

Author/Title: Eileen Bogweh Nchanji (2018) Resource Flows and Technology Adoption in Tamale, Ghana: Implications for Urban and Peri-Urban Vegetable Growers

Source: Electronic dissertation; Open Access at Niedersächsischen Staats- und Universitätsbibliothek Göttingen (SUB), Göttingen 2018.

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Summary

Vegetable farming in the city is not only a livelihood option to supplement income but a survival strategy for the very poor farmers. Urban-rural migration for jobs and educational services has led to increased population growth and the opportunity to grow food has become a critical component in the ability to stay alive, despite the fact that it is not authorised in Ghana. Vegetable production in the Tamale metropolis, Northern Ghana, is constrained by the scarcity of land, low water availability and a complex land tenure system. Consequently, farmers do most of their farming along streams, sewers, dugouts and undeveloped public and private lands. Urbanisation has brought with it a rise in the value of land leading to the sales of agricultural land for industrial and commercial purposes, which attract higher economic rents. Farmers are presently faced with low agricultural productivity, food insecurity and poverty. This study analyses the socio-political configuration through which resource flows, in general, are channelled towards urban farming, both to production and marketing activities. It examines how this process is managed by farmers through different governance systems in their diverse socio-economic environments, prompting them to value different technologies to various extents. A participatory appraisal was conducted to characterise the urban and peri-urban agricultural system. Later I used a mixed study approach to collect data. I collected quantitative spatial data by measuring all open space cultivated areas with a Global Positioning System (GPS). Aerial maps were obtained with an Unmanned Aerial Vehicle (UAV) and mapped with ArcGIS software. Images from Google Earth maps triangulated farmers' recollection. Qualitative data were collected using focus group discussions, participatory photography, interviews and participant observation. This study was carried out between October 2013 and February 2015. Results reveal that the area of cultivated farmlands has decreased by 8.3% between 2008 and 2014, even as new vegetable sites emerged in the peri-urban fringes. This practice is not temporal as it has shown great resistance taking advantage of market proximity and high demand for fresh and perishable vegetables by the middle class especially. Institutional conflict between state and traditional authorities in land ownership and management has inadvertently led to innovative provisioning in vegetable production in the city, even though at the same time threatening food security. These conflicts on another level have created spaces within which actors shape and reshape resource access and control over time through historical recollections, public discourses, and technology. Farmers are also using technologies like fencing, pipe-borne water connections and uprooting boundary markers placed by chiefs to stake their claims over lands for vegetable farming. Women's access to farm land has always been hampered by male dominance in land affairs. Nevertheless, the introduction of gender-sensitive agricultural practices in government irrigation sites has resulted in the allocation of plots of land directly to women rather than

their male relatives. This has reshaped contemporary women's ownership of lands at these locations, a novel finding which contributes to the broader literature on gender and resource access in Ghana and Africa. The theoretical implications of this study are that actors such as farmers make choices between different systems of governance which support their interests. To conclude, interactions between actors are therefore not always simple cases of cooperation or conflict, but processes of mutual reshaping and co-construction of the governance systems that shape how gender, land scarcity, and food security interact with resource access and control in urban and peri-urban agriculture. I recommend that urban planning policies integrate urban agriculture, which is part of reducing urban poverty and increasing food and nutritional security. Government lands prone to floods be allocated to farmers legally for urban agriculture, with guidelines.