Mozambique: Jobs for Development

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Executive Summary

The path to inclusive growth in Mozambique, as in most other developing countries, lies in higher quality employment. With a low per capita income and a high level of deprivation, higher earnings will be the main driver of poverty reduction in the next few decades. Today, the majority of the labor force does not earn enough to bring themselves and their families out of poverty. Small holder farmers in rural areas — where the majority of the labor force still earns most of their income - are not able to work full time, owing to seasonality of agriculture, lack of assets, and in the case of females, the burden of household chores. Urban residents report working long hours but still struggle to develop a sustainable livelihood. In both urban and rural areas, the majority of the labor force works for themselves or their families, as steady wage employment is unavailable, even in urban areas.

A jobs strategy is important now more than ever for channeling economic growth towards poverty reduction and shared prosperity in Mozambique. Owing to continued high fertility rates, Mozambique's working age population is growing rapidly. A reasonable expectation is that most youth entering the labor market will work in the same types of economic activities as their parents. This means that they will work in household production – family farms and household self-employment. They will be as poor as their parents if they cannot find ways to raise their earnings in these sectors.

Mozambique has a number of natural advantages which could be harnessed for inclusive growth – a long coastline, ample land for agriculture, and increasingly, income from its natural resource wealth. The key is to use these advantages to encourage private sector investments that raise productivity, in both the agriculture sector and in the growing nonagricultural sectors. This requires effective public policy to increase opportunities and earnings in three major livelihood segments: private sector wage jobs (including in the commercial farming sector); household enterprises; and family farming. This means raising the demand for labor in the private enterprise sector, and improving productivity and earnings while lowering risk in the household production sector. Even though most entrants to the labor force will not be able to find wage jobs in enterprises for the foreseeable future, creating more of these jobs is the backbone of an economic diversification and jobs strategy because there are major spillover effects to other sectors of the economy.

In the modern wage segment, the policy objective should be to create more jobs. To do this, policies must support a) private investment in labor intensive firms and b) linkages between the capital-intensive

natural resource sector and the local populations in order to create local jobs. Promoting all categories of firms will be critical, as only investing in small or micro firms may not have a substantial impact due to their high mortality and low rates of growth. Conscious and well targeted efforts to build the supply chains of large firms by encouraging small and medium domestic companies to integrate with them (hence enabling access to markets and skill transfer) are needed.

In household smallholder agriculture, interventions are needed to increase land and labor productivity to allow more hours to be worked and greater value to be produced per labor hour (through, for example, improvements in water management). Other standard recommendations for the agricultural sector include steps to improve availability of technology and capital, increase livestock holdings, and reduce or mitigate weather risk. If Mozambique were able to attract private investment in agro-processing to meet the growing demand in urban areas for processed foods, this could also benefit farmers by developing markets (as well as creating non-farm wage jobs). Increased irrigation and other infrastructure investments for a commercial agricultural sector, and private investment in agro-processing, can both help increase demand for off season or year-around wage work in rural areas.

In the household enterprise sector, the main barrier seems to be the lack of a supportive local environment. Obstacles to earning a living cited in surveys of rural HE owners include lack of infrastructure which results in poor access to electricity and long and costly distances to markets. Urban HE owners are more likely to cite crime and harassment by local officials. HE owners in both rural and urban areas complain about lack of finance, a common problem in this sector. Development strategies tend to ignore this sector, denying opportunities to both urban and rural residents. Supporting rural households to develop HEs can also benefit smallholder agriculture, as households would have a place to invest cash after harvest, and then as the planting season rolls around, have funds for buying seeds and inputs. Both activities would be more profitable and sustainable when rural transportation and other connectivity infrastructure is increased. In the short-to-medium term, urban strategies also need to help make HE activities more profitable. This will require involvement of the HE owners themselves, which implies that local authorities respect these activities as legitimate value-adding ones. Countries such as Ghana have shown that consultation and involvement of HE owners in local economic development plans has created effective HE clusters near customers and suppliers, for everyone's benefit.

Similar to youth in other SSA countries, Mozambique's best educated urban youth are struggling with the transition to work. As many of these youth will end up starting a HE, efforts to improve the business environment for this sector will benefit these youth. Urban leaders may also wish to look to NGOs and

donors for innovative low cost programs which can reach these youth, orient them to the opportunities available, and help them build the life skills they need to create their own livelihood. However, the youth jobs strategy should not just focus on advantaged urban youth, despite their political prominence.

The jobs agenda requires various partners – including the government and the private sector - to work together to create synergies. To avoid government becoming overstretched and ineffective, Mozambique's employment strategy should explicitly try to crowd in private actors, concentrating public actions on areas where there is a clear and persuasive reason for government intervention. This means both doing core public activities better (e.g. basic education, agricultural research and extension, infrastructure development and maintenance, crime prevention) and reducing obstacles to effective action by private actors, including enhancing competition. Mozambique has an opportunity with the rapid inflow of FDI and larger foreign companies to build capacity in its local enterprises. The government should pilot policies and programs to encourage the private sector to invest in building skills. Private sector involvement in technical and vocational training is essential to making skill development programs effective in meeting the demands of the market.

1. Introduction

The path to inclusive growth in Mozambique, as in most other developing countries, lies in higher quality employment. With a low per capita income and a high level of deprivation, higher earnings will be the main driver of poverty reduction in the next few decades. Today, the majority of the labor force does not earn enough to bring themselves and their families out of poverty. Small holder farmers in rural areas are not able to work full time, owing to seasonality of agriculture, lack of assets, and in the case of females, the burden of household chores. Urban residents report working long hours, but still struggle to obtain a sustainable livelihood. In both urban and rural areas, the majority of the labor force works for themselves or their families, as steady wage employment is scarce, even in urban areas.

Change in the structure of an economy's production, stemming from investments in higher productivity activities in modern enterprises, is the heart of development. Usually this brings structural change of employment as well. In Mozambique, as in other lower income countries in Sub-Saharan Africa, the employment transition is at a very early stage, and taking place primarily within the household production sphere. Mozambique's economic development challenge is to accelerate transition in both output and employment.

The focus of this paper is on the employment transition – what is happening, and what can be done to help the labor force transition into higher value added activities and livelihoods. This is especially important for Mozambique's large youth population. Owing to continued high fertility rates, Mozambique's working age population is growing rapidly. Most of these youth are likely to work in the same types of economic activities as their parents, given the absence of alternatives. They will be as poor as their parents if they cannot find ways to raise their earnings. Thus the challenge of youth employment is the same as the overall employment challenge – how to help the labor force raise their productivity and earnings.

This report forms the first component of tasks under a multi partner initiative called *Let's Work*, which aims to develop and start the implementation of a comprehensive jobs strategy in Mozambique with a focus on the bottom 40% of the population. The *Let's Work* program includes analytical work and pilot operations that focus on harnessing the potential of the private sector in a few select sectors in which Mozambique has the potential to create more, better and inclusive jobs. This analysis will inform the

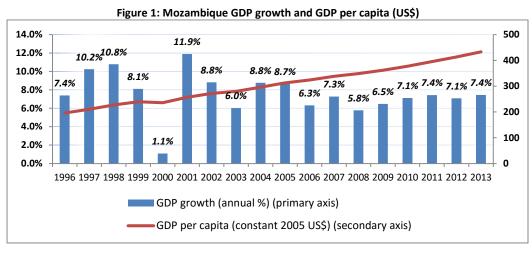
design of a multi-sector jobs strategy that could include both economy wide policies such as those that affect the country's business environment, as well as "bottom-up" interventions to drive private sector investments and job creation in particular regions and sectors in Mozambique.

This report consolidates what is known about the employment challenge in Mozambique. It brings together the latest available data (the 2012 *INCAF* household survey) as well as different strands of analytical work already completed in order to understand the labor market, the trends in the employment structure, characteristics of workers, key labor market outcomes for different population groups across regions, and the incentives and constraints affecting individuals' participation in the labor market and access to jobs. This note will be supplemented by additional *Let's Work* reports that analyze specific sectors and themes in detail such as agribusiness, forestry, and skills.

Five sections follow this introduction. Section 2 reviews Mozambique's growth performance, and the underlying challenges to job creation stemming from its increasing natural resource dependence. Section 3 turns to the demographics of the population and the structure of employment. Section 4 discusses some opportunities for the country to create more and better jobs. Section 5 concludes with some suggestions for strategy development.

2. Growth, Jobs and Productivity

In the decade after the long and destructive civil war, Mozambique attained both high growth rates and substantial poverty reduction. This was achieved primarily through post war reconstruction investments by households, firms, and the public sector, which produced balanced growth and income and productivity improvements, especially in agriculture, the main livelihood of poor households. Transport and infrastructure links were reconstructed, connecting producers, consumers and markets, and expansions in public services brought new educational opportunities, especially in rural areas.



Source: World Development Indicators

7.0 6.36 6.0 5.53 5.10 4.83 5.0 4.01 4.0 3.0 1.99 2.26 2.55 2.48 2.0 1.0 0.0 1996-7 to 2002-3 2002-3 to 2008-9 1996-7 to 2008-9 ■ Bottom 40 percent (%) ■ All (%) Real GDP p.c.

Figure 2: Private consumption grew slowly at the bottom of the income distribution

Source: World Bank Staff calculations based on IOF and INE

Since 2003, GDP has continued to expand at high rates (averaging over 7 percent per annum), but evidence suggests that the pace of poverty reduction diminished. While poverty rates fell sharply in the

initial period of growth - - from 69 % to 56% between 1996 to 2003 - in the years after 2003 the pace of poverty reduction slowed. Average consumption of the bottom 40 percent grew much more slowly than the rate for the richer deciles, (Figure 2) and the share of the bottom 40% in private consumption has stayed constant at around 15%, (Figure 3) indicating that the income distribution remains unequal (World Bank, 2014).

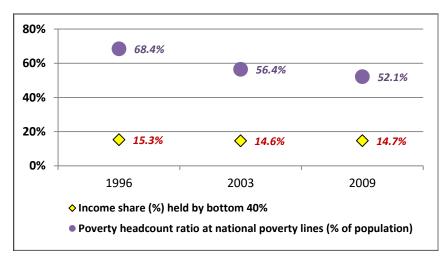


Figure 3: Mozambique poverty headcount ratio and income share of the bottom 40%

Source: Alfani et al.

The reasons for the limited transmission of growth to poverty reduction lie primarily in the structure of growth. In the more recent period, Mozambique's growth was driven by investments in and exports from "megaprojects" – large, energy-related, capital-intensive, enclave projects producing for export. Examples include the Mozal aluminum smelter, the Vale coal mine, and the Sasol gas project. Agriculture, the sector where 85 percent of poor households earn their living, accounted for only 15 percent of growth in value added in 2010-2103, compared with over 50 percent during 1993-97 and 21 percent 1998-03. Service sector growth - including financial services, tourism, trade, transport, and the public sector – while rapid, has also not been particularly pro-poor. With the exception of wholesale and retail trade, service sector employment growth tends to require more education and higher skills, thereby effectively excluding the most of the labor force. Public and private sector investment spending fueled construction sector growth, which created some employment. But the manufacturing sector, usually a source of higher paying wage jobs in low income countries, has been stagnant, and excluding the Mozal aluminum smelter, manufacturing has been growing at slower rates than the economy as a whole (World Bank, 2015b).

