

Growth without Change? A Case Study of Economic Transformation in Mozambique

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ABSTRACT

Mozambique is generally perceived as having experienced rapid economic growth and urbanization. In this paper we re-evaluate structural transformation in Mozambique through a variety of data. We find that the structural transformation of Mozambique is dualistic in several dimensions. The composition of output has changed rapidly on the back of various industrial "mega-projects", yet both the share of agriculture in total employment and the national poverty rate have scarcely declined at all. In agriculture, there has been some promising growth in the cash crop sector, yet productivity of major food crops stagnated for most of the 2000s. And while the south of the country is significantly urbanized, spatially disaggregated population estimates suggest that Mozambique has experienced much less urbanization than UN data would suggest. These facts suggest that a more pro-poor strategy should exploit the pro-poor growth potential of the agricultural sector, as well as improving the business environment for the small and medium enterprise sector.

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INTRODUCTION

Mozambique is a unique case study in economic transformation, or lack thereof, even by African standards. Independence (1975) and peace (1992) have come relatively recently to Mozambique. The impacts of colonial heritage, civil war, and grand economic strategies on the country's path and potential are still clearly seen. From the mid-1960s to the early 1990s overall economic development and the transformation of rural and urban areas were effectively stalled by almost continuous conflict, first in the War of Liberation against Portugal and then, after independence, civil war between the FRELIMO Government and the RENAMO rebels. The civil war would claim more than a million lives and displace more than 3 million people, a fifth of the population. In 1992 the Government and the rebels signed a peace agreement, paving the way for elections in 1994. By this time, the government was already adopting a more market-friendly development strategy, in contrast to its initial Marxist economic vision (Saul 1987; Sidaway 1993).

As a result of recovery and pro-growth development policies, Mozambique has experienced rapid economic growth over the last decade.² There has been relatively fast urbanization in Mozambique, with UN estimates of the percent of urban population tripling between 1980 and 2010 (from 13 percent to 38 percent) (United Nations, 2010). However, the agriculture sector continues to command a high share of employment (76 percent in 2006/2007), and there is little evidence of agricultural transformation with only a small percent of farmers reporting use of improved technologies. Government expenditure in agriculture averages just 5-6 percent of GDP, with much of the government's growth strategy instead focused on mining and other mega-projects. There are also important spatial concentrations of economic development in Mozambique, with much of the south of the country closely connected to South Africa via trade, investment and labor flows, while the center, north and rural hinterlands remain remote and highly dependent on agriculture.

Given these distinctive complexities, this paper aims to document Mozambique's structural transformation in greater depth, with a view to identifying important implications for the country's current and future development strategies. We view economic transformation through several lenses: the transformation from rural to urban, the transformation from agricultural to nonagricultural, and the transformation of the rural sector itself, from low to high productivity. We aim to document these changes, understand

² Economic growth attributed to agriculture, however, appears to stem from area expansion and valuation of output. In fact, productivity seems to have stagnated.

some of the drivers of structural change, and to identify inefficiencies in this transformation from a growth and poverty standpoint.

PATTERNS AND TRENDS IN RURAL-URBAN TRANSFORMATION IN MOZAMBIQUE

There are no very reliable statistics on trends in urbanization in Mozambique given the infrequency of population censuses and the lack of any consistent definition of an urban area. The UN (2010) estimates and projections of the urban population share suggest that Mozambique was one of the least urbanized countries in the world from the 1950s to 1960, but that urban population increased almost fifteen-fold between 1960 and 2010, from just 4% of the population up to 38%. This would make it one of the most rapidly urbanizing economies in the world, albeit from a very low base. The speed of this transformation may well be exaggerated, although it is widely agreed that urbanization has proceeded at pace since the end of the civil war in 1992.

Given the concerns over the UN estimates, another way to look at “urban-ness” is through an agglomeration index (Uchida and Nelson 2010). This index avoids the problems associated with defining urban-ness based on political boundaries or non-comparable variables by using Geographic Information Systems (GIS) data on population density, and travel times to large urban centers.³ According to this measure, the percentage of the Mozambican population that was urbanized rose from 15 percent to 21 percent (6 percentage points) from 1997 to 2007 (Table 1). While a sizeable change, this index suggests that both the levels and rate of change in the UN data are excessively high.

Moreover, the agglomeration data are particularly useful in showing spatial variation in urbanization across provinces. In the northern region 13 percent of the population lives in an urbanized area, whereas almost 3 times that figure – 38 percent– of the population in the southern region is urban. This distinction also matters for international comparisons. Mozambique as a whole (at 21.2 percent) is more urbanized than Malawi (17.6 percent) and Swaziland (19 percent), but far less urbanized than Tanzania (26 percent), Zambia (30.5 percent), Zimbabwe (33.2 percent), and South Africa (49.4 percent). Yet southern Mozambique is second only to South Africa in terms of urbanization levels (Table A.1).

³ Locations are categorized as urban if the area has a population density greater than 150 people per km² and is located within one hour travel time of a city of at least 50,000 people.

