Emerging Land Issues in Kenyan Agriculture and their Implications for Food Policy and Institutional Reforms

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SUMMARY

Land has long been considered an abundant and under-utilized resource in Sub-Saharan Africa. However, spatial population and household survey databases show that rural population in Africa, Kenya included, live in increasingly densely populated areas where all arable land is either fully allocated or already under cultivation. This study was motivated by the need to understand the viability of smallholder-led agricultural growth strategy in the context of increasing population densities and closing land frontiers in Kenya. Key findings from this study are as follows: First, diminishing land sizes have become a binding agricultural production constraint in the densely populated areas of the country. Second, medium-scale farms, defined as farms measuring 5-50 hectares, is increasing. This group owned on average over two times more land than they were using for agriculture, implying a high degree of land held for speculative purposes and/or an inability these farmers to make productive use of the land they owned. Majority of medium-scale farmers are either current or former public sector employees; and acquired their land from savings from non-farm, largely urban jobs; only a minority were primarily engaged in agriculture prior to achieving medium-scale farming status. Third, there is seemingly a positive relationship between farm size, and farm productivity and efficiency, with medium-scale farms being relatively more productive than smallholder farms. The most important policy implication emerging from this study is that shrinking of farm sizes could potentially be a major drag on efforts to reduce poverty and food insecurity, especially given the limited employment opportunities generated by the country’s manufacturing and services industries.

BACKGROUND

Sub-Saharan Africa has for a long time been considered to have abundant and under-utilized land than any other continent. However, our analysis of spatial population shows many rural Africans live in increasingly densely populated areas where all arable land is allocated or already under cultivation leading to a long-term decline in farm size and reduced fallows. In Kenya, for example, over 50 percent of the rural population lives in areas exceeding 250 persons per km2, and roughly 40 percent of the country’s rural population resides on five percent of Kenya’s arable land. The clustering of rural Africans into relatively densely populated areas could be attributed to the fact that it is not profitable or feasible for smallholders to use more land because of the following factors: lack of financial or technical (lack of labor, animal traction, or mechanization) resources to exploit more land; inadequate land policies, institutional, and cultural factors that inhibit productive use of unutilized land and impede labor migration from densely to sparsely populated areas. This could also be attributable to the fact that much of the land that is considered “potentially cultivable” lacks economic potential because of poor infrastructure, adverse terrain, poor soil and water resources, or excessive disease burdens. Clearly, these different explanations would yield very distinct policy implications.
OBJECTIVE
The objective of this paper is to provide:

(i) Empirical analysis of the linkages between population density, farm size and rural welfare outcomes, using both cross-country analysis and in-depth case studies of several African countries (Kenya included);
(ii) Fresh insights on how land allocation policies are affecting the farm size structure of agriculture, based on case studies of several African countries and a broader Africa-wide review; and
(iii) A timely appraisal of the implications of our analysis for African agricultural development and poverty reduction strategies, including policies toward land allocation and development.

KEY MESSAGES
About 62% of Kenya’s rural population is below the age of 25. Projections of non-farm employment expansion indicate that only 35 to 60 percent of the additional 19 million young workers entering Kenya’s labor force before 2035 will be able to find wage jobs. This means that farming has to provide gainful employment for at least a third of Kenya’s young labor force. However, for agriculture to successfully provide employment, young people will require access to land whose demand and value remain high.

Given that Kenya has very little unutilized arable land (approximately 1.01 million hectares), productivity growth on existing farmland will be the most desirable way of raising food production. Sustainable productivity growth will minimize the competition for remaining arable land and adverse environmental impacts. However, it is almost certain that agricultural growth will require bringing new land under cultivation.

Population growth in densely populated smallholder farming areas is contributing to growing land pressures. Some districts (e.g. Emuhaya, Hamisi, and Vihiga) are more populated than Nairobi city was in 1980s. The mounting population pressure is resulting in unsustainable forms of agricultural intensification in some counties.

The most revolutionary change in Africa’s farm structure has been among medium-scale holdings. In spite of the international media’s focus on “land grabs” by foreign investors, the land controlled by medium-scale farms now exceeds that of foreign and domestic large-scale holdings combined. In Kenya, the medium-scale farms control 0.84 million hectares while the large-scale farms, both foreign and domestic, control 0.69 million hectares. The remaining 2.63 million hectares is controlled by smallholder farmers. However, there is a strong inverse correlation between landholding size and the proportion of landholding under cultivation. The rise of medium-scale farms reflects a rising demand for prime land by upper-class urban and rural people. Income growth in urban areas is contributing to land scarcity and higher land prices in Kenya.

Medium-scale farms are generally produce greater value of output per acre cultivated and marketed surplus than small-scale farms. This is particularly the case for medium-scale farmers whose primary employment has been in farming for many years. However, medium-scale farms owned by urban professionals and business people are found to be somewhat less productive users of land.