Reflecting these trends, macroeconomic evidence shows a decline in growth of both private consumption and national income since 2000, while overall labor productivity remains low. Some rebalancing toward investment was necessary after the recovery period. But this investment has not translated into increased earnings for most of the population because of its capital intensive nature. As a result, the growth of labor income has been slow. Labor productivity remains very low; the level has not improved dramatically in the past decade because of rudimentary technologies and lack of access to credit, information, infrastructure and markets (Jones and Tarp, 2012). Jones and Tarp (2012) estimated that average labor productivity in agriculture was U\$\$0.33 per hour in 2009 – about \$2.50 per day.¹ However, in industry and mining, labor productivity is estimated at over 20 times this amount – U\$\$3.53 per hour, almost \$30.00 per day. Reflecting increasing capital intensity in industry driven by the "megaprojects", labor productivity has more than doubled since 1997, while labor productivity per hour in agriculture only increased by 33% over the same 12 year period. Because only a small share of the labor force is employed in the industry and mining sector, average labor productivity per hour in the economy as a whole was stuck below U\$\$1.00 per hour in 2008, and increased only 10 percent between 2005 and 2009 (Figure 4).

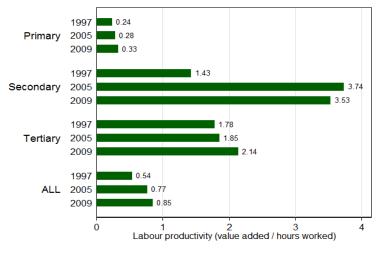


Figure 4: Estimates of average labor productivity, by economic sector

Source: Jones and Tarp (2012)

¹ Jones and Tarp's estimate is probably low, owing to the seasonality in agriculture. In principle, they corrected for this by using hours worked per year, but this is difficult to measure in the agricultural sector. See McCullough (2015). In any case, almost no one in agriculture works in the sector year around, so their average earnings over the year are most likely close to US\$1.00 per day, not US\$2.50.

Mozambique's economy seems to be displaying the classic problems of resource rich economies in Sub Saharan Africa - low rates of private investment outside the mineral and energy sectors, slow development of higher value-added non-resource sectors, and low if any growth in productivity and incomes in the sectors where the poor work (agriculture, low productivity services). If the above trends continue in Mozambique, the prospects for inclusive growth are not good. Inclusive growth needs higher earnings for households in the bottom 40 percent of the income distribution. Mozambique remains a poor country, with a gross national income (GNI) of US\$ 610 per capita, below many of its neighbors and the average for Sub-Saharan Africa. Thus, the fact that 60 percent of its citizens lived on less than US\$1.25/day in 2008 is not surprising. But this poverty rate is much higher than, for example, Uganda, a country with a similar GNI per capita. Uganda, Rwanda, and Bangladesh are all examples of countries that have emerged from the ashes of conflict to deliver both strong and inclusive growth. Inclusive growth in these countries was achieved by investing in the sectors where poor households earned their living, especially agriculture, and encouraging private investment in labor-intensive firms, creating new wage employment in urban areas. This growth pattern created productive employment, raised labor incomes, and allowed households to work their way out of poverty. The result was a virtuous circle of investment, labor earnings, and poverty reduction. This is the growth pattern that Mozambique will need in the future.

3. Demographics & the Structure of Employment

Mozambique is in the early stages of its demographic transition. The country's demographics in fact reveal the importance of productive employment as a path out of poverty. Fertility is still 5.9 children per female. But 70 percent of the population lives in rural areas, where fertility is higher and living standards lower. Today, 45 percent of the population is under the age of 15, indicating that the labor force will be growing rapidly for the next several decades. The youth population (age 15-24) represents another 20 percent, meaning that almost 2/3 of the country is under the age of 25 (Figure 5). This is not likely to change soon, as UN projections show that in 2030, the share of the population under the age of 14 will still be 41.5 percent. Aside from high fertility, another factor pushing up dependency ratios is that females represent almost 57 percent of the population aged 15 and above. One reason is that male life expectancy is about 2 years lower at birth (World Bank, 2014), but another is the tendency of men to emigrate to other countries for work.

Figure 5: Mozambique will remain a young country for some decades Mozambique population pyramid 2015 80+ 75-79 70-74 65-69 60-64 55-59 50-54 45-49 40-44 35-39 30-34 25-29 20-24 15-19 10-14 05-09 00-04 OM OM 2M Male Total population (actual and projected) Age dependency radio (percentage) 100 60M 40M 50 20M 0 2013 2014 0M 970 Old Young

Source: World Bank at http://datatopics.worldbank.org/hnp/Population.aspx

The rapid addition of young people into the labor force is both an opportunity and a challenge. In the right environment, a young, dynamic labor force can spur innovation and be an engine of growth, driving up income and living standards. However, a rapidly growing young population challenges public services such as education and health which are necessary to develop the human capital needed for productive employment. At the same time, with so many people entering the labor force, large investments are need to ensure the capital, infrastructure and technology they need to be productive. The lagging demographic transition is one reason why the transformation of employment away from low productivity household production has been slow in Sub-Saharan Africa (Filmer and Fox, 2014). This slow transformation of employment creates frustration, disappointment, and social turmoil, especially among youth.

Box 1: What is a Job?

In developing countries, the definition of a job encompasses more than a wage or salaried position with an employer. Most work in Africa is not structured that way. For low income countries, jobs are more synonymous with participation in an economic activity. Jobs are more realistically defined as "activities that generate actual or imputed income, monetary or in kind, formal or informal." They can take place in a factory, by the side of the road, within homes, in the backyard, or out in the open. A job also confers more than an income. It develops a person's sense of identity, status, self-confidence, connections to others in the community, and overall satisfaction with life. Not all jobs contribute positively to an individual's well-being. The type of job, working conditions, contract, benefits, and safety and security at work all matter. Some forms of work cannot

even be considered jobs—for example, activities that are performed against the will of the worker or that violate basic human rights.

Sources: World Bank (2012c); Filmer and Fox (2014).

3.1 Labor Force Participation

Once Mozambicans finish school, they tend to enter the labor force, so measured labor force participation is a high 86 percent for men and 82 percent for women (Table 1). This is especially true in rural areas, where both men and women report high labor force participation (97 percent and 94 percent respectively) during prime working age (25+).² One reason for the reduced labor force participation among youth is that Mozambican children start school late - often not until age 8 in rural areas; see Fox et al, (2012) and Figure 6. Another reason is the expansion of educational opportunities. This means that in both rural and urban areas, the majority of young people age 15-16 are still in school, and in urban areas at age 20, 40 percent of them are still in school (Figure 6). They may be working as well (to help pay for school, among other reasons), but the INCAF survey does not pick this up very well. Enrollment among females and in rural areas is lower; at peak enrollment age only 80 percent of rural children report attending school, and rural children leave school earlier. Given the high enrollment of youth (and their large share in the population), the analysis of the labor force below only considers adults age 21 and above. If the youth were included the results would show a bias toward the less educated and rural populations.

Table 1: Labor force participation rates by age, gender, rural, urban

Table 1. Labor force participation rates by age, gender, fural, urban											
	All		All		Age :	15 -24					
				Urban		ı	Rural	Urban		Ru	ral
											Fem
		Male	Female	Male	Female	Male	Female	Male	Female	Male	ale
Labor											
Force	84.3	86.7	82.5	55.2	44.4	81.8	87.2	90.4	75.4	97.4	93.8
Out of the											
labor force	15.7	13.3	17.5	44.8	55.6	18.2	12.8	9.6	24.6	2.6	6.2
Total	100	100	100	100	100	100	100	100	100	100	100

Source: Author's tabulations using INCAF 2012 data

² There is very little variation in these figures across provinces; the main variation is by age, location (rural or urban) and gender.

100 Percent of age group enrolled 90 80 70 60 50 40 30 20 10 0 11 12 13 14 15 16 17 18 19 20 10 Urban Rural Male

Figure 6: Rural children enroll late, sometimes not at all

Source: Authors using INCAF 2012 data

3.2 Structure of Employment

Despite strong growth, the process of structural transformation in employment has been slow. Most jobs are still in agriculture. The majority of Mozambicans of any age in the labor force work in agriculture, and the majority of households have some agricultural income, either in cash or in kind (Figure 7). This is not surprising; countries at similar income levels or lower show similarly high levels of participation in agriculture (Davis et al 2014). Measured with a 7-day recall period, 88 percent of rural employment and 31 percent of urban employment for those over the age of 20 was self-employment in agriculture as primary activity. In both rural and urban areas, females are more likely to be in agriculture; it is the men who have been responsible for livelihood diversification. The share of primary employment reported to be in the agricultural sector has been declining steadily since 1997 (Table 2) consistent with a structural employment transformation. While the first data series shown in Table 2 (1997-2009) is not consistent with the INCAF 2012 data shown in in the table as well as in Figures 7-8 as the recall periods were different, the employment transformation trend is clear (see Appendix on data sources).³

³ The agriculture category includes both family farmers and wage employees in agriculture. Less than 3% of those who reported that their primary activity was in agriculture reported wage employment. However, wage employment as a secondary, seasonal activity is more common. See Cunguara et al (2011a) and discussion below.

Table 2: Structure of primary employment (age 20+), 1997-2012

	<u>, , , , , , , , , , , , , , , , , , , </u>	· · · · · · ·		
Type of Employment	1997	2003	2009	2012*
Agriculture (%)	86.8	78.2	79.6	73.0
Household Enterprises (HEs) (%)	4.4	8.1	8.4	14.0
Non-farm Wage Employment (%):	8.9	12.6	12.0	13.1
Private Sector (%)	3.0	7.8	7.8	8.9
Public Sector (%)	5.9	4.7	4.2	4.2
Total	100	100	100	100

Sources: Author's tabulation from IAF 1996/97, 2002/03; IOF 2008/09; and INCAF, 2012

*NOTE: 2012 data not fully comparable to earlier data owing to changes in survey methodology

Figure 7: In 2012, most Mozambicans still worked in agriculture

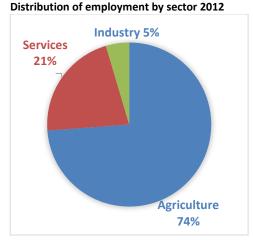
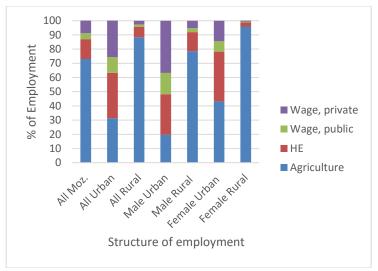


Figure 8: Regional differences in employment structure by job type



Source: Authors using INCAF 2012 data

Definitions: (i) Agricultural employment – predominantly farmers working on small holdings and consuming a significant share of their production, but including more commercialized farmers as well. Wage work in agriculture as a primary activity is included in this category as well as fishing and primary forestry (collecting wood and other forest products). (ii) Household enterprise employment - HEs are unincorporated, nonfarm businesses owned by households. This category includes self-employed people running unincorporated businesses (which may or may not employ family or other workers) and family members working in those businesses. (iii) Wage employment - includes all labor force participants who report working outside the agricultural sector and receiving a payment for their work from an unrelated individual. It includes the public and private sectors.