Table 1. Agglomeration index: Levels of urbanization, by province and region

Province Name	1997		2007	
	Total Population (Thousands)	Percentage Urban	Total Population (Thousands)	Percentage Urban
Southern Region	5,355	27.8	6,579	38.2
Maputo City	987	82.9	1,120	98.1
Gaza	1,084	16.2	1,251	29.8
Inhambane	1,150	5.7	1,302	9.6
Maputo Province	820	21.9	1,233	25.8
Sofala	1,314	19.2	1,672	35.6
Northern Region	10,178	8.4	14,045	13.2
Cabo Delgado	1,311	6.9	1,632	8.6
Manica	994	19.5	1,438	21.1
Nampula	3,021	5.3	4,049	14.3
Niassa	769	15.2	1,227	18.3
Tete	1,157	7.2	1,802	11.1
Zambezia	2,926	7.2	3,897	10.4
Mozambique	15,534	15.1	20,624	21.2

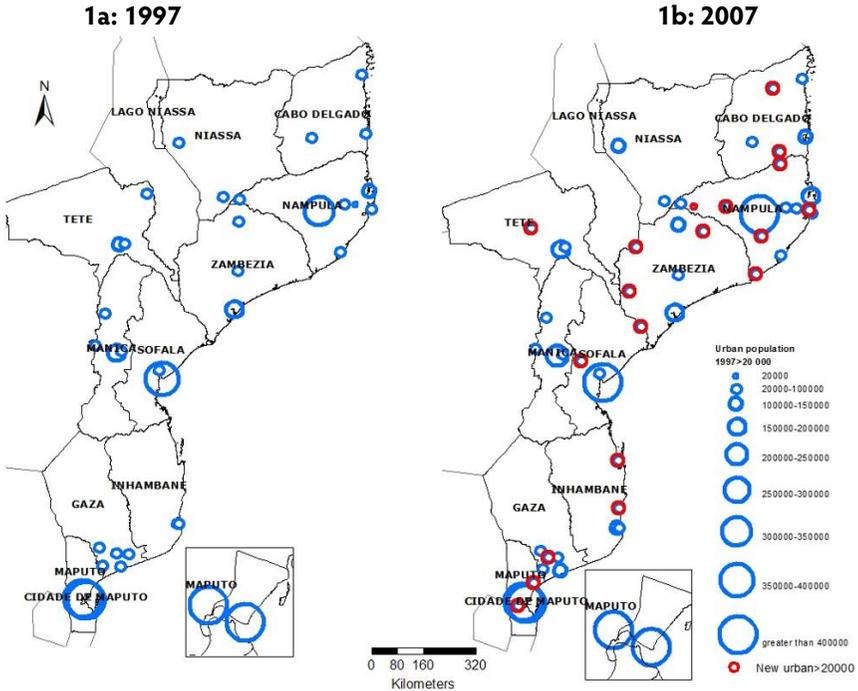
Source: Own calculations.

Agglomeration data can also give some sense of the drivers of rural-urban transformation over time, albeit in an imprecise way. These sources are intra-urban population growth (including the “transformation” of rural towns into “agglomerations”), rural-to-urban migration (discussed below) and improved transport networks. As is the case in many African countries, urban fertility rates

remain relatively high, such that intra-urban population growth is thought to account for around half of total urban population growth in most African countries (Montgomery 2008). Indeed, Figure 1 shows the emergence of many new cities: in 1997 Mozambique there were just 19 cities of over 50,000 inhabitants and 33 cities of over 20,000, but in 2007 there were four more cities of more than 50,000 people (23 total) and 19 more cities of more than 20,000 (52 total). A second driver of increased agglomeration is improved road networks (Schmidt 2011).

Even so Mozambique's population still remains one of the least well connected in the world, with major disparities between north and south. Approximately 70 percent of the population in the south can access a major city within 3 hours. In contrast, although the north contains more than two-thirds of the country's total population, only 26 percent of inhabitants can get to a city of at least 50,000 people within 3 hours, largely because of high degrees of population dispersion and persistent infrastructure constraints.

Figure 1. Changes: Cities larger than 20,000: 1997 and 2007



Source: Schmidt (2011).

Rural-urban migration

As was noted above, perhaps half of all urban growth in Mozambique is driven by rural-to-urban migration. However, international migration is also a significant dynamic in the Mozambican economy, especially for employment in South Africa (largely mining). Urbanization in the 1970s and 1980s was partly driven by rural emigration to cities in search of greater safety. While the migration that occurred after the war is more complex, there is evidence of three different migration patterns: rural-urban, rural-rural, and international (Dávila et al. 2008; Raimundo 2009). Rural-to-urban migration is the most predominant, with the south, with its large metropolis of Maputo-Matola, being a prime destination. In the southern provinces, 33 percent of the total population is originally from central or northern provinces. In contrast just 15 percent of those

in northern provinces are from elsewhere, while only about 10 percent of those in the central provinces are from elsewhere (Raimundo 2009).

