

Report No: AUS0001412

# Gabon

# Poverty Assessment

MARCH 2020

POVERTY AND EQUITY GLOBAL PRACTICE



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# Gabon Poverty Assessment



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## Acronyms

AFD	French Aid Agency	IMF	International Monetary Fund
ANFPP	National Agency in charge of Professional Training and Development	LMIC	Lower Middle-income Countries
ANPI	National Agency for Investment Promotion	MAI	Market Accessibility Index
BEAC	Central Bank of Central African States	MDG	Millennium Development Goals
BEPC	Certificate of Lower Secondary Studies	MTEF	Medium-term Expenditure Framework
CEMAC	Central African Economic and Monetary Community	NRI	Networked Readiness Index
CEP	Certificate of Primary Studies	NSS	National Statistical System
CFAF	Central African CFA franc	ONE	National Office for Employment
CNAMGS	National Healthcare and Social Protection Insurance Fund	PNAT	National Land Use Plan
CNAT	National Land Use Commission	PPP	Purchasing Power Parity
CPI	Corruption Perception Index	PPPs	Public-Private Partnerships
DHS	Demographic and Health Survey	PRE	Economic Recovery Plan
DPF	Development Policy Financing	PSGE	Strategic Plan for an Emerging Gabon
ECI	Economic Complexity Index	SCI	Statistical Capacity Indicator
EFF	Extended Financing Facility	SDG	Sustainable Development Goals
EGEP	Gabonese Survey on Poverty Evaluation and Monitoring Initiative	SETRAG	<i>Transgabonais</i> Operating Company
EITI	Extractive Industries Transparency Initiative	SIGI	Social Institutions and Gender Index
ENEC	National Survey on Employment and Unemployment	SME	Small and Medium Enterprise
FDI	Foreign Direct Investment	SOE	State-Owned Enterprise
FGIS	Gabonese Sovereign Investment Fund	SOTRADER	Company for Agricultural Transformation and Rural Development
FNAS	National Social Assistance Fund	SSA	Sub-Saharan Africa
GCI	Global Competitiveness Index	TFP	Total Factor Productivity
GDP	Gross Domestic Product	TFR	Total Fertility Rate
GEF	Economically Weak Gabonese	TTCI	Travel and Tourism Competitiveness Index
HCI	High Council for Investment	WDI	World Development Indicators
HDI	Human Development Index	WGI	Worldwide Governance Indicators
ICT	Information and Communication Technologies	WHO	World Health Organization
ILO	International Labor Organization	pp	Percentage points

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## Executive Summary

*Gabon's abundant endowment of natural resources, strategic location, political stability, high urbanization, and youthful population create broad, though challenging, opportunities for poverty reduction and shared prosperity. Immediately after independence the oil boom propelled the country to upper-middle-income status and brought major progress in living conditions. The thriving resource sector triggered large flows of rural population to urban centers, resulting in the highest urbanization rate in Africa. Urbanization was characterized by increasing concentration of population and economic activities in a few cities along the coast, and population in the rest of the country became ever sparser.*

*The institutional and infrastructural foundations to ensure inclusive development and broad-based improvement of living conditions were not adequately in place. As a result, with the decline of commodity prices and depletion of resources, the early economic and social achievements have begun to reverse. Since its peak in the mid-1970s, real GDP per capita in Gabon has halved.*

*Today, spatial inequalities are large, lack of public services and economic opportunities are holding back lagging areas, unemployment is among the highest in Africa, and many jobs are informal and not productive. Nationally poverty is still pervasive. The incidence of poverty is particularly high in rural areas, but there is also a disproportionate concentration of the poor in the main urban centers. Weak governance and a lack of sound budgetary planning prevent effective allocation of resources to promote social development and spatial integration.*

*This Poverty Assessment uses household survey data (EGEP) for 2005 and 2017, Demographic Health Surveys (DHS) for 2000 and 2012, census data (RGPL) for 2013 and other data sources to better understand the nature of Gabon's poverty and asks what might be done to reduce it sustainably. The shortage of current data limits the analysis, but the report attempts to make the best use possible of the information available to advance understanding of poverty and inequality in Gabon.*

***Although Gabon stands out in Africa for its high income and natural resource wealth, about a third of its people live in poverty.***

**After independence, Gabon recorded remarkable economic growth, which translated into major progress in human development and living conditions.** The discovery of oil and the oil boom in the early 1970s supported almost two decades of rapid economic growth, propelling the economy to upper-middle-income status and making Gabon one of the wealthiest countries in Sub-Saharan Africa (SSA). Rural to urban migration accelerated, triggering a surge in urbanization to 89 percent in 2017—the highest level in Africa. About half of urban dwellers are concentrated in two cities, Libreville (40 percent) and Port Gentil (8 percent), with the rest dispersed in medium and small cities of less than 100,000 inhabitants; the small rural population is spread over a large geographic area. Natural resource wealth and sociopolitical stability successfully attracted foreign direct investment (FDI), which though much higher than in SSA as a whole, is concentrated in resource sectors, with limited spillovers to the rest of the economy. The oil-driven fiscal windfalls allowed the country to invest massively in social services and infrastructure. Consequently, by the early 1990s, basic welfare indicators had reached the levels of upper-middle-income countries (UMICs) and were much higher than the averages for SSA and for lower-middle-income countries (LMICs).

**However, over the past decade Gabon's heavy dependence on oil has dimmed its economic performance and begun to erode its human development achievements.** The plunge in oil prices in the mid-1980s led to a protracted recession and then the economy entered a period of large swings. Economic growth has stalled over the past three decades, reaching a paltry annual average of 0.8 percent for 2000–09, although rising to 3 percent for 2010–18. Because the

population has grown, average per capita GDP growth has been negative. While SSA as well as upper- and lower-middle-income countries have had steady upward growth, Gabon's real GDP per capita peaked in 1976 and has since been cut by half. The dependence of the government budget on oil revenues and the absence of mechanisms for saving resource windfalls have led to large swings in both revenues and spending, adversely affecting allocation of resources to human development and productive investments. As a result, there are large discrepancies between Gabon's economic potential and its progress on human development. Today provision of basic services and human development indicators are close to LMIC averages and significantly lower than UMIC averages.

**In 2017, one in three Gabonese lived in poverty and about one in ten suffered from extreme poverty.** According to the 2017 household budget survey (EGEP: *Enquête Gabonaise pour l'Évaluation de la Pauvreté*), 33.4 percent of the population live below the national basic-needs poverty line, set at CFAF 840,400 per capita per year (about \$5.70 per day in 2011 purchasing power parity [PPP]). About 8.2 percent of Gabonese are in extreme poverty, unable to afford enough food to meet the minimum nutritional requirements of 2,100 kilocalories (Kcal) per person per day. Using the international poverty line of US\$5.50 per capita per day (2011 PPP), 32.2 percent of the population is poor, which is up to 50 percentage points (pp) lower than the SSA and LMIC averages. However, Gabon's poverty rate is higher than the average for UMICs by about 8 pp.

**In rural areas, more than 50 percent of residents are poor, and their poverty is three times deeper than that of the urban poor.** About 59.5 percent of the rural population lives in poverty, compared to 29.4 percent in urban areas—21.2 percent in Libreville and Port-Gentil and 38.2 percent in other urban centers. The depth of poverty (or distance to the poverty line), estimated at 11.3 percent nationwide, indicates that a considerable proportion of the population is fairly close to the poverty line. However, the depth of poverty is almost three times higher in rural areas than in urban, indicating that rural households need far more resources if they are to escape from poverty. On average, poor households would require CFAF 94,965 per capita per year to do so, but the amount averages CFAF 219,344 in rural areas and only CFAF 75,636 in urban areas.

*Poverty seems to have declined over the last decade, yet more slowly than the population has grown, resulting in an increase in the number of poor people.*

**Between 2005 and 2017, Gabon's national poverty rate apparently declined from 41.8 to 33.4 percent.** The lack of comparability of household survey data prevents a detailed analysis of poverty trends and drivers of change, though the problem was partly addressed by using survey-to-survey imputation methods. The results indicate that since 2005 poverty has been reduced by about 8 pp. It fell across the board but faster in urban areas outside the main centers, from 50 to 38.3 percent, compared to a drop from 26 to 21.2 percent in Libreville and Port-Gentil, and from 65.7 to 59.4 percent in rural areas. While the imputation method allows a robust assessment of poverty trends by estimating imputed consumption, it is less able to identify the drivers of changes.

**In 2017, about 749,000 Gabonese lived in poverty, up from 541,000 in 2005.** The increase was proportionally higher in secondary urban zones: the number of poor increased by 26 percent (+ 44,000 poor) in Libreville/Port-Gentil, 78 percent (+ 157,000) in other urban areas, and 4 percent (+ 6,000) in rural areas.

**Reductions in subjective and in multidimensional poverty support the upward trend in living standards.** Subjective poverty declined by nearly 15 pp in 2005–17 and the multidimensional poverty headcount fell by about 21 pp in 2000–12, lending support to the findings about the improvement of welfare and monetary poverty indicators.

**Yet half of Gabon’s population identifies itself as poor, revealing unmet aspirations for better living conditions.** About 51 percent of the population identified itself as poor in 2017, a rate nearly 20 pp higher than the monetary poverty headcount. The perception of poverty is particularly high in rural areas and in Southern and Northern regions, but the discrepancy between feeling poor (subjective poverty) and being poor (monetary poverty) is more acute in urban areas, particularly in Libreville and Port-Gentil (43 percent compared to 21 percent) and in the Western region (50 percent compared to 26 percent); these areas have a highly negative perception of economic conditions. The vast majority of Gabonese believes the government handles income gaps and job creation badly.

**Though Gabon seems to have achieved some progress in shared prosperity, perception of exclusion is high.** The consumption-based Gini coefficient seems to have slightly declined in 2005–17 from 39 to about 38 and consumption growth appears to have been higher for people in the bottom 40 percent of the income distribution than among those better-off. However, data from the 2017 Afrobarometer perception survey show that over 75 percent of Gabonese feel they are being treated unequally, and a large share report serious gaps in basic necessities.

**The reduction in poverty contrasts with the pattern of economic growth measured as changes in GDP per capita.** National accounts data show a negative trend in GDP per capita growth and marginal positive growth in household consumption per capita during the past 12 years, yet survey-based estimates of household consumption seem to have increased faster, contributing to the reduction in poverty. The discrepancies in growth measures picked up by national accounts and household surveys might be explained by a number of factors, among them conceptual differences, the importance of the informal sector in the economy, price deflators used to measure real growth, and the limited quality and coverage of both national accounts and household survey data. Investigation of these possibilities requires a comprehensive analysis that is beyond the scope of this report. Setting aside the national accounts data, the response of poverty reduction to survey-based consumption growth seems low: a 1 percent increase in survey mean consumption per capita would reduce the poverty headcount by only 1.4 percent, which is lower than figures reported for other developing countries.

*Where are the poor? More than 75 percent are in urban areas—about a third of them in the main cities and the rest dispersed across small cities.*

**There are major disparities in the incidence of poverty and the distribution of poor people across the country.** Because urbanization is so high, regions with the highest poverty rates do not necessarily host the largest number of the poor. In rural areas, the rate of poverty is 59.5 percent, compared to just 29.4 percent in urban areas. However, 76 percent of the poor live in urban areas.

**Geographic disparities in the incidence of poverty and the distribution of poor people have two main dimensions: the size of a city and its proximity to main agglomerations.** The two largest cities—Libreville and Port Gentil—together host 48 percent of the national population but 28 percent of the poor; meanwhile, 48 percent of the poor are scattered throughout small and medium towns, which account for just 40 percent of the population. The incidence of poverty declines as the city grows: poverty is more widespread in small towns with populations below 50,000 than in large cities of 100,000 or more. The incidence and density of poverty are markedly lower in small towns near the main urban centers, but poverty is highly prevalent in remote and sparsely populated areas that lack public services, connectivity to markets, and access to economic opportunities. Antipoverty programs can be quite easily directed to poor populations concentrated in larger cities but find it difficult to reach the poor in smaller urban populations.