The next largest primary employment activity reported by individuals is in a household enterprise (14 percent), with wage activities having a slightly smaller share of reported of primary activities (13 percent overall). Both of these figures are higher than was found in the 2008/9 IOF, indicating that non-

farm activities are growing faster than the labor force. The share of those reporting having a household enterprise (HE) as their primary activity grew by 60%. However, at 14 percent, the number of people reporting HE as their primary economic activity is lower than in richer countries such as Tanzania and Ghana, suggesting that this transition has not yet reached its potential. Consistent with other countries, the majority of HE activities are in retail trading, meaning operating kiosks, markets stalls or roadside locations selling all manner of goods: fruits, vegetables and starches, processed food and beverages, housewares, second-hand clothes, electronics, batteries, soaps and personal care products, medications and powders, etc. The next largest category is manufacturing. This is usually natural resource processing such as brewing beer, making charcoal, processing food, brickmaking, etc. About half of HEs are in urban areas (as is most of the wage employment), even though 65 percent of the population lives in areas classified as rural. Urban HE owners tend to operate their business full time, but for rural owners, part-year activity is more common.

Recent research has established that household enterprises are a unique category of employment, not a subset of other firms (La Porta and Schleifer, 2014; Filmer and Fox, 2014). In Sub-Saharan Africa, most are family operations, and do not employ anyone outside the family, even on a casual basis. Their owners are fundamentally different from SME owners, as they tend to have less education and more importantly very limited management skills, which means they do not trust employees outside the family. Many do not operate out of a fixed location, and often they are not a full time business, especially in rural areas. As a result, they are less likely to have a relationship with a bank and more likely to comingle household and business finances (Loening, Rijkers and Soderbom, 2008; Fox and Sohnesen, 2012; La Porta and Schleifer, 2014). Compared to larger enterprises, their capital stock is minimal and their productivity is low (La Porta and Schleifer, 2014).

Reflecting these differences, research has also shown that very few HEs grow into microenterprises. (Loeninng and Imru, 2009; Kinda and Loening, 2010; Grimm, et al, 2011; Fajnzylber et al, 2006; Schoar, 2009; La Porta and Schleifer, 2014). The sector grows through newly established enterprises. Indeed, in Mozambique in 2005, 85 percent of HE owners reported that they had *no plans to expand their business at all* (Fox and Sohnesen, 2013). In another difference with small and medium business, HE owners do not

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⁴ The magnitude of this trend is uncertain as the employment recall period was different in the 2008/9 data and 2012 data. Different recall periods affect data comparability. But the trend is probably reliable. The recall period would affect public employment the least.

have to register their business with national authorities, and few do. A small minority report that they register their business with local authorities (Fox and Sohnesen, 2013).

Most of the growth in wage employment was in the private sector. The share of those reporting wage employment as their primary activity grew by 8 percent over the 4 year period (increasing the overall employment share by 1 percentage point). But private sector wage employment is still only 9 percent of total employment, and 27 percent of urban employment. Reflecting the structure of growth, most wage employment, public and private, is found in the service sectors. Private sector wage employment tends to be in trade, transport, tourism, communication, financial and logistical services, security, and personal services (primarily maids and other employees in private homes). In the public sector, wage employment is found in civil service, health and education. The mining sector employs a tiny share of the labor force, reflecting its capital intensity. The construction and manufacturing sectors account for the largest shares of employment within the industrial sector. But still these sectors are very small. Manufacturing wage employment (public and private), for example, employs less than 2 percent of the entire labor force. The same sector employs 15 percent of the labor force in Bangladesh, 6 percent in India, and a little over 4 percent in Malawi. However Zambia, another resource rich economy, has about the same share of employment in wage manufacturing as Mozambique (Filmer and Fox, 2014).

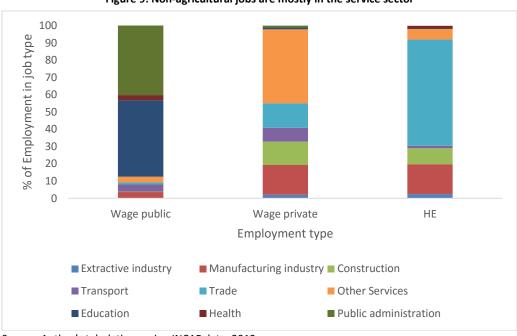


Figure 9: Non-agricultural jobs are mostly in the service sector

Source: Author's tabulations using INCAF data, 2012.

Box 2: A missing manufacturing sector means fewer wage jobs in Mozambique

The development of a manufacturing sector has long been recognized in the transition to sustainable middle income, emerging market status. Although employment in this sector rarely reaches over 20 percent of total employment, and in recent years tends to peak at 15 percent, the development of this sector brings long term benefits well beyond the minority of the labor force who work in the sector (Rodrik, 2015). One reason is that most manufactured goods are tradeable, and thus have to be produced at or near global standards to be accepted. Reaching this standard of production means importing and adapting technology, learning management techniques, and the development of a skilled labor force. It also means improving the productivity "outside the plant" – in the energy, transport and logistics sectors, and in the development of market linkages with those who sell the final product to the customer. A private sector development strategy which attracts investment in manufacturing thus has benefits well beyond the employee and the owner of the firm, as the technology and skills acquired transfer into other sectors, raising their productivity as well (World Bank, 2012).

In Mozambique, the manufacturing sector is small, underdeveloped and is not growing, according to a recent government study firm (Government of Mozambique, 2012). Firm survey data revealed that the vast majority of Mozambican manufacturing companies are very small (less than 10 employees), produce relatively homogenous products using basic technology, and sell mostly to private individuals in the same locality as the firm, indicating low linkages. Outside the major cities, the manufacturing sector is not very diversified and remains very concentrated in a few sub sectors. The largest subsectors are food, fabricated metal products, and furniture, which, together with apparel, wood, and nonmetallic mineral products account for 90% of manufacturing firms. Three-fourths of the firms have less than 10 employees, which is of concern since larger enterprises are more likely to provide "good jobs," with better pay, benefits and more permanent employment. Likewise, the majority of firms are foreign-owned, indicating a very underdeveloped local manufacturing sector.

Employment in manufacturing is a small share of total employment – less than 2 percent. Employment growth has not been robust. Of those firms in the study (primarily firms with more than 10 employees) which survived between 2006 and 20012, average employment growth was negative. Indeed, in all firm size categories, there was limited or no employment growth, but the decline in employment was largest among the smallest firms, and these were also the ones most likely to fail (exit). This suggests that what employment growth occurred over this period happened primarily through the creation of new firms, not through the growth of existing firms. Sub-sectors showing employment growth included wood and paper; publishing and printing; chemicals; food processing; and nonmetallic mineral sectors. After further analysis at the 4-digit subsector level, the study concluded that sub sectors which were not subject to strong competition from imports (bakeries, grain mills) tended to do better than that those that faced competition from imports or were targeted at the export market (metals, machinery, apparel). Indeed, only 3 percent of firms are exporters. This is an ominous trend as well, because the domestic market grows more slowly than the external market.

A comprehensive approach that enables growth and preservation of labor-intensive manufacturing enterprises with strong linkages with the local economy is an essential part of a jobs strategy.

Source: Government of Mozambique, (2012)

A deeper analysis of urban employment by region shows that much of the employment transformation is concentrated in Maputo (Figures 10-11). While employment patterns in rural areas are similar across provinces, urban employment patterns are quite heterogeneous. Employment in Maputo has almost completely diversified out of agriculture – only 11 percent of primary employment is reported to be in agriculture, but in the other cities, agriculture remains important – about 40 percent of the labor force reports this activity in urban areas outside of Maputo. In the urban North, 48 percent of primary employment is reported to be in agriculture. Meanwhile, Maputo province - which by itself accounts for 36 percent of all urban employment – has almost 60 percent of the private sector wage employment, and

42 percent of HE employment. Public sector wage employment is distributed more closely in proportion to the labor force in each region. Concentration of commercial and financial activity in capital cities is quite common in Sub-Saharan Africa especially among low income countries where urban agglomerations are just starting to develop. Maputo is also the major port. However, this type of regional employment concentration can lead to widening inequality and make shared growth more difficult.

Figure 10: Maputo Province had the largest share of urban employment in 2012 Regional share of urban employment

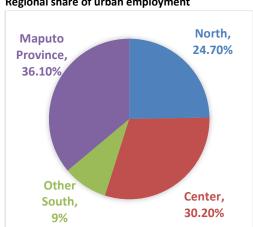
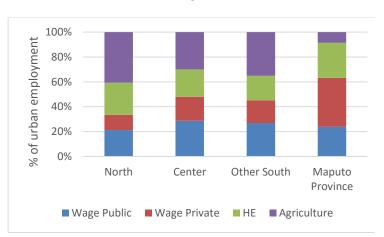


Figure 11: Outside of Maputo, urban areas still include a sizable amount of agriculture



Source: Author's tabulations from INCAF 2012 data

3.3 Multiple activities and underemployment

About 15 % of INCAF respondents over the age of 20 who are employed reported a secondary activity in the last 7 days. The most common was running a household enterprise (especially common for those whose primary activity was agriculture), followed by agriculture (Table 3).⁵ Household enterprises are much more likely to be primary, fulltime employment in urban areas than in rural areas owing to the seasonality of agricultural work and incomes (Fox and Sohnesen, 2013). A sizeable proportion report working on their own farm or garden plot as a secondary activity.

Table 3: Secondary activity status, adults age 21+

Primary/secondary	Agriculture	HE	Wage, public	Wage, private	None	Total
Agriculture	2.5	10.6	0.3	2.0	84.6	100
HE	8.9	4.5	0.2	0.6	85.8	100
Wage, public	6.3	7.1	1.1	0.9	84.6	100
Wage, private	4.7	4.0	0.0	1.5	89.7	100
All	3.7	9.0	0.3	1.7	85.2	100

⁵ Because agriculture includes other primary sector activities (e.g. fishing, forestry), and both wage and self-employment in the primary sector, it is possible for someone to report agriculture as a primary and secondary activity.

Research from other countries as well as Mozambique suggests that multiple income earning activities are more common than the data above suggest. Surveys of rural households show that even the poorest of households have multiple sources of income (Cunguara et al, 2011a, Jones and Tarp, 2012). Cunguara (2011a) reports that in 2008, almost 60 percent of rural households in Mozambique had at least one source of off-farm earned income (e.g. agricultural or nonagricultural wage income or a household enterprise). A recent study tracking income sources of 94 poor rural houses in Nampula province (Anderson and Ahmed, 2015) revealed that over a six month period, households sold or bartered an average 4.5 agricultural products and had 3.5 non-agricultural income sources (including unearned income, such as rental income or transfers from other households). In 2008 (when the recall period was longer), 20 percent of rural households and 12 percent of urban households reported a household enterprise as a secondary activity (Fox and Sohnesen, 2013). Most likely this has gone up given the increase in those reporting a HE as primary activity, but we see only 9 percent of those in employment in 2012 reporting working in an HE as a secondary activity.

