

RECOGNIZING RURAL ECONOMIC DIFFERENTIATION IN MALAWI

This chapter describes an approach to rural economic transformation in Malawi that places commercial smallholder farmers at the center of such efforts. This subset of smallholders is uniquely positioned within rural communities to serve as an engine of economic growth. As their productivity increases, their farm production expands, and their incomes increase, they will demand more of the labor-intensive and generally nonmarketable (outside of the local area) goods and services that their less agriculture-focused neighbors produce. This consumption linkage diffuses many of the economic gains commercial smallholders make from their more productive farming to those other rural households, deepening local markets, accelerating local economic activities, and improving access to food for economically active households in these communities, including the poor.

As the returns they obtain from those nonfarm activities begin surpassing those that they can obtain from their low-productivity farming, many of the households producing goods and services for the local market will expand their activities to serve wider markets, further increasing their income and, of interest here, better ensuring their access to food. Many will transition from being poor, subsistence-oriented households that engage in some farming to become nonfarming households specialized in livelihoods outside of agricultural production.

The first half of this chapter presents an overview of this model of rural economic transformation, with particular attention to the social and economic structure of rural Malawian communities and the opportunities and challenges that structure presents. In the second half, a recent household survey is used to empirically evaluate how realistic would be a rural economic development program centered on commercially oriented smallholder farmers. This assessment shows that it would be challenging, because the number of households in this category is small. Nevertheless, with effective market development and increased agricultural productivity, commercial smallholder farmers as a share of rural households will grow. At the same time, with stronger markets and more reliable access to food through them, other rural households will see many of the barriers and risks to adoption of nonagricultural livelihoods become less constraining.

Given increasing population pressure on a limited land base, the challenge of ensuring the food security of the country primarily through widespread low-productivity, subsistence-oriented farming is likely to intensify. Critical to eliminating hunger and malnutrition, significantly reducing poverty, and fostering broad economic growth will be policies, programs, and public investments that provide incentives for Malawians to improve their well-being and to secure the food they require through economic pursuits outside of subsistence agriculture. In parallel, investments will be needed to improve the productivity of the many Malawians who will continue farming, with their increased surplus production strengthening supplies of maize and other food crops for local and national markets. As was discussed in the last chapter, an element central to such an economic transformation is the improved functioning of domestic markets so that all Malawian households can safely rely on them for much of the food that they consume.

Drawing on conceptual literature and lessons from other countries, this chapter discusses how the government of Malawi can enable many Malawians to achieve their ambitions, whether through agriculture or, increasingly, by engaging in other economic pursuits. This involves a sharper focus on commercially oriented smallholder farming households to increase agricultural productivity and to propel rural economic transformation processes. It is the increased productivity and expanding scale of production of these households that will accelerate economic activity in rural communities across Malawi both in agriculture and more broadly. The success of these farmers will foster increased demand for the economic output of their neighbors, whether in the processing and marketing of local produce; the provision of specialized goods and services, particularly those based on local, generally nontradable resources; or in commerce. However, such a rural economic development strategy must not neglect the food security of other rural households in the short to medium term, even as efforts are made to enable these other households to improve their welfare through livelihoods outside of agricultural production.

A Conceptual Typology of Malawian Households to Guide Strategic Economic Development

The agriculture sector and, indeed, the bulk of the population of Malawi is commonly considered to be a relatively undifferentiated mass of smallholder farming households that are engaged in low-productivity farming of food crops. This assumption should be rejected. Viewing all of those who farm the

land as having a similar role in ensuring the food security of their households and communities and as contributing equally to the economic performance of the agriculture sector is misguided. Doing so results in important missed opportunities for promoting longer-term rural economic development and for sustainably improving the welfare of rural communities across the country.

Rather, there is practical significance in differentiating Malawi's population into four groups:

1. A relatively small segment of the rural population made up of nonpoor, commercially oriented smallholder farming households that produce considerably more crop output than they consume within their own households.
2. Poor, subsistence-oriented rural households that engage in some farming while also pursuing a diverse set of generally unskilled, labor-intensive livelihood-earning activities. These households make up the bulk of the rural population.
3. Households that are not economically productive. These include chronically poor households, both in rural areas and urban centers, with insufficient labor, often because of disability, old age, or chronic illness. Also in this category are households that are experiencing a sharp, likely temporary, reduction in their welfare due to a shock to their livelihoods.
4. Households resident in urban centers and rural towns that primarily specialize in economic activities outside of agricultural production. These include households living in rural market centers and supplying goods and services to their neighbors engaged in farming.

The poverty analysis of the IHS4 from 2016/17 allows one to roughly gauge the relative sizes of these groups. That analysis found that 52 percent of rural households in Malawi were poor, having a consumption level below what is required to meet their basic needs (Malawi, NSO and World Bank 2018). Some of the rural nonpoor are not farmers, such as fishing households, so this leaves about 40 percent of rural households that could be commercially oriented smallholder households. (However, whether these nonpoor farming households will be strongly oriented toward producing crops for the market cannot be gauged from the IHS4 poverty analysis.) Most other rural households will be subsistence oriented in the limited farming that they do while also pursuing a range of other livelihood strategies. Assuming

that around 50 percent of rural households fall into this group seems reasonable. Depending on the poverty threshold used, chronically poor households unable to engage in any economic activities are unlikely to make up more than 10 percent of rural households.

We now discuss from a conceptual perspective the characteristics of and the most promising development pathways for the two economically productive rural household categories—the commercially oriented smallholder farming households and the other productive households that are more subsistence oriented in their farming activities. Later, a more comprehensive analysis of the IHS4 dataset is used to further explore, specifically for Malawi, the size and characteristics of all four household groups. Due to the weak market participation and continuing strong subsistence orientation of farming households, as well as inconsistencies in the IHS4 data on crop production and crop consumption, the analysis, as will be seen, has its limitations. Nonetheless, insights are gained into how public investments might be made to accelerate economic development in rural communities across Malawi.

Focus rural economic transformation efforts on nonpoor, commercially oriented smallholder farming households

If the agriculture sector is to drive economic development in Malawi's rural areas, there are strong arguments for putting commercial smallholder farming households at the center of such development. As smallholder commercial farming households become more productive, their demand increases for the labor-intensive, generally nontradable goods and services that their neighbors can provide. This consumption linkage diffuses many of the economic gains commercial smallholders make from their more productive farming to those other households, deepening local markets, accelerating growth of local economic activities, and improving access to food for economically active households in these communities, including the poor. In sum, there are significant positive spillover and multiplier effects in rural communities from the economic success of these commercial smallholders.

There is an extensive research literature on linkages between the smallholder farming sector and the rural nonfarm sector in developing countries that goes back at least 50 years. Haggblade, Hazell, and Reardon (2007) provide a detailed overview of several different dimensions of this research. The mechanism for rural economic growth advanced here has been most clearly described by Mellor (2017; also Mellor 2014), who draws on case studies and empirical analysis of recent data from Ethiopia and Pakistan to

buttress his arguments. Timmer (2015) examines the same issues in a similarly applied, policy-focused manner, but adopts a more strongly macroeconomic perspective focused on structural transformation and food security, rather than the more microeconomic perspective on rural economic growth drawn upon here.

Commercially oriented smallholders are defined as farm households that produce enough from their farming to have consumption levels above the basic-needs poverty line and that, on net, sell a quarter or more of their agricultural output. The basic argument for rural economic development centered on such households is grounded in their raising their agricultural productivity through increased use of modern farming inputs and practices over an increasing share of local arable land. As the income of these local commercially oriented farm households grows, their consumption of locally produced goods and services will increase. These goods and services are those that are labor-intensive, require limited capital in their production, and typically are not marketed outside of the local community—they include construction, building repair, and associated services; transport and associated services; education, health, and other social services; furniture and handicraft-making; and food and beverage processing. A large body of research globally shows that under smallholder farming conditions, farming households will spend about half of their incremental income on such local products and services (see review in Haggblade, Hazell, and Dorosh 2007). Crucially, this mechanism for economic growth in rural communities is based on consumption linkages, not production. Local commercially oriented smallholders using modern farm inputs to increase their productivity will increase their incomes, which they will then spend in ways that propel the local economy. Such important contributions to rural economic growth are not obtained to the same extent from absentee urban-based farm owners, even if they are strongly commercially oriented (Box 5.1).

Those other rural households locally producing the goods and services that are increasingly demanded by commercial smallholders also pursue agricultural livelihoods. Given the communal land tenure system dominant in Malawi, most rural households have access to land and most use that land to grow some of their own food. However, due to capital, labor, or management constraints, or insufficient land, many are not able to generate agricultural surpluses from that land. They are poor, and depend on off-farm economic activities as much as on their farming to meet their basic needs, including for access to food.

