

# THE SOCIO-ECOLOGICAL IMPACTS OF LARGE-SCALE LAND ACQUISITIONS IN TANZANIA

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The abundance of cheap and agro-ecologically suitable land in sub-Saharan Africa has made it a primary target of large-scale land acquisitions (LSLAs), or “land grabs.” Tanzania has welcomed these land acquisitions, resulting in changes in local land tenure and the displacement of rural smallholder farmers and pastoralists. Expropriation of land resources to investors may pose serious challenges to local-level food and nutrition security, livelihoods and ecosystem services. Changes in tenure land drive land-use and land-cover change, and can decrease the amount of food available for local consumption, drive fragmentation of rangelands, disrupt livelihoods, and exacerbate food and energy insecurity. Unlike smallholder farmers and pastoralists, agribusinesses lack knowledge of local conditions and have little stake in the long-term viability of the land. My dissertation research seeks to identify the impacts of LSLAs on local livelihoods, food and energy security, and ecosystems and their services in Tanzania.

Human land-use strategies simultaneously shape and are shaped by ecological patterns and processes, with wider linkages to political and economic drivers. Large-scale land acquisitions inherently represent change in complex socio-ecological systems, driving land-use/land-cover change and resulting in multiple and interconnected cause-consequence effects. Drivers are both additive and interactive, creating a complicated set of outcomes for people, their livelihoods, the physical and vegetative environment, and wildlife. Some local and regional-scale studies have attempted to quantify land-use/land-cover change resulting from changes in land tenure (i.e. LSLAs) and to assess the impacts of those changes. However, few studies have attempted to take this one step further and link cause and effect at the landscape and household scale, and connect this to multiple outcomes, both socioeconomic



and environmental. My research links land transactions and associated tenure change to changes in dynamics and patterns of land-use/land-cover, and analyzes the multilevel and interacting impacts on socio-ecological systems.

In Tanzania, the bulk of those who are poor and food insecure depend directly on the land, through either smallholder farming or other rural livelihoods (e.g. pastoralism). The majority of land transactions occur in rural areas where households and communities rely on access to and use of land; therefore, the importance of changes in land tenure and land-use change and its connection to food security is significant. Smallholders and pastoralists are often displaced and lose access to individually and communally-owned lands, thereby eroding access to natural resources and ecosystem services and threatening livelihood security. Additionally, the introduction of intensive agricultural practices and

the diversion of indigenous forests or rangeland to mono-cropping can threaten biodiversity, carbon stocks, above-ground and subsurface carbon stocks as well as land and water resources. Research has illustrated cases where large-scale land acquisitions have resulted in pollution of soil and waters as well as depletion of water resources to the detriment of neighboring communities. There is scant evidence that LSLAs benefit local communities; rather, large-scale investment is likely damaging the food security, incomes, livelihoods, and environment for local people. Thus, with land, livelihoods and food security interconnected with and influenced by each other, this research will conduct integrated social-ecological analyses of the conditions under which land transactions generate positive vs. negative livelihood and ecosystem outcomes.

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