Agricultural wage income for at least part of the year is not unusual in Mozambique, but tends to be seasonal and is unlikely to be reported as a primary activity. While not as common among rural households in sub-Saharan Africa as it is in Asia, Davis et al (2014) find that that 18 percent of rural households in their sample of African countries reported some agricultural wage employment over a 12 month period, and 44 percent reported some kind of nonfarm earned income (wage or self-employment). In 2008, 9.5% of rural households reported agricultural wage income in the *TIA* survey (Cunguara, et al, 2011a). Within the agricultural sector, about 61 percent in the Davis et al (2014) sample of African households reported income from livestock. In the Nampula sample livestock income was less common, however, as fewer households report owning livestock in Mozambique compared with poor households in rural Tanzania, for example. In sum, the data reported from the INCAF survey most likely underestimate secondary employment, especially in rural areas.⁶

Despite having multiple activities, **underemployment is quite common in rural areas.** Hours worked are another indicator of the extent of economic activity. Figure 13 shows hours worked by males and females

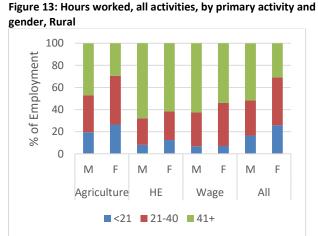
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⁶ The data may even misrepresent the structure of primary economic activities, since they only ask about the last seven days of activity. But the real point is that "primary activity" is a concept which works better in OECD countries than in low income countries.

in all activities – primary and secondary ones, including seasonal secondary activities not reported in Table 2 above. Urban residents, especially males, report that they usually work long hours - more than 40 hours per week - in all their activities combined (Figure 13). Even half of urban females report working more than 40 hours a week. Those whose *primary activity* is running a HE report the highest hours per week in both urban and rural areas, (but recall that HEs as primary activity are much less common in rural areas).

Figure 12: Hours worked, all activities, by primary activity and gender, Urban 100 of Employment 80 60 40 20 0 F F M F M M Agriculture HF ΑII Wage

<21 ■ 21-40 ■ 41+</p>



Source: Author's tabulations using INCAF 2012 data; covers labor force 21+

Women who specialize in agriculture work the least, and overall those who state that agriculture is their main activity report fewer hours. This is a common trend in SSA. Using very detailed data on household agricultural labor inputs, McCullough (2015) found that in SSA, seasonality of activity, resulting in lower hours of work, is a key reason why annual labor productivity in agriculture tends to be lower than in other sectors. The two tables below demonstrate the hours of work within the different age groups, gender and activities, where clear indication for underemployment is seen especially in the groups of < 21 and 21-40 year old. Women cite the burden of domestic tasks as the main reason why they do not work 40 hours a week, especially in rural areas (Table 4). Lack of public services such as water supply, as well low incomes which mean that partially processed food is unaffordable, mean that women on rural areas spend a lot of time on household chores (Fox et al, 2008), and they may choose to work in agriculture because but they need the flexibility to work fewer hours. Alternatively, they may work fewer hours in agriculture because they lack the inputs to be more active in the nonfarm economy. In rural areas, both men and women are more likely to cite illness as a reason for not working 40 hours. In urban areas, over 1/3 of those working shorter hours report that this is normal for their current job.

Table 4: Reason for not working full time (adults 21+)

		Urban			Rural		
Reason	Male	Female	Total	Male	Female	Total	
Sick	7.0	7.8	7.5	13.1	16.6	15.5	
Attended school or training	5.5	1.7	2.9	1.5	0.4	0.7	
Did not want to work more hours	7.3	3.9	5.0	12.8	3.8	6.7	
Domestic work	7.4	35.5	26.4	14.4	48.7	37.4	
Could not find more work	18.6	6.6	10.5	13.8	4.2	7.4	
Unavailability of agricultural land plots	1.7	4.9	3.9	7.9	7.1	7.3	
Lack of materials, tools, and financial resources	3.5	2.4	2.8	1.1	0.3	0.6	
Malfunctioning machines or electric tools	0.6	0.0	0.2	0.1	0.00	0.0	
Natural disasters	0.2	0.0	0.1	0.1	0.3	0.2	
Normal duration of work	45.0	33.4	37.1	33.4	17.1	22.5	
Other	3.1	3.8	3.6	1.9	1.4	1.6	
Total	100	100	100	100	100	100	

Source: Author's tabulations using INCAF 2012 data

3.4 Livelihood patterns and the distribution of work by gender

Almost all rural households and 40 percent of urban households depend on agriculture for at least some of their income, even if it is not their main source of income. Figure 15 groups all reported activities by household, not by individual. It shows household livelihood patterns. Since households often do not specialize in only one employment type (nonfarm wage, HE, or agriculture), the bars in the graph add up to more than 100. The growth of HEs has meant that this is the second most important source of income (by volume, not value). Non-farm wages are primarily important in urban areas, as over 50% of households report income from this source. Having multiple types of income can be a risk reducing livelihood strategy, or it may simply represent opportunities available and household choices. For example, wage income is very helpful to households with HEs or small farms, as it can stabilize consumption over time and it can help in obtaining credit. But self-employment offers more flexibility. In urban areas, about 50 percent of households reported 2 or more types of income in 2009, but only 40 percent in rural areas, showing the difficulty many rural households have in moving into nonfarm activities.⁷

⁷ See Fox and Sohnesen, (2013), for analysis of this issue.

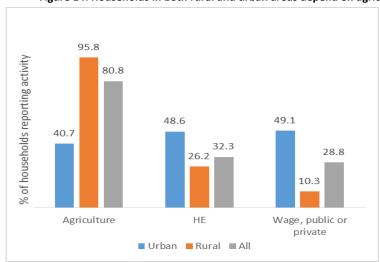


Figure 14: Households in both rural and urban areas depend on agriculture

Source: Authors using INCAF 2012 data

Women are less likely to enter the traditionally higher paying non-agricultural sectors. In rural areas, few women have left the agricultural sector (Figure 15). Many reasons have been advanced for this. The most common is the burden of household chores, which stops women in low income countries from working at all in remunerative employment. Without time saving infrastructure and assets such as: water points nearby, electricity or gas for cooking and activity once the sun goes down, modern stoves, etc., basic household chores are time consuming. Child care is also time consuming when families are large, but it is easier to care for children while working in the fields or tending to livestock than in nonfarm jobs.

Even in urban areas, females tend to be concentrated in the household production jobs such as agriculture and HEs, not wage ones. Private wage employment is especially skewed toward men, even though most of it is in the service sector; only 33 percent is in the traditionally male-dominated sectors of mining, manufacturing, and construction, (Figure 15). Within the household enterprise sector, studies have shown that segmentation by sector is common, with women concentrated in lower earning activities (e.g. sewing), (Hicks et al, 2013; Fox and Sohnesen, 2012). One main reason women do not get wage jobs in urban areas is that women have historically not had equal access to education, so they entered the labor force at a skill disadvantage (Fox et al, 2012). Although education policy has tried to improve girl's access to education — and it has mostly succeeded in the first five grades of primary school — Figure 6 (above) shows that females tend to drop out of school at an earlier age than males.

⁸ See World Bank, (2011) chapter 5, for an extensive discussion.

Rural Urban 95.9 100 50 43.2 Percent of rural employment Percent of urban employment 90 45 78.5 36.7 40 80 35.0 70 35 28.5 30 60 25 19.7 50 20 15.0 14.5 40 15 30 7.3 10 20 13.5 5 0.7 5.2 $0.7^{2.8}$ 10 0 0 Agriculture HF Wage, Wage, Agriculture ΗE Wage, Wage, public private public private ■ Female ■ Male ■ Female ■ Male

Figure 15: Men tend to work in wage employment, women in household farms or businesses

Source: Author's tabulations using INCAF data, 2012.

3.5 Education and skills

For decades, Mozambique's labor force has been poorly educated compared with neighboring countries and other countries in Sub-Saharan Africa. Less than half of adults were estimated to be literate in 2010, compared with an average for SSA of 62 percent (World Bank, 2014). This is a legacy of the long civil war, when most of the post-independence generation was not able to attend school. The good news is that also in 2010, Mozambique's youth literacy rate, estimated at 78 for males and 64 for females, was equal to the average for SSA, indicating that Mozambique is catching up. This is especially obvious in urban areas, where the most opportunities for skilled employment are found. Only ¼ of those over 30 employed in urban areas attended post-primary school, but ½ of the employed between ages 21-30 reported attending school past the primary level (Table 5). Rural educational attainment is improving as well, but from a lower base as 47 percent of labor force participants over the age of 30 reported never attending school, compared with only 22 percent of those age 21-30. With almost 100 percent primary enrollment and increasing levels of primary education completion, the rural primary education deficit is gradually being erased.

Table 5: Highest education level attended, by activity level and age group

Highest			Age 21-	-30		Age 30+					
education level attended	Wage Public	Wage Private	HE	Agriculture	Total	Wage Public	Wage Private	HE	Agriculture	Total	
No education	0.9	7.4	10.4	29.2	22.1	2.9	8.7	18.9	46.6	38.6	
Lower primary	1.2	18.0	28.6	47.3	38.5	9.4	35.6	44.2	45.5	43.1	
Upper primary	1.87	23.7	25.3	14.4	16.8	11.0	24.1	22.0	6.1	9.5	
Jr. secondary	27.7	30.2	22.7	7.2	13.6	24.4	18.3	11.2	1.4	4.7	
Sr. secondary	48.8	16.3	11.4	1.6	7.3	28.8	8.4	3.1	0.4	2.4	
Above	19.3	4.19	1.3	0.03	1.6	23.6	5.1	0.7	0.1	1.5	
secondary											
Total	100	100	100	100	100	100	100	100	100	100	

Source: Author's tabulations using INCAF 2012 data

As in other developing countries, education levels are highly correlated with type of employment (Table 5 above and Table 6 below). In part this relates to job requirements; subsistence agriculture does not require much education, and therefore attracts those without it (World Bank, 2012). Education has been shown to benefit those running a household enterprise, and for all but the most physical labor wage jobs, some education is required (Filmer and Fox, 2014). Modern factory work requires basic literacy and numeracy of the type normally acquired by completing primary education. Increasingly, behavioral skills as well as more advanced cognitive skills are required in order to achieve global productivity and quality standards even for light manufacturing goods. Tradable service jobs in sectors such as IT, financial and communication services, and tourism also require more education. It is encouraging that nearly 60 percent of Mozambique's younger private sector wage workers in urban areas attended some post-primary education.