**North and South rural regions have the highest rates of poverty, but the largest number of poor people are in Eastern and Western urban regions.** Almost 70 percent of people in the Northern and Southern rural regions are poor and so is about 50 percent of those in their urbanized areas—a much higher rate than in the rest of urban Gabon. However, because population density is lower in these regions, the number of poor is significantly higher in Eastern and Western urban areas. Setting aside the two main cities, the Eastern urban region hosts 16 percent of the total poor and the Western urban region 13 percent; together they house nearly 40 percent of the urban poor. Conversely, the fewest poor are in Eastern and Western rural areas, followed by Southern and Northern rural areas.

**The spatial distribution of poverty underscores the importance of effective territorial development to accelerate poverty reduction and shared prosperity.** The spatial typology of Gabon, based on accessibility to markets, economic activity, and poverty, makes it possible to identify three types of areas: (1) lagging and sparsely populated provinces; (2) lagging provinces with a relatively large number of poor; and (3) leading areas where economic and population density are highest. Consistent with the distribution of poverty across the nation, Northern districts lag the most. They also tend to be sparsely populated, lack basic services and connective infrastructure, and must contend with a variety of natural barriers. Southern districts are also lagging but have intermediate-urbanized cities where a larger number of poor people live. Leading areas, in the West, tend to have the highest population density and consequently the highest number of poor people. They are surrounded by lagging zones that may be acting as barriers that prevent the benefits of leading-area economic activities to spill over to the whole economy. This typology can be used to customize policies to connect leading and lagging areas and realize the benefits of economic concentration and agglomeration while reducing disparities in living standards.

**Internal migration offers prospects for better living conditions, but its sustainability as a poverty-reduction mechanism is questionable.** Only about 28 percent of migrant households live in poverty compared to 42 percent of non-migrant ones. While this may reflect the positive influence of migration on living standards, it could partly be due to a selection bias in that only households with welfare above a certain threshold can move. Important migration flows continue to be directed to western regions, particularly large cities, where living conditions and jobs opportunities are better; these offer potential for poverty reduction but also challenges for the hosting regions. New destinations in northern and rural western areas, where development projects for natural resources and agriculture are underway, have emerged recently as magnets for internal migration, potentially easing the challenges of migration for the main urban poles. However, recent migration movements are increasingly driven by family purposes rather than economic prospects, especially for women and the poor. While this may reflect the fact that migration often evolves as a gradual process in which one member of a household moves to richer areas in search of employment and is later followed by others in the household, its sustainability as a way to improve economic conditions and facilitate welfare convergence is questionable. The family-driven migration pattern, coupled with the high concentration of the population in a few cities, may lead to higher urban fertility, rising unemployment, particularly for women, and congestion diseconomies that could offset the benefits of agglomeration and urban concentration.

**Moving to main cities may not fulfill migrants' expectations of better living conditions.** Those who migrated to rural areas and to secondary cities are significantly less poor than local residents, though the difference in poverty between migrants and non-migrants in main cities is negligible. This may be related to the different profile of migrants in the three areas. About 20 percent of those who moved to rural areas and secondary cities migrated for professional reasons, compared to only 8 percent of those who moved to main cities. Those who moved for

professional reasons are the least poor among all migrants. The proportion of migrant job seekers is slightly higher in main cities, but they tend to be poorer than local residents while migrant job seekers in rural and secondary cities have lower poverty rates than the average in their new residence. This suggests that those who moved to large cities could only partly fulfill their economic prospects; even if they found jobs, they were not able to achieve higher living standards than the average where they moved, probably due to the higher cost of living there. Local conditions likely matter for migrant welfare, as households whose head migrated from the east or from foreign countries are least likely to be poor, while those who migrated from southern and to a lesser extent northern region are much poorer than other migrants. Recent migrants tend to be poorer than long-term ones, probably reflecting the shift toward family-driven migration.

*There are poverty pockets in neighborhoods surrounding the core of the largest cities and in peri-urban areas, but most of the poor are dispersed across cities.*

**Neighborhood poverty maps in the largest cities reveal three types of area based on the incidence and density of poverty.** Poverty maps for 143 neighborhoods in the three largest cities (108 in Grand Libreville: 89 in Libreville, 6 in Akanda and 13 in Owendo; 13 in Franceville; and 22 in Port Gentil) show large variations in the incidence and density of poverty. A typology based on the proportion and number of poor reveal three types of neighborhoods: (1) low poverty rates and few poor; (2) high poverty rates and population density—therefore a large number of poor; and (3) high poverty rates but fewer poor people due to low population density.

**There are pockets of poverty in neighborhoods surrounding city cores, but the incidence of poverty is higher in less densely populated peri-urban areas.** In the three main cities, poverty rates and the number of poor people tend to be lower in neighborhoods closer to the coast and in core city centers. Neighborhoods in Akanda and Owendo are also less poor, accommodating many upper-middle-class households who commute to Libreville. In the capital, relatively poorer neighborhoods, with poverty rates around 30 percent, are inland, surrounding the city center. Because population density is also higher in these neighborhoods, they account for a large number of poor, resulting in pockets of poverty. Peri-urban areas toward Libreville city center tend also to have a higher incidence and density of poverty. The Northeastern part of the city is sparsely populated, so despite a higher incidence of poverty it has fewer poor people. In Port-Gentil and Franceville, neighborhoods in the central town tend to be less poor; neighborhoods surrounding the center have both higher poverty rates and more poor people. Outer peri-urban areas of these cities have the highest poverty rates but being less-densely populated they host fewer of the poor. Beyond the poverty pockets, the poor are dispersed throughout the cities, challenging antipoverty interventions that are geographically targeted.

**Poorer neighborhoods tend to have more unemployment, higher rates of out-of-school children, and lower enrollment in secondary school.** In the three cities, employment rates tend on average to be 10 pp lower and unemployment 6 pp higher in the poorest neighborhoods than in better-off ones. The net enrollment rate in secondary education is over 7 pp lower in poorer neighborhoods, and the proportion of out-of-school children aged 7–12 is about 3 pp higher. Gender employment gaps are high everywhere but seem to be slightly higher in areas with a high concentration of poverty. Access to piped water and electricity is almost universal in the three cities, but poorer neighborhoods tend to have less access to improved sanitation. Overall, access to basic services tends to be lower in poor peri-urban neighborhoods. Satellite images suggest poor local infrastructure and housing conditions in neighborhoods where there are pockets of poverty in Libreville. Low housing costs and proximity to city centers in these

neighborhoods may have attracted poor migrants from other areas, deepening the pockets of poverty.

**The recent migration pattern indicates that the influx of migrants is prominent in wealthier neighborhoods, though poorer neighborhoods have attracted some low-skilled migrants.** Poverty tends to be lower in neighborhoods where the proportion of recent migrants is higher, suggesting that recent internal migration patterns were to better-off neighborhoods. However, this pattern is observed only among highly-educated migrants, as those who have completed higher education tend to settle in less-poor neighborhoods. These skilled migrants were mostly pulled by economic opportunities in Grand Libreville. Conversely, migrants with only primary education tend to settle in poorer neighborhoods, where the cost of housing is lower. The pattern of international immigrants is very different: they tend to be concentrated in neighborhoods where poverty is the lowest, essentially coastal neighborhoods in Libreville.

*It is hard for the poor to achieve a better life because of a large number of dependents, low human capital, low-profile jobs, and limited access to basic services and assets.*

**Poor Gabonese live in larger households with more dependents, lack education, and have few assets.** The average number of members and the dependency ratio for poor households are double the average for non-poor ones. About 64 percent of households with five or more children under 15 are poor, 30 pp higher than the national average and 45 pp more than the poverty rate for households with two children or less. Of households whose heads have primary education or less, almost 50 percent live in poverty. The poverty rate is cut in half when the head has upper secondary education and drops to a mere 8 percent among households with tertiary education. While education is still the best shield against poverty, primary and even lower secondary education seem no longer sufficient to open up opportunities. This may be because the expansion of education generated a decline in the rewards for less schooling than a certain level, and also because the quality of education is failing to respond to labor market demand. Enrollment in secondary and higher education is three times lower among children of poor households than those in non-poor ones. Thus, children who grow up in poverty acquire less human capital, which helps to perpetuate poverty. It is difficult to understand poverty by gender because household surveys assume equal distribution of consumption between members of a household, and because of the particular status of women who head households. However, there are indications that poverty is more prevalent among women. Urban women-headed households are slightly poorer than men-headed ones, and some groups of women-headed households are particularly vulnerable to poverty—widows are poorer than widowers by about 10 pp. Ownership of assets, especially mobility and communication equipment, is lower among the poor, and particularly low among the rural poor.

**Less human capital and limited access to basic services limit opportunities for the poor to access productive jobs.** About 50 percent of the poor have primary education or less and just 4 percent have tertiary level, compared to 30 and 18 percent among the non-poor. The poor are also disproportionately affected by poor health, nutritional deficits, and exposure to shocks and food stress. These deficiencies are particularly acute for rural poor households, which are also not well-served by essential services like improved drinking water, sanitation facilities, and electricity. About one-quarter of poor households and two-thirds of the rural poor, have only unprotected water sources. Over half of poor households are deprived of improved sanitation facilities; access is a luxury limited to urban households. About 25 percent of poor households, and over 80 percent of rural ones, are not connected to the electrical grid. The poor also suffer from less access to health services. All these factors undermine opportunities for the poor to access productive jobs, trapping them in low-profile jobs. Overall, 64 percent of poor household heads are self-employed, unqualified worker or family helper—compared to 44 percent of non-poor ones. This share rises to 79 percent for poor rural households. Such low-status employment

is closely associated with informal employment, which employs nearly 66 percent of heads of poor households compared to less than 50 percent of non-poor ones. Most low-profile jobs are in agriculture, in rural areas, and services, in urban areas.

*The drivers of poverty are mutually reinforcing and carry forward across generations.*

**The poor start life at a disadvantage and many pass poverty on to their offspring.** They are hobbled by, among other deficits, limited resources, malnutrition and health problems, poor access to social services and health care, and low education and skills. They lack income, save little for the future, are vulnerable to shocks, and have limited coping strategies. Lacking the skills to take advantage of job opportunities, they are generally limited to low-paid jobs. These deficits limit the upward mobility of their children, perpetuating intergenerational poverty. Gabonese of less-educated parents are more likely to be less-educated themselves, with educational mobility being particularly low among poor women, perpetuating low human capital and gender inequality across generations. Intergenerational mobility across economic sectors is also limited; the poor tend to have the same employment status, with jobs in similar sectors, as their parents.

**Estimates of inequality of opportunity have found that about 17 percent of total inequality in consumption is due to circumstances outside the individual's control.** This is a quite significant share compared to other SSA countries, where inequality of opportunity is lower. Region of birth followed by parents' employment have the most influence on children's outcomes and opportunities for economic mobility. Apparently, even when people migrate, local conditions in their place of birth continue to depress their welfare. Inequality of opportunity is 40 percent higher in rural areas than in urban, which suggests that intergenerational transmission of inequality and poverty risks generating rural poverty traps.

