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Republic of Zambia

Systematic Country Diagnostic

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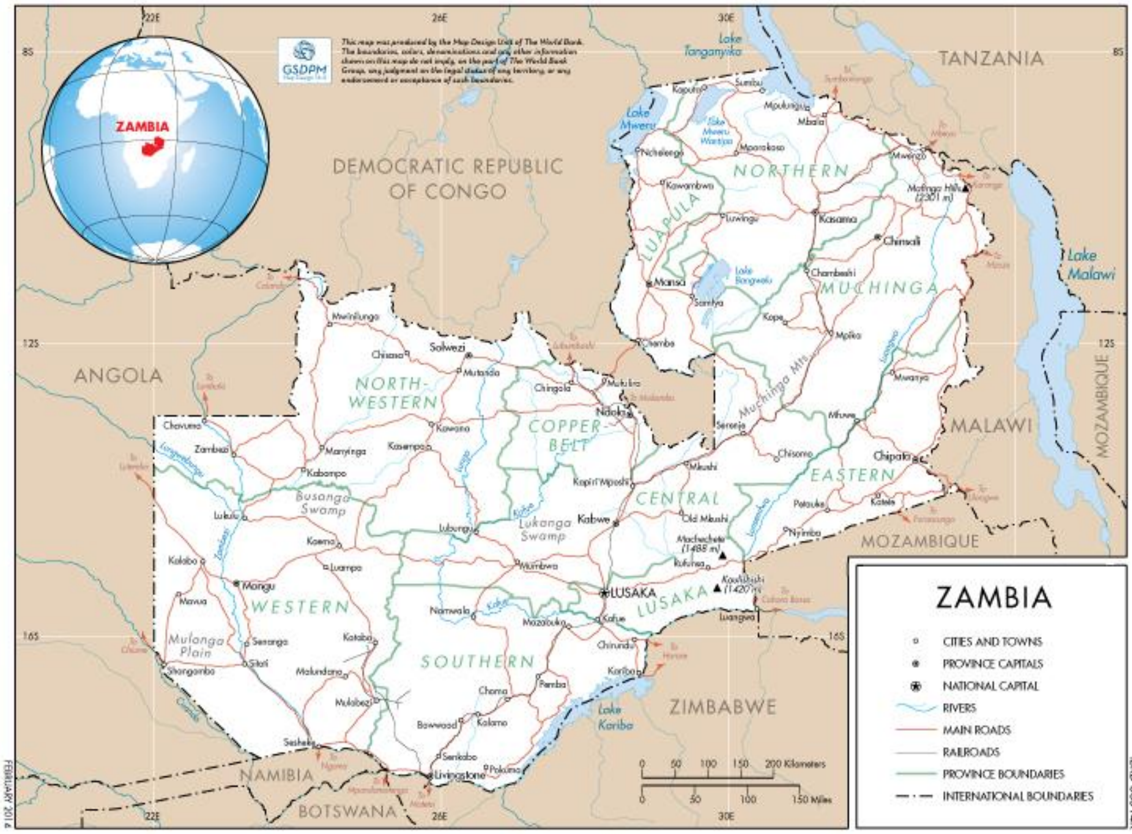
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DEMOCRATIC REPUBLIC OF CONGO
TANZANIA
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MALAWI
MOZAMBIQUE
ZIMBABWE
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BOTSWANA
Lake Tanganyika
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Lake Malawi
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COPPERBELT
CENTRAL
EASTERN
WESTERN
SOUTHERN
LUSAKA
LUSAKA
Kasama
Chinsali
Mansa
Solwezi
Ndola
Kabwe
Mongu
Chipata
Livingstone
Busanga Swamp
Lukanga Swamp
Mulonga Plain
Muchinga Mts.
Mafinga Hills (2301 m)
GSDPM
CITIES AND TOWNS
PROVINCE CAPITALS
NATIONAL CAPITAL
RIVERS
MAIN ROADS
RAILROADS
PROVINCE BOUNDARIES
INTERNATIONAL BOUNDARIES
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ABBREVIATIONS AND ACRONYMS

7NDP	Seventh National Development Plan
ASA	Advisory Services and Analytics
CCPC	Competition and Consumer Protection Commission
COMESA	Common Market for Eastern and Southern Africa
CPF	Country Partnership Framework
CPI	Consumer Price Index
CPIA	Country Policy and Institutional Assessment
CRVE	Civil Registration and Vital Statistics
CRVS	Civil Registration and Vital Statistics
CSO	Central Statistical Office
CSR	Corporate Social Responsibility
EITI	Extractives Industries Transparency Initiative
EPF	Environmental Protection Fund
FDI	Foreign Direct Investment
FISP	Farmer's Input Support Program
FRA	Food Reserve Agency
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
GEWEL	Girl's Education and Women's Empowerment and Livelihoods
GRZ	Government of the Republic of Zambia
HIPC	Heavily Indebted Poor Country
HIV/AIDS	Human Immunodeficiency Virus Infection/Acquired Immune Deficiency Syndrome
ICOR	Incremental Capital Output Ratio
ICP	International Comparison Program
ICT	Information and Communication Technology
IDC	Industrial Development Corporation
IFC	International Finance Corporation
IFMIS	Integrated Financial Management Information System
IFPRI	International Food Policy Research Institute
LBW	Low Birth Weight
LCMS	Living Conditions Monitoring Survey

LTGM	Long-Term Growth Model
MDG	Millennium Development Goal
MDRI	Multilateral Debt Relief Initiative
MIGA	Multilateral Investment Guarantee Agency
MP_K	Marginal Product of Capital
NAAIAP	National Accelerated Agricultural Inputs Access Programme
ND-GAIN	University of Notre Dame Global Adaptation Initiative
NDC	Nationally Determined Contribution
NES	National Electrification Strategy
NGO	Nongovernmental Organization
NPS	National Payment Systems
NRC	National Registration Card
OBB	Output-based Budget
OPHI	Oxford Poverty and Human Development Initiative
PAYE	Pay-As-You-Earn
PER	Public Expenditure Review
PF	Patriotic Front
PIM	Public Investment Management
PPCR	Pilot Program on Climate Resilience
PPP	Purchasing Power Parity
PSRP	Public Service Reform Program
PV	Photovoltaic
PWAS	Public Welfare Assistance Scheme
RAI	Rural Access Index
RALS	Rural Agricultural Livelihood Survey
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SACCO	Savings and Credit Cooperatives
SADC	Southern African Development Community
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
SCD	Systemic Country Diagnostic
SCT	Social Cash Transfer
SCTS	Social Cash Transfer Scheme
SES	Socioeconomic Status
SME	Small and Medium Enterprise

SOE	State-owned enterprises
TB	Tuberculosis
TFP	Total Factor Productivity
TFR	Total Fertility Rate
TVET	Technical and Vocational Education and Training
UNFCCC	United Nations Framework Convention on Climate Change
UPND	United Party for National Development
VAT	Value Added Tax
WAVES	Wealth Accounting and the Valuation of Ecosystem Services
WDI	World Development Indicators
WHO	World Health Organization
ZCCM-IH	Zambia Consolidated Copper Mines Investment Holdings
ZDHS	Zambia Demographic and Health Survey

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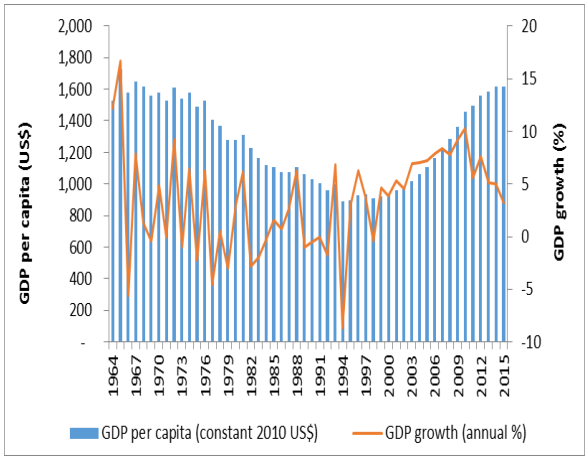
CHAPTER 1: INTRODUCTION

1.1 Outlining the Poverty and Inequality Challenge

1. **Zambia has successfully raised its average annual gross domestic product (GDP) growth rate since the early 2000s.** Between 2004 and 2014, it averaged 7.4 percent per year. This success was driven by an improvement in the macroeconomic indicators (relative to the 1980s and 1990s), debt relief, heavy investment in the social sectors (by the government and cooperating partners), and a large increase in mining and agricultural production since 2004. This success raised average per capita incomes after decades of economic volatility since the country's independence in 1964 (figure 1).

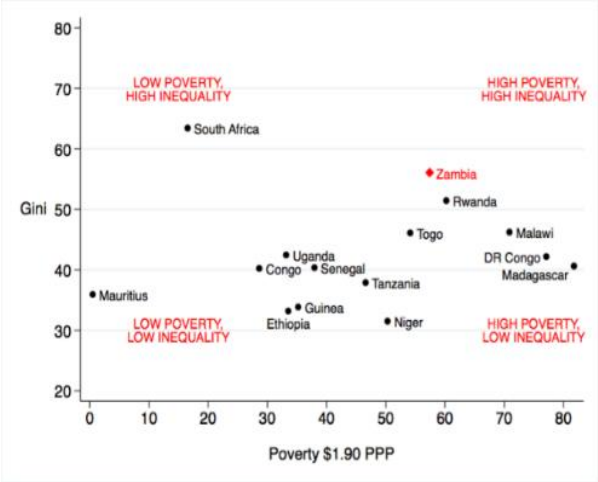
2. **Economic growth has been accompanied by much better development outcomes in health and education.** For example, since 2007, many health indicators have progressed. Child malnutrition, infant and under-5 mortality, and the maternal mortality rate have decreased. Efforts have also been successful in combating Human Immunodeficiency Virus Infection/Acquired Immune Deficiency Syndrome (HIV/AIDS), malaria, and other diseases. The Millennium Development Goals (MDGs) linked to the education sector were achieved (including universal primary education and eliminating gender disparity in primary education).

Figure 1. **GDP Per Capita (US$), 1964–2015**



Source: World Bank 2017d.

Figure 2. **Both Poverty and Inequality Are High**



Source: Living Conditions Monitoring Survey (LCMS) 2015 and PovCalnet.

3. **Zambia is experiencing a large demographic shift and is one of the youngest countries globally by median age.** The population is growing rapidly at 2.8 percent per year, resulting in the population doubling close to every 25 years. Zambia is expected to continue experiencing significant population growth as the large youth population enters the reproductive age. This is because fertility rates have declined only slowly and remain at 5.3 children per woman (CSO 2014). High fertility is associated with high maternal mortality, health issues, and low female economic participation. Reducing fertility rates would not only have a long-term impact on labor supply (supporting a better educated workforce in 15 years), but also a more immediate impact on female economic participation.

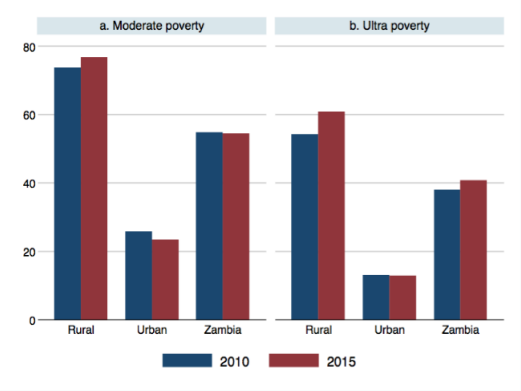
4. **High population growth increases the demand for jobs, health, and other social services, which the economy is not able to provide at present.** Between 2015 and 2050, the working age population will more than double, which means Zambia would need to create over 10 million new jobs by 2050 to keep labor force participation and unemployment rates unchanged. This is equivalent to about 300,000 new jobs per year, just to stand still (World Bank 2017a). Nevertheless, as a predemographic dividend country, if Zambia capitalizes well on its transition from high to low birth and death rates, it could also spur its growth prospects. However, it is critical to underscore that the demographic dividend for Zambia will neither be automatic nor guaranteed, but needs to be earned by creating sufficient good jobs (GRZ 2015).

5. **Rapid urbanization has been accompanied by a decrease in urban poverty incidence, but masks sluggish growth in small towns and cities.** After a decade of de-urbanization in the 1990s, urbanization has been an important driver of change over the past 15 years. However, from 2000 to 2014, urban growth in Zambia has been significantly more focused on the capital city than the average for Sub-Saharan Africa. The annual population growth of Lusaka is over twice the average for Sub-Saharan Africa (1 percent). In contrast, the share of secondary towns in Zambia is growing more slowly than in the rest of Africa (by only 0.7 percent in Zambia compared with 1.8 percent elsewhere). These disparities may exacerbate uneven territorial development, as small towns and cities play a crucial role in strengthening the links among firms; between firms and consumers; and within local, provincial, national, and international supply chains.

6. **Despite the increase in per capita economic growth, Zambia's national poverty and inequality have remained stubbornly high.** Zambia faces both high levels of poverty and inequality (figure 2), even when compared to other countries in the region. Impressive economic growth in the decade to 2014 brought benefits to urban areas, but poverty in rural areas remains widespread (the urban poverty incidence is less than half that of rural areas) (figure 3). The rapid population growth meant that the number of Zambians living in poverty increased between 2010 and 2015 (figure 4). The structure of growth benefited the people in urban areas (both poor and non-poor), more than the poor in rural areas. Regional disparities have also not narrowed, and the sharing of prosperity in Zambia has deteriorated with inequality on the rise (see the analysis of poverty trends in chapter 2 for further details). Therefore, the most important questions for this Systematic Country Diagnostic (SCD) become: *Why did the rapid economic growth between 2004 and 2014 not lead to substantial poverty reduction* and *why did inequality increase?*

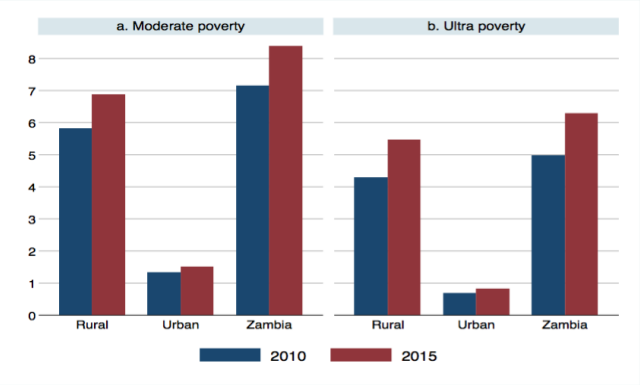
7. **The current development model being pursued has imposed environmental and resource liabilities.** Agricultural growth has been based on increasing land use rather than improved productivity, leading to rapid deforestation. Mining activities have resulted in pollution, and Zambia also faces high and growing climate change impacts. Copper price volatility also continues to challenge macroeconomic and fiscal management (see chapter 7 for a discussion of sustainability issues). Debt levels have soared to risky levels only 12 years after the Heavily Indebted Poor Country (HIPC) and the Multilateral Debt Relief Initiative (MDRI) programs provided US$6.5 billion of debt relief from 2005.

Figure 3. **Incidence of Poverty**



Source: LCMS 2010 and LCMS 2015.

Figure 4. **Number of People in Poverty (million)**



Source: LCMS 2015 and PovCalnet.

1.2 Why Has Poverty Remained So High, Despite GDP Growth?

8. **GDP growth averaging 7.4 percent between 2004 and 2014 meant the economy more than doubled in size.** In per capita terms, with the population growing at 2.8 percent, the change is smaller but still sizeable. This has led many to question why poverty rates remained stubbornly high. The answer is linked to the increasing inequality. The growth was thus exclusive (benefiting those well-off already) and not inclusive (not reaching the poorest households).

9. **Three factors are argued by this diagnostic to have conditioned progress with poverty reduction and the wider development process in Zambia.** First is *extractives-based growth*, characterized by a large copper mining sector. Second is *uneven territorial development*, illustrated by a large rural-urban divide and very high spatial and sectoral inequalities between Lusaka and Copperbelt and the rest of the country. Third is *stability but weak governance*, characterized by periodic elections, but with a competitive and personalized settlement, along with weak institutions and limited accountability. This results in policies and public resource allocations that often entrench rather than alleviate distortions to address poverty and promote diversification. Each of these defining characteristics has deep historical roots.

1.2.1 Extractives-Based Growth

Hypothesis 1: Copper mining has led to a volatile economy, while many of the benefits have not been fully realized.

10. **Mining has always played an important role in Zambia's economy.** Copper has been mined for over 50 years. While there has been repeated discussion of diversification to reduce dependency on copper, success in realizing such a goal has been limited. This results in part from some of the negative externalities of the sector and in part because Zambia has to date been unable to realize the full potential benefits from the mining sector. Maximizing these benefits would be an important step for creating the necessary financing to develop other sectors (this point is discussed in greater detail in chapter 5).

11. **The large increase in copper prices and production since 2004 has had a significant impact on the Zambian economy.** Since the privatization of underperforming state-owned mining companies in the early 2000s, private investment in the mines has exceeded US$12 billion. In response, copper and cobalt

production increased from less than 250,000 tons per year in the early 2000s to more than 790,000 tons in 2016, making Zambia the world's ninth largest copper producer and increasing mineral royalties (figure 5). While the Zambian government, through the Industrial Development Corporation (IDC) and Zambia Consolidated Copper Mines Investment Holdings (ZCCM-IH), owns a small share in the operating companies, there is no private large-scale Zambian mining operation. This has important effects on the political profile of the industry and the degree of trust and cooperation between the government, the mining companies, and the unions.

12. **Copper mining has in recent years provided 70 percent of exports and 12 percent of GDP.** In addition, 80 percent of Zambia's recent Foreign Direct Investment (FDI) has been to the mining sector (World Bank 2015a). While the mining sector has numerous links to other sectors, including services (Lipperty 2014), and despite its importance and size, the sector is still often described as an enclave industry. For example, it does not employ many people. It remains a capital-intensive sector, employing only some 90,000 workers directly (about 8 percent of total formal employment in Zambia). Approximately US$2 billion worth of goods and services are procured by the industry annually, only 10 percent of which are locally produced. Establishing better links and local content can to date be considered as forgone benefits from mining, with many policy failures having been identified as a root cause of this issue.

13. **Until recently, the government received little fiscal revenue from mining, but it has grown rapidly since 2010 and reached 28 percent of total revenue in 2015 (figures 5 and 6).** World Bank (2016b) highlights, using data from the Extractives Industries Transparency Initiative (EITI), that the mining sector (which includes quarrying and cement production) contributed ZMW 8.8 billion in 2014, equivalent to 28 percent of total domestic revenue, up from ZMW 7.7 billion in 2013 and ZMW 7.6 billion in 2012.[1] Despite the increase in revenues, from much lower levels in the 2000s, concerns about transfer pricing or illicit transfers and lost revenues from the sector persist, although there is disagreement about their magnitude (Readhead 2016).

Figure 5. **Revenues from Mining**

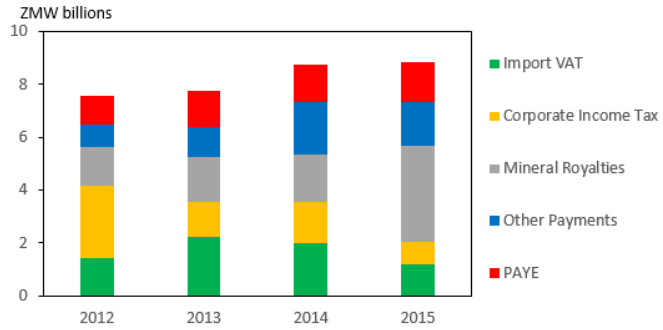
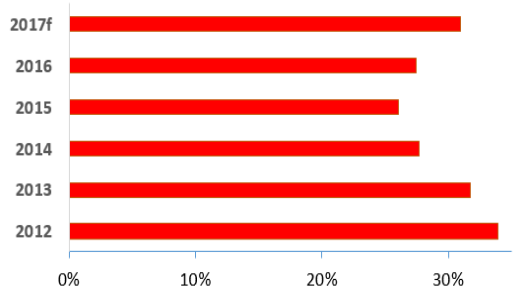


Figure 6. **Mining Revenues as a Percentage of Domestic Revenue**



Source: EITI.

14. **The large amount of copper mining has left a legacy of environmental liabilities in mining towns.** About 70 years of mining operations, no formal mine closures, and a lack of concurrent rehabilitation of mining sites have resulted in a massive 'environmental mortgage'. Zambia faces an inter- and

[1] A lack of quality data has been a huge barrier to better understanding the contribution of the mining sector in Zambia. The work of the EITI in Zambia has helped, and good data currently exist for 2008 to 2015.

intragenerational trade-off between decades-old deflected costs arising from poor enforcement of environmental regulations and a skewed distribution of the social costs and benefits of mining, as manifested in the high cost of disease burden and its disproportionate impact on the poor (discussed further in chapter 7).

15. **The volatility of copper prices has posed a serious challenge for fiscal and macroeconomic management.** A lack of instruments for policy efforts to smooth the economic cycle leads to swings in the real exchange rate (Roger, Smith, and Morrissey, 2017) and volatile flows of public and private investment. Further, the lack of a stabilization fund or adequate fiscal buffers makes fiscal management very challenging. Not only did Zambia not build fiscal buffers, but the government has amplified the impact of the resource boom by running up sizeable budget deficits and borrowing from international debt markets at the top of the cycle. Rather than help calm the volatility, it frequently exacerbates it, because the government finds it easier to borrow and scale up public expenditure when global commodity markets are performing well (discussed further in chapter 7). For example, slower economic growth in 2015 (as copper prices reached the bottom of a cycle) led to a deterioration of public expenditure (huge payment arrears built up) and a spike in nonperforming loans.

16. **Dependency on copper exports has constrained the growth of the non-resource sector.** Copper prices have been a major factor driving changes to the real exchange rate (figure 7) (Cali and te Velde 2007). Rising copper prices from 2004 reduced the competitiveness of Zambia's non-mining exports (through the real exchange rate). This made imported goods cheaper, especially for urban consumers, and constrained exports and job creation in agriculture and manufacturing (Resnick and Thurlow 2014). The consequent boom in services can be interpreted as a shift in resources to non-tradable sectors. Hence, the country is argued to have suffered some of the symptoms of Dutch Disease.[2] However, there is a lack of competition within, and competitiveness of, the non-tradable sectors (examples include the retail, information and communication technology [ICT], and logistics sectors) (see chapter 6). Because there are many factors, beyond the mining sector, also at play, there remains doubt whether Zambia is a confirmed case of Dutch Disease, with Gondwe and Pamu (2014) refuting such claims for 2000–2014.

Figure 7. **Copper Prices and Production Trends**

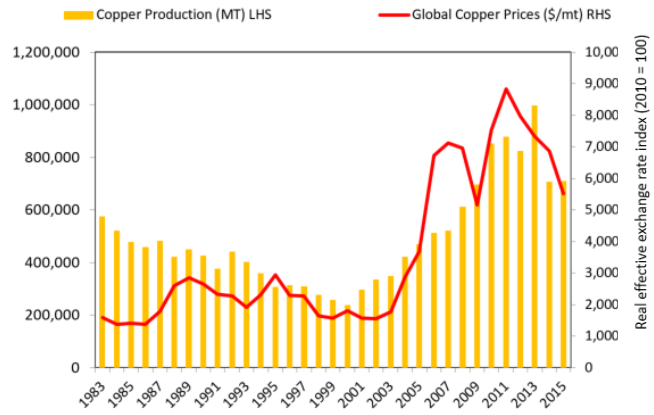
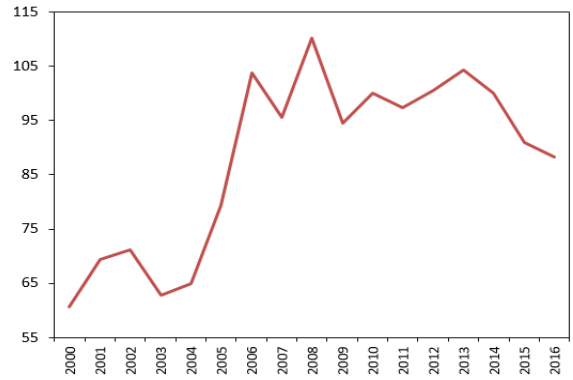


Figure 8. **Real Effective Exchange Rate**



Source: Central Statistical Office (CSO).

[2] Dutch Disease relates to the negative impact of a discovery of natural resources on a nation's economy through the appreciation of the real exchange rate and a decline in export competitiveness.

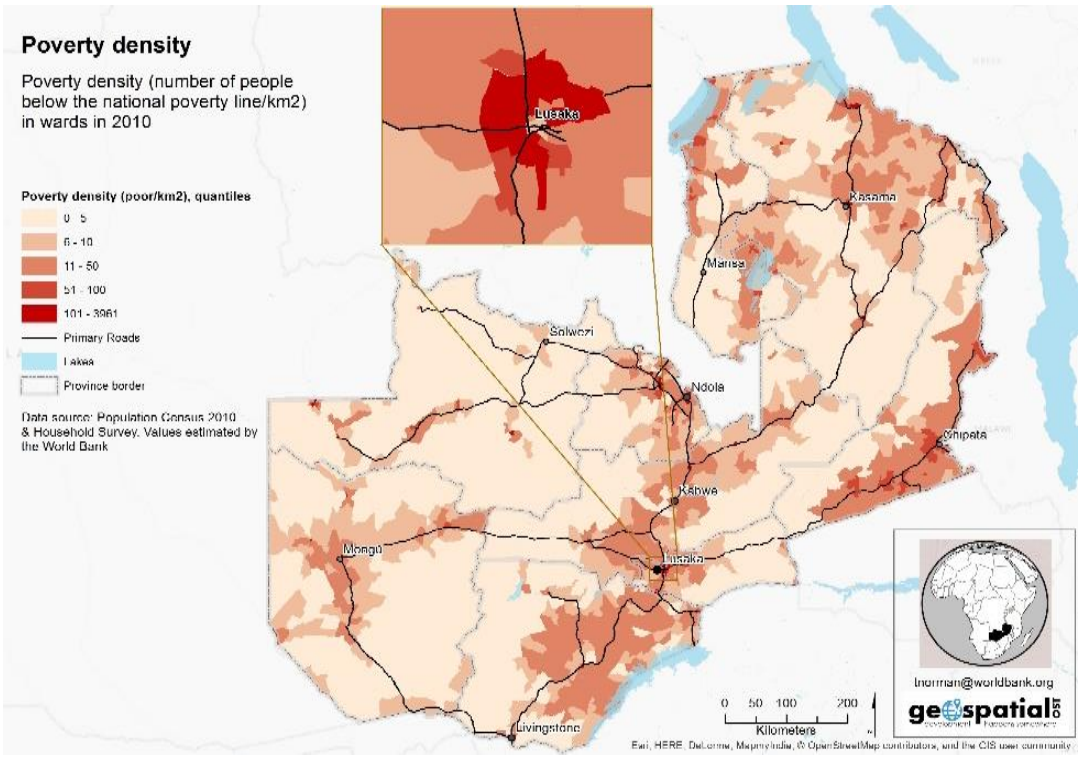
1.2.2 Uneven Territorial Development

Hypothesis 2: Low productivity and insufficient structural transformation have halted both rural and urban development.

17. **The drivers of Zambia's growth have remained the same as those at independence in 1964.** Growth has been highest along the railway line from Livingstone, through Lusaka, to the Copperbelt. Meanwhile, other spaces and people have remained, to a very great extent, excluded from the recent economic progress. This has led to territorial imbalances that persist to the present day. While an uneven geography of production can be a good sign of economic performance, what is not desirable is when disparities in living standards and access to services persist over time. Poverty also mirrors the pattern of the disparities (figure 9) and firms remain very spatially concentrated (figure 11)

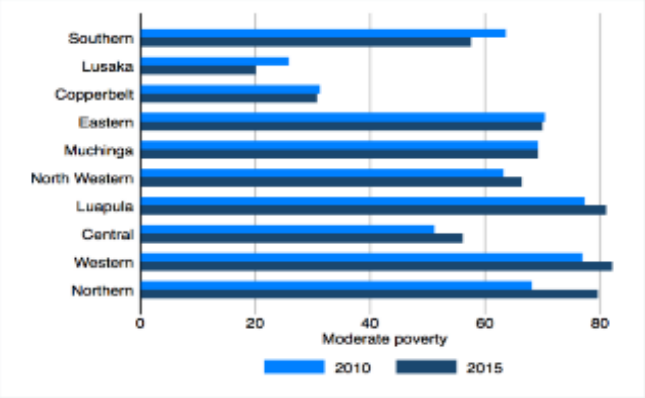
18. **There are considerable and increasing poverty divides among provinces.** Northern, Western, and Luapula Provinces, which already had very high poverty incidence rates in 2010, became the poorest in the country by 2015 (figure 10). By contrast, the Copperbelt, Southern, and Lusaka Provinces, where many of the gainful economic activities in the country are concentrated and where the main cities in the country (Lusaka, Ndola, Kitwe, Kabwe, Chingola, Mufulira, and Livingstone) are located, experienced drops in poverty over the same period. Lusaka Province, where the incidence of poverty was already the lowest in 2010 at 25 percent, experienced the second largest reduction in poverty. The pattern of extreme poverty by province is like that of moderate poverty (see chapter 2 for a full discussion of poverty in Zambia).

Figure 9. **Poverty Density in Zambia, 2010**



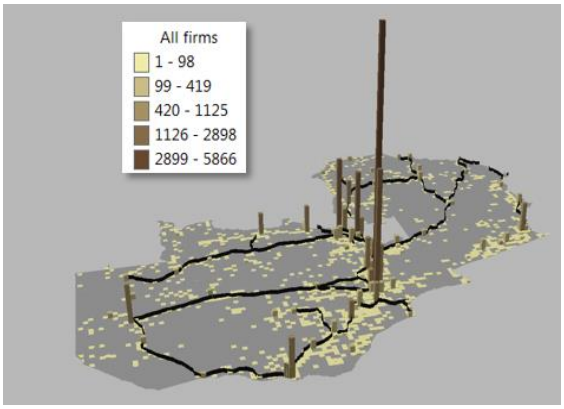
Source: de la Fuente, Murr, and Rascón 2015.

Figure 10. **Poverty Incidence by Province**



Source: Calculations based on LCMS 2010 and LCMS 2015.

Figure 11. **Concentration of Firms**



Source: Zambia Economic Census 2012.

19. **The low growth elasticity of poverty observed in Zambia stems from slow productivity growth in agriculture and the poor quality of jobs people find when they leave agriculture.** Poverty in Zambia was irresponsive to growth between 2010 and 2015. While consumption per capita increased by 12.9 percent, the incidence of poverty decreased by 0.51 percent, resulting in a growth elasticity of poverty of −0.04. The growth elasticity of poverty measures the percentage change in the poverty headcount for each percentage point change in consumption. In other words, from 2010 to 2015, a 1.0 percent increase in average household consumption was associated with a 0.04 percent decrease in the poverty headcount.

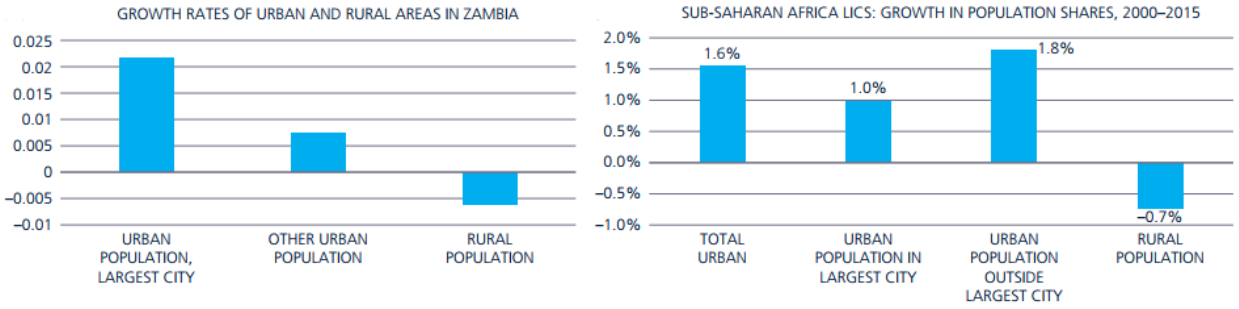
20. **Regional integration has been slow.** Zambia is landlocked but has an open economy; sharing a border with eight countries, which serve as an expanded market for its traded goods, and as routes for international and regional trade. However, trade with the Southern African Development Community (SADC) and the Common Market for Eastern and Southern Africa (COMESA) and bilateral trade with Angola and the Democratic Republic of Congo, have been limited, despite being identified by the government as key in transforming Zambia into a regional trade hub.

21. **Barriers to trade reduce the competitiveness of Zambian exports in the region, including for small-scale trade.** At the same time, Zambia's domestic producers are often not able to compete with imports. While some relative higher costs may be inevitable due to Zambia's landlocked nature, there is consensus among public and private stakeholders that more efficient logistics can help reduce costs and maximize the impact of public investment in infrastructure and of government regulations and policy on logistics, thereby allowing better access to domestic and possibly import markets. Good trade logistics are also crucial for any supply chain where costs matter—agribusiness commodities can be particularly affected when inefficiencies and delays lead to high costs, especially for perishable and refrigerated goods.

22. **The structure of the economy has changed since the early 2000s and the pace of urbanization has accelerated (figures 12 and 13).** This has reversed a process of de-urbanization in the 1990s that followed the deterioration of the economy during that period. As jobs have become more urbanized, people have moved out of agriculture and to employment in services, and to a lesser extent in industry. The percentage of the population classified as urban increased from 34.8 percent in 2000 to 40.9 percent in 2015, almost doubling the urban population to 6.5 million. However, given that employment outcomes in Lusaka are not demonstrably better than nationally, its growing share of the urban population is not

likely driven by the strength of its labor market, but rather the lack of better options for rural-urban migrants. The trend highlights the risk of over-saturation of Lusaka's labor market, with downward pressure on wages and working conditions. Providing the right infrastructure and 'doing business' platforms will be key in reviving the labor markets of small towns and secondary cities in Copperbelt Province.

Figure 12. **Urban Growth Rates**



Source: World Bank 2017a.

23. **Changes in the structure of the economy and employment cannot be considered as structural transformation.**[3] While many people have shifted away from working in low-productivity agriculture, they have typically not ended up working in more productive sectors (figure 14). There has been only limited growth of high-productivity jobs in services or manufacturing. Most businesses in Zambia remain at the household enterprises level and there is a large informal sector (Filmer and Fox 2014). Further, there has been only modest improvement in agriculture productivity. As people leave the agricultural sector, labor productivity has not increased. The high rural birth rate means many people join the labor force each year, entering livelihoods in agriculture.

24. **Zambia's services sector has historically contributed the largest share of GDP, but productivity remains low.** The services sector productivity has grown rapidly since 1965. Since 2000, this sector has absorbed 21 percent of the employed population, although over a third of the workers are engaged in the lowly productive informal services. The services sector has shown substantial growth since 2000, led by wholesale and retail trade, transport, and real estate. However, the services sector does not sufficiently produce tradable goods and is dominated by foreign firms—the trade deficit on services has widened to US$508 million in 2016 from just US$6.7 million in 2000. Hence, the urban labor market remains characterized by very high rates of informality. As the number of jobs has increased, returns from labor and the number of hours worked have declined.

[3] Structural transformation is considered as the reallocation of economic activity away from the least productive sectors in the economy to more productive ones.

Figure 13. **Employment by Sector (Thousands)**

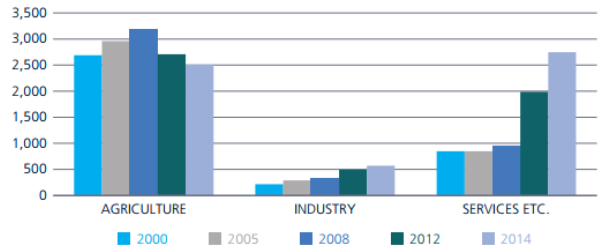
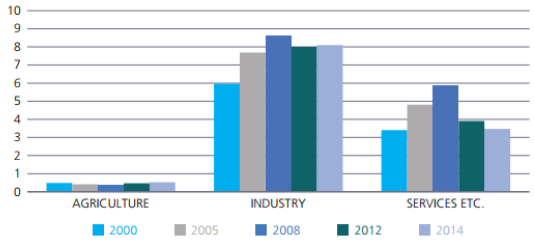


Figure 14. **Value Added Per Worker by Sector (constant 2005 US$, thousands)**



Source: World Bank 2017a.

25. **Crowded urban areas lack capital investment, and congestion has overwhelmed the benefits of urban concentration.** Congested cities lack mobility, particularly with the absence of reliable transportation, which raises commuting costs and limits access to job opportunities for workers. It also hinders labor market pooling, preventing cities from acting as matchmakers and fostering agglomeration economies. Spurring the cities in Zambia for structural transformation will only be possible if urban congestion is properly tackled. Better planned and connected cities will benefit tremendously from lower transport costs and living expenses, alleviating firms from the burden of high wages driven by high urban costs instead of high labor productivity. This will, in turn, enhance cities' competitiveness for breaking into tradable sectors and creating additional jobs.

26. **Urban service delivery has not kept up with newcomers, especially in rapidly growing Lusaka.** Between 1990 and 2010, its population more than doubled, growing from 757,000 million to 1.7 million inhabitants (UN Population Division 2015). As Lusaka's population has increased, so has its spatial footprint (much of the city's recent growth has taken place in the southwestern parts of the city, near the industrial areas and major transport routes). Fast population growth has placed increasing pressure on the city's basic services and infrastructure, resulting in an expansion of informal settlements and falling living standards along several metrics.

