ACCESS TO LAND, FOOD SECURITY, AND POVERTY REDUCTION IN RURAL ZAMBIA: CONNECTING THE POLICY ISSUES

Background: Research has demonstrated that relatively egalitarian land distribution patterns have tended to generate higher rates of economic growth than highly concentrated ones. The reason for this is that equitable land distribution is more likely to produce broad-based and inclusive agricultural growth. Broad-based agricultural growth tends to generate greater demand for goods and services produced in rural areas and towns. In this way, rural and urban populations create a market for each other. These beneficial growth effects tend to be much weaker when the source of agricultural growth is concentrated in relatively few hands. Thus the rate of growth is likely to be affected by the distribution of assets in the agricultural sector, particularly land.

Very little is known in Zambia about how land is distributed within the customary tenure system. Zambia has a total surface area of about 752,614 square kilometers, of which 47% (353,729 km^2 or 35,351,708 hectares) is arable land, 30% National Parks and Game Management Areas (225,784 km^2), while hills and swamps take up 12% (90,313 km^2). Forests cover 12% of the land while urban development only takes up 2%. Only about 14% of the arable land is presently cultivated (Chizyuka et al. 2006). However, much of the remaining 86% of arable land is remote, and could support only a subsistence-oriented agricultural production system unless accompanied by substantial public investment in roads and public services to support the development of communities and commercialized agriculture.

It might be considered unlikely that inadequate access to land would be one of the major causes of rural poverty in Zambia. However, evidence presented in this article shows that economically viable arable land is not in great abundance in Zambia after considering the current situation with respect to access to road infrastructure and access to services and markets. In fact, access to land is already a major problem for much of the rural population in Zambia, and this problem will become more acute with time. The bottom line is that Zambians would be well served to realize that good land is not an unlimited resource and that using state resources to cede millions of hectares for commercial development will come at a high cost to future generations of Zambian who will need new land for their future livelihoods.

Purpose: This article covers four topics. First, we examine the prevailing farm size distribution within Zambia's smallholder farm sector, and how this farm size structure affects the potential for broad-based agricultural growth and rural poverty in Zambia. Second, we explain the apparent paradox of why such a large percentage of rural households have less than one hectare of land and perceive that additional land is not available to them despite the fact that most of the country's land remains uncultivated. Third, we identify the factors explaining the large variations in landholding size within Zambia's smallholder farm sector. And lastly, we identify concrete proposals for improving access to land, as well as for raising the productivity in the use of existing land, which will expand the number of small farmers in Zambia who could directly benefit from agricultural growth processes.

Research Data: This article reports findings from nationally-representative Post Harvest Surveys, which are conducted annually by the Central Statistical Office (CSO) working in cooperation with the Ministry of Agriculture and Cooperatives (MACO). The article also draws from the 1999/2000 Supplementary Survey (SS) to the Post Harvest Survey, also conducted by CSO/MACO in cooperation with the Food Security Research Project.

Main research findings: Table 1 summarizes the major findings from the study and the following key findings are discernable:

- Within a given district or village, there are very wide intra-village differences in farm size within the small-scale farming sector. Within a given district, the top 25% of households tend to have 8 to 10 times more land than the bottom 25% of households. While mean farm size (defined as use rights over cultivated, fallow and virgin land plus rented land) is 3.27 hectares, about one-quarter of all farm households have access to one hectare or less, and the top quarter have over 7 hectares. If we only consider cultivated and fallow land, the mean farm size drops to 2.25 hectares, ranging from 0.62 ha for the lowest quartile to 4.98 ha for the top quartile.
- There is great variation in farm sizes within communities. There is a strong relationship between landholding size and household per capita income. The smallest farms are generally the poorest, and poverty is concentrated among households owning less than 0.75 hectares.

Table 1. Smallholder Landholding Size per Household in Zambia by Province and Alternative Farm Size Definition, 1999/2000

Province and Farm Size Definition	Quartiles of Landholding Size Per Household				
	1st Quartile bottom 25%	2nd Quartile	3rd Quartile	4th Quartile top 25%	Mean
	----------Hectares per household ----------				
Central: cultivated + fallow only (ha)	.67	1.53	2.79	7.97	3.25
- All land including virgin + rented (ha)	***.72***	***1.70***	***2.93***	***8.99***	***3.60***
Copperbelt: cultivated + fallow only	.54	1.12	1.99	5.33	2.27
- All land including virgin + rented (ha)	***.58***	***1.42***	***2.41***	***8.83***	***3.35***
Eastern: cultivated + fallow only (ha)	.74	1.29	1.97	4.11	2.05
-All land including virgin + rented (ha)	***.89***	***1.50***	***2.35***	***4.65***	***2.37***
Luapula: cultivated + fallow only (ha)	.54	1.25	1.98	3.80	1.90
- All land including virgin + rented (	***.92***	***1.84***	***2.90***	***5.48***	***2.80***
Lusaka: cultivated + fallow only (ha)	.43	.94	1.81	5.63	2.20
- All land including virgin + rented (ha)	***.43***	***.94***	***1.84***	***5.76***	***2.25***
Northern: cultivated + fallow only (ha)	.76	1.51	2.45	5.56	2.55
- All land including virgin + rented (ha)	***2.59***	***4.51***	***5.60***	***12.50***	***6.26***
Northwestern: cultivated+fallow only	.55	1.06	1.59	3.53	1.67
- All land including virgin + rented (ha)	***.67***	***1.21***	***1.79***	***3.89***	***1.88***
Southern: cultivated + fallow only (ha)	.60	1.38	2.43	6.24	2.67
- All land including virgin + rented (	***.65***	***1.43***	***2.43***	***6.96***	***2.88***
Western: cultivated + fallow only (ha)	.37	.85	1.45	3.56	1.56
- All land including virgin + rented (	***.45***	***1.14***	***1.75***	***4.30***	***1.91***
National: cultivated + fallow only (ha)	.62	1.28	2.11	4.98	2.25
- All land including virgin + rented (ha)	***1.06***	***2.03***	***2.95***	***7.01***	***3.27***