BOX 5.1 Urban-based commercial farmers have a limited role in rural economic development

A critical aspect of this concept of rural economic development in a smallholder farming context is that it puts locally resident commercial smallholders at the center of rural economic growth. Absentee urban-based farm owners, whether operating as smallholders or at a larger estate scale, may have strong relationships with the local community and be strongly commercially oriented in their farming. Moreover, that they are farming in the area may improve all local farmers' knowledge of improved agronomic practices and new technologies, access to commercial inputs, linkages to markets, and engagement with better-capitalized traders (Deiningner and Xia 2016; Burke, Jayne, and Sitko 2020). However, if these nonresident farmers are primarily consuming from urban shops and suppliers of services or imported goods and services, using the returns from their farming to finance urban consumption, their increased farm production offers only limited benefit to the local rural community. For this reason, the model of economic development used here recognizes that the local residence of commercially oriented smallholders gives them a critical role in extending economic growth across all households in a rural community. It is their local consumption that increases the incomes of producers of local goods and services.

In the household typology here, absentee urban-based farm owners fall into the category of "urban households." In any programming to support agricultural commercialization for rural economic development, program planners should be aware of the significantly lower level of local spillover effects associated with enhanced commercial production by urban-based farmers. Rural-based commercially oriented smallholder households should be preferentially targeted in such programs.

However, as the rural economic growth mechanism described here proceeds, experience from elsewhere shows that the returns that such households obtain from those nonfarm activities will increasingly surpass those that they can obtain from their low-productivity farming, propelling some specialization in local rural employment patterns (Mellor and Malik 2017). With sustained returns and continued investment—including judicious public investment in market support services, roads, transportation and communication services, electricity, and the like—many of these households producing goods and services for the local market will expand their activities to serve wider markets, further increasing their income and, of interest here, better ensuring their access to food. As this process of rural economic growth advances, many of these households will transition from

being poor, subsistence-oriented households that engage in some farming to become nonfarming households specialized in livelihoods outside of agricultural production. In making this transition, many will no longer be poor.

The analysis later in this chapter shows that such a process of rural economic growth and transformation in employment patterns in rural communities in Malawi is now only in its initial stages, at best. The government has made and continues to make many of the investments and institutional reforms needed to propel this approach to rural economic development. But continued government engagement will be needed for many more years before significant economic transformation in rural communities is achieved.

This rural economic growth mechanism is rooted in crop productivity increases that, when extended over more arable land, will result in greater local economic output. Developing mechanisms that will allow productive commercial smallholder farming households to make use of the land of the less productive households in the community will be important to allow for expansion of more productive agriculture and sustain local economic growth. However, customary access to land should not be undermined. Those who have access to land through customary tenure need to be assured that they will have continuing access to that land by virtue of being members of their community. This land is important both as a household asset and as a component of the long-term economic safety net for household members, particularly later in life. A conversion of rural land to titled freehold tenure is not required for this rural economic growth mechanism to be effective. What is required in terms of land tenure reform is greater attention to how landholders could rent their agricultural land on an annual basis or for a period of a few years to other households in the community that can make more economically effective use of the land than the landholder. However, such rental arrangements will need to be designed in a way that makes it clear to all concerned how the landholder can regain use of the land.

Although leaseholds of agricultural land for 25 to 99 years have commonly been used in Malawi to allow for capital-intensive farming activities on a commercial scale, these are inappropriate in this case. The objective here is to enable renters to make use of modern inputs—fertilizer, seed, herbicides, and so on—on seasonal crops to increase their farm production and the productivity of the land beyond what the landholder would be able to achieve. One drawback is that such rental agreements would be too short to create much incentive for renters to make large investments in the land—such as irrigation, tree crops, terraces, and the like. But the principal strategic aim of these

leaseholds would be to increase local annual field crop production for both incomes and food security.

As the long debates over land reform in Malawi attest and rising demographic pressures would suggest, there is increasing competition and social conflict around land. Although customary tenure systems remain at the core of smallholder access to land, it is unlikely that those systems in their current form can be easily safeguarded to ensure land access for all community members (Peters 2004). A recent study of agricultural land rental arrangements in Malawi found that the landlord—the household or individual renting out the land to the tenant—was consistently poorer on most measures than the tenant (Ricker-Gilbert et al. 2019). Moreover, the study found that many landlords rented out their land as a means to cope with economic stress. That landlords in such situations may end up losing their land is of concern. The proposals above for making it easier to rent out cropland to farmers who can make more productive use of it will need to address the significant potential for conflict as local rights to land are renegotiated. Local land governance mechanisms will need to be strengthened so that they can provide sufficient oversight to ensure fair arbitration for all parties in a land conflict.

In addition to land constraints to expanding production, commercial smallholders may also face constraints in mobilizing sufficient local labor, depending on the local context. Although rural communities in Malawi are characterized by underemployment of available labor in aggregate annually, rainfed farming systems demand close timing of farming operations, which puts heavy demands on labor at specific points in the cropping season. This creates labor bottlenecks that are exacerbated for commercially oriented smallholder farming households operating at scales that require labor beyond what is available in the household—at the same time as commercial farmers urgently require additional labor, their neighbors who might supply that labor have a strong economic preference to work on their own crops.

There are repeated examples in the colonial and postcolonial agricultural history of Malawi of the important constraint that an inability to mobilize sufficient labor poses for commercial farming ventures (for example, Green 2012b; Kydd and Christiansen 1982; Mapemba 1997). These include specific efforts in the late colonial period to support “master farmers” in rural communities (Kalinga 1993; Green 2012a), similar to what is being advocated here in focusing agricultural development efforts on the most productive and commercially oriented farmers.

In some contexts, such as in peri-urban areas where general wage rates are higher, it may not be possible for commercial smallholders to profitably employ wage labor because these households cannot offer competitive wages within the local economy. However, with strengthened agricultural markets and effective use of modern agricultural inputs, particularly labor-saving technologies, on crops that are comparatively well suited for a specific locale and the markets that serve it, the productivity benefits of judiciously using hired labor when required should exceed the costs of that labor in most growing seasons.

However, to be clear, the rural economic growth process described here is not dependent upon increased use of local wage labor in agriculture. Rather, it is driven by the increased local consumption made possible by increased crop productivity stemming from the use of modern inputs. Increased incomes will be realized by those farmers with greater production who sell their crops into reliable markets. Depending on the characteristics of the crops being produced and the local farming system, this increased production may not necessarily require any more labor than the commercially oriented smallholder farming household can supply on its own. Although some growth can be expected in the share of local workers who find primarily seasonal wage labor on neighboring farms, the more significant change in local labor markets will be a sustained increase in the share of workers engaged in remunerative activities outside of direct agricultural production.

What has been sketched here is a community-focused, long-term rural economic growth strategy based on the use of agricultural technologies and effective crop management to raise agricultural production, and strengthened markets to provide reliable incentives for commercial agricultural production. Consequently, the government does not have specific and targeted supportive roles to play vis-à-vis commercially oriented smallholder farming households—that is, specific projects to target commercial smallholder farming households are not necessarily needed. More important is the continued supply of those public goods that enable these smallholders to succeed: significantly improved and expanded agricultural research and information provision, improved transport and communication services, electricity, business skills formation, and a supportive environment for the commercial success of cooperatives and other farmers' organizations, among others. Equally important is that the government make parallel investments to strengthen agricultural markets, including through expanding trade opportunities both domestically and regionally. None of these public investment priorities are new.

Continue to safeguard the food security of other rural households while enabling them to derive sustainable livelihoods outside of agriculture

Although the central longer-term recommendation on strengthening agriculture in Malawi for improved food security is to focus on commercially oriented smallholder farming households, the government of Malawi should continue to support the economic development of other rural households. These households, which typically engage in some subsistence farming alongside other economic pursuits, make up the largest share of rural households across Malawi. With any drought, flood, crop disease, or pest infestation, their food security is at considerably more risk than is that of commercially oriented smallholders. The government has a continuing duty to ensure that the food needs of these households are met. However, the longer-term economic development perspective that the government adopts for such households should go well beyond farming. Government agencies from several sectors should work with these households to build their abilities and expertise and to put in place an economic environment in which they can sustainably obtain sufficient and expanding livelihoods from nonfarm activities.

