Alcohol consumption was a means of coping for some people (mainly men). A man from the men's group in Essunza described this: "*My friend comes and asks what's going on, then tells me to go for a walk with him. I follow him then we get alcohol where we drink to relax the mind. You find that I get addicted to alcohol in the name of relieving stress, so that I forget a bit about school fees, just because I have tried everything, but nothing has worked. Something tells me that if I drink alcohol or smoke a cigarette, the stress will go away. So, that is how stress comes in. School fees are needed, and maybe while leaving the house, there was no lunch, and you don't even have transport for her/him to go back to school. You tell yourself to go take a sip of alcohol, wait for tomorrow, and see how things unfold. If it helped with stress, you find yourself going back to drinking, and that is how you find yourself being overwhelmed with the responsibilities.*"

How did these burdens and loads affect how participants took part in communal activities? Given the nature of women's and men's household roles, participants (especially men) felt that women were more able to participate in communal activities such as the community seedbanks. Women tended to be on the farm (not working off the farm) and could organize themselves to finish household chores in time to

attend seedbank meetings. A man from Essunza said, "*So, most of our time we spend hustling. You know, for most women, they are at home, and when they are done with their house chores, they can make it to such meetings easily.*"

Because women appeared to use more socially oriented coping mechanisms, such as talking to people, it is likely that women will also be more likely to participate in the seedbanks both for farming and for social support with their burden.

What is the gender empathy gap between men and women?

In this rural setting in western Kenya, gender roles were well defined, as seen in the findings above and in Table A3 in the Appendix, which presents some quantitative data collected as part of this study. The quantitative results revealed a community where the provider role was both highly valued and socially policed and where being a "good provider" was associated with respect and social standing.

Table A3 shows that women reported higher scores on the breadwinner strain scale than men, likely reflecting the gendered dynamics of emotional expression in the study area. While women may have been more open in acknowledging stress, men may have been socialized to suppress emotional vulnerability. As a result, men's self-reported strain may have underestimated the true psychological burden associated with breadwinner expectations. At the same time, men expressed stronger opinions around men being the primary provider for the family, underscoring the strength of traditional provider norms. Women may have viewed their own economic participation as part of a broader household equilibrium, while men may not have viewed women's earning role as equally necessary. The quantitative data also show that women had much stronger views that "a real man does not accept failures." This may indicate that women, too, upheld strong expectations of men's performance and resilience, reinforcing the social pressures men face to avoid failure or vulnerability.

Thus, what were the perceptions by gender in the qualitative data of the spouse's strain? How did this affect the ways that men and women deal with strain?

Women and men did blame one another, particularly when they did not fulfill expected responsibilities. Men were upset if women did not wash or cook for them. Women were stressed if the men did not bring home money for food, especially if he used the money on alcohol instead. This potentially brought misunderstanding and conflict to the household. "*It brings conflict because I will blame my husband, saying, 'You should have gone out to look for something [e.g., casual labor],' and he will tell me, 'You too should have gone to look for something'*" said a woman in a mixed group in Vigulu.

However, they both recognized and sometimes empathized with this breadwinner strain in the other gender.

Women recognized the strain faced by men. "*I see my husband worries the most because when you are together, he always thinks, 'I have gotten food today, what about tomorrow?' because the children are there, the wife is there, she wants to dress, she wants to eat, the children want to go to school,*" said a woman in a mixed group in Vigulu.

