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"Reconcile land system changes with planetary health"

## Farmer-herder conflicts and food security in Ghana: The empirics from sedentary farmers in northern Ghana

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## Abstract

The perennial migration of nomadic herders from the drier zones in the Sahel region to the wetter regions in Africa is soaring. In northern Ghana, the nomadic herders have had numerous confrontations with the sedentary farmers, resulting in detrimental effects on household livelihoods and welfare. Particularly, the destruction of farm produce, burning of houses, and sometimes loss of human and animal lives threaten the already high incidence of food insecurity. This study examines the relationship between farmer-herder conflict and the food security of sedentary farmers. A mixed research design, integrating quantitative data from 167 respondents with qualitative data through in-depth interviews from 4 districts in Northern Ghana. With a correlation coefficient, the degree of linear relationship between the incidence of farmer-herder conflict and the extent of food insecurity was quantitatively determined. The hypothesis that communities with farmer-herder conflict are more food insecure was validated using a t-test. Results indicate a stark disparity in the food insecurity rate of conflict-affected versus non-affected communities; 49.5 % of households in conflict zones faced moderate to severe food insecurity as opposed to a mere 3% in non-conflict zones. The incidence of farmer-herder conflict and food insecurity levels has a moderate positive relationship. Reduced farm productivity, crop destruction, changes in consumption patterns, and heightened psychological strain among farmers documented in qualitative accounts corroborate the quantitative data. The paper concludes that food insecurity is profoundly influenced by conflicts resulting from socio-spatial struggles and competition over land and water resources. The paper recommends the urgent need to formalize and clarify land tenure systems for cropping and grazing using participatory mapping techniques in farmer-herder conflict-prone districts. Meanwhile, further research is needed to explore the impact of farmer-herder conflicts on other welfare.

Keywords: Conflict, farmers, food insecurity, herdsmen, livelihood, nomadism

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