Continued public investment is required to ensure that any farming these households engage in is as productive as possible. However, at the same time, government will need to act strategically so that such households, over the coming decades, increasingly find that their food security and overall livelihoods are best ensured through engaging in more specialized work outside of farming. This will require that government more clearly target its programs in the agriculture sector. Those programs that are focused on food security and improving the quality of the diets of rural households should be universal. All people who farm to produce some of the food they consume should benefit from such programs. However, where public investments are made to expand the participation of smallholders in agricultural markets, more targeted approaches focused on the commercially oriented smallholders make sense.

Meeting the food needs of households that are not economically productive

However, not all Malawian households can meet their food and nutritional needs through their own agricultural production, income generation through commercial agriculture, or increased engagement in nonfarm employment. Those households that are not economically productive are highly vulnerable to food insecurity. Strategically associating food security for households in

Malawi solely with agriculture or with other employment neglects these non-productive households. The food security of the most vulnerable in Malawi can be best addressed through specific policies and action on social protection (World Bank 2018). Two particular groups face permanent or temporary constraints, respectively, on their economic productivity and will require some type of support through social protection programs if they are to have reliable access to food:

1. The chronically poor who, due to old age, orphanhood, or physical or mental infirmity, are unable to be economically productive and who may not be able to rely upon others in their family or community to meet their food and other nutritional needs
2. Those who have experienced a significant adverse shock to their livelihoods, resulting in household food insecurity and an inability to provide for all of the nutritional needs of household members for a period of time as they work to rebuild their livelihoods

For the first group, given that such households are not economically active, cash transfers will likely be the best form of support. The amount each beneficiary receives should bridge the gap between their current consumption level and what would be required to purchase the food and other nutritional goods and services they need to be food secure and well nourished. Although traditional social safety nets provided by extended family or local community institutions continue to play important, even dominant, roles in meeting the needs of these chronically poor households, the government has increasingly recognized that it must provide leadership on social protection. The proper balance in support between that provided by government and that from these other traditional sources of social support will be determined, in part, by the resources that government can make available for these households.

The government has not invested significantly in such programs, however. Between 2011 and 2016, not considering the FISP and humanitarian responses to widespread acute food insecurity, funds equivalent to 0.6 percent of Malawi's GDP were allocated to safety net programs—much less than the average of 1.2 percent among countries across Africa. More than 90 percent of this funding came from Malawi's development partners (World Bank 2018). Moreover, the safety net programs are not well targeted—the poorest 20 percent of households in Malawi received only 18 percent of total spending on social safety nets (Beegle, Coudouel, and Monsalve 2018). Comprehensive food security in Malawi will not be achieved without more widespread and

sufficiently funded programs of support, targeted toward those who are not economically productive.

Households that are recovering from a significant temporary adverse shock to their livelihoods are especially vulnerable to food insecurity, with the risk that some household members may become acutely malnourished. Support to enable them to meet their food and nutritional needs over the short term is required. This help may include distribution of food, cash, or vouchers to enable households to meet their immediate needs—support that the government, with close engagement by its development partners, has demonstrated it is able to provide (Babu et al. 2018). However, in addition, continuing assistance over the medium term will enable these households to regain their preshock welfare levels and, ideally, to be better prepared and more resilient in the face of any future shocks to their livelihoods.

There is a relatively good understanding on the part of the Malawi government and its partners regarding the design, targeting, and implementation of programs to help households adversely affected by broad shocks, such as droughts, that affect many people in an area. More challenging, however, is how the government and its partners can best identify and assist those households affected by more idiosyncratic shocks affecting just a single household or a handful of them. Shocks due to chronic illness or death or to fire, theft, or other destruction of household assets affecting a single household are no less damaging to a household's well-being than broader shocks. Such idiosyncratic shocks have the potential to diminish a household's standard of living and economic prospects permanently. More strategic thinking by the government can help determine how best to identify such households and what institutional capacity and services, whether kinship- or community-based, public or private, including commercial insurance options, will be needed to support them so that they can recover their livelihoods and consistently meet their food needs in a more resilient fashion (World Bank 2013).

Building a Rural Development Strategy for Malawi around Commercially Oriented Smallholder Farmers: An Empirical Appraisal

The conceptual discussion above is drawn primarily from the rural economic development experiences of other emerging economies, particularly in South and Southeast Asia, where agricultural markets and the commercial orientation of rural households are considerably stronger than in many parts of Malawi. Given the continuing dominance of a subsistence orientation in the

agricultural activities of rural Malawian households, how realistic is such a development approach to Malawi? Using the different categories of households described in the research literature on rural economic transformation and listed on page 113, this section presents a profile of households that fall into each category based on analysis of the nationally representative 2016/17 Malawi IHS4. The aim is to better understand how practical and, if carried out, what the scope and scale of the effort would be to implement a rural economic development strategy in Malawi focused on enhancing the agricultural production of commercially oriented farming households and expanding remunerative nonfarm livelihood opportunities for other productive households. Such a strategy would also need to ensure that nonproductive households receive social support to enable them to be food secure.

The categorization of households used here is somewhat imperfect because of both the design of the IHS4 dataset and the significantly lower rate of market engagement of farm households in Malawi than elsewhere. The data in the IHS4 cannot be used to exactly replicate the defining characteristics of the commercially oriented smallholder farmer category. The three principal characteristics of households in this category are that they reside in rural areas, they are nonpoor and so are able to meet their basic welfare needs, and they produce considerably more crop output than they consume within their own households. However, the information on crop and, specifically, maize sales and consumption is not sufficiently harmonized in the survey to determine annually whether a household is a net maize seller or a net maize purchaser. Information in the IHS on crop sales is based on the two annual cropping seasons—the main rainfed season and, for irrigated crops, the dry season. In contrast, information on food crop purchases is based on food consumption recall over the seven days prior to the interview of the household. Consequently, no reliable estimate of the annual net maize sales position of a household can be computed from the survey data. For the assessment here, therefore, households were categorized as commercially oriented if they reported selling more than a quarter of their harvested maize annually. In doing so, no consideration was made of what share of the maize consumed by a household over the previous seven days was purchased.

However, this defining characteristic for the commercially oriented smallholder farmer category is problematic because very few farming households sell a significant share of the maize that they produce. Only 6 percent of households sell more than one-quarter of their maize harvest, according to analysis of the IHS4. As discussed in the previous chapter, there are limited incentives for farmers to produce maize for sale because, due to weak markets

and unpredictable government interventions in those markets, there is significant risk that returns to production of maize for sale in the market will be insufficient.

The other criterion used to identify rural households in the commercially oriented smallholder category is their poverty status—they are not poor. The poverty analysis of the IHS4 uses a basic-needs (food and nonfood) poverty line, along with the value of per capita consumption and expenditure for a household, to assess whether the household is poor (Malawi, NSO and World Bank 2018). Given the few households making significant sales of maize, we use the lower, solely food-based, ultra poverty line, rather than the higher, basic-needs poverty line, as the poverty criterion to define which households are not poor. Doing so increases the share of households in the commercially oriented smallholder category to 5.5 percent of all households rather than the 4.1 percent that would result if the higher, basic-needs poverty line were used.

Households that fall into the not economically productive category were identified based on their poverty status: they are ultra poor, with a level of consumption per capita lower than the food poverty line, and more than half of household members are nonworkers (those younger than 15 years and older than 64)—that is, more members of the household are nonworkers than are workers. For such households, systemic labor constraints, not economic shocks or other factors, likely were a significant factor in their low welfare level at the time of the survey.

The other two categories are residual categories that are distinguished from each other based on whether the household lives in a rural or an urban area. Although many urban households engage in agricultural activities primarily to help meet their own food needs, their role in accelerating rural economic growth processes is limited, as was discussed in Box 5.1.

Table 5.1 shows the results of this categorization of the IHS4 survey households, weighted to reflect all households in Malawi that fall into each. Figure 5.1 presents maps of the share of the households in each of the 4 categories in the 32 survey strata of the IHS4, comprising the 28 districts of Malawi plus the 4 major urban centers. The size of the commercially oriented smallholder category is surprisingly small and may call into question how realistic a rural economic development program centered on such households would be. Our earlier rough calculation that potentially 40 percent of rural households in Malawi could be commercially oriented smallholder households is shown to be far from the mark under current levels of agricultural production and

market performance. This divergence between expectations and reality is considered more closely later in this chapter.

