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Climate change and food security disparities through a gender-specific lens: An agroforestry systems analysis in multiple countries of Africa

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Abstract

Food security and climate change have strong gender and equity dimensions. Globally, women play a key role in food security. Climate change impacts vary among diverse social groups depending on age, ethnicity, gender, and wealth class. The climate change and food security disparities through a gender-specific lens study was conducted in Ethiopia (Zege catchment), Zimbabwe (Upper Save catchment), and Burkina Faso (Nakambe catchment). The study employed a quantitative approach complemented by qualitative methods, including key informant interviews and focus group discussions. Several priority problems were identified and a significant number of households in Zege, Nakambe, and Upper Save do not cover their household food consumption from crop production. The result findings in the study areas showed that households rely heavily on perennial cash crops rather than annual crop production. Exposure indicators in Zege, Upper Save, and Nakambe, and sensitivity indicators in Zege and Nakambe show statistically significant and high correlation with vulnerability. In the Upper Save, adaptive capacity and exposure are also statistically significant and highly correlated with vulnerability. Vulnerability levels of the Nakambe are very high compared to the Upper Save and Zege. Female-headed households had a statistically significantly lower vulnerability index compared to males in Zege, while male-headed households had a statistically significantly lower vulnerability index compared to females in Upper Save and Nakambe. The reason is land certification in Zege is higher than in the Upper Save and Nakambe. Agroforestry practices varied across the study catchments had statistically significant contributions to households' adaptive capacity. Besides, the agroforestry system is common in all catchments. Although their level of participation is varied, female-headed households in all catchments practised agroforestry management activities to adapt to climate change. We conclude that agroforestry practices do have substantial benefits in increasing women's adaptive capacity and reducing their vulnerability to climate change and food insecurity.

Keywords: Agroforestry, climate change adaptation, factor analysis, food security, gender, sub-Saharan Africa

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