A recent household survey of the southern provinces (Gallego and Mendola 2010) looked at individual-level characteristics of migrant and non-migrant household members. They found that 12 percent of sampled individuals were working away from home, while six percent were return migrants, mostly from South Africa. Interestingly, 58 percent of returnees intended to leave again in the future. Migrants returned mostly once per year, and 45 percent of them sent remittances home, with the money spent on primary needs such as food, clothing, and housing.

Although it might not be the preferred form of employment for many, seeking employment in South Africa is still an option due to the limited absorptive capacity of Mozambique's formal economy (de Vletter 2007; Raimundo 2009) and the agricultural sector. Recently, however, labor migration out of rural areas has been constrained by the reduction of recruitment of workers to the mines by the South African government. Increased antagonism in South Africa toward foreigners has prompted the Mozambican government to repatriate more than 30,000 of its nationals (Kapp 2008). The integration of these workers in the Mozambican economy has been difficult since some of them have not worked in any other sector but mining for their whole adult life. Moreover, unemployment and underemployment are quite widespread in urban Mozambique.

Trends in sectoral employment

Not unlike urbanization data, employment data in Mozambique is also quite limited. The last known labor survey (IFTRAB) was conducted in 2005 (INE 2006), and there are definitional issues related to multiple or seasonal occupations. Bearing uncertainties over the comparability of such statistics in mind, Table 2 attempts to assess some trends in sectoral employment shares over time. The data strongly suggest that the agricultural sector's share of employment remains very high (76% in 2006-07) and has only declined very slowly over time. Changes in other sectors were also quite modest, with commerce accounting for the largest increase. The IFTRAB survey of 2005 also found that over 80% of people listed agriculture as the main source of employment, suggesting that occupation transformation has been very slow. Unsurprisingly, that survey also found a larger discrepancy between north and south (90% in the north versus 72% in the south).

Table 2. Employment in key sectors over time (percentage)

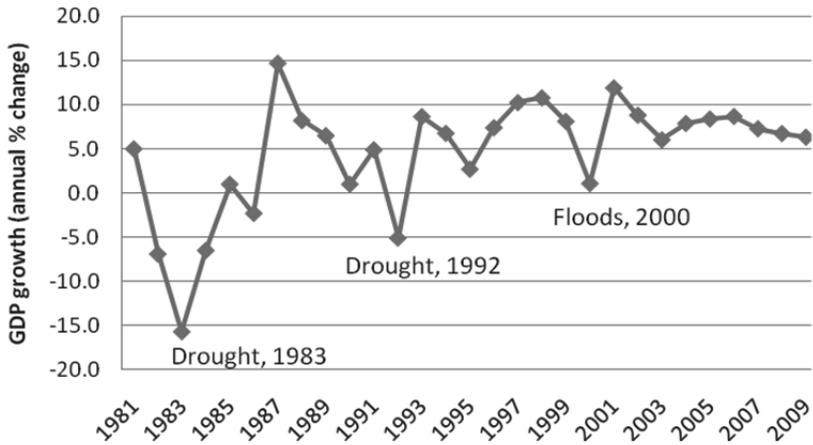
	1990-95	1996-2000	2001-05	2006-07
Agriculture	81.5	80.8	79.9	76.1
Mining	0.9	0.6	0.5	0.6
Manufacture	3.8	3.4	3.2	3.2
Energy	0.1	0.1	0.2	0.2
Construction	1.4	2.0	2.2	2.5
Commerce	4.2	6.5	7.7	7.6
Transport, communication, and storage	1.2	0.5	0.9	1.1
Others	6.8	6.1	5.5	7.4

Source: Based on MPF/UEM/IFPRI 1998; INE 1999; MPF/IFPRI/PU 2004; INE 2006; Brück and van den Broeck 2006; INE 2008.

Trends in growth and sectoral contributions

The persistence of agricultural employment is a source of concern for two reasons. First, the agricultural sector is highly vulnerable to droughts and floods, to the extent that natural disasters even appear to substantially affect total economic growth, which has otherwise improved markedly in recent decades (Figure 2). Second, agricultural productivity is extremely low (discussed in more detail below). Third, the persistence of agricultural employment is in contrast to the transformation of economic output (Table 3), which has involved a relatively quick transition out of agriculture over the last 15 years or so. Overall, industry (including manufacturing) rose from about 18 percent in 1990 to about 23 percent in 2009. The sluggish increase in nonagricultural employment, however, would suggest that the accelerated growth of non-agricultural sectors has not been job-creating.

Figure 2. Annual percent growth in GDP 1981-2009.



Source: World Bank 2011a.

Table 3. Sectoral sources of economic growth: 1994-2009

	Agriculture	Industry (including megaprojects)	Construction	Wholesale and retail	Transport, storage, commun	Other
Sector share: 1994	31.3%	8.0%	2.1%	16.3%	10.2%	32.3%
Sector share: 2009	27.1%	20.4%	3.3%	16.0%	10.8%	22.7%
Growth rate	164.2%	676.1%	378.6%	199.3%	225.6%	114.5%
Growth rate weighted by 1994 share	51.4%	54.3%	8.1%	32.6%	23.0%	37.0%
Contribution to total economic growth	25.0%	26.4%	3.9%	15.9%	11.2%	18.0%

Source: Own calculations from UN 2011.