27. **Rural development has been slow.** Almost half of the Zambian economically active population gains its livelihood from agriculture. Yet, the agriculture sector only contributed 8.2 percent to the national GDP over 2011–2015 and approximately 9.6 percent of national export earnings (CSO, MAL, and IAPRI 2015). Zambia's agriculture GDP growth has experienced a downward trend since 2005 (figure 1). At the same time, the declining contribution in GDP is not accompanied by an increase in agricultural labor productivity (or increase in the manufacturing sector) (figure 14) (Chapato and Chisanga 2016). The low share of agriculture in GDP relative to the large population and labor force employed in the sector shows that most people remain locked into low-productivity subsistence agriculture.

28. **Agricultural growth has been largely accounted for by a limited number of commercial producers.** They have been able to integrate well into national and international markets and benefit from the Farmer's Input Support Program (FISP) and the Food Reserve Agency (FRA), the two main spending programs in agriculture. By contrast, a vast group of people live in a parallel, semi-subsistence world characterized by the lack of access to key productive assets and market opportunities, leading to hunger, undernourishment, and malnutrition rates in Zambia that are among the highest in the world.

29. **At the heart of Zambia's inability to reduce rural poverty is its failure to raise the productivity of agriculture for smallholder farmers.** Poor agricultural productivity has been caused by limited access

to land, water, and machinery and a lack of diversification and technology adoption. These demand and supply constraints for rural labor and production result in inadequate livelihoods and a lack of structural transformation (defined as more people moving from agriculture into higher-productivity jobs in services and industry in secondary towns).

1.2.3 Stability but Weak Governance

Hypothesis 3: Weak institutions and limited accountability have hindered the effectiveness of public policy on service delivery and growth.

30. **Zambia is well-known for being a democracy and has been one of the most politically stable countries in Africa.** It also scores above the regional average on most governance indicators. Most citizens (74 percent) agree that democracy is preferable to any other kind of government (Afrobarometer 2015). However, these features are yet to translate into stronger governance arrangements. Weak governance has created space for vested interests to have a disproportionate influence in policy making, hindering pro-poor growth in rural areas. Improvements are needed and sought in many governance areas.

31. **Decision making is not always transparent, and public dissemination of information on government policies and outcomes is not prioritized.**[4] Measures of voice and accountability remain low, and where information is available, there are few intermediaries to help the public make an informed assessment of this data (independent media is frequently neutralized).[5] While some progress in the fight against corruption has been made over the last decade, corruption remains a serious issue in Zambia, constraining public investment and affecting the lives of ordinary citizens and their access to public services.[6]

32. **The country's political settlement remains competitive and personalized.** It was the 1991 'founding' election which marked the starting point for a *competitive* political setting that departed from the *dominant* setting during Kaunda's one-party rule. In competitive settings (where public institutions are weak and personalized), access to resources is based on personal relationships and patronage (Cheeseman and Larmer 2015; Levy 2014). Zambia is characterized as having weak political mobilization and an electorate that engages with politicians largely through patronage relations rather than holding them to account on matters of public interest. Zambians are the least likely of all Southern Africans included in the Afrobarometer to feel that they can make things better through voting and elections. In general, electoral accountability remains weak with voting patterns loosely associated with performance—except for highly visible areas such as infrastructure, education, and health.[7]

33. **Many citizens are disappointed with what democracy is delivering.** In 2014, 31.6 percent of Zambians were not satisfied with democracy compared to 30.4 percent in 2011 (the remainder being

[4] Zambia does not have any access to information legislation, and budget openness was deemed 'minimal' (a score of 39 out of a possible 100) by the Open Budget Index (Open Budget Survey Results Zambia 2015).
[5] This is partly because elements of civil society and the media are often well neutralized or politically co-opted by the incumbent (Global Integrity | Zambia Scorecard 2016). The Press Freedom Index continues to rate Zambia 'Not Free'.
[6] The Corruption Perception Index places Zambia at 87 out of 176 countries tracked (Transparency International 2017). Corruption was named as the third most important constraint for businesses in Zambia, after access to finance and tax rates (WEF Global Competitiveness Report 2016).
[7] Voting patterns seem to be driven by other factors not directly related with performance, both in rural and urban areas. Zambians are more likely to hold politicians accountable through the ballot in areas such as maintenance of roads and bridges, education, health, and reducing crime. Findings from Afrobarometer were corroborated based on own calculations on Afrobarometer 2014/15 Round.

satisfied [Afrobarometer]). For citizens in urban areas, the main points of concern that the government should address are unemployment, health, and education. For citizens in rural areas, they are health, education, water supply, and agriculture. In all these areas, citizens believe Zambia's performance has been quite poor. Citizens also believe that the government is not handling the reduction of inflation, inequality, and poverty well. Although citizen trust in the Parliament and local governments has increased (Afrobarometer 2016) over the last decade, Zambians still rely more on informal institutions than on formal ones. Reliance on the informal is more the case in rural areas, with 75.6 percent of citizens expressing high trust in traditional leaders. However, trust in informal institutions is also high in urban areas, with 61.1 percent of citizen's expressing high trust.

34. **Zambian politicians have strong incentives to favor urban areas and targeted rural constituencies, because they ensure electoral success.** This has resulted in policies and public resource allocation that serve to entrench rather than alleviate poverty. A consequence of urbanization in Zambia was that trade unions emerged and urban workers became more politically powerful than their rural counterparts (Cheeseman and Hinfelaar 2009). Second, while politicians can still base their support on highly stable ethnic cleavages and lasting clientelistic relationships in rural areas, urban voters have proven far more likely to 'swing away' from the incumbent party (Boone and Wahman 2015). Recognizing the disproportionate power of the urban voter as well as their fickleness, and combining it with the fact that the two most urbanized provinces—Lusaka and Copperbelt—account for nearly one-third of registered voters, politicians and the government have targeted their efforts and expenditure accordingly (Whitworth 2015). Nevertheless, the rural smallholder farming community remains the largest voting bloc in the country and an important constituency for winning elections (Mason, Jayne, and van de Walle 2016).

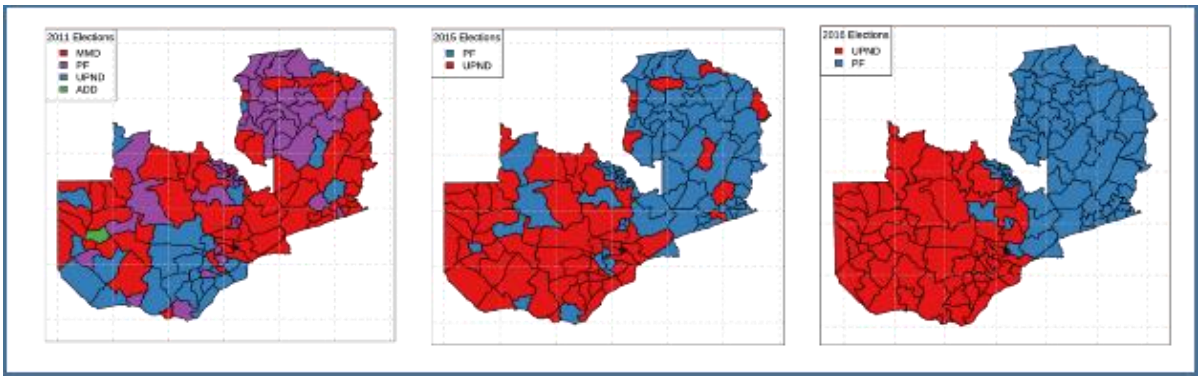
35. **There is an increasing geographic political divide with a clear regionalization of voting patterns.** The country has become split almost into two camps controlled by the two main political parties, the United Party for National Development (UPND) gaining the most votes in the west and Patriotic Front (PF) gaining the most votes in the east of the country (figure 15). Zambia's two most recent elections were won with narrow majorities. In this competitive environment, organized groups with political connections are likely to remain influential in policy making in exchange for political support. Because of these dynamics, politics in Zambia generally exhibit an extreme tendency toward the status quo (Fritz, 2009; Taylor and Simutanyi 2007), which is particularly acute on issues such as land reform, social protection, or tax policy, where the pressure for reform is diffuse or comes from sources who are not able to threaten the state.

36. **Policies tend to entrench rather than alleviate distortions to achieving inclusive and sustainable development in Zambia.** Zambia is well-known for being a democracy and one of the most politically stable countries in Africa. However, these features are yet to translate into stronger governance arrangements. Weak institutions and limited transparency and accountability create space for vested interests to have a disproportionate influence in policymaking and public resource allocation, hindering pro-poor growth. The orientation of fiscal policy toward fuel and electricity subsidies in 2014–16 is a case in point.

37. **Governance shortcomings weigh on Zambia's overall business enabling environment.** Zambia is characterized by a weak legal framework, cumbersome business procedures, dysfunctional state-owned enterprises (SOEs) and commercial justice, and limited regulatory capacity. While private sector performance is mostly hampered by insufficient access to finance and poor infrastructure (electricity and transport mostly), the authorities' limited private sector capacity exacerbates these challenges and

translates into a distorted investment climate. In addition, private sector operators are suffering due to the inconsistency of policies and regulations with respect to access to land, contract enforcement, business and property registration, taxes, licensing and permitting, and trade regimes. Altogether, these issues hamper firms' productivity and hinder their ability to create more and better jobs.

Figure 15. **Winners of Presidential Elections by Constituency**



Source: Phiri 2016.

38. **Measures of institutional strengthening in the country paint a mixed, but overall not impressive, track record with reform.** Reforms have led to some improvements in administrative systems and procedures, such as improved service conditions, a rationalized payroll, and reforms in public financial management, but overall, Zambia's public finance and expenditure management systems remain weak. Most indexes appear stagnant in recent years, although with some showing regression and others registering only slight improvements. In other cases, the *forms* of institutions (the laws, policies, systems, and structures) have shifted to mirror the 'best practices' established by developed country counterparts, but *functionality* (their de facto performance) remains relatively the same. For example, Zambia has an Anti-Corruption Commission that, in structure and law, largely reflects its international counterparts but has not substantially affected perceptions of public funds abuses.[8] There is procurement legislation and oversight that does not seem to be able to guarantee reliable and efficient resource flows and transactions.[9] A complex budgeting and planning process has also not resulted in more prudent fiscal decisions (IEG 2015; ZIPAR 2012), evidenced by the huge buildup of government payment arrears in 2015 and 2016 when the economy and revenue inflows slowed down.

39. **The ability of Zambia's public financial management systems to ensure credible resource mobilization and effective public expenditure remains limited.** Many of the gains made through public financial management reforms over the past 15 years have not been sufficiently sustained.. *Aggregate fiscal discipline* needs to be improved by strengthening budget approval and execution processes. These processes presently result in very substantial variations between budget and actual expenditure for many administrative heads and for some economic classifications, especially subsidies, as well as substantial growth in already excessive expenditure arrears. Enactment of the Planning and Budgeting law, full implementation of the Treasury Single Account, and rollout of the Integrated Financial Management Information System (IFMIS) will enable a ready response by management. *Strategic resource allocation* weaknesses are also important because the fiscal space has been very constrained by the spending on

[8] About 67 percent of Zambians believe that between 2007 and 2010, the level of corruption in the country increased. http://www.transparency.org/country/#ZMB_PublicOpinion

[9] Comparative figures from the Auditor General's Reports of 2013, 2014, and 2015 show that there has been a significant rise in irregular payments, undelivered materials, overpayments, and wasteful expenditure.

general public services, and progress since 2012 in reducing the GDP proportion from 68 percent to 33 percent in 2014 reversed to 42 percent in 2015. Poor public transparency for fiscal information is also a concern because information on the use of resources is needed for the legislature, civil society, and media to assess the extent to which the government is implementing its policy priorities. The accounting system in Zambia remains on a cash basis, with limited abilities to aid timely and well-informed financial decision making.

40. **The weak capacity to manage public expenditures and implement policy programs is also undermining the effectiveness of public policy on service delivery.** Evidence suggests that policy implementation has always been weak in Zambia. A tracking study revealed that 75 percent of the Cabinet decisions are never implemented. For example, Zambia has a free education policy, and primary schools are supposed to receive government grants to ensure every child has access to education. However, 30 percent of the schools do not receive them and end up collecting fees from students, which in poor households can represent up to 30 percent of their annual expenditure, undermining the free education policy and acting as a de facto barrier to access to education (World Bank 2015c). Similarly, inefficiencies in the implementation of the FISP undermine its impact on agriculture productivity and poverty reduction (see chapter 6).


Bench

CHAPTER 2: POVERTY AND SHARED PROSPERITY TRENDS

2.1 Monetary Poverty

41. **Despite GDP growth, poverty levels remain high.** The government's LCMS 2015 estimated the incidence of poverty to be 54.4 percent at the national poverty line of ZMW 214 per adult equivalent per month, roughly US$1 per day. In urban areas, the incidence of poverty remained much lower than in rural areas and fell from 25.7 percent to 23.4 percent. While poverty was already much higher in rural areas, it rose significantly from 73.6 percent in 2010 to 76.7 percent in 2015, thus widening the urban-rural poverty divide. Ultra-poverty rates in rural areas increased at a greater rate, from 54.2 percent to 60.8 percent between 2010 and 2015 (figure 3). Rural dwellers account for 58 percent of the population, but they represent 82 percent of the poor (6.9 million of 8.4 million, respectively) and 87 percent of the extreme poor (5.5 million of 6.3 million, respectively). Poverty in Zambia, therefore, remains mainly a rural phenomenon.

42. **High population growth over the past decade and moderate progress in reducing monetary poverty meant that the absolute number of poor people increased.** Between 2010 and 2015, the rural population increased from 7.9 million to 9.0 million, and the urban population rose from 5.2 million to 6.5 million (CSO 2016). Nationwide, this led to the number of poor people increasing by 1.2 million (from 7.2 million to 8.4 million) between 2010 and 2015; of which 1.1 million were in rural areas and 0.2 million were in urban areas.

43. **Poverty in Zambia is severe when compared to a line of international extreme poverty, even relative to other Sub-Saharan African countries.** The poverty incidence measured by the population living below US$1.90 per day of purchasing power parity (PPP) in Zambia was 57.5 percent in 2015, dropping from 60.4 percent in 2010. When making international comparisons based on PPP rates, this percentage puts Zambia well above the average population under poverty in Sub-Saharan Africa, which stood at 41 percent in 2013.[10] In contrast with Zambia, countries with higher poverty rates, such as Niger and the Democratic Republic of Congo (72 percent and 91 percent, respectively), exhibited much larger reductions in poverty. In addition, countries in the region with a lower poverty rate at baseline, such as Tanzania and Uganda, also made important progress against poverty.

[10] http://iresearch.worldbank.org/PovcalNet/povDuplicateWB.aspx.

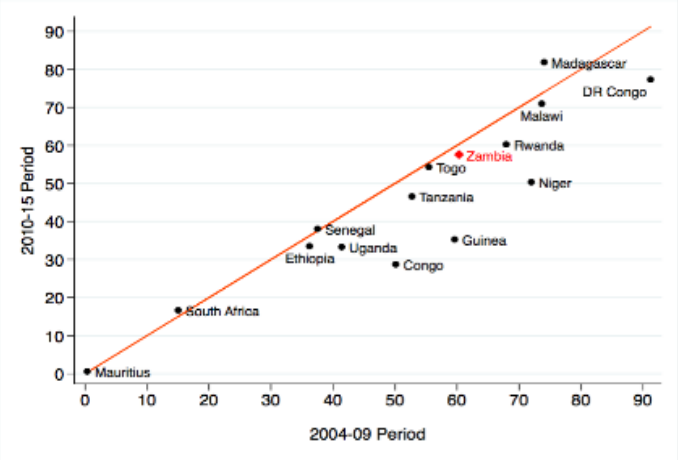
Box 1. **Comparing Poverty in Zambia with Sub-Saharan and Other African Countries**

International comparisons of poverty rates cannot be made using national absolute poverty rates, because different countries set different subsistence minimum standards and use different methodologies for poverty estimations. In addition, household surveys used for poverty estimations are generally not comparable across countries. A common practice for cross-country comparisons is to use a fixed poverty line expressed in an internationally comparable denomination, such as US$1.90 a day at 2011 international prices. This poverty line uses PPP conversion factors[a] and consumer price indices (CPIs) to convert national consumption aggregates expressed in local currencies to U.S. dollars.[b]

The extent of poverty in Zambia is severe when compared to a line of international extreme poverty, even relative to other Sub-Saharan African countries. Zambia's poverty trends contrast with those of Sub-Saharan African and other countries (figure 16). The poverty incidence measured by the population living below US$1.90 per day of PPP in Zambia was 57.5 percent in 2015. When making international comparisons based on PPP rates, this percentage puts Zambia way above the average population under poverty in Sub-Saharan Africa, which stood at 41 percent in 2013.

Further, the reduction in poverty that Zambia exhibited during the last five years using this PPP line is modest compared to Sub-Saharan African countries for which information is available. According to the US$1.90 per day international poverty line, from 2010 to 2015, Zambia's poverty headcount dropped from 60.4 percent to 57.5 percent.

Figure 16. **US$1.90-a-day Poverty Rates: Zambia and Other Countries, 2004–15**



Source: Poverty team calculations based on World Development Indicators (WDI).
Note: The 2010 poverty rate for Zambia is used for 2004-09.

Note:
a. PPP conversion factors are exchange rates that consider the cost of common items in different countries. This conversion is defined as the number of units of a country's currency required to purchase a standard basket of goods and services collected in all countries. This report uses the 2011 International Comparison Program (ICP) conversion factor that was converted to the survey year using Zambia national CPI inflation rates.
b. International US$1.90-a-day estimates should be used only for international comparisons. Policy dialogue and within-country discussions should be informed by the national comparisons.

2.2 Non-Monetary Poverty

2.2.1 Progress in Some Areas

44. **Between 2007 and 2014, Zambia made remarkable progress in many health indicators.** Child malnutrition has declined. According to the Zambia Demographic and Health Survey (ZDHS), between 2007 and 2014, the prevalence of stunting among children under five (a measure of long-term childhood nutritional deprivation) fell from 45 percent to 40 percent. Underweight prevalence (which measures short-term changes in child nutrition) remained stagnant at 15 percent.

45. **Infant and under-5 mortality rates have dropped.** The ZDHS reveals that in 2007–2014, the infant mortality rate (the probability of dying between birth and the first birthday) fell significantly from 70 deaths per 1,000 live births to 45 deaths per 1,000 live births. The under-5 mortality rate (the probability of dying between birth and the fifth birthday) also declined significantly: from 119 deaths per 1,000 live births in 2007 to 75 deaths per 1,000 live births in 2014.

46. **Maternal mortality and total fertility levels have fallen, but remain at high levels.** Over 2007–2014, estimates from the ZDHS 2013–14 show that the maternal mortality ratio (risk of a women dying during pregnancy and childbirth) fell from 591 deaths per 100,000 live births in 2007 to 398 deaths per 100,000 live births in 2014. The total fertility rate (TFR) (number of live births per woman in the 15–49 age group) also declined from 6.2 in 2007 to 5.3 in 2014.

Table 1. **Zambia's Progress on Non-Monetary Aspects of Poverty, 2007 and 2014**

	2007	2013–14
Percentage of children under 5 years who are stunted	45	40
Infant mortality rate	70	45
Under-5 mortality rate	119	75
Maternal mortality ratio	591	398
TFR	6.2	5.3
	2010	2015
Life expectancy at birth (years)	51	53
Percentage of the population with:		
Electricity	25	31
Telephones	44	57
Refrigerators	9	12

Sources: 2010 Census of Population and Housing, ZDHS 2007 and ZDHS 2013–14, and LCMS 2010 and LCMS 2015.

47. **Because of the following progress in education and health, Zambia fully or partially achieved five of the eight MDGs.** Progress was evident in the areas of primary education attendance; eliminating the gender disparity in primary education; combating HIV/AIDS, malaria, and other diseases; terrestrial protected areas and CO_2 emissions; and mobile cellular subscriptions.

48. **Improvements in access to electricity and ownership of some assets also occurred.** The population with access to electricity rose from 25 percent in 2010 to 31 percent in 2015. Over this period, ownership of some durable goods increased considerably. The population living in households that owned a telephone rose from 44 percent to 57 percent, a television set rose from 29 percent to 39 percent, and

a bicycle rose from 28 percent to 36 percent. Nonetheless, as the following text describes, such progress often took place in richer households and in urban areas.

49. **The fraction of people who were deprived in multiple dimensions declined.** The share of the population who were deprived in at least one aspect of each of the dimensions of education (completion of primary education and learning achievement), health (child under-5 mortality and undernutrition), access to some services (electricity, improved sanitation, and safe drinking water), and ownership of assets (flooring and cooking fuel) declined from 69 percent in 2007 to 60 percent in 2014. Improvements took place in both urban and rural areas, but declines were more notable in rural areas (ZIPAR 2016). A similar trend is reported by the Oxford Poverty and Human Development Initiative (OPHI) in Zambia where the incidence of people who are multidimensionally poor went down from 65 percent in 2007 to 57 percent in 2014 (OPHI 2016).

2.2.2 Persistent Challenges in Other Areas

Health

50. **Despite improvements in key maternal and child health outcomes, Zambia did not fully meet any of the health-related MDGs.** Although Zambia was successful in achieving some of the targets and indicators within the health-related MDGs, the full goals were not fully achieved. For example, despite notable progress on key maternal and child health indicators, infant, under-5, and maternal mortality were above the 2015 MDGs targets (figure 17). Achievements were insufficient on nutrition outcomes, births attended by skilled health personnel, combating HIV/AIDS and tuberculosis (TB), and increasing access to family planning.

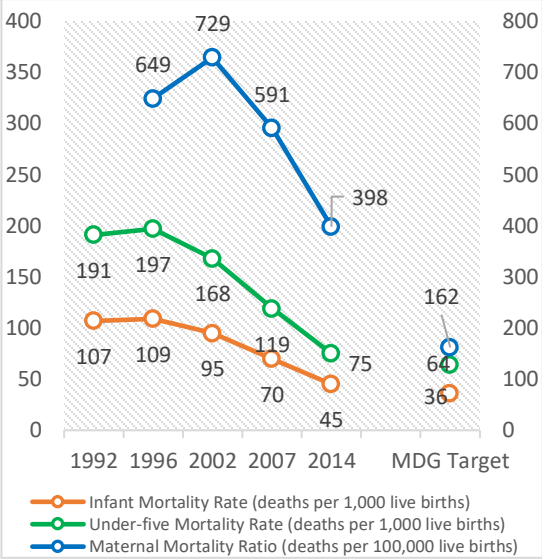
51. **Fertility rates also are much higher and stagnant for women in the poorest 40 percent of households (figure 18).** High fertility rates have a negative impact on women's health and also on their prospects to engage in educational and employment opportunities. One of the underlying reasons for the high TFR is an unmet need for family planning estimated at 21 percent among currently married women ages 15–49. Further, teenage pregnancy and motherhood is also a major social and health issue in Zambia. The ZDHS 2013–14 shows that 29 percent of women ages 15–19 have already begun childbearing. This is partly linked to the low levels of female literacy in Zambia (that remains at 56 percent, compared to 63 percent overall[11]).

52. **Poor women face greater constraints in giving birth safely and obtaining medical treatment.** The failure to achieve some of the health goals could be attributed to the low coverage of essential services coupled with the poor quality of the available services. Skilled assistance during delivery (one of the most important interventions for maternal health) increased from 42 percent in 2001–02 to 64 percent in 2013–14. Larger gains were made among the two poorest wealth quintiles. Nevertheless, according to the most recent evidence, only 52 percent of births in rural areas are attended by a skilled provider, compared with 89 percent in urban areas. Further, as figure 19 shows, only 49 percent of births in the lowest wealth quintile are attended by a skilled provider, compared with 95 percent in the highest wealth quintile (ZDHS 2013–14). The low usage of reproductive health services may also stem from systematic underestimation of maternal mortality and morbidity risk. One reason why individuals might underestimate the risk of dying or experiencing health complications in childbirth relates to incorrect information on risk factors, often linked to traditional beliefs (Ashraf et al. 2017). Further, the age of the

[11] United Nations Children's Fund statistics for 2008–12.

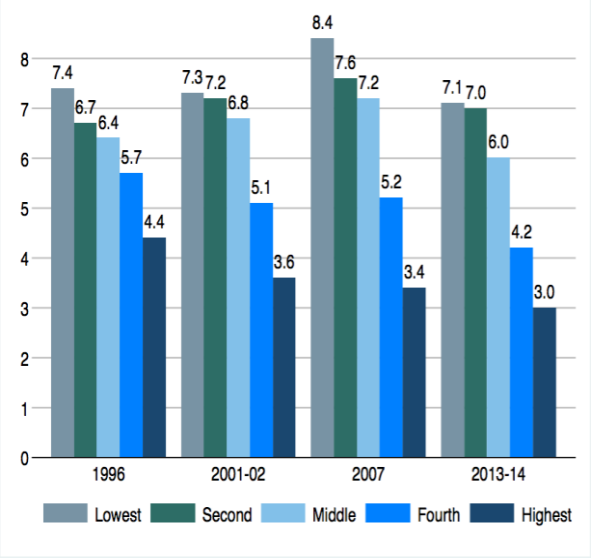
mother is a key risk factor for pregnancy-related deaths. In 2013–14, the percentage of maternity-related deaths were relatively higher in the 20–24 and 30–34 age groups than in the other age groups.

Figure 17. **Health Outcome Indicators**



Source: ZDHS 2013–14.

Figure 18. **Fertility Trend, by Wealth Quintile**



Source: ZDHS 2013-14.

53. **There are also large gaps between the nutritional status of children living in wealthier and in poorer households.** According to the LCMS 2015, the incidence of stunting among children below five living in the poorest 40 percent of households was 49 percent. Children below five in the poorest households (47 percent) are much more likely to be stunted than children in the wealthiest households (28 percent). Further, children in rural areas (42 percent) are more likely to be stunted than those in urban areas (36 percent) (ZDHS 2013–14). Stunting is a major cause of adverse cognitive development. It is associated with delayed school enrollment, reduced grade attainment, and reduced school performance. In later life, childhood brain impairment from stunting can show up in worse labor market outcomes through lower earnings and productivity. Given the personal and social cost of stunting, Zambia's existing prevalence rates for all income groups are unacceptably high.

Figure 19. **Zambian Births Attended by a Skilled Professional, by Wealth Quintile (Percent)**

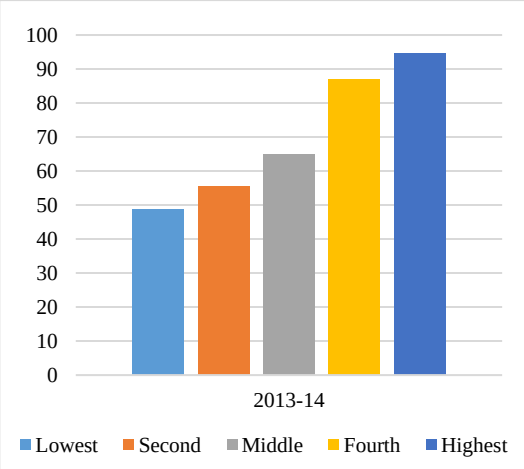
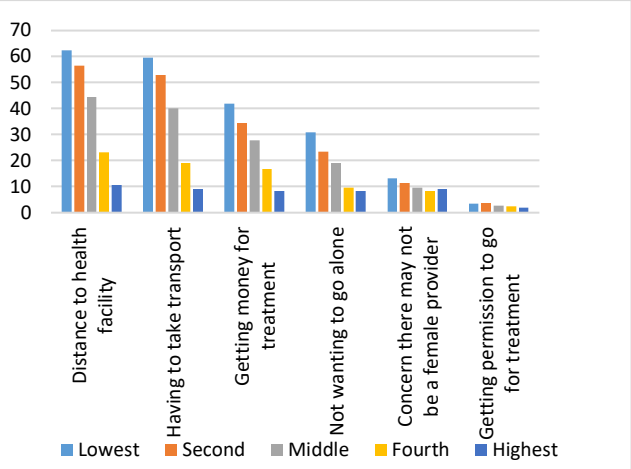


Figure 20. **Zambian Women Reporting a Range of Obstacles in Accessing Health Care, by Wealth (Percent)**



Source: ZDHS 2013–14.

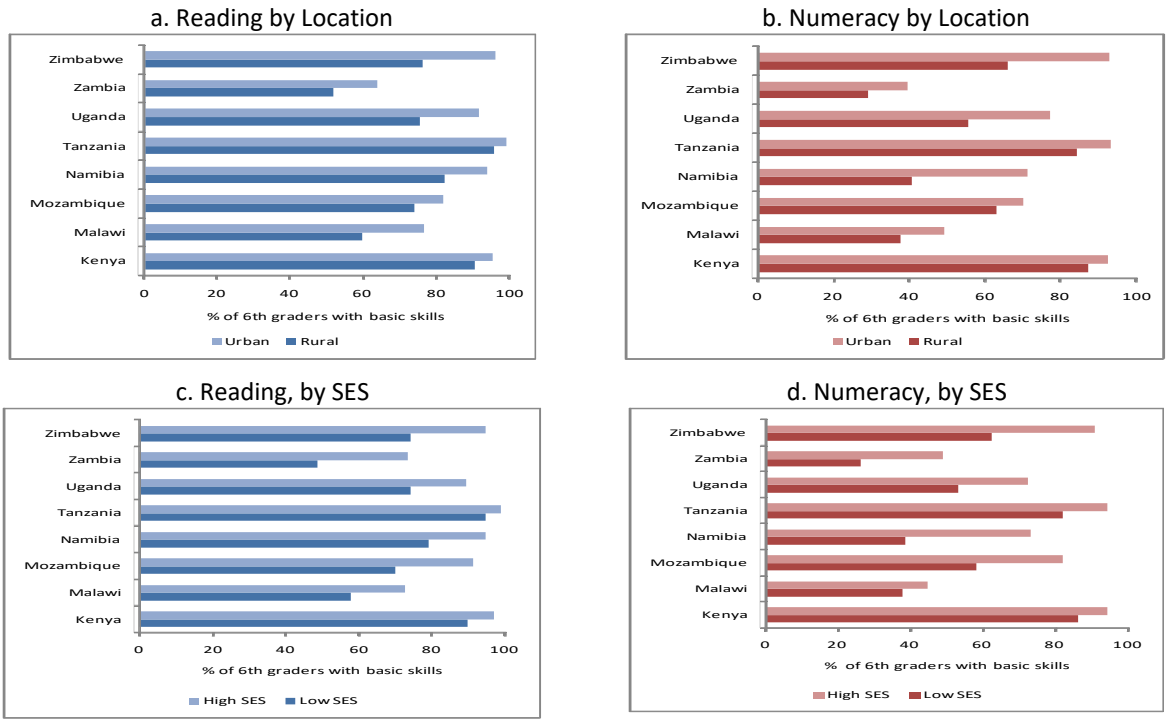
Education

54. **Although primary education coverage in Zambia is almost universal, huge disparities exist in the quality of education.** The odds to achieve good quality education remain against rural poor families. Student learning outcomes of both primary and secondary education in Zambia are low. There has been very little change in this outcome for more than a decade. That Zambian students' learning achievements have not improved since 1999, when the first national learning assessment was introduced, is very concerning. The minimum levels of performance in English and mathematics of grade five pupils remain as low as 22 percent and 33 percent, respectively. Based on scores for standard tests[12] administered to sixth-grade children in 2007, the wide variations between urban and rural areas persisted in the percentage of children with basic skills in reading and numeracy. Large gaps in learning outcomes for sixth graders were also encountered in numeracy and reading skills between children of high and low socioeconomic status (SES) (figure 21).

55. **National enrollment in secondary school (grades 8 to 12) worsened in net and gross rates.** This outcome does not bode well for the country, because holding a secondary education is critical. Wage premiums rise after this level, and often, young women postpone their life decisions on early marriage and childbearing when they enter and complete secondary education. However, the exception to this trend was the richest 10 percent of the urban population, for whom enrollment in secondary school increased (figure 21).

[12] The Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) project collected test scores for sixth graders in 15 countries in southern and eastern Africa. The latest available data are from 2007 SACMEQ III results.

Figure 21. **Basic Proficiency in Reading and Numeracy in Selected Sub-Saharan African Countries, 2007**



Source: Dabalen et al. 2015.

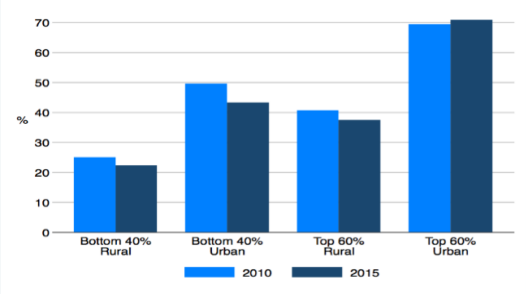
56. **National averages also mask a lack of progress in access to some key opportunities in services and durable assets, especially for the rural poor.** As with poverty trends, large urban-rural and socioeconomic disparities also prevail in non-income dimensions. Improvements in many indicators of living standards benefited only urban areas, and often just the wealthiest among the urban population (figure 22).

Access to Services and Ownership of Assets

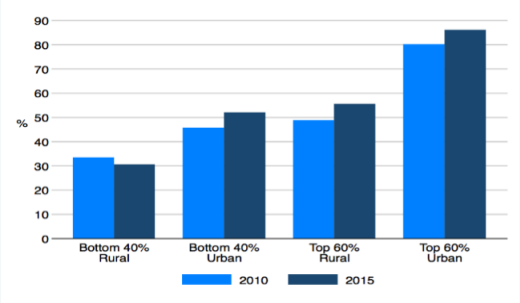
57. **Access to improved sanitation rose in cities but fell in the countryside.** Progress in access to sanitation in urban areas came only for those in the top 60 percent of the consumption distribution, while it was almost nil for the poorest 40 percent of the urban population. Access to electricity in rural areas remains extremely limited, although it has expanded considerably in urban areas for both the poorest and the richest. The ownership of motor vehicles (motorcycles, pick-up trucks, and cars) and having at least three meals per day (which could be a very rough proxy for food security) improved in cities and in the countryside. Nevertheless, progress was absent for the poorest 40 percent of the rural population.

Figure 22. **Improvement in Key Non-monetary Dimensions, 2010–2015**

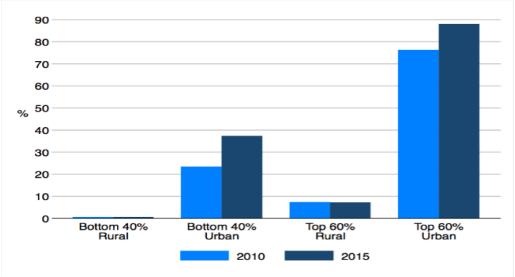
a. Secondary School Net Enrollment Rate



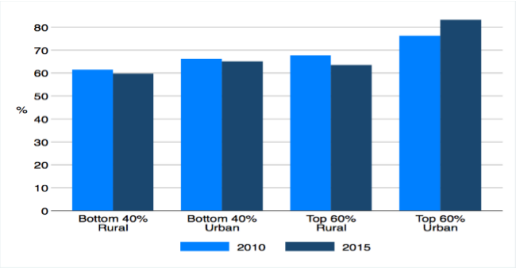
b. Meals per Day



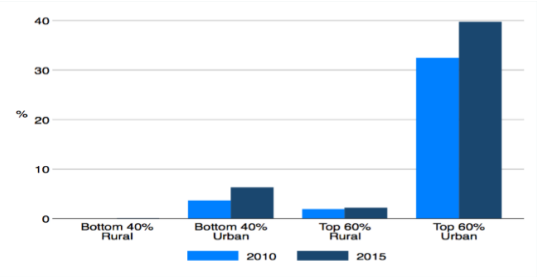
c. Access to Electricity



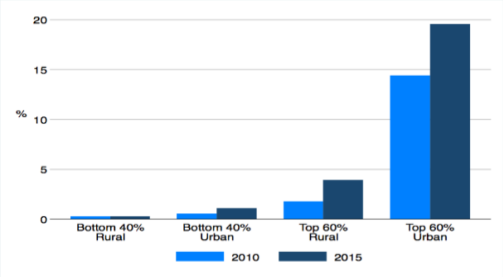
d. Access to Improved Sanitation



e. Ownership of Refrigerator



f. Ownership of Motor Vehicles



Source: Calculations based on LCMS 2010 and LCMS 2015.

2.2.3 Malnutrition

58. **Despite achieving self-sufficiency in the production of most food crops, food insecurity persists in some areas of the country.** Around 46 percent of the rural households experienced inadequate food provisions in at least one month in 2015 (Rural Agricultural Livelihood Survey [RALS], 2015), which has hardly changed from estimates in 2012 when 46.7 percent of households reported inadequate food provision. RALS 2015 shows that 54 percent of households reported adequate food provision, with the highest share in Northwestern Province (71.1 percent), followed by Lusaka (70.6 percent), and Central (67.2 percent), while Western Province and Muchinga Province have the lowest share with 41.7 percent and 43.6 percent, respectively. These scores show that dramatic seasonal variation and hunger are at alarmingly high rates in lean times of the year around September to February: in January 2015 or February 2015, the highest share of households reporting adequate food provision was only 9.6 percent of households in Western Province while 0 percent of households in Central, Copperbelt, and Muchinga Provinces reported adequate food provision. Hunger is at its lowest in April through August, which is the main harvest period when stocks are relatively large and food prices are relatively low. The RALS only gives indications of hunger in rural areas and does not capture estimates for urban areas.