*The vicious cycle of low investments in human capital and inequitable provision of basic services exacerbates unequal opportunities and undermines prospects for fast poverty reduction.*

**In Gabon, human development falls short of the economy's potential.** Gabon ranks quite low—100<sup>th</sup> out of 156—in progress on the Sustainable Development Goals (SDGs), mainly due to serious deficiencies related to health and decent work. It also scores relatively low on the Human Development Index (HDI) and Human Capital Index (HCI), underperforming countries with similar incomes. Gabon's HCI, estimated at 0.45, is more comparable to the averages for SSA, 0.40, and LMICs, 0.48, than the UMIC average of 0.58. These deficits result from lack of investment in social sectors and in human capital. Government spending on education, at about 2.7 percent of GDP, is among the lowest in SSA and countries with comparable incomes and has been deteriorating, causing degradation of the quality of education—the *Global Competitiveness Report* ranks Gabon 116<sup>th</sup> of 138 countries on quality of education. The deficits in human development will likely continue to slow economic development, even if effective employment and poverty reduction policies are introduced.

**Gabon's provision of basic services is higher than SSA averages but is also closer to those in LMICs than UMICs.** Gabon compares favorably with LMICs for access to electricity and basic drinking water, but access to sanitation is significantly worse at 12 pp lower. Access to safe drinking water is also very low in some areas. The limited access to good sanitation and, in some regions to safe drinking water, has led to a high mortality rate, 21 per 100,000 people—which though lower than SSA averages is higher than averages in both lower and upper middle-income countries.

**Spatial differences in public service provision widen the inequalities in opportunity and divergences in living standards.** In much of Gabon, accessing basic amenities is still a

problem. Spatial disparities in service coverage and accessibility are more marked than in comparator countries. Urban-rural gaps in access to electricity and safe drinking water are more than double the averages for both LMICs and UMICs. In rural areas, over 60 percent of Gabonese have only unprotected water sources and about 75 percent have no sanitation facilities or use unimproved ones. Most rural dwellers rely on generators or inefficient lighting sources. Access to basic services is also low in northern and southern provinces. Areas with limited service delivery tend to have worse human capital outcomes, worse employment rates or less productive jobs, and higher poverty.

**Equitable basic service provision between and within cities and regions is pivotal to narrow spatial disparities and promote inclusive development.** Towns with a population higher than 100,000 have greater access to electricity, water, and sanitation, exceeding 75 percent on average. In cities with 10,000 or fewer inhabitants, access to services is less than 50 percent, except those close to main urban centers or natural resources sites where service delivery is much higher. Rural areas distant from towns also tend to offer very limited public services, which suggests insufficient investment in scarcely-populated and remote areas. These smaller cities and rural communes have much lower rates than large cities of employment and enrollment in secondary education, and far more out-of-school children. These deficits not only put current residents at a disadvantage but may also place a heavier burden on their children, which if not addressed may undermine Gabon's prospects for poverty reduction and shared prosperity.

*Lack of productive job opportunities and high informality limit the potential for economic mobility for the whole population.*

**Unemployment and discouragement are high, particularly among educated youth and women.** A central feature of the Gabonese labor market is the prevalence of long-term unemployment and discouragement among job-seekers—the unemployment rate of 14 percent rises to 23 percent when discouraged workers are taken into account. Unemployment is much higher in urban areas (19 percent) than in rural (4 percent). About 60 percent of the unemployed spend more than a year without a job. About half of the unemployed are younger than 30. Unemployment exceeds 25 percent among those aged 25–34 with secondary education and higher, and among women is more than double that of men. The high incidence of unemployed educated signals mismatches between the education system and employer needs. Unemployment is similar for both the poor and non-poor, but hidden unemployment (unemployed individuals and discouraged workers) is 30 percent among the poor compared to 17 percent for the non-poor.

**Most jobs are in services, followed by agriculture; the contribution of manufacturing and mining to employment is minimal.** Services provide about 66 percent of jobs and agriculture 19 percent. While the oil and mining sector weighs heavily in Gabon's GDP, it contributes only 5 percent to employment. Though employment in manufacturing is also currently limited, growing sub-sectors like agribusiness and wood manufacturing show promise of ultimately generating more jobs. Agriculture dominates the rural labor market; the public sector and related formal services dominate in Libreville and Port-Gentil.

**The formal private sector is very small.** Preferential policies for large foreign investors, inadequate assistance to small enterprises, and limited access to finance inhibit the emergence of a vibrant private sector. As a result, formal private sector jobs account for only 25 percent of total employment, with the public sector contributing 23 percent of jobs, the informal sector 36 percent, and households 16 percent.

**Self-employment and informality are the most common forms of employment, especially for women and rural residents.** The labor market is dominated by self- and unqualified



employment, which represents over half of total employment. Women tend to have lower employment status than men, with 43 percent self-employed or working as a household helper compared to 26 percent of men. Most informal work is in rural areas and secondary towns, as household work and self-employment reaches 68 percent in rural areas and 35 percent in other urban zones compared to only 21 percent in main cities. Low-profile jobs are also common among people with primary education or less, among whom only 20 percent are employed as managers or qualified workers, compared to over 70 percent among those with upper secondary and higher education. However, younger people with high education seem increasingly to have only low-profile jobs, which indicates both the importance of experience besides education for accessing skilled jobs and the poor quality of education, which is failing to instill the right qualifications. Less than 40 percent of workers have written contracts, but the share is significantly higher among educated workers, particularly older ones.

**About one fourth of employed workers come from other countries, reflecting the potential lack of qualified domestic workers.** Foreigners mostly work in services. They seem to come to Gabon either (1) to take jobs that Gabonese workers refuse to do—they perform 34 percent of informal jobs and 26 percent of household work; (2) shortages of specific qualifications and skills in the domestic labor market—about 20 percent of formal private sector jobs are held by foreigners.

#### *Faster poverty reduction can be supported.*

**This report provides a comprehensive analysis of poverty in Gabon.** Despite data availability and quality limitations, the analysis produced insights into the diverse, multisectoral nature of poverty and its causes—information that is useful for prioritizing poverty reduction strategies. The report identifies areas where concerted efforts by the government and other stakeholders would yield the highest payoffs for poverty reduction and more sustainable and inclusive development. Sustained gains require a fundamental shift away from resource dependency to a more diversified economy, from the informal to the formal sector, and from less to more productive employment. This in turn requires as a foundation effective public investment in education, health, basic infrastructure and utility services and in safety nets. The following policy pointers are designed to ensure broad-based and sustained progress in living standards, reduce vulnerability, and promote regional equality.

**In the battle against poverty, Gabon has solid fundamentals.** With its resources wealth, strategic planning, and political will, it is in a good position to apply a variety of policy tools to promote productive job creation and reduce poverty and inequality. Besides strategies to diversify the economy and strengthen social inclusion, the government has initiated reforms to mobilize more revenue, strengthen fiscal sustainability, and improve the business environment. In the last 10 years the government has also made many efforts to support the poorest Gabonese, among them universal access to primary education; compulsory health insurance schemes through the National Health Insurance Program (CNAMGS), which include a fund dedicated exclusively to the poor (Economically Weak Gabonese, GEF); and the creation of the National Social Assistance Fund (FNAS) to support income-generating activities for GEF. Recent small safety nets initiated include cash and in-kind transfers, cash-for-work, and fee exemptions. Unfortunately, the efficiency of these initiatives was undermined by excessive fragmentation, poor targeting, and lack of funds. Efforts to improve targeting and coverage of the poor, including revision of the GEF definition and list and consolidation of social assistance mechanisms, are underway. These initiatives provide a foundation for comprehensive, coordinated, and feasible policies to better leverage Gabon's assets to accelerate economic growth and inclusive development, and bring about sustained improvements in Gabonese lives.

**Policy should be directed to ending the vicious cycles of unequal opportunity and vulnerability and putting in place mutually reinforcing interventions to build capacity and foster better livelihoods.** The basic tenets should be improved service delivery and infrastructure for all; expanded employment opportunities and higher productivity; investments in human capital to help people develop the skills they need and improve health and nutrition; and protect the vulnerable. The design of priority interventions should take into account the specifics of Gabon's poverty.

*Design pro-poor urban policies and deploy rural development initiatives to equalize opportunities.*

**Concentration of the poor in urban centers calls for better urban management policies and sustainable pro-poor urban planning.** In the three leading cities, Libreville, Port-Gentil, and Franceville, the soft side of urban planning has been generally overlooked. Lack of planning allowed the emergence of informal property rights and a proliferation of informal settlements. Rapid population growth in these cities and their peri-urban areas, coupled with impending problems related to climate change, resource depletion, food stress, poor housing conditions, lack of access to and the poor quality of infrastructure and services, require specific pro-poor and inclusive interventions that give creation of better livelihoods a central position in urban planning. These efforts will be taking place in a context of continuing poverty and high levels of informal economic activity, which tends to be survivalist rather than entrepreneurial. Policy priorities should be to put urban expansion on blueprints that allocate land for future roads, amenities, and water, sanitation, and electricity networks. Such measures would make large cities more livable and heighten productivity and would help pace investments as financing opportunities arise. The objective of urban management policies should not be to replace the market, but to correct its inefficiencies and externalities and promote the efficient functioning of cities. Peri-urban areas, where poor urban dwellers look for a foothold in cities, escape the costs of urban living, and can combine urban and rural livelihoods may create a belt around the cities that prevents the diffusion of agglomeration externalities to the rest of the economy. These areas can be difficult to plan and service, due (among other reasons) to their scattered and fragmented structure; they require planning approaches tailored to these conditions.

**The challenge for pro-poor urban planning and land management policy is to incorporate responses to the factors that shape the socio-spatial aspects of cities and recognize the needs of many segments of the population.** The demographic and environmental challenges that lie ahead have to be identified and factored into planning. Realistically, the problems cannot be addressed in the short term, but short- and medium-term interventions can help to contain them. In the long term, they need to be tackled as part of a comprehensive intersectoral policy. For example, attempts to solve the housing problems of the urban poor that are not coordinated with solutions for other pertinent problems like employment, skills, and education could produce sites where successive generations of unemployed, under-educated, and poor people are increasingly concentrated. Problems from other sectors of the economy spill over to affect pro-poor urban planning and how well cities function. For instance, addressing the problem of rural development would help solve the living conditions problems of the urban poor by minimizing the factors pushing rural emigration. A policy favoring investment in secondary cities, and regional and district centers and strengthening service and market centers would create a rural-to-urban migration gradient, again relieving pressures on the overcrowded primary cities. Stimulating the growth of secondary cities through better provision of basic services and connective infrastructure can be considered foundational to reduce poverty and may be an important entry point to reducing rural poverty, given their tighter connection to rural hinterlands. Nevertheless, the cost of providing infrastructure may be very high in some

small towns with low population density and natural barriers; further analysis, including cost-benefit analysis, is necessary to identify cost-effective sequencing of investments.

**Efforts to address urban poverty need to be accompanied by rural development initiatives to equalize opportunities and counteract the intensifying pressures of push-driven migration.** Poverty is twice as high and three times deeper in rural than in urban areas. Because urbanization is high, the number of rural poor is lower, but rural areas still host one-fourth of the poor and about half of the extreme poor. The spatial differences in public service coverage and accessibility widen growing urban-rural inequalities in capabilities and opportunities. These disparities, which are more obvious in Gabon than in comparator countries, severely depress human capital and worsen employment and earnings outcomes and living conditions in rural area. Perpetuating over time, these deficits heighten the risk that generation after generation the rural poor will be trapped in poverty. Even when people migrate, conditions in their place of birth continue to exert a drag on their welfare and affect their prospects for a better life. That is why providing economic opportunities and basic services for rural households should be an essential element of Gabon's strategy for poverty alleviation and inclusive development. International experience has demonstrated that an exclusively urban strategy to alleviate poverty would exacerbate inequalities and social exclusion and reinforce the growing urbanization of poverty.