Notes: Industry includes mining, manufacturing and utilities.

Well-being in rural and urban areas: Poverty, nutrition, and education

Consistent with the notion that nonagricultural growth has not been poverty reducing, recent poverty statistics for Mozambique showed no change in poverty over the 2000s and even a minor rise in rural poverty, after poverty declined substantially over 1996-2003 (Table 4). Regionally, the northern provinces are less poor than the central and southern provinces, although poverty in Maputo City is much lower than elsewhere in the country. These provincial differences, and the changes since 2002-03, are intriguing but could point to improvements in agricultural services and productivity in some provinces (like Tete) and the negative impact of weather shocks, plant disease, and turmoil in neighboring countries (Zimbabwe) that affected trade in others (Sofala, Zambézia). In addition to lack of job creation, a cross-cutting factor affecting much of the country could be rapid food inflation (Tvedten, Paulo, and Rosário 2009).

Non-monetary welfare indicators show some different spatial patterns. The rural-urban gap in stunting is much higher than the poverty difference between rural and urban areas (13.5 points versus 7.3 points), and those in the north were much more likely to be stunted than those in the south. However, surveys of malnutrition across time suggest a slow secular decline in stunting, which is somewhat consistent with the relatively slow poverty decline in the 2000s. Education trends are considerably more favorable, although rural areas lag well behind urban areas in terms of secondary enrollment. However, regional inequalities have reduced over time as lagging areas tended to catch up to more advanced areas (MPD/DNEAP 2010).

Table 4. Poverty and malnutrition, by survey year and location

Description/ Survey year	Poverty headcount			Stunting
	1996-97	2002-03	2008-09	2008-09
National	69.4	54.1	54.7	46.4
Urban	62.0	51.5	49.6	36.4
Rural	71.3	55.3	56.9	49.9
North	66.3	55.3	46.5	45-57 (u-r)
Niassa	70.6	52.1	31.9	
Cabo Delgado	57.4	63.2	37.4	
Nampula	68.9	52.6	54.7	
Zambezia	68.1	44.6	70.5	
Center	73.8	45.5	59.7	43-50 (u-r)
Tete	82.3	59.8	42.0	
Manica	62.6	43.6	55.1	
Sofala	87.9	36.1	58.0	
South	65.8	66.5	56.9	23-33 (u-r)
Inhambane	82.6	80.7	57.9	
Gaza	64.6	60.1	62.5	
Maputo Province	65.6	69.3	67.5	
Maputo City	47.8	53.6	36.2	

Source: MPD/DNEAP 2010. Note: Exact figures for stunting were not available at the provincial level. Figures are for urban (u) and rural (r) areas in each region.

EXPLAINING RURAL-URBAN TRANSFORMATION IN MOZAMBIQUE

The main findings of the previous section are threefold. First, Mozambique is probably less urbanized than UN urbanization data would suggest. Nevertheless, it has been experiencing rapid urbanization from a low base, but with much higher levels of urbanization in the south relative to the center and north. Similarly, the vast majority of the workforce is still in agriculture, and there has been very sluggish movement out of agricultural labor. Second, migration patterns in Mozambique are complex. The growth of towns and cities was partly

propagated by the vulnerability of rural populations to conflict, and more recently by new roads and some urban economic opportunities. But migration to South Africa appears to have slowed down. Third, although economic growth has been quite rapid, with a substantial increase the share of several nonagricultural sectors, it would appear that this growth pattern has not been job-creating or poverty reducing, at least in the 2000s. In this section we try to explain these three facts by examining the transformation of agriculture and the larger economy, particularly in light of recent development strategies and policies. Specifically, we focus on three factors: sluggish agricultural development, somewhat limited opportunities for diversifying into nonfarm activities, and a heavy focus on mega-projects.

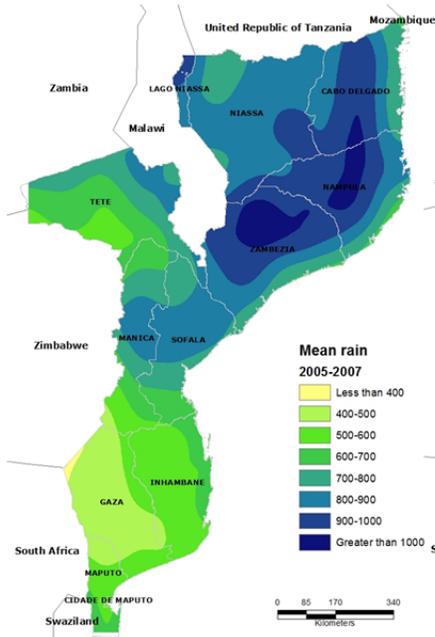
Sluggish agricultural development

Mozambique is a large country (796,000 square kilometers) with an abundance of land and water, excellent coastal access, and fertile agro-ecological zones that should allow it to produce a variety of crops and livestock (see Figure 3 as well as Green et al. 2006; Brück and Schindler 2009). Despite this potential, Mozambique's agricultural performance has been quite lackluster. Figure 4 shows FAO estimates of cereal production and import trends in Mozambique (FAO 2011). Domestic production has been varied, reflecting the vagaries of weather, but with no real signs of an upward trend.