59. **Additionally, malnutrition rates are alarmingly high in Zambia.** The ZDHS 2013–14 revealed that 40 percent of children under five have stunted growth, 5 percent are wasted, 15 percent were underweight, and 9 percent of children were estimated to be overweight. At 40 percent stunting rates, Zambia's malnutrition levels are among the highest in the world.[13] However, the rates have shown a reduction in the last 10 years, when in 2000–01, a stunting rate of above 50 percent was recorded. There is also regional variation, as 5 out of the 10 provinces, namely Northern, Eastern, Luapula, Muchinga, and Central Provinces, had stunting rates above the national average, while Lusaka, Western, and Copper-Belt Provinces had the lowest stunting rates (Mofya-Mukuka and Mofu 2016).[14]

60. **In global comparisons, hunger, undernourishment, and malnutrition rates for Zambia have been reported as among the highest in the world.** As defined during the World Food Summit in 1996, food security is the state in which people always have physical, social, and economic access to sufficient and nutritious food that meets their dietary needs for a healthy and active life. The Global Food Security Index considers the core issues of affordability, availability, and quality across 113 countries and ranks Zambia at the 102nd place. Zambia achieves its highest score in terms of availability (rank 94), and lowest scores in terms of affordability (rank 106) and quality and safety (rank 107).[15] Similarly, the International Food Policy Research Institute (IFPRI) Hunger Index ranks Zambia at the 116th place out of 118 countries, indicating that the hunger situation is alarming in Zambia.

2.2.4 Inequality and Shared Prosperity

61. **Recent economic growth has not been shared equally across population groups.** Because of the growth in the economy between 2010 and 2015, household consumption grew on average. However, growth was positive and stronger among those with higher consumptions, but negative for those with lower consumptions, except in urban areas. Most of the rural population did not experience any growth at all in consumption (figure 23).

62. **Between 2010 and 2015, shared prosperity—defined as the consumption growth of the bottom 40 percent of the population—occurred in urban areas but not in rural areas.** The growth in services and construction led to a consumption boom in urban areas, especially Lusaka. This, in turn, benefited the expansion of informal trade and self-employment opportunities among the urban poor. Even if not well-paid, these opportunities widened social disparities between cities and rural areas. Consumption per person grew in real terms; 12.9 percent in Zambia from 2010 to 2015, with the bottom 40 percent falling by 7.9 percent; deciles five to nine increased by 12.2 percent and those in the top 10 percent grew by 19.6 percent. Consumption per person dropped for the rural bottom 40 percent, whereas it rose in urban areas, particularly in Lusaka (figure 24). Those in the top decile experienced gains in consumption throughout the country, with Lusaka recording the largest increases, and rural areas the smallest.

[13] Malnutrition is estimated through measuring the height and the weight of the individuals. In contrast, hunger estimates are as defined in the RALS, which are calculated by using food intake and may be subjective because they depend on a household's perception of 'enough' food. (Mofya-Mukuka and Mofu 2016

[14] Stunting rates by province: Northern 48.5 percent, Muchinga 43.6 percent, Eastern 43.3 percent, Luapula 43 percent, Central Province 42.5 percent, Southern 37.2 percent, Northwestern 36.9 percent, Western 36.2 percent, Copperbelt 36.2 percent, and Lusaka 35.7 percent.

[15] http://foodsecurityindex.eiu.com/Country/Details#Zambia

Figure 23. **Growth Incidence Curves, 2010–2015**

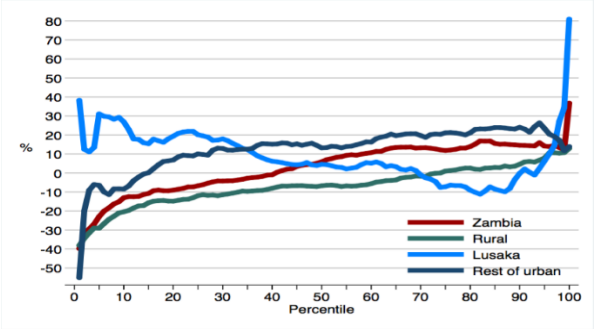
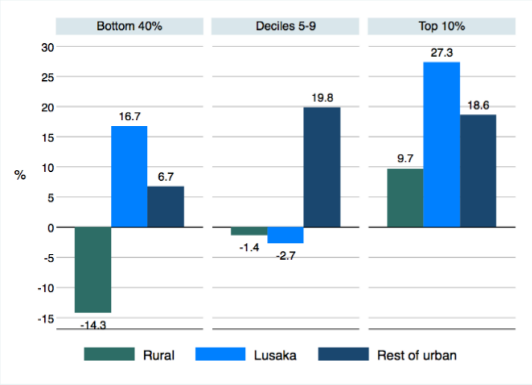


Figure 24: **Consumption per Person Growth Rate between 2010 and 2015**



Source: Calculations based on LCMS 2010 and LCMS 2015.

63. **Consumption inequality increased because of the diverging growth performances by socioeconomic groups.** Between 2010 and 2015, the national share of consumption of the bottom 40 percent fell from 11.5 percent to 9.4 percent, while the share earned by the top 10 percent rose from 41.0 percent to 43.4 percent (figure 25). By the same token, Zambia's Gini coefficient increased from 0.52 in 2010 to 0.56 in 2015, corroborating that the disparity between rich and poor has widened. Inequality is higher in urban areas, with the Gini increasing from 0.47 to 0.49. Inequality also rose in all provinces, except for Northwestern Province (figure 26). Zambia's high inequality index of over 50 percent, as measured by the Gini coefficient, poses one of the major challenges for poverty reduction in Zambia, because it erodes the gains associated with economic growth.[16]

64. **Wage work income and nonagricultural self-employment income are the two biggest drivers of income inequality.** Given its dominance within total household income, wage income is found to be the income source with the greatest contribution to the Gini coefficient, and there is an indication that it has become an increasingly important driver of inequality over 1996–2015. Specifically, wage income increased its relative contribution from 45.9 percent in 1996 to 58.1 percent in 2015. In absolute terms, wage income contributed 0.3255 points to the total Gini coefficient in 1996. By 2015, this had increased to 0.4175 points. This is an important finding given that only one in three households report receiving any wage income. Indeed, a big driver of inequality is the fact that there are many individuals with no wage income at all. The priority to address this is to create more waged jobs with growth. Income from nonagricultural self-employment is found to be the second largest contributor to income inequality, but its contribution to the Gini coefficient fell consistently between 1996 and 2015: using per capita income, its absolute contribution decreased from 0.28 points in 1996 to 0.22 points in 2015 while its relative contribution decreased from 39.0 percent to 30.6 percent.

[16] Zambia (together with Botswana, Lesotho, Namibia, South Africa, and Swaziland) has one of the highest levels of inequality in Sub-Saharan Africa and the world (Beegle et al. 2016).

Figure 25. **Share of Per Capita Consumption by Decile, Zambia: 2010–2015**

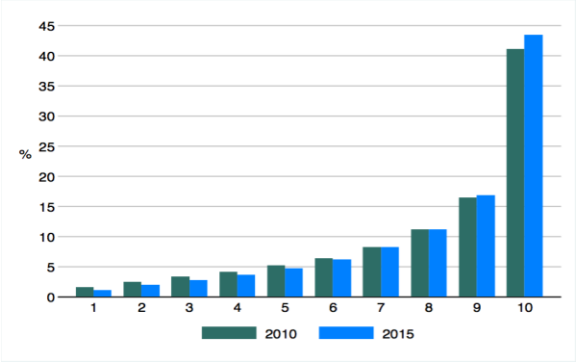
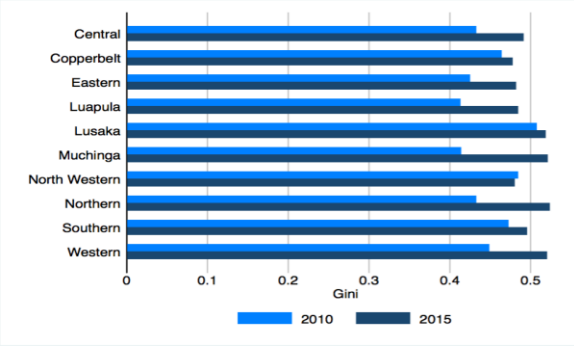


Figure 26: **Gini Coefficient by Province: 2010–2015**



Source: Calculations based on LCMS 2010 and LCMS 2015.
Note: A final way to establish whether income inequalities affected poverty reduction during the study period is decomposing the contributions to poverty changes of consumption growth and its distribution along the population.

65. **Recent economic growth has brought some benefits to urban areas, but poverty in rural areas remains widespread and increasing.** Regional disparities have not narrowed down, and the urban-rural gap has increased. Shared prosperity in Zambia has deteriorated, and inequality is on the rise. Zambians today face unequal opportunities in key education and health indicators as well as access to services. The above analysis highlights how the World Bank's twin goals of ending extreme poverty and sharing prosperity in a sustainable manner hold great relevance for Zambia. This gives weight to the most important questions for this SCD: *Why did the rapid economic growth between 2004 and 2015 not lead to substantial poverty reduction,* and *why did inequality increase?*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CHAPTER 3: GROWTH, MACROECONOMIC, AND EMPLOYMENT TRENDS

3.1 Growth Trends and Scenarios

3.1.1 Historical Growth Patterns

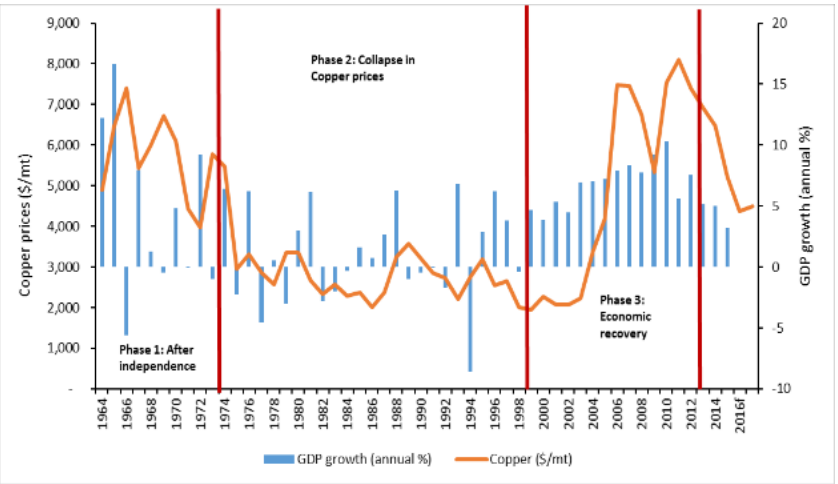
66. **Zambia's historical real GDP growth rate has been volatile.** At independence in 1964, the country was classified as 'middle-income' and was among the richest countries in southern Africa with a real per capita GDP of US$1,524 and growth rate of 12.2 percent (World Bank 2017d). However, following both internal and external factors, Zambia's growth became slow and volatile between 1973 and 1994 (figure 27).

67. **Zambia's economy has been dominated by the discovery, expansion, and fluctuations in the minerals sector.** Historically, the country's economic path has been highly correlated to the global price of copper on international markets (figure 27). Zambia's first years of independence coincided with a period of high copper prices, but when copper prices collapsed in the mid-1970s, Zambia's economy struggled and did not return to regular robust growth until the 2000s.

68. **The country experienced a particularly weak economy in the 1980s.** The economy started contracting following oil price increases in 1973 and the fall in copper prices in 1975. In response, GDP contracted by an average of 2.6 percent per capita per year between 1975 and 1991, and Zambia shifted from 'middle-income' to being reclassified as a 'low-income country' (Whitworth 2014). Improvements in education had started paying dividends during this period, but the benefits were offset by inadequate investment and the unstable political and economic environment of the late 1980s. These factors discouraged private investment, while severe budget constraints undermined public investment (Mwanawina and Mulungushi 2002). Investment in fixed capital fell by an average 0.9 percent per year during 1985-1990 from an initially low GDP share of 9 percent. Low levels of investment and low prices produced sluggish mining sector growth, resulting in declining GDP growth (Thurlow and Wobst 2006).

69. **Zambia responded to weaker growth in the 1980s with heavy borrowing to finance consumption and investment.** Resources were directed to capital-intensive industries, and import substitution was attempted. However, output relied on price controls, subsidies, high tariffs, and a large and protected parastatal sector. As the debt burden increased and foreign financing dried up, the government resorted to domestic money creation, which resulted in inflationary pressures. Inflation peaked in 1993 at 183 percent, and the debt burden reached 278 percent of GDP in 1991. The weak macroeconomic outcomes further depressed growth (Bwalya and Mpembamato 2011). In late 1991, Zambia embarked on a Structural Adjustment Program with a key economic objective to strengthen the macroeconomic stabilization efforts while advancing reforms to restore economic growth (AFRODAD 2003). Some macroeconomic stability was achieved in the short term; however, due to the huge dependence on the copper industry, the continued decline in the performance of the industry at the time was pulling down other efforts to restore economic growth (Whitworth 2015).

Figure 27. **Phases of Economic Growth and Copper Prices**



Source: World Bank 2017d.

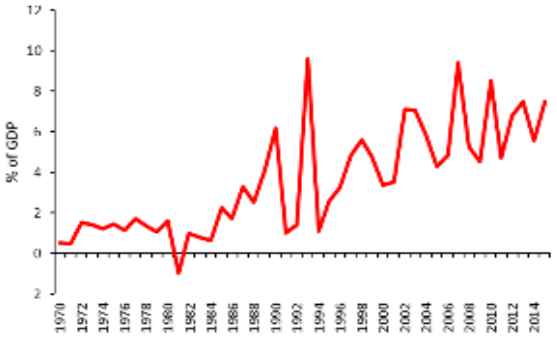
70. **Over the past 50 years, the structure of the Zambian economy has changed, but the drivers of economic growth appear largely as they were in the preindependence period**. However, a closer decomposition of the drivers to GDP growth highlight the increasing importance of services and the rise (1970s) and fall of manufacturing (table 2). The contribution to growth from agriculture has been declining since 1994–99. Further discussion of the agriculture sector is provided in chapter 6.

Table 2. **Sectoral Contribution to Real GDP Growth (Average, Percentage)**

	1965–1970	1971–1976	1977–1993	1994–1999	2000–2009	2010–2015
Agriculture, forestry, and fishing	13.7	10.4	16.3	24.6	17.0	9.2
Mining and quarrying	33.3	32.6	8.9	6.3	8.7	9.2
Manufacturing	9.0	11.0	21.6	9.7	9.4	8.1
Electricity, gas, and water	1.4	2.5	3.0	3.5	2.6	2.0
Construction	5.4	7.2	3.7	7.8	10.4	9.9
Services	36.9	36.2	44.9	40.7	51.8	55.8

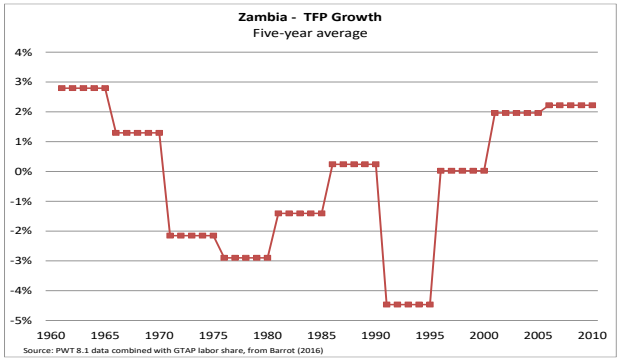
Source: CSO.

Figure 28. **FDI Inflows**



Source: WDI.

Figure 29. **Total Factor Productivity (TFP) Growth**



Source: Penn World Tables.

3.1.2 Recent Growth Trends

71. **In recent years Zambia, has successfully recorded stronger growth.** Following improvements to economic management in the 1990s and driven largely by a rebound in copper production, as well as strong expansion in construction and services industries, Zambia recorded an impressive economic growth, which averaged 7.4 percent between 2004 and 2014 (Smith, Davies, and Chinzara 2016), while the average for Sub-Saharan Africa was 5.8 percent (WDI). With population growth averaging 3 percent per year, real GDP per capita growth averaged 4.4 percent between 2004 and 2014. This resulted in Zambia being recategorized as a lower-middle-income country in 2011. However, given the previous sharp drop in real income per capita in Zambia, there are concerns that the recent rapid growth was just a catch-up and that it was partly driven by a favorable external environment (rising copper prices and capital inflows) making it hard to replicate.

72. **Recent growth has not all been copper-related (figure 30).** GDP growth picked up in the mid-1990s and accelerated in the early 2000s—several years before the increase in copper prices in the mid-2000s (figure 27). As such, the acceleration in growth likely reflects economic reforms around that period—especially reforms around the operation of the copper sector—although possibly also some mean reversion after several decades of economic decline.

73. **The mining, construction, and services sectors played a key role in Zambia's strong growth from 2004.** The growth of the mining sector averaged 13.5 percent per year between 2004 and 2014 (figure 31). During the same period, the construction sector grew at an average growth rate of 7.4 percent, and the services sector grew at 4.8 percent in aggregate (driven largely by wholesale and retail trade, plus transport and communication services). On the other hand, the agriculture sector continued its decline, while the manufacturing, utilities, and financial services sectors failed to achieve significant growth over the period. Severe droughts, poor management of farming subsidies, lack of localized produce storage systems, underdeveloped cold chains, high costs of seeds and agricultural inputs, and limited investment in irrigation and research are considered largely to blame for the declining trend in agriculture (Resnick and Thurlow 2014).

Figure 30. **Drivers of Zambia's GDP Growth**

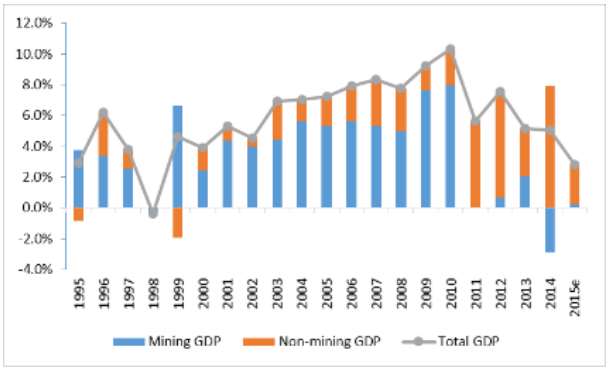


Figure 31. **GDP by Main Sectors**

Source: CSO.

74. **The Zambian economy slowed down in 2015 and 2016.** The slowdown reflected tough external conditions including low global demand for commodities, lower copper prices, and tight global financial conditions, as well as domestic challenges such as electricity outages, which intensified in mid-2015, El Niño-driven lower rainfall, and a tight monetary policy that increased the cost of borrowing and constrained credit growth (Smith, Davies, and Chinzara 2016). This negatively affected the manufacturing and services sectors (largely construction, plus wholesale and retail).

Table 3. **Quarterly GDP**

	2014				2015				2016e				2017f	
% Growth	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Agriculture, forestry and fishing	1.7	-0.6	-0.2	2.5	-8.5	-7.8	-6.1	-7.7	3.1	-1.0	0.7	-4.8	17.6	15.1
Mining and quarrying	3.5	-10.1	-0.7	-2.4	-4.7	17.1	-2.0	-6.1	8.0	7.5	5.0	7.8	-5.1	4.2
Manufacturing	9.7	11.7	0.2	5.1	5.1	1.8	8.7	6.2	1.1	4.4	3.7	1.3	1.8	6.6
Electricity	4.1	1.4	0.7	1.7	8.8	7.2	-2.9	-18.9	-15.4	-16.9	-3.2	17.5	25.6	27.1
Construction	-6.5	15.3	10.7	22.2	37.4	20.5	3.8	15.4	9.1	11.7	14.8	3.3	2.6	5.0
Wholesale and retail trade	-0.4	6.4	8.8	-0.9	1.8	-1.2	3.7	1.5	0.8	-1.0	-1.4	2.0	1.9	-1.2
Financial and insurance activities	7.2	19.4	14.2	19.9	3.7	7.6	21.6	14.9	4.7	4.8	-9.2	-8.2	-3.0	-2.5
GDP at market prices	**2.5**	**5.6**	**5.5**	**5.2**	**4.1**	**2.6**	**3.8**	**1.3**	**3.2**	**4.7**	**3.1**	**2.7**	**3.0**	**3.2**

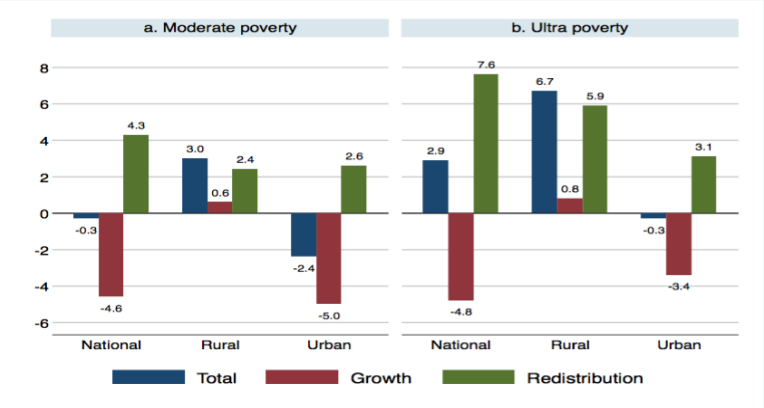
Source: CSO.

3.1.3 Growth Impact on Poverty

75. **Economic growth was the main driver of poverty reduction from 2010 to 2015 in urban areas.** Poverty changes can be decomposed into a growth component, which represents shifts in the mean of the consumption distribution in the absence of changes in inequality, and a redistribution component, which represents changes in the distribution in the absence of economic growth (Datt and Ravallion 1992). From 2010 to 2015, poverty declined by 0.3 percentage points, but it would have fallen 4.6 percentage points due to consumption growth alone, that is, holding constant relative inequalities (figure 32).

76. **The worsening of the income distribution between 2010 and 2015 meant poverty did not decline elsewhere in the country.** Changes in the distribution of consumption increased poverty, hence offsetting the decline in poverty resulting from consumption growth.

Figure 32. **Decomposition of Changes in Poverty by Growth and Redistribution (2010–2015)**



Source: Calculations based on LCMS 2010 and LCMS 2015.

3.1.4 Growth Scenarios

77. **A Long-Term Growth Model (LTGM) is used to provide some possible scenarios for future GDP growth.** The model is based on the Solow-Swan growth model and includes investment, TFP, human capital, demographics, and other growth drivers that are important for developing and emerging economies.

78. **TFP growth was strong between 2001 and 2010, averaging close to 2 percent growth a year.** This is well above the historical average experienced since independence, which is close to zero (figure 33). A 2 percent TFP growth over long periods of time is quite rare, with only the top 5–25 percent of countries (depending on the sample period) experiencing TFP growth this rapid. In part, the fast TFP growth in Zambia might have been related to the recovery from the slump of the 1980s and early 1990s, economic reforms, privatization (particularly in the copper sector), and possibly higher copper prices. These factors suggest that TFP growth at the 2001–10 rate is unlikely to continue over the long term.[17] As such, this SCD considers three possible paths for TFP growth:

- **No TFP growth.** This is like the postindependence average TFP growth. It would also be consistent with a lack of reform and low copper prices.
- **Fast TFP growth of 2.0 percent.** This is consistent with Zambia's TFP growth rate over 2000–10. The first five years were likely buoyed by the privatization of the mines in 1998 as well as other reforms around this period, and the latter period was a time of record high copper prices. This would be consistent with an ambitious future reform agenda and continued high copper prices.
- **Modest TFP growth of 1.0 percent.** This corresponds to an average of the previous two assumptions and can be thought to represent a combination of some periods of TFP stagnation (late 1990s) and some periods of fast TFP growth (early 2000s). The modest TFP growth of 1.0 percent is around the 50–75th percentile of TFP growth across countries over a 15-year horizon, and so, it is not unusual.

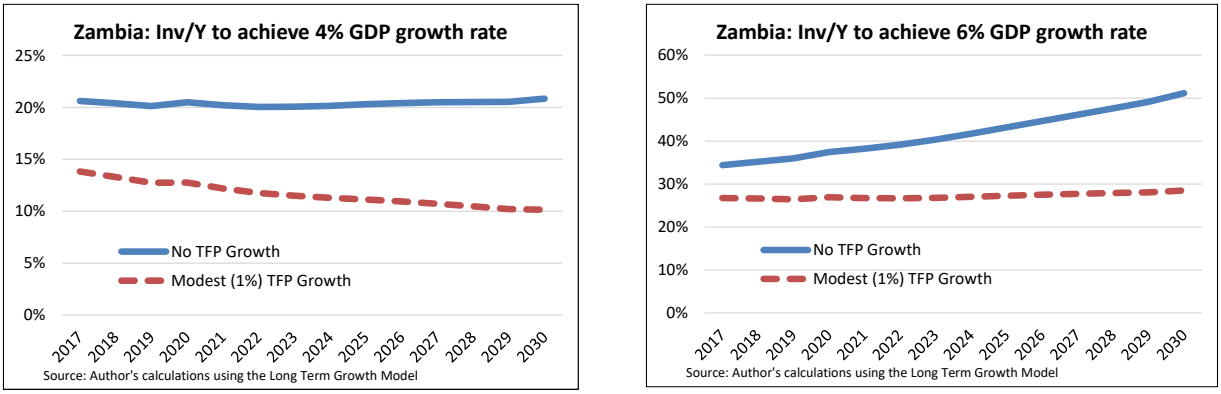
[17] In the last few years, headline economic growth slowed to around 3–5 percent despite high rates of investment (>20 percent), suggesting that TFP growth has been weak.

79. **The simulations highlight that 4.0 percent annual GDP growth is achievable—even with low investment and TFP growth rates, but Zambia can do better.** With stagnant TFP, Zambia requires an investment of around 20 percent of GDP to maintain 4.0 percent growth. This is almost 10 percentage points below current rates of investment as a share of GDP. With the faster—though still modest—TFP growth of 1.0 percent, the required investment is around 10–15 percent, less than half of the current rates. Note that with population growth of 3.0 percent, living standards would only be growing slowly at around 1.0 percent per year.

80. **A GDP growth of 6.0 percent is achievable with the current levels of investment and modest TFP growth but is not sustainable if productivity is stagnant.** With the modest 1.0 percent TFP growth, an investment of 28 percent of GDP is required to generate 6.0 percent growth. The investment of 28 percent is similar to the historical average over the past 15 years and so seems attainable (figure 33). In contrast, if the TFP growth was stagnant (at 0 percent), then around 35 percent investment would be required initially, increasing over time to 50 percent of GDP by 2030. The investment of 35 percent is above current rates, and 50 percent of GDP is clearly unrealistic given the cross-country and within-country historical experience. The required investment increases because if high rates of investment are not supported by other growth drivers, the economy's capital-to-output ratio increases, which decreases the Marginal Product of Capital (MP_K), and increases the (marginal) incremental capital output ratio (ICOR). As such, a 6.0 percent growth is only feasible with at least modest productivity growth.

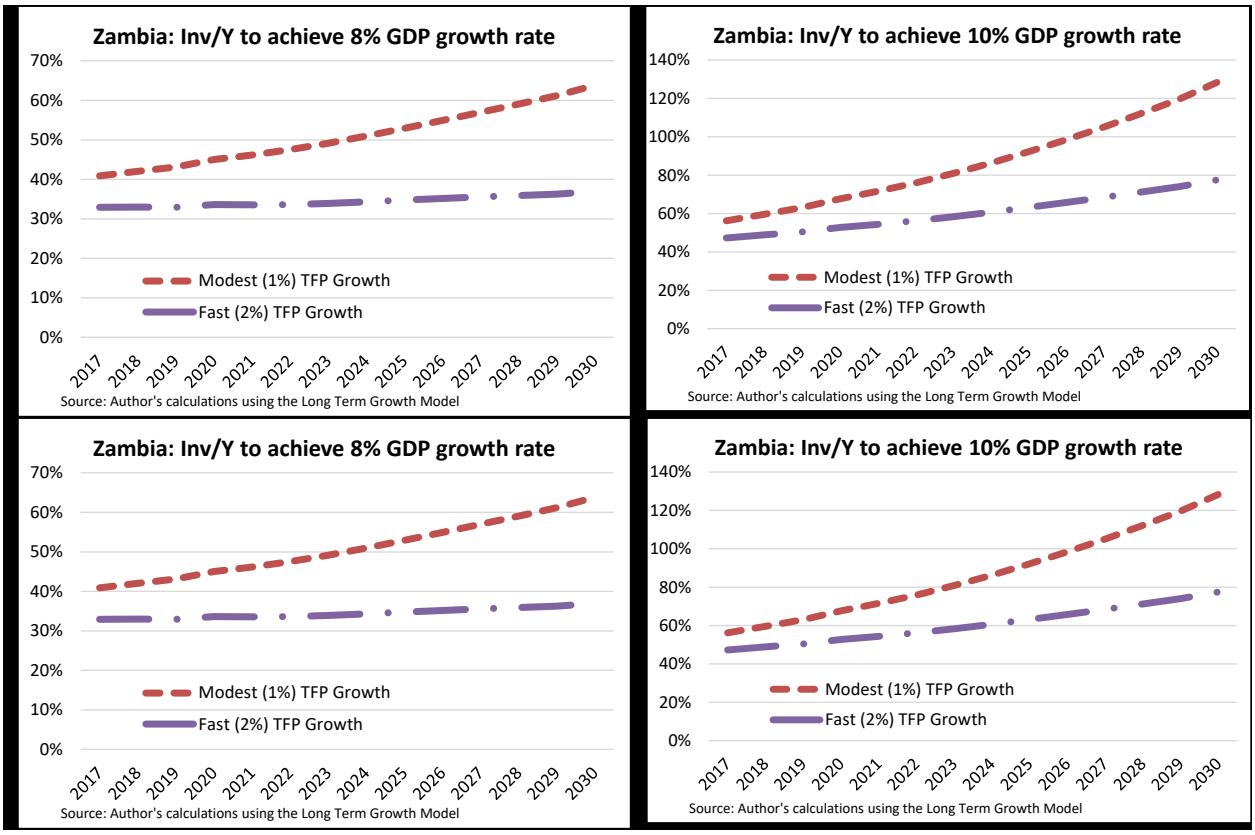
81. **An 8 percent growth is only possible with a fast TFP growth and sustained investment at above 30 percent of GDP, which might be regarded as aspirational.** With the modest (1.0 percent) TFP growth, the investment required to achieve 8.0 percent growth starts at 40 percent of GDP, but then increases to 60 percent by 2030, which is clearly not feasible. However, an 8.0 percent growth is feasible with fast (2.0 percent) TFP growth and investment at around 33–37 percent of GDP. As discussed previously, Zambia did have TFP growth at this rate over 2001–10, but that was supported by reforms in the 1990s, improving copper prices, and possibly mean reversion after many years of stagnation. An investment at 35 percent of GDP likewise requires support from mining investment in copper—and hence copper prices—as well as high levels of foreign investment supported by a favorable business environment. As such, an 8.0 percent growth is likely only feasible with reforms to boost productivity and attract investment, as well as some improvement regarding copper prices. While it is possible that Zambia could grow at 10 percent for a short period in response to a positive shock (or rebounding after a negative shock), the LTGM analysis (figure 34) suggests that growth at a pace as quick as this is unlikely to be sustained.

Figure 33. **Investment Ratios to Achieve 4 Percent or 6 Percent GDP Long-run Growth**



Source: World Bank.

Figure 34. **Investment Ratios to Achieve 8 Percent or 10 Percent GDP Long-run Growth**



Source: World Bank.

3.2 Macroeconomic and Employment Trends

3.2.1 Recent Macroeconomic Trends

82. **Inflation was historically high but was brought under control in the 2000s (figure 35).** It averaged 19.5 percent between 2000 and 2006 but remained at single-digit levels during 2007–14. In 2015, inflation rose to 10.1 percent following sharp depreciation of the currency in the second half of 2015, and further in early 2016, reaching a peak of 22.7 percent in February 2016. However, by November 2016, inflation had fallen back to single-digit levels again once policy measures (including much tighter monetary policy) applied in late 2015 and early 2016 took effect. Since December 2016, inflation has remained within the Bank of Zambia's medium-term target range of 6–8 percent, prompting the easing of the monetary policy.

83. **The current account balance improved from an average deficit of 10.1 percent between 2000 and 2006 to an average surplus of 3 percent between 2007 and 2012.** Higher copper production and prices were crucial to this result. Copper prices increased by 30 percent from US$6,722 in 2006 to US$8,828 in 2011 (World Bank 2017i). Over the same period, copper production increased by 45 percent. Further, the improved current account balances were supported by lower interest payments on external debt following US$6.6 billion worth of debt relief in 2006–07. From 2011, as copper prices fell and the cost of servicing external debt increased, the current account started widening again, reaching 3.9 percent of GDP in 2015 and 4.5 percent of GDP in 2016.

84. **Following the debt relief in 2006–07, Zambia pursued a path of prudent fiscal policy and the fiscal deficit declined from an average of 3.2 percent of GDP between 2000 and 2005 to an average of 1.8 percent between 2007 and 2012.** Fiscal consolidation was largely driven by cuts in public investments from 3.6 percent of GDP in 2006 to 2.6 percent in 2010. Large and repeat fiscal deficits have returned since 2012. The fiscal deficit on a cash basis increased from 3.2 percent of GDP in 2012 to 9.4 percent in 2015. Further, the government started accumulating large payment arrears in 2015 and 2016. Accordingly, the commitment of fiscal deficit in 2016 reached 12.3 percent, and although the cash deficit was only 5.8 percent in 2016, it reached 8.8 percent on a commitment basis. There were two key drivers of the fiscal deficit since 2012. First was the wage bill, which rose at an annual average of 13 percent in real terms to reach ZMW 18.8 billion (8.7 percent of GDP) in 2016 from ZMW 9.5 billion in 2012 (6.6 percent of GDP). A 45 percent nominal wage hike for public sector workers in 2013 was a key factor behind a strong growth in the wage bill (IMF 2013). This was against a budgeted wage increase of 9 percent. Second was the scale-up of public investments. Public investments rose at an annual average of 31 percent to reach a peak of ZMW 12.7 billion from just ZMW 7.9 billion in 2012, but declined by 39 percent in 2016 following financing challenges. About 40 percent of the public investments have been in roads, while 11 percent have been in electricity, and the remainder is classified as other investments. The scale-up in public investment was rather haphazard, and there are many shortcomings linked to the absence of a public investment management (PIM) system.

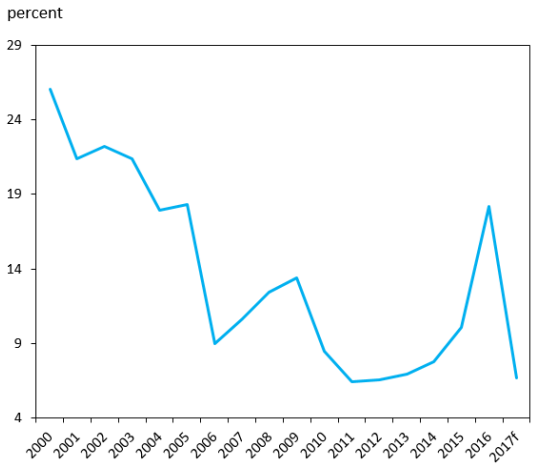
85. **Public sector debt levels have escalated quickly in the past five years as have debt sustainability and refinancing risks (figure 36).** From 2011 onward, just as copper prices began to fall, the government started expanding its expenditure. By 2013, it had risen to 25.1 percent of GDP. Given the relatively slower growth in the total revenue (including grants), the expansion was largely financed through increased non-concessional external and domestic borrowing. Zambia's debt level had fallen from over 120 percent of GDP in 2005 to an average of 23 percent between 2006 and 2013, because of multiple rounds of debt relief, including from the HIPC initiative for which Zambia attained the Completion Point in 2005. However, by 2014, total debt to GDP had risen to 35.3 percent. Non-concessional external borrowing more than doubled from 8.3 percent of GDP in 2011 to 17.9 percent in 2014, as the government issued a Eurobond in 2012 for US$750 million, a second in 2014 for US$1 billion, and a third in 2015 for US$1.25 billion (Smith, Davies, and Chinzara 2016). Any development plans over the next four to six years must ensure that borrowing is kept within sustainable limits.

Table 4. **Macro Aggregates**

	Average 2000-2006	Average 2007-2012	2013	2014	2015	2016	2017f
Real GDP growth, at constant market prices	**6.1**	**8.1**	**5.1**	**4.7**	**2.9**	**3.8**	**3.8**
Private Consumption	10.9	3.7	8.9	5.2	4.9	1.9	4.2
Government Consumption	7.4	13.6	2.1	4.5	3.7	4.4	4.7
Gross Fixed Investment	12.9	3.2	12.4	1.5	5.0	-3.2	2.8
Government Investment	0.6	22.6	9.9	-17.1	35.9	-46.4	51.2
Exports, GNFS	31.1	19.4	10.4	-5.4	-11.0	-10.0	8.8
Imports, GNFS	22.9	26.1	20.0	-6.5	-7.0	-10.6	8.5
Real GDP growth, at factor prices	**6.1**	**8.1**	**5.1**	**4.7**	**2.9**	**3.8**	**3.8**
Agriculture	-1.2	-0.1	-3.8	1.1	-7.7	3.6	7.3
Industry	10.4	7.0	2.6	3.9	6.8	5.3	5.2
Services	7.3	10.8	7.9	5.7	2.4	2.7	2.6
Inflation (Consumer Price Index)	**19.5**	**9.7**	**7.0**	**7.8**	**10.1**	**18.2**	**7.2**
Current Account Balance (% of GDP)	**-10.1**	**3.0**	**-0.8**	**2.1**	**-3.9**	**-4.5**	**-3.3**
Fiscal Balance (% of GDP)	**-3.2***	**-1.8**	**-6.8**	**-5.5**	**-9.4**	**-5.7**	**-7.6**
Primary Balance (% of GDP)	**2.3**	**-0.5**	**-5.3**	**-3.3**	**-6.7**	**-2.3**	**-3.9**
Government Debt (% of GDP)	**148.8**	**21.0**	**29.8**	**35.3**	**61.4**	**60.5**	**57.6**
Poverty rate ($1.9/day PPP terms)					**57.5**	**57.2**	**56.7**

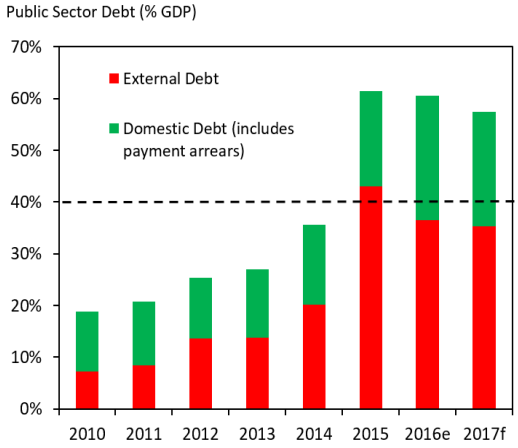
Sources: Ministry of Finance, World Bank, and IMF.