*Facilitate the creation of more, and more productive, jobs.*

**Besides the imperative need to address unemployment, creating more productive jobs is central to improving living standards and reducing poverty sustainably.** While the poor are as much affected by unemployment as the non-poor, they are more discouraged about searching for a job. This not only keeps them in poverty but also adds to the burden of their support family and other relatives. To generate more jobs, there must structural changes to the economy that enhance private investment in non-resource sectors, improve the business environment to attract job-creating investment, and build up the private sector and small firms. Such efforts in that direction in recent years have begun to bear fruit in terms of a slight acceleration of private sector development. Some labor-intensive sectors in agribusiness and wood-processing have emerged thanks to more private investment and have potential to grow fast, but their contribution to employment is still slight. In general, promising sectors for job creation and productive employment still have only a limited gearing effect on the rest of the economy and depend on fluctuating oil income. The government can do a great deal to help stimulate hoped-for private sector dynamism and associated employment creation by moving more actively to improve the business environment, infrastructure, and basic services and by providing targeted support to entrepreneurs and small businesses, which employ large numbers of the poor. Gabon needs to identify niches in services and regional value chains that match its comparative advantage and can produce productivity gains. The economy could better leverage the benefits from FDI by tightening backward and forward links with the local economy to support industrial development through technology and skills transfers.

**Enhancing the productivity of the informal economy and transitioning it to the formal sector will also prove critical.** Given the prevalence of informality in Gabon, significant productivity gains can be achieved through transition to formality. However, the process should be managed carefully so that it does not destroy informal jobs rather than increasing productive jobs. A comprehensive policy package, rather than single isolated reforms, would reinforce formalization and the relationship between private businesses and public institutions. The package could include reforms to create incentives to increase formality, such as simplifying taxation for micro and small firms; facilitating registration through fewer and cheaper procedures; and increasing growth opportunities by offering counseling and support, facilitating access to financing and advanced technology, and ensuring connection to markets.

*Preserve and maximize the human capital of the poor using a well-targeted life-cycle approach.*

**Gabon needs to invest in human capital and increase skills to improve its productive capacity and to support its trajectory to a more diversified economy.** Building human capital is also critical to heighten productivity and incomes and reduce poverty sustainably. Because such investments are structural, they are likely to be long-term interventions. Meeting the goals will require a five-pronged reform strategy: (1) expand provision of early childhood development services to build the foundational capabilities, cognitive and noncognitive, of tomorrow's workers; (2) improve the internal efficiency of the education system and increase investment in education; (3) identify specific initiatives to increase school attendance and education quality; (4) improve the capability of those new to the labor market by enhancing the accessibility, quality, and relevance of vocational and tertiary education; and (5) upgrade the skills of current workers by improving technical training. The first prong has a long-term agenda, but the second through fifth can be accomplished in the short to medium term. The reforms should be part of a cohesive and sequenced policy agenda, guided by economic development needs, that addresses current and coming needs for skills and is feasible within national budget constraints. They should be complemented by interventions to improve the quality and accessibility of primary health care and social services so as to raise productivity and empower poor people. Evidence from the report points to the following priorities throughout the life-cycle:

- **Set children on high-development trajectories by investing in their early years.** Poor children under 5 suffer from acute malnutrition manifested by high stunting, particularly in rural areas. Deprivations not only in nutrition but also in such basic amenities as safe water and sanitation impair the learning and development of children and will have long-lasting effects on their socioeconomic achievements. While some losses are irreversible, others can be partly mitigated by early stimulation. Preventing stunting for new generations is possible with a sound combination of targeted social services (nutrition services, income support), community monitoring, and parental education. An additional priority for early childhood development is building up government efforts related to maternal and infant health. The high prevalence of under-5 child mortality indicates large health policy deficiencies and precarious living conditions. Essential interventions are expanding access to health care; universal provision of safe water and adequate sanitation; and mainstreaming of health and nutrition interventions. The recent Ministry of Health initiative to operationalize health districts (*départments sanitaires*) and gradually introduce results-based financing in primary health care is a promising development. Investments in the supply and quality of both pre-school and basic education will also help to develop early childhood cognitive skills, enhance abilities and motivation for learning, and sustain learning throughout schooling and beyond.
- **Upgrade the quality of education and prevent school drop-out.** The education system seriously underperforms in quality and relevance, constrained by very low public spending and its inefficient use, lack of development vision, and lack of effective governance. The problems are exacerbated by overcrowded classrooms, extensive class repetitions, and Gabon's low education quality score in the *Global Competitiveness Report*. Expanding access to schooling is not enough. Learning outcomes in basic education are still low despite universal access, translating into high dropout rates and severe shortcomings in workforce skills. Relatively little schooling is a major factor in Gabon's low HCI ranking. Actions to increase the number of years spent in school should be complemented by school health and nutrition interventions, such as feeding programs and access to water and sanitation. Efforts to increase civil registration and

obtain formal identification to facilitate access to health insurance and social protection must be accelerated. Research into the reasons for the high rates of school dropout after age 13 can guide the design of targeted interventions to increase student engagement and prevent their withdrawal.

- **Act to reduce fertility rates to reduce the burden of high dependency ratios on poor families and improve the socioeconomic status of women.** The large number of dependent children in poor families limits opportunities for the poor to move up the income ladder. Although Gabon's fertility rate is lower than the SSA average, and its population is small, its fertility is very high compared to UMIC rates. This increases the strain that high dependency ratios put on social services and poverty reduction. Fertility among adolescent girls is particularly worrisome. The 2012 DHS revealed that 28 percent of girls aged 15–19 had given birth, including 40 percent of rural girls and girls with no more than some primary education. The problem has equity dimensions: households with the highest fertility rates are largely from the bottom income quintiles—those least able to invest in the human capital of their children; young adolescent mothers find it difficult to accumulate human capital; and international evidence suggests close links between birth to a young mother and stunting. Investing in adolescent-friendly reproductive health services and awareness campaigns, and more important in education and economic opportunities for adolescent girls, helps to reduce fertility rates.
- **Systematically build the capacity of current workers and bridge skill gaps by making technical training more responsive to labor market needs.** In expanding access to higher education, it is essential that both general and vocational tracks provide graduates with the strong general skills the labor market demands. Technical and vocational schooling might be a fast way to train mid-level skilled workers for the immediate needs of the labor market but may not equip graduates with a solid foundation of general skills that makes them adaptable to changes in labor market requirements. Moreover, graduates from the general track who do not enter tertiary education likely lack many job-relevant skills. It is important that both tracks provide the right skill-mix and that tracks are permeable enough to ensure that graduates have a range of paths open to continue acquiring skills. Currently, the general track, including tertiary education, is heavily biased toward the social sciences and humanities; it produces very few graduates in sciences, technology, and engineering, which worsens the skills shortage in high-value-added sectors. Improving the access and relevance of technical training is the most direct way to build the skills of the current workforce. Better coordination with private employers is necessary to design market-relevant curricula and course offerings and to provide financial and technical support that better respond to the needs of growing sectors of the economy. For some poor workers, self-employment is the most viable way out of unemployment and poverty. Insights from FNAS could guide the design of targeted interventions to improve returns to self-employment by, e.g., facilitating access to productive assets, frequent and sustained coaching, pre- and post-business creation services for entrepreneurs, and specific social support measures.

### *Protect the vulnerable with better social protection systems.*

**Building up social protection systems and targeting support to the most vulnerable to mitigate shocks and build up human capital is crucial for alleviating poverty and accumulating human capital.** Poor people are more vulnerable to negative shocks and food stress. They lack resources and coping strategies and often rely on family and other relatives for support. The social protection system is currently underfinanced and highly fragmented, which limits its capacity to support the poor. The CNAMGS has drafted a five-year strategic

plan (2018–22) to address social protection deficiencies. The plan has three main objectives: universalize health insurance coverage; digitize the health sector; and better target social benefits to the most vulnerable population groups. Policy actions include sustainable financing of social protection systems by reinforcing contributory schemes and revenue collection, efficient management of operating costs, the digital transformation of CNAMGS to improve its efficiency, and introducing more effective support modalities to empower the groups most vulnerable to poverty (i.e., single mothers, widows, elderly) and to expand provision of medicines and health care across the country. This strategic plan seems too ambitious to be realized in five years. It is also likely to require more resources than the current government budget allocation of about 0.5 percent of GDP. The success of the strategy will depend on careful prioritization, sequencing, and alignment with fiscal constraints. The following actions can be considered priorities:

- **Better target social protection programs and establish a reliable and transparent social registry.** Many poor have been excluded from social protection schemes due to inconsistencies between the GEF definition and their actual poverty status. The government has been moving to overhaul the targeting, shifting away from the declarative approach to poverty-based criteria. The Ministries of Economy and of Social Protection, in collaboration with the Department of Statistics and CNAMGS, have co-signed a plan to validate a new targeting approach based on the revised definition of GEF and an updated database of potential beneficiaries, which should include about 500,000 individuals. Once completed, this exercise will be the foundation for a social registry that can help target possible multisector interventions to address poverty more effectively and efficiently. It can be combined with geographic targeting to channel resources more efficiently to needy communities. The poverty maps in this report can serve this purpose. They provide a detailed spatial profile of poverty that can be helpful for understanding the geographic dimensions of poverty and tailoring antipoverty policies to the specific conditions of local communities. Cost-effective social transfer interventions can rely on a combination of geographic targeting and selection of eligible households or individuals based on their socioeconomic characteristics (i.e., proxy means test [PMT]) to limit leakage to non-poor households.
- **Increase the coverage of social safety nets and revisit program design in light of the human capital deficits, poverty challenges, and spatial considerations highlighted in this report.** The five-year strategic plan itemized instruments to support and empower single mothers and to better assist the elderly, disabled, orphans, and widows, particularly in rural areas. It also plans to increase the amount and coverage of school allowances (which will increase gradually with education up to high school); provide universal free childbirth services; set up a national network of 20 mobile clinics; and expand the provision of medicines. The plan also aims to improve social data through better collection of information on multidimensional aspects of poverty. With more data available, Gabon can explore new policy options and evaluate their impact. Such policy changes would contribute to better human development outcomes. Nevertheless, better coordination between sectors (education, health, labor/employment, and rural development) will be necessary for policy coherence and more efficient use of resources.
- **Streamline social protection interventions and improve monitoring and evaluation of programs.** The strategic plan is fragmented and overly ambitious. The policy interventions mentioned are not part of a costed action plan and not sequenced. Like many of Gabon's previous development strategies, it risks failure when implemented. Functional social protection programs require a more systematic approach that promotes coordination and resource sharing and exploits synergies between instruments and

sectors to deliver comprehensive and sustained assistance to all who need it and to improve poverty outcomes. Efforts are needed to (1) draft a realistic budget and cost plan for proposed policies, recognizing available resources and competing strategies; (2) put in place effective monitoring and evaluation programs to track progress, measure results, promptly identify potential problems, and ensure that systems are iteratively developed based on lessons learned; (3) formulate a clear, realistic, and time-bound plan for carrying out the strategic plan; and (4) evaluate alternative options using simulations to analyze and rank them in terms of their relevance to different vulnerability profiles, the expected impact on human capital and poverty outcomes, and their cost-effectiveness.