In terms of the location of the households in the four categories, some elements of the definitional criteria for the particular household typology used are apparent. Commercially oriented smallholders are most commonly found in the mid-altitude plateau areas of the Central and Northern regions that

TABLE 5.1 Location and poverty characteristics of households in the different economic categories, 2016/17

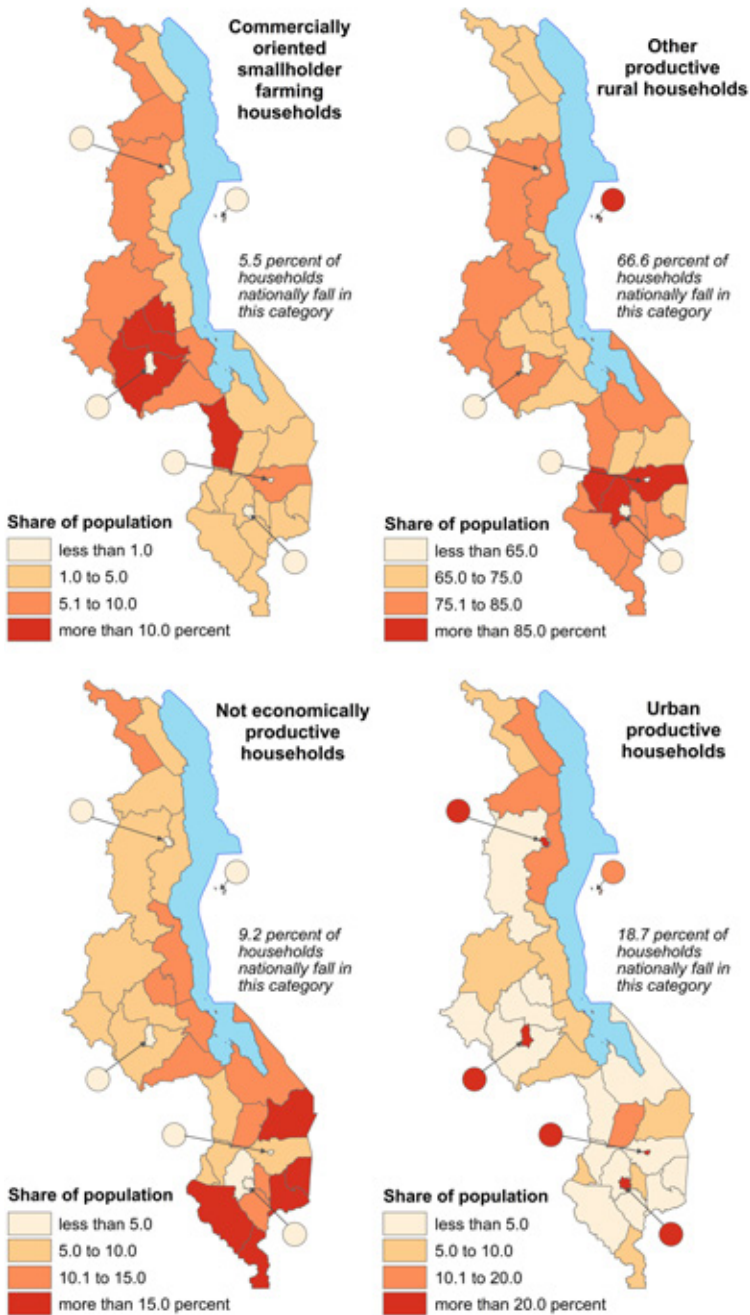
Characteristic	All households	Commercially oriented smallholder farmers	Other productive rural households	Not economically productive	Urban households
Population ('000s):	16,308	882	10,395	2,015	3,015
Individuals					
Households	3,797	208	2,528	351	711
Share of households in the population, % ^a	100.0	5.5	66.6	9.2	18.7
<i>Rural Northern region</i>	6.8	6.0	83.8	10.1	0.0
<i>Rural Central region</i>	36.2	10.7	80.5	8.8	0.0
<i>Rural Southern region</i>	38.0	3.1	83.6	13.3	0.0
<i>Urban</i>	19.0	0.0	0.0	1.7	98.3
Poor (value of household consumption per capita less than basic-needs poverty line), %	44.7	25.5 ***	47.6	100.0	12.8
Ultra poor (value of consumption less than food poverty line), %	15.9	0.0 ***	9.6	100.0	1.5
Housing quality—floor, roof, or walls made with modern materials, % of households	62.5	65.4 ***	56.7	45.9	90.8
<i>Observations</i>	12,447	636	8,412	1,161	2,238

Source: Author's weighted analysis of 2016/17 Malawi Integrated Household Survey 4 (Malawi, NSO 2017).

Notes: Asterisks on the estimates for "commercially oriented smallholder farmers" indicate the statistical significance of the results of a Wald test on differences in estimates between households in this category and those in the "other productive rural households" category: * = $p < 0.10$, ** = $p < 0.05$, *** = $p < 0.01$. The urban population here is defined as residents in the four major urban centers of Malawi, district headquarters towns (bomas), and other market centers with urban characteristics as determined by the National Statistical Office of Malawi.

^a For the second panel, the statistics in the second column are column totals, and the statistics in the third to sixth columns are row totals.

FIGURE 5.1 Maps by district and major urban centers of the share of households that fall into the four economic categories



Source: Author's weighted analysis of 2016/17 Malawi Integrated Household Survey 4 (Malawi, NSO 2017).

agroecologically are among the best areas of the country to produce maize, as well as tobacco. The production of surpluses beyond household requirements is more likely in these areas than in many other parts of Malawi. That rural land pressures are also not as severe in these areas compared with upland areas in the Southern region also contributes to greater surpluses. In contrast, rural households in southern Malawi that are commercially oriented in their farm production are rare.

A larger share of households that are not economically productive is seen in the population of southern Malawi than might have been expected. This in part is an artifact of the significant drought in southern Malawi and consequent food insecurity during the IHS4 survey year of 2016/17. One of the defining criteria for such households is very low consumption levels (ultra poverty). Consumption levels for many households in southern Malawi in the survey year were sharply reduced.

Finally, a greater share of households in rural districts is made up of so-called urban productive households than might have been expected. Although such households are concentrated in the four major urban centers of Malawi, because the definition of urban used for the typology is that of the National Statistical Office, those households resident in district headquarters and rural market centers with urban characteristics fall into this category as well.

A profile of households in the four categories is presented in the several tables that follow.¹ Because the rural economic development model of interest is one centered on commercially oriented smallholder farmers, the characteristics of households in this category are highlighted. However, given the low prevalence of such households in the population, the characteristics of households in the “other productive rural households” category are also of interest. It is households in this category that are most likely to transition to a more commercial orientation in their farming, and they are also the households most likely to increasingly specialize in nonfarm livelihoods. The tables present tests of differences in estimates of the characteristics of households

1 See the appendix for additional tables that examine the households in each category in terms of their use of credit, their participation in various government social support programs, and the type of the most significant shock to their livelihoods that each experienced in the past year.

in the two categories.² The results of these tests provide some guidance on the opportunities, barriers, and type of support required for other productive rural households to pursue economic activities outside of farming.

The tables also present characteristics of any households that are not economically productive and of urban-based households that are economically productive. Although these households are peripheral to the rural economic transformation focus of this chapter, their characteristics are salient to considerations of food security, agricultural development, and structural transformation of Malawi's economy overall. The food needed by most households that are not economically productive will be largely provided by their extended family or other households in their community. However, the needs of many will not be fully met without support from the government. Because social safety net programs need to be part of policies and strategies for a food-secure Malawi, a better understanding of the characteristics of households that will be dependent upon them is needed.

Economically productive urban households are also of interest because many continue to engage in farming, whether in their rural areas of origin or on peri-urban plots. Households in smaller urban centers within rural areas particularly will pursue strongly agricultural livelihoods. More important, if structural transformation of Malawi's economy is to gain speed, one of the principal demographic transitions that can be expected is a movement of households from the "other productive rural households" category to the "urban households" category. If expansion in the services and industrial sectors of Malawi's economy occurs in coming years, most of the expansion in the industrial sector and much of the expansion in the service sector will be urban-based.

2 The results of this test are presented in asterisk form in each table. The results of statistical comparisons for the characteristics of households in the other two categories are not presented for two reasons:

- It would be challenging in these tables of descriptive statistics to comprehensively and clearly present the matrix of estimates comparison results across all four household categories.
- The principal interest of this analysis is determining empirically how feasible it would be to propel rural economic transformation on the increased agricultural productivity of commercially oriented smallholder farmers and the intensified demand of those households for the goods and services produced by households in the "other productive rural households" category.

In light of these considerations, the characteristics of households in the "not economically productive" and "urban households" categories are somewhat secondary for the analysis here. Although these characteristics are presented in the tables for completeness, the results of comparisons of estimates involving households in these categories are not presented.