Figure 35. **Inflation**



Source: Ministry of Finance

Figure 36. **Public Sector Debt**



3.2.2 Employment Trends

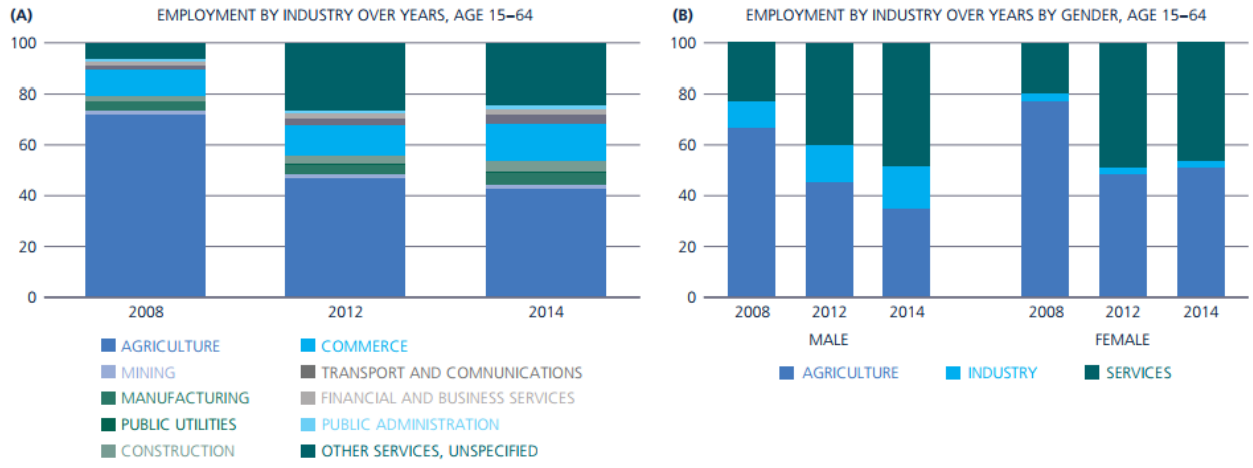
86. **A large shift in employment out of agriculture, and into commerce and other services, has been taking place recently, with gains also in construction, manufacturing, and transport and communications.** Men have moved out of agriculture into industry and services, whereas women have moved out of agriculture into services. About half of women remained in agriculture compared with only around 35 percent of men. A significant share of those leaving agriculture were youth (age 15–24). In 2008, 37.4 percent of those employed in agriculture were youth, whereas by 2014, that share had fallen to 27.8 percent. Despite this shift, jobs in Zambia remain largely rural, agricultural, and informal (table 5).

Table 5. **Employment by Sector**

Sector	Formal Employment ('000s)			Informal Employment ('000s)			Total Employment ('000s)		
	2008	2012	2014	2008	2012	2014	2008	2012	2014
Agriculture, Forestry and Fishing	72	50	52	3,212	2,821	2,812	3,284	2,871	2,864
Mining and Quarrying	62	65	57	31	23	25	93	88	82
Manufacturing	37	55	45	122	161	179	159	216	224
Electricity, Gas and Water	11	14	17	3	10	10	14	24	27
Construction	14	19	31	66	169	152	80	188	183
Trade, Wholesale and Retail	29	34	34	397	610	658	426	644	692
Transportation and Storage	29	34	29	65	103	123	94	137	152
Hotels and Restaurants	17	22	27	25	40	45	42	62	72
Financial, Insurance and Real Estate	13	21	13	6	35	10	19	56	23
Community, Social and Personal Services	226	311	325	161	902	1,215	387	1,213	1,540
Total	**510**	**625**	**630**	**4,088**	**4,874**	**5,229**	**4,598**	**5,499**	**5,859**

Source: Labor Force Survey (2008, 2012, and 2014).

Figure 37. **Sector Employment by Gender 2008–2014**



Source: World Bank 2017a.

87. **Most of the new jobs created are informal and outside agriculture.** This is explained in part by the challenges faced by the private sector (discussed in chapter 5). In addition, like most southern African economies, Zambia has a higher share of formal wage work than many other youthful African countries. However, until Zambia can generate much higher growth of formal sector wage jobs than it has managed to date, the youthful and fast-growing workforce is going to have to find informal work and engage in self-employment. Between 2000 and 2014, during Zambia's period of historically (and globally) high economic growth, Zambia created 130,000 jobs on average every year. The jobs created were mainly self-employed outside agriculture, which more than doubled from 11 percent in 2008 to 28 percent in 2014. Self-employment in agriculture has been growing for the rural population across all age groups. The LCMS data also corroborate this increase, although moderately. The percentage of households with at least one member of age 15 or over engaged in nonfarm self-employment grew from 11.6 percent in 2010 to 13.4 percent in 2015.

88. **Some 'good' wage and formal jobs were created recently, but only at a slower pace.** Private wage work jumped from 12 percent in 2008 to 21 percent in 2014. Further, the quality of jobs seems to be improving for those in wage employment, including for young people, with significant increases in social security coverage and a rise in the share of youth with a work contract. The Zambian economy has shifted away from labor-intensive sectors, like agriculture, toward sectors that are typically capital-intensive and urban-biased (Bhorat et al. 2017). These sectors require few new jobs for growth, like mining (World Bank 2017a). Clearly, more jobs are needed in the more productive, labor-intensive sectors.

89. **The more dramatic increases in wage work are occurring for men in urban areas.** Wage employment (formal employees) absorbs larger numbers of people in urban areas, whereas informal employment has been relatively high in rural areas. From 2008 to 2014, more rural jobs were formalized—with an increase in formal jobs in agriculture from 17.6 percent to 21.6 percent. However, most rural people remain in agricultural and informal jobs, especially women between 15 and 24 years of age. Within urban areas, formal employment increased in manufacturing, construction, wholesale and retail, and other services (World Bank 2017a). The net effect was an increase in formal and urban jobs relative to rural and informal jobs.

90. **The expansion of opportunities for formal employment among the poor and for involvement in higher-productivity nonfarm activities has been limited.** As noted earlier, larger firms are more productive and created many of the jobs in the economy between 2007 and 2014. However, small firms remain the main source of employment in the country but remain limited in scope and productivity. The incapacity by most firms to create high-productivity jobs or of the economy to absorb the growing labor force has led to an insufficient structural transformation and segmented labor markets, both key constraints to inclusion.

91. **There are numerous factors that have affected the potential of many small and medium enterprises (SMEs) in Zambia to grow and create more jobs.** On the supply side, these factors include poor road access to markets, the inability to access capital markets, poor technical knowledge, and uneven access to electricity and technologies for market connectivity. Equally relevant is the insufficient demand from urban areas and secondary towns. The overconcentration of exports and limited job creation of the mining sector have also hindered inclusive growth. These same factors also lead to a persistent duality between low-productivity smallholder agriculture and high-productivity modern agribusiness firms. Small-scale producers and modern commercial operations operate in parallel, with smallholders typically using backward production systems with scant capitalization.

Part B: Prioritization

CHAPTER 4: A FRAMEWORK TO UNDERSTAND POVERTY REDUCTION AND INEQUALITY

4.1 What Will It Take to Achieve the World Bank's Twin Goals?

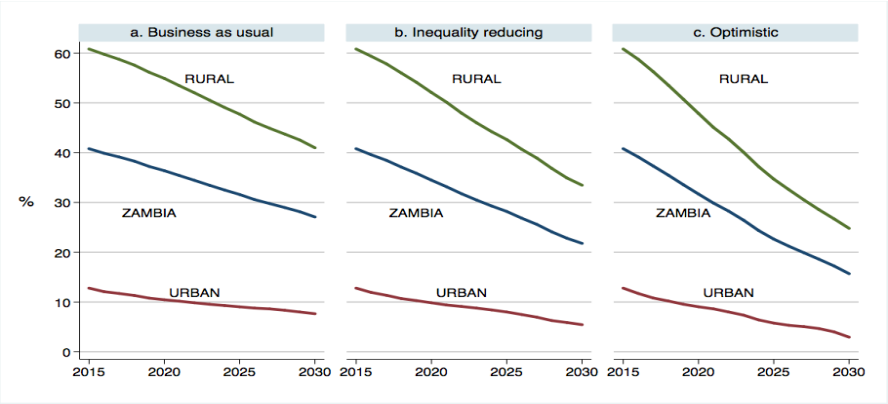
92. **The World Bank's twin goals relate to progress with eradicating poverty and sharing prosperity.** In recent decades, substantial progress has been made in reducing global poverty. Between 1990 and 2011, the number of people living in extreme poverty has halved, to around 1 billion people, or 14.5 percent of the world's population. One side of the twin goals is to eliminate extreme poverty by 2030 (measured by reducing the proportion of people in poverty to less than 3.0 percent globally). The second part of the twin goals is to boost shared prosperity, measured as the income of the bottom 40 percent in any given country. As outlined in chapters 1 and 2, Zambia is characterized by high levels of poverty and inequality, and progress will need to accelerate if Zambia is to achieve similar goals at the country level.

93. **Three simulation models are used to forecast extreme poverty based on the national poverty line up to the year 2030.** The *business-as-usual model* assumes that the average 2.5 percent annual growth rate in real consumption per person between 2010 and 2015 is maintained for the next decade and a half and so inequality remains constant; the *inequality-reducing model* assumes an annual growth rate of 3.5 percent for the bottom 40 percent of the population and 2.5 percent for the rest; and the *optimistic model* increases growth and reduces inequality with respect to the business-as-usual model, by doubling the growth rate for the bottom 40 percent (from 2.5 percent to 5 percent), and assumes an annual growth rate of 3.5 percent for the rest.

94. **Extreme poverty in 2030 would drop to 27.1 percent if recent patterns of growth were to continue, to 21.8 percent if inequality were to fall, and to 15.7 percent in the case of the optimistic model.** The proportion of the extreme poor in urban areas would range between 2.9 percent and 7.6 percent (figure 38). Having low extreme poverty as a starting point explains these even lower predicted levels in cities. The challenge, however, is in rural areas. The business-as-usual model predicts that two out of five rural dwellers would be extreme poor; the inequality-reducing model, one out of three; and the optimistic model, one out of four. Achieving the 20-percentage-point reduction of the business-as-usual model, the most conservative model of all, in rural areas would be extraordinary because consumption in the countryside has been stagnant over the last few years.

95. **Predictions for eradicating extreme poverty highlight this formidable task.** First, this would take 127 years per the business-as-usual model. Second, if the goal were to eliminate extreme poverty by 2030, consumption per person would need to grow by 23 percent per year (which is unrealistic because no country in the world has achieved this thus far, even over a period of five years).

Figure 38. **Extreme Poverty Incidence Modelling, 2015–2030**



Source: Calculations based on LCMS 2010 and LCMS 2015.

96. **Any effort to reduce significantly extreme poverty over the coming years cannot rely on economic growth alone but will also require a reduction in inequality.** This highlights the need for a shift to more inclusive growth than what has been experienced over recent years. These results from the poverty modelling, based on the official poverty rates for 2015 (using the national poverty line), are further supported by scenarios generated using the international extreme poverty line (US$1.90 PPP at 2011 prices) on an LTGM.

4.2 Pathways out of Poverty and Challenges to Them

97. **To achieve the twin goals, the diagnostic proposes a framework in which two pathways are pursued to expedite poverty reduction and shared prosperity (figure 39).** A combination of both these pathways is the most promising way to achieve progress on the twin goals.

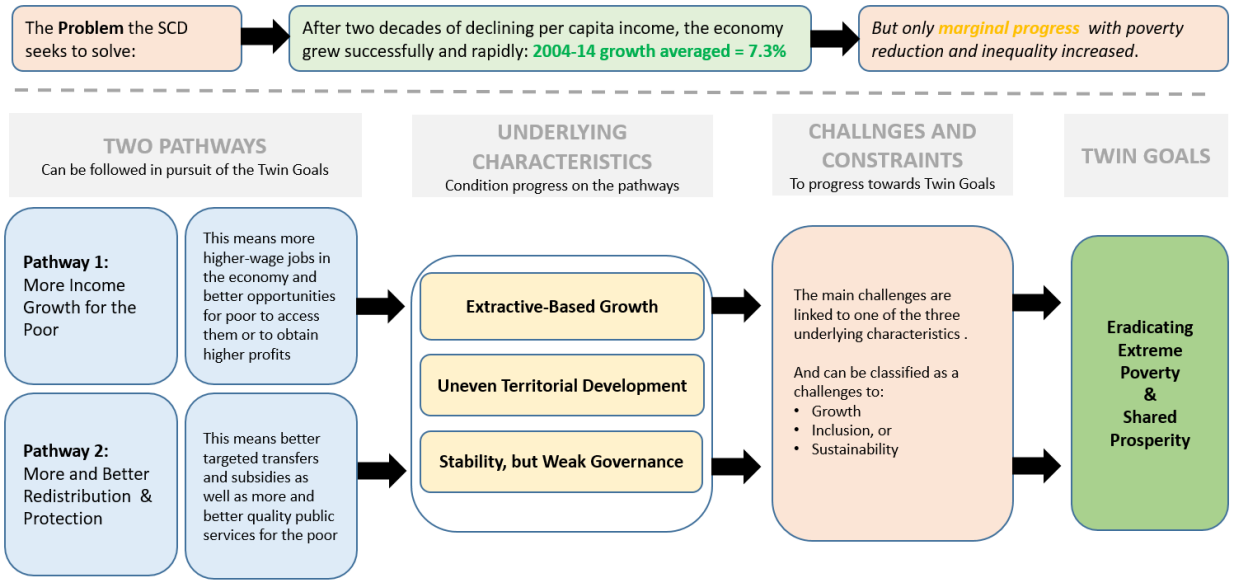
98. **The first pathway requires a shift to more inclusive growth.** This consists of raising the labor incomes of the poor by increasing demand for their labor and products and improving the productivity of their work. This can be achieved through

(a) Better access to markets, land, and technology, leading to higher productivity in agriculture; better links in value chains between the formal private sector and smallholders; and more and better jobs in services and industry, which tend to be more remunerative and

(b) Improving the opportunities of the poor to access those better jobs by investing in their human capital and facilitating their movement and permanence in urban centers, such as secondary towns, or, if self-employed, by helping them obtain higher profits through access to markets, better skills training, credit, and services.

99. **The second pathway requires the redistribution of wealth (monetary and non-monetary) and the protection of the poor to reduce vulnerabilities.** This consists of providing transfers to the poor, including subsidies, minimal health and education services, and tax exemptions and safety nets to reduce their vulnerability to poverty.

Figure 39. **SCD Framework**



100. **Unpacking the three proposed hypotheses (chapter 1) has led to the identification of a series of challenges to achieving the twin goals.** To arrive at a short list (of seven) and to test if the hypotheses hold, the SCD process utilized an evidence-based approach, involving a literature review and expert consultations (see annex 1 and chapter 8 for further details on the prioritization process). The challenges can be mapped in two ways (table 6). First, to the three underlying factors argued to condition Zambia's development (extractive-based economic growth, uneven territorial development, and stability but weak governance). Second, by determining whether they are constraints to growth, inclusion, or sustainability.

101. **The following chapters of this diagnostic explore each of the six main challenges.** The discussion begins with constraints to growth (chapter 5) and then looks at constraints to inclusion (chapter 6). This is followed by a review of factors that affect the sustainability of the current path of growth and inclusion (chapter 7). Chapter 8 then provides a methodology for, and further prioritization of, the challenges and their conversion to actionable constraints.

Table 6. **Challenges to Achieving the Twin Goals**

	Extractives-based Growth	Uneven Territorial Development	Stability but Weak Governance
Growth	The full benefits of the mining sector have not been realized.	Poor infrastructure, low skills, and the high cost of doing business means that most enterprises do not expand beyond the household level and create employment.	

	Extractives-based Growth	Uneven Territorial Development	Stability but Weak Governance
Inclusion		Small-scale farmers' low agricultural productivity.	The poor get insufficient benefits from fiscal policy due to vested interests and limited safety nets. The low quality and lack of inclusiveness of education and health services hinders opportunities for the poor, especially women.
Sustainability	Volatile macroeconomic outcomes and an unsustainable fiscal and debt path.	Environmental degradation affects communities' health, livelihoods, and resilience to climate shocks.	

CHAPTER 5: WHAT IS CHALLENGING GROWTH?

5.1 The Full Benefits of the Mining Sector Have Not Been Realized

102. **Despite recent success in increasing production, Zambia's mining industry is not contributing as much as it could to Zambia's growth and development.** The mining sector should be able to contribute to growth through three different channels: (a) government revenue, (b) backward links, and (c) spatial links (including infrastructure). However, in each of these areas, the full benefits have not been realized (box 3). There is also a need for continued investment, in new mining projects and electricity generation and transmission, if the sector is to expand and increase the amount of potential benefits.

103. **Increased investment in the mining sector remains limited by several factors (World Bank 2015a).** What is necessary first is resolving the recent electricity supply issues (the mining industry consumes about 57 percent of Zambia's power and was hit hard by the power crisis of 2015–16). Opportunities exist in Zambia for harnessing 'the power of the mine' through using the mining industry as an anchor-consumer for expanding capacity, transmission, and distribution of energy (Banerjee et al. 2015). These potential synergies demand strong coordination between the government and utilities and mining companies. Zambia has concrete experience in leveraging mining shared infrastructure for a more inclusive and equitable economic growth. Second is maintaining a more stable and predictable fiscal regime (the framework was changed frequently in 2012–16). Third is enhancing the effectiveness and credibility of the revenue administration.

104. **Until recently, the government received little fiscal revenue from mining.** However, since 2010, it has grown rapidly and reached 28 percent of total revenue in 2015 (this is discussed further in chapter 1—see figures 5 and 6). Underlying much of the political concern that the mining industry is not paying its fair share of government revenue is the suspicion that the tax authorities (and ZCCM-IH, which also oversees the operations of the mining companies through its residual shareholding) are not up to the task of ensuring that the correct amount of tax is assessed and paid. The concern is not limited to just tax avoidance (through transfer pricing) but also regarding poor information on production, smelting, refining, and sales, for which data appear to be inconsistent. However, support to the Zambia Revenue Authority and other government agencies has helped address these weaknesses. Finally, improving coordination among the government agencies responsible for regulating the industry is also a concern, as well as political economy challenges (Box 2).

105. **There are many opportunities available for Zambia to increase the benefits from the mining sector, particularly from domestic sourcing (local content) and beneficiation.** While the latter is the most obvious, the big gains in value addition and employment are more likely to come from the local content. In Chile, in 2011, there were 720,000 jobs in the mining supply industry and another 40,000 jobs in mining-related construction (over 10 percent of the entire workforce). Similarly, in Peru, it is estimated that 709,000 people are employed in the mining supply industry. Local content can also provide important learning opportunities. Many of the skills needed by companies selling goods and services to mining operations—such as machine repair and servicing, tubing, construction, industrial clothing, and catering—are easily transferrable to other industries.

106. **The Zambian mining industry currently imports goods and services totaling approximately US$3 billion annually to support the industry.** A considerable portion of these services could be locally produced, with positive effects on employment and local industry. In addition, there is a large potential market in the Democratic Republic of Congo. Domestic sourcing measures were put in place in Zambia when the mines were privatized, but these have not been well implemented. Most of the constraints to the development of local content are common to Zambian SMEs more generally. For example, access to finance is expensive and short term; market information is limited; business management skills are limited; and while the business environment in Zambia is generally conducive, some aspects of competitiveness, like the real effective exchange rate, have not encouraged local production as much as they could have. A special layer of complexity relates to the fact that the mining companies need to be persuaded to cooperate with local content promotion, because they provide the market.

107. **It is essential to have a well-designed local content policy framework, but this has been absent in Zambia.** This helps explain why mineral extractives-based growth did not deliver as much to socioeconomic development as expected (Kragelund 2017). Contextual factors are relevant in explaining whether links were developed or not. Meso-level local sourcing policies were dysfunctional and never came to play an empowerment role for Zambian-owned business. The factors that really mattered in terms of building links between the mines and the domestic suppliers in Zambia were macro-level policies (macroeconomic stability, tax, and exchange rate regimes).

Box 2. **Political Economy of the Mining Sector**

Large-scale copper mining started in Zambia in the late 1920s, and has contributed to shaping the economic and social dynamic in the country since then. The rapid inflow of foreign investment in mining created a domestic migratory system that fostered urbanization and concentrated economic activity and wealth within urban areas. Non-urban investment was directed toward transporting copper and capital goods between the small Copperbelt region and the southern border. The dominance of mining and urban political power, and the resulting rural-urban divide, still underpins Zambia's development.

State control of mining revenues and foreign exchange created a powerful ruling elite and an oversized civil service who were dependent on the urbanized mining sector for political support. Decades of copper mining created a strong urban bias in government policies. Rural areas suffered from relative isolation caused by poor infrastructure and social spending. Rural development policies took the form of price controls, which undermined diversification within agriculture and were partially motivated by urban consumption needs. The country's free elections in 1991 were won based on a commitment to a comprehensive structural adjustment and the promise of more transparent and accountable governance. However, despite reforms aimed to stimulate growth and diversify the economy, GDP growth remained stagnant during the 1990s. To attract investment during the time of lower copper prices, the national mining company, Zambia Consolidated Copper Mines, was sold in the late 1990s under development agreements that included tax holidays. Since then, a debate has continued around how to get a fair share of tax revenues from the mining companies, and a new mining fiscal regime was introduced in 2015 to this effect.

Since 2000, the focus of mining has shifted from the Copperbelt, with the largest and most profitable mines increasingly located in Northwestern Province (the so-called 'New Copperbelt'). The Copperbelt has an established pool of local talent from nearly a century of large-scale mining. In Northwestern Province, however, many of the skilled workers are taken by the Copperbelt, thus limiting the possibility for local employment and stimulating migration. One reason why mining growth did not create many new jobs in the 2000s—a period that was driven by rising value-added per worker rather than employment—is that government subsidies in the 1980s created a form of protected overemployment. This artificially high labor intensity ended when the mines were privatized. Another reason is that Zambia's mining unions prevented job creation in the 2000s by bargaining for higher wages for 'insiders' rather than new jobs for 'outsiders'. Indeed, high labor costs partly explain why, despite privatization, Zambia has some of the world's least efficient copper mines.

Despite local frustration, migration has the capacity to benefit local leaders who control access to the land. Increased regulatory pressure on mining companies to improve and manage the social impacts of their activities has led to the rise in Corporate Social Responsibility (CSR) spending. However, in many cases, CSR spending does not necessarily translate into local development, due to organizational imperatives and other institutional and contextual limitations. Alternative livelihood projects have a mixed impact with local communities; a frequent issue was whether the projects were targeted at local elites (sometimes with the understanding that they will pass these benefits to their communities), while missing other groups such as women and children. Compared to other countries in the region, CSR in Zambia's mining sector has undergone less pressure and has been less regulated.

Sources: Frederiksen (2017); Resnick and Thurlow (2017); Thurlow and Wobst (2006).

5.2 Poor Infrastructure, Low Skills, and the High Cost of Doing Business Means That Most Enterprises Do Not Expand Beyond the Household Level and Create Employment

5.2.1 Market Access and Trade Barriers

108. **Despite the promising evolution of several nontraditional exports, Zambia continues to be one of the world's most concentrated exporters.** Zambia's top export products (copper and cobalt) account for around 70 percent of the value of formal exports—a level of concentration surpassed only by Botswana (World Bank 2014), while only employing 1.7 percent of the total labor force (or 8.3 percent of the total formal sector jobs). Exports are also highly concentrated within a few firms: of 1,700 exporting firms in Zambia, the top 1 percent account for about 90 percent of exports. Moreover, Zambia's exports are characterized by a large degree of churning among export firms. While firm entry rates into exporting are high compared to other countries, suggesting strong entrepreneurial interest in export markets, these firms have a uniquely low export survival rate. Interviews with firms engaged in exporting reveal several constraints to exports, ranging from unexpected exchange rate movements; impediments to importing inputs required for export-oriented production; and inefficient and costly services inputs such as finance, logistics, electricity, or infrastructure (see section 5.2.4) to the emergence of new international competitors and political instability in destination markets.

109. **Barriers to trade reduce the competitiveness of Zambian exports, and regional integration has been slow.** In addition to regulatory and competition issues, the high cost of trade is a key barrier to competitiveness and growth. The cost of exporting agricultural and manufacturing products from Zambia to key markets (China, Germany, Japan, and the United States) are consistently higher than those for neighbors such as Malawi, Mozambique, Tanzania, South Africa, Namibia, or Botswana. For example, it was shown that the cost of meeting regulatory requirements and procedures at the border can add up to as much as US$1,136 for a 30-ton truck of formal maize exports to the Democratic Republic of Congo, representing about 15 percent of the farm gate price for maize in Zambia (World Bank 2014). At the same time, Zambia's domestic producers are often not able to compete with imports. While some relatively higher costs may be inevitable due to Zambia's landlocked nature, there is consensus among public and private stakeholders that more efficient logistics can help reduce costs and maximize the impact of public investments/regulations in infrastructure and logistics, thereby allowing better access to domestic and possibly import markets. Good trade logistics are also crucial for any supply chain where costs matter—agribusiness commodities can be particularly affected when inefficiencies and delays lead to high costs, especially for perishable and refrigerated goods.

110. **Small-scale cross-border trade between Zambia and its neighbors often takes place informally, given the multiple challenges faced by traders.** About 40 percent of trade at three major Zambian borders (that is, Chirundu, Livingstone/Victoria Falls [Zimbabwe], and Mwami/Mchinji [Malawi]) is informal, while most of that trade takes place with Malawi (Njiwa et al. 2011). In addition, the number of informal traders using those border posts monthly is estimated at between 15,000 and 20,000, 12,000 and 13,000, and 20,000 and 30,000, respectively. Maize represents the largest volume of informal exports (estimated at 124,000 tons between 2005 and 2011, compared to 50,000 tons of rice and 31,000 tons of beans).

111. **Agricultural trade flows are also particularly abundant with the Democratic Republic of Congo.** Zambia exports approximately 100,000 tons of maize to the Democratic Republic of Congo each year, worth over US$43 million and handled by small-scale traders. Imports from the Democratic Republic of

Congo to Zambia include cosmetics, fabrics, and alcoholic drinks. As with the Malawi and Zimbabwe borders, it is widely acknowledged that a substantial portion of Zambia's trade with the Democratic Republic of Congo goes unrecorded, even when passing through official border crossings, due to the small scale of the transactions.

112. **Zambia's small-scale cross-border traders, especially women, face multiple challenges.** High duty and tax levels, cumbersome bureaucracy, lengthy clearance processes, and weak governance at the border (with officials extorting bribes and performing abuses) are regularly observed at Zambian borders and ports. Such a set of complex obstacles discourages traders from using the formal clearance point and provides a strong incentive for them to remain in the informal economy. Meanwhile, governments lose income from taxes and are unable to collect reliable statistics. Allowing these traders to grow, flourish, and gradually integrate into the formal economy would boost trade and the private sector base for future growth and development, while increasing the governments' revenues and, therefore, their ability to provide public goods.

113. **There are constraints to attracting FDI.** While Zambia's FDI regime is viewed as one of the most open in Africa, private sector development, particularly through foreign investors, has been constrained due to perceptions of policy uncertainty. This has been evident in the frequent revisions to the country's tax regime and the broader fiscal policies. Additionally, unreliable electricity acts as a deterrent to foreign investors. Restoring investor confidence could bring the much-needed investments into the non-resource sector and provide increased job opportunities.

114. **Women play an important role in regional value chains, including in upstream production of goods and in downstream trade and retailing.** Although fishing is predominantly carried out by men across Lake Tanganyika, women are still heavily involved in regional value chains, and almost all traders selling fish and agricultural products in the local markets at Mpulungu (Zambia) and Kasanga (Tanzania) are female. Women are extensively involved in market trade at port and border locations and are the main producers of agriculture goods, including dried fish, fresh vegetables, palm oil, and other goods traded with the Democratic Republic of Congo. The same applies to Zambia's small-scale trade at land borders: estimates indicated that, on average, up to 70–80 percent of the traders active in the business are women.

115. **Commercial agriculture production and exports have increased (box 3), but challenges remain.** When faced with the decision of whether to market agricultural produce—especially food crops—farmers contend with several factors that increase transaction costs. These include poor roads, inadequate transportation, and limited information about market opportunities. These high transaction costs mean that both buyers and sellers face the risk that a transaction will fail altogether, which would drive up risk premiums for those who choose to (or are forced to) trade maize and other food crops. These risks depress traded volumes, which result in thin markets and volatile prices. When faced with uncertain markets, producers tend to devote more land to low-value food staples for subsistence consumption. Unpredictable prices also hurt Zambia's maize consumers, especially considering intra-seasonal price movements.

Box 3. **Success of Commercial Agriculture**

Zambia has the agroecological potential to become a major food exporter in the region and has a well-developed agribusiness sector compared to neighboring countries. It is estimated that 400,000 smallholder households are linked to the private sector through vertically integrated outgrower schemes, primarily for cotton, and also for sugar, tobacco, and soya beans. Large commercial farms account for the bulk of exports of sugar, tobacco, wheat, horticulture products, coffee, and soya beans.[18] In the last decade, Zambia has seen large growth in soya bean production (by 32 percent from 2012 to 2016), which is driven by the livestock industry and mainly produced by large commercial farmers. To avoid imports of cheap edible oil, trade restrictions are being imposed on the sector, which need to be monitored to avoid the development of inefficient producers or fostering the development of an uncompetitive market. Apart from tobacco, the value of imports is higher than the value of exports, particularly for fisheries (where the value of imports was 250 times higher than exports in 2016), followed by horticulture (the value of imports was four times the value of exports) and groundnut products. The increase in horticulture imports coincides with the increase in the number of supermarkets, which rely on imported fruits and vegetables (Chapato and Chisanga 2016).

116. **Encouraging entrepreneurship in agricultural markets requires broad support and productive alliances (box 4).** Investments in building roads and strengthening wider transportation and communication services need to penetrate even more deeply into rural areas. The participation of remote farmers in markets will not occur if it makes no sense for traders to engage with them due to the high costs of communication and transport they would face in doing so. Equally important are improvements in the information available to market participants—especially on crop production and market prices. If both parties to a transaction are using dependable information on prevailing commodity prices, the risk of a failed transaction is minimized. However, so long as domestic agricultural markets remain thin, the economic returns to farmers from selling their products to those markets will not be significantly compelling.

[18] Zambia has five main agricultural exports: (a) maize and maize products, which fluctuate depending on the season and government policy and have been between 10 percent and 15 percent of the total value of agricultural exports between 2011 and 2015; (b) sugar; (c) tobacco; (d) cotton; and (e) horticulture.

Box 4. **Productive Alliances**

The Productive Alliance approach involves three core agents: (a) a group of smallholder producers, (b) one or more buyers, and (c) the public sector. The producers are typically united in a producer organization, the buyers can be active at different levels of a value chain in either commercial or institutional markets, and the government is commonly represented by the Ministry of Agriculture. These three agents are connected through a business proposition, or 'business plan', which describes the capital and services needs of the producers and proposes improvements that would allow them to upgrade their production capacities and skills to strengthen their link with the markets, that is, the buyers. The realization of this business plan within a Productive Alliance project is typically supported through three core inputs and/or activities directed toward the producer's needs: (a) productive investments, (b) technical assistance, and (c) business development.

Productive investments typically include the provision of machinery and equipment, infrastructure (on-farm or off-farm), and production inputs (for example, seeds, fertilizer, and veterinary supplies) for the producers. Similarly, technical assistance entails the delivery of extension services, technology transfers, and specialized assistance on technical matters related to production, processing, and environmental aspects, as well as market studies. Finally, business development focuses on strengthening producers' business development capacities in management, accounting, business administration, and marketing skills. Productive Alliance projects vary in the emphasis on each of these core inputs, but all use support goods and services to enhance the fulfilment of a business plan. One key characteristic of a Productive Alliance project is that the core inputs to support the business plan are normally financed through grants provided by the public sector, which are matched by the producers and in a few cases also by the buyers. Productive Alliances strengthen links between producers and buyers—providing mutually beneficial arrangements by 'tightening' value chain links.

Zambia has witnessed a recent expansion in the number of indigenously owned farms greater than 20 ha in size, which is reshaping the agricultural landscape. Currently, an estimated 3,000 farmers are categorized as medium scale (20–100 ha) and large scale (> 100 ha), though the number is believed to be underestimated. Between 2001 and 2014, the number of farms between 10 ha and 20 ha grew at a rate of 79 percent, particularly in regions where land inequality is already high. Interestingly, these farmers usually acquire the land with nonfarm wage income and experience faster real income growth than smallholders (55 percent faster). However, the study further finds that medium-scale farmers tend to use a smaller share of land for agricultural production, which could have a detrimental impact on food production, food prices, and employment opportunities in the medium to long term. These trends indicate that land policies and taxation should seek a balance between the social and economic objectives of the country (that are closely linked to agricultural development and growth) (Sitko, Chamberlain, and Mulenga 2015).

5.2.2 High Cost of Doing Business and Insufficient Skills

117. **Zambia has carried out reforms that have reduced the cost of doing business, but further improvement is needed.** Zambia strengthened access to credit by setting up a new collateral registry, made paying taxes easier by introducing an online platform for filing and paying taxes, and made exporting and importing easier by implementing a web-based customs data management platform (ASYCUDA World). However, investment climate shortcomings are exacerbated by Zambia's weak governance, creating a distorted business environment that hampers competitiveness and constrains job creation. For instance, Zambia's weak business-enabling environment might constrain the inception and formalization of firms. According to the 2013 Enterprise Survey, 22.5 percent of firms consider that the practices of the informal sector are the main constraint to private sector operations.

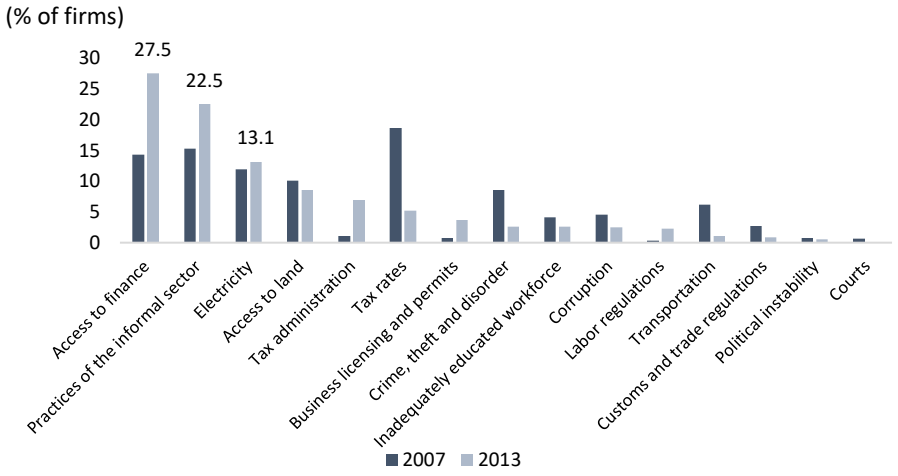
118. **Various markets along key value chains in Zambia underperform due to weak competition.** The Competition and Consumer Protection Commission (CCPC) has identified various competition issues in key markets. For example, in agribusiness, weak competition stems either from the anticompetitive

conduct of businesses or from policies, regulations, and rules that constrain market forces. Recent studies (including World Bank 2014) have identified policies, regulations, and government decisions that inadvertently reinforce dominance in certain markets (for example, import and export bans and non-tariff barriers); that facilitate collusion or restrict the ability of firms to compete on prices, quality, and other product dimensions (for example, influence on prices of certain crops and influence on the structure of the fertilizer market); and that allow for wide discretion on enforcement and discrimination. There are examples of value chains across many sectors that have been affected by these impediments: industrial crops (abuse of dominance in sugar and cotton), food crops (alleged collusion among maize millers), and transport and logistics (alleged collusion between service providers).

119. **High prevalence of anticompetitive practices increases costs to the government, private sector, and consumers.** Cartels in input markets raise costs for producers and reduce their competitiveness. Cartel overcharges are generally above 20 percent (Connor 2014), and industries that form cartels are less productive (Petit, Kemp, and Van Sinderen 2015). Restrictive market regulations have negative effects on sector performance, productivity, and growth and on jobs in the long term too. Removing regulatory restrictions in input markets and measures to reduce market power have positive effects on farmers and SMEs (Begazo and Nyman 2016). Breaking up cartels and reducing the market power of dominant firms can help reduce the costs of production. For example, in the case of cement, prices of cement reportedly reduced by 30 percent due to the entry of a new cement producer in 2015. Other markets where anticompetitive practices have been found in other jurisdictions in Africa—that are likely to be present in Zambia—include construction materials, construction services, insurance, and the exchange of foreign currency. Protection given to incumbent providers of telecommunication services, electricity, and fuel increases input costs and dampens the competitiveness of Zambian firms.

