Large-scale land acquisition in Africa affects farmers' ability to produce their own food

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In order to avoid water conflicts and to stimulate food production in sub-Saharan Africa, large-scale land acquisition should be regulated and focus on food production. These are the conclusions of a new doctoral thesis from Lund University in Sweden.

Emma Johansson's thesis investigates how land use is affected by large-scale land acquisition, also referred to as land grabbing, mainly in Tanzania. The land is often acquired by international companies that purchase or rent large areas. The majority of cultivated land is used for forestry, but also for biofuel production; the most common crops are palm oil and sugarcane. Meanwhile, a large proportion of the food consumed in sub-Saharan Africa is imported.

"The focus must be on food, and technological solutions that are based on local needs and circumstances. The companies should cultivate crops that are edible, and use methods that consume less water. The villagers must also have the opportunity to participate, otherwise those in greatest need of development are disadvantaged," says Emma Johansson, graduate in physical geography and ecosystem science, and an associated researcher at Lund University Centre for Sustainability Studies.

Among other things, her thesis analyses the availability and use of water, using ecosystem modelling. The result shows that the regions in which large areas are used to cultivate palm oil and sugarcane require a large amount of water, whereas food crops such as rice, maize and soy beans require less. Using a lot of water for irrigation can contribute to an increased risk of water conflicts as rivers, groundwater, and other surface waters are shared by many stakeholders in society.

In addition, Johansson's thesis shows that only three per cent of all purchased or leased land in Africa is cultivated, with only a few powerful stakeholders such as China, the USA and the UK behind a large proportion of global land acquisitions.

"The companies cultivate almost no food crops, and what is cultivated requires enormous amounts of water. Altogether, it appears to be a bad solution for the small-scale farmers in Africa, as few of them are offered jobs or other ways to provide for themselves and their families. The majority are dependent on agriculture, and as the land acquisitions continue, their access to land and water is negatively impacted," says Emma Johansson.

According to the study, it is essential to develop domestic agriculture so that the countries in sub-Saharan Africa can reduce their food imports over time.

"Currently, agricultural policy does not safeguard the best interests of small farmers. Governments in these countries seem to care more about international investments than if the land is actually being used. In my fieldwork, I saw land that was
fenced off but not cultivated, and the villagers were not allowed to use the land," says Emma Johansson.

In Johansson's view, the global market for land acquisition, in which companies are often liquidated, sell off their land or allow it to lie fallow, must be regulated. Some regions have extended their nature reserves as part of efforts to preserve biodiversity, which in turn prevents small-scale farmers to expand into these areas. Climate change could also worsen the situation for small-scale farmers if the region becomes drier and water shortages increase.

"Small-holders are caught between nature and the companies. Less land is available, and many of the villagers I interviewed expressed concerns that they will not have any land to pass on to their children," she says.

Emma Johansson has produced a number of recommendations for large-scale land acquisition based on her research. They build on previous recommendations drawn from the Food and Agriculture Organisation (FAO).

"My recommendations are needed. At the same time, land use and how it affects farmers' opportunities for self-sufficiency must be investigated from multiple perspectives, taking into account agricultural investments, migration, population increases and projects to preserve biodiversity. These factors influence outcomes in different ways, and should be studied together," concludes Emma Johansson.

Recommendations:

- Crops cultivated on acquired land should be edible and meet local needs. This is particularly important in countries with high levels of food insecurity. An investment in land is to benefit both the company and the people living in areas where land is acquired.
- Crops are to be adapted to the local climate and should use the least possible amount of water.
- Companies that acquire land should use sustainable cultivation techniques that do not degrade soils; they should establish the most efficient irrigation systems, such as drip and pipe irrigation rather than sprinklers. Rules for water use should be included in the land acquisition contract.
- All land acquisition should combine the strengths brought by the investors, such as technology and capital, with the local farmers' labour force and knowledge of local conditions and cultivation.