In per capita terms cereal production has actually declined in recent years. Consequently, the share of imported cereals to total cereals has risen almost continuously in Mozambique, reaching very high levels in the mid-2000s. Imports have declined somewhat in recent years although this is likely related to higher import prices. Most imported cereals are consumed in the south, particularly in Maputo City. Although Maputo does get fair amounts of cereals and beans from the center and north provinces, domestic production is clearly not enough to meet southern demand. Trends in root crop production (e.g., cassava), which are also a major source of calories in Mozambique, are somewhat more favorable than cereal production, but overall the high dependence on cereal imports leaves consumers in rural and urban areas highly vulnerable to fluctuations in international prices. Yet poor infrastructure connections between the south and the center and north of the country will likely mean that the south will continue to rely on South African food imports to satisfy demand for many years to come. We also note that although food production only increased by 70% of 1994 to 2004, nonfood production increased by 700 percent. Hence there is some scope for products like tobacco, sugar, jatropha and other niche products to enhance rural income growth in the future.

Figure 3. Agricultural Conditions in Mozambique

A.3.a. Rainfall in Mozambique
2005-07



A.3.b. Land suitability for
agricultural use

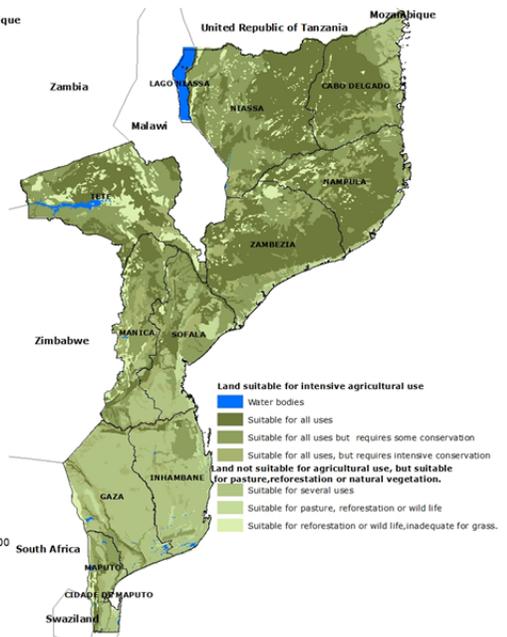
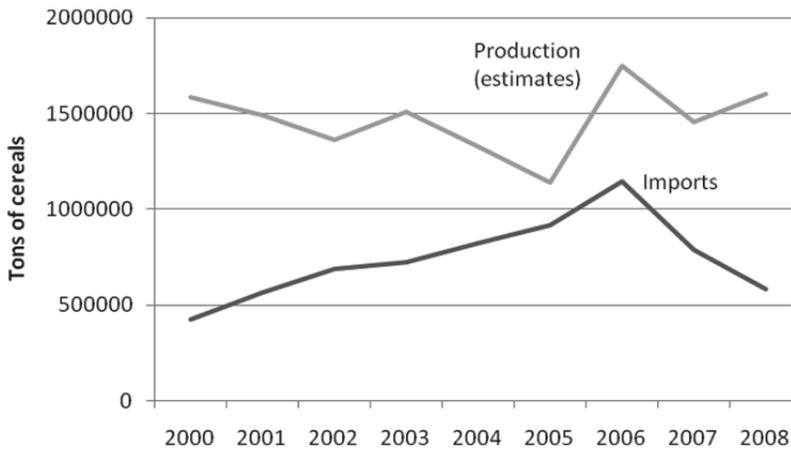


Figure 4. Cereal production and import trends, 2000-2008



Source: FAO (2011).

Why is agriculture performing so poorly? The short answer is that agricultural production in Mozambique suffers from lack of access and availability of improved technologies, markets, and government services. In addition, agricultural production in Mozambique is almost entirely rainfed, yet rainfall is erratic (droughts and floods are common) and not well-distributed, and water harvesting and conservation technologies are still markedly sparse (Boughton et al. 2006). Labor and lack of mechanization may also be major constraints to increased productivity. The average farm size is very low (less than 2 has. for a family of around 5 persons), yet Walker et al. (2004) report that in 2002 the majority of farmers said they could expand their farm sizes if they wanted to. Hence insufficient mechanization and draught power could also be significant constraints (Cunguara and Hanlon 2010).