120. **Larger firms are more productive and have created many of the jobs in the economy, while small firms remain the main source of employment, but are limited in scope and productivity.** Many SMEs in Zambia are constrained by several factors that affect their potential, including uneven access to credit, land, and electricity and market connectivity. These factors may have prevented the creation of more and better jobs by small firms that could absorb the growing labor force and, which in turn, have implications for income generation and poverty levels.

Figure 40. **Main Constraints for the Private Sector**



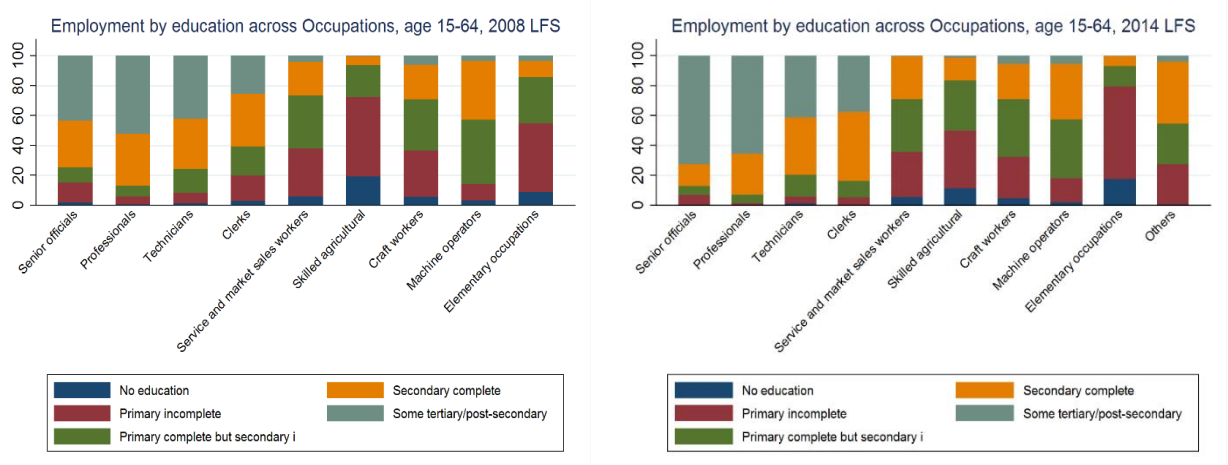
Source: World Bank Enterprise Surveys.

121. **Formal sector wage job creation on commercial farms and in agro-processing, light manufacturing, and tourism could be faster if Zambia expanded non-mining exports and became more competitive with food and agro-based exports.** Food and agro-based exports and livestock already account for about half of all non-mining exports. These are labor-intensive products, and as a landlocked rural economy, Zambia needs to be competitive in selling rural produce to its cities and its neighbors. Better transport logistics, faster cross-border trade, consistent and market-based product standards, and more competition in input and product markets can make the economy more competitive and can increase export demand and import substitution, and so create more, better jobs (World Bank 2017a). This requires a more supportive business-enabling environment, strengthened by a more conducive legal framework and stronger regulatory capacities. Zambia could improve its commercial justice, trade regimes, contract enforcement, and business and property registration.

122. **Education is the single most important determinant of labor force participation and higher earnings.** Having some primary or secondary education (even if incomplete) increases the probability of employment by 4 percent compared to having no education. Having some tertiary education increases the employment probability by 5 percent, but increases the worker's earnings by much more as labor markets in Zambia pay high wage premiums, particularly after the attainment of primary education levels (figure 41). Having no education seriously hinders a worker's ability to find work, and so for a rural person living on a subsistence farm, this would be a recipe for being trapped in poverty.

123. **Those with skills (education level as its proxy) are more likely to benefit from the economic transformation under way in Zambia's growing economy.** Unskilled people are more likely to work in agriculture, and the proportion of those with no education or incomplete primary education in elementary occupations has increased. In agriculture, the share of workers with completed primary and some secondary education has increased over time, suggesting that formal waged work in agriculture is increasingly demanding higher education levels from its workers.

Figure 41. **Education and Occupation**



Source: World Bank 2017a.

124. **Wage earnings have been rising for those with secondary education and above, and the differential earnings have widened for those with tertiary education.** An analysis of the rate of returns to education as part of an education Public Expenditure Review (PER) in Zambia shows that the current labor market pays high wage premiums, especially after primary. Most countries exhibit this pattern, but

in Zambia, the premiums of 12.6 percent (return to another year of schooling) are higher than the world average (9.7 percent) (Montenegro and Patrinos 2014). Compared to workers with no education, workers who at least enrolled in grades 1–7 (any grade between 1 and 7) gain 16 percent higher salaries if they are male and 6 percent higher salaries if they are female. The wage premium increases dramatically to 80 percent and 107 percent for men and women, respectively, in the case of grades 8–12. This means that female workers with grades 8–12 earn, on average, a salary that is twice as high as that of workers with no education (figure 42). Higher rates of returns to education even happen for self-employed agricultural workers: A-level holders enjoy more than twice the earnings of non-educated agricultural self-employed workers (figure 43).

Figure 42. **Rate of Returns to Education among Wage-Employed Workers (by Gender)**

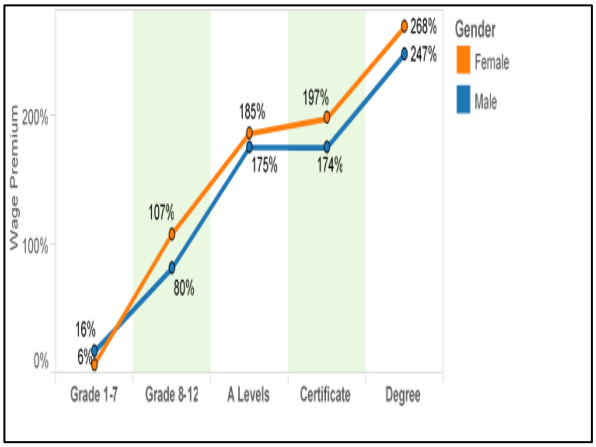
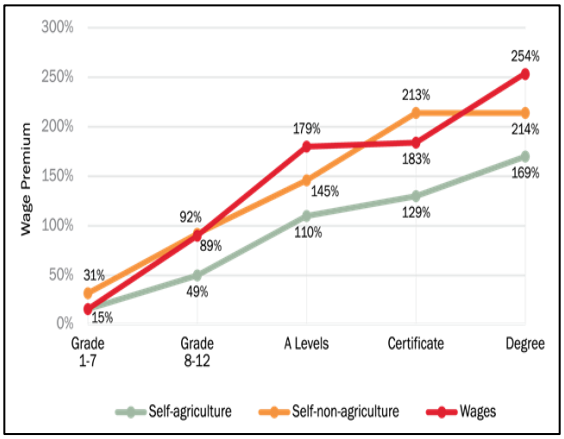


Figure 43. **Rate of Returns to Education by Type of Employment**



Source: Authors' analysis using Labor Force Survey 2012.
Note: The number of workers includes only those whose wages or imputed wages are observed. Imputed wages for self-employed workers are self-reported net profits from the main business.

5.2.3 Urbanization Pressures in Cities

125. **Urbanization presents both an impetus and pressures on growth.** Well-managed urban growth is typically supportive of structural transformation through productivity gains and the spillover benefits of competition and knowledge sharing (IGC 2016). However, these processes are not automatic. Poor planning, inadequate governance, environmental damage, and increasing exposure to climate risks can lock cities into dysfunctional forms that set development back decades. The growth of Zambian cities has accelerated rapidly since the mid-2000s, but there has been an absence of proper urban planning. This means that many of the benefits of cities are not being realized. The rapid urbanization has led to overcrowding and a population that is underserved by basic services in the large towns and cities. Zambia is heading toward more congested and unproductive cities, as opposed to competitive cities and secondary towns.

126. **Zambia's cities are not coping with fast-rising infrastructure needs.** Within urban areas, demands have outpaced service supply, leading to no improvement of the share of the urban population with access to improved water and sanitation since 1990. In 2013, it was estimated that 32 percent of residents in Lusaka had access to piped water, compared to 37 percent in Copperbelt Province and only 15 percent in rural areas. Similarly, only 61 percent of residents of Lusaka had access to electricity in 2013, compared to 45 percent of residents of Copperbelt and 20 percent of residents in rural areas. This deficiency in basic

infrastructure risks is a constraint on economic diversification into tradable goods and services. Indeed, firms are not likely to locate in areas where there is no space or no electricity or where transport costs are high due to congestion. Workers that travel long hours would need to be paid more to compensate for high urban costs, dampening competitiveness. Fast population growth has placed increasing pressure on the city's basic services and infrastructure, resulting in an expansion of informal settlements and falling living standards along several metrics.

127. **The fragmented spatial form of Zambia's cities hinders agglomeration.** Urban form, the way cities are built and spatially organized, significantly shapes urban costs, such as transport and rent, which in turn define urban functions and productivity. Most African cities that assume a spatially dispersed form can easily become locked in. Zambia's urban form possesses such typical fragmentation, where structures are scattered in small neighborhoods, with insufficient transport systems that present workers and households with higher living costs. This denies workers access to jobs throughout the larger urban area, ultimately transferring the cost onto firms that would expect lower returns. Agglomeration economies cannot be realized when people and firms are disconnected from each other and from economic opportunity. Further, the higher cost of living in African cities is related to their lack of dense spatial form and infrastructure connections.

128. **The lack of agglomeration is reflected in average size of firms.** Most firms in Zambia have less than five employees. The Zambia Establishment Register 2011, from the CSO, shows that in Lusaka, 72.2 percent of firms employ less than five employees, among which 35 percent are self-employed workers. These small firms bid up the share of firms producing non-tradable goods and services in Zambia's cities. In Lusaka, 77.5 percent of firms are active in that sector, but they only employ 52.2 percent of workers, suggesting that most of the non-tradable sector firms have a smaller number of employees than the ones of the remaining sectors. In the Ndola and Kitwe Districts, home of the mining firms, the tradable sector is more important and accounts for 56.8 percent and 53.2 percent, respectively. There are also more large firms (30 percent employ more than five employees). Around 10 percent of the labor force is employed in the mining sector in both districts. In Livingstone, located close to the Victoria Falls, 20 percent of its labor force is employed in hotels and restaurants.

5.2.4 Difficult and Costly Access to Finance, Especially for SMEs and the Rural Population

129. **Financial inclusion has increased substantially over the past five years, but disparities remain.** Based on Findex, between 2011 and 2014, the percentage of adults with an account at a formal financial institution increased by 15 percentage points. This is equivalent to an increase of 1.2 million unique accounts.[19] The Zambia Finscope survey measures financial inclusion in terms of access and usage of both informal and formal financial services and has similarly recorded a large increase: between 2009 and 2015, access and usage increased from 37 percent to 59 percent of adults.[20] Despite this increase, access to formal financial services remain low at 38.2 percent of adults, and thus, the vast majority of individuals and SMEs remain unserved or underserved by the formal financial sector. In addition, significant disparities remain in that financial inclusion is more prevalent in urban areas, among higher-income populations, with salaried workers, and among men. According to Findex, 33 percent of women have access to a bank account compared to 38 percent of men. Further, the use of formal saving and borrowing

[19] Findex measures the percentage of adults within a country that have an account at a formal institution.
[20] Finscope defines financial inclusion as: "People access and use appropriate financial services, such as savings, credit, insurance, and transfers, whether formal or informal."

products is extremely limited. For instance, only 5 percent of individuals (5.5 percent of men and 4.1 percent of women) are borrowing from a financial institution.[21]

130. **Financial access points are highly concentrated in Lusaka and a few other densely populated urban centers along the main trade corridors.** Many Zambians live in sparsely populated rural areas. In contrast, over 60 percent of all commercial bank branches are in Lusaka and Copperbelt. Zambia's low population density makes reaching rural low-income individuals especially challenging. Based on IMF's 2016 Financial Access Survey, Zambia has a lower overall density of financial access points of 7.0 per 10,000 adults compared to South Africa, Botswana, Kenya, and Zimbabwe. The limited reach of microfinance institutions and Savings and Credit Cooperatives (SACCOs) in Zambia relative to comparable countries may also contribute to a much higher rate of financial exclusion (41 percent) in Zambia than in, for example, Tanzania (26 percent exclusion as of 2013) and Uganda (15 percent exclusion as of 2013)—despite similar historical regulatory frameworks across these three countries.

131. **Despite Zambia's sparse rural population, the adoption and expansion of mobile money has been slow.** The promise of mobile money is high in a low population density country with a large unbanked rural population and a mobile penetration rate of 52 percent. However, as of 2015, only 250,000 of the 8.5 million unique mobile subscribers are active monthly mobile money users. Thus, mobile money has played a very limited role in the growth of financial inclusion in Zambia unlike other countries in Sub-Saharan Africa. The reasons for this include insufficient investments and risk appetite of mobile network operators, inadequate product design, lack of a low-income remote area strategy, low levels of consumer education, and a poor telecommunication and electricity network.

132. **Exclusivity has led to slow growth of agents as a delivery channel in Zambia.** In recent years, the use of agency banking has been deployed as a strategy by banks in Zambia to expand service networks. Most access points in Zambia are mobile money outlets with relatively low penetration, particularly in rural areas. Based on the 2016 Helix Institute of Digital Finance Study, relative to six other leading mobile financial service markets (Kenya, Tanzania, Uganda, India, Pakistan, and Bangladesh), agents in Zambia are well trained, but Zambia has the highest percentage of exclusive agents, because 91 percent of the agents work exclusively with just one provider. The exclusivity coupled with limited motivation and low profitability of agents appear to be key determinants of the slow growth of this delivery channel in Zambia.

133. **The lack of consumer understanding and confidence in financial institutions has been identified as one of the causes of financial exclusion in Zambia.** The 2016 World Bank Financial Capability survey demonstrates that many adults are not aware of the basic financial products and services that are critical to expanding financial inclusion in Zambia. For instance, 54 percent of adults who do not use mobile money services have never heard about them and 88 percent of uninsured adults report having never heard about insurance. Overall, just 36 percent of adults are familiar with products from at least five out of nine provider types. The same survey shows that choosing financial products and services that fit their needs best appears to be a challenge in Zambia, because just 23 percent of adults report having availed the terms and conditions of financial products before purchase. This is likely due to lack of transparency and adequate disclosure of key pricing and non-pricing information in the financial sector. Other key gaps in the current financial consumer protection regime, which may affect consumers' trust and confidence in the financial sector, include the lack of minimum standards for complaint-handling mechanisms, independent external dispute resolution mechanisms to escalate unsatisfied complaints, and prevailing

[21] The Global Findex Database 2014. http://www.worldbank.org/en/programs/globalfindex.

unfair business practices by financial services providers such as abusive debt collection practices or the absence of cooling-off periods for relevant products.

134. **Financial infrastructure constraints also restrict the reach of the formal financial sector.** The legal and regulatory framework continues to have significant gaps. The National Payment Systems (NPS) Act does not cover electronic payment instruments. The nonbank financial institutions and service providers continue to be excluded from the Zambia Electronic Clearing House, hindering their ability to provide electronic payment products to their customers. Interoperability has not yet been achieved due to delays in the implementation of the National Switch.

SME Access to Finance

135. **Access to finance for SMEs is severely constrained.** Only 9 percent of all enterprises and 8 percent of SMEs in Zambia had a loan in 2013. This is down from 2007, when the averages were 16 percent and 13 percent, respectively. These rates are much lower than the average for Sub-Saharan Africa at 23 percent for global enterprises and 17 percent for SMEs. The percentage of firms choosing access to finance as the most important obstacle for their day-to-day operations increased significantly from 14 percent in 2007 to 27 percent in 2013. Not surprisingly, given the several factual indicators on access to finance presented above, access to finance is currently the most commonly chosen top obstacle (and is listed as the major constraint by 28 percent of firms).

136. **Access to finance for SMEs is limited due to informality, high collateral requirements, and poor bank lending tools.** SMEs easily outnumber larger firms and account for more than 94 percent of registered Zambian firms in 2012, according to the 2013 Enterprise Survey. However, most firms are informal in Zambia, and the reasons for this include limited access to registration centers and the lack of perceived tangible benefits to formalization—rather than simply tax avoidance. This preludes many from access to finance, in addition to the difficulties meeting documentation requirements. Collateral requirements are high, and most commercial banks have focused on corporate clients and do not have the requisite SME lending skills. Consequently, the role of the formal banking sector to finance SMEs is extremely limited, because less than 15 percent of firms use banks to finance their investments (less than 10 percent of firms use banks to finance their working capital). The ongoing government reforms on secured transactions, insolvency, and credit reporting need to be fully implemented to reduce the cost of borrowing and encourage more formalization within the SME sector.

137. **Lack of reliable identification for a large portion of the population, including the most vulnerable, hampers access to credit, services, and rights.** A proper national identification system, based on reliable information such as biometrics, will encourage civil registration and provide the right people with the right access at the right time. The very low rate of identification of the most vulnerable communities facilitates social welfare fraud. It also prevents access to credit and lands, because financial institutions have limited ways to validate the asset ownership of potential borrowers.

5.2.5 Unreliable Power Supply and the Slow Pace of Rural Electrification

138. **Electricity demand growth has outpaced generation capacity expansion.** While electricity demand in Zambia has been growing at an average rate of 4 percent per year, generation capacity expansion has not been able to keep up, and technical losses (about 12 percent of total dispatch) stretched and narrowed transmission and distribution networks, leading to power shortages. This was exacerbated in 2015 and 2016 when, due to lower-than-expected rainfall, water levels in the country's

main hydropower reservoirs dropped significantly, leading to substantial power supply shortages. Firms experience on average 5.2 power outages per month, that last on average 2.1 hours. About 6 percent of annual sales are lost because of power outages and 27 percent of firms own or share a generator (2013 World Bank Enterprise Survey). Further, although Zambia is endowed with significant resources for power generation, no new plants were commissioned between 1977 and 2014. This was due to a period of excess capacity that lasted until the early 2000s when demand began to catch up with supply.

139. **The poor financial position of the electricity sector, the lack of an adequate planning and procurement framework, and an overall high-risk environment made new investments in generation difficult.** It is only recently, with the commissioning of the 360 MW Kariba North Bank Extension in 2014 and the 120 MW Itezhi-Tezhi Hydro and 300 MW Maamba Collieries power plants, both commissioned in 2016, that new generation plants have been brought on stream. The recently signed scaling solar program should enable Zambia to tap into its tremendous solar potential (on average 2,000–3,000 hours of sunshine per year with average irradiation of 5.5 kWh/m^2/day) to generate up to 600 MW in the medium term. Despite the installed capacity now being higher than peak demand, plant availability, reserve requirements, and variable hydrological conditions mean that the risk of power shortages remains.

140. **Power outages affect firm productivity significantly, and electricity shortages are a major concern for light industry and agro-processing.** Recent work looking at the economic impact of unreliable power supply in 15 Sub-Saharan African countries finds significant negative effects of electricity shortages on firm revenue and productivity. This survey contains data on firms' attributes and the major constraints to doing business. For Zambia, a 1 percent increase in the intensity of power outages results in a decline in firm revenue and productivity by approximately 1 percent. While Zambian firms are among the least affected in this sample, it is worth noting that such calculations took place before the massive power shortages since 2015. In response to power shortages, firms are forced to invest in self-generation, presenting significant additional cost, especially for smaller firms (Foster and Steinbucks 2009). A World Bank Enterprise Survey of 720 firms,[22] conducted between December 2012 and February 2014, showed that 27 percent of firms owned or shared a generator and the remainder of the firms experienced losses, due to power shortages, that averaged approximately 7.5 percent of annual sales. Data from the survey also reveal that the third most important obstacle to operations reported by private firms in Zambia is the lack of access to electricity.

141. **Access to electricity, especially in rural areas, is strikingly low.** The overall national electricity access rate, defined as a connection to the grid, is low at 31 percent.[23] More than 67 percent of the population in urban areas, and only about 4 percent in rural areas, has access to electricity.[24] While the overall access rate in Zambia has been steadily increasing, rural access has stagnated at 4 percent. Significant progress in increasing access for urban households has been achieved due to several factors, including a clearer institutional mandate of ZESCO Ltd., more commercially attractive consumers with higher use of electricity per capita, more widely available transmission and distribution network infrastructure, and interest from the development community, including World Bank-funded connection subsidy programs. As part of the national strategy document, Vision 2030, the Government of the Republic of Zambia (GRZ) has set electrification targets at 90 percent for urban and 51 percent for rural areas to be reached by 2030. However, at the current pace, these targets are not expected to be achieved.

[22] World Bank Enterprise Surveys. Available at http://www.enterprisesurveys.org/data/exploreeconomies/2013/zambia.
[23] In addition, 4.6 percent of households have access to lighting energy through solar photovoltaic (PV) systems.
[24] Electricity access is defined in the national living conditions survey as access to the national grid. CSO, LCMS 2015.

142. **Low population density makes increasing access in rural areas more challenging.** Electrification initiatives have focused on urban and peri-urban areas where the combination of a high population density, existing networks, and higher per capita energy use would lead to lower unit costs per connection and would increase the likelihood of financial sustainability. In rural areas, however, Zambia has one of the lowest population densities in southern Africa. In addition, affordability of the connection fees for grid access remains a major barrier for the rural population. Given Zambia's high rates of poverty, the current grid connection fee and the requirement that it be paid up front, present a significant barrier to access even in areas where the grid exists. Scaling up rural access will require a revision of the rural electrification approach and instruments, including an update of the country's Rural Electrification Master Plan and the development of a National Electrification Strategy (NES), based on recent technological innovations and successful private sector driven rural electrification alternatives. Inadequate and unpredictable public funding for rural electrification has also affected the pace of electrification, and private sector participation in the provision of access has been limited, mainly due to inadequate access to finance and a nascent enabling regulatory environment.

143. **Weak institutional capacity for Public-Private Partnership development reduces the scope for mobilizing private finance for infrastructure investment.** There are shortcomings with monitoring, a lack of harmonization between various government levels and agencies, and the lack of a strategic project pipeline. Despite having a relatively sound legal and regulatory environment, only a handful of Public-Private Partnership projects have been implemented in Zambia. Almost half of them have either been canceled or are inactive due to inadequate risk allocation and disputes over whether due process was followed. Government agencies have differing levels of experience in implementing public-private partnerships, with the power sector having had some success (for example, Itezhi-Tezhi).

5.2.6 Poor Road and ICT Connectivity

144. **Poor road, rail, and logistics infrastructure and connectivity hinder Zambia's trade with regional and global markets.** Although landlocked, Zambia has eight neighbors and numerous corridors through which to export and import products. Road haulage is the dominant mode of transport for Zambia, carrying close to 97 percent of dry goods in the country. Yet, production activities in Zambia are geographically concentrated in the Copperbelt, the central corridor, and Eastern Province. Consumption (final), on the other hand, is comparatively concentrated in urban areas or villages, with Lusaka and its vicinity as the main gravity center and medium-size cities as regional centers. Logistically, additional regional cities play a distinctive role by serving as distribution points for the local markets and even as export points to the neighboring countries in some cases. These features, accompanied by large distances to geographically dispersed cities and towns, make distribution a challenge. At the same time, Zambia's two main railway systems have, in common, a long-running trend of losing traffic over the past three decades.

145. **There has been a marked shift in freight volumes from rail to road, partly attributable to unreliable services.** This has followed poor management, the inadequate use of assets, and poor costing practices. Air transport is only used for high-value mineral products such as cobalt, gemstones, and a few horticulture and floriculture products. Even as overall traffic has increased, connectivity (measured by the number of city pairs served) has declined from 35 to 25 in recent years. However, through regional hubs (Johannesburg, Nairobi, and Addis Ababa) and international hubs (Dubai, London, and Amsterdam), Zambia is well connected to regional and global markets by air (World Bank 2014).

146. **Connectivity within Zambia is a significant challenge to growth, with most rural people not having good access to the road network.** According to the rural access index (RAI), the share of the rural population that lives within 2 km (20 minutes walking distance) of a road in good condition is estimated at 17 percent. This leaves about 7 million people in the country unconnected. In rural areas, it takes more than 1 hour to travel to the nearest input market for fertilizer, seeds, and so on. The average distance is 20.9 km in rural areas and 3.4 km in urban areas. Clearly, rural farmers lack good access to markets.

147. **Rural communities have insufficient access to markets and public transportation and an underprovision of public services.** This has discouraged the growth of secondary towns, which are often poles for economic growth. The employment and poverty reduction potential of the rural nonfarm sector has been found to depend on the impact of the farm-nonfarm links and urban-rural links.

148. **Zambia has one of the longest road networks in Africa relative to either its population or GDP.** It has made gains in improving the quantity of infrastructure, though many parts of the country remain isolated. This means network maintenance is costlier per person or as a percentage of GDP. In addition to the high costs imposed by Zambia's physical geography, the prioritization of the repair of roads—many of which fell into disrepair during the fiscal crisis of the late 1990s—has been weak or politically driven. Funding has generally been spread too thinly and hence wasted on poor quality, short-lasting roads (DFID 2015).

149. **The quality of rural roads in Zambia is an additional constraint to connectivity.** While Zambia's trunk and main road network is well maintained, most of the feeder roads are in poor condition. Following the government's efforts in the last decade, trunk roads (3,116 km), main roads (3,701 km), and district roads (5,597 km), which provide international and major domestic connectivity, are mostly in good condition. However, these roads account for only a fraction of the total network. In recent years, the quality of the feeder road network composed of primary feeder roads (14,333 km) and secondary and tertiary feeder roads (about 27,000 km) has been deteriorating. The proportion of primary feeder roads in poor condition increased from 77 percent in 2011 to 82 percent in 2014. A significant amount of resources would be required to rehabilitate the feeder road network and meet the existing gap in rural accessibility in the country. Using the standard cost of road rehabilitation in Zambia,[25] about US$1 billion would be required to rehabilitate all district roads in poor condition, and another US$1.3 billion for primary feeder roads. This accounts for nearly 10 percent of GDP of Zambia. In addition to the high costs imposed by Zambia's physical geography, the prioritization of road investments and the maintenance of roads—many of which fell into disrepair during the fiscal crisis of the late 1990s—is not sufficiently robust to address rural connectivity objectively. This severely hampers logistics. Therefore, Zambia lags behind comparable landlocked countries in Sub-Saharan Africa in the World Bank's Logistics Performance Index, driven by a poor score for infrastructure and customs.

150. **Because of the low coverage and quality of roads, rural communities have poorer access to markets, social facilities, and public transportation services than urban populations.** According to LCMS 2015, about half of the rural population live more than 20 minutes walking distance from the nearest public transportation facility. The average distance is 6.1 km in rural areas, compared to 0.7 km in urban areas. Similarly, in rural areas, it takes more than 1 hour to reach the nearest input market (fertilizer, seeds, and so on). The average distance is 20.9 km in rural areas and 3.4 km in urban areas. Clearly, rural farmers lack access to markets.

[25] The unit cost of rehabilitating an unpaved road is assumed to be US$125,000 per km.

151. **Access to reliable ICT services is limited and sometimes nonexistent in rural areas.** With a penetration rate of mobile services of around 67 percent and Internet usage around 17 percent of the population, Zambia lags behind the rest of Africa (90 percent and 24 percent, respectively). Only 78 percent of the population is covered by mobile services, mainly concentrated in urban areas, leaving large portions of the country without access to communications. Even in areas with coverage, the poor quality of service delivery prevents the population from benefiting from value-added services such as access to market prices for producers, financial inclusion through mobile money, and many e-agriculture services that proved to be an efficient way to increase revenues and rural communities' resilience.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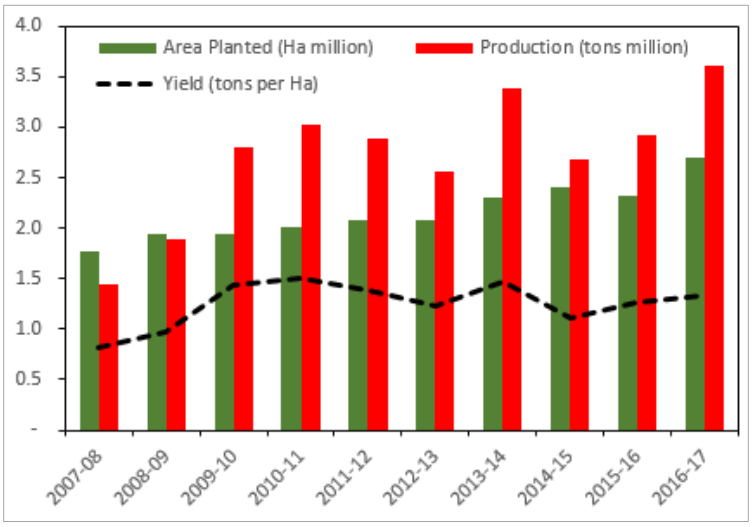
CHAPTER 6: WHAT IS CHALLENGING INCLUSION?

6.1 Small-scale Farmers' Low Agricultural Productivity

152. **Maize is the dominant crop in Zambia, and its increased production over the past 10 years has been driven by an expansion in the area planted.** Most farmers are smallholder farmers who are mainly producers of staple crops with occasional marketable surplus. Maize yields have improved only modestly (figure 44), and they are lower for poorer households (at 1.9 t/ha compared to about 2.8 t/ha among non-poor households). Although the yields are higher than many other countries in the region,[26] they remain far below the projected yield potential of 6 t/ha (FAO 2014).

153. **No country has sustained a rapid transition out of poverty without first raising agricultural labor productivity (Timmer 2005).** Higher agricultural production through increases in the area cultivated or more intense cultivation can increase the demand for farm labor, which can in turn lead to higher wages. Increased agricultural output can also decrease food prices to the benefit of net food buyers, which in rural Zambia are over a third of households (IAPRI 2015). Finally, increased agricultural production creates consumption links with the rural, nonfarm economy, because farmers and farm laborers spend increased incomes on goods and services. This rural demand for other goods and services in turn encourages structural transformation and creates jobs outside of agriculture.

Figure 44. **Maize: Production and Yield**



Source: CSO.

154. **What explains the low productivity of agriculture in Zambia?** Agricultural growth has been largely accounted for by a limited number of commercial producers that have been able to integrate well in national and international markets and that benefit from the FISP and the FRA, the two main spending

[26] According to FAOSTAT (2017), the 2014 maize yields were in Angola 1 t/ha, Botswana 2.4 t/ha, Democratic Republic of Congo 0.7 t/ha, Malawi 1.6 t/ha, Zimbabwe 0.63 t/ha, and South Africa 5.3 t/ha.

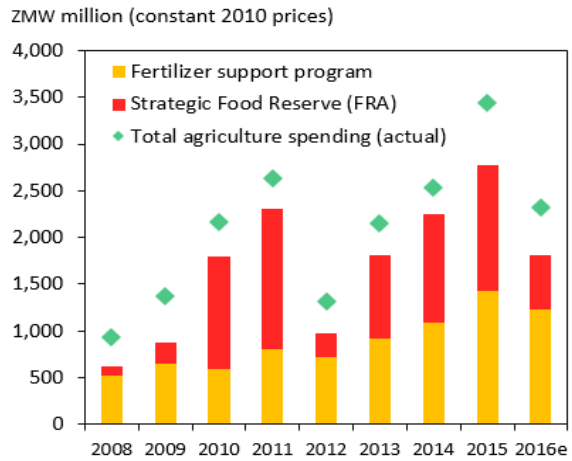
programs in agriculture. By contrast, a vast group of people live in a parallel semi-subsistence world characterized by a lack of access to key productive assets and market opportunities, leading to hunger, undernourishment, and malnutrition rates in Zambia, which are among the highest in the world.

6.1.1 Ineffective, Maize-centric, and Badly Targeted Support Programs for Poor Farmers

155. **Two large spending programs dominate the budgetary allocation for agriculture: the FRA and the FISP.** In 2002/03, the GRZ introduced the FISP to improve the supply and delivery of fertilizer and seeds for maize production to farmers cultivating less than 5 ha of land, so as to increase their household food security and incomes through increased productivity. The FISP was originally envisaged as a temporary program to be phased out after three years but, instead, has grown in scale and budget over the last 13 years. During the last five years, except for the 2012/13 season, the FISP has reached more than 400,000 households per year. The FRA is a parastatal, strategic maize marketing board and was established in 1996 as a food reserve. Since 2005, it has also been involved in marketing Zambia's maize, with the aim of contributing to national food security. The FRA buys maize at a pan-territorial price that typically exceeds the wholesale market price in major maize producing areas (Mason and Myers 2013).

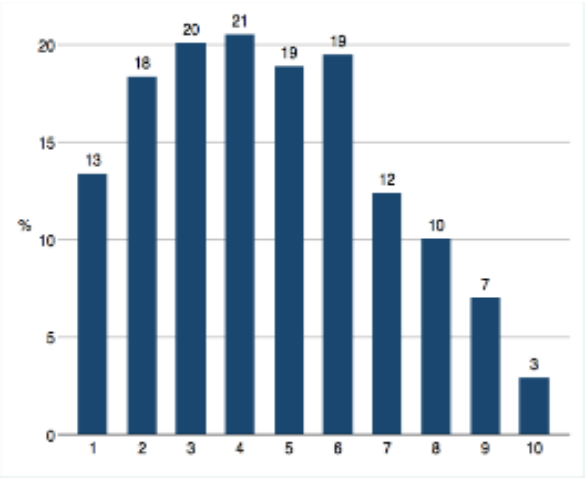
156. **Between 2008 and 2016, the FRA and FISP utilized most of the government spending in the agricultural sector (figure 45)**. The programs have helped to turn Zambia into a structural surplus producer for maize but have not managed to enhance productivity, ensure food and nutrition security, or sustainably reduce poverty. Considering their scope and reach, the FISP and the FRA could, in principle, make a dent on poverty by making available key inputs to a large population of poor farmers and potentially raising their productivity. However, the programs face challenges, and so, reforms are being discussed.

Figure 45. **Public Expenditure on Agriculture**



Source: World Bank 2017c

Figure 46. **FISP Incidence by Deciles, 2015**



Source: de la Fuente, Rosales and Jellema, 2017

157. **Both the FISP and the FRA have only incentivized maize production.** This has increased the maize area as a share of the total area planted (Jayne et al. 2016). The emphasis on maize production has three adverse consequences. First, returns to maize production per unit of land are low compared to horticultural and high-value crops (Hichaambwa, Chamberlin, and Kabwe 2015). Second, non-diversified systems tend to be more vulnerable to climate and market variability. Maize is particularly susceptible to drought, and in bad years, the prices (pushed up by food shortages) paid by poor households in terms of

their income may be very high. Third, the nutrition outcomes of such systems are often poor: there may be enough caloric intake, but also undiversified diets lacking proteins, vitamins, and minerals that may reinforce stunting and other nutritional outcomes.

158. **While the FISP has raised maize yields, the effects have been modest.** Participation in the program raises maize production by 188 kg of maize per 100 kg of FISP fertilizer, which is considerably smaller than similar applications in other countries, like Kenya, where participation in a similar scheme, National Accelerated Agricultural Inputs Access Programme (NAAIAP),[27] raises maize production by 361 kg on average, other factors constant (Mason, Jayne, and van de Walle 2016).

159. **Many inefficiencies have been documented in the implementation of the FISP.** For example, inputs often arrive too late (and frequently after the start of the rains) and farmers do not often get the resources they expect. RALS 2012 found that 21.5 percent of all FISP recipients reported receiving their fertilizer after the optimal planting time. Receiving fertilizer on time was estimated to be positively correlated with a household's wealth, kinship ties, or proximity to the distribution points. The same study estimated that late delivery results in a maize yield loss of 4.2 percent and a loss in maize production on a national level of 84,000 t, which is 21 percent of the total cost of the FISP (Namonje-Kapembwa, Black, and Jayne 2015).

160. **Low soil fertility is another limiting factor for fertilizer efficiency—farmers with poor-quality soil do not achieve the maximum yield benefit from fertilizer subsidies.** Soil quality has a significant impact on crop response to fertilizer application. Nitrogen application on carbon-deficient soils (low soil organic matter) has been shown to be inefficient and economically unprofitable (Marenya and Barret 2009). A study on maize yield response to fertilizer application in Zambia showed limited maize yield response to basal fertilizer application on highly acidic soils—which represent most farms in Zambia (51 percent of farms classified as highly acidic with pH < 4.3 in the study) (Burke 2012). Participants of the FISP receive a prescriptive fertilizer recommendation of 200 kg of both Compound D and Urea per hectare, regardless of their locality. Given the variation in soil properties, blanket fertilizer recommendations or even liming may not be well suited across the entire country and may lead to wastage, economic loss, environmental hazard, or a suboptimal yield response (Chapoto, Chabala, and Lungu 2016).

161. **Corruption has also led to the diversion of resources before the benefits reach the targeted or non-targeted groups.** Corruption is a widespread problem in input subsidy programs in African countries, and Zambia is no exception. Diversion, measured as the difference between what was supposed to be allocated and what was received by the targeted population, is estimated to be around 38 percent in Zambia (Mason and Jayne 2013). The leaked subsidies primarily end up being sold on commercial markets. Because the targeted groups of these transfers are small-scale farmers, this level of corruption has a huge impact on aggregate pro-poor spending.

162. **The targeting of the FISP is not pro-poor, despite often being advertised as a poverty reduction program.** According to LCMS 2015, around 410,000 households received the FISP during the 2014/15 season. Households from the third to fifth deciles received most of the benefits, while even the higher-income quintiles benefit from the program (figure 48). On average, relatively large farmers receive more of the inputs, even though the objectives of the input programs are to support the 'vulnerable but viable' smallholder farmers in Zambia (Mason et al. 2013).