Women also recognized the effects of the strain on their husband. One woman in a mixed group in Itumbu noted that her husband feels unhappy, vulnerable, and quiet when he feels that he has not fulfilled his responsibilities. A woman from Essunza stated, "*Speaking about my husband, when he hasn't fulfilled his responsibilities, he always feels unhappy that day. He becomes vulnerable; he doesn't feel like speaking much.*"

A man from Essunza showed that he understood a woman's strain: "*You know, women have a lot of work too. She wakes up around 6:00 a.m. while you are still sleeping, makes breakfast, and after that she starts cleaning the house, takes the children to school, and when they return, maybe for lunch, she already has…prepared something.*"

Another man from the group showed that he understood that his wife could be overwhelmed, hurt, or sick, and that is why she is not performing her duties: "*When she realizes that her duties are oppressing, that is the time you will have a meeting with her and start talking to her, then you will know why the responsibilities are becoming hard on her.*"

Possibly due to the gendered dynamics of emotional expression mentioned above, women seemed to empathize more with the men's strain. One woman in Itumbu talked about being understanding when he has failed to provide. However, women felt they have more compassion and care about the children while a man was apt to decide to spend the little money he got drinking, according to the mixed group in Itumbu.

While they may have understood women's strain, men may also have felt that they faced more strain, and as a result were possibly less understanding of the woman's strain. A man from Essunza perceived that men worried more than women; they stayed up at night worrying while the woman was sleeping. "*It is for the man to worry… a man must have worries, of which if you do not have, you will be in the category of women since for the woman, she is always asking to be given of and if you do not give, she will bring lots of issues even with children. So for a man, you must think of how to get sugar, flour, clothing, school fees, and how I will stay in my home, things like such*" (Male group, Essunza). In the same vein, a man from the male focus group in Essunza stated, "*Let me say this way, it is men who worry a lot. On the side of the woman, she will have an excuse that she will ask her husband, but for the husband, you are the one who will provide all the answers, so you have to worry more.*"

Empathy toward the other gender affected how people coped and dealt with strain. In the case of women, they talked about doing something themselves (e.g., getting casual labor or planting a field) when their husband was under strain to provide. They understood that sometimes he could not find casual labor. One man mentioned helping his wife cope by letting them both cool down when there is conflict and by talking to her family about her strain.

Limitations

This study focused on the invisible burdens of women and men in smallholder farming communities in western Kenya. While the data collection intentionally utilized women's, men's, and mixed sex groups, we were not able to delve deeply into other intersectional factors such as age, clan, religion, or level of schooling. We recognize that other factors beyond gender may also play a role. Though we could not

explore these other intersectional issues carefully, we report some basic statistics here. The average age of respondents was 48 years for men and 50 for women. Twenty-five percent of male respondents and 33 percent of female respondents had completed secondary school. Male respondents had an average of eight people depending on their income while for women it was seven. See Tables A1 and A2 in the Appendix for more information. Further studies could more explicitly address these factors and how they affect strain.

One major limitation was the difficulty of disentangling financial worries and clarifying the interaction between gender roles and financial worries. This was the case because financial worries are a core domain of provider strain. Future studies can try to disentangle this by focusing on provider strain in contexts where financial worries are less central and study how provider strain works on other domains (e.g., a man earning less than his spouse may cause a strain irrespective of his economic status).

A second and more conceptual consideration concerns the close relationship between financial strain and gendered provider strain in a low-income rural context. Economic insecurity was a central feature of participants' narratives, and financial worries were deeply embedded in everyday life in the study area. At the same time, financial provision constitutes a core dimension of the breadwinner role. In such settings, material hardship and gendered expectations are not easily separable; rather, they operate in tandem. Poverty can intensify the pressure associated with provider norms, while strong provider norms can heighten the psychological salience of financial difficulties. Observing these dynamics in context therefore highlights how economic conditions and gendered identities mutually reinforce one another. Future research could build on this insight by exploring provider strain across different economic environments. For example, examining contexts where material deprivation is less acute may help illuminate the symbolic and relational dimensions of the provider role. Strain may arise not only from absolute scarcity but also from relative income differences within couples, perceived status loss, or shifts in decision-making authority—such as when a man earns less than his spouse. Comparative work across settings would allow researchers to better understand how breadwinner strain operates through material pressures, identity-related expectations, or their interaction.

