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Does gender make a difference in dealing with climate shifts?

Research results from Andhra Pradesh, India

“There is dry drought followed by green drought.” This is how a farmer in Ankilla village of Mahabubnagar district, Andhra Pradesh, described the effect of the delayed monsoon on the growing season. When the late rains finally arrived, they only helped the weeds to grow, and the farmers lost that year’s crops. In a drought year such as this one, what do the farmers do when the rains come too late? What choices will they make to ensure that their families eat?

The cycle of drought is a recurring challenge in parts of Andhra Pradesh, but it appears to be increasing and becoming a chronic reality. Women, the caretakers of the family health and food security, are under increasing burdens, while men are pressured by uncertain economic conditions. At FAO with our Indian collaborators, we wanted to understand how farmers coped in the past with drought, what hardships they face now, and to see how gender roles determine what male and female farmers can and will do during drought times.

PROJECT DESCRIPTION

In collaboration with Acharya N G Ranga Agricultural University and Samatha Gender Resource Centre, as well as national and international researchers, the Gender, Equity and Rural Employment Division of FAO carried out fieldwork over eighteen months. Smallholder farmers whose livelihoods depend primarily on rainfed agriculture in six villages of two drought-prone districts of Andhra Pradesh (Anantapur and Mahabubnagar) gave us their time and views about their livelihoods and food security.

The participatory methodology explored the gender dimensions of coping with climate shifts (extreme drought events and long-term change) – as well as mapped new knowledge on how livelihoods are being adjusted and how new coping strategies are being developed for food security.

The Food and Agriculture Organization of the UN (FAO) and local Indian institutions, with the support of the Swedish International Development Cooperation Agency (SIDA), carried out research in rural farming communities of drought-prone areas of Andhra Pradesh on the gender aspects of ensuring food security in the context of climate variability and climate change.

The hypothesis we started with was to explore whether **due to gender roles – the behaviours, tasks and responsibilities a society defines as “male” or “female” – men and women are diversely affected by and cope differently with climate variability and longer term change.**

Our research reveals that there is a strong gender dimension to the impacts of climate shifts on farmers’ livelihoods and in farmers’ coping strategies to ensure food security.

Through the results of participatory focus group discussions, a quantitative survey, institutional analysis and meteorological analysis, the final report expands the understanding of what it means to be vulnerable to climate change, by painting a picture of gender-specific dimensions of risks and opportunities for coping. Future strategies for adaptation to long-term climate change must integrate a gender-sensitive approach.



METHODOLOGY

To elicit information on men and women’s perceptions of climatic shifts, the impacts on their livelihoods, and their coping strategies for ensuring food security, these and other tools were used in focus group discussions with separate groups of men and women:

- *Water Resources Map 30 Years Ago and Today:* documented farmers’ perceptions of water resources including drinking water, water bodies, irrigation sources, rivers and drainage, its entitlement, utilization and related problems as well as perceptions of any changes in water resources and linkages to rainfall distribution.
- *Seasonal Calendar Past and Present:* described the farmers’ perceptions of typical rainfall pattern and related farm activities and major livelihood opportunities, including migration, during present time and averages during previous decades.
- *Web Exercise on Drought Vulnerabilities & Coping Strategies:* captured the farmers’ perceptions of cause and effect of a major past drought event, as well as the impacts and responses, particularly with regard to food security.
- *Food Security Annual Calendar:* showed the availability, access and distribution of food within the household as well as the community over the course of a year.

In addition, we designed a questionnaire that surveyed over 200 men and women farmers (separately and together) to quantify the trends that had emerged from the focus group discussions. A meteorological analysis of key indicators of the region was also conducted to depict the climate variability and trends of the past 40 years facing the sample population, and was compared to the farmers’ perceptions of change. Finally, key persons from national and regional institutions assisting the farmers were interviewed.

MAIN FINDINGS

The focus group discussions revealed that both men and women farmers are facing multiple challenges, including deforestation, indebtedness and chronic food insecurity. As has been documented elsewhere, farmers' livelihoods are no longer based solely on agriculture, and migration for wage labour is an increasingly important strategy. In this context, some of the initial results of the survey of 200 men and women farmers on their perceptions and responses to climate shifts are:

- **Men and women farmers agree that the weather has changed over the past thirty years, but view the impacts differently.** Men are more likely to report that the weather changes have impacted farm production, while women are more likely to report that they have affected health.
- **Women and men have different opinions of who is impacted by extreme climate events.** Women (26.4%) are much more likely than men (7.4%) to report that women were most affected by drought.
- **There is a strong gender difference in preferred strategies for coping with long-term increased climate variability.** When asked what livelihood strategies they would adopt if the weather was no longer predictable from year to year, men would prefer to migrate (47% men vs. 18% women would migrate) while women would opt to go for wage labour (38% men vs. 57.5% women).
- **Men and women have different strategies for coping with food scarcity, and they also do not share the same perception of these strategies.** To cope with food scarcity during a drought year, 5% of men note that the women eat less, while 17% of women report that women eat less as a coping strategy.
- **The majority of farmers are not receiving vital information on weather alerts or cropping patterns, however this lack of access to information is much more acute among women.** Only 21% of women report having access to this information versus 47% of men.
- **Gender is the greatest predictor of institutional support, greater than caste or size of land holding.**

The findings will be useful advice to policy and decision makers as well as to researchers seeking to build a solid knowledge base for future short or long term action.

Based on the preliminary results, the answer we posed at the beginning can be answered: **Yes. Gender does make a difference in dealing with climate shifts as research in the South of India shows**, both for the farmers responding on a daily basis and to policymakers providing long-term institutional support. It is clear that interventions must consider climate shifts in terms of what it means to the world's most vulnerable people, especially poor women and men farmers. The differences between men and women's access to resources, as well as gender differences in selecting coping strategies, are not presently sufficiently understood and addressed. Planning for adaptation to long term change must be founded on men and women farmers' knowledge and experiences as they make choices in an uncertain climate. This is path-breaking research that opens vistas for further exploration and comparative study in India and elsewhere.