[27] Receipt of 100 kg of fertilizer and 10 kg of improved maize seed if a household obtains a full input pack.

163. **A much-discussed reform idea has been the use of an electronic voucher (e-FISP).** Zambia piloted the e-FISP in 13 districts during the 2015–16 season and 39 districts during the 2016–17 season (box 5). The e-FISP provides farmers with a debit card, with the farmer and government contributions uploaded, that can be used to pay for available inputs of the farmer's choice. The 2017 Budget Address announced the full migration to the e-FISP in 2017, with the aim of reducing "excessive overheads and wastage associated with the current FISP arrangement." This move is welcome not only because it will be more efficient (following a reduction in costly procurement and transportation), but because it will also allow farmers greater choice in the inputs they use, and hopefully what they intend to produce, thereby allowing government support to the sector to be less maize-centric.

Box 5. **The Electronic Voucher FISP**

The e-FISP has the following objectives:

- Reduce public expenditure on the delivery of inputs.
- Crowd in more private sector participation in agro-input distribution, thereby promoting competitiveness and transparency in the supply and distribution of inputs.
- Ensure timely delivery and access to inputs by smallholder farmers.
- Provide farmers with the freedom to choose inputs of their choice, thereby promoting agricultural diversification.
- Reduce the misappropriation of funds and increase the number of intended beneficiaries by linking the e-cards to a farmer and their National Registration Card (NRC).

The pilot is associated with the following achievements when compared to the standard FISP:

- A comparison of implementation costs between the e-voucher and the conventional FISP showed that the government could make a significant number of savings by implementing the FISP through the e-voucher, because there are no procurement, transportation, storage, and handling costs involved.
- Participation by the private sector in input distribution to rural farmers increased by 83 percent, from 230 agro-dealers during the 2015/16 farming season to 422 during the 2016/17 season.
- Although farmers were still biased toward redeeming fertilizer and maize seed, the system encouraged agricultural diversification. For instance, in the livestock-rich areas such as Southern Province, about 10 percent of the households reported purchasing veterinary drugs and dip chemicals, and another 5.5 percent redeemed their vouchers for insecticides and herbicides.

However, the pilot also faced challenges. Delays in launching the program for the 2016/17 season due to late government funding had some significant consequences, such as the e-cards being distributed late (toward the end of December 2016). This meant that farmers were unable to redeem inputs ahead of the growing season.

Source: Kuteya and Chapoto 2017.

164. **Buying maize through the FRA does not support the poorest either.** With the intention of helping all smallholder farmers, the government spends huge amounts of public funds in supporting the maize market. Between 2004 and 2011, the FRA purchased between 30 percent and 86 percent of the maize marketed by smallholders, at a price which is typically higher than the wholesale price. However, on average, only about 28 percent of farmers are net sellers of maize; the remaining 72 percent either buy more maize than they sell (49 percent) or neither buy nor sell maize (23 percent). In fact, 50 percent of the marketed maize is sold by 3–5 percent of farmers who have more land and non-land assets than other smallholder farmers. In the 2010/11 season, the FRA bought more than 80 percent of expected smallholder maize sales.

165. **Many poor farmers are maize net buyers, given the low returns from maize.** The high maize prices thus hurt the urban consumers and smallholders that are net buyers of maize. An IAPRI study shows that the proportion of net buyers of maize is the highest among the extremely poor households, about 37

percent compared to 29 percent among non-poor households (IAPRI 2016). When the FRA raises the maize floor prices (by often purchasing crops above the market price), it not only affects urban consumers, but also about 37 percent of the poor households who are net maize buyers. The price-stabilizing effects of the FRA policies are regressive, because they disproportionately benefit relatively better-off households and have negative net effects on relatively poor households (Mason and Myers 2013).

Box 6. **Political Economy of Maize Production**

Zambia's agricultural policies have traditionally focused on food security. The past and current agriculture policies in Zambia are maize-centric. The political importance of maize can be traced back to the postindependence period where the legitimacy of the single-party state was in many ways predicted on closing the income gaps between rural and urban populations, by ensuring cheap maize supplies to urban wage earners and high maize prices to farmers. The food riots of the late 1980s, which led in part to the lifting of the ban on political parties, provided a political rationale for maintaining a large state presence in the maize sector. Maize production and marketing are thus at the core of the agriculture policies through the provision of input and output subsidies, under the FISP and the FRA, respectively (Chapoto et al. 2015).

There are several powerful lobby groups in the maize sector, including the Zambia National Farmers Unit, Millers Association of Zambia, Grain Traders Association, Nitrogen Chemicals Zambia, and other fertilizer companies, that have shaped the policy decisions regarding the FISP and the FRA. However, new emerging groups not benefiting from the FISP seem to have aligned interests around the FISP reforms, including the e-voucher system. The rural smallholder farming community represents the largest voting bloc in the country and the key to winning the rural vote. The regression analysis conducted by Mason, Jayne, and van de Walle (2016) shows a positive correlation between the targeting of the fertilizer subsidy programs and core support constituencies. Another study showed that an election year sees the increased involvement of the FRA, which purchases about two times more maize than in other years. The government purchased about 46 percent and 38 percent more maize in the year before and after the election, respectively, than in other years (CUTS International 2016). Changes in the scale or coverage of Zambia's fertilizer subsidy programs, however, do not appear to have affected voting patterns. To the extent that this is related to the poor performance of agriculture programs, it offers an opportunity for reform.

6.1.2 Insufficient Investment Beyond Inputs (Neglecting, for example, Irrigation, Feeder Roads, and Research)

166. **Stagnating agricultural productivity might also be related to Zambia's weak rural investment climate.** While agriculture productivity growth stalled, Zambia did not achieve any progress in terms of machinery, irrigation, and fertilizer use (figure 47). Machinery use is particularly low, even with respect to Sub-Saharan Africa. The World Bank Enabling the Business of Agriculture report attempts to benchmark rural investment climates. In the case of Zambia, it appears that the country's agriculture sector lags with respect to comparable economies in terms of machinery, access to finance, and transport (figure 48).

Figure 47. **Use of Agriculture Technology**

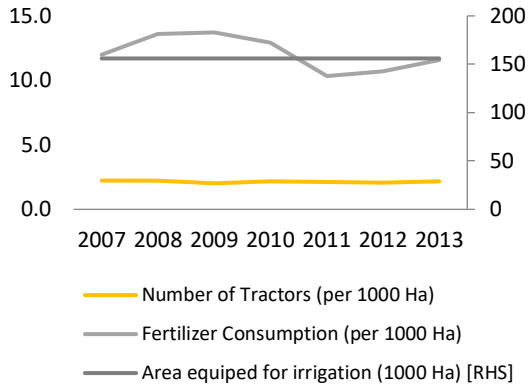
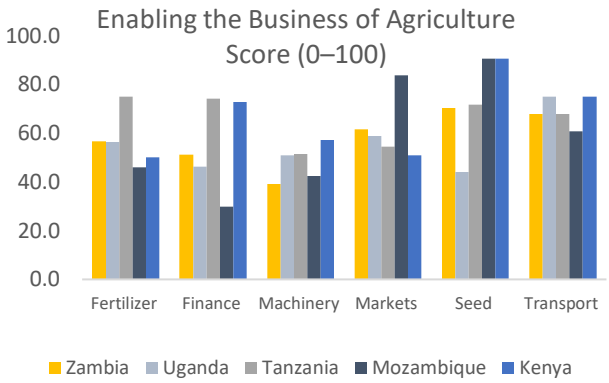


Figure 48. **Investment Climate**



Source: World Bank 2017f.

167. **An exclusive focus on fertilizer subsidies could fail to deliver huge dividends.** For Zambia, a multi-country analysis (that also included Kenya and Malawi) showed that for subsidized fertilizer, the ratio of benefits to cost between 2005 and 2010 is generally less than 1—indicating that costs are higher than benefits. Table 7 presents the financial benefit and cost analysis based on the total cost of the subsidy programs. No single year shows benefits exceeding costs.

Table 7. **Cost-Benefit Estimates for Fertilizer Subsidy Programs in Kenya, Malawi, and Zambia**

	2005/06	2006/07	2007/08	2008/09	2009/10	Five-year Total
Kenya	0.800	0.792	0.378	0.631	0.602	0.524
Malawi	0.524	0.622	1.110	0.340	0.435	0.555
Zambia	0.758	0.592	0.370	0.422	0.637	0.523

Source: Jayne et al. 2013.
Note: Financial Benefit Cost ratio of incremental benefits (value of incremental maize output) to total government program costs and incremental farmer costs.

168. **The FRA and FSIP are crowding out necessary complementary investment in the agriculture sector.** In addition to being ineffective in sustainably enhancing agricultural productivity and reducing poverty, the high allocation of agricultural spending to maize-related subsidies and price support (four-fifths on average from total spending in agriculture between 2008 and 2016) is crowding out complementary public investments for strengthening markets, irrigation development, and the introduction and diffusion of new technologies that are important drivers of robust agricultural productivity growth. The composition of spending in agriculture is highly unbalanced. The savings from more efficient and effective agriculture expenditure are not expected to contribute to the pressing need for fiscal consolidation discussed above. Instead, any resources made available from the improved design of interventions are expected to be reinvested into the sector to improve productivity, farming households' livelihoods, and job creation efforts.

169. **Improving productivity and reducing rural poverty requires spending not only on farm subsidies, but also on other complementary investments that are crucial for long-term sustainable productivity growth.** This is evidenced by periods of high productivity growth in Asia and Latin America (Jayne et al. 2016). A review by Fuglie and Rada (2013) tested the contribution of several variables to the agricultural

growth of a sample of 32 countries in Sub-Saharan Africa over the period 1977 to 2005. These variables included agricultural research (international and national) and economic and trade policy reforms—especially those that changed the terms of trade for agriculture, farmer education (proxied by rates of education in the labor force), and irrigation. Improved productivity in Africa is correlated with investments in agricultural research, wider adoption of new technologies, and policy reforms that strengthen economic incentives to farmers. Similar studies on China, India, Tanzania, Malawi, and Uganda report that spending on public goods, such as agricultural research and development, improved connectivity of rural areas, a modernized extension system, and irrigation are associated with high returns.

170. **The productivity of smallholder, rain-fed farming in Zambia could be improved if irrigation schemes to improve water management and water use efficiency were available.** Irrigation is barely used in small-scale crop production, and of the total irrigable land, 70 percent is not irrigated.

171. **Investments to improve smallholders' access to secure tenure rights and financial services could boost their productivity, especially for women.** Zambia has a dual land tenure system consisting of state land[28] and customary land. Officially, leaseholds cover 6 percent and customary lands cover 94 percent of total land area.[29] As such, the customary land tenure system is dominant in Zambia and is mostly associated with rural areas. The law recognizes the rights of customary land holders; however, customary land is governed by unwritten customary practices and traditions. There are no procedures or supporting statutes that explicitly protect customary land rights. The least-productive lands are held under customary tenure by small farmers, while the most-productive land is leased by the large-scale farmers, miners, and urban and tourism developers. FinScope[30] attributed the insecure tenure rights to a lack of accessibility of financial services facilities. Smallholder farmers have been shown as willing to obtain finance when facilities are available. Other constraints include the failure of financial institutions to recognize other forms of assets owned by smallholder farmers as collateral. Smallholder farmers obtaining credit provide little or no collateral for input finance.

172. **In sum, there is recognition that current agricultural policies have failed to achieve broad-based poverty reduction and productivity growth, and so, reforms of the maize-centric agricultural policies are being discussed.** An alternative is that policies and funding can be oriented toward investments in key drivers of agricultural growth that can benefit the rural economy. A range of promising policies to diversify and grow the sector could be to invest in rural infrastructure, sustain investment in agricultural research and development, set up irrigation schemes and practices that present opportunities for addressing climate change challenges, ensure policy consistency in agricultural marketing and trade, and strengthen institutions that foster the development of effective markets and complementary services, such as strengthened extension services and access to credit (Zulu et al. 2016).

[28] State land includes urban areas, historic colonial farms, and railroads.
[29] In practice, the actual area of customary land covers only about 58 percent, because of outside pressure for conversion to leasehold through processes that often remain incomplete. In fact, customary agricultural land is reported to be getting scarcer and may be beginning to affect the access to land and productivity of smallholders.
[30] http://www.fsdzambia.org/wp-content/uploads/2016/05/FINSCOPE-REPORT-2015.pdf

Box 7. **Gender Disparities in Agricultural Productivity**

Women farmers appear to be even less productive than men and are constrained by lower access to a range of productive inputs. Namonje-Kapembwa and Chapoto (2016) find that the technical efficiency of female maize farmers is 7 percent lower than that of male maize farmers and that this gender gap is explained by women's lower access to certain inputs, including agricultural extension services, credit, improved seeds, fertilizer, labor, and land. The study finds that women in female-headed households are especially at a disadvantage, highlighting the fact that women often only have access to certain inputs (for example, land) through men. Evidence from across the region suggests that access to farm labor is a particularly important factor behind gender gaps in agricultural productivity (World Bank 2014). Women's lower access to farm labor may be driven by a few key factors: female-headed households are composed of fewer members than male-headed households (4.3 versus 5.4 - LCMS 2015); women's lower social status may make it harder for them to hire the best workers or to get priority for household labor; and women's lower access to finance may also make it harder to access the best workers. As well as having less access to farm labor, traditional ideas about gender roles mean that women must spend more time on domestic tasks (child care, fuel collection, and water collection), which reduces the time they have available for farming and other income-generating work (Kent and MacRae 2010) and means they have less time to supervise farm labor.

While statutory law provides for gender equality in access to land, 94 percent of land is customary land (distributed per customary laws) that typically only provide women with access through a male relative. This puts women in a weak position, especially in the event of a divorce or the death of a husband: for example, Chapato et al. (2006) find that 27 percent of households headed by widows farmed less than half the area of land they had when their husbands were still alive, with younger widows faring particularly poorly. Evidence shows that weaker land tenure security discourages productive investments in land (such as fallowing), so it is likely to have a negative impact on productivity (Goldstein and Udry 2008).

Women's weaker access to land has a knock-on effect on their access to finance, given the use of land as a key source of collateral. This is compounded in Zambia by the reported (illegal) practice of banks requiring women to show proof of their husbands' consent when applying for loans (Sichikwenkwe 2009). In addition, the limited availability and uptake of instruments such as agriculture insurance, leasing, and warehouse receipts financing that could help reduce risks and collateral requirements significantly affect the provision of agriculture finance, particularly to smallholder farmers.

Women are more likely to grow produce for home consumption and are less likely to sell to the market (Kent and MacRae 2010). Women's relatively higher concentration on subsistence farming likely reflects cultural norms that view men as the main breadwinners. However, it is also possible that women are less able to enter cash crop and larger-scale farming because these activities are riskier and require larger investments that women are not able to make because of their lower access to assets, such as land and finance. Finally, women's lack of voice in society contributes to policies and interventions being less likely to take their specific needs into account. Men dominate rural producer organizations (despite a 30 percent quota for women), and women are not adequately included in policy discussions in agriculture (USAID 2011). Through an institutional mapping exercise in Western Province, Kent and MacRae (2010) found that national agricultural programs are failing to reach women.

Box 8. **Political Economy of Land Reform**

Despite numerous calls for reform from both domestic and international sources, and a long debate about land reform, little progress has been made in crafting and enacting a new land policy that addresses the shortcomings of the 1995 Land Act. Most of Zambia's land is held under so-called customary tenure, that is, communally held and typically farmed or otherwise utilized by peasant communities under the authority of traditional chiefs. Caught between the investment needs of local and foreign firms and the donor community on the one hand and its obligations to a poor landless majority on the other, the government has little incentive to alter the system, more so at the cost of alienating local chiefs. Adherence to the status quo allows political actors to avoid choosing sides, as well as allowing certain groups to continue benefiting from the current system. Incentive structures are not so biased against reform of the land system with regard to capacity building and streamlining land administration processes. More broadly, efforts to better inform Zambians, especially those residing in rural areas, and to involve them in the policy discussion will enhance bottom-up pressure for reform (Taylor and Simutanyi 2007).

6.2 The Low Quality and Lack of Inclusiveness of Education and Health Services Hinders Opportunities for the Poor, Especially Women

6.2.1 Low Access and Quality of Education and Health Services

173. **Many poor people face limited economic prospects.** This is partly because of poor results on child malnutrition and uneven access to education, health, and key public services. Such services include water, sanitation, and electricity and affect the rural poor from infancy, especially in terms of their health and malnutrition. As discussed earlier (section 2.2), huge disparities exist in these dimensions between the rich/poor and rural/urban dwellers. This, in turn, can result in weaker educational outcomes (delayed school enrollment, reduced grade attainment, and lower school performance) and later in life in worse labor market outcomes through lower earnings and productivity. Stunting has long-term negative impacts on labor productivity due to loss of physical growth, cognitive impairment, and increased risk of chronic disease. Estimations by Hoddinott et al. (2013) suggest that reducing stunting by one-third can increase incomes by 11 percent.

174. **There are large gaps between the nutritional status of children living in wealthier and in poorer households, and many of those problems start from the womb.** As noted in chapter 2, children age below five in the poorest households and rural areas are much more likely to be stunted than children in the wealthiest households and those in urban areas. In the Zambian context, inadequate dietary intake is an important determinant of undernutrition, because 90 percent of rural households are smallholder farmers relying primarily on rain-fed agriculture, mainly maize, for their own consumption. The use of technologies and inputs is low, and diets are typically monotonous and low in micronutrients. These nutrition deficits have repercussions on women's own health and subsequent effects on their offspring. Women's undernutrition and anemia increase the risk of restricted fetal growth and low birth weight (LBW), estimated to affect 11 percent of newborns in Zambia, which in turn is associated with increased risk of childhood stunting.

175. **The poor have lower levels of education, especially after the primary level.** As discussed above (in chapter 3 and section 5.2.2), lower education levels are associated with lower returns. Two-thirds of those who enter secondary education are from the top (richest) two quintiles. Only 18 percent from the bottom (poorest) two quintiles can enter grade 8. Only 26 percent of students in secondary schools are

from the lower 50 percent of the households (that is, deciles 1–5). For the college and university levels, the share of enrollment for children from the lower 50 percent is 7 percent in college and almost nil at the university level. Even among those who remain in school, there is a significant learning gap between the poor and the rich.

176. **Low enrolment into secondary education is driven by financial constraints and the insufficient availability of secondary schools and classrooms.** One year of secondary school fees represents around 30 percent of the annual expenditure of extremely poor households (primary school is free). In addition, because most secondary schools are far away from students' residences, households must incur significant boarding and living expenses. Equally relevant is the lack of adequate schools and classrooms to accommodate the demand for secondary education. Regardless of the types of schools, for every 10 primary schools, there is only 1 secondary school. Therefore, the transition from primary to secondary is in some instances based on stiff competition and at other times on the availability of seats in secondary schools, rather than on academic competency. While the government has been supporting families by paying their secondary school fees through the Public Welfare Assistance Scheme (PWAS), the program only covers a small percentage of the very poorest of households.

177. **Vested interests have affected the quality of education services.** In general, education has been a priority for different governments in Zambia, and the past few years have seen remarkable progress in access to education. The construction of schools and the hiring of teachers are visible reforms where there is an alignment of incentives of key actors in the sector. However, despite the increase in resources allocated to the sector, learning outcomes have been stagnant for the last 15 years. High-level political interference and patronage contribute to distortions in the teacher hiring, deployment, and transfer processes. This is partly affected by the misuse of personal connections and the poor conditions of service in remote and rural areas, which persist despite the creation of dedicated rural, remote allowances and also due to the perceived political influence of teachers in their communities, particularly around elections. Thus, teacher absenteeism is high, and the frequent turnover of staff at the school, district, and province levels undermines efforts to improve learning outcomes (World Bank 2015c).

178. **Poor health status also affects the productivity of the poor.** Although Zambia has made positive strides in the control and prevention of malaria, TB, and HIV/AIDS, their incidence and prevalence rates remain very high, negatively affecting productivity. Worker's absenteeism due to malaria, TB, and HIV/AIDS is very high. According to the ZDHS 2013–14, the national HIV prevalence rate is still at 11.2 percent (13.6 percent among women and 9 percent among men). The highest prevalence rates are in Lusaka at 11.8 percent, followed by the Copperbelt and Western Provinces at 10.3 percent. In addition, according to the national TB prevalence survey, at 638 cases per 100,000 of the population, Zambia is one of the countries that is above the World Health Organization (WHO) threshold for TB emergency (250 cases per 100,000 of the population). TB prevalence is much higher in the Copperbelt region, with some towns having TB prevalence rates three to five times higher than the national average. Most TB cases appear in the productive age group—25–44 years, the same age group seriously affected by HIV/AIDS.

179. **Women suffer a disproportionate level of negative impacts from HIV, because they display higher infection rates and are more likely to bear the burden of caring for sick household members.** Further, in the event of being widowed by the disease, they may lose access to assets such as land because of discriminatory customary inheritance practices. These issues are rooted in traditional attitudes on gender and women's constrained voice on social discourse. In addition, women often have low levels of empowerment and are thus more vulnerable to sexually transmitted diseases. This issue is highlighted in the work from Morrison and Orlando (2004), who find that women in Zambia who had experienced a

lifetime of physical violence by an intimate partner were 9.6 percent more likely to have a sexually transmitted disease.

180. **Poor health status is due to low quality, and gaps in access to, health services (in turn caused by a shortage of human resources and infrastructure).** For example, only 57 percent of the positions in the official government health staff establishments are filled, resulting in continued shortages of staff. Dentists (65 percent), Clinical Officers (62 percent), Lab Scientists (56 percent), and Doctors and Midwives (51 percent) are excessively in short supply. In addition, while several new health facilities have been built, physical access to health facilities for residents in rural areas is still a major challenge, given that the average distance to the nearest health facility is 6.8 km, compared to 3.6 km for urban residents (MOH 2016). As noted in chapter 2, the distance to a health facility and the necessity to take transport are the main problems faced by 60 percent of the poorest women in Zambia.

6.2.2 Too Few Girls Complete Secondary School due to Financial Constraints and Social Norms

181. **Gender disparity in enrolment in secondary and technical and vocational education and training (TVET) is of concern.** While Zambia has achieved gender parity in enrollment at the primary school level, the gender parity ratio is still only around 85 percent at the secondary level, with 36 percent of girls ages 14–18 estimated to be out of school compared to only 19 percent of boys. By grades 7 and 11, girls have a dropout rate that is twice and three times higher than for boys (World Bank 2015c). According to LCMS 2015, while the Gross Enrollment Rate (GER) for secondary education for boys is 68 percent, that for girls is 62 percent. In TVET, female trainees account for 45 percent (TEVETA 2012). The main issue, however, is the exclusion of poor girls from secondary education, because very few poor children enter grade 8, which affects their life chances and limits opportunities for the next generation. As shown by the recent study on adolescent girls (World Bank 2015e), girls' attendance in school is correlated with delayed sexual initiation, later marriage and childbearing, lower rates of HIV/AIDS, lower risks of domestic violence, and fewer hours of domestic work.

182. **The gender gap in secondary education is partly driven by financial costs.** There is evidence from many countries that financial constraints often have a disproportionate impact on girls' enrollment, because girls tend to be less favored for the investment of limited household resources (Akresh, de Walque, and Kazianga 2013). Regional evidence suggests that poor families prioritize the investment of their limited resources toward boys' education. This may be driven partly by social norms, with women's income-generating role undervalued compared to their roles as mothers and wives and, related to this, lower perceived/actual returns to girls' education. In addition, as mentioned before, while the PWAS supports families by paying their secondary school fees, it only covers a small share of the poor.

183. **Regional evidence on the effectiveness of conditional cash transfers provides further indication of the significance of financial constraints**. In Malawi, the Zomba Cash Transfer Program offered a transfer of US$10 per month and the direct payment of girls' school fees, conditional on school attendance. The program increased girls' school attendance threefold to fourfold and, for girls who were out of school at the start of the program, reduced the probability of marriage and pregnancy by 40 percent and 30 percent, respectively (Baird et al. 2010). While evidence from a cash transfer intervention in Zambia (the pilot of the Social Cash Transfer Scheme) did not see an increase in girls' enrollment, the proportion of households not sending at least one child to school dropped from 41 percent to 34 percent, and it is possible that the small size of the transfer caused families to choose to send only one child, with most families favoring boys (Adato and Bassett 2009).

184. **The gender gap at secondary education is amplified by socially assigned roles to adolescent girls, who drop out of school due to early pregnancy (though the relationship may run in both directions).** This creates serious consequences for girls' accumulation of human capital and the economic opportunities available to them later in life: ZDHS data show that 29 percent of women ages 15–19 in Zambia have a child and that the adolescent fertility rate is high at 93 births per 1,000 women ages 15–19. Early childbearing is much more prevalent in rural than in urban areas (36 percent versus 20 percent, respectively) and among those with no education (53 percent) compared to those with secondary education (23 percent).

185. **Not only do women in rural areas get pregnant earlier (often while still in adolescence), they also have more children during their productive years.** Fertility has remained persistently high in Zambia, particularly among rural poor women: around 5.3 births per woman—down from 6.5 births in 1992, but still higher than for a range of comparator and neighboring countries. High fertility dampens the per capita impacts of economic growth and has a negative impact on women's health. Fertility is much higher for rural (6.6 births) than urban (3.7 births) women, for women with no education (7 births), and for women in the poorest wealth quintile (7.1 births) relative to women in the richest wealth quintile (3 births). Progress on fertility has also been very unequal between the rich and poor. As already noted in chapter 2 of this document (Poverty and Shared Prosperity Trends), between 1996 and 2014, births per woman dropped by 32 percent for women in the richest wealth quintile, but only dropped by 4 percent for the poorest, and increased slightly for women in the second poorest quintile.

186. **All the educational and social constraints end up affecting the labor opportunities of women in rural areas.** Early marriage and childbearing curtail girls' education and thus the economic returns they could obtain when they join the labor markets. Women are less likely to find private wage work and much more likely to be unpaid family workers. According to recent analysis using the Labor Force Survey from 2014, being female decreases the probability of being a private wage worker by 2 percentage points. Women are also almost 4 percentage points more likely to be unpaid family workers compared to men. While early childbearing is associated with greater labor force participation, it is also associated with greater poverty owing to the poor quality of jobs assigned to young women (Male and Wodon 2016). Early childbearing also contributes to the high rate of population growth in Zambia, which dampens the per capita impacts of economic growth.

187. **Women earn less than men for the same work.** As with the employment analysis, cross-sectional wage regressions reveal that education makes the biggest difference, and the more the education, the bigger the wage premium. However, the relative returns to education seem to be falling, not rising, over time. Women earn between 13 percent and 20 percent less than men. The wage gap for women seems to be declining over time, as does the premium to age.

188. **More and better formal jobs have been created in Zambia recently, but those jobs have mainly benefited urban young males (World Bank 2017a).** Low education levels due to financial constraints prevent the rural poor from gaining access to those jobs. Disparities in access to health and public services like electricity and improved sanitation and water, reflected in higher stunting rates and poor health, can also reverberate into delayed school enrollment and reduced grade attainment. This, in turn, can translate into lower earnings and productivity during adulthood. Poor rural girls face additional burdens to access these same goods and services due to social roles. Women enter local labor markets in a disadvantaged position due to existing gender inequalities in the provision of education, and yet, this burden is further exacerbated through wage discrimination (World Bank 2017a).

6.3 The Poor Get Insufficient Benefits from Fiscal Policy due to Vested Interests and Limited Safety Nets

6.3.1 Fiscal Policy Is Not Pro-poor (for example, Subsidies Are Ill-targeted and Cash Transfers Coverage Is Too Limited)

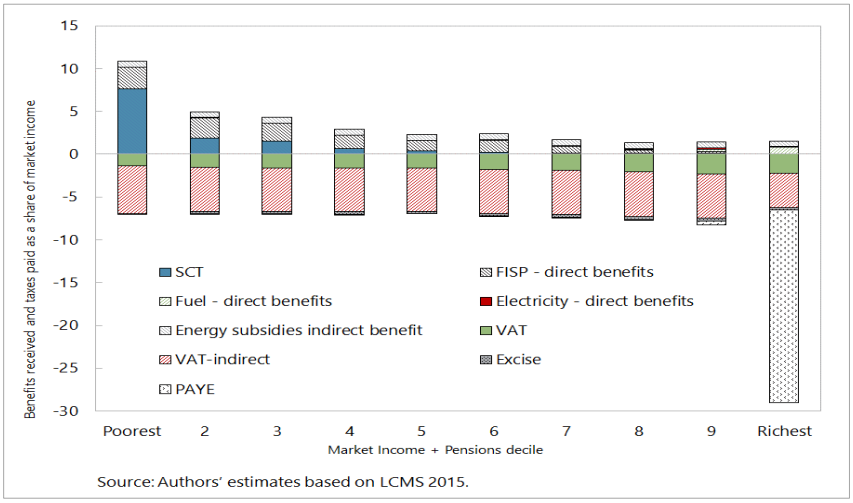
189. **Fiscal policy can have an impact on inequality and poverty, both through the government's overall fiscal position and through the distributional implications of tax policy and public spending.** Zambia has different instruments for fiscal redistribution. On the expenditure side, benefits include social public spending on services including health, education, and water and sanitation. In recent years, the country has also relied on farming inputs, fuel, and electricity subsidies. A nascent system of social protection is in the making, mainly through unconditional cash transfers. On the tax side, instruments include personal income taxes, value added tax (VAT), and alcohol and tobacco excises.

190. **Zambia's 2015 fiscal policy was found to reduce inequality.**[31] The largest reduction was attributed to in-kind public expenditure on education. That is because cash benefits are distributed progressively in that poorer households receive a greater-than-proportional share of the expenditure, while direct taxes are also distributed progressively in that richer households are liable for shares of taxes greater than their income shares. Meanwhile, subsidy spending is approximately proportional to income, while indirect taxes overall are inequality-reducing.

191. **However, most households pay more into the fiscal system than they receive from it in cash, thus becoming fiscally impoverished.** As figure 49 shows, the share of subsidies on electricity, fuel, and agricultural inputs among poor households is small, while the benefit received is also small (relative to own income). Meanwhile, an average household outside of the bottom 10 percent of the prefiscal income distribution faces a tax burden from VAT, alcohol and tobacco excises, and personal income taxes higher than the amounts that are received as direct or indirect benefits from subsidies or direct transfers. For households in the bottom 70 percent of the disposable income distribution, the indirect effect of the VAT regime on prices creates the most significant burden. Thus, the number of poor and vulnerable (that is, outside poverty but close to poverty) individuals who experience net cash subtractions from their incomes is greater than the number of poor and vulnerable individuals who experience net additions. This dynamic creates impoverishment among nearly 90 percent of the poor and vulnerable.

[31] de la Fuente, Rosales, and Jellema (2017) examine the impact of the fiscal system on inequality and poverty in 2015. In doing so, they create a 'prefiscal' and a 'postfiscal' income measure. The prefiscal measure is market income (or income before any transfers or taxes of any kind have been added). When they add to market income the value of subsidies and direct transfers received and subtract the value of direct and indirect taxes paid, they end up with consumable income, which is the postfiscal income measure.

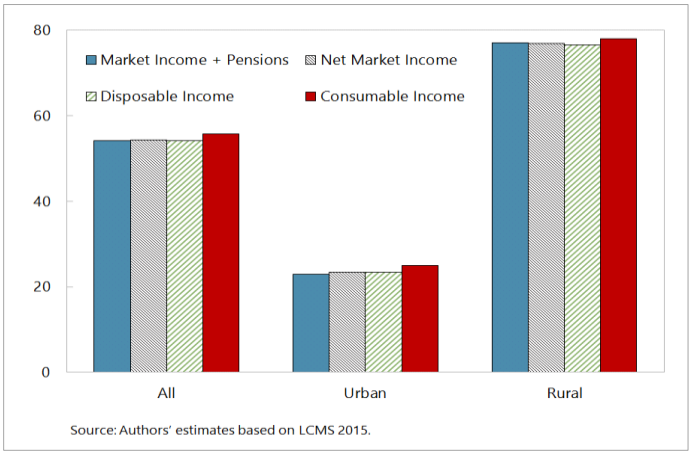
Figure 49. **Transfers, Subsidies, and Taxes as a Percent of Market Income by Deciles, 2015**



Source: de la Fuente, Rosales, and Jellema 2017.
Note: PAYE = Pay-as-you-earn; SCT = Social Cash Transfer.

192. **Because many households (including those near to poverty) are facing a tax burden above the amount they receive as benefits, Zambia's fiscal policy increases poverty.** While poverty rates are much higher in rural than urban areas, the net benefits from the fiscal system are not more concentrated in the rural areas where more individuals are impoverished (figure 50).[32] As figure 50 shows, the high levels of poverty observed in 2015 do not get attenuated by the current fiscal system, which includes subsidies, in-kind and cash transfers, and taxes. On the contrary, the poverty headcount ratio goes up slightly from market to consumable income.

Figure 50. **Poverty Headcount at Pre- and Post-Fiscal Income Concepts, 2015**



Source: de la Fuente, Rosales, and Jellema 2017.

193. **Fuel and electricity subsidies are regressive, because the incidence rises as income rises.** The richest 10 percent of households capture nearly 90 percent of the total fuel subsidies available and over 50 percent of the total electricity subsidies available. Most rural households consume little fuel or electricity directly, but benefit indirectly through, for example, lower prices for transport (because fuel is

[32] Both market and consumable incomes are constructed based on a disposable income proxied by consumption in LCMS 2015.

a major input in providing transport). Energy subsidies provided little benefit to rural households (only 4 percent of the rural population has access to electricity, and most rural households consume little fuel either directly through motor vehicles or indirectly through lower transport prices). The richest decile in urban areas concentrates more benefits from fuel subsidies than the richest decile in rural areas, meaning fuel subsidies accumulate more in the very richest households in urban areas than in rural areas. The benefits from electricity subsidies are captured in similar proportion by the richest households in urban and rural areas.

194. **Social programs in Zambia provide low coverage and benefits relative to needs.** The Social Cash Transfer Scheme (SCTS) is Zambia's main safety net program. Despite its multiple positive impacts,[33] and even assuming perfect targeting, the SCTS would cover no more than one in five of the extreme poor. Even under the unlikely hypothesis that families can only receive one type of benefit from the multiple existing social programs in Zambia and that these are perfectly targeted to the extreme poor, all the major programs together could only reach less than half of the extreme poor. Neighboring countries with similar levels of poverty, like Malawi and Mozambique, cover a higher percentage of their populations through safety nets. Further**,** with a ZMW 70 per month benefit (equivalent to US$10), a beneficiary family under the SCTS can only cover about 10 percent of the cost of a food basket that provides the minimum necessary energy requirements for a family of six. The benefits are too low to move the families out of poverty or reduce the poverty gap in a meaningful way.

195. **The low coverage and benefits are the result of low budgetary allocations for the social protection sector.** The amount of public spending on social safety nets and transfers for the poor and vulnerable is very low by international standards, relative to the country's GDP.[34] Farm subsidies represent a huge portion of the social protection budget and yet are relatively ineffective at curbing poverty. At the same time, while the cash transfers in Zambia have been shown to produce a range of productive outcomes in beneficiary households, until recently, there was a widespread perception among government circles that giving unconditional transfers would lead to dependency. When comparing poverty-targeted safety nets alone, the average spending as a share of GDP in Sub-Saharan Africa is almost three times higher than in Zambia (1.3 versus 0.47).

196. **Part of the reason why poor rural households receive small transfers and subsidies is because urban voters have proven far more likely to 'swing away' from the incumbent party during elections.** Recognizing the disproportionate power of the urban voter, as well as their fickleness, and combining it with the fact that the two most urbanized provinces—Lusaka and the Copperbelt—account for nearly one-third of registered voters, politicians and the government have targeted their efforts and expenditure accordingly, for instance, when it comes to energy (fuel and electricity) subsidies. At the same time, politicians can still base their support on highly stable ethnic cleavages and lasting clientelistic relationships in rural areas; so, the farming subsidies covering broad portions of the rural population cement this relationship.

197. **Eliminating subsidy spending while compensating poor households would help fiscal policy achieve poverty reduction and even greater inequality reduction.** A move by the government to directly

[33] The SCT's randomized control trial reveals multiple positive impacts at two- and three-year intervals. The grant helped reduce poverty in and increase consumption by the beneficiary households. There were also measurable benefits for the children in the households, such as reduced incidences of diarrhea and lower dropout rates at the transitional ages of 11–14. In addition, the evaluation found a multiplier effect of between 50 percent and 70 percent that is primarily attributable to productive activities.

[34] This definition of social protection expenditure excludes civil servants' pensions.

compensate poorer households would help fiscal policy achieve poverty reduction and avoid fiscal impoverishment. Subsidy spending provides benefits directly and indirectly to poor and rich households alike. Because the 2015-era coverage level for the SCT was low, energy subsidization delivered the only cash benefit generated from public expenditures for many poor households. Nevertheless, energy subsidies, which do not reach many poor households, absorb a large share of expenditures. Table 8 demonstrates that partially or fully eliminating subsidy spending while using a portion of that forgone expenditure to increase SCT coverage and benefit levels could reduce poverty by as much as 4 percentage points or could bring approximately 700,000 Zambians out of poverty. If subsidies on fuel, electricity, and agricultural inputs were eliminated without any compensatory mechanism, such as an increase in the SCT program's coverage and benefit levels, the impact of fiscal policy on poverty would likely be muted.

