IFPRI REACHING WOMEN FARMERS WITH CSA

POLICY NOTE 1

# Qualitative fieldwork to identify CSA practices preferred by women farmers in India, Kenya, and Uganda

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## SUMMARY

Promoting the adoption of climate-smart agricultural (CSA) practices is an important step toward enhancing farmer resilience to climate change. Given the differences in the resilience capacities, operating space, and response options of men and women farmers, it is imperative to understand the gendered preferences for and constraints to their adoption of CSA practices. This policy brief summarizes qualitative research conducted in rural India, Kenya, and Uganda to identify CSA practices preferred by women and men farmers. The findings highlight the need for gender-responsive finance models and information channels to ensure that support to climate change adaptation does not further widen the gender gap in agricultural resources, agency, and achievement.

## INTRODUCTION

To identify climate-smart agricultural (CSA) practices that work for women farmers, focus group discussions (FGDs) and key informant interviews (KIIs) were conducted during 2019 and 2020 in rural India, Kenya, and Uganda. The groups were gender disaggregated to ensure that respondents felt comfortable and free to express their views, especially with regard to gender roles and responsibilities in agriculture. The FGDs used participatory impact diagrams (PIDs) to visualize linkages between climate stressors, adaptation strategies, and challenges linked to their implementation.

In India, a total of 245 farmers participated in 22 FGDs in nine districts of Gujarat: Ahmedabad, Anand, Arvalli, Chhota Udaipur, Gandhinagar, Kutch, Mehsana, Patan, and Surendranagar. In Kenya, 24 FGDs were conducted with 234 respondents in the rural areas of three counties, namely Busia, Laikipia, and Nakuru, complemented by eight KIIs with relevant stakeholders. The Kenyan FGDs disaggregated groups by gender and age. In Uganda, FGDs were conducted in five districts in the country's central region: Bukomansimbi, Kalungu, Kigoba, Nakasongola, and Rakai separately with men, women, and youth. A total of 212 farmers participated in the discussions. Moreover, in Uganda, in addition to traditional FGDs, smartphones were handed out to farmers to take pictures and videos to capture CSA practices and strategies (see Kawerau et al. 2023).

The discussions followed a semi-structured format and covered three main themes: women's and men's livelihood activities and their roles in agriculture; experiences and indicators of climate change and adaptive strategies; and sources of information on CSA.

# GENDERED RESILIENCE CAPACITIES AND NEEDS

FGD participants in all three countries noted that women and men have distinct roles in agriculture. Men are more involved in activities that rely on specialized inputs (for example, application of fertilizers, pesticides, and herbicides) and equipment (for instance, machines for ploughing and harvesting as well as transportation to markets). In turn, women are more engaged in manual labor such as weeding and fodder collection, as well as crop storage, kitchen gardens, and caring for farm animals. In Kenya, women are specifically engaged in caring for poultry, dairy goats, and vegetables and horticultural enterprises. In Uganda, men are more often engaged in cash crops and livestock activities for sale while women are responsible for crops and livestock for home consumption. These different roles are directly linked to preferred CSA approaches and practices of women and men farmers.

The FGD results further suggest that while women are involved in agricultural activities, they have limited access to productive resources and are less likely to be involved in decision-making in agriculture. This affects their ability to adopt new practices that involve significant upfront or recurring investments. Participants in the discussions in Kenya reported that women generally do not own agricultural land and therefore cannot make decisions on how to use it.

Women participants in discussions in Kenya and India noted their more limited access to information sources such as agricultural advisory services, community meetings, and trainings. This gender gap in access to information reduces women's ability to make informed farming decisions, including on CSA practices. Kenyan women also complained about the lack of gender sensitivity of organizations providing trainings.

> *"You will find that when such trainings are called, it is men who attend because it is tailored to meet the men's needs, which include timing, venue, and language, so this cuts off women […]. Women cannot speak out, so even if something is against them or for them, they cannot stand and say this is what should be done, this is what should not be done so that is another constraint. […] Women lack the leadership skills, they lack the trainings, and they lack time."*
>
> *Kenyan woman FGD participant*

In India, farmers shared that they have now started accessing loans and credit facilities and are also opting for insurance schemes to protect against sudden crop loss. However, awareness and availability of such schemes remain low, especially among women farmers. Women participants in India, moreover, noted that men have more access to markets and participate in discussions at agro-dealers. Men therefore typically make all decisions regarding seeds, fertilizers, and the sale of crops. Moreover, in India, the burden of domestic work was perceived as a key barrier for some

women, making it difficult to focus on expanding agricultural production and enhancing their knowledge about CSA practices.

> *"Although we provide a substantial amount of labor, men are assumed to be responsible for farming and hence they take most of the important decisions."*
> *Indian woman FGD participant*

# GENDERED CLIMATE CHANGE PERCEPTIONS

The adoption of CSA is predicated on farmers' experiences of climate change, such as droughts or floods, more variable precipitation patterns, and higher temperatures.

In Kenya, women and men farmers experienced prolonged droughts, dry spells, and delayed rains leading to water shortages. They also noted that the absence of rains led to a decline in animal-feed resources, which affects livestock productivity and milk production.

In India, most men farmers felt that the most significant impact of climate change was lower agricultural productivity and household income. Women farmers, on the other hand, identified a broader set of impacts of climate change, including on food and nutrition security, health and related expenses, and price fluctuations for food commodities.

In Uganda, FGD participants identified hotter droughts, too much rain, and stronger winds as climate change signals. Using "cellphilms," participants recorded that droughts have forced them to move longer distances in search of water.