Table 6: Highest education level attended, by activity level and gender (age: 21+)

		Ma	ale			е		
Highest education level attended	Wage Public	Wage Private	HE	Agriculture	Wage Public	Wage Private	HE	Agricultur e
No education	1.0	5.5	12.1	81.4	0.0	1.0	4.6	94.3
Lower primary	1.2	9.0	15.4	74.4	0.2	2.9	10.4	86.5
Upper primary	3.3	21.6	25.8	49.3	1.7	10.9	29.8	57.5
Jr. secondary	14.0	32.2	26.0	27.8	13.8	17.3	34.4	34.6
Sr. secondary	37.1	27.8	21.0	14.0	37.6	23.3	24.2	14.8
Above secondary	58.7	27.7	9.6	4.1	64.2	25.5	7.2	3.1
Total	6.5	14.8	18.0	60.7	2.3	4.0	10.7	83.0

Source: Author's tabulations using INCAF 2012 data

Most secondary school graduates aspire to work in wage jobs in the private enterprise sector, but the evidence suggests that they can't find jobs there. Although the share of secondary school leavers in private wage employment has expanded, the share of 21-30 year olds with secondary education in the HE

sector has expanded even more rapidly, as has unemployment of secondary school leavers. This suggests that there is a much larger supply of labor for unskilled, entry level private enterprise wage jobs than there is demand in Mozambique. As Mozambique expands post-primary opportunities, the gap between the number of school leavers and the number of wage jobs available will only grow larger if current trends continue.

3.6 Youth Unemployment

While Mozambique's overall unemployment rate is low – few can afford to be completely without work – the unemployment rate among urban youth is high and particularly worrisome. The unemployment rate for youth in both urban and rural areas is higher than the adult unemployment rate, a common phenomenon (ILO, 2014). Mozambique's demographic transition has just started, and as result, the labor force is growing rapidly, and is young and getting younger. Better educated than their parents, youth nonetheless find themselves with similar or worse job and livelihood prospects than their parents. In rural areas youth are highly likely to enter farming when they leave school. Unemployment⁹ is unaffordable, and they need to save up money to start a household enterprise. They may not want to enter agriculture, but they can and they do. In urban areas, however, a long and sometimes difficult job search is more common, in part because families have the resources to finance it (Filmer and Fox, 2014). As a result, almost all youth unemployment is concentrated in urban areas – where only 30 percent of the population lives (Figure 16). In 2012, a surprising 20 percent of urban youth reported being unemployed and actively searching for a job; two thirds of these reported that they had been unemployed for over 1 year. This appears to be an increase from 2008/9, where the total urban unemployment rate reported by Jones and Tarp (2012) was 8.9 percent while it is calculated at 10.3 percent in the 2012 INCAF data.

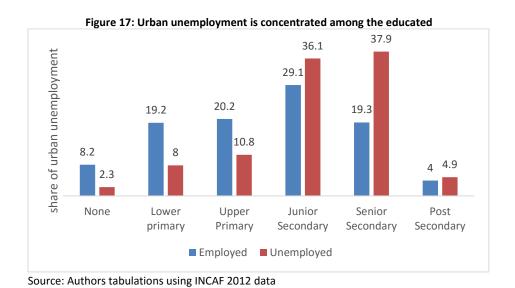
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⁹ Unemployment is defined as not having worked in the last 7 days and having actively searched for work in the last 30 days. In rural areas, most people who may not have had employment for 7 days do not actively search for work either because it is not available (the off season) or they expect to return to working in agriculture or in their HE once the season changes.

Figure 16: Urban youth have high unemployment (unemployment rate by age and location) 25 20.4 20 15 Age 10 6.3 5 1.7 0.2 0 Urban Rural Urban Rural Youth (age 15-24) Adult (age 25+)

Source: Author's tabulations using INCAF 2012 data

The structure of unemployment in low income countries such as Mozambique is quite different from that observed in middle income and richer countries. In low income countries, unemployment tends to be concentrated among richer households and more educated youth, the opposite of what is generally found in richer income countries, where it tends to be concentrated among poor and vulnerable households. Mozambique shows the typical SSA pattern, as 79 percent of unemployed urban youth (age 15-24) had some post-primary education, compared with only 48 percent of employed urban youth (Figure 17).¹⁰ This means that the youth who should be best positioned to enter the employment and achieve higher earnings are not able to do so, at least not without a long job search.



¹⁰ Recall that about 1/3 of youth in this age range are still in school.

The reasons for high unemployment among educated urban youth are complex, and not well studied. What evidence exists suggests the following issues (Filmer and Fox, 2014).

- Youth do not leave school ready to make a livelihood for themselves. They do not have information about the structure of employment, what opportunities are likely to be available, what they might pay, and how these can be accessed. They do not know how to start a business. Studies in other lower income countries reveal that many students leave secondary or tertiary education without a clear idea of what opportunities are going to be available, and how these can be accessed. So they drift between short term survival activities and job search, in many cases spending a long time looking for an ideal job that they are unlikely to find.
- Youth do not leave school job-ready. They lack the soft skills that employers value, including being
 on time, flexible, and able to work in teams. They do not have basic business skills such as
 bookkeeping and marketing, so they find it difficult to start a business. They did not acquire these
 skills in school.
- Opportunities to combine some type of work experience with education are rare. Wage
 employment opportunities are scarce, so employers tend to seek out experienced applicants.
 Labor codes usually do not support low-paid or unpaid internships or other types of on-the-job
 training. Post-secondary vocational training is expensive, there are few places available, and the
 quality varies substantially.

As a result, urban youth in SSA may spend quite a while trying to find their way, building up frustration in the process. Their expectations upon leaving school tend to be high, higher than the market can support. A longitudinal study in Tanzania showed that of those who entered the labor force unemployed, the average duration of this initial period of unemployment was 5 years (Bridges, et al., 2013). And only % actually found a wage job during this period. The rest ended up working in a family business or starting their own business. Most reported relying on networks (friends and family) to help them find a job; those without good networks were not able to get the wage job that they desired. Unfortunately, they wasted five years or more finding this out. Mozambican youth seem to fall into this pattern. When asked what they did to look for a job, 55% reported that they contacted friends and family. A few went to factories, looked in the newspaper, or registered at an employment center. The latter tactics probably did not help anyway, as most employers in SSA say they rely on referrals for new hires, and do not use placement centers.

Box 3: Getting better data on employment and earnings in Mozambique

Employment outcomes – what economic activities people undertake, when and for how long, and what they earn from these activities - are among the most important variables used by economists to link the size and structure of economic growth to the welfare of households. Even in high income countries, where a job usually comes with a wage and the number of hours worked does not depend on the season or the weather, care must be taken in the measurement of these variables in household surveys. In low income countries, where most jobs do not come with a wage and hourly earnings, time worked on a task, and even type of economic activity of the labor force participant may vary substantially by the day, week, month or season of the year, it is even harder to determine how households earn income and what they earn as a result of their labor. A complete picture can only be drawn using survey instruments specifically designed for a low income setting. Only in a few cases (e.g. the TIA), has this been done in Mozambique.

Based on survey research done in other countries, the following practices usually produce a more complete portrait of employment outcomes:

- Start by screening for types of economic activities (farming, livestock or other primary activity, household business, wage work, apprenticeship, etc.).
- Use both a short 7-day recall (international standard) and a long recall (12 months picks up seasonality and the multiple activities undertaken during the year).
- Ask each person what activities they performed over the recall period; do not rely on one respondent for the household.
- Use specific modules to measure wage, household enterprise, and farming and other primary activities hours worked and net earnings. The non-wage income modules can recorded at the level of the household.
- Make sure to record all household members' contributions to all household economic activities.
- Use the same questions on all surveys so that a consistent time trend can be obtained.

In multi-purpose household surveys, statistics offices often try to simplify modules to save interviewer and respondent time and reduce errors and refusals. In the case of employment outcomes, this can be short sighted, as the surveys will not produce reliable data and will not be comparable over time. It is better to leave out some dimensions (e.g. earnings from agriculture) than to use poorly scripted questions which produce ambiguous responses. For example, to save space, in one survey Tanzania put both economic and non-economic activities in the same question. This resulted in a nonsense result: a number of respondents reporting that they were inactive (they had no primary economic activity) but they had a secondary economic activity.

Source: Fox and Pimhidzai, (2013).

While more work remains to fill in the landscape of employment and earnings in Mozambique today, available evidence suggests that aided by gains in education and national income, the employment structure in Mozambique is slowly following output into non-agricultural sectors, but not into wage employment. Usually the nonagricultural sectors have high labor productivity, and therefore bring higher earnings and lower poverty. In Mozambique, most of the transition has taken place within the household farm and firm segment (self-employment and family labor), so the extent of productivity and poverty reduction gains seem to be limited. The main benefits, especially in rural areas, are more likely to have been less underemployment and a more diversified household income, less subject to the weather and price risks which characterize small holder agriculture. In this situation, employment policy needs to target the twin objectives of raising productivity within the household segment (where the majority of employment is and will be) and increasing the private sector employment opportunities outside the household segment (demand for labor). Arguably, an additional focus should be on shortening the school-

to-work transition of urban educated youth. The next section discusses strategies for dealing with each	of
these employment segments.	

4. How can Opportunities for Employment be Improved?

Mozambique has untapped potential to grow and create inclusive jobs. A number of studies have identified the potential and addressed the challenges Mozambique faces in this area (Cohen, et al, 2014; Jones and Tarp, 2012; World Bank, 2012; Government of Mozambique, 2013). Constraints identified by existing entrepreneurs include bureaucracy, red tape and corruption; poor infrastructure and logistics; access to and cost of credit; access to land; and crime, theft and disorder. Previous reform programs have brought about some improvements in areas such as macroeconomic stability, labor regulations, the cost and reliability of telecommunications and electricity; and tax rates, according to surveys of private sector employers. ¹¹ However, others have risen in importance, such as access to land.

The current Systematic Country Diagnostic (SCD) analysis is assessing sectoral growth prospects to identify binding constraints and develop priorities; a number of sectors currently show good prospects. The agribusiness/forestry sector offers promise – through value chain developments in forestry, sesame, banana, cashew etc. So does the construction sector. Mozambique is fortunate to have a long coastline, beneficial for fishing, fish processing industry and tourism. It has a natural deep-water port in the North of the country, which, if developed and managed, would be an asset to attract labor-intensive light manufacturing for export. The key is to use the country's natural resource wealth for investments in economic and social infrastructure that crowd in private sector investments. A dynamic, labor-intensive private enterprise sector has the potential to create economic spillovers in other sectors by supporting diffusion of learning and technology, creating wage jobs, and increasing domestic demand for agricultural production and informal services.

Recognizing the need for change, the newly elected Government of Mozambique announced its five year plan (PQG, the Portuguese acronym for Programa Quinquenal do Governo) focusing on inclusive growth. The 5 year plan (2015-2019), PQG,¹⁴ has five strategic priorities, one of which is "promotion of

¹¹ See Government of Mozambique, (2013), Table 3.9 for trends between 2003 and 2012.

¹² World Bank, 2015b.

¹³ Separate reports will discuss prospects in these potential sectors in detail.

¹⁴ The PQG – a five year plan is based on the manifesto of the party elected to lead the country (FRELIMO), and incorporates actions which will guide the government during its mandate. It was passed into law under resolution 12/2015. Extracted from: http://www.mpd.gov.mz/index.php/documentos/instrumentos-de-gestao/programa-quinquenal-do-governo-pgg

employment, productivity and competitiveness." To achieve this goal, the PPQ lays out the following objectives:

- 1) Increase production and productivity in all sectors with emphasis on agriculture;
- 2) Promote industrialization to modernize the economy and increase exports;
- 3) Create jobs and reform labor laws; and
- 4) Promote the value chain of the national primary products, ensuring integration of local content. The plan expresses a strong commitment to market-oriented agriculture in order to increase food security and expand exports, as well as to develop a domestic private sector to generate jobs and income. The question is, will the Government be able to realize these objectives over the plan period? This depends on how effective public policy is in raising the opportunities and earnings in three major livelihood segments: private sector wage jobs (including in the commercial farming sector); household enterprises; and family farming.