Table 8. **Fiscal Reforms and Poverty and Inequality Impacts**

	At Disposable Income			At Consumable Income		
	Poverty Headcount	Poverty Gap	Inequality	Poverty Headcount	Poverty Gap	Inequality
Current/2015	54.4%	0.26	0.546	56.3%	0.28	0.543
Partial	53.9%	0.25	0.539	56.0%	0.27	0.534
Full	50.3%	0.24	0.539	53.3%	0.25	0.537

Source: de la Fuente, Rosales, and Jellema 2017.

Note: 'Partial' reform includes the elimination of the fuel and electricity subsidies, an increase in the coverage of the SCT program to 500,000 beneficiaries, and a 28 percent increase in SCT benefit levels. The increased SCT cost under 'partial' reform represents 7 percent of forgone energy subsidy expenditures. 'Full' reform includes the elimination of the fuel, electricity, and FISP subsidies; an increase in the coverage of the SCT program to 500,000 beneficiaries, and a 100 percent increase in SCT benefit levels. The increased SCT cost under 'full' reform represents 18 percent of forgone energy and FISP expenditure.

198. **The lack of a more positive impact of the current fiscal system on the poor is not just the lack of spending judiciously on the poor.** It also stems from the low fiscal envelope and the inability to collect more resources from the wealthiest. For instance, the mining sector's direct contribution to government revenues (royalties and corporate income tax) has been traditionally low in Zambia. During 2000–07, the sector contributed, on average, less than 0.1 percent of GDP to government revenue while accounting for about 6.2 percent of GDP. Following the changes introduced to the fiscal regime over the last few years, the mining sector's direct contribution to revenues has increased from an average of 0.7 percent of GDP in 2005–09 to close to 3 percent of GDP in 2010 (IMF 2015).

199. **At approximately 18 percent of GDP, Zambia's domestic revenue ratio is too low to meet the demand for public services.** The taxable base is eroded by a significant list of exemptions. For example, VAT exemptions include domestic kerosene, health, education, domestic house rentals, water, transport, financial and life insurance services, and food and agriculture, while books are zero-rated. Against the background of Zambia's exemptions, the VAT efficiency rate is quite low, averaging 21 percent during 2008–12. The efficiency rate increased to 28 percent in 2015. Zambia's personal income tax, the PAYE tax, has a high threshold, and several income components (such as capital gains) are excluded from the base. The base for the corporate income tax is limited by widespread exemptions and multiple tax rates. Zambia does not yet have a property tax (de la Fuente, Rosales, and Jellema 2017).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CHAPTER 7: HOW SUSTAINABLE IS THE CURRENT PATH OF GROWTH AND INCLUSION?

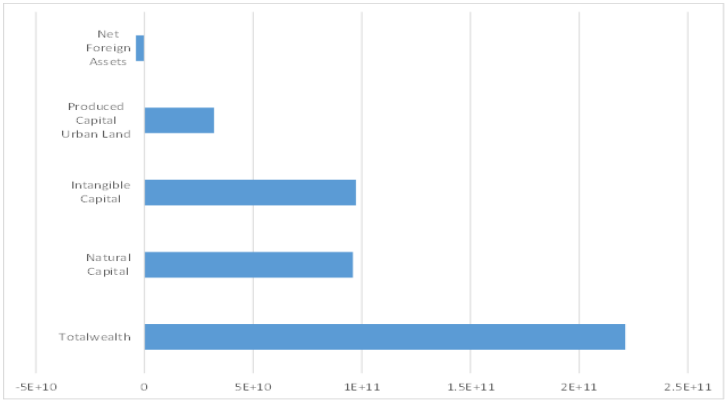
7.1 Environmental Degradation Affects Communities' Health, Livelihoods, and Resilience to Climate Shocks

7.1.1 Natural Wealth Degradation

200. **Despite trends of urbanization and the economic transformation toward urban-biased capital-intensive sectors, most Zambians remain rural and dependent on natural resources of the rural space.** In addition to their dependence on agriculture, other natural resources such as forests, fisheries, and wildlife support a large part of the population. To date, much of the agricultural production in Zambia has come from the expansion of cultivated land and labor. However, the population is still growing at 3 percent per year, with more people meaning more workers, which can in turn mean more yield from a farm in absolute terms. Nevertheless, the gains from the continuation of such practices will eventually approach their limit.

201. **Zambia's increasing population, agriculture, and natural resource exploitation practices are accelerating land and natural resource degradation.** This will ultimately increase the rate of low productivity. Zambia's total wealth, defined as the aggregate of all the country's assets, was US$221.1 billion in 2010 (figure 51) (World Bank 2011). Of the total wealth, natural capital represented 43 percent. Between 1990 and 2010, while the per capita wealth had grown steadily, the value of natural capital, excluding subsoil assets, declined by 17 percent in Zambia. Accumulating wealth is to invest in the future welfare of the nation, and a country's development path depends crucially on how wealth changes over time, both in terms of the total volume and the composition of assets. Given the importance of natural capital in Zambia's economy, recognizing its value and managing it appropriately is extremely important. In addition to this is recognizing the role and increasing influence of current and projected climatic shocks.

Figure 51. **Structure of Wealth in Zambia (2010 US$, millions)**



Source: World Bank 2017g.

202. **A holistic look at natural resources is required to inform a sustainability policy.** Much of the evolution of natural capital dynamics is driven by the subsoil assets (minerals), but the value of other natural assets[35] is also crucial, because their volumes are in decline.

203. **Zambia has an alarming deforestation rate estimated between 250,000 and 300,000 ha per year, which goes beyond agriculture but also includes the demand for energy (figure 52).** The loss of forests has negative implications on the major dimensions of forest benefits/use, that is, direct use benefits, indirect use benefits, intermediate use services, reduction (cultivated), and other services (IAPRI 2016).

204. **Forests cover 60 percent of Zambia's territory and are important for rural populations' livelihoods.** Forests provide both monetary and non-monetized income flows from firewood, timber, non-timber forest products, food from subsistence hunting, and a range of environmental services. Emerging data from the Wealth Accounting and the Valuation of Ecosystem Services (WAVES) initiative in Zambia confirm that natural capital is a huge contributor to the economy. There remains a need to go beyond GDP and assess 'total wealth' and whether natural resources are being managed sustainably for long-term growth.

205. **Zambia's protected areas are among the best in the world from a tourism perspective.** They are also globally important in protecting important tracts of critical ecosystems and countless animal and plant species. Covering a third of the Zambian territory, protected areas and their wildlife are the key drivers of the tourism industry. Tourists primarily come to Zambia to visit the protected areas. Poor rural populations certainly derive benefits from tourism and wildlife, but these links need to be strengthened.

206. **There is much unrealized potential from the natural resources sector.** Zambia's potential to attract ecotourists has hardly been tapped, and with appropriate investments and much more attention paid to the protection of parks and wildlife—which are both threatened greatly by underinvestment—the country could easily surpass or equal countries such as Kenya and Tanzania, which derive huge income streams from their protected areas. Well-managed forests will perhaps not significantly contribute to GDP, but they will contribute significantly to incomes of the rural poor. Maintaining forest cover in Zambia is additionally important for environmental and hydrological services, as well as for reducing national carbon emissions, reductions that can be paid for through the emerging reducing emissions from deforestation and forest degradation (REDD+) international framework. Zambia has 19 national parks and 34 game management areas. The country can sustainably achieve the World Bank's twin goals through the management of renewable natural resources while supporting the GRZ's economic diversification objective. This will require sustainable management of renewable natural resources such as forests, aquatic resources, wildlife, and biodiversity, which must be leveraged as important sources of livelihood, income, and safety nets for the rural poor.

7.1.2 Insufficient Response to Climate Change

207. **The decline in natural assets is further compounded by the impact of climate change.** Zambia has experienced changes in the mean annual temperature and precipitation. Indications are that the annual temperatures in Zambia have warmed by 1.3°C since 1960 and are projected to increase above the 1970–1999 average by 1.2–3.4°C and 1.6–5.5°C by the 2060s and 2090s, respectively. Annual rainfall has

[35] These are forested land, shrub and grass lands that support livestock grazing, crop land, and protected land.

decreased by an average of 1.9 mm per decade since 1960, and projections show an overall downward trend in precipitation.

208. **Zambia has experienced an increase in the frequency and intensity of drought and flood events in recent decades.** Climate models project an increase in the frequency and intensity of heavy rainfall events during the rainy season. The river flood hazard is classified as high, based on modeled flood information currently available. This means that potentially damaging and life-threatening river floods are expected to occur at least once in the next 10 years. For Zambia, there is up to a 20 percent chance that droughts will occur in the coming 10 years and is likely to increase in the future because of climate change. The major drought caused by the El Niño weather event in 2014/15 contributed to poorer crops and the near depletion of the Kariba Dam supplying water for electricity production.

209. **Climate change is expected to increase the frequency and intensity of these events and further affect the national economy.** Exposure to climate risks will also exacerbate the difficulty of harnessing the productivity of Zambia's natural capital and inherent potentials in its renewable natural resources. Such exacerbated pressure on land and high deforestation can, in turn, lead to further extreme weather events such as floods, fires, droughts, and heavy rainfall, whose intensity and frequency have been increasing over the past three decades.

210. **Impacts of drought impose a significant challenge to poverty reduction for Zambia.** Drought is highly associated with poverty in Zambia, even after controlling on temporal and spatial heterogeneity. This is most prominent in the poorer households. The impact of droughts on people living below the national poverty line was highly significant in 2015 (World Bank 2017e).

211. **Climate impacts will be felt the most on renewable natural resources and agrarian-dependent production.** Droughts and floods will eventually put stress on natural resources and particularly the livelihood/incomes of poor rural households. This position is supported by a recent study conducted in Zambia as part of the Pilot Program on Climate Resilience (PPCR) on the impact of climate variability and climate change on crop yields over a 10-year period (2007–2016). According to the study, these events have cost Zambia 0.4 percent or US$13.8 billion in annual economic growth. Further, without climate adaptation, the impacts could rise to 0.9 percent of GDP over the next decade, keeping an additional 300,000 Zambians below the national poverty line.

212. **Agricultural productivity is affected by land degradation and climate change.** The combination of high food insecurity, relatively low yields, high deforestation rates, and localized land degradation leave Zambia vulnerable to climate change. The country is already experiencing weather variability and climate change induced hazards, including drought and dry spells, seasonal and flash floods, extreme temperatures, and changes in season onset and cessation. Further analyses indicate that by 2050, Zambia is expected to experience increases in temperature of up to 2.2°C, with the greatest increases expected in the southern parts of the country. Rainfall is expected to increase by up to 4 percent in the northern parts of the country, but may reduce by as much as 5 percent in the southern parts of the country. These changes are expected to have the largest impact in the agriculture sector.

213. **Climate change related losses in agriculture are expected to amount to US$2,200–3,130 million over the next 10–20 years.** This stems from waterlogged agricultural fields, the destruction of crops, contaminated water supplies, and increases in incidences of crop and livestock disease and reduced water availability for both crops and livestock and pastures. Further, changes in season onset could also negatively affect the production of key crops, including maize, cassava, and millet (World Bank 2017h).

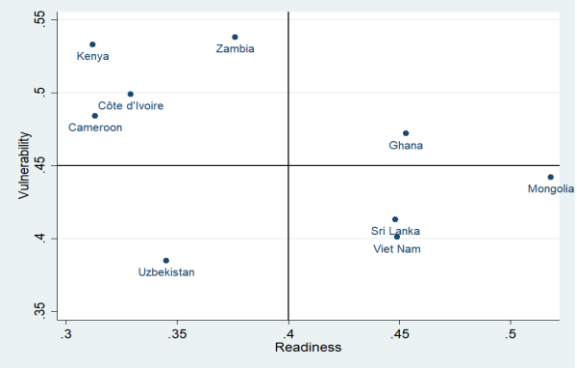
These potential impacts must be considered alongside the current challenges of land degradation and the deforestation rates (discussed in this chapter).

214. **High climatic variability results in recurrent droughts and floods.** Despite being well endowed with land and water relative to other countries in southern Africa, recurrent droughts and floods can compromise the sustainability of the production model pursued by Zambia. For instance, recently, the major drought caused by the El Niño weather event in 2014/15 contributed to the near depletion of the Kariba Dam supplying water for electricity production, leading to power cuts in major urban areas, while the current climate information systems failed to protect vulnerable populations from lower productivity in the agricultural sector.

215. **Zambia's overall response to the effects of climate change is not commensurate with its high vulnerability and the sensitivity of the population and relevant supporting sectors to climate change.** In its submission of the Nationally Determined Contribution (NDC) before the Paris Climate Summit in 2015, Zambia indicated that geographic characteristics coupled with high poverty levels and limited institutional capacity lend it highly vulnerable to the adverse effects of climate change, especially droughts and floods.[36] In 2016, the World Bank ranked Zambia 124th for hazard and exposure globally.

216. **The insufficient response to climate change is exacerbated by an inadequate capacity to cope with climate change effects.** Zambia exhibits an insufficient ability to cope with climate change effects and to realize opportunities for growth and enhanced prosperity and inclusiveness for countries that score high for vulnerability (figure 52) It has limited ability to leverage investments to adaptation actions and will need to address the social inequity issues that affect the resilience of households to climate-related shocks. The high vulnerability and low 'readiness' indicate that Zambia has both a great need for investment and innovations to improve its ability to cope with climate change effects and a great urgency for action. There is, thus, a need for concerted and sustained efforts to establish a growth strategy that is resilient to climate variability.

Figure 52. **Vulnerability and Readiness to Tackle the Impacts of Climate Change**



Source: University of Notre Dame Global Adaptation Initiative (ND-GAIN) Index for Vulnerability.[37]

[36] Zambia Intended Nationally Determined Contribution submission to the United Nations Framework Convention on Climate Change (UNFCCC). http://www4.unfccc.int/ndcregistry/PublishedDocuments/Zambia percent20First/FINAL+ZAMBIA percent27S+INDC_1.pdf.

[37] Judging or benchmarking which individual countries might be at greatest risk from climate change related effects is complex, because many key factors do not map neatly to country borders. World Bank (2017f) has used the 'ND-GAIN' country index for assessing risks, because it considers a country's vulnerability across several measures that are updated regularly, as well as its relative readiness to cope with such problems.

217. **Zambia has made some progress on its policy and institutional framework to help tackle climate change.** It has launched a National Climate Change Policy (in March 2017) and is implementing programs that aim to build climate resilience into sectors such as infrastructure, agriculture, and climate information systems. The goal for Zambia is to increase financing for climate-resilient programs by 25 percent in real terms. More efforts will need to be made to determine how to best harmonize and efficiently use climate risk financing, as well as how to build and improve on the experiences of existing funds and private sector participation.

218. **The government has identified priority sectors for their response to climate change.** These are reflected in various government strategies, including the NDC and the Vision 2030. In the NDC, for adaptation, the priorities are energy, forestry, agriculture, water, town and country planning, sanitation, and transport, while priority sectors for mitigation are agriculture, water, forestry, energy, wildlife, infrastructure, and health. The NDC indicates further that all the adaptation actions have strong synergies with mitigation actions. Therefore, the implementation of Zambia's NDC requires a substantial coordination of efforts across ministries.

219. **However, the current investments and institutional and policy frameworks may not be robust enough, despite efforts to strengthen coordination mechanisms within the government institutions.** Current efforts, such as in the PPCR investment program, will need to be complemented and scaled up to other vulnerable regions in the country, because the PPCR investments are limited to the Barotseland and Kafue River Basin areas. In addition, participation by the private sector has been limited in sectors most vulnerable to climate change. Inadequate financial resources (from domestic budgets and international sources) to tackle the scale of the issue, as well as insufficient allocations of resources toward renewable energy and green infrastructure and transport, may also continue to increase vulnerability.

220. **Additionally, weak governance, a persistent lack of access to climate information, and limited technical capacities within government agencies continue to hinder the response to climate change in Zambia.** This is because it limits their ability to process and analyze climate information to inform decision making by various users. Analytical work shows that government organs (and the current institutional architecture) responsible for managing climate information have been unable to effectively invest, operate, and maintain their systems because of limited national budget allocations and weak human resource capacities for over 30 years. Therefore, the country has poor climate data sets, data analysis, and modelling capabilities that are not responsive to current user needs. If left unchecked, this situation will continue to negatively affect Zambia's social and economic aspirations.

221. **Despite expected stronger electricity production over the next few years, Zambia's physical infrastructure, such as the energy sector, remains vulnerable to climate change.** Zambia's medium-term outlook for GDP growth and the economic improvements assume that the recent improvements to electricity supply are maintained. However, improvements in electricity supply for 2016 and 2017 are largely attributed to higher rainfall seasons, leading to faster replenishment of hydroelectric reservoirs. This is largely dependent on climate variability, and Zambia needs to diversify its electricity generation resources to prepare for increased climate variability.

222. **The dominance of hydropower generation in the country's generation mix also makes it vulnerable to hydrology and climate variations (World Bank 2015b).** This was evidenced by the acute energy shortages of 2015. Even in the 'wet hydrology' scenario, power shortages are forecasted to continue through 2018, and in the dry hydrology scenario, through 2020. Electricity issues are discussed in chapter 6.

223. **Climate-smart agriculture and landscape approaches can help address land degradation and increase productivity, contributing to enhanced food security and incomes.** They can also help build resilience to climate change among the poorest households. Zambia can also invest in a more diverse mix of renewable energy sources and has embarked on an ambitious effort to invest in 600 MW of solar energy to improve energy access. Exploring ways to enhance Zambia's access to climate finance from a variety of sources is recommended to help meet this demand.

224. **Tackling the effects of climate change on Zambia's natural capital holistically can contribute to a faster rate of poverty reduction.** For instance, from the natural resources and agriculture perspective, the two key areas of intersection are (a) diversifying the rural economy through growing industries that rely on a healthy environment and sustainable natural resources management under a climate-resilient condition and (b) addressing food security through climate-resilient sustainable food production practices. This will require a holistic approach that considers ecological links on landscape and economic links in the rural economy, coupled with improving access to and coverage of social safety nets. On the energy side, the promotion of a more diverse mix of renewable sources of energy can decrease the likelihood of energy shocks on industrial productivity, as well as build resilience measures for energy sources. Improving governance and information systems can help improve Zambia's overall response to climate change and can contribute to enhancing inclusiveness.

7.1.3 Environmental Damage and Health Challenges in Mining Towns

225. **The long history of mining in Zambia has left a legacy of environmental damage in mining towns.** The legacy of environmental liabilities has been exacerbated by the fact that, despite 70 years of mining operations, there have been no formal mine closures. The public health risks from mining fall disproportionately on the poor and vulnerable population, especially on the children, who are continually exposed to toxic pollution and who live in poor, degraded, and abandoned mining areas, with limited access to proper diagnostics, care, and treatment. Kabwe, for example, still has levels of lead pollution as high as or higher than any other municipality in the world. The environmental health impacts on the poor population there, including children, are directly linked to past mining operations. Copper smelters in several Copperbelt municipalities have been responsible for sulphur dioxide (SO_2) emissions, potentially causing acid rain, soil erosion, crop damage, and air and water pollution. The Kafue River has also been affected, which has given rise to international activism by environmental nongovernmental organizations (NGOs).

226. **Some mining companies are not complying with existing regulations, specifically the requirements of the Environmental Protection Fund (EPF).** The prospect that some of the old tailings can be processed at some point in the future (and the fact that some of them are being processed by illegal small-scale miners who have some political influence) means that there is resistance to remediation. These liabilities may eventually become the responsibility of the state. During the privatization process, the responsibility for addressing this legacy was left to the government and local authorities, which were ill-equipped to handle them, both financially and technically. In addition, new (postprivatization) environmental liabilities are often inseparably mixed with the previous ones, so that the responsibility of the holder for the cleanup is unclear.

227. **The country thus faces a challenge in managing the trade-off between the positive externalities of mining sector development (including economic growth, employment, and revenue generation) versus the unaddressed negative externalities.** The negatives, further to the upward pressure on the exchange rate, include but are not limited to environmental damage (land degradation, contamination of

land, and water and air pollution) and the subsequent environmental health and socioeconomic costs (health hazards, relocation, alcoholism, alteration of the social structure, and so on).

7.2 Volatile Macroeconomic Outcomes and an Unsustainable Fiscal and Debt Path

228. **Vulnerability to the effects of copper price volatility has made macroeconomic and fiscal management challenging (World Bank 2016a).** A lack of instruments or policy efforts to smooth the economic cycle leads to swings in the real exchange rate. As copper prices fell between 2011 and mid-2016, the exchange rate depreciated considerably, but any return of competitiveness of Zambia's non-copper exports is balanced by the reality that many Zambian producers must import key intermediary inputs, and many Zambian firms borrow abroad in U.S. dollars (hence, when the currency depreciated, their cost of borrowing increased). Progress with diversification is viewed as a key way of moving on from the ill effects of economic volatility.

229. **The lack of stabilization funds or fiscal buffers made macroeconomic management very challenging in 2015 and 2016.** External and domestic shocks, coupled with very loose fiscal policy (that required very tight monetary policy) put the economy under pressure in 2015 and 2016. The costs of the tight monetary policy to stabilize the exchange rate and get inflation under control (Roger, Smith, and Morrissey 2017) were increased interest rates, making it difficult for firms to borrow and expand, and increased vulnerabilities (for example, an increase in nonperforming loans and decline in international reserves) (Smith, Davies, and Chinzara 2016).

230. **Not only did Zambia not build fiscal buffers, the government has amplified the impact of the resource boom by running up sizeable budget deficits and borrowing from international debt markets at the top of the cycle.** It has been very difficult for the government to resist populist calls for the pro-cyclical use of resources. Large repeat fiscal deficits and inefficient government spending persist as sources of vulnerability for Zambia (ZIPAR 2012). Year-on-year, increases in public expenditure, funded by external borrowing, have increased the cost of maintaining macroeconomic stability and placed the burden on monetary policy and the private sector. Accordingly, Zambia ranks below the Sub-Saharan African average for economic management, as measured by the Country Policy and Institutional Assessment (CPIA). The lack of fiscal discipline suggests that even a technically solid design of fiscal rules or resource funds would fail without first building consensus among the political elites with respect to the importance of saving resource rents (IEG 2015; World Bank Group 2017).

231. **Other countries have managed the volatility of copper prices better than Zambia (for example, Chile).** Not only are fiscal buffers absent, but the government has amplified the impact of the resource boom through a pro-cyclical fiscal policy (that is, decisions to run sizeable budget deficits and tap international debt markets were made near the top of the cycle) (an overview of the macro-vulnerabilities of mineral extractives based growth is discussed in this chapter).

232. **Zambian policy makers understand the need for structural transformation and diversification.** This is reflected in various public policy pronouncements in at least the past three decades and more recently in the incorporation of structural transformation and diversification in the policy priorities of the Sixth National Development Plan and the Seventh National Development Plan (7NDP).

233. **The sustainability of fiscal budgets in Zambia has been further compromised by a 'partial reform syndrome'.** This is where the mechanisms of governance are adapted in response to fiscal crises and the

exigencies of donors but are not fully reformed due to political economy constraints. For instance, civil service 'right-sizing' has been on the agenda for several decades. The Zambian government first committed itself to civil service retrenchment in 1979, in response to fiscal deficits and donor pressures. A commitment to halving the headcount of the civil service was praised. However, the actual reform package was not in place until 1986 and resulted in only a small number of removals, due to a lowering of the retirement age. In 1988, a new plan indicated an adjusted target of a 25 percent reduction, but this also failed to be implemented. In 1990, a new retrenchment exercise was initiated under the donor-financed Public Service and Retrenchment Project, the objectives of which were recommitted to in the 1993 Public Service Reform Program (PSRP). Some authors have argued, however, that it was the failure of the PSRP that posed the greatest obstacle to growth. The size of the civil service in fact rose over the 1990s, in a context of rising public sector wages. The inability of the government to contain the government wage bill, coupled with low public sector performance, seems to be rooted in the role the civil service plays in the broader political economy dynamics. In a context of increasing competition and political instability, the bureaucracy has emerged as a powerful actor (Hinfelaar and Achberger 2017; Thurlow and Wobst 2006).

234. **The same can be said of budget reforms and budget credibility.** Budget institutions and processes look more like their developed counterparts', with an improved budget calendar (facilitating the approval of the budget before the commencement of the financial year) and the introduction of an activity-based budgeting system (back in 2004). However, with no formal allocation of resources to the ongoing review of systems and processes, and with behavior around budgeting maintained largely as before, there has been little discernible impact on functional measures, such as ensuring public spending that reflects budgeted promises.

235. **Public sector debt levels have escalated quickly in the past five years, as have debt sustainability and refinancing risks (discussed in section 3.1).** From 2011 onward, just as copper prices began to fall, the government started expanding its expenditure. By 2013, it had risen to 25.1 percent of GDP. Given the relatively slower growth in the total revenue (including grants), the expansion was largely financed through increased non-concessional external and domestic borrowing. Zambia's debt level had fallen from over 120 percent of GDP in 2005 to an average of 23 percent between 2006 and 2013, because of multiple rounds of debt relief, including from the HIPC initiative, for which Zambia attained the Completion Point in 2005. However, by 2014, total debt to GDP had risen to 35.3 percent. Non-concessional external borrowing more than doubled from 8.3 percent of GDP in 2011 to 17.9 percent in 2014, because the government issued a Eurobond in 2012 for US$750 million, a second in 2014 for US$1 billion, and a third in 2015 for US$1.25 billion (Smith, Davies, and Chinzara 2016). Any development plans over the next four to six years must ensure that borrowing is kept within sustainable limits.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CHAPTER 8: THE BINDING CONSTRAINTS

236. **This SCD is a diagnostic exercise that identifies key challenges and opportunities for Zambia to accelerate progress toward the twin goals.** It will become a reference point to help inform the priorities for the World Bank Group country engagement in the country. The analysis provided in the SCD will also feed into the development of the World Bank's Zambia Country Partnership Framework (CPF).

237. **To help guide prioritization, this SCD used a two-step procedure for diagnosis and prioritization of the 10 main challenges to achieving the twin goals.** The goal of the prioritization exercise was to define the most urgent policy areas for Zambia to achieve higher growth, inclusion, and sustainability. The SCD methodology is summarized in brief below (for further details, including on the associated consultation process, see annex 1).

238. **The first prioritization step involved a stock-take of evidence, expert consultations, and benchmarking.** This allowed the World Bank, the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA) team to build a framework for the diagnostic (chapter 4) and outline the main challenges being faced in Zambia (described in chapters 5–7). Consultation events were held with the national authorities and domestic stakeholders (that is, NGOs/civil society organizations, youth and academia; and the private sector). The 7NDP consultations and discussions (held in 2016 and 2017) also provided a rich set of ideas and insights that have been incorporated into this diagnostic.

239. **The second prioritization step enabled each of the main challenges to be linked to actionable and binding constraints (table 9).** These links are established on the evidence base considered as part of this diagnostic, the benchmarking exercise, and from insights shared and consultation events.

240. **The binding constraint suggests where policy should be directed to help tackle the challenge most effectively.** Some constraints can be linked to multiple challenges. Each of the constraints was justified through answers to the following questions:

- *Twin Goals Impact*: Would the easing of the challenge have a direct impact upon the twin goals of poverty eradication and shared prosperity?
- *Links*: Would progress with the challenge have a positive effect on other constraints?
- *Urgency*: Would any delay in easing this constraint lead to adverse consequences that are costly or difficult to reverse?
- *Feasibility*: How difficult would it be to alleviate this constraint?

241. **The final prioritized constraints do not suggest that any further challenges or constraints should be forgotten.** All the issues discussed in this diagnostic are important to ensuring sustainable, inclusive growth in Zambia. The purpose of the SCD prioritization is to identify actionable constraints that are likely to have the greatest bearing on eliminating absolute poverty and improving prosperity over the next five to seven years. Thus, they are necessary but unlikely to be sufficient for across-the-board development progress.

Table 9. **Challenges Mapped to the Actionable and Binding Constraints**

	Main Challenges (in no order)	Binding Constraints (in no order)
Growth	The full benefits of the mining sector have not been realized.	Too few mining sector links and the inefficient transfer of mining sector revenues to investment in other sectors.
Growth	Poor infrastructure, low skills, and the high cost of doing business means that most enterprises do not expand beyond the household level and create employment.	Small firms and farmers struggle to integrate into regional markets and domestic value chains.
		Ineffective planning and infrastructure investments in small towns and cities result in weak links among firms and sluggish job creation.
		Policy uncertainty and costly access to finance constrain the private sector, especially SMEs.
Inclusion	Small-scale farmers' low agricultural productivity.	Ineffective, maize-centric, and badly targeted support programs for poor farmers and insufficient investment beyond inputs (neglecting, for example, irrigation, feeder roads, and research).
Inclusion	The poor get insufficient benefits from fiscal policy due to vested interests and limited safety nets.	Fiscal policy is not pro-poor (for example, subsidies are ill-targeted and cash transfers coverage is too limited).
Inclusion	The low quality and lack of inclusiveness of education and health services hinder opportunities for the poor, especially women.	Low access and quality of education and health services.
		Too few girls complete secondary school due to financial constraints and social norms.
Sustainability	Volatile macroeconomic outcomes and an unsustainable fiscal and debt path.	A lack of macroeconomic stabilization mechanisms and systems to ensure the productive investment of borrowed resources.
Sustainability	Environmental degradation affects communities' health, livelihoods, and resilience to climate shocks.	A lack of tools and incentives for the poor to manage natural resources and support climate-resilient livelihoods and a lack of compliance with environmental regulations.

Too few mining sector links and the inefficient transfer of mining sector revenues to investment in other sectors

242. **The mining sector is a crucial part of the Zambian economy, and there is scope to further strengthen links.** The mining sector should be able to contribute to inclusive growth through three different channels: (a) providing government revenue, (b) backward links, and (c) spatial links (including infrastructure). Growth of the sector can create links through the demand for outputs, and hence employment, from other non-mining sectors. Further, the mining sector can generate the resources needed for redistribution and more inclusive growth. Diversification is also more likely if the resources generated from the mining sector are carefully invested in other job-creating sectors.

Small firms and farmers struggle to integrate into regional markets and domestic value chains

243. **Productivity could improve if better access to markets, and improved links in value chains, could be achieved.** Most businesses in Zambia remain at the household enterprises level; hence, there is a large informal sector. Further, there has been only modest improvement in agriculture productivity. There remains a pressing need to integrate small firms and farmers into domestic value chains and Zambia's regional market. Job creation is essential if the twin goals are to be met, as are SMEs and the shift from subsistence farming to agribusiness.

244. **Removing obstacles to doing business could potentially have a strong impact on the twin goals while increasing SMEs' productivity.** That said, current efforts to improve the business environment might only yield effects in the medium to long term. Meanwhile, Zambia could implement targeted interventions to increase the productivity of the informal sector and encourage private investment in select value chains, such as food processing for meat and chicken.

Ineffective planning and infrastructure investments in small towns and cities result in weak links among firms and sluggish job creation

245. **More and better employment opportunities for the poor offer a promising exit out of poverty.** Proper urban planning is central to tackling cities' high fragmentation and disconnectedness that exacerbates congestion costs. It will lower transportation costs and connect people with jobs, enabling job market pooling and matching, to accelerate scale economies in the labor market and create more and better employment for the poor.

246. **The measures to ease urban congestion in Zambia's cities require a multifaceted approach and will have a range of positive spillovers on other constraints.** Better planned and well-connected urban areas, with lower costs of living and doing business, are expected to attract capital investment and promote agglomeration economies. An enhanced urban density will bring economic activity, infrastructure development, and residential and commercial structures. Moreover, lower business costs will help cities break in to supplying internationally tradable goods and services.

247. **Cities in Zambia will remain bound by constraints related to their inefficient urban form.** Congestion is one of the physical constraints that results in high transportation costs and deters regional and global investment—a vicious circle locking cities into a low development trap. If not addressed urgently, this situation is likely to persist as the principal constraint on economic growth. Tackling the inefficiency in Zambia's spatial form is one of the country's most urgent challenges today.

Policy uncertainty and costly access to finance constrain the private sector, especially SMEs

248. **Zambia has been struggling with improving its business environment.** Besides poor infrastructure and access to finance, investors face several regulatory and administrative barriers. The major issues cited by businesses include corruption, tax rates, and licensing and permits. Thus, most SMEs in Zambia are informal and low-productivity enterprises. Despite their low productivity, these informal enterprises are a significant source of nonfarm employment and income in Zambia. Increased overall employment and the likelihood of starting a small enterprise could translate into gains on household consumption and build resilience to shocks.

249. **Facilitating access to credit and other critical inputs for the production process for a targeted number of informal entrepreneurs could have productivity spillover effects and thus positive effects on**

other constraints. Other than their own labor, informal enterprises have less capital and technology compared to formal businesses. Informal enterprises also have less bargaining power to demand an adequate share of the value added generated in the value chain they operate in, but the level of competition between informal firms is generally high, making the diffusion of new technology more likely. In rural areas, buoyant enterprises may lead farmers to more investment in production**.**

Ineffective, maize-centric, and badly targeted support programs for poor farmers and insufficient investment beyond inputs (neglecting, for example, irrigation, feeder roads, and research)

250. **Reforming the FISP can create links that spread benefits throughout the rural economy, but those impacts could get magnified when combined with other interventions.** Higher production of maize puts downward pressure on food prices, and this results in multipliers that are positive and higher for real income than cash income. Therefore, other binding constraints that raise rural incomes could benefit from both stimulating production and lowering food costs. However, combinations of policies tend to generate larger ripple impacts. Combined simulations show that giving cash to poor households through the SCTs, while at the same time raising crop productivity through interventions on irrigation and agricultural extension services—as well as feeder roads and agricultural research and development—creates larger real benefits for rural households than either policy alone.

251. **As agriculture remains the key livelihood activity among the rural poor in Zambia, an improved policy environment has urgency.** Failing to downscale the FISP in a budget-neutral environment to give way to other complementary investments in agriculture, and to more and larger direct cash transfers, entails a big lost opportunity cost. The FISP features—such as access to subsidized inputs being controlled through cooperatives or the requirement on land holdings—limit its coverage among very poor or remote households. The FISP targets poor households (at least those poor households that are involved in agriculture) better than other subsidies, but the amount of program expenditure necessary to provide one FISP subsidy to a household in the bottom 10 percent does not compare favorably to, for example, the SCT.

Fiscal policy is not pro-poor (for example, subsidies are ill targeted and cash transfer coverage is too limited)

252. **Eliminating subsidy spending and moving it to directly compensating poorer households would be supportive of the twin goals.** Because the 2015-era coverage level for the social cash transfer was low, for many poor households, energy subsidy expenditures delivered their only cash benefit generated from public expenditures. If subsidies on fuel, electricity, and agricultural inputs were eliminated entirely and SCT program coverage was increased to 500,000 beneficiaries, while the benefit level was increased by 100 percent over its 2015 level, the poverty headcount ratio would be expected to drop by approximately 4 percentage points (at disposable income) while inequality (as measured by the Gini coefficient) would fall an additional 0.5 points. This SCT reform would require resources equivalent to approximately 18 percent of the forgone subsidy expenditures.

253. **Expanding social protection coverage would have multiple positive externalities/links on other binding constraints, if adequate fiscal space can be found in the budget.** There is evidence from economics literature that safety net programs can have positive impacts on consumption, promote the use of social services, and increase the uptake of health and nutrition services. This includes the use of antenatal care among pregnant women and increasing the likelihood that young children receive timely preventive health care. Evidence from the social cash transfer program in Zambia itself points in some of

these directions. The program's randomized control trial evaluation reveals multiple positive impacts at two- and three-year intervals. Not only did the grant help reduce poverty and increase consumption among beneficiary households, there were also measurable benefits for the children in the households, such as reduced incidences of diarrhea and lower school dropout rates at the transitional ages of 11–14. In addition, the evaluation found a multiplier effect of between 50 percent and 70 percent that is primarily attributable to productive activities. This evidence also shows that these programs can have productive impacts; by providing a source of capital and mitigating household risk, they have been found to crowd-in labor and allow households to make productive investments (for example, livestock assets) and improve living conditions.

254. **Without urgent reform, poor households will continue to pay more into the fiscal system than they receive from it in cash.** VAT exemptions reduce the indirect tax burden for all households but cannot eliminate an indirect tax burden in targeted households. In 2015, Zambia exempted over 80 percent of the average household's consumption basket. However, VAT exemptions imply that only a portion of value added is not taxed. For example, producers of transport services still pay VAT charges on any nonexempt inputs and, it is assumed, pass those input VAT charges on to the final price of transport services. These indirect burdens are greater than direct VAT payments (on nonexempt goods) for all but the very richest households. Rather than exempting consumption categories from VAT, a more efficient way to deliver net benefits to poor and vulnerable households is through targeted cash transfers at a scale large enough to compensate for the burden created across households by VAT indirect taxes.

255. **The proposed interventions are technically feasible but would require strong political commitment.** The government has been showing a willingness to move in this direction. It has recently also moved toward withdrawing fuel and electricity subsidies to address current fiscal imbalances, while also creating fiscal space for capital spending, addressing large payment arrears, and possibly increasing resources toward social safety net programs. In the meantime, allocating public resources and identifying fiscal interventions to help reduce poverty has become an increasing concern of the government. In that spirit, the government started rolling out unconditional cash transfers through safety net programs, which have been gradually scaling up since its introduction in 2003. In 2015, the social cash transfer scheme reached over 200,000 households.