5. DISCUSSION

We have contributed to the literature by examining the mental burden experienced in a low-resource, rural community in western Kenya, by connecting the strains to uptake of collective action practices that are needed for resilience, and by connecting the invisible burdens to the gender empathy gap.

While scholars have examined men's breadwinner dilemma and women's mental load, this has mostly been done in higher-income countries (e.g., Brown and Roberts 2014). However, in line with other studies, we do find that the breadwinner strain of men and the family load of women are important factors affecting individuals and their decision-making behavior. The quantitative data collected also showed that the strains had an effect on decision-making in collective and risk-mitigating decisions (Vitellozzi et al. 2025).

Our findings can be summarized using Figure 1. We start from social norms. Social norms around gender are very prevalent in rural communities in low- and middle-income countries (Pereira et al. 2023). Because of social and cultural norms around gender, women are expected to manage the household and care for children. Men are expected to protect and provide for their families. These burdens, handled internally, lead to an invisible mental burden, resulting in feelings of anxiety and stress. This result was also found by Cecchi and Vitellozzi (2024) and Vitellozzi et al. (2025).

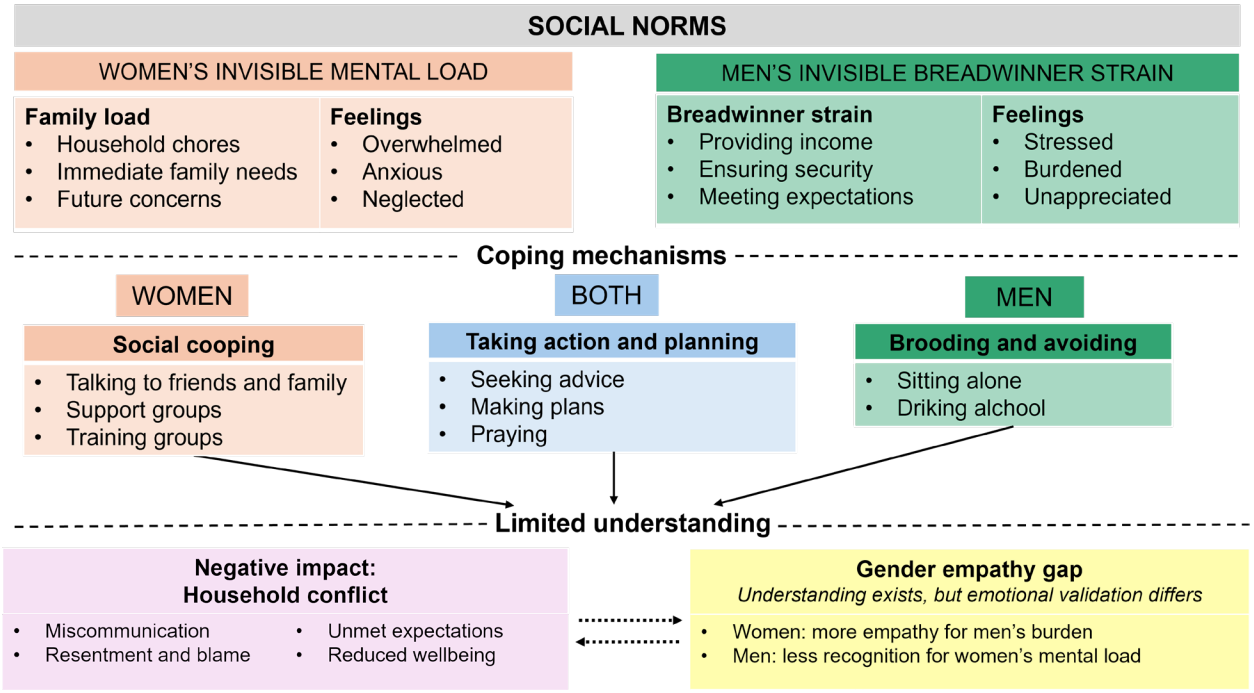

Figure 1. Conceptual framework of the gendered mental load among smallholder farmers in Kenya

Source: Authors based on focus group discussions.