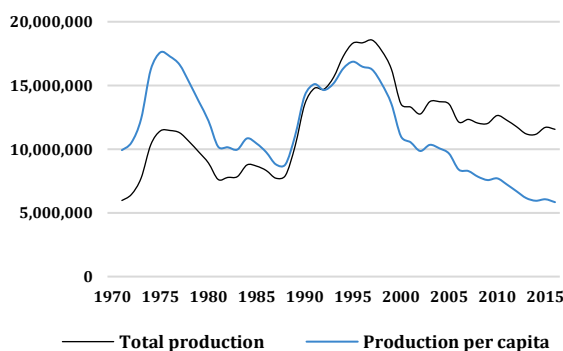
## Chapter 1: Country Context

*Gabon is a small and highly urbanized country with important potentials and vision.*

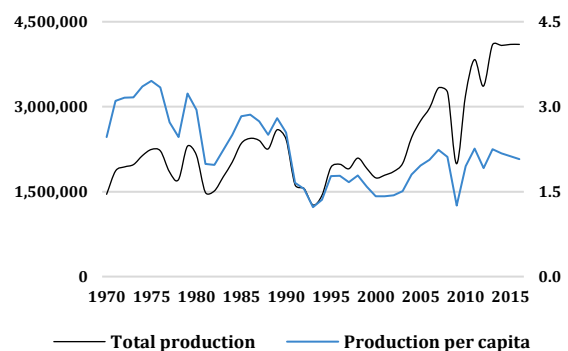
**Gabon is a small central African country with low population density and a youthful demographic profile.** Located along the Atlantic coast in Central Africa, the Gabonese Republic is bordered by the Republic of Congo, Cameroon, and Equatorial Guinea. The country is relatively small, both in area and population, with an area of 270,000 km<sup>2</sup> and an estimated population of two million. At 8 inhabitants per km<sup>2</sup>, the country is one of the least dense in the world. The population is relatively young—more than 40 percent are under the age of 15—but is growing, with an urban fertility rate of four children per woman and a rural rate of six. The youthful population is an asset for the country’s development, but the benefits will only materialize if the economy can absorb them productively.

**It stands out in Africa for its high income and rich natural resources.** It is one of the few countries in Sub-Saharan Africa (SSA) with upper middle-income status and its prosperity is due to its rich and diverse endowment of natural resource. It boasts the second largest economy in the Central African Economic and Monetary Union (CEMAC). Topping its wealth of nonrenewable resources are petroleum, manganese, and to a lesser extent uranium, iron ore, diamonds, and gold (Figures 1.1 and 1.2). The country, which is 88 percent covered by rainforest, has a uniquely rich ecosystem with extensive endowments of fertile land, water courses, and fisheries.

**Figure 1.1: Crude Oil Production, 1970-2016 (in ton of oil equivalent)**



**Figure 1.2: Manganese Ore Production, 1970-2016 (in metric ton)**



Sources: OECD and World Mineral Statistics contributed by permission of the British Geological Survey.

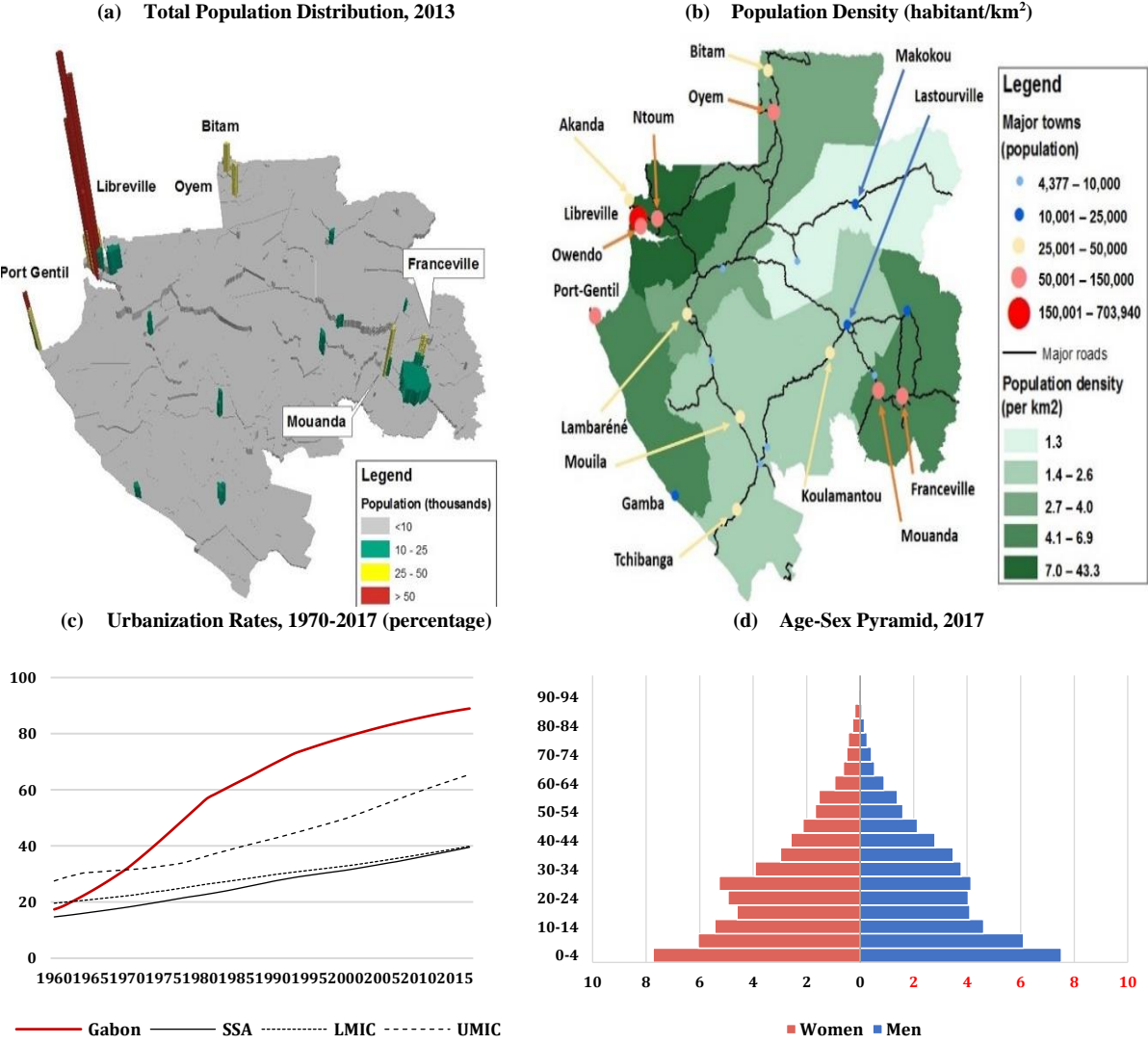
**The country’s very high urbanization rate is also uncommon in Africa.** Gabon is one of the most urbanized countries in the Sub-Saharan region; most of the population lives in a few cities while the rest of the country is sparsely populated. The oil boom after large oil fields were discovered in the early 1970s accelerated rural-urban migration, shooting up urbanization from 20 percent in the early 1960s to 89 percent in 2017 – the highest urbanization rate in Africa (Figure 1.3). Over half of Gabonese live in either the capital, Libreville, in Port-Gentil, and to a lesser extent in Franceville – leaving the rest of the country with a density of less than 2 inhabitants per km<sup>2</sup>. On the one hand, low population density increases resource availability per capita and reduces pressure on the environment, but it generates diseconomies of scale for public services and increases their cost.

**Recognizing its assets, the vision of the country is to transform itself into a diversified economy by 2025.** The goal of the Strategic Plan for an Emerging Gabon (PSGE: *Plan Stratégique Gabon Émergent*), launched in 2009, is to build a competitive, resilient, and inclusive economy. The PSGE sets an ambitious reform agenda to leverage the abundant natural resources, to catalyze economic transformation, and to move up along the export value-added



chain. The plan has three strategic pillars: address competitiveness; build up priority sectors that have strong growth potential; and promote shared growth. It has identified key sectors that correspond to the country’s comparative advantages and can add value to underexploited natural resources by building up national capacity for processing. Substantial infrastructure investments will support the three pillars. Gabon is also among the few countries in SSA that have demonstrated commitment to protect forests and biodiversity, curb carbon emissions, and address climate risks.

**Figure 1.3: Demographic Characteristics**



Sources: World Development Indicators (WDI) 2019, RGPL 2013, EGEP 2017.

**I. Achievements**

*Oil discovery led to a remarkable economic growth.*

**Immediately after independence Gabon’s economic growth was remarkable, propelling it to upper-middle-income status.** With the discovery of oil, annual GDP growth accelerated to more than 9 percent between 1968 and 1977, surpassing the averages for lower- and upper middle-income countries (5.2 and 6.4 percent), and far ahead of the SSA average (4.3 percent). GDP per capita doubled from the previous decade. When it peaked for the first time in the mid-1970s, oil production accounted for more than 50 percent of GDP and over 30 percent of the country’s annual growth.

**The growth momentum translated into major progresses in human development and living conditions.** The oil-driven fiscal windfalls allowed the country to invest massively in social services and infrastructure—sometimes with no real economic rationale. Consequently, by the early 1990s, basic welfare indicators such as literacy and mortality rates, access to basic amenities and employment, and health coverage had reached the levels of upper middle-income countries and were much higher than those of lower middle-income and SSA countries. Poverty at international lines was significantly lower than in the rest of the continent and close to the level of in upper-middle-income countries.

**Gabon’s natural resources and sociopolitical stability that was exceptional for the region successfully attracted foreign direct investment (FDI).** Within the general instability in SSA, Gabon’s politics have been remarkably stable, although some recent events caused some worries.<sup>1</sup> This sociopolitical stability, despite some questions about political freedom, and the country’s natural resource endowments, have attracted FDI, which reached 2.4 percent of GDP in the mid-1970s, compared to less than 0.7 percent in upper-middle-income and SSA countries, and shot up to more than 10 percent in 2017 – substantially above comparator country averages, which were less than 4 percent. Yet FDI has long concentrated in resources and no spillovers to the rest of the economy or benefits for the population were evident.

*Heavy dependence on resource-led development has since taken its toll.*

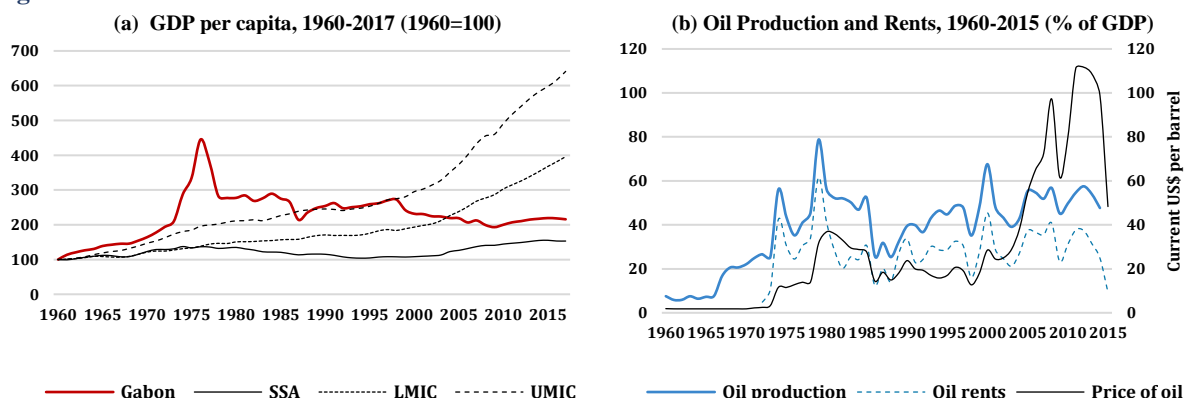
**However, Gabon was not able to fully harness its resource wealth for sustainable development.** Wealth accumulation grounded in natural capital becomes unsustainable over the long term if it does not convert into accumulation of other forms of wealth, as oil reserves decline, and fields mature. Unfortunately, Gabon was not successful in balancing the depletion of natural capital with accumulation of other forms of wealth. Currently, produced capital – equipment, machinery, urban land –constitutes only 17 percent of the country’s wealth and human capital accounts for only 31 percent. This is far from upper-middle-income countries averages and makes it harder to diversify the economy away from oil. Gabon could have expanded its productive base and more sustainable gains in wealth per capita if it had simultaneously invested in building produced capital and human capital rather than using the oil income for consumption.