Source: CSO Supplementary Survey to the Post-Harvest Survey of 1999/2000.

- Zambia faces the apparent paradox of having roughly a quarter or more of its rural population facing near-landlessness and perceptions of no additional land available to them despite the existence of substantial underutilization of arable land. Various analyses of respondent perceptions revealed a considerable lack of consensus as to whether there is unallocated land in their areas that would be accessible to them if they wanted it. Analysis of determinants of household perceptions about this issue found some six factors, each of which must be considered but no one of these factors clearly predominates over the others:

  Factors **positively correlated** with respondents' perceptions that unallocated land is available and accessible to them are (1) the amount of land controlled by the household; (2) the household's wealth; (3) kinship relations between the head of household and the local headman; and (4) the distance from roads and district towns. Factors **negatively correlated** with respondents' perception that additional land is accessible to them are (1) female-headedness; (2) proximity to towns and markets; and (3) the duration of settlement in the area.

  Variation in farm size also appear to be related to individual talent and initiative, colonial policies, inevitable differences in the up-take of new technology, social capital and kinship relationships, and time of settlement in the area. All of these factors are tested empirically in this study through econometric models of household farm size. Results indicate that each of these explanations in the literature have some explanatory power and contribute something to the explained variation in landholding size.

- In many areas where the majority of the rural population live, unallocated land appears to be unavailable, particularly in areas close to urban areas and district towns, and along major highways. This is evident from Figure 1, which shows that Zambia's rural population is relatively densely clustered in certain areas, such as the Eastern Province plateau around Chipata, the areas of Southern Province along the line of rail and the areas surrounding the main roads in Northern Province. In fact, the main road network in Zambia can be clearly seen by the concentration of rural population in Figure 1.

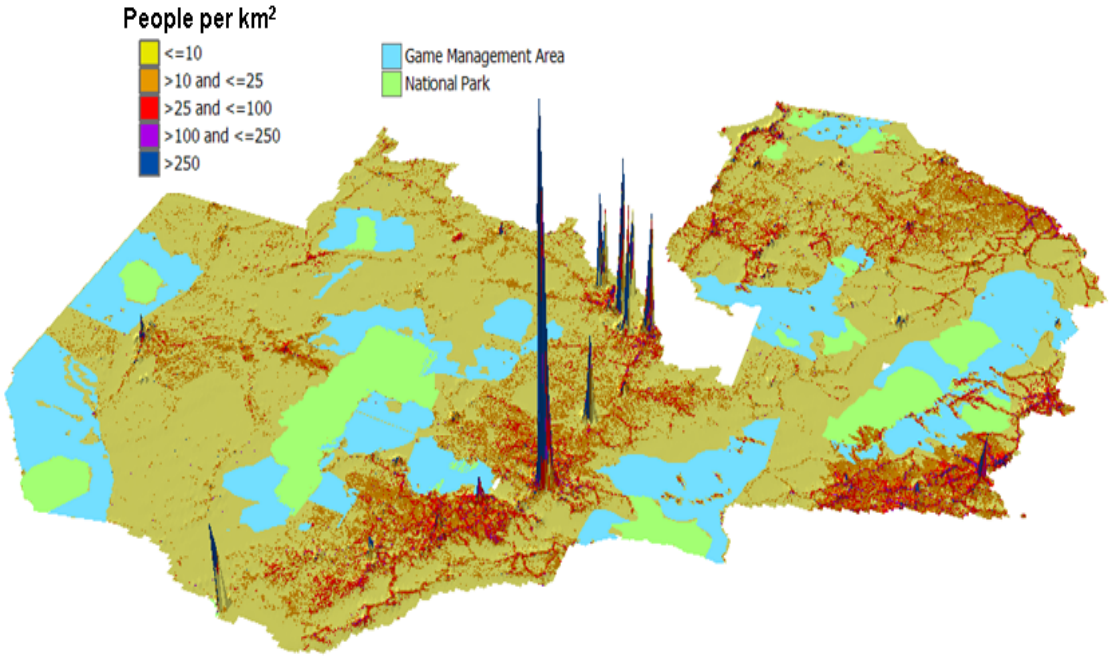

Figure 1. Population Density of Zambia (2007).