Demography and education

Basic demographic characteristics of households in each category are presented in Table 5.2. Commercially oriented households are more likely to be headed by men and by younger individuals than are households in the category of “other productive rural households.” These differences likely stem from differential access to resources, social and financial capital, educational attainment, and levels of entrepreneurship within the life cycle. Nonetheless, the age and sex of the household head might serve as proxy indicators, alongside several others, for targeting efforts to enhance the commercialization of household farm production, even as efforts to improve food security among rural households are more universally targeted. Households in the “not economically productive” category stand out from other households for being large with a high

TABLE 5.2 Demographic characteristics of households in the different economic categories, 2016/17

Characteristic	All households	Commercially oriented smallholder farmers	Other productive rural households	Not economically productive	Urban households
Household size, members	4.3	4.2	4.1	5.7	4.2
Dependents (younger than 15 or older than 64 years of age)	2.1	2.0	2.0	3.7	1.8
<i>Dependents to household size ratio, mean</i>	<i>0.46</i>	<i>0.44</i>	<i>0.46</i>	<i>0.68</i>	<i>0.37</i>
Household head age, mean years	43.1	41.5 ***	43.9	43.0	40.9
<i>Under 35 years of age, %</i>	<i>36.0</i>	<i>39.8 *</i>	<i>35.7</i>	<i>33.4</i>	<i>37.2</i>
<i>35 to 64 years of age, %</i>	<i>50.8</i>	<i>50.7</i>	<i>49.1</i>	<i>52.9</i>	<i>55.6</i>
<i>Over 64 years of age, %</i>	<i>13.2</i>	<i>9.5 ***</i>	<i>15.1</i>	<i>13.7</i>	<i>7.2</i>
Female-headed households, %	29.1	21.0 ***	30.1	41.5	21.9
<i>Observations</i>	<i>12,447</i>	<i>636</i>	<i>8,412</i>	<i>1,161</i>	<i>2,238</i>

Source: Author’s weighted analysis of 2016/17 Malawi Integrated Household Survey 4 (Malawi, NSO 2017).

Notes: Asterisks on the estimates for “commercially oriented smallholder farmers” indicate the statistical significance of the results of a Wald test on differences in estimates between households in this category and those in the “other productive rural households” category. * = $p < 0.10$, ** = $p < 0.05$, *** = $p < 0.01$.

share of nonworking members, which is a defining characteristic of households in this category, and for many being headed by a woman.

Educational attainment levels are higher in commercially oriented farming households than in other rural households. This pattern is seen both when considering only the household head's level of education and when considering the maximum level achieved by a household member. Moreover, Table 5.3 shows increases in the education received by the younger generation—maximum education levels within households are markedly higher than the levels achieved by the heads of those households. This reflects in part the impact of the government's universal primary education program that has been in place since 1994. Although problems related to the quality of instruction and facilities remain, improved access to schooling has increased average educational attainment. The average years of education successfully completed for those ages 15 to 24 years increased from 5.0 to 6.2 years between the 1998 and 2008

TABLE 5.3 Educational attainment within households in the different economic categories, 2016/17

Characteristic	All households	Commercially oriented smallholder farmers	Other productive rural households	Not economically productive	Urban households
Educational attainment of household head, % of households					
<i>No formal education</i>	17.2	8.2***	20.1	25.3	5.6
<i>Some primary</i>	57.8	66.3**	61.3	67.1	38.0
<i>Some secondary</i>	22.2	23.7***	17.3	7.6	46.2
<i>Beyond secondary</i>	2.8	1.8	1.2	0.0	10.2
Maximum educational attainment in household, % of households					
<i>No formal education</i>	3.9	1.8***	5.0	3.0	1.2
<i>Some primary</i>	57.5	57.1**	62.8	83.6	26.3
<i>Some secondary</i>	34.9	37.9***	30.7	13.3	59.5
<i>Beyond secondary</i>	3.7	3.3**	1.6	0.1	12.9
<i>Observations</i>	12,447	636	8,412	1,161	2,238

Source: Author's weighted analysis of 2016/17 Malawi Integrated Household Survey 4 (Malawi, NSO 2017).

Notes: Asterisks on the estimates for "commercially oriented smallholder farmers" indicate the statistical significance of the results of a Wald test on differences in estimates between households in this category and those in the "other productive rural households" category. * = $p < 0.10$, ** = $p < 0.05$, *** = $p < 0.01$.

censuses (analysis by author). Rising levels of human capital in rural communities should prove an important driver of rural economic transformation, even if the impacts may not be seen for decades and a range of complementary investments will also be needed to advance local rural economies. Members of commercially oriented farming households are at the forefront of these improvements in education levels across Malawi.

Agricultural production and crop sales

Almost all farmers in Malawi engage in rainfed cropping (Table 5.4). However, commercially oriented smallholder households are more likely than other households to also engage in some irrigated farming. Although the share of those that have irrigable land is less than 15 percent, access to such land is a distinguishing feature of commercially oriented smallholders. Such households also have the largest holdings of cropland, with access to almost twice as much land as other rural households. Although renting-in of land is not common among farming households in Malawi, commercially oriented smallholders are more likely to do so than are other households.

Hiring-in of agriculture labor to supplement household labor is done by only one out of five households that engage in farming. However, commercially oriented smallholders, as well as urban households that farm, are more likely than other households to employ outside labor. But outside labor is not used any more intensively by commercial smallholders than by other rural households that make use of such labor.

Household members' temporarily hiring out their labor (ganyu) for any task, whether agricultural or nonagricultural, is much less common among working members of commercial smallholder households than it is among members of other rural households. Members of chronically poor, not economically productive households are most likely to rely on such employment and engage in it more intensively than do members of other households.

Characteristics of the cropping patterns of the different types of households are presented in Table 5.5. The characteristics of households that engage in any sales of maize closely match the criteria used to define commercially oriented smallholder farming households. Other rural households are unlikely to sell any of the maize that they produce. However, more than a quarter of urban households that engage in maize production report selling some of their harvest. Both commercially oriented smallholders and urban households that produce maize are likely to use improved seed (hybrids or open-pollinated varieties), whereas households in the other two categories that produce any maize are as likely to use local maize varieties as to use improved varieties.

TABLE 5.4 Agriculture-related characteristics of households in the different economic categories, 2016/17

Characteristic	All households	Commercially oriented smallholder farmers	Other productive rural households	Not economically productive	Urban households
Engaged in any crop production in previous year, %	76.2	100.0***	85.3	91.0	30.1
Of those that did so, rainfed only	90.9	86.6**	90.8	93.9	92.0
Of those that did so, irrigated only	0.7	0.5	0.6	0.6	2.0
Of those that did so, both irrigated and rainfed	8.3	12.9**	8.6	5.4	6.0
Cropland area used in past season, ha					
Average, all households	0.52	1.01***	0.57	0.50	0.17
Average, all households that produced crops	0.65	1.01***	0.65	0.52	0.53
Per household member, all households	0.14	0.28***	0.16	0.09	0.05
Per household member, all households that produced crops	0.17	0.28***	0.18	0.09	0.14
Rent in some land, % of all households	7.8	12.1**	8.3	5.8	5.6
Cropland rented in, ha, average for households renting in	0.52	0.69	0.53	0.40	0.43
Rent out some land, % of all households	1.2	1.8	1.3	1.4	0.5
Hire in agricultural labor, % of households that produced crops	19.1	30.2***	16.1	7.6	47.2
Amount of hired-in labor, for those hiring in, hours/ha cropland over past cropping year	26.7	23.9	25.5	18.2	35.5
Members engage in any hired-out temporary work (ganyu), either agriculture or nonagriculture, %	60.3	57.1***	65.2	81.7	33.3
Amount of labor hired out over past year for those hiring out, hours per worker in household	57.9	46.7***	55.9	68.4	64.4
Observations	12,447	636	8,412	1,161	2,238

Source: Author's weighted analysis of 2016/17 Malawi Integrated Household Survey 4 (Malawi, NSO 2017).

Note: Asterisks on the estimates for "commercially oriented smallholder farmers" indicate the statistical significance of the results of a Wald test on differences in estimates between households in this category and those in the "other productive rural households" category. * = $p < 0.10$, ** = $p < 0.05$, *** = $p < 0.01$.