“Life history” surveys of medium-scale farmers reveal that they are predominantly men; their primary jobs were in the non-farm sector, the majority of these being in public service. Many of these farmers live in urban areas. They are relatively well-educated. Using their savings from their non-farm jobs, they acquired farms and entered farming during their mid-life stages. This profile fits roughly 60 percent of the sampled medium-scale farmers in Kenya. A smaller but still important category of medium-scale farmers was the privileged rural-born men who were able to acquire large landholdings as they started out their careers. Only a small proportion of medium-scale farmers started out as smallholders with less than five hectares of land. This provides room for optimism that given the necessary policy support and favorable conditions, including access to land, small-scale farmers can expand into medium-scale stature.

The distribution of landholdings is becoming more concentrated over time.
The degree of inequality on land ownership was found to be on the increase as indicated by an increase in the Gini coefficients of landholdings in Kenya which rose from 0.51 in 1994 to 0.55 in 2006. While landholdings in most of Africa are not as concentrated as in Latin America, where inequalities are relatively higher (Gini coefficients can be as high as 0.90), the Gini's in our African case studies are substantially higher than most Asian countries. In the highly land-constrained areas of Kenya, rural population growth and land subdivision has led to an alarming rise in the proportion of very small farms due to land subdivisions. Between 1994 and 2006, the proportion of Kenya’s farms smaller than three hectares rose from 83 to 96 percent. However, average farm size among farms over 8 hectares grew by 230 percent over the same period, from 13.2 to 31.1 hectares. While we cannot conclusively identify the reason for this increase, it is consistent with the evidence showing rapid new entries of relatively large landowners, even as the national median farm size declines.

Population growth in smallholder farming areas is contributing to land pressures and unsustainable forms of intensification. Rural populations in sub-Saharan Africa are highly concentrated in fertile areas. Twenty percent of Africa’s land contains 83 percent of its rural people. In a cross-country analysis over a 30-year period, Headey and Jayne (2014) found that rising population density is associated with a trend toward smaller farm sizes, more continuous use of land, reduced fallows, and only marginal increases in fertilizer use and irrigation. Migration from such areas may be advantageous for those with skills and education, but has major limitations. Urban migration is already occurring at too rapid a pace to prevent rising unemployment and under-employment, as the rise in urban slums and shanty townships attest. Migration to more sparsely populated rural areas continue to play an important role in relieving land pressures in densely populated rural areas provided that land continues to be accessible in the receiving areas and tribal conflicts do not arise.

Land markets are developing rapidly in more densely-populated areas. The rise of land rental markets may provide some potential for the youth to access land. Renting land involves paying one-third or more of the value of the crops produced on the rented land, tenants must be extremely productive to make a reasonable livelihood.

**TAKE HOME MESSAGES FOR POLICY MAKERS**

Governments’ existing strategies are oriented to promote agricultural growth and food security for the millions of their rural constituents who are small-scale farmers. However, these strategies assume unhindered access to land. In spite of rhetorical support for small-scale farmers, there are increasing concerns that de facto agricultural and land policies have encouraged, the transfer of land to medium- and large-scale interests without due recognition of how this is affecting land access by future generations of indigenous rural communities. Median farm sizes are quite small and clearly declining in the densely-populated areas where most of the rural populations reside.

The rush for land among the wealthy occurs in the context of intensifying land constraints in the more densely-populated smallholder areas, which in some cases have become enclaves hemmed in from expansion because adjacent lands have been transferred to medium and large-scale entities or they are under state tenure systems that cannot be allocated by traditional authorities to members of their rural communities.

While interest is increasingly focused on the relative efficiency of small-, medium- and large-scale agricultural production, there are two important criteria to take into account to guide the allocation of Africa’s remaining arable land. First, which type of farm structure can provide the most “well above poverty-line” jobs per hectare allocated? Second, which type of farm structure will provide the greatest indirect employment effects through growth multipliers? Labor-intensive family farms capable of generating broadly-
based income streams will support the growth of Africa's manufacturing and industrial base more than a concentrated farm sector where incomes from surplus production are generated by a small fraction of the rural population. Land available for profitable entry into family farming will also stem the tide of urban migration and hence reduce the number of unemployed job seekers in towns. While small-scale African agriculture has generally not thrived, it is important not to confuse missed opportunities with inherent lack of viability. Asia’s “green revolutions” were powered by small-scale farms and provides hope for what Africa might achieve with similarly supportive policies and public expenditures.

While increasing dynamism in non-farm employment is apparent in parts of Africa, it is estimated that the growth in wage-paying employment will only be able to absorb about two-thirds of the additional people entering the labor force between 2010 and 2020. Access to land to enable the expansion of small-scale agriculture will largely determine whether millions of rural Africans will make a decent livelihood and be able to feed themselves. Hence, even as Africa becomes progressively urbanized, smallholder agriculture will have to play an important role in providing employment for the increasing labour force especially for the youth. Land allocation priorities and public expenditure patterns will influence the rate of migration from farming to non-farm and from rural to urban areas, and will determine the extent to which Africa’s rural youth seek employment as farmers. In fact, African leaders may soon perceive that political stability will depend on exploiting the potential for profitable family farming to shrink the numbers of disillusioned and unemployed youth that are already rising in much of the region as the labor force rapidly expands.