- Our econometric analysis reinforces this view that the rural population is heavily clustered in areas where access to markets and services are best, leading to a highly nucleated pattern of settlement. At the same time, there are areas of unsettled land in the more remote parts of the country, but the economic value of this land is limited because of the lack of access to markets and services. As also seen partially in Figure 1, game parks and game management areas in Zambia, not to mention surface area unavailable in lakes, forests, wetlands, and mining concessions limit the practical search for new lands to be developed. It is for this reason that current discussions between GRZ leaders and stakeholders, and potential outcomes for land use and land allocation policy in Zambia are very critical. These are likely to influence future rates of rural poverty and the number of rural Zambians who are able to contribute to the country's agricultural growth.

Policy Implications: Improving access to land among the most land-constrained smallholder households would be a seemingly effective way to reduce poverty. For small farms, a very small incremental addition to land access is associated with a large relative rise in income. Yet improving land access for smallholders is fraught with difficulties: even in land abundant countries, it is questionable whether much unclaimed land is available in settled areas to distribute, expropriating land reform is politically difficult, expensive, and subject to rent-seeking. Also market-assisted or community-based approaches have met with very little success to date.

Perceptions of inadequate state land to undertake agricultural development efforts, as reflected in various government documents, highlights two important points for future land policy discussions. First, pressures will mount over the coming years to induce chiefs to release control over part of their land, so that it can be converted into state land which can be allocated to investors to be developed. The pressure seems to be that statutory control of land will progressively replace customary rights, with the state playing an increasingly important role in control of land allocation as compared to the role of chiefs. With urbanization, increasing intra-regional migration, and relocation, and states' desires to control resources for both development and patronage activities, many African states appear to be succeeding in slowly wresting control of resources from traditional authorities (Herbst 2000).

The second point highlighted by recent government land documents is the apparent view that state development can take place only on state-controlled land. The rationale for moving land from customary tenure arrangements to state-allocated and privatize-able land is to facilitate state investment in agricultural development. An important question is whether there has been too little consideration given to the possibility of state investment in strategic public goods and services to raise the economic value of land in the customary tenure areas and promote agricultural investments by smallholder farmers within these areas. Current discussions about focusing agricultural investment and intensification on state land may reflect an underlying assumption that the state is in a better position to allocate land in an equitable, pro-poor, and pro-growth manner than traditional authorities.

However, many stakeholders in Zambia argue that this would be a highly questionable assumption. In the end, the ability to pursue a land policy that allows for equitable and pro-poor agricultural productivity and income growth will require the commitment of both state and traditional leaders to principles of equity and access to land for the millions of smallholder farmers in Zambia.

There is a perception within government circles that the state is seen as more neutral and a faster delivery channel which can put more land to productive use. However, the transfer of land from the chiefs to the state may also accelerate the allocation of land to large

commercial interests, which could leave less land available for allocation to small-scale farm households. While a great deal of land in Zambia remains unutilized, the amount of utilizable land available is much less, after considering the sparse network of infrastructure and other types of service provision in rural areas which determine how much unutilized land is actually utilizable.

This brings to the fore the need to distinguish between the total stock of unutilized land in Zambia and the stock of land that could feasibly and productively be utilized given available settlements, roads, health facilities and markets. In other words, much land in Zambia remains unutilized because it cannot feasibly support commercially-oriented farming systems due to its current remoteness, distance from markets, and lack of basic services to make it hospitable for migration and settlement.

Basic public investments to encourage the productive utilization of currently under-utilized areas with good agro-ecological potential also has a potential in Zambia to redress the current land constraints faced by many of its impoverished and isolated rural smallholder households. These basic investments include feeder roads linked to trunk highways, health care facilities, schools, electrification, and tax incentives for agribusiness investment.

A policy environment conducive to business development can also attract new capital into newly settled areas with good agricultural potential. This public goods approach to poverty alleviation is an option to consider as an alternative or perhaps a complement to the farm block concept, in which land would be allocated in large tracts to commercial business entrepreneurs, but with uncertain effects on the poverty-related land constraints being faced by 25% or more of Zambia's rural population.

A second and complementary step would involve enlisting the support of paramount and local chiefs to contribute to national poverty reduction goals through the allocation of unutilized land to new small and medium-scale farmers. Incentives could be provided by the state to chiefs to assist in the allocation of unutilized land under their control in 5-10 hectare lots to smallholder households. It is likely that land lots of this size would discourage wealthy individuals and mainly attract poor and currently land-constrained families. However, acquiring land of this size would almost certainly enable currently land constrained households to increase their income from farming, add to agricultural growth, and contribute to national poverty reduction objectives.

Summary: Overall, the findings in this study reinforce the idea that where access to land is highly concentrated and where a sizable part of the rural population lack sufficient land to earn a livelihood as in Zambia, then special measures will be necessary to tackle the problem of persistent poverty. This is almost certain to be a long term undertaking, but avoiding the issue will most likely only prolong the poverty problem.

Reference

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