TABLE 5.5 Crop production and sales of households in the different economic categories, 2016/17

Characteristic	All households	Commercially oriented smallholder farmers	Other productive rural households	Not economically productive	Urban households
Maize (any) production, % of households	72.0	100.0***	80.4	83.2	28.7
<i>Sold any maize, % of households</i>	11.6	100.0***	6.9	5.3	5.3
<i>Share of maize harvest sold, for households that sold any, %</i>	34.6	50.1***	15.5	28.3	41.1
<i>Local maize production, % of households</i>	34.1	34.6*	39.1	45.3	10.4
<i>Improved maize production, % of households</i>	39.6	68.9***	43.1	39.2	18.7
Rice production, % of households	3.3	1.5***	3.9	3.6	1.3
Other grain production, % of households	7.7	4.2***	8.9	14.1	1.3
Cassava production, % of households	4.5	4.2	5.5	5.0	0.8
Sweet potato production, % of households	2.3	3.6	2.6	2.0	0.8
Irish potato production, % of households	0.8	2.2**	0.9	0.3	0.1
Groundnut production, % of households	11.8	22.6***	13.7	8.5	3.2
<i>Sold any groundnut, % of households</i>	6.8	18.0***	7.7	4.5	1.3
<i>Share of groundnut harvest sold, for households that sold any, %</i>	58.4	63.3*	57.4	53.3	68.9
Bean and cowpea production, % of households	10.7	25.3***	11.0	9.3	5.7
<i>Sold any bean and cowpea, % of households</i>	3.3	10.3***	3.4	2.1	1.4
<i>Share of bean and cowpea harvest sold, for households that sold any, %</i>	66.8	68.6	66.1	70.3	66.0
Pigeonpea production, % of households	17.0	11.1***	20.0	24.5	4.6
<i>Sold any pigeonpea, % of households</i>	6.0	6.6	7.1	7.3	1.3
<i>Share of pigeonpea harvest sold, for households that sold any, %</i>	59.0	65.6	59.2	57.4	51.1
Soyabean production, % of households	7.7	16.3***	8.6	6.6	2.7
Sunflower production, % of households	0.9	2.2**	0.9	1.3	0.1
Tobacco production, % of households	4.9	11.8***	5.6	3.8	0.7
Cotton production, % of households	1.2	0.4***	1.6	1.5	0.2
<i>Observations</i>	12,447	636	8,412	1,161	2,238

Source: Author's weighted analysis of 2016/17 Malawi Integrated Household Survey 4 (Malawi, NSO 2017).

Note: Asterisks on the estimates for "commercially oriented smallholder farmers" indicate the statistical significance of the results of a Wald test on differences in estimates between households in this category and those in the "other productive rural households" category. * = $p < 0.10$, ** = $p < 0.05$, *** = $p < 0.01$.

Few households in any category produce both local and improved varieties of maize.

Commercially oriented smallholders are less likely than other productive rural households to produce rice or other cereals. These results in part reflect the maize-centric definition of commercially oriented smallholders. Rice is more common in alluvial and lakeshore areas where maize is not as well adapted for production as it is elsewhere in the country, whereas sorghum and pearl millet are somewhat better adapted than maize for the Lower Shire Valley as well as in alluvial areas on the margins of the Shire Highlands in southern Malawi. Local consumption preferences will also be a factor in the cropping patterns for these other cereals.

The share of households that produce any roots and tubers is low. In this regard, the IHS4 data contrast sharply with the agricultural production estimates of the Ministry of Agriculture, which showed the total area planted in roots and tubers was more than one-third of the area planted in maize in 2019.³ Little difference is apparent in the share of rural households that produce cassava and sweet potato across categories. However, Irish potato is more likely to be produced by commercially oriented smallholders than by households in the other categories, reflecting the higher commercial demand for Irish potatoes compared with sweet potatoes and cassava.

Groundnuts, beans, and cowpeas are more likely to be produced by commercially oriented smallholders than by households in other categories. However, these crops remain important for own consumption—while more than half of households that produce groundnuts will sell some of their harvest, those that do will still keep about 40 percent for home use. Less than one-third of bean and cowpea producers sell these crops, but if they do, they sell about two-thirds of what they harvest. Pigeonpea is more commonly produced by households in the “other productive rural” category. This reflects in part the geography of the production of pigeonpea, which is predominantly produced in southern Malawi, where commercial production of maize is not common (see Table 4.1). Less than half of pigeonpea-producing households sell any of their harvest, but those that do so sell about 60 percent of what they harvest. Groundnut, bean, cowpea, and pigeonpea are significant for households engaged in any agricultural production in that they are important for meeting household food needs, but also can be readily sold to meet household cash needs. In this regard, these crops are similar to maize.

3 On the challenges of estimating agricultural production statistics for cassava, see discussion in footnote 3 in Chapter 3.

Soyabean, sunflower, tobacco, and cotton are cash crops. Commercially oriented smallholders are significantly more likely than households in other categories to produce soyabean, sunflower, and tobacco. The IHS data show that more households produce soyabean than tobacco, possibly reflecting lower barriers to the production and marketing of soyabean compared with tobacco. Although only a few households produce cotton, those that do are less likely to be in the commercially oriented smallholder category. This fact principally reflects the geography of cotton production in Malawi, which is grown where maize is less well adapted agroecologically, so that commercial production of maize is not common in cotton-growing areas.

Commercially oriented smallholders are significantly more likely to own cattle, goats, sheep, and pigs than are households in other categories and, of those that own these animals, to own larger numbers of them (Table 5.6). Poultry ownership is common across all household categories, with urban households more likely than rural households to own chickens and other fowl.

TABLE 5.6 Livestock ownership of households in the different economic categories, 2016/17

Characteristic	All households	Commercially oriented smallholder farmers	Other productive rural households	Not economically productive	Urban households
Own livestock, % of households	33.9	55.0***	37.8	28.5	16.7
<i>Tropical livestock units owned, of those owning</i>	0.64	0.99**	0.65	0.30	0.51
<i>Own cattle, % of households owning livestock</i>	8.7	14.7**	9.0	4.7	4.1
<i>Own goats, sheep, or pigs, % of households owning livestock</i>	54.1	66.2***	56.0	50.3	30.1
<i>Own poultry, % of households owning livestock</i>	64.9	59.8	64.2	59.6	79.4
<i>Observations</i>	12,447	636	8,412	1,161	2,238

Source: Author's weighted analysis of 2016/17 Malawi Integrated Household Survey 4 (Malawi, NSO 2017).

Note: Asterisks on the estimates for "commercially oriented smallholder farmers" indicate the statistical significance of the results of a Wald test on differences in estimates between households in this category and those in the "other productive rural households" category. * = $p < 0.10$, ** = $p < 0.05$, *** = $p < 0.01$. Tropical livestock units (TLUs) are based on the following conversion factors: poultry = 0.01 TLU; calf = 0.3; steer or heifer = 0.7; cow = 0.7; ox or bull = 0.8; donkey, mule, or horse = 0.6; goat = 0.1; sheep = 0.1; pig = 0.2.

However, cattle ownership is quite rare across all households, with less than 10 percent of households having any. The limited landholding size for most rural households imposes important constraints on cattle ownership, whereas goats, sheep, and pigs can be raised more effectively on the small areas.

Nonagricultural income sources

Few differences are seen in participation in nonagricultural economic pursuits between categories of rural productive households (Table 5.7). Members of commercially oriented smallholder households and other productive rural households both have low levels of participation in wage employment. Wage employment, as one would expect, is most common for members of urban

TABLE 5.7 Nonagricultural income sources and credit use of households in the different economic categories, 2016/17

Characteristic	All households	Commercially oriented smallholder farmers	Other productive rural households	Not economically productive	Urban households
Have any members with wage employment, % of households	18.8	11.3	11.9	5.3	52.2
<i>Wage employment under long-term contract or permanent, % of households with members with wage employment</i>	70.9	69.3	63.2	44.2	78.6
Have members engaged in household enterprise, %	26.6	27.5*	23.6	14.1	43.0
<i>Of which at least one of household's enterprises are permanently operating (not seasonal), %</i>	28.9	28.6	24.2	22.0	39.2
<i>Of which at least one of household's enterprises requires skills to produce merchandise or services offered (not petty production or trading), %</i>	15.0	12.6	13.8	15.3	17.7
<i>Of which at least one of household's enterprises has employed labor from outside the household in past year, %</i>	9.3	10.9	6.8	4.1	14.7
Have member who receives regular income payment, for example, pension, remittances, real estate or asset rentals or sales, %	43.3	44.4	40.9	32.8	56.8
<i>Observations</i>	12,447	636	8,412	1,161	2,238

Source: Author's weighted analysis of 2016/17 Malawi Integrated Household Survey 4 (Malawi, NSO 2017).