# CSA ADAPTATION STRATEGIES

## India

The adaptation strategy that came up most often in discussions in India was an increase in the use of chemical pesticides to counter both the increase in pest attacks and the appearance of new pests as a result of climate change. However, while men favored and made decisions about the use of chemical pesticides, women were more aware of bio-pesticides, given their role in the preparation of natural alternatives to chemical fertilizers.

Diversifying from monocropping systems to multicropping, as well as diversifying from food to cash crops and vice versa, was another common adaptation strategy mentioned by both men and women farmers. Many farmers shared that they now prefer to grow cotton (rather than maize or vegetables) because it is less likely to be attacked by pests. Farmers also mentioned that they prefer short-duration crops, such as sorghum, castor, potato, and even flowers, to minimize the risks of crop loss. Farmers are also increasingly relying on horticultural crops, as they noted the crops' higher profitability and lower risk. Farmers in Kutch and Surendranagar districts have started to grow pomegranates and dates in response to climate change. Diversifying sources of income by moving into nonagricultural employment or migration for men, while women continue to manage farms, was highlighted as a further important adaptation strategy.

## Kenya

In discussions in Kenya, men reported that they adapt to climate change through increased reforestation, water harvesting, terracing, and digging dams and water pans. They also noted increased use of agrochemicals. Women, on the other hand, mentioned increased mulching and a greater focus on food storage. Other strategies that farmers use to increase productivity and lower vulnerability or earn additional income were mentioned but not directly connected to climate change adaptation. These include crop and livestock diversification. Farmers noted combining maize with beans, and growing sugarcane, beans, and indigenous vegetables to reduce their vulnerability and risks. Women farmers also use kitchen gardens as an adaptive strategy. Some farmers have started multistory kitchen gardens, which are made from sacks stuffed with soil. When in surplus, vegetables from these kitchen gardens are also sold for income. This strategy was discussed mostly by younger women who said that it can be used by both rural and urban dwellers. According to a key informant, many women farmers use the crop diversification strategy:

**TABLE 1 Adaptation strategies of women and men**

| | Gujarat, India | | |
|---|---|---|---|
| | Women | Men | Both |
| **On-farm** | • Natural pesticides | • Chemical pesticides | • Diversifying from monocropping systems to multicropping<br>• Diversifying from food to cash crops and vice versa<br>• Short-duration crops<br>• Horticulture |
| **Off-farm** | | • Migration | • Nonagriculture work |
| | **Kenya** | | |
| | Women | Men | Both |
| **On-farm** | • Mulching<br>• Food storage<br>• Farm enterprises<br>• Kitchen gardens | • Reforestation<br>• Water harvesting<br>• Terracing<br>• Digging dams and pans<br>• Use of agrochemicals | • Diversification of crops and livestock |
| **Off-farm** | • Self-help groups | • Migration | |
| | **Uganda** | | |
| | Women | Men | Both |
| | • Application of organic manure<br>• Application of (bio)pesticides<br>• Livestock feed<br>• Watering/ irrigation (sprinklers)<br>• Soil bunds for water conservation | • Water harvesting<br>• Planting trees<br>• Housing for animals<br>• Crossbreeding of livestock | • Mulching<br>• Agroforestry |

> *"In fact, when you find that a man is still into one major crop which is mainly commercial, women go for various types of livestock, they will have chicken, they will have cereals, maybe some vegetables."*
>
> *Kenyan key informant*

Women also form self-help groups to share knowledge and information and obtain credit, as they are less able to access formal financial institutions like banks and micro-credit institutions because of lack of collateral:

> *"So, for them now to be able to access credit they form groups, or they join groups such that now when they want credit for small things like even buying farm inputs, taking kids to school, whatever enterprise they want to engage in their main source of credit is the merry-go-rounds and table banking."*
>
> *Kenyan key informant*

## Uganda

In Uganda, adaptation responses include bio-pesticide use and digging trenches (soil bunds) to collect water and reduce soil erosion. Some groups identified several adaptation options only through visual tools. For women's groups these included mulching, application of organic manure, agroforestry, and treating livestock with traditional medicine. For men and youth groups, housing for animals and agroforestry were practices more likely to be mentioned using visual tools.

# CONCLUSIONS

These qualitative studies in the three countries show that farmers consider climate change as a serious challenge to their livelihoods and food security, and that

they are already adopting many practices to adapt to the negative impacts of climate change.

Adaptation strategies vary by gender and sometimes by age group, and are often linked to gendered roles in agrifood systems. Men tend to focus more on reforestation, water harvesting, terracing, and the use of agrochemicals, while women focus more on mulching, food storage, and looking after livestock. However, the adoption of these practices is constrained by two major factors that particularly affect women farmers: lack of financial resources and lack of information and education on how to implement some of the CSA practices.

Given that CSA strategies are gendered and given that women face greater barriers to adopting CSA practices, it is important to develop gender-responsive financial products and information channels that reduce the gender gap in resources, agency, and achievement in agrifood systems.

## FURTHER READING

Kawerau, L., L. Welk, A. Birkenberg, T. Daum, C.A. Butele, and R. Birner. 2023. "Qualitative Fieldwork to Identify CSA Practices Preferred by Women Farmers in India, Kenya and Uganda." In *Reaching Smallholder Women with Information Services and Resilience Strategies to Respond to Climate Change*. Eds. C. Ringler, M.F. Alvi, B. Birner, C. Bosch, E. Bryan, F. Githuku, R.S. Meinzen-Dick, P.B. Rwamigisa, and M. Shah. Washington, DC: International Food Policy Research Institute (IFPRI). https://doi.org/10.2499/p15738coll2.136965

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