As with other studies, this strain leads to negative impacts within the household, such as mental deterioration (O'Neil et al. 1986) and conflict (e.g., Gottert et al. 2018). While there are studies around mental health in rural areas, this study examined the issue at a household and community level and as a structural issue, not just as an individual one.

Women and men had very different coping mechanisms to deal with the strain. Men tended to act alone while women tended to socialize the strain. Similar to our findings, alcohol abuse was seen as a coping mechanism in another study on the African continent (Gottert et al. 2018).

In addition to a focus on a rural, low-income setting, our study also contributes by examining the gender empathy gap and its relation to the invisible burdens of women and men. We found that men and women are aware of each other's strain. However, women appeared to show more empathy toward their spouse regarding his strain.

The invisible loads of women and men can result in policy blind spots. While there is some literature on the burdens faced by women in rural areas (e.g., FAO 2023), there is less emphasis on the burdens faced by men and how this affects households and communities.

These results have several implications for interventions in rural areas. Because the strain leads to deterioration of mental health and sometimes household conflict, mental health literacy training is needed in such communities. In addition, community dialogues on gender roles and strains and gender-responsive extension services would be useful to implement in such rural communities.

According to Gottert and colleagues (2018), the Gender Role Strain Paradigm and the Gender Role Conflict Scale (O'Neil's 2015) can help to develop interventions in gender transformative programming. Gender transformative approaches engage whole communities on issues around gender relationships, which is important to achieve effective change around negative gender norms.

Advancing this research agenda also requires stronger tools for measurement. If gendered invisible burdens are to be systematically incorporated into studies of resilience, collective action, and agricultural decision-making, scholars and practitioners need reliable instruments for capturing these psychological dimensions. Despite a growing literature on gender norms, masculinity-related pressures remain comparatively undermeasured. To address this need, a short, validated psychometric scale to measure breadwinner strain is currently under development. This instrument will enable more precise quantification of provider-related stress and facilitate future research examining its association with mental health, household dynamics, collective action, and resilience outcomes.

6. CONCLUSIONS AND RECOMMENDATIONS

This study set out to examine how gendered invisible burdens shaped the lived experiences of smallholder farmers in rural western Kenya and how these burdens influenced household relations and community engagement. Our qualitative evidence revealed that gender norms structured a dual but interconnected system of strain: men experienced intense breadwinner pressure tied to expectations of provision and social respectability, while women carried a persistent mental load associated with caregiving, household management, and increasingly, income generation.

These burdens manifested in chronic stress, rumination, emotional exhaustion, withdrawal, and, in some cases, household conflict and violence. Men's coping strategies often involved isolation or avoidance—including alcohol use—while women tended to rely more heavily on social support networks and communicative coping. Although both women and men demonstrated some awareness of their spouse's strain, empathy was uneven, with women appearing more likely to recognize and respond to men's psychological burden. At the same time, strong normative expectations—especially around male provision and the intolerance of male "failure"—reinforced the very pressures that produce distress.

Importantly, the impact of these invisible burdens extended beyond individual well-being. They shaped collective behaviors (Vitellozzi et al. 2025). Breadwinner strain may push men toward short-term income hustling at the expense of longer-term collective investments. Women's mental load may limit cognitive bandwidth, even while their socially oriented coping mechanisms make them more likely to engage in communal spaces. Thus, psychological strain interacts with poverty and gender norms to influence agricultural innovation, cooperation, and ultimately resilience.

Addressing mental load and breadwinner strain is therefore not only a matter of mental health—it is central to gender equity and agricultural resilience. If resilience depends on collective action, social trust, and forward-looking investments, then unaddressed psychological strain represents a structural barrier to sustainable rural development.