Notes: Asterisks on the estimates for "commercially oriented smallholder farmers" indicate the statistical significance of the results of a Wald test on differences in estimates between households in this category and those in the "other productive rural households" category. * = $p < 0.10$, ** = $p < 0.05$, *** = $p < 0.01$.

households. Commercially oriented households are more likely than other productive rural households to have members engaged in household enterprises. However, only about one-third of households with enterprises operate them permanently—most are seasonal activities. This suggests that few rural households are specializing in such enterprises as part of a transition out of agricultural production. Moreover, the household enterprises are not qualitatively different across the four categories of households. Most such enterprises, regardless of what category of household operates them, primarily involve petty production or trading and do not require skilled labor.

Of importance to the strategy for rural economic development advocated in this chapter, it appears that other productive rural households are not more likely than commercially oriented smallholder farming households to be working in nonfarm enterprises producing goods and services that are primarily for local consumption. This includes employment in construction, building repair, and associated services; transport and associated services; education, health, and other social services; furniture and handicraft-making; food and beverage processing; and the like. One of the dynamic elements of the strategy is that increasingly these households will seek their livelihoods in these activities, relying on the commercially oriented farming households to supply the food they require through the market, and reducing their dependence on subsistence farming to meet their food needs. However, the fact that we are not seeing a larger number of other productive rural households working outside of agriculture suggests that the desired rural economic transformation process has not yet started.

Food consumption

Finally, food consumption patterns of households in each category are examined in Table 5.8. Although commercially oriented rural households are more likely than others to have consumed maize in the past week, such levels are high for all households, so any differences between categories in what share of households consume maize are not practically significant.

However, there are important differences in the sources of maize consumed across household categories. Commercially oriented households are much less likely than other households to have bought the maize they consume and much more likely to have produced that maize themselves. This pattern highlights the continued weakness of Malawi food markets and broader agricultural markets, and the high risk that consumers continue to perceive in relying on those markets for their staple food. It also suggests that although

TABLE 5.8 Source of maize consumed, dietary diversity, and experience of recent food insecurity of households in the different economic categories, 2016/17

Characteristic	All households	Commercially oriented smallholder farmers	Other productive rural households	Not economically productive	Urban households
Maize consumption in past week, % of households	97.8	99.4***	97.8	95.5	98.7
<i>Maize consumed per capita in past week, kg</i>	2.8	3.1**	3.0	1.8	2.6
<i>Purchased, share of maize consumed for those consuming, %</i>	53.5	30.3***	47.4	58.3	79.7
<i>Own produced, share of maize consumed, %</i>	34.1	61.5***	38.5	26.0	14.4
<i>Gift, share of maize consumed, %</i>	12.3	8.1***	14.1	15.8	5.9
Household Dietary Diversity Score (consumption in past 7 days out of 12 food groups), mean	7.7	8.3***	7.4	5.5	9.9
Experienced food insecurity within household:					
In past 7 days, %	63.4	49.0***	66.1	85.2	47.2
In past 12 months, %	72.5	60.9***	78.5	91.8	45.1
<i>Observations</i>	<i>12,447</i>	<i>636</i>	<i>8,412</i>	<i>1,161</i>	<i>2,238</i>

Source: Author's weighted analysis of 2016/17 Malawi Integrated Household Survey 4 (Malawi, NSO 2017).

Notes: Asterisks on the estimates for "commercially oriented smallholder farmers" indicate the statistical significance of the results of a Wald test on differences in estimates between households in this category and those in the "other productive rural households" category. * = $p < 0.10$, ** = $p < 0.05$, *** = $p < 0.01$.

some farming households may be quite commercial in how they plan their production, this should not be taken to mean that they are specialized producers that are exploiting their comparative advantage and relying on the market to supply the food, goods, and other services for which they do not have a comparative advantage. Such households continue to place a high value on meeting their own needs directly and insulating themselves from any market-related risks to their subsistence.

Overall, we see that few rural households are not subsistence oriented and, rather, rely on the market and specialized producers of those goods and services they require. This is not to say that these households are autarkic, but no systematic division of specialized labor is apparent in rural communities. An important goal of the broader development program advocated here is increased economic interdependence among rural households, mediated by efficient markets. Based on this analysis of household production and

consumption patterns and the role of the market in them, we see more evidence that rural Malawi appears to be closer to the start of the pathway to this goal than to its achievement.

The last rows of Table 5.8 examine dietary diversity and food insecurity. Commercially oriented households have more diverse diets and are significantly less likely than other rural households to have experienced food insecurity in the past week or past year. However, urban households perform better than commercially oriented smallholders on both sets of measures.

Changes in distribution of households across economic categories between 2004/05 and 2016/17

This chapter argues that agricultural and rural economic development strategies in Malawi should focus on commercially oriented smallholder farming households. However, the strength of this argument is undermined by the small share of Malawian households that fall into this category—only 5.5 percent in 2016/17. In our conceptual discussion in the chapter's opening paragraphs, we estimated that potentially up to 40 percent of rural households in Malawi may be commercially oriented smallholder households. On the face of it, it seems unlikely that significant improvements in household livelihoods and in the performance of the Malawian economy can emerge from efforts to increase the role that such a small group of rural households play in their local economies.

A better understanding of how the relative size of these household groups is changing over time can shed some light on this issue. If the share of Malawi's farming households that are commercially oriented shows a declining trend, it could be concluded that the development strategy advocated in this chapter might have worked in the past when more farming households were actively engaged with output markets, but that the development opportunity that situation presented has since been lost. In contrast, if the share of commercially oriented farming households has remained low but steady, it suggests that insufficient attention has been paid to building the capacity of these households to engage in higher-productivity commercial agricultural production, and to improving the enabling environment for their financial success, particularly through improved markets.

To better understand trends in the relative sizes of the four household economic categories, the typology used for the analysis of the IHS4 survey households was applied to households surveyed in the second IHS of 2004/05, and the third IHS of 2010/11. The population-weighted results of these analyses

are presented in Table 5.9. What we find is that the share of commercially oriented farming households among all Malawian households has remained low but relatively steady over the three survey rounds. The only consistent trend across the three survey rounds is the increasing share of the population made up by economically productive households in urban areas. This is consistent with rising urbanization in Malawi. At a regional level, there are indications that rural households in the Central region are becoming more commercially oriented, whereas rural households in the Southern region are becoming less so. However, because the small share of commercially oriented rural households in the south in 2016/17 may also reflect the poor cropping conditions

TABLE 5.9 Households in the different economic categories in 2004/05, 2010/11, and 2016/17, by rural regions and urban, weighted percentage share of households

Characteristic	All households	Commercially oriented smallholder farmers	Other productive rural households	Not economically productive	Urban households
2004/05 (IHS2)	100.0	6.3	71.8	10.3	11.7
Rural Northern	9.4	7.5	81.7	10.8	0.0
Rural Central	36.2	8.2	83.8	7.9	0.0
Rural Southern	42.5	6.1	79.5	14.4	0.0
Urban	12.0	0.0	0.0	2.5	97.5
<i>Observations</i>	<i>11,280</i>	<i>687</i>	<i>8,029</i>	<i>1,165</i>	<i>1,399</i>
2010/11 (IHS3)	100.0	4.4	68.0	12.3	15.3
Rural Northern	10.8	5.6	80.6	13.8	0.0
Rural Central	34.1	7.1	81.7	11.2	0.0
Rural Southern	39.5	3.4	79.7	16.9	0.0
Urban	15.6	0.0	0.0	2.2	97.9
<i>Observations</i>	<i>12,271</i>	<i>556</i>	<i>8,098</i>	<i>1,437</i>	<i>2,180</i>
2016/17 (IHS4)	100.0	5.5	66.6	9.2	18.7
Rural Northern	6.8	6.0	83.8	10.1	0.0
Rural Central	36.2	10.7	80.5	8.8	0.0
Rural Southern	38.0	3.1	83.6	13.3	0.0
Urban	19.1	0.0	0.0	1.7	98.3
<i>Observations</i>	<i>12,447</i>	<i>636</i>	<i>8,412</i>	<i>1,161</i>	<i>2,238</i>

Source: Author's weighted analysis of 2004/05 (IHS2), 2010/11 (IHS3), and 2016/17 (IHS4) Malawi Integrated Household Surveys (Malawi, NSO and World Bank 2007a; Malawi, NSO 2012, 2017).

Note: Statistics in second column are column totals, and those in the third to sixth columns are row totals.

there during the IHS4 survey year, these regional patterns should be confirmed using future survey data.

Commercially oriented smallholder farming households, though relatively few, are not withering away over time, despite an agriculture sector that overall is facing shrinking landholdings and continuing stagnant levels of agricultural productivity. Consequently, we cannot conclude that a window of opportunity for rural economic development through focusing on commercially oriented smallholders has now closed.