Low access and quality of education and health services

256. **Increasing access to education and health services is intrinsically valuable, but the potential to affect the twin goals and help remove other binding constraints will largely depend on the ability of the economy to create more and better jobs.** Only then will people be able to employ their higher knowledge and health gains. Equally important, improvements in stunting and education take time to translate into better incomes (for example, for an expanded cohort of better educated kids to reach the labor market or for children who avoid malnutrition to observe higher earnings and productivity). Despite the average improvements across many health and education indicators in the recent past, many of those indicators are still critically high, and the impacts have not always reached the poor. Improved learning and maternal and child mortality are key areas for accelerated improvements, given that Zambia compares very poorly with other (lower) middle-income countries. Better schools, as opposed to more schools, is the key priority in the education sector at the primary level. There is a shortage of qualified teachers with adequate skills, instructional time is insufficient, and the availability and use of pedagogical materials is low. There are high rates of teacher absenteeism due to poor incentives and weak accountability mechanisms. Greater access is needed at the secondary level, especially for poor rural girls. This aspect is discussed in more detail in the next binding constraint.

257. **There is a strong commitment to education reflected in the allocation of the government budget to the Ministry of Education.** The proportion of the education budget in the total government budget has been one of the largest over the past decade. In 2015, the budget allocation to the education sector was 20.2 percent of the total government budget, and it is the single largest share of the proposed budget. The Ministry of Education is the leading ministry in the country to pilot an Output-based Budget (OBB) system in 2015 to improve the efficiency of its spending. There is a need to strengthen the supervision over and measurement of school performance, including better dissemination of school performance information. Implementing this proposal is more feasible given the strong commitment from the ministry to improve the efficiency of its budget and expenditure (disbursement) systems. The quality of instruction can also be enhanced by improving teacher management systems, including the screening and recruitment of teachers, preparation and training, deployment, pay and promotion, performance management, the alignment of incentives, and upgrading the qualifications of in-service teachers. Financial constraints do not appear as an obstacle, but the World Bank should prepare to provide technical support to such reforms and measures if the Ministry of Education is willing to move in this direction.

258. **Strengthening the health care system is politically feasible but faces technical constraints.** Because improved access to quality health care is an uncontroversial good, the incentives of various stakeholders should be aligned to improve outcomes; yet, results remain poor. Donor funding to health is substantial, though the majority goes to HIV and about half of the disbursements from the Ministry of Health are allocated to salaries/benefits. Health system challenges include matching staff with needs and providing funds to the district level on time. This points to technical (more than financial) constraints in improving the allocation of facilities, the training of staff, and the overall quality of supplies (the Auditor General's report revealed large issues related to expired and broken medications). As in education, improving the efficiency of health sector spending is critical and includes reducing staff absenteeism, reducing corruption, and increasing transparency in relation to Zambia's drug debt. The ability of the government to contain the government wage bill for the health and education sectors, or to link wages with performance and increased transparency, is probably less feasible given the role the civil service plays in the broader political economy dynamics. In a context of increasing competition and political instability, the bureaucracy has emerged as a powerful actor.

Too few girls complete secondary school due to financial constraints and social norms

259. **Improving poor rural girls' access to and attainment of secondary education is expected to have a high impact on the twin goals, substantial impact on economic growth, and high spillover/link effects to other sectors and binding constraints.** Postprimary education can improve their future employment possibilities and reduce poverty. The current labor market in Zambia pays very high wage premiums for higher levels of education and skills. Educated women can also become empowered to break away from traditional norms of early marriage and a lack of family planning, which lead to high dropout rates for girls once they reach childbearing age. Lower levels of fertility can reduce the population growth rate and improve the life chances of the next generation. By contrast, continued high levels of fertility limit the resources available to invest in individual children, particularly among poor households that generally have higher numbers of children, and lead to the perpetuation of intergenerational poverty. Educated women are more likely to invest in the education of their children because they are aware of the returns to schooling.

260. **Zambia needs to tackle the gender disparities on secondary education urgently.** With an annual population growth rate of 2.9 percent in 2016, and a high TFR of 5.3 children per woman in 2013/14, Zambia is expected to continue experiencing significant population growth (population is expected to

grow from 16 million to 49 million in 2053) as the large youth population enters the reproductive age. As a country where the transition from high to low birth and death rates is moving at a slow pace, this is undermining Zambia's growth and poverty reduction prospects. This is because high population growth increases the demand for jobs, health, and other social services, which the economy is currently not able to provide. High fertility strains public service delivery in education, health, water, and sanitation, and there is the potential risk for an increase in instability and crime if job growth cannot keep up with population growth in the long term.

261. **From a technical perspective, a range of policies can help promote girls' education and remove the financial costs that prevent their fuller participation in labor markets and society.** Interventions focused on strengthening skills while offering support for job creation have been proven to be most effective. Zambia is in the process of establishing a good foundation to implement these types of programs through the recently established Girl's Education and Women's Empowerment and Livelihoods (GEWEL) Project, which provides a combination of soft and business skills, assets transfer in the form of a productivity grant, support for savings, and mentorship for poor women in rural areas. However, it is less clear how some of these policies are dealing with the overarching constraint of traditional customs—that is, the dependencies and norms that shape the coordination and cooperation within families and communities.

A lack of macroeconomic stabilization mechanisms and systems to ensure the productive investment of borrowed resources

262. **Zambia remains vulnerable to the effects of copper price volatility, and this has made macroeconomic, fiscal, and debt management challenging.** A lack of instruments (for example, stabilization funds or fiscal buffers) or policy efforts to smooth the economic cycle leads to swings in the real exchange rate. If these gaps could be filled and the policy is adequately adjusted, then more sustained economic expansion could be achieved and the ill effects of volatility on the poor could be reduced.

263. **There remains a huge urgency to deal with rapidly growing risks linked to public sector debt, because levels escalated quickly in 2012–17.** Any development plans over the next four to six years must ensure that borrowing is kept within sustainable limits. Unsustainable debt levels would be a huge impediment for the economy and would undermine recent development progress by forcing the government to reverse increases in pro-poor spending.

A lack of tools and incentives for the poor to manage natural resources and support climate-resilient livelihoods and a lack of compliance with environmental regulations

264. **Improving tools and incentives for the poor to manage natural resources and support climate-resilient livelihoods could have a positive impact on the twin goals.** Related shocks have cost Zambia 0.4 percent or US$13.8 billion in annual economic growth. Further, without climate adaptation, the impacts could rise to 0.9 percent of GDP over the next decade.

265. **Addressing the effects of climate change is expected to spill over to alleviating other constraints.** Tools such as addressing climate change through spatial planning can help address badly targeted support programs to vulnerable communities and help build more targeted, robust tools such as social protection schemes/safety nets that target the poor to help communities build resilience to droughts, floods, and so on. Programs and tools that support and incentivize sustainable and climate-resilient natural resources management will help build the resilience of ecosystems, the natural base from which the poor derive

their livelihoods, and of the tourism sector, for example, which has the potential to be an important GDP earner for Zambia.

266. **The effects of climate change may roll back the current plans for development and growth in rural Zambia.** Climate impacts are already being felt most on renewable natural resources and agrarian-dependent production and may have significant effects on GDP, if action is not taken to build more resilient systems. For Zambia, there is up to a 20 percent chance that droughts will occur in the coming 10 years, and this is likely to increase in the future because of climate change. The impact of droughts on people living below the national poverty line was highly significant in 2015 (World Bank 2017e). In addition, forecasts of drought in some of the most vulnerable areas in Zambia during this year's rainy season will leave rural livelihoods exposed again, will possibly affect the mining sector in terms of intermittent energy supply, and will subsequently derail current initiatives to improve rural livelihoods in the agricultural sector. For instance, climate change related losses in agriculture are expected to amount to US$2,200–3,130 million over the next 10–20 years. Hence, planning for resilient agricultural and energy sectors and early planning in response to droughts can help stabilize and sustain the growth trajectory over the next five to seven years and into the future.

267. **There is a strong political pledge to respond to climate change reflected in Zambia's commitment to action through its NDCs.** Implementation is, thus, crucial within the next five to seven years. It is also necessary to address the costs of the response to climate change with a combination of traditional and nontraditional sources of finance, including domestic sources. Zambia is well placed to take advantage of this, with favorable domestic growth projections, the removal of subsidies, and increased private sector investments (Doing Business rating increased) in climate-sensitive sectors.

CHAPTER 9: KNOWLEDGE GAPS AND IDEAS FOR FUTURE RESEARCH

268. **In addition to flagging key constraints, this SCD process has highlighted some knowledge gaps.** Future analytical work could be targeted at these gaps, which could be filled in the coming years and which could motivate the Advisory Services and Analytics (ASA) program as part of the next Zambia CPF. The knowledge gaps identified are as follows:

- **Agricultural productivity growth.** The overall need of increasing productivity among smallholders and small emergent commercial farmers is not disputed. That strategy is undoubtedly a key entry point into reducing rural poverty at this stage of Zambia's development. However, the deliberate focus on increasing input use through subsidization for productivity-enhancing purposes is the subject of debate. There seems to be a consensus that the FISP needs to be reformed. An e-voucher scheme was recently piloted, but solid evidence is missing to establish whether this has been a step in the right direction. For instance, it is essential to learn whether it has encouraged the increase of private sector involvement (especially agro-dealers) and crop diversification, as well as better targeting and more transparency. At the same time, the country has been producing surplus maize in recent years; so, it is unclear why this has not translated into lower prices for poor farmers. Documenting the potential for maize productivity across settings (for example, in marginal areas versus fertile areas) and socioeconomic groups (for example, land-poor, smallholders, small emergent commercial farmers, and large estate owners) is important to understand how the productivity gap can be closed. Further, there is some evidence (at least anecdotally) that agricultural exports, particularly of sugar, tobacco, wheat, soybean, and maize, have shown fast growth in recent years. It is broadly assumed that better value chains linking smallholders and markets are missing, despite the likelihood that improved market access is more pivotal than subsidized input availability. Yet, concrete examples of what exactly has prevented market participation among agricultural households in Zambia are largely missing or remain without clear answers (World Bank 2016[38]).

- **Wealth accounting.** There is a need to go beyond the 'flow data' like GDP and to look at changes in the 'stock' of wealth. GDP only measures current income and production. This diagnostic also needs to consider income for the long term. When Zambia exploits its minerals, or cuts down trees, it is depleting its wealth. This is a positive for GDP, but the long-term sustainability of that 'growth' must also be considered. If subsoil assets, like copper, are converted to physical capital (for example, structures, infrastructure, or urban land), social capital, and human capital, then wealth has been maintained. However, if subsoil assets are being depleted faster than other assets are built, then wealth is being depleted.

- **Role of small and medium towns and cities.** Ensuring more persistent and well-remunerated participation in nonfarm activities also appears to be a feasible option to get

[38] Concept Note - Africa: Productive Diversification in African Agriculture and Effects on Resilience and Nutrition, December 9, 2016.

households out of poverty. Yet, little is known about the role of small and medium towns and cities in fostering off-farm employment, and why urban-rural growth corridors are unable to expand fast enough, or how competitiveness/job creation in growth corridors can be enhanced in both size and spatiality

- **Migration.** It will be useful in future to better understand the role of rural-urban links and migration: who is migrating (men, women, the ultra-poor, or the relatively better-off), why they are migrating (push or pull), the duration of their migration (seasonal or long term), and where they are migrating to (village, small centers, or straight to Lusaka). The latest LCMSs do not suggest great migratory movements in between surveys. However, there may be some qualitative studies that may complement the data sets, as well as show what links exist (remittances and so on). It is likely that some but not all answers are out there. Even seasonal migration can dramatically change power structures and responsibilities within households. In other countries, most seasonal migrants are men, and this leads to various types of consequences for non-migrating women and their households.

- **Forced displacement issues.** Efforts are needed to better understand displacement and Zambia's key role in the region as a 'host' country. Zambia hosts a significant number of refugees, and as of mid-2014, some 54,000 refugees and other people of concern were residing in Zambia. There remains a need to consider how this issue affect poverty outcomes and regional disparities within Zambia.

- **Cash transfers.** Cash transfers are well known instruments to reduce poverty and hedge against risk. Zambia should not be an exception. While well-targeted and large-enough transfers through safety net programs can, in principle, also hedge against risk and reduce poverty substantially, their validity needs to be articulated and documented within the Zambian context. At present, social safety net programs, including the SCTS, have limited reach within rural households, and work remains to be done to understand how well-targeted they are and the appropriateness of the benefit package to both hedge against risk and promote productivity within the household.

- **Economic impacts of climate change.** There is a lack of comprehensive and rigorous assessments. Existing studies are only on limited sectors and lack the granularity needed to make resilience policies that are more targeted toward the poor and in areas and households that are highly vulnerable. There is a need for more accurate and comprehensive estimates of the climate change impacts for Zambia, using available data sets (for example, census, household, climate data, sector data, and so on) and existing methodologies. Future efforts should also look more at the gender-based implications of climate change.

- **Understanding resilience to climate change and extreme events.** There is limited knowledge on measuring and quantifying resilience. An ongoing initiative, Measuring Household Resilience Project (P160194), aims to assess the impacts of the PPCR projects on diversification in livelihoods and agricultural practices, as well as household welfare and climate resilience in Zambia, by collecting household survey data. However, follow-up surveys will be required to keep track of the long-term impacts of the PPCR projects on economic diversification and resilience. There is also a need for further studies and a better understanding of resilience in other key sectors, such as natural resources and health.

- **Vested interests.** Finally, there is a sense that vested interests hinder pro-poor growth, especially in rural areas, and more transparency is needed in the allocation of scarce resources. Weak public management systems, poor information, and a lack of effective accountability mechanisms generate space for vested interests to operate. A better understanding of the political economy and governance constraints in priority sectors (education, health, and agriculture) or policy areas (such as civil service reform), and a review of positive deviances within the country, would offer invaluable insights to identify policy reforms where there is an alignment of incentives from key actors in support of incremental changes. Further, efforts are needed to explain why the demand for better governance is weak.

269. **Zambia also faces specific data gaps that if resolved could improve the quality of future monitoring and analysis.** An assessment of Zambia's statistical performance shows that there is a need for an improvement of the statistical system, particularly in areas of the newly endorsed Sustainable Development Goals. An improvement of government finance statistics is also needed, to properly inform evidence-based decision-making processes as well as for monitoring and evaluating the development progress in coming years. Importantly, the assessment highlights that Zambia has the latest available data on child immunization, adult literacy and completion rates, water and sanitation, and national accounts. However, more recent data on social indicators such as stunting, maternal mortality rate, and skilled healthcare workers—particularly in the areas of poverty, unemployment, and up-to-date civil registration and vital statistics (CRVS) data—are missing. There is usually a time lag between the calendar year and the date of the data that are incorporated to the WDI database.

REFERENCES

Adato, M., and L. Bassett. 2009. “Social Protection to Support Vulnerable Children and Families: The Potential of Cash Transfers to Protect Education, Health and Nutrition.” PMC Paper.

Afrobarometer. 2015. “Zambia: Round Six Data.” http://www.afrobarometer.org/data/zambiaround-6-data-2015.

———. 2016. “Job Performance of MPs, Local Councilors: Are Representatives Serving Voters or Themselves?”: http://afrobarometer.org/publications/ad115-job-performance-mps-local-councillors-are-representatives-serving-voters-or-themselves

AFRODAD (African Forum and Network on Debt and Development). 2003.

Akresh, R., D. de Walque, and H. Kazianga. 2013. “Cash Transfers and Child Schooling: Evidence from a Randomized Evaluation of the Role of Conditionality.” Policy Research Working Paper 6340, World Bank, Washington, DC.

Ashraf, N., E. Field, G. Rusconi, A. Voena, and R. Ziparo. 2017. “Traditional Beliefs and Learning about Maternal Risk in Zambia.” *American Economic Review: Papers & Proceedings* 107 (5).

Banerjee, S., Z. Romo, G. McMahon, P. Toledano, P. Robinson, and I. Pérez Arroyo. 2015. *The Power of the Mine: A Transformative Opportunity for Sub-Saharan Africa*. Directions in Development-Energy and Mining. Washington, DC: World Bank.

Beegle, Kathleen; Christiaensen, Luc; Dabalen, Andrew; Gaddis, Isis. 2016. Poverty in a Rising Africa. Washington, DC: World Bank. © World Bank. https://openknowledge.worldbank.org/handle/10986/22575 License: CC BY 3.0 IGO.”

Bhorat, H., M. Oosthuizen, D. Yu, and N. Kachingwe. 2016. “Understanding Growth-Income Inequality Interactions in Zambia.” Development Policy Research Unit, University of Cape Town. Mimeo.

Boone, C., and M. Wahman. 2015. “‘Captured Countryside? Stability and Change in Sub-National Support for African Incumbent Parties.” Working Paper Series, 172, London: LSE.

Bwalya, S., and K. Mpembamato. 2011. “How Interest Groups Lobby to Influence Budget Outcomes in Zambia.” *Journal of International Development* 23 (3).

Cali, M., and D. te Velde. 2007. “Is Zambia Contracting Dutch Disease?” Overseas Development Institute, Working Paper 279, London.

Chapoto, A. et al. 2015. “The Politics of Maize in Zambia: Who Holds the Keys to Change the Status Quo?” IAPRI, Zambia.

Chapoto, A., and B. Chisanga. 2016. *Zambia Agriculture Status Report*. IAPRI http://www.iapri.org.zm/images/TechnicalPapers/IAPRI-Booklet.pdf

Chapoto, A., L. Chabala, and O. Lungu. 2016. “A Long History of Low Productivity in Zambia: Is It Time to Do away with Blanket Recommendations?” IAPRI Working Paper 110.

Cheeseman, N., and M. Hinfelaar. 2009. “Parties, Platforms and Political Mobilization: The Zambian Presidential Election of 2008.” *African Affairs* 109 (November): 51–76.

Cheeseman, N., and M. Larmer. 2015. “Ethnopopulism in Africa: Opposition Mobilization in Diverse and Unequal Societies.” *Democratization* 22 (1): 22–50.

CSO (Central Statistical Office). 2014. “Labor Force Survey: Key Indicators.” Government of the Republic of Zambia.

———. 2016. “The 2015 Living Conditions and Monitoring Survey (LCMS): Key Findings.” Lusaka, Zambia.

CUTS International. 2016. “Zambia Food Reserve Agency Pricing Mechanisms and the Impact on Maize Markets.” Consumer Unity and Trust Society (CUTS), Jaipur.

Dabalen, A., A. Narayan, J. Saavedra-Chanduví, A. Hoyos Suárez, A. Abras, and S. Tiwari. 2015. *Do African Children Have an Equal Chance? A Human Opportunity Report for Sub-Saharan Africa*. Directions in Development Series. Washington, DC: World Bank.

Datt, G., and M. Ravallion. 1992. “Growth and Redistribution Components of Changes in Poverty Measures: A Decomposition with Applications to Brazil and India in the 1980s.” *Journal of Development Economics* 38 (2).

de la Fuente, A., M. Rosales, and J. Jellema. 2017. “The Impact of Fiscal Policy on Inequality and Poverty in Zambia.” Policy Research Working Paper 8246. World Bank, Washington, DC.

de la Fuente, Alejandro, A. Murr, and E. Rascón. 2015. *Mapping Subnational Poverty in Zambia*. World Bank, Washington, DC.

DFID (U.K. Department for International Development). 2015. *Zambia - Inclusive Growth Diagnostic, Lusaka*.

Filmer, D., and L. Fox. 2014. *Youth Employment in Sub-Saharan Africa*.. World Bank, Washington, DC.

Foster, V., and J. Steinbucks. 2009. “When Do Firms Generate? Evidence on In-house Electricity Supply in Africa.” *Energy Economics* 32: 505–514.

Frederiksen, T. 2017. “Corporate Social Responsibility and Political Settlements in the Mining Sector in Ghana, Zambia and Peru.” Effective States and Inclusive Development Research Centre (ESID) Working Paper No. 74.

Fritz, V. 2009. “Applied Governance and Growth Diagnostics: Basic Framework and Some Illustrations from Zambia.” Mimeo.

Fuglie, K., and N. Rada. 2013. *Resources, Policies, and Agricultural Productivity in Sub-Saharan Africa*. Economic Research Report (ERR) 145: 1–78.

Goldstein, M., and C. Udry. 2008. “The Profits of Power: Land Rights and Agricultural Investment in Ghana.” World Bank.

Gondwe, M., and E. Pamu. 2014. “Growth Strategies for Zambia: Harnessing Natural Resource Wealth for Sustainable Growth,” in Christopher, A., P. Collier, and M. Gondwe. 2014. “Zambia: Building Prosperity from Resource Wealth.” Oxford University Press.

GRZ (Government of the Republic of Zambia). 2015. “Harnessing the Demographic Dividend: The Future We Want for Zambia.” Ministry of Finance.

Hinfelaar, M., and J. Achberger. 2017. “The Politics of Natural Resource Extraction in Zambia.” ESID Working Paper No. 80.

Hoddinott, J., H. Alderman, J. Behrman, L. Haddad, and S. Horton. 2013. “The Economic Rationale for Investing in Stunting Reduction.” *Journal of Maternal and Child Nutrition* 9 (S2).

IAPRI. 2016. “What Is the Annual budget for the Agriculture Sector?” http://fsg.afre.msu.edu/zambia/What_is_in_the_2016_Agric_Sector_Budget_final.pdf

IEG (Independent Evaluation Group). 2015. “World Bank Group Engagement in Resource-rich Developing Countries: The Cases of the Plurinational State of Bolivia, Kazakhstan, Mongolia, and Zambia.” Washington, D.C.: World Bank Group.

IMF (International Monetary Fund). 2013. “Article IV Consultation.” IMF Country Report No. 14/5, Washington, DC.

———. 2015. *Zambia*. IMF Country Report No. 15/153.

Jayne, Mather, Mason, and Ricker-Gilbert. 2013. “How Do Fertilizer Subsidy Programs Affect Total Fertilizer Use in Sub-Saharan Africa? Crowding Out, Diversion, and Benefit/Cost Assessments.” *Journal of Agriculture Economics* 44 (6).

Jayne T.S., N.M. Mason, W.J. Burke, and J. Ariga. 2016. “Agricultural Input Subsidy Programs in Africa: An Assessment of Recent Evidence.” International Development Working Paper 145, Michigan State University, East Lansing, MI.

Kent, R., and M. MacRae. 2010. “Agricultural Livelihoods and Nutrition – Exploring the Links with Women in Zambia.” *Journal of Gender and Development* 18 (3).

Kragelund, P. 2017. “The Making of Local Content Policies in Zambia's Copper Sector: Institutional Impediments to Resource-led Development.” *Resource Policy* 51: 57–66.

Kuteya, A., and A. Chapoto. 2017. “E-voucher Performance and Recommendations for Nationwide Rollout during the 2017-18 Farming Season.” IAPRI Policy Brief, Lusaka, Zambia.

Levy, B. 2014. *Working with the Grain: Integrating Governance and Growth in Development Strategies*. New York: Oxford University Press.

Lipperty, A. 2014. “Spill-Overs of a Resource Boom: Evidence from Zambian Copper Mines.” OxCarre (University of Oxford).

Male, C., and Q. Wodon. 2016. “Basic Profile of Child Marriage in Zambia.” Health, Nutrition, and Population (HNP) Knowledge Brief: Child Marriage Series. Washington, DC.

Marenya, P., and C. Barret. 2009. “Soil Quality and Fertilizer Use Rates among Smallholder Farmers in Western Kenya.” *Journal of Agricultural Economics* 40 (5).

Mason, N. M., and R. J. Myers. 2013. “The Effects of the Food Reserve Agency on Maize Market Prices in Zambia.” *Agricultural Economics* 44: 203–216. doi:10.1111/agec.12004

Mason, N., T. Jayne, and N. van de Walle. 2016. “The Political Economy of Fertilizer Subsidy Programs in Africa: Evidence from Zambia.” *American Journal of Agriculture Economics* 99 (3).

Mason N., and T. S. Jayne. 2013. “Fertilizer Subsidies and Smallholder Commercial Fertilizer Purchases: Crowding Out, Leakage, and Policy Implications for Zambia.” *Journal of Agricultural Economics* 64(3): 558–82.

Mofya-Mukuka, R., and M. Mofu. 2016. “The Status of Hunger and Malnutrition in Zambia: A Review of Methods and Indicators.” IAPRI Technical Paper No. 5. http://www.iapri.org.zm/images/TechnicalPapers/TP5.pdf. Accessed August 2017.

Montenegro, Claudio E., and Harry Anthony Patrinos. 2014. “Comparable Estimates of Returns to Schooling around the World.” Policy Research Working Paper No. WPS 7020. Washington, DC: World Bank Group.

Mwanawina, I., and J. Mulungushi. 2002. “‘Explaining African Economic Growth Performance: The Case Study of Zambia.” Mimeo.

Namonje-Kapembwa, T., and A. Chapoto. 2016. “Improved Agricultural Technology Adoption in Zambia: Are Women Farmers Being Left Behind?” IAPRI Working Paper 106.

Namonje-Kapembwa, T., R. Black, T. S. Jayne. 2015. “Does Late Delivery of Subsidized Fertilizer Affect Smallholder Maize Productivity and Production?” IAPRI Working Paper 97.

Oxford Poverty and Human Development Initiative (OPHI). 2016. “Zambia Country Briefing”, Multidimensional Poverty Index Data Bank. OPHI, University of Oxford. Available at: www.ophi.org.uk/multidimensional-poverty-index/mpi-country-briefings/.

Readhead, A. 2016. “Transfer Pricing in the Mining Sector in Zambia.” Case Study, Natural Resources Governance Institute, https://resourcegovernance.org/sites/default/files/documents/nrgi_zambia_transfer-pricing-study.pdf.

Resnick, D., and J. Thurlow. 2014. “The Political Economy of Zambia’s Recovery Structural Change without Transformation?” IFPRI Discussion Paper 01320.

———. 2017. “The Political Economy of Zambia’s Recovery. Structural Change Without Transformation?” International Food Policy Research Institute (IFPRI) Discussion Paper 01320. Washington, DC.

Roger, L., G. Smith, and O. Morrissey. 2017. “Exchange Rate and Inflation Dynamics in Zambia.” Policy Research Working Paper 8128. World Bank, Washington, DC.

Sichikwenkwe, P. 2009. “Gender Links, SADC Gender Protocol Barometer Baseline Study: Zambia 36” available at http://www.genderlinks.org.za/article/sadc-gender-protocol-barometer-baselinestudy-zambia-2009-10-16.

Sitko, N., J. Chamberlin, and B. Mulenga. 2015. “Unpacking the Growth of Medium-scale Farms Zambia: What Are the Implications for the Future of Smallholder Agriculture?” IAPRI Working Paper 100.

Smith, G., F. Davies, and Z. Chinzara. 2016. “Beating the Slowdown: Reducing Fiscal Vulnerabilities for Economic Recovery.” Macroeconomics and Fiscal Management (MFM) Policy Note.

Taylor, S., and N. Simutanyi. 2007. “Governance and Political Economy Constraints to World Bank CAs Priorities in Zambia: A Diagnostic.” Mimeo.

Thurlow, J., and P. Wobst. 2006. “The Road to Pro-Poor Growth in Zambia: Past Lessons and Future Challenges.” IFPRI, Washington, DC.

Timmer, C. 2005. “Agriculture and Pro-Poor Growth: An Asian Perspective.” Center for Global Development, Working Paper No. 63. Washington, DC: Center for Global Development.

———. 2015. “Explaining Zambian Poverty: A History of (Nonagricultural) Economic Policy since Independence.” *Journal of International Development* 27(7): 953–986.

World Bank. 2011. “The Changing Wealth of Nations.”: https://siteresources.worldbank.org/ENVIRONMENT/Resources/ChangingWealthNations.pdf

World Bank. 2014. “Diagnostic Trade Integration Study (DTIS).”

World Bank. 2015a. “Making Mining Work for Zambia.” Economic Brief 05.

World Bank. 2015b. “Powering the Zambian Economy.” Economic Brief 06.

World Bank. 2015c. *Education Public Expenditure Tracking Survey and Quantitative Service Delivery Survey Report in Zambia*.

World Bank. 2015e. “Adolescent Girls in Zambia.” Policy Brief: https://openknowledge.worldbank.org/handle/10986/24576

World Bank. 2016a. “Changing Wealth of Nations.”

World Bank. 2016b. “Raising Revenue for Economic Recovery.” Economic Brief 08.

World Bank. 2016c. “Beating the Slowdown: Making Every Kwacha Count.” Economic Brief 07.

World Bank. 2017a. “Let’s Work: Zambia Job Diagnostic.”

World Bank. 2017c. “Reaping Richer Rewards from Public Expenditure in Agriculture.” Economic Brief 09.

World Bank. 2017d. *World Development Indicators*.

World Bank. 2017e. “Measuring Household Resilience (P160194).”

World Bank. 2017f. “Ease of Doing Business Survey.”

World Bank. 2017g. “The Changing Wealth of Nations.”

World Bank. 2017h. “Climate-Smart Agriculture in Zambia. CSA Country Profiles for Africa Series”. International Center for Tropical Agriculture (CIAT), Washington, DC.

World Bank. 2017i. “Commodities Market Data.” Washington, DC.

World Bank Group. 2017. *World Development Report 2017: Governance and the Law*. Washington, DC: World Bank.

ZIPAR (Zambia Institute for Policy Analysis and Research). 2012. “Creating and Wasting Fiscal Space: Zambian Fiscal Performance 2002-2011.” Working Paper No. 6, Lusaka.

Zulu, B.A.M., A. Chapoto, N. Nkumbula, and K. Mulenga. 2016. “Economic Diversification in Zambia: Agriculture Leading the Way.” IAPRI Policy Brief Number 87.

ANNEX 1: SCD METHODOLOGY

1. **This SCD is a diagnostic exercise to identify the key challenges and opportunities for Zambia to accelerate progress toward the twin goals.** It will become a reference point to help inform client consultations on the priorities for the World Bank Group engagement in the country. The analysis provided in the SCD will feed into the development of the World Bank's Zambia CPF.

2. **To help guide priorities, this SCD has followed a two-step procedure for diagnosis and prioritization of the 10 main challenges to achieving the twin goals.** The procedure was designed and developed having reviewed other SCD documents and the World Bank's SCD guidance. The process was refined during country-level consultation and reviewed and approved as part of the SCD concept note review, held in April 2017. The goal of the prioritization exercise is to define the most urgent policy areas for Zambia to achieve higher growth, inclusion, and sustainability.

Prioritization Step 1: Identifying and Benchmarking the Challenges

Review of Evidence

3. **A stocktaking of evidence and expert consultations allowed the SCD team to outline the main issues and challenges being faced in Zambia.** This review drew on work completed inside and outside the World Bank. The review helped the team develop a long list of challenges. Focal points from across the World Bank's areas of operation were appointed and requested to submit ideas and inputs. These interactions (virtual and at country team retreats) led to the development of the SCD Concept Note that was reviewed in April 2017. Having reviewed the available evidence carefully, and after wide consultations, a set of hypotheses was developed (see chapter 4). Each hypothesis summarizes the selection of the main obstacles to inclusive and sustainable growth by its impact upon growth, inclusion, or sustainability and is connected to Zambia's defining characteristics.

4. **Unpacking the three proposed hypotheses has led to the identification of the main challenges to achieving the twin goals.** This short list of the main challenges was further refined at the concept review and at the country team retreats held in June 2017. The list of the main challenges (presented in chapter 4) is repeated in chapter 8 for convenience (table 9). Each of the main challenges are also discussed in depth, in chapters 5 to 7, as challenges to growth, inclusion, or sustainability based on the framework developed for this SCD (see figure 39). The main challenges are also linked to one of the three underlying factors that are argued to condition Zambia's development: (a) extractives-based growth, (b) uneven territorial development, and (c) stability but weak governance.

5. **The hypotheses and the 10 main challenges were developed in close consultation with the national authorities.** Regular dialogue with the government involved discussions on how progress with poverty reduction and reducing inequality could be expedited. The government was also developing its 7NDP in 2016 and 2017. The 7NDP consultations and discussions also provided a rich set of ideas and insights that have been incorporated into this SCD.

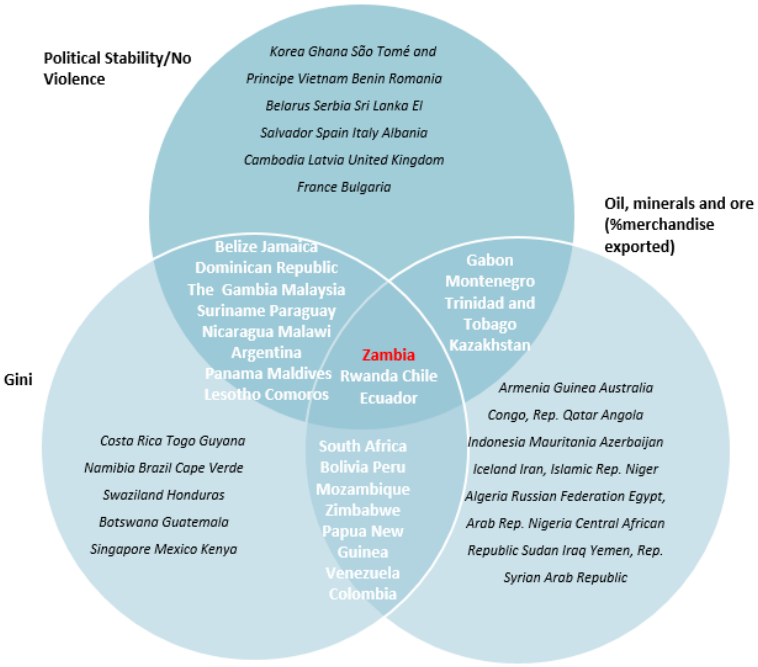
6. **The hypotheses and 10 main challenges benefited from insights shared at stakeholder consultations.** NGOs and civil society organizations attended the consultations in June 2017, and the

private sector in July 2017. Participants provided their views and insights on the SCD framework and hypotheses.

Benchmarking Exercise

7. **The prioritization process was supported by an analytical benchmarking exercise.** This measures Zambia's performance across 82 indicators in comparison to a selected group of comparator or peer countries, as well as globally (figure A1.1). The distance from the 'frontier', or the best performer, would provide insight into the severity of each of the main challenges being faced in Zambia.

Figure A1.1. **Zambia's Peers**



8. **To make the selection of peer countries, three variables were used.** First, '*oil, minerals, and ore as share of exports*'; this variable displays the level of natural resources such as oil, gold, or minerals that the countries have as a percentage of total exports (Source: World Bank 2017d). Second, the '*Gini Index'*; this indicator represents the degree of inequality in the distribution of individuals' income in a country (Source: World Bank 2017d). Third, '*political stability/no violence index'*; this provides a comparable indicator for the quality of governance and political stability, including terrorism. Good natural resource management, together with institutional stability, is key to good economic performance (Source: World Governance Indicators).

9. **The exercise revealed that Zambia occupies some of the highest positions in the world distribution.** Zambia is in the 60th percentile for political stability and no violence, the 97th percentile for the Gini coefficient, and the 91st percentile for the share of minerals and oil to total exports. Zambia (together with Botswana, Lesotho, Namibia, South Africa, and Swaziland) has one of the highest concentrations of inequality in Sub-Saharan Africa and the world (Beegle et al. 2016). In the region, only a few countries have higher rates of political stability. Finally, more than three-fourths of Zambia's exports (79 percent) are based on mining commodities, which is on par with countries that have been more successful on welfare outcomes, such as Norway (72 percent) and Chile (62 percent).

10. **Indicators for each of the main challenges were sought for each of the main constraints.** The SCD focal points, with knowledge of the specific challenges, provided indicators that could be used to benchmark Zambia's performance in each area. To compare Zambia globally and to its peers, 82 indicators were used. The distance between Zambia and the frontier (the performance of the country in the 95th percentile of the distribution) then helps provide some insight into the severity of the constraint being faced. These insights helped confirm the selection of the short-listed constraints and fed into the second step in the prioritization process.

Prioritization Step 2: Actionable and Binding Constraints

11. **The second step in prioritizing the main challenges followed an expert consultation process.** This process was based on the evidence accumulated during the first step. Consultations were held for the World Bank Group country team (involving the World Bank, the IFC, and MIGA). Staff were convened as part of a country retreat held in Zambia and through videoconference (in cases where international staff could not travel). Consultation events were also held with the national authorities; NGOs/civil society organizations, youth, and academia; and the private sector (led by IFC).

12. **Each of the main challenges is linked to an actionable constraint.** These links were established on the evidence base considered as part of this diagnostic and the benchmarking exercise and from insights shared and consultation events. The binding constraint suggests where policy should be directed to help tackle the challenge most effectively (table 9).

13. **During the consultations, all participating experts' viewpoints contributed to an assessment of the challenges and actionable constraints.** Experts were asked the following about each of the main challenges:

- *Twin Goals Impact*: Would the easing of the challenge have a direct impact upon the twin goals of poverty eradication and shared prosperity?
- *Links***:** Would progress with the challenge have a positive effect on other constraints?
- *Urgency***:** Would any delay in easing this constraint lead to adverse consequences that are costly or difficult to reverse?
- *Feasibility***:** How difficult would it be to alleviate this constraint?

14. **Opinions were sought from a wide range of experts knowledgeable about Zambia's development.** Across the World Bank Group, the national authority, and other stakeholders' constellations over the consultation events, 152 surveys were completed. Views were also shared on the SCD framework hypotheses and the wording of the constraints. This feedback helped enrich the final SCD.

15. **The prioritization does not suggest that any challenges outside the main list of the 10 should be forgotten.** All the issues discussed in this note are important to ensuring sustainable, inclusive growth in Zambia. To some degree, the national authorities will need to put time and resources into all of them, because development is not a zero-sum game where progress on one area implies that another must be ignored. The purpose of the SCD prioritization is to identify those challenges that are likely to have the greatest bearing on eliminating absolute poverty and improving prosperity in the medium term. Thus, they are necessary but may not be sufficient; they propose areas of emphasis rather than a sole focus.

16. **The resulting tiers will not define the sectors that the World Bank will work in.** Instead they only help guide which areas are most important for achieving the twin goals over the next four to six years as part of the CPF process.