**As a result, when the oil crisis hit in the 1980s progress stalled and achievements began to fade.** The economic boom gave way to protracted recession and the economy entered a period of large swings. From 1977 to 1986 GDP wavered between contraction and substantial growth. The economy began to oscillate between periods of economic recovery, supported by structural adjustment programs, and periods of recession. With the abrupt decline of oil prices in the mid-1980s, economic growth almost flattened. Economic growth stalled over the past three decades, reaching a paltry average of 0.8 percent per year over 2000-2009 and revamped to 3 percent in 2010-18 (Figure 1.4). While the lack of good data prevents a full understanding of the causes of this decline, it appears that overreliance on oil, aggravated by procyclical fiscal policies, undermined the economy, making it more vulnerable to oil price volatility and other shocks. Taking into account the population growth, since the mid-1980s per capita GDP growth has been on average negative. While SSA and upper- and lower middle-income countries have had steady upward growth, since it peaked in 1976, Gabon’s real GDP per capita has been cut by half.

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<sup>1</sup> The 2016 presidential elections triggered a wave of protests and violence, which were contained through citizen dialogue and political reforms. On January 7, 2019, an attempted coup led by a dozen of military officers was suppressed.

**Figure 1.4: Economic Performance**

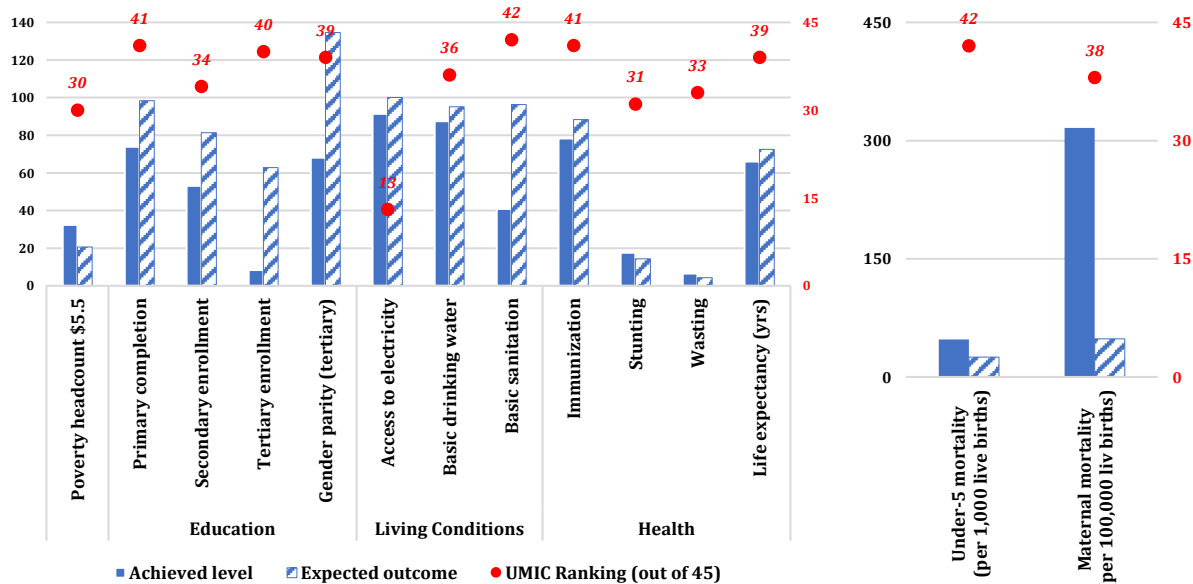


Sources: WDI 2019 and Ross & Mahdavi (2015).

Note: Oil rent is the difference between the value of crude oil production at world prices and costs of production.

**Outcomes in living standards are below expectations.** In 2017, the poverty rate using the international line (US\$ 5.5 a day in 2011 purchasing power parity, PPP) was an estimated 32.4 percent, which compares favorably with levels in SSA generally, but is about 12 percentage points (pp) higher than what might be expected from Gabon’s per capita national income (Figure 1.5). There are persistent large discrepancies between the country’s economic potential and its performance in terms of human development. Although Gabon ranks 58th in GDP per capita, in the 2015 Human Development Index (HDI) it ranked 109th out of 188 countries and in the 2017 Human Capital Index (HCI) it was 110th out of 157. The country underperforms on most human development and living conditions dimensions, ranking near the bottom among upper- middle-income countries.

**Figure 1.5: Human Development and Living Conditions Outcomes**



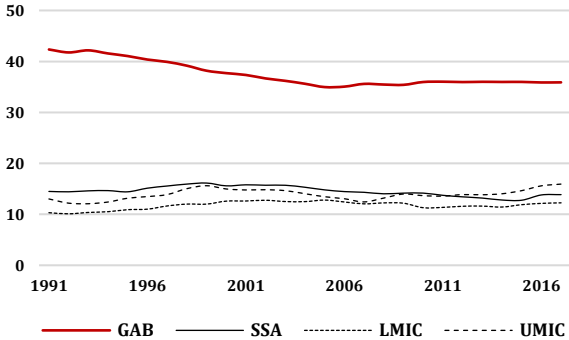
Source: WDI 2019.

Notes: Figure 1.5 compares Gabon’s achievement with expected performance on each human development outcome given its Gross National Income (GNI) per capita. Expected outcomes are estimated using panel data generalized estimating equation and assuming Gamma distribution of dependent variables. The figure also compares Gabon’s rank to the sample of 45 upper middle-income countries. The ranking ranges from 1 (best) to 45 (worst). Outcomes, but life expectancy at birth and mortality rates, are in percentage.

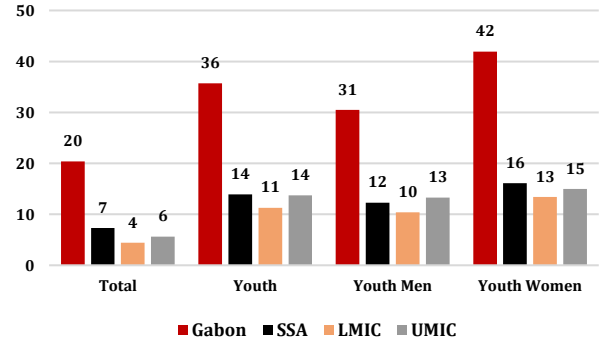
**Job creation was not commensurate with the economy’s potential.** After more than a decade of full employment in the 1970s, driven by expansionary fiscal policy and massive public-sector

employment, the collapse of oil prices in the mid-1980s brought a lasting negative shift in the labor market and rising unemployment. Currently unemployment is among the highest in Africa with one-fifth of the workforce unemployed and about one third of people under 25 are out of work (Figures 1.6 and 1.7). Youth educated through high school account for about 60 percent of the unemployed and women for 70 percent.<sup>2</sup> The idea that public employment was guaranteed for life and is the best job option for young graduates has likely biased preferences for education in fields that increase chances for public jobs. This, coupled with inadequate education and training for the job market, produced skill shortages and mismatches.

**Figure 1.6: Youth Unemployment, 1991-2017 (percentage of total labor force ages 15-24)**



**Figure 1.7: Unemployment Rates, 2017 (percentage)**



Sources: WDI 2019 and ENEC 2010.

Note: Unemployment in Fig. I.7 is expressed as a percentage of the corresponding labor force group of individuals.

**The formal private sector remains very small.** Preferential policies for large foreign investors and inadequate assistance to small enterprises inhibit the emergence of a vibrant private sector. Moreover, generous public-sector wages, an unattractive investment climate, and limited access to finance have given the economy a high cost structure. As a result, there has emerged an informal sector that accounts for 50 percent of employment and functions as a dual labor market. Informal employment is particularly prevalent among the poor, who lack access to productive assets and capacity-enhancing services. Food distress and shocks for which there are no well-targeted and comprehensive coping strategies make their lives even more precarious.

*Further economic and social progress will require a considerable shift of the development paradigm.*

**Increasing realization of Gabon’s economic and social deficiencies has led to new development strategies to revive the economy and strengthen social inclusion.** The PSGE development agenda was severely eroded by the budgetary crisis that followed the 2014 oil crisis, undermined macroeconomic stability, increased debt, and led to the accumulation of worrying domestic and external arrears – all of which impinged upon public investment, growth of small enterprises, and outlays to social sectors. Gabon has spearheaded CEMAC efforts to adopt an Economic Recovery Plan (*Plan de Relance Économique*, PRE) and to request

<sup>2</sup> Data from the 2010 Labor Force Survey (ENEC). The EGEP 2017 shows lower unemployment based on the ILO definition, but significantly higher hidden unemployment. The discrepancy is due to differences in survey design. Labor Force Surveys are better suited to assess employment and provide more accurate data.

assistance from the International Monetary Fund (IMF) Extended Financing Facilities (EFF).<sup>3</sup> Public-private partnerships with foreign investors were initiated to improve infrastructure and enhance economic transformation. Meanwhile, to improve the investment climate and further attract investments, the government created the High Council for Investment (HCI) as a platform for public-private dialogue and the National Agency for Investment Promotion (ANPI).

**Efforts to reduce the weight of the oil sector in the economy have potential but as yet not enough actual.** Since early 2000s the diversification strategy has begun to bear fruit in terms of a higher contribution of the non-oil sector to GDP and a slight acceleration of private sector development in recent years. However, non-oil sectors have not yet made a significant dent in oil's domination of the economy. Moreover, many non-oil sectors still have only a limited gearing effect on the rest of the economy and are themselves dependent on oil income. The hoped-for private sector dynamism and associated employment creation have yet to materialize.

**Gabon's vision of transforming itself into a diversified emergent economy by 2025 is still to be achieved.** There is little sign of sustained growth, minimal fiscal space, and progress on reducing poverty and employment precarity, and raising human development indicators is not commensurate with the economy's potential. The persistent discrepancies between Gabon's per capita wealth, per capita well-being, and human development outcomes make it clear that wealth is concentrated within a small segment of the population and resources are inefficiently distributed. Thus, identifying the best channels for sustained development and poverty reduction and the priority areas for intervention is critical to ensure that Gabon moves briskly along a path to sustainable and equitable transformation and moves up to the next development stage.

## II. Challenges

*Wide geographic disparities dampen prospects for poverty reduction and shared prosperity.*

**Gabon's urbanization pattern is characterized by a large number of small cities while a large part of its land space is rural.** The country has two main cities with a population over 100,000, five medium sized cities with 50,000-100,000 inhabitants, 10 small cities with 10,000-50,000 people, and 35 small urban communes with under 10,000 population. The rest of the population, 11 percent, is rural and spread over a large area (Figure 1.3).