4.1 Private sector wage jobs

Creating more private sector nonfarm wage employment is critical. The sluggish growth in private sector wage employment since 2008 is worrisome, because in the long run, it represents the engine for growth, development, and poverty reduction. While this sector is *not* where the poorest households earn their living, the multiplier effects to other sectors from growth in private enterprise wage jobs are strong. Wage employees tend to buy goods and services from the HE sector (especially in urban areas), increasing employment and earnings in this sector as well. And the development of domestic and foreign-owned private enterprises creates knowledge spillovers to the rest of the economy, especially in areas such as management and export logistics (World Bank, 2015b).

If Mozambique wants to rapidly create more wage jobs in private enterprises, it needs more private investment in labor intensive production. Asian countries have achieved a major expansion of these jobs by attracting FDI in labor intensive production of export goods, building a sizable export-oriented manufacturing sector. Processing domestic agricultural production for the growing urban population (e.g. grain milling, oil seed pressing, dairy, butchering, etc.) and a growing construction sector have also helped create wage jobs in Asia, transforming the structure of employment (Fox et al, 2013; Tschirley, et al 2015). Processing domestic agricultural production for the growing urban population (e.g. grain milling, oil seed pressing, dairy, butchering, etc.) and a growing construction sector have also helped create wage jobs in Asia, transforming the structure of employment (Fox et al, 2013; Tschirley, et al 2015).

Box 4: Extractive industries - an opportunity or a curse?

Mozambique only recently discovered its natural gas and coal reserves. The country began exporting coal in 2011 from Tete Province. In 2012, four of the world's five largest natural gas discoveries that year were made in Mozambique's offshore Rovuma Basin (Columbia University, 2013). The extractive sector has contributed to the country's rapid growth during the last few years (7%-8% GDP growth) and is likely to continue expanding for some years. It is expected that in only 5 years, coal and new natural gas projects alone could double their sector contribution to GDP; and with over a thousand active prospecting and exploration licenses, the metals and minerals sector has the potential to contribute an additional 5-8% of GDP (based on global comparators). Mineral discoveries have led to substantial foreign direct investment. The natural resource sector, if developed strategically, could offer a tremendous opportunity for the country to sustainably increase economic growth.

But development of these sectors will not create very many direct jobs, and to date linkages to the local economy remain weak, especially in terms of local job creation. According to Government statistics, as of 2012, mining accounted for about 15,000 direct jobs, of which more than 10,000 are based at the Tete Province coal mines (Columbia University, SIPA, 2013). While direct employment within the extractive industry is usually small, the mining and gas industries have the potential to generate four to five times the number of direct employment jobs through indirect employment, particularly in affected communities (World Bank, 2012a). Strong linkages need to be developed between the large FDI coming into the extractive sector and the smaller domestic enterprises, for the creation of indirect jobs and skill development. The coming 4-5 years are an opportunity to work on economic linkages to these mega projects, which present an unrealized opportunity for the private sector. It is necessary to increase competitiveness and productivity of local firms, so that they will be able to supply at the scale and quality required by foreign investors.

Source: Authors

While some have argued that the future for Africa lies in small and medium size business creation, the fastest and most sustainable job creation will come from large firms, as these are more likely to persist. Creation of small firms also helps, as entrepreneurial skills are built. But it should be recognized that the mortality of these firms (and therefore the jobs) is usually very high (Söderbom and Teal, 2001; Bloom et. al., 2014). This has been the experience in the manufacturing sector, where firms with less than 50 employees had the highest failure (exit) rate, and the rate was highest among the micro firms (those with less than 10 employees). As the Government study noted, "small scale craftsman-type firms can hardly be the only drivers of industrialization" (Government of Mozambique, p. 104).

Development of export industries, crucial for creating wage employment, is constrained by a number of factors. Trade offers significant potential to accelerate growth and create jobs in Mozambique. When the local market is underdeveloped, firms achieve scale economies through exports. Exporters perform better on a range of indicators — especially productivity growth. However, the high cost of trade and the poor logistics environment continues to be a challenge for firms which seek to expand exports, and also deters new investment, especially FDI. Customs regulation and corruption related to customs are cited by firms that conduct international trade as major constraints to expanding production. Knowledge of market channels is also a constraint, as many non-exporters state "lack of knowledge of potential"

markets" as the main reason why they do not export. Well-connected markets are a prerequisite for spillover-effects of industrial development, especially in the natural resource sector, so Mozambique must continue to improve regional market connectivity.

Some suggest that skill mismatch is a fundamental problem for wage employment, and that vocational training is the solution. The evidence for this position is quite weak. There is no doubt that local and foreign firms face a shortage of experienced and skilled labor such as accountants, engineers, mechanics and managers, as well as experienced semi-skilled labor in some trades (e.g. plumbing, welding, electrician, etc.). Indeed in Mozambique, almost any skilled job requiring prior experience will be difficult to fill owing to the youth of the labor force and the historical education and skill deficits. But these skill shortages are rarely mentioned by the private sector as one of the top constraints to starting and growing a business in Mozambique. For example, less than 25 percent of manufacturing firms surveyed in 2012 answered "no" to the question "do you have a sufficiently skilled workforce given the type of production you are engaged in and the technology you employ?" In this situation, spending more public money on untargeted vocational training for jobs which are unlikely to materialize would be a poor investment, especially given the high cost of vocational training compared to improving the quality of primary education and expanding secondary education, both human capital investments with high payoffs. Once other constraints to private investment are released, additional policies and programs to encourage the private sector to participate in skills training might be worth considering. ¹⁶

There are however some areas where targeted programs to increase skills may be effective. Two areas are discussed below: training for firm managers and owners; and training in construction skills. In both cases, this should only be done through public-private partnerships. The third area, employability skills (e.g. how to perform well on the job) is discussed below under options to reduce youth unemployment.

Flexible training and support might be warranted in the area of management and entrepreneurship. Most SSA countries face a deficit in local managerial and entrepreneurial skills, including but not limited to basic finance, marketing, supply chain management, and human resource management (Dihn et al 2012; Valerio, et al, 2014; Bloom et al 2014). In Sub-Saharan Africa, training and mentoring programs for

¹⁵ See Government of Mozambique, (2013) Table 4.8.

¹⁶ See Fox et al, (2012), for a discussion of these tradeoffs. In addition, Mozambique is currently implementing a major reform program in the state vocational training sector. A rigorous evaluation of this program should reveal where additional investments might make sense.

small and medium businesses have a mixed record at best, and the most successful tend to be expensive (Valerio et al 2014). Yet as a few experiments have shown, when done well, and focused on existing firms, the pay-off can be high (Bloom et al, 2012). One program that recorded some success was in Mozambique, the MozLink program (See Box 5). Although not subject to the same type of evaluation as the experimental ones mentioned above, tracer studies showed that companies that participated improved profitability and created jobs (Mwanza, 2012). These programs are only effective when created and managed by the private sector itself or NGOs, however, as the public sector does not have the necessary expertise. In addition, participating firms may not be willing to open their business practices and books to extensive scrutiny from public officials, but they would be willing to do so with trusted private sector mentors. Given the high costs and mostly private returns, most of these programs require contributions from the businesses selected to participate in addition to donor funds. This may also limit participation.

Box 5: Building up local skills - the Mozal approach

The Mozal aluminum smelter project, one of Mozambique's first "megaprojects" sought to promote local companies and employment during both the construction and operational stages. From the start, the shortage of local skills, both technical and managerial, was recognized as a severe obstacle to realizing this objective. Mozal responded by seeking the support of donors and the Government to develop two local training programs. The first one was designed for the construction phase. A state of the art training facilitated was built on site, operated by a third party training provider. This center specialized in training construction workers in technical skills as well as health and safety practices. Mozal's contract with the construction contractor stipulated that no workers would be allowed on site if they did not pass these training courses, thus ensuring both quality and workplace safety. Some of the workers trained during the construction phase were hired on as permanent employees for operations. Training has also taken place at the supervisory and managerial levels since operations commenced.

In the second phase, Mozal (jointly with the IFC), set up a business skills training program for SMEs. Designed to train potential suppliers, SME development in the MozLink model involves training 15–20 SMEs per year over a twelve-month cycle, under the guidance of a team of four mentors. SMEs apply to participate, and the best ones are selected each year. The MozLink process develops the technical and business skills of SMEs and prepares them to perform adequately on contracts with large companies through a program of assessment, concentrated mentoring, training, and workshops. After a number of successful cycles, the program closed owing to the failure to find a local partner to administer the program in place of the IFC. Success was also limited by the shortage of working capital for Mozambican firms.

Sources: Mwanza, P., (2012); Salinger and Ennis, (2014); IFC, (2008)

Construction is also expected to be a growth sector, and specialized skills – both managerial and technical - are reported to be an important constraint (Nhabinde et al, 2012). It is not clear which set of skills – technical or managerial - is more binding. Most technical construction skills are learned on the job, but putting in place such a system requires management of apprentices and experienced workers, not an easy task for a medium sized business. A special program of business services support in this sector (in a format similar to the Mozal program, for example, with foreign construction companies providing the training to potential subcontractors) might be an effective approach. A flexible labor code is also required

to ensure that the apprentice employee pays part of the cost of training (through lower wages and a probationary period with a higher risk of employment termination).

4.2 Increasing productivity and earnings in the household farms and firms sector

With a rapidly growing labor force and small wage employment sector, the household farms and firms sector is where most Mozambicans will work for the foreseeable future. Indeed, simulations in Jones and Tarp (2012) suggest that even if the number of nonagricultural wage jobs increases at double the rate of growth of the labor force through 2050, the number of people working in nonwage jobs (household farms and firms) will still double over the period. Between 2010 and 2030, they estimate that even the share of nonagricultural wage employment in total employment will decline only briefly. Thus, for at least the next 15 years, most Mozambicans will have to work their way out of poverty through self-employment, often jointly with other household members. It is helpful to consider these two sectors together, because in rural areas they represent a joint livelihood strategy – one of the best available to many households (Fox and Sohnesen, 2012; Davis et al., 2014). In both sectors, the objective of employment policy should be on increasing opportunities and productivity.

A coherent strategy to raise the productivity of smallholder farmers is absolutely critical. As in most SSA countries, the small holder agricultural sector in Mozambique continues to underperform. Land is not scarce, and the average farm size even in poor households is high compared with some East and West African countries (about 1.5 hectares for the bottom 40 percent of rural households; Cunguara, et al, 2011a). But incomes are still low, and hours-related underemployment is rife (also common with rainfed agriculture). Use of inputs is low, in part according to Cunguara et al (2011b) because of lack of market access. Only 33 percent of farmers live within two kilometers of a rural road (World Bank, 2015b). Use of animal power for farming had increased slightly by 2008, but the share of households with land under irrigation had not (Jones and Tarp, 2012). Irrigation, even simple schemes, is almost nonexistent. As a result, very few farmers even sold their food crops. In 2012, 18 percent sold maize, and 13 percent sold rice (World Bank, 2015b).