The use of other inputs is also extremely low (Table 5). Less than 10 percent of farmers use fertilizer, pesticides, irrigation, credit, or extension services, because of problems related to poor access to credit, markets and extension services.⁴ For most crops actual yields are about 20 to 30 percent of

⁴ This is due to lack of access to credit (Langyintuo and Mekuria 2005), a wealth bias in extension services (Walker et al. 2004; ECON Analysis 2005; Gêmo, Eicher, and Teclemariam 2005; Mather 2009; Cunguara and Hanlon 2010; Cunguara and Moder 2011), and poor market access (Crawford, Jayne, and Kelly 2005; Minde, Mazvimavi, and Manussa 2010; Uaiene, Arndt, and Masters 2009; Arndt and Tarp 2001; Arndt et al. 2000; Massingue et al 2004; Tostão and Brorsen 2005; Mather, Boughton, and Jayne 2011; Cirera and Arndt 2008; Cunguara and Darnhofer 2011).

potential yields, with cassava the only exception (Loening and Perumalpillai-Essex 2005 and Howard et al. 1998.). These facts suggest that Mozambican agriculture needs sustained investment on multiple fronts, particularly development of input and output markets, including finance, since this is a prerequisite for adoption of improved technologies.

Table 5. Characteristics of agriculture production in Mozambique, 2002-2008

Description	2002	2008	Δ 2002-2008 (percent)
Cultivated area ('000 hectares)	4,185	5,602	33.9
No. small and medium sized farms ('000)	3,127	3,725	19.1
Average farm size (ha.)	1.3	1.5	12.4
Household size (average no. members)	5.0	5.1	2.0
Rural population (millions)	12.4	15.1	21.5
Household heads with 4 th grade education (%)	31.1	42.3	36.0
Receipt of extension (% farms)	13.5	8.3	-38.5
Use of chemical fertilizer (% farms)	3.8	4.1	7.9
Use of pesticides (% farms)	6.8	3.8	-44.1
Use of irrigation (% farms)	10.9	8.8	-19.3
Receipt of credit (% farms)	2.9	2.6	-10.3

Source: Adapted from MPD/DNEAP (2010).

These discouraging facts about Mozambican agriculture suggest that government efforts to improve agriculture have not been effective. This is not for want of agricultural strategies on paper, such as PROAGRI II, the Green Revolution Strategy, the Rural Development Strategy, and the Food Production Action Plan. A new Agricultural Sector Development Strategy (PEDSA) is close to approval, to replace the current one, which dates from 1996. Nor is the problem related to heavy taxation of agriculture. Mozambique essentially eliminated the heavy taxation of agriculture that had characterized the civil war period, including exchange rate distortions and control of farmgate prices (Alfieri et al. 2008).⁵

⁵ The current price regime instead involves some subsidy of rice, maize, and groundnuts, and heavy subsidization of tobacco and sugar, although there are plans to provide highly subsidized inputs, particularly seeds and fertilizer, in order to accelerate the adoption of modern technologies by farmers producing the targeted crops (maize, rice, wheat, cassava, soybean) as well as poultry.

The major constraint in practice is that Mozambique's agricultural development strategies suffer from both low investment and ineffectiveness. Government expenditures shares for agriculture fall significantly below the CAADP target of 10 percent, typically averaging 6 to 7 percent but only 3 to 5 percent in recent years (Table 6). Instead, much of the government budget has been focused on education, roads and health (including tackling the AIDS/HIV epidemic). While these investments have some benefit for agriculture, they are not substitutes for investments in agriculture.

As for the effectiveness of agricultural spending, government capacity for analysis and implementation at national and lower levels is weak. This is complicated by the fact that the government is currently pursuing administrative decentralization. The goal of decentralization is a worthy one, but there are significant implementation problems associated with weak incentives, poor capacity and politicization of spending.⁶ The spatial pattern of spending also seems at odds with the importance of agriculture or population. Spending in the two most populated provinces of Zambézia and Nampula, which are crucial for cereal production in Mozambique, exhibits low levels of spending in comparison to the other provinces (Zavale et al. 2009). Budgetary procedures also make it difficult to assess quality of spending, although for R&D the government spends around US\$6 million (MT140 million) per year, which is around 0.24 percent of agricultural GDP. This is very low by international standards, clearly at odds with Mozambique's considerable agricultural potential (Walker et al. 2006).

⁶ Organizationally, Ministry staff at the local level respond not only to national authorities but also to district and provincial authorities in terms of activities and expenditures. These officials may not share the same priorities as the national level. The most visible expression of decentralization efforts is the OIL (Local Initiatives Investment Budget), almost known as "7 milhões." This program allocates 7 million meticals (or about \$200,000) to each district annually. The transfer is made in the form of a block grant. Spending is left to the discretion of the district councils, although the money should be spent on employment creation and agricultural development. In theory, this structure should make expenditures more responsive to local needs; in practice, the discretion given to the local authorities means that they may respond more to personal and political concerns.