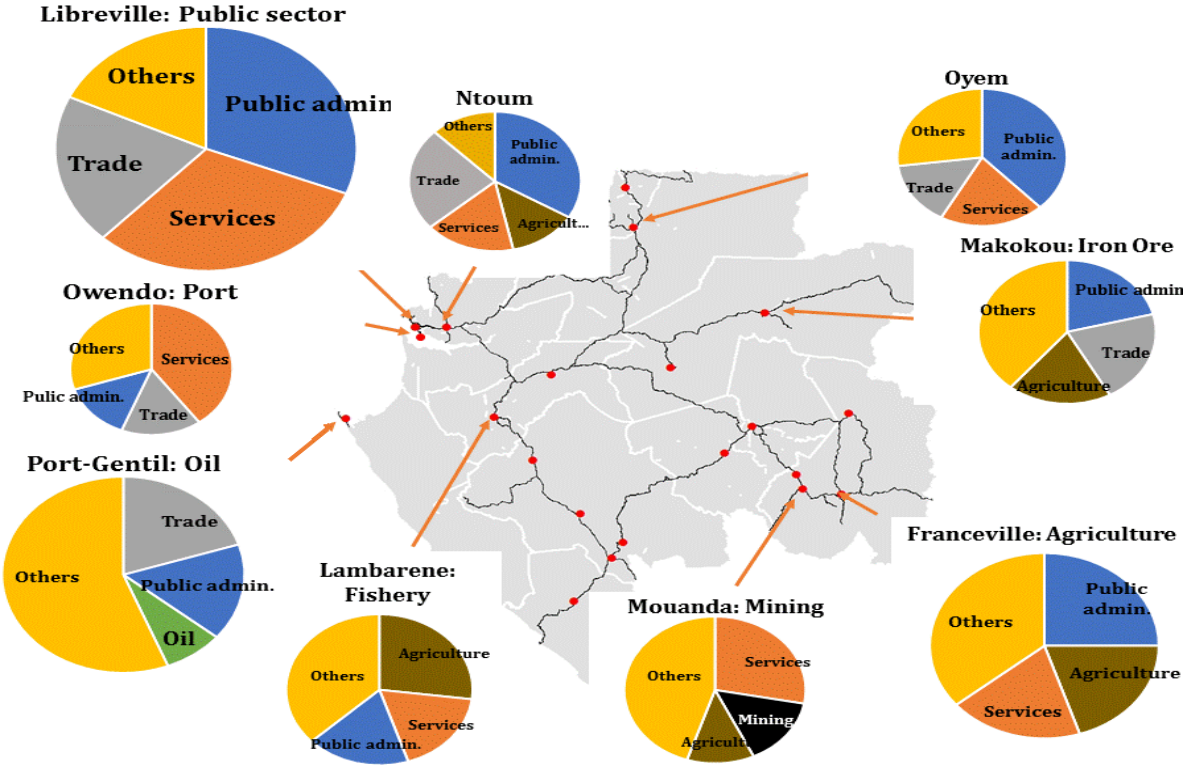
**Most of the population and economic activity is concentrated in a few urban centers.** Over 60 percent of economic activities occur in Gabon's main two cities: 50 percent in Libreville, which houses 40 percent of the population, and 10 percent in Port-Gentil, where another 8 percent of Gabonese live (Figure 1.8). Franceville, the third largest city, hosts only 7 percent of the country's economic activity and 5 percent of the population; smaller cities like Owendo and Akanda host a larger share of economic activities because they are part of the *Grand Libreville* agglomeration. Different cities seem to specialize in different economic activities. For instance, public administration is concentrated in the capital with some spillover to neighboring cities like Akanda. Agriculture is centered on Franceville and in the northern regions near Makokou, though there is some agricultural activity in the south near Mouila. Oil industries are primarily in Port Gentil, followed by Owendo and Lambarene, with mining activities located in Mouanda

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<sup>3</sup> The decline in oil prices in 2014 prompted CEMAC member countries to undertake fiscal and structural adjustments to maintain external stability and the integrity of CEMAC monetary arrangements. Member countries requested IMF support and Gabon was very active in preparing an Economic Recovery Plan for 2017–19 and undertaking structural reforms to accelerate growth, improve the investment climate, and reduce social inequalities.

and areas surrounding Franceville. The rest of the country is sparsely populated and has few economic activities.

Figure 1.8: Geographical Pattern of Economic Activities by Main Cities



Source: EGEP 2017

**The uneven geographic density is coupled with spatial disparities in living standards.** Three types of areas can be identified: (1) lagging and sparsely populated provinces; (2) lagging provinces with a larger population density; and (3) leading areas where economic and population density are highest. The first are in northern provinces. They tend to be sparsely populated, lack basic services and connective infrastructure, and must contend with a variety of natural barriers. Southern provinces, where population density is larger, are also lagging but have cities at intermediate urbanization levels. Leading areas are in the West and tend to concentrate most of the economic activity and population.

*The prevailing political settlement has brought political stability but has not succeeded in promoting inclusive development.*

**Abundant natural resources made Gabon one of the richest countries in SSA but were counter-productive for its long-term development.** Natural resource wealth can perversely affect economic and social outcomes by creating the opportunity for rent-seeking practices and through exposure to volatility (Sala-i-Martin and Subramanian 2013). Human capital and institutions are decisive for whether natural resources are managed for socioeconomic development. When governance and institutions are weak, resource rents can lead to inefficient redistribution, greater social inequality, under-investments in human capital, and corruption, which in combination allow low-quality institutions to persist (Mehlum et al., 2006; Wiens, 2013; James, 2015; Cockx and Francken, 2014 and 2016). Resource revenues tend to reduce domestic tax effort, which reduces demands for accountability; divert public spending away from productive social spending; create incentives for corruption, embezzlement of revenues, and collusion on tax evasion; and deter needed investment in building institutional capacity. A weak institutional context does not suggest a commitment to safeguard the revenues from

natural resource, reduce fiscal volatility, improve the efficiency of public spending and public services, and turn resource wealth into broad-based sustainable development (Ross 2015; Badeeb et al. 2017; WDR 2017).

**Historically, Gabon’s institutions have demonstrated foundational weaknesses.** Development of a modern, pluralistic polity and establishment of rules-based institutions have been hampered by a colonial legacy of political privilege and by the influence of family networks creation of the state. Although the entrenched political leadership forged five decades of sustained political stability, its members retained control of the principal centers of economic activity. Clientelism in the administration and elite capture of public resources benefitted superior social status to the detriment of the welfare of most Gabonese. The unequal distribution of wealth has steadily eroded the social compact and exacerbated negative public perceptions of governance. Public trust in the state has been eroded not only by weak governance but also by its failure to divert some wealth to the neediest population groups. Limited demands on governance also contributed to pervasive corruption and lack of transparency in resource management, thus weakening service delivery and state capacity.<sup>4</sup>

*Unsupportive business environment and inefficient resource allocation slowed down socio-economic progress.*

**Inadequate governance and a poor business climate are major challenges for Gabon’s economy.** The evidence of deteriorating perceptions of governance in the last 10 years are concerning, though not uncommon, for a resource- rich country (Figure 1.9). Gabon ranks 117<sup>th</sup> out of 180 countries according to the Corruption Perceptions Index from Transparency International (2017); hence public perception of corruption is high.<sup>5</sup> The lack of transparency in public resources management has fueled speculations on the use of oil revenue, to the point where Gabon is no longer part of the Extractive Industries Transparency Initiative (EITI) in 2013. The poor business environment has undermined efforts to diversify the economy and accelerate growth. Gabon ranks 169<sup>th</sup> out of 190 countries in the World Bank’s *2019 Doing Business Report*, far behind most of its SSA and upper-middle income peers (Figure 1.10).<sup>6</sup> The high cost structure of the economy brought about by public-sector employment and generous wages has created Dutch disease-like effects that adversely affected competitiveness and productivity.

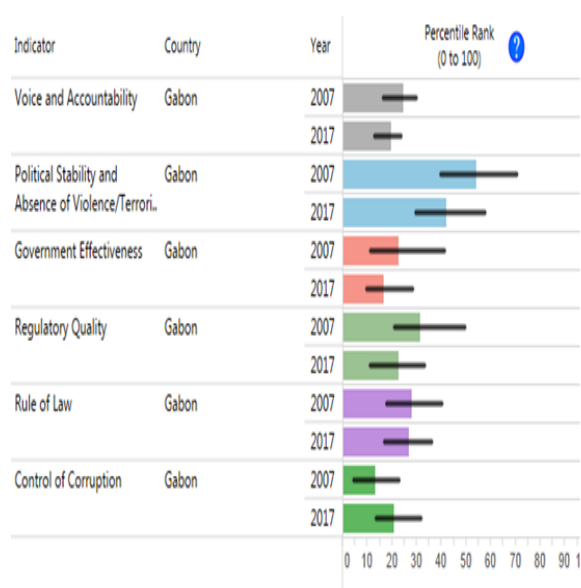
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<sup>4</sup> According to Afrobarometer 2014/15, 65 percent of the population reports not being interested in public affairs.

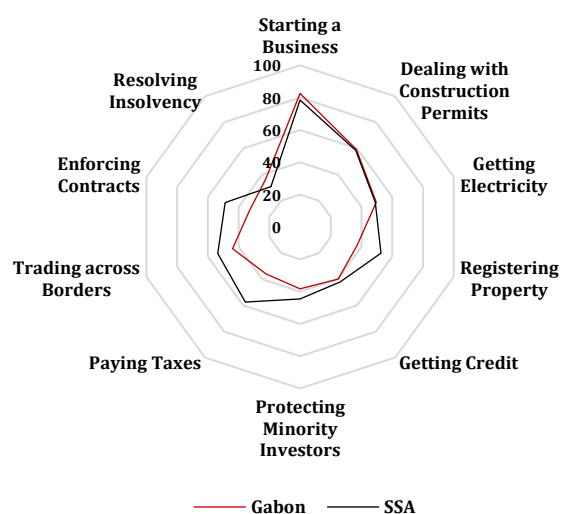
<sup>5</sup> About 95 percent of the population believe that government officials are involved in corruption (Afrobarometer 2014/15).

<sup>6</sup> Only 12 SSA countries, of 50, rank worse than Gabon: Central African Republic, Chad, Republic of Congo, Democratic Republic of Congo, Equatorial Guinea, Eritrea, Guinea-Bissau, Liberia, São Tomé and Príncipe, Somalia, South Sudan, and Sudan.

**Figure 1.9: Worldwide Governance Indicators, 2007 and 2017 (percentile rank)**



**Figure 1.10: Doing Business Scores, 2019 (percentage)**



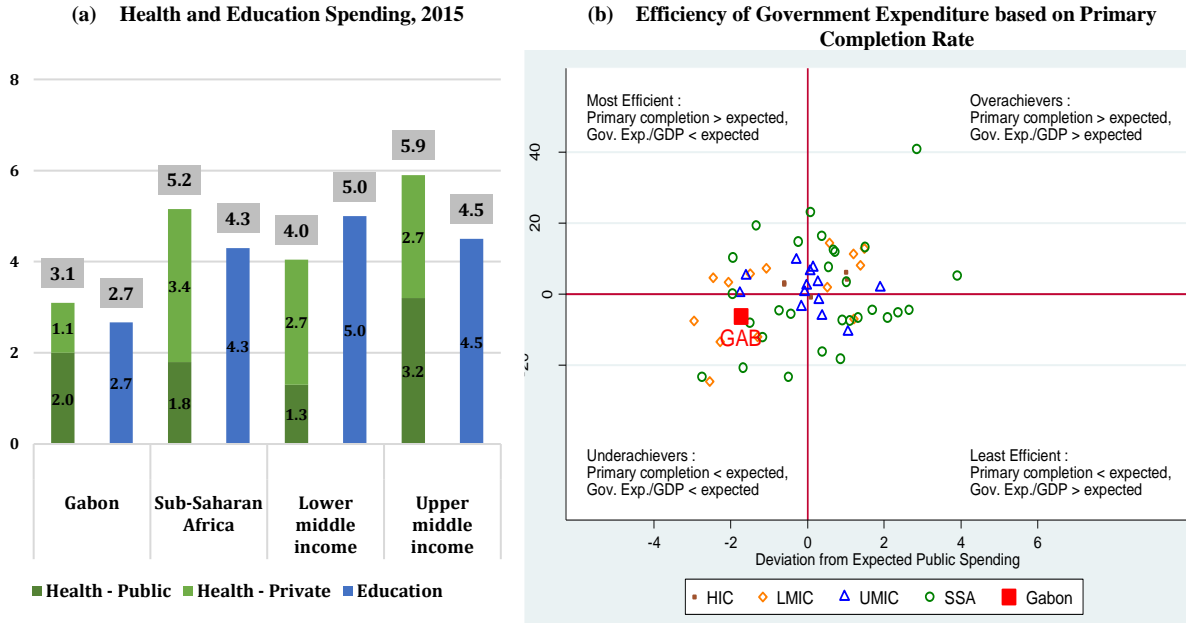
Sources: WGI 2017 and Doing Business Report 2019.  
 Note: Scores are scaled in percentile (0=lowest; 100=best score)

**Opaque public resource management and a patronage system make it difficult to hold the administration accountable for service delivery.** It also contributed to creation of a bloated and non-performing public sector.<sup>7</sup> The dependence of the budget on oil revenues and the absence of mechanisms for saving resource windfalls have led to large swings in both revenues and spending. Extensive use of exemptions, incentives, and other tax expenditures have slowly eroded the tax base, further complicating macroeconomic management and adversely affecting allocation of resources to human development. In 2015 public spending on noncontributory social protection was 0.5 percent of GDP, education 2.7 percent, and health 2 percent of the GDP, significantly below middle-income countries and SSA averages. Insufficient resources for human development resulted in below-par outcomes (Figure 1.11). Poor management of public investments led to shortfalls in the coverage and quality of infrastructure services, obstructing connectivity within and beyond borders. Lack of budget control and management of fiscal risks, particularly debt, have led to frequent budget deviations and significant accumulated arrears. Another factor causing fiscal imbalances is the public wage bill, which reached 9 percent of GDP in 2018. The government has recently committed to improving its management while introducing a performance management system.