Investments and programs to improve productivity in the smallholder sector, such as developing higher value crops, expanding livestock production, expanding commercial farming, and encouraging private investment in agroprocessing of local production to improve market channels for framers are strategies

for a more inclusive job creation agenda. Government strategy is committed to raising the productivity of small holder farmers, but this will take time. Indeed, it has been argued that the current strategy is underdeveloped (Jones and Tarp 2012). A coherent strategy would include infrastructure investments to provide market access, support for private sector development in the form of transparent land concessions for large commercial farms and the development of effective contract grower schemes for smallholder framers. Additionally, more effective agricultural research and extension services are needed to reach smallholder farmers. Jones and Tarp (2012) argue that this support could best be provided through public private partnerships and NGOs, using public funds for performance-based subsidies.

In addition to raising productivity, diversification of income for the poor needs to be encouraged. To cope with the difficulties in small-holder crop agriculture, rural households have tried to develop other economic activities in order to raise incomes. Diversification away from crop income has been correlated with higher rural household consumption and lower poverty in Mozambique for some time (Fox et al, 2008; Fox and Sohnesen, 2013; Cunguara, 2011a; Jones and Tarp, 2012). Using panel data, Fox and Sohnesen (2013) were able to provide the best evidence to date that in rural areas of Mozambique, adding a household enterprise to the income portfolio helped push households out of poverty. Households that were able to make the enterprise the primary activity of at least one household member were especially likely to move out of poverty: 44 percent of rural households that reported a HE as a primary activity of one member in 2008 but no HE in 2003 moved out of poverty, while only 15 percent moved into poverty; another 24 percent were never poor during this period. Where adequate market channels exist, diversification into livestock activities can also help households move out of poverty in rural areas. This is one of the main strategies of the BRAC ultra poor graduation programs, designed to move the poorest households out of poverty by helping the women in these households earn a higher income. The women are given some livestock, guided in livestock management, and also encouraged to save some of their income for future investments. Robust evaluations have shown that this approach has been quite successful in rural South Asia, where the markets for rural livestock products are already developed (Bandiera, et al, 2013). Pilots are ongoing in Ethiopia and Ghana.

Both livelihood diversification strategies – a nonfarm enterprise and livestock development – are risky activities. They require some savings on the part of the household for the initial investment, some cash flow to keep the activity going, and access to markets to sell the production. Lack of finance is one of the major reasons why rural households reported in 2010 that they could not open a HE, and lack of

working capital was the reason 56 percent of rural households reported for closing their HE. Households must be able to finance their HE with own savings or informal sources of finance, as often microfinance institutions will not lend for starting a HE or acquiring livestock without a significant down payment by the household. Formal or semi-formal finance is unlikely to be of help, as the sums involved are simply too small (Box 6). Formal financial service providers have too much overhead, and their services are too expensive, to serve this population. Informal finance, such as savings groups and savings and credit cooperatives, are the best solution in rural areas, and even for some urban households, who often combine these methods with formal finance. Informal finance is common in Mozambique, often supported by donor programs (FinMark Trust, 2012). These programs can be the first step to increased household financial inclusion. They work best when run by donors and NGOs, as government involvement tends to lead to loss of trust, poor loan repayment, and loss of sustainability (Filmer and Fox, 2014; FinMark Trust, 2102). Expansion of mobile payment systems (e.g. through cell phones) can help link these informal savings groups to microfinance institutions where the policy framework is conducive (e.g. competition keeps the costs down).

Box 6: Microfinance: who benefits and why?

Microcredit has expanded rapidly in developing countries, improving credit access for the poor. Microcredit products are cheaper than informal moneylender or supplier credit, and offer more flexibility than friends and family; they have lower transaction costs than formal banking institutions so they are able to serve a poorer market segment.

By the early 2000s, hopes for microcredit were high. However, subsequent experimental evidence has shown that micro credit is not for everyone. Indeed, the entrance of microcredit institutions into a community does not lead to a rapid increase in credit, as less than 20 percent of households take up the offers. Those who do take loans either have existing household enterprises to expand or they start-up new businesses. But follow-up surveys show that the loans do not seem to result in significant increases in profits (existing businesses) or in household consumption (existing or start-ups). One reason may be that not everyone who starts or expands a business succeeds. Although the interest rates are lower than the alternatives, they are still high, and not every household investment realizes a rate of return significantly above the interest rate (at least in the one-three year time horizon of these studies).

Although initially started in Bangladesh with donor funds, the world-wide expansion has involved commercial credit, at commercial rates. This has changed the model a bit. Individual loans are popular, but some collateral is often required, which can be lost. Group liability is less popular especially in situations where social capital and/or social norms are not enough to prevent default by one member, which is then a tax on the other members. In a commercial situation, the tax has to be paid.

Finally, microcredit institutions are usually not licensed as deposit-taking institutions, because they are not supervised for liquidity risk the way commercial banks are. Studies show that households need safe places to save and they need credit. The solution to this in East Africa has been for microcredit institutions to team up with mobile money providers. The mobile money provider does not lend the cash balances so there is no liquidity risk. The convenient payment system allows clients to save and borrow through the microcredit institution, expanding household financial transaction and product options.

In sum, in countries such as Mozambique, public policy can support household financial inclusion by encouraging reliable microcredit institutions, and mobile money providers. Through tiered supervision (e.g. risk-appropriate rules for mobile money, microcredit institutions and commercial banks), countries can encourage the expansion of financial products tailored to the needs of poor households who would not be served by formal financial institutions. However, there will still be a need for informal finance, and donors should be encouraged to support this as well.

Source: Banerjee, (2013); Filmer and Fox, (2014).

Rural transportation infrastructure is an important part of this story. Access to markets is a common problem for both farm and nonfarm household production. Rural HE owners listed road quality, distance to markets, and road access as severe obstacles to running a business in 2010. Access to and reliability of electricity was also listed as an obstacle. HEs owners also need a market place to sell their goods and services (e.g. market stalls, water supply, waste disposal, and protection from violence). Cunguara et al (2011b) found that living near a tarred road is essential for households to benefit from improved technologies such as improved seeds or tractors. The quality of market infrastructure has been found in other countries to be related to adoption of technology¹⁷.

Cash transfers, if well targeted and planned, could also support a jobs strategy. Poor households are subject to a number of idiosyncratic risks, and governments are increasingly testing out cash transfers as

¹⁷ See Cunguara et al 2011b for a discussion.

a safety net to improve current consumption, to increase their ability to invest in their children's education, and to support households to work their way out of poverty (Grosh et al 2008). The latter point – cash transfers as a jobs strategy – is often ignored. Yet evidence ranging from Bangladesh to Ethiopia to Nicaragua shows that they can play a vital role (Filmer and Fox, 2014). Cash transfers have several benefits for rural households trying make a mixed livelihood strategy work:

- At the household level, they help cushion the household from shocks so that productive assets do not have to be sold off at low prices in times of crisis.
- They can help a household start to put money aside as savings, the first step in improved financial management which is needed in order to make the investment necessary to start a business.
- They can provide a source of income to tide the household over while waiting for the return
 on an investment in livestock, inventory, or machinery used to start a business.
- They can help with needed working capital, such as money for transportation to take goods to market.
- At the community level, they increase the liquidity of households, helping to build a market for the products and services households want to sell.
- Cash transfers are usually cheaper than, for example, an off-season public works jobs program, and do not displace labor from productive tasks.

For all these reasons, cash transfers are one of the pillars of the BRAC and other donors' *ultra-poor graduation programs*. In addition to providing livestock, during the first 9-12 months these programs provide participating households with a small cash transfer to tide them over until they have an income stream from their livestock and other income earning activities. In some cases (e.g. Bangladesh) the cash transfer is paid by the donors funding the program and delivered by BRAC, but in other cases (e.g. Haiti), it is paid by the government while a BRAC-trained NGO implements the other aspects. Participants are required to save a portion of these funds. Participants also get life skills and livestock management training, as well as a bi-monthly visit from a BRAC - trained local counselor-facilitator, designed to help build participants' confidence and help address any problems that have developed. Participants are only steered into credit (through microfinance programs) once their new activities are showing viability and sustainability. IFPRI is also experimenting with a rural poverty reduction program combining cash transfers with training – in this case extension services – in Malawi and Senegal. The transfer program is associated with an input supply program to ensure that farmers can upgrade their production through the use of

modern inputs. Examples of development interventions such as savings groups and graduation programs show the need for strong partnerships. They are an example of effective use of donors and NGOs to deliver parts of a jobs and poverty reduction strategy that requires specific technical skills, dedication, and flexibility to respond to participant and community situations, while governments focus on less complex tasks such as administering a cash transfer program and building the necessary infrastructure to support access to markets.

In addition to expanding opportunities for wage employment in urban areas, more and productive urban jobs can be created in the HE sector. Urban HEs also need government support to be successful. In addition to access to finance – which in the case of urban HEs often could be met through microfinance development - urban HE owners' most frequent complaint is lack of space to work and sell their products. This is primarily a problem of urban planning, which usually excludes HEs. This results in a lack of a secure place to work, conflict over space needed to reach their customers, and lack or urban services such as water, electricity, waste disposal, and police protection. Instead of service, HE owners complain of harassment from local authorities, who may not recognize HEs as adding value to the local economy. A recent incident in Mozambique between a vendor and policeman was an example of an all too common problem in SSA¹⁸.

In Mozambique, small holder agriculture and HEs are specific economic segments which belong in an employment and poverty reduction strategy. Neither should be confused with large commercial farms or small and medium enterprises; they are different segments with different opportunities and constraints. Development of both the household sector and the commercial enterprise/farm sectors is important for improving livelihoods. Governments usually have strategies for the agriculture sector and the small, medium, and large enterprise sectors but they do not have strategies for the household enterprise sector. Nor are they regularly tracking progress and monitoring outcomes (Filmer and Fox, 2014). This needs to be addressed.

4.3 Urban youth employment: assisting the school to work transition

Urbanization is proceeding rapidly in Mozambique. This is an opportunity and a challenge for youth.

Cities provide more income earning opportunities, as well as better access to services. Mozambique

¹⁸ See Kweka and Fox, 2011, for descriptions of similar incidents in neighboring Tanzania.

appears to have a growing "aspirations mismatch", not a skill mismatch, among its educated youth, and this is contributing to a visible urban unemployment problem among educated and wealthier youth. This is a common problem in SSA, as educational opportunities expansion has been more successful than economic opportunities expansion. In Mozambique, as in other lower income countries, youth will have to learn to create their own jobs. They should learn this before they leave school, not several years after.