Table 6. Sector Share (Percentage) of Total Government Expenditure

Sector	1999	2000	2001	2002	2003	2006	2007
Education	16.1	19.8	23.3	18	17.8	20.3	21.6
Health	13.4	12.9	9.9	12.6	14.9	13.9	13.4
Infrastructure	13.3	15.7	17.4	16.5	11.8	16.8	14.1
Agriculture and rural development	5.2	6.3	3.4	5.5	6.9	4.6	3.7
Governance, security, judicial system	8.9	7.8	7.7	7.7	8.9	8.1	8
Other sectors	43.1	37.5	37.8	38.9	39.4	36.3	39.2

Source: Authors' calculations from various issues of IMF and Mozambican Ministry of Finance publications.

Notes: Amount excludes interest payments. Data on actual expenditures not available for 2004 and 2005

Limited opportunities for migration and rural income diversification

Low levels of agricultural productivity have complex effects on nonfarm income diversification. On the one hand, low agricultural productivity constrains growth in the local nonfarm economy. Farm income growth raises demand for local nonfarm goods and services, often with quite large multiplier effects (Haggblade et al. 2007). Agricultural productivity growth and appropriate interventions can also promote downstream linkages through agroprocessing. So the low productivity growth in Mozambican agriculture is likely an important explanation for the persistence of high degrees of employment in agriculture, rather than greater diversification.

On the other hand, productivity and farm size constraints may encourage some farmers to pursue more nonfarm activities to supplement low farm incomes. For instance, smallholders in the southern provinces may be compelled to diversify outside agriculture because they cultivate relatively smaller fields, and because they have better access to markets, finance, and education services (Cunguara, et al. 2011). In addition to regional differences, the diversification pattern outside agriculture appears to differ by the quality of the agricultural season. Farmers in the bottom quintile of household income per adult equivalent tend to participate in nonfarm activities mostly as a drought-coping mechanism, whereas households in the top quintile seem to engage in nonfarm activities mostly as a permanent livelihood strategy (Cunguara, et al. 2011).

Clearly, however, an important goal of any development strategy in Mozambique should be to promote more positive economic diversification of the rural economy. One option may be to promote diversification within agriculture itself, particularly to cash crops. Benfica (2006) documents that in the Zambezi valley, farmers growing cotton and tobacco spend more money on non-agricultural commodities (see also Tschirley and Benfica 2001). Another option is to provide greater support for investment in agro-processing and market infrastructure (Cunguara et al. 2011). Agro-processing can add value to the local economy, especially if this sector can be linked to high demand urban areas.

Finally, a complex issue pertains to the role of migration. Historically, residents of southern provinces have had closer connections with South Africa, providing labor for the mines. Official remittances totaled about USD 111 million in 2009. This figure is low compared to USD 600 million in FDI and USD 2 billion in foreign aid (World Bank 2011a), but official remittances probably heavily understate total remittances, and remittances are not loans but income earned. However, the potential to increase emigration to South Africa is unclear given the recent race riots in South Africa. Thus migration is likely to be a useful source of income and foreign exchange for households in the South, but not an engine of development. Similarly, internal migration is a useful coping mechanism and an important strategy for obtaining cash to pay for basic services and goods usually found in cities and towns. But in part these patterns of migration largely result from the inadequate development of rural areas themselves. Thus, investment in rural infrastructure and service provision should be the central pillar of any strategy that aims to diversify and transform the rural economy.

Growth of the urban economy: biased towards mega-projects?

As we noted in several places above, megaprojects financed by foreign investment are a key element of Mozambique's current economic growth strategy. The first of these was the Mozal aluminum smelter in Maputo province, created with a \$2.1 billion investment by Australian and South African interests. This made Mozambique one of the largest aluminum exporters in the world. Other megaprojects include a gas pipeline from Inhambane province to South Africa and a total of \$950 million in investments in titanium mines and smelters. By late 2010 nine megaprojects were estimated to total \$9.82 billion in investment, creating five to six thousand direct jobs, and hundreds of supply contracts (Sonne-Schmidt, Arndt, and Magaua 2009).

Table 3 – reported in the previous section - indicated the contribution of these megaprojects to GDP in an indirect fashion. The projects all fall under the industry category of mining, manufacturing and utilities, although these

projects have also driven growth in construction. In 1994 industry accounted for just 8 percent of GDP, but by 2009 it accounted for 20.4 percent, with construction adding another 4 percent. Although industry is smaller in size than agriculture, it contributed as much as agriculture to overall growth over 1994-2009 (roughly 25% each). The majority of this growth is indeed related to megaprojects (Sonne-Schmidt, Arndt, and Magaua 2009). Megaprojects also contribute substantially to export revenue, perhaps over 50 percent in 2006 (Sonne-Schmidt, Arndt, and Magaua 2009), and they have played a catalytic role in infrastructure development (e.g., the Maputo port) and to some extent in improving the overall investment climate.

The contribution of megaprojects to poverty reduction, however, is very low. For instance, the southern provinces have absorbed most of this foreign-direct investment (FDI) but had little or no poverty reduction in recent years (see Table 4 in the previous section). This is likely due to the fact that these projects generate little employment relative to other sectors and contribute little to government revenue since megaprojects were attracted via tax breaks. Consequently, while the growth of foreign investment is not necessarily harmful, FDI-led growth in Mozambique is not pro-poor and may mean that policymakers ignore the lagging sectors of the economy because overall economic growth rates appear impressive.