Assessment

The longer-term prospects for food security and rural economic transformation require engagement in fostering the economic success and growth of the commercially oriented smallholder category of rural households, who will form strong economic linkages with their neighbors who engage in increasingly remunerative nonagricultural economic activities. That so few rural households are well integrated into markets reflects continuing weakness in Malawi's markets and might seem to threaten the viability of this rural development strategy. However, the changes such a strategy for rural economic development would require—greater market integration for all rural households and higher agricultural productivity—are essential if rural Malawi is to avoid economic stagnation and increased immiseration. Although the target group for such a strategy—commercially oriented smallholders—currently is quite small, with effective market development and increased agricultural productivity, its size as a share of rural households will grow. At the same time, other rural households will see many of the barriers and risks to expanding nonagricultural livelihoods become less constraining.

For development program planning, the criteria used here to define the household typology can be refined. In the discussion of patterns in the typology profile tables, some weaknesses in the analytical framework were recognized, primarily linked to defining commercial farming solely based on maize sales. An alternative criterion could be used. For example, AGRA (Alliance for a Green Revolution in Africa) has explored a more disaggregated rural household typology to guide the design and targeting of agricultural development efforts (Hazell 2017; Hazell et al. 2017; Biscaye, Anderson, and Reynolds 2017). For farm household modeling purposes, other researchers studying Malawi's agriculture sector have created even more complex household typologies (Dorward 2002, 2006; Douillet and Toulon 2014). These alternative household typologies can provide insights for the design of efforts

to transform agriculture and the rural economy in Malawi, in addition to those gained with the simple typology here.

Nonetheless, we can expect that using these alternative typologies to understand the general agricultural and rural economic context will likewise show that agricultural markets in Malawi remain too weak to foster a strong commercial orientation among smallholder farmers, particularly in the production of food crops. The consequence of so few farmers engaging in the commercial production of maize or other food crops is a higher risk of food insecurity for many households and an increasing incidence of food crises for the nation as a whole.

Policy Strategies for Rural Economic Transformation

As plans for agricultural development in Malawi are executed, targeting should be done in a manner that best enables the attainment of the longer-term objectives of each component of these plans. Those components that are focused on food security and improving the quality of the diets of rural households should be universal. All those who farm to produce some of the food they consume—both nonpoor, commercially oriented smallholder farming households and poor, subsistence-oriented households—should benefit from such programs. These universal programs would include agricultural research and extension services, dedicated agriculture-for-nutrition and other food security programs, efforts to strengthen rights to land, activities for management of pests and diseases as well as other disasters, and others.

However, targeted approaches will be required for any public investments or programs designed to expand the participation of smallholder farming households in agricultural markets or for which commercial viability is inherent to the success of the effort. Activities that should be targeted to commercially oriented smallholders include those aimed at creating self-sustaining cooperatives and other farmer groups, bringing into production somewhat more capital-intensive irrigation schemes, or improving financial access to modern farm inputs on a full-cost, commercial basis. The greatest impact of such market-centered activities will be realized if they are principally targeted to nonpoor, commercially oriented smallholder farming households.

Making such targeting decisions will require strong commitment and leadership to surmount the political challenges that will arise from the government being selective in how its resources are deployed in the agriculture sector.

However, if the food security of Malawi is to be better ensured and sustained for future generations, agricultural transformation is needed. Reaching this goal will require the government to target its resources to catalyze such transformation specifically toward farmers who are able to multiply the benefits of such public investments. Allocating resources for these purposes to other rural households is misplaced.

At the same time, government can work to improve the prospects for these other households to pursue sustainable and remunerative nonagricultural livelihoods in the long term by building their capacity so that they can successfully and profitably operate nonfarm enterprises or find jobs that provide a good wage. To this end, the government should support specialized training to improve the ability of members of the increasingly nonagricultural rural households to offer goods and services of high quality to local consumers, to develop marketable technical skills, and to build their entrepreneurship and business management skills.

But even as efforts are made to provide good incentives to these other rural households to exit agriculture and pursue their livelihoods elsewhere, government must be vigilant in ensuring that these households are able to access the food they require. This includes continuing to provide support to poor households that farm so that they are as productive as possible. Government will need to remain vigilant in monitoring local food security situations and be ready to assist vulnerable households both through targeted support, using market mechanisms as far as possible, and if the scale of the crisis warrants, through humanitarian assistance.

This differentiated vision of rural communities will require a clear division in the priorities of the Ministry of Agriculture. The ministry will still support all rural households that engage in some farming, even if not commercially oriented, to make the most effective use of their land to ensure their own food security in the short to medium term. However, in fulfilling its mandate to support the longer-term development of Malawi's agriculture sector, the ministry should increasingly orient its efforts toward promoting the economic success of those with sufficient resources to use agricultural production as an engine of local economic growth—commercially oriented smallholder farming households. Somewhat more narrow targeting of the different government programs in the agriculture sector will be needed to better reflect the sharply different economic development and agricultural transformation potential among Malawian households that farm.

Although there are trade-offs in determining how best to allocate public resources both to achieve food security, on the one hand, and to propel rural economic change by expanding the participation of smallholder farming households in agricultural markets, on the other, there are a broad range of public investments that will support both objectives. These are the specific actions the government can take to create an enabling environment for both increased commercialization of agriculture and expanded opportunities for nonfarm employment. In doing so, the government can increase access to food for all. These actions include investing in both basic education and specialized technical training; expanding the network of all-season rural roads; extending the rural electricity supply; providing increased support to agricultural research and extension services; and continuing efforts to improve communication, particularly to support marketing and trade. Such investments, though initially they may primarily benefit more commercially oriented farm households, will provide a foundation for economic change in rural communities by expanding local nonfarm employment opportunities as well.

In summary, in terms of the economic categories of households that make up the rural population in Malawi, these efforts aim to lead toward a long-term vision for rural economic development with the following characteristics:

- Most agricultural production will be done by a significant number of productive, commercially oriented smallholder farming households, even if these productive farming households make up a much smaller share of all rural households engaged in any farming than is now the case. As such farming households become more specialized, become even more market oriented, and farm larger plots (ideally renting land from poorer neighbors), they will supply the food that increasing numbers of Malawians will obtain from the market.
- This agricultural transformation will be associated with a sharp increase in the share of the population made up of nonfarming households specialized in livelihoods outside of agricultural production, whether locally in their rural communities or elsewhere. The food needs of these households will increasingly be supplied through strengthened agricultural markets across the country.
- The food and other basic needs of the chronically poor in rural communities, and elsewhere, will be effectively met in part through social safety nets.

- The share in the rural population of poor, subsistence-oriented households that engage in some farming will shrink over time. If this vision of rural economic transformation is successful, it no longer will make sense for any household to engage in subsistence agricultural production to meet its food needs.

The public goods, services, and oversight that government provides can enable commercial smallholders to succeed economically while also fostering the economic advancement of their poorer neighbors. These other economically productive rural households will increasingly rely on the provision of labor and nonfarm goods and services, rather than subsistence farming, for their livelihoods and to ensure their own food security. Yet, regardless of the local success of such a rural economic growth strategy, social protection services still will be required for those households that are not economically productive and that may not be able to rely upon others in the community to meet their needs. However, we also must be realistic about the limited extent to which social protection support can be scaled up in communities across Malawi.

Finally, the discussion here neglects a third type of farmer—the large-scale commercial farmer. Such farmers are generally not residents in rural communities of Malawi, so in the typology used here, they are categorized under “urban households.” From an agricultural transformation perspective, as discussed in Box 5.1, such households are not expected to contribute significantly to accelerating the rural economic transformation mechanism centered on increased demand for locally produced goods and services. If the government seeks broad and inclusive economic structural transformation in rural Malawi, there is little reason for it to invest much, if any, of its resources in such large-scale farmers, beyond putting in place the components of an enabling environment for their business activities, including strengthened markets and supportive commercial regulations. However, government should restrict the ability of large-scale commercial farmers to expand their operations at the expense of smallholders, such as through land expropriation.

In sum, this approach to agricultural and rural economic development is oriented toward creating a significantly more diverse and integrated national economy. If it is successful, particularly in rural communities, agriculture will continue to play a dominant role in the local economy, but not as pervasively as now is the case. At the same time, increasing numbers of rural households

will obtain their food from the market because it makes economic sense to do so, rather than relying on markets only when their own production falls short. Stronger markets with more reliable supplies of food from both domestic and regional sources will make purchasing food a sound choice. In this way, improved food security for all will follow.