The existence of a youth bulge with large numbers of unemployed urban youth is of special concern because if the country fails to generate productive employment, it could adversely affect social cohesion and stability in the country. Recent reports have provided fresh evidence that Mozambique's education system is struggling to provide the basic cognitive skills that children need (World Bank, 2015a). Under these circumstances, how can schools be expected to do even more for the most educated? This is a good question, and one that needs careful consideration. However, this area is also one where attempts to crowd in private partners and donors might be beneficial. In Uganda, a social enterprise called Educate! is testing a low cost job readiness program in public secondary schools in several districts. The program combines soft skills training with very basic financial literacy and bookkeeping. It encourages participants to set up savings clubs and learn about microfinance options. Program participants are more likely to find work (either by starting a business or by landing a job with an existing business to learn skills) than those who did not participate. Also in Uganda, an afternoon program for young females aged 14-20 (also run by BRAC) is resulting in increased income earning activities and improved health (Bandiera et al, 2014). In Nepal, the donor-financed Employment Fund contracts with private training providers to provide short training courses to help youth find jobs. The contractors are only paid if the participants are successful in finding a job or starting a business. At about US\$500 per participant, while not cheap, the program is less costly than many public alternatives (World Bank, 2012c).

5. Conclusions

The Government of Mozambique is rightly concerned about increasing competitiveness, productivity, and job quality. All are important, but higher earnings across the board are key to inclusive growth. The country's employment policy needs to address the twin objectives of raising productivity within the household segment (where the majority of employment is and will be) and increasing the private sector employment opportunities outside the household segment (demand for labor).

Similar to many other lower income countries, Mozambique's employment challenges can be divided into three segments: an urban modern wage sector, providing good returns to human capital and higher and more secure incomes, and two household employment segments – the family farm and the household enterprise (HE). A small casual wage sector exists as well, in sectors such as agriculture, construction, and services. Households combine these activities into portfolios (or livelihood strategies), depending on the opportunities available and their own human, physical and financial capital. The household sector tends to be lower productivity and results in lower and less secure earnings than the modern wage sector for a variety of reasons including lack of capital and technology. Interventions are needed that are specific to each segment.

Previous analyses of Mozambique's employment challenges have found most of the challenges to be on the demand side (Jones and Tarp, 2012; Fox and Sohnesen, 2013). Supply side problems related to lack of access and poor quality of general education have also been noted (Fox et al 2012; World Bank, 2015). A major push is needed to improve opportunities for productive employment in both the wage sector and the household production sector, by raising the demand for labor in the private enterprise sector and improving opportunities in the household production sector.

In the modern wage segment, the policy objective should be to create more jobs. To do this, policies must support a) private investment in labor intensive firms and b) linkages between the capital-intensive natural resource sector and the local populations in order to create local jobs. Promoting all categories of firms will be critical, as an investment in only small or micro firms tend may not have a substantial impact due to their high mortality and low rates of growth (Bloom et al, 2014; Government of Mozambique, 2013). Well targeted efforts to build the supply chains of large firms by encouraging small and medium domestic companies to integrate with them (hence enabling access to markets and skill

transfer) are needed. Mozambique has an opportunity with the rapid inflow of FDI and larger foreign companies to build capacity of its local enterprises. For this modern wage segment, the government should also pilot ways to crowd in the private sector to invest in building skills. Private sector consultation and/or involvement in technical and vocational training are essential to making skill development programs effective in meeting the demands of the market.

In household smallholder agriculture, interventions are needed to increase land and labor productivity by allowing more hours to be worked and higher value to be produced per labor hour (through, for example, improvements in water management). Other standard recommendations for the agricultural sector include steps to improve availability of technology and capital, increase livestock holdings, and reduce or mitigate weather risk. If Mozambique were able to attract private investment in agro-processing to meet the growing demand in urban areas for processed foods, this could also benefit farmers by developing markets (as well as creating non-farm wage jobs).

In the household enterprise sector, the main barriers seem to be a lack of supportive local environment.

Obstacles to earning a living cited in surveys of rural HE owners include lack of infrastructure - access to electricity, distance to markets and road quality. Urban HE owners are more likely to cite crime and harassment by local officials. HE owners in both sectors complain about lack of finance, a common problem in this sector. Development strategies ignore this sector, denying opportunities to both urban and rural residents. Increased irrigation and other infrastructure investments for a commercial agricultural sector, and private investment in agro-processing, can help increase demand for off season or year-around wage work in rural areas. Supporting households to develop HEs can benefit smallholder agriculture as well, as households have a place to invest cash after harvest, and then as the planting season rolls around, funds for buying seeds and inputs. Both activities would be more profitable and sustainable when rural transportation and other connectivity infrastructure is increased. In the short-to-medium term, urban strategies also need to help make HE activities more profitable. This will require involvement of the HE owners themselves, which implies that local authorities respect these activities as legitimate value-adding ones. Countries such as Ghana have shown that consultation and involvement of HE owners in local economic development plans has created effective HE clusters near customers and suppliers, for the benefit of all (Filmer and Fox, 2014).

Similar to youth in other SSA countries, Mozambique's best educated urban youth are struggling with the transition to work. As many of these youth will end up starting a HE, all efforts to improve the business environment for this sector will benefit these youth. Urban leaders may also wish to look to NGOs and donors for innovative low cost programs which can reach these youth, orient them to the opportunities available, and help them build the life skills they need to create their own livelihood.

Tackling some of the long standing problems hindering all sectors such as bureaucracy and poor infrastructure should be on the agenda, and not just in Maputo. One area where some success has been registered in Mozambique is business support services and management training. But it was the private sector that registered this success, not the public sector. This is also a lesson for jobs strategies in Mozambique.

To avoid government becoming overstretched and ineffective, Mozambique's employment strategy should explicitly try to crowd in private actors, concentrating public actions on areas where there is a clear and persuasive reason for government intervention. This means both providing core public activities better (e.g. basic education, agricultural research and extension, infrastructure development and maintenance, crime prevention) and reducing obstacles to effective action by private actors, including enhancing completion. It also means recognizing the whole problem, not focusing only on advantaged urban youth or the energy sector.

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Appendix A: Main Data Sources

IOF 2008-09. The *Inquérito aos Orcamentos Familiares* (IOF) is the third national household income and expenditure survey, conducted from October 2008 to July 2009. It included a detailed expenditure module (diary format), an income module (one month recall), as well as questions on assets, employment, education, health, demographics, etc. In this survey, the employment questions cover both primary and secondary employment with no specified recall period.

Inquérito Contínuo aos Agregados Familiares (INCAF). INCAF was implemented by the Mozambican national statistics office in the period July-September 2012. The sample size was much smaller than the IOF; it was designed as a national monitoring survey. It covered many of the same topics of the IOF but with abbreviated modules. For example, it used a 7 day recall period for employment, and much shorter expenditure and asset modules. As a result, the data are not comparable to the IOF data.

National Agricultural Survey (*Trabalho de Inquérito Agrícola or TIA*). This nationally representative survey included has been implemented about every three years by the Ministry of Agriculture with support from Michigan State University. *TIA* collects data on the following income sources: net crop income, livestock sales, off-farm self-employment such as income from natural resource extraction or from a small-business, off-farm wage income, and remittances.

Appendix B: Additional Tables

Table B1: Population structure 2015-2030

	Share of population				
Age	2015	2030			
0-14	45.1	41.2			
15-24	19.7	21.0			
24-65	31.9	34.2			
65+	3.3	3.6			
Total	100	100			

Source: United Nations (2013) World Population Prospects, the 2012 Revision, DVD edition.

Table B2: Structure of primary employment (age 20+), 1997-2009

Type of Employment	1997	2003	2009	
Agriculture (%)	86.8	78.2	79.6	
Household Enterprises (HEs) (%)	4.4	8.1	8.4	
Non-farm Wage Employment (%):	8.9	12.6	12.0	
Private Sector (%)	3.0	7.8	7.8	
Public Sector (%)	5.9	4.7	4.2	
Total	100	100	100	

Source: Fox, and Sohneson (2012) based on IAF 1996/97, 2002/03, and IOF 2008/09.

Table B3: Structure of employment in rural and urban areas, 2012

	All		Urban				
		Male	Female	All	Male	Female	All
Agriculture	73.0	19.7	43.2	31.4	78.5	95.9	88.4
HE	14.0	28.5	35.0	31.8	13.5	2.8	7.4
Wage, public	4.2	15.0	7.3	11.2	2.8	0.7	1.6
Wage, private	8.9	36.7	14.5	25.7	5.2	0.7	2.6

Source: Author's tabulations using INCAF 2012 data

Table B4: Share of employment by area of residence (1997, 2003, 2009)

Share of all workers							
	Urban			Rural			All
Type of employment	1997	2003	2009	1997	2003	2009	2009
Agriculture	66.7	51.0	44.7	94.0	92.5	93.2	79.6
HE	10.1	18.8	22.7	2.3	3.8	2.8	8.4
Wage Employment	23.2	30.2	32.6	3.7	3.7	3.9	12.0
Private sector	7.6	19.1	22.5	1.3	2.1	2.1	7.8
Public sector	15.6	11.1	10.2	2.4	1.6	1.8	4.2
Total	100	100	100	100	100	100	100

Source: Author's tabulations from IOF data

Table B5: Job type by sector of activity, 2012

Sector	Wage public	Wage private	HE	Agriculture	Total
Agriculture/Forestry/Fishery	1.1	0.0	0.0	99.4	73.9
Extractive industry	0.1	2.0	2.4	0.0	0.5
Manufacturing industry	3.5	17.3	17.3	0.2	4.1
Construction	0.3	13.5	9.3	0.0	2.5
Transport	4.1	8.1	1.4	0.0	1.1
Trade	1.2	14.1	61.5	0.4	9.7
Other Services	3.3	42.9	6.2	0.1	4.9
Education	44.2	1.0	0.2	0.0	1.6
Health	3.1	0.0	1.6	0.0	0.3
Public administration	39.3	1.1	0.0	0.0	1.5
Total	100	100	100	100	100

Source: Author's tabulations using INCAF data, 2012.

Table B6: Hours worked, all activities, by primary activity and gender, Urban, 2012

	Agricultu	ire	HE		Wage		All		
	Male	Female	Male	Female	Male	Female	Male	Female	
<21	15.3	20.1	8.5	14.3	3.8	6.9	7.1	15.1	
21-40	31.1	40.6	16.9	27.3	30.3	39.1	26.6	35.7	
41+	53.6	39.1	74.6	58.4	65.9	54.1	66.3	49.2	
Total	100	100	100	100	100	100	100	100	

Source: Author's tabulations using INCAF data

Table B7: Hours worked, all activities by primary activity and gender, Rural, 2012

	rable by: Hours worked, an activities by primary activity and genaci, Raral, 2012								
	Agricultu	ire	HE		Wage		All		
	Male	Female	Male	Female	Male	Female	Male	Female	
<21	19.6	26.5	8.1	12.5	6.9	7.2	16.6	25.8	
21-40	33.4	44.0	24.1	25.9	30.5	38.9	31.8	43.4	
41+	46.9	29.5	67.8	61.6	62.6	53.9	51.5	30.8	
Total	100	100	100	100	100	100	100	100	

Source: Author's tabulations using INCAF data

Table B8: Youth vs. adult unemployment rate, 2012

	Youth (age 15-24)		Adult (age 25+)	
	Urban	Rural	Urban	Rural
Unemployment rate	20.4	1.7	6.3	0.2

Source: Author's tabulations using INCAF 2012 data