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APPENDIX

Table A1. Summary statistics – Male respondents

	Mean	Standard deviation
Age	47.75	12.75
Education=Primary	0.64	0.49
Education=Secondary	0.25	0.44
Education=Tertiary	0.11	0.31
Married	1.00	0.00
Widow/widower	0.00	0.00
How many people depend on your income?	7.57	2.60
Household size	6.43	2.63
How many children under 5 live in your household?	1.14	2.10
N	28	

Source: Vitellozzi, Sveva, Carlo Azzarri, Lucia Salvadori, Kristin Davis, Dickson Kinuthia, and Ronzani, Piero. 2025. "Breadwinner Strain and Economic Decision-Making Experimental Evidence from Kenya." IFPRI Discussion Paper 2398. International Food Policy Research Institute. Washington, DC, December. https://hdl.handle.net/10568/180329.

Table A2. Summary statistics – Female respondents

	Mean	Standard deviation
Age	49.48	11.91
Education=No formal education	0.07	0.27
Education=Primary	0.56	0.51
Education=Secondary	0.33	0.48
Education=Tertiary	0.04	0.19
Married	0.78	0.42
Widow/widower	0.22	0.42
How many people depend on your income?	6.59	3.15
Household size	6.30	3.22
How many children under 5 live in your household?	0.81	1.11
N	27	

Source: Vitellozzi, Sveva, Carlo Azzarri, Lucia Salvadori, Kristin Davis, Dickson Kinuthia, and Ronzani, Piero. 2025. "Breadwinner Strain and Economic Decision-Making Experimental Evidence from Kenya." IFPRI Discussion Paper 2398. International Food Policy Research Institute. Washington, DC, December. https://hdl.handle.net/10568/180329.

Table A3. Mean difference tests in masculinity norms between women and men

	Female	Male	Difference	P-value
Breadwinner strain scale	**13.52**	**12.28**	**1.24**	**.005**
Man primary provider of the family	**4.07**	**4.47**	**-.40**	**.001**
Provider meets basic family needs	4.64	4.68	-.04	.556
Women balance paid and unpaid work	**4.49**	**4.21**	**.28**	**.007**
Good provider respected by all	4.54	4.56	-.02	.858
Provider responsible for parents	4.44	4.50	-.06	.454
Real man does not accept failures	**4.57**	**4.11**	**.46**	**.000**
Man makes decision in the family	4.28	4.29	-.01	.946
Man does not show weakness	4.51	4.56	-.06	.536
Man does not back down	4.40	4.42	-.02	.855
Man controls his emotions	4.54	4.58	-.04	.573
N	*204*	*209*		

Source: Vitellozzi, Sveva, Carlo Azzarri, Lucia Salvadori, Kristin Davis, Dickson Kinuthia, and Ronzani, Piero. 2025. "Breadwinner Strain and Economic Decision-Making Experimental Evidence from Kenya." IFPRI Discussion Paper 2398. International Food Policy Research Institute. Washington, DC, December. https://hdl.handle.net/10568/180329.

Note: The table presents mean difference tests of responses, measured on a five-point Likert scale (1 = *Strongly disagree*, 5 = *Strongly agree*). The breadwinner strain scale is composed of the following items: *I feel emotionally exhausted by the responsibilities of earning; Financial responsibilities strain my relationship with my partner; I feel pressure to fulfill traditional expectations of the "provider" role; I feel constant stress about my ability to provide for my family.* Beliefs about the role of men and women in society are measured through the following items: *A man should be the primary provider for his family; The provider should ensure that the family never lacks basic necessities; Women should balance paid and unpaid work; A good provider is respected by all; The provider should take on the responsibility of the parents.* Masculinity norms are measured through the following items: *A real man does not accept failures; The man makes the decisions in the family; Men should not show weakness; Being a man means never backing down from a challenge; A man should always be in control of his emotions.* Reported differences correspond to mean male–female differences, with standard errors in parentheses and *p*-values from two-sided t-tests for equality of means.

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