However, agriculture is not the only lagging sector. A key of generating jobs for the nonfarm sector is through small and medium enterprise (SME) development. However, the business environment for SMEs is still far from ideal. Table 7 reports results from a 2007 World Bank enterprise survey (World Bank 2011c), mostly of urban firms. Although Mozambique compares favorably to the region on a number of dimensions (particularly infrastructure), Mozambican firms appear highly capital constrained and also face significant regulatory and administrative barriers. Outside of Maputo, banking infrastructure is very low, and although microfinance has witnessed some expansion in Mozambique, the sector is still underdeveloped (de Vletter 2006). Thus it is not obvious that the development strategy centered around mega-projects has achieved sufficient gains for the domestic SME sector.

Table 7. Business constraints according to a 2007 survey of firms

	Mozambique	Africa	All countries
Non-infrastructure constraints (% of firms citing)			
Tax administration	15.8	26.9	23.7
Business licensing and permits	13.7	16.2	15.5
Crime, theft and disorder	33.6	28.8	25.9
Access to finance	50.1	44.8	30.7
Customs and trade regulations	12.2	21.8	16.9
Labor regulations	6.0	8.7	11.7
Infrastructure constraints			
Number of power outages in a typical month (days)	3.0	10.5	9.0
Incidents of water insufficiency per month (days)	2.3	7.2	6.3
Delay in obtaining a water connections (days)	34.1	29.5	34.3
Delay in obtaining a mainline telephone connection (days)	5.0	30.7	25.4
Delay in obtaining an electrical connection (days)	12.7	31.2	36.8

Source: World Bank 2011c.

CONCLUSIONS: TOWARDS A MORE EFFECTIVE RURAL–URBAN TRANSFORMATION?

This paper has highlighted a number of disturbing and sometimes puzzling facts about the rural-urban transformation in Mozambique. With regard to the first of our lenses on transformation, it could be said that “urban-ness” is coming to rural areas on the back of population growth, rural-urban migration and improved infrastructure. Yet the rural-urban transformation has been quite uneven over space, with the south of Mozambique far more urbanized than the north. Moreover, the transformation of employment has been extremely sluggish, suggesting that job creation outside of agriculture has not been commensurate with sizeable growth in the nonagricultural sector’s share of GDP.

We have explained this transformation pattern through three factors: sluggish agricultural productivity growth, the limited opportunities for rural

nonfarm diversification and migration (in part related to the marginal improvement in the agricultural sector), and a heavy focus on mega-projects as the primary strategy for achieving rapid economic growth.

Of these constraints, perhaps the most puzzling is the extreme underinvestment in agriculture. While the CAADP target of a 10% agricultural share is controversial as a “one size fits all” benchmark, in the Mozambican context it would least appear that agricultural expenditure shares of 3-4% are far below optimal levels, even with a number of other development priorities such as education, infrastructure and health. This conclusion is based on three justifications. First, the country holds vast agroecological potential in terms of abundant land and water resources (admittedly dominated by rainfed agriculture). Second, Mozambique has much better coastal access than most African countries, suggesting that it could one day be a major net exporter of foods. Third, Mozambique has some potential for import substitution, given its fairly heavy reliance on South African cereal markets.⁷

Increasing public investment in agriculture would therefore appear to be warranted, although expansion of investment needs to be accompanied by some important institutional reforms. For example, many extension workers are on an annual contract, which encourages the more productive agents to seek jobs with NGOs and the private sector (Eicher 2002). Moreover, the government faces a significant challenge in recruiting and retaining qualified employees that can provide solid analysis and advice and promote effective policy change, due to lower wages relative to the private sector. Institutional ineffectiveness in design of investment as well as execution means that employees in the agricultural sector have a difficult time lobbying the government and donors for more resources, which has in part contributed to the decline in agricultural funding. This downward spiral needs to be reversed by a major political and financial commitment to improving the capacity and impact of public agricultural institutions.

While these considerations point to the need for Mozambique to revise its development strategy along more pro-poor lines, it is worth highlighting what the implications of not revising its strategy might be. First, without stronger rural-urban linkages and greater agricultural investments, it may well be that the Mozambican economy becomes increasingly dualized, in terms of north-south divides, rural urban divides, and the already sizeable divide between the mega-project economy and largely informal agricultural and service sectors. Second, since considerable research shows that group inequalities are one of the main

⁷ The question of why Mozambique invests so little in agriculture is therefore a political economy one beyond the scope of the current paper.

determinants of conflict and social disruptions, the increasing dualization of the Mozambican economy poses a serious threat to social stability. In 2008, for example, rapid food inflation causes large scale protests in urban areas where food inflation is felt the most. Dozens lost their lives, hundreds were injured, and several physical infrastructures were attacked, including a school. These problems are symptomatic of a troubled economy that belies Mozambique's impressive economic growth rates.

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