<sup>7</sup> Although an employment ceiling is part of the Finance Law, since 2007 the number of civil servants has gone up 40 percent, to 100,000 in 2017 (World Bank 2018a). The government recently committed to freeze public sector hiring and control ghost workers. The civil service law is also being revised.



**Figure 1.11: Public Expenditure (percentage of GDP)**



Sources: EGEP 2017, UNESCO, IMF databases and WDI 2019.

Notes: Education spending in Fig. 1.11-a are for 2014 and health spending are for 2016.

Expected education and public expenditure values in Fig. 1.11-b are based OLS regressions with fixed effects (income group and region). See Public Expenditure Review (PER), 2018 for more details.

**A fragile financial and banking system limits access to credit to the local private sector, especially small enterprises.** Although financial inclusion has massively benefitted from the emergence of mobile banking, the financial system itself is fragile. The domestic capital market is embryonic and there is little financing for entrepreneurs and small businesses. Most banks in Gabon are local branches of foreign banks, whose primary interests are to finance oil and mining projects rather than local enterprises. Because it is very difficult for local medium and small enterprises to negotiate loans, they cannot expand their activities. Moreover, Gabon's current economic difficulties have further affected the banking system, so that credit has contracted even more.

**To improve its efficiency and effectiveness across the board, the government has begun to modernize the state by enhancing its digital development.** The government has drawn up a national strategy and in 2011 created the National Agency of Digital Infrastructure (ANINF) to coordinate execution of the strategy. Determined by 2025 to make Gabon a center of excellence in services with high added value and a pioneer of the digital, the government has begun to provide e-public services and expects that digital development will help to make the government more accountable and the divided society more inclusive.

**Gaps in data availability and quality impede the capacity of the government to make evidence-based policy decisions.** Statistical information is either lacking or outdated both fundamental macroeconomic and microeconomic indicators. Gabon scored 36.7 out of 100 in the Statistical Capacity Indicator (SCI) of 2017; the SSA average was 60.5. Despite its clear commitment to address Gabon's economic and social challenges, without complete data and statistical evidence to guide the planning, targeting, and monitoring of reform strategies, the government cannot properly assess how effective the strategies are. Recognizing the problem, in 2015 the government adopted a new statistical law to build the capacity of the National Statistical System (NSS). A Statistics Development project is now underway to improve the quality and availability of statistical information.

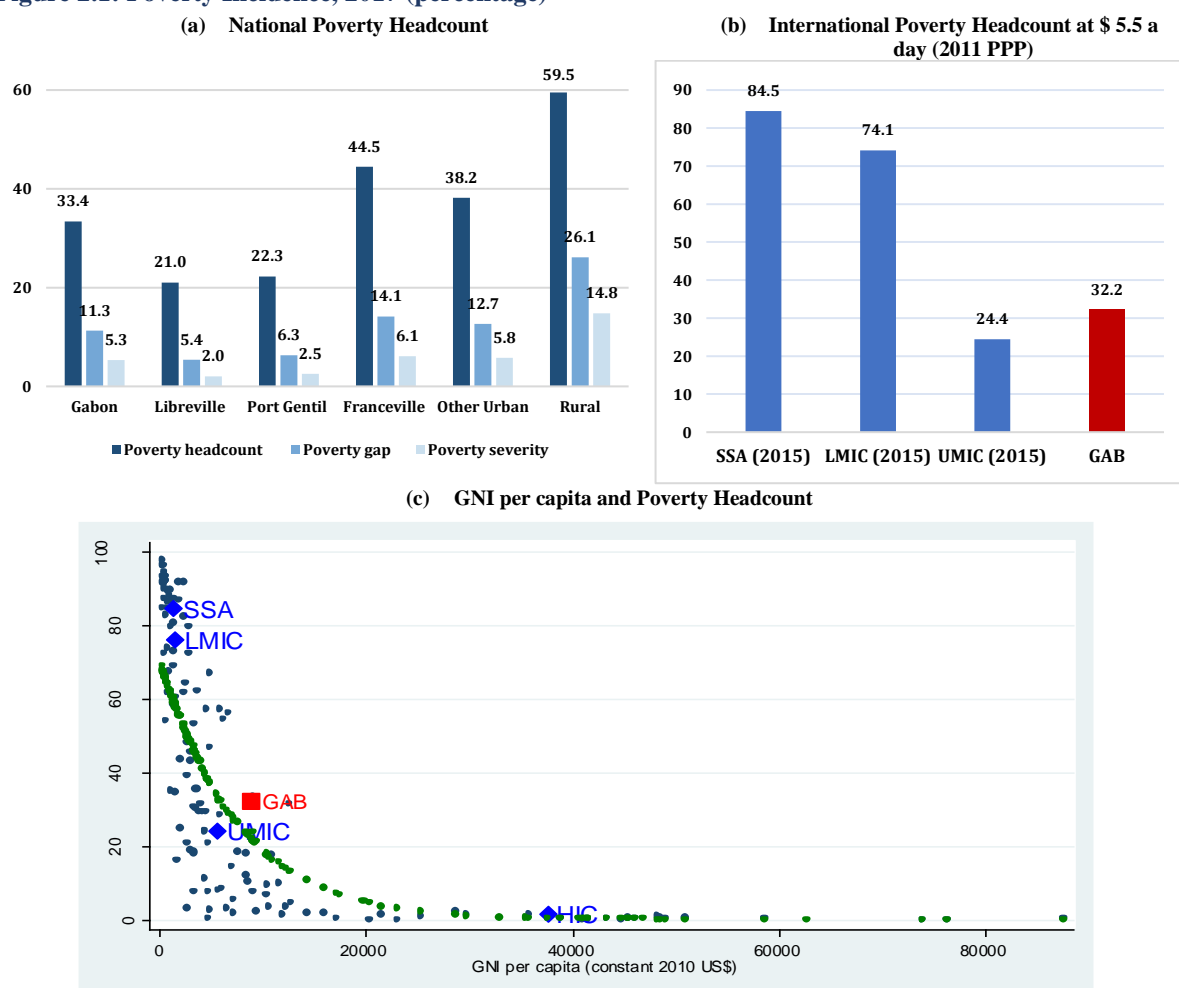
# Chapter 2: Incidence of Poverty and Shared prosperity

## I. Incidence and Trends of Poverty

*Gabon has seen a slow reduction in the incidence of poverty, but the number of poor people increased.*

**Around one third of the Gabonese population lives below the national poverty line.** Based on the household budget survey EGEP 2017 (*Enquête Gabonaise pour l'Évaluation de la Pauvreté*), 33.4 percent of the population live below the national basic needs' poverty line, set at CFAF 840,400 per capita per year (Figure 2.1-a). About 8.2 percent of the population is in extreme poverty and cannot afford to buy basic foodstuffs to meet their minimum nutritional requirements of 2,100 kilocalories (Kcal) per capita per day (Box 2.1). Using the international poverty line of US\$5.5 per capita per day (at the 2011 PPP exchange rate), 32.2 percent of the population is poor, a rate that puts Gabon far ahead of SSA and lower middle income countries by up to 50 pp (Figure 2.1-b).<sup>8</sup> However, compared to upper middle income countries, Gabon's poverty rate is higher by nearly 8 pp. At similar GNI per capita level, the country fares slightly worse than its counterparts (Figure 2.1-c).

**Figure 2.1: Poverty Incidence, 2017 (percentage)**



Source: EGEP 2017 and WDI 2019.

Note: LMIC and UMIC stand for lower and upper middle income countries, respectively.

<sup>8</sup> Gabon's national poverty line translates into about \$5.7 per capita per day at 2011 PPP, generating a slightly higher national poverty rate than international one.

**Poverty is more widespread and deeper in rural areas than in urban centers.** Around 59.5 percent of the rural population lives in poverty, compared to 29.4 percent in urban areas – 21.2 percent in Libreville and Port-Gentil and 38.2 in other urban centers. The depth of poverty (or poverty gap), estimated at 11.3 percent, indicates that an important proportion of the population is fairly close to the poverty line. However, the poverty gap is almost three times higher in rural areas (26 percent) than in urban zones (9 percent), indicating that rural households need way more resource to lift out of poverty. This implies that poor Gabonese households would require the average of CFAF 94,965 per capita per year to escape poverty. The amount averages CFAF 219,344 in rural areas, where poverty is markedly deeper, and only CFAF 75,636 in urban areas. Furthermore, the severity of poverty index indicates high inequality in consumption among rural poor households.

#### Box 2.1: Poverty measures

In Gabon, poverty is measured by comparing a household's consumption per capita to the national poverty line using household budget survey (EGEP) data. The consumption aggregate comprises food, including food produced by the households themselves, and expenditures on a range of other goods and services (e.g., clothing, utilities, transportation, communication, health, and education). It includes also use value of durable goods (assuming a depreciation rate of 10 percent), imputed rent and other housing-related expenditures, but excludes spending on exceptional events (e.g., marriages, funerals) and larger consumer durable items (cars, TVs, etc.). Price deflators are used to adjust consumption per capita for price differences in different locations. The *poverty lines* are based on the cost of basic needs: the food poverty line (CFAF 429,639 per capita per year in the 2017 EGEP) is based on the cost of a food basket containing 2,100 calories per person per day given consumption patterns in a reference population. The basic needs poverty line (at CFAF 840,400 per capita per year) adds an allowance for basic nonfood necessities to the food poverty line.

The following four poverty measures are commonly used to assess poverty: The basic needs headcount poverty rate ("poverty rate" in the text) measures the proportion of the population whose annual spatially- price-adjusted total household consumption per capita is below the basic needs poverty line. The extreme headcount poverty rate ("extreme poverty rate") measures the proportion of the population living below the food poverty line. The depth of poverty (poverty gap) indicates how far, on average, poor households are from the poverty line. Capturing the mean consumption shortfall relative to the poverty line across the whole population, it is measured as the sum of the consumption deficit from the poverty line for the poor (the nonpoor have a shortfall of zero) divided by the total population. The depth of poverty shows the total resources needed per person to eliminate poverty, assuming that all poor individuals have exactly the same shortfall between their consumption and the poverty line. The severity of poverty (the squared poverty gap) captures both how far the poor are from the poverty line and consumption inequality among the poor.

**The incidence of poverty declined between 2005 and 2017, particularly in secondary urban zones.** The two available surveys to estimate the variation in poverty, namely EGEP 2005 and 2017, are not comparable due to improvements in survey design. The challenges resulting from these changes are addressed using the Small Area Estimation Prediction method (Box 2.2). The results suggest a decline of the national poverty headcount from 41.8 percent in 2005 to 33.4 percent in 2017. The poverty headcount fell across the board but most dramatically in urban areas outside the main cities where the poverty rate decreased by nearly 12 pp compared to a reduction by about 5 pp in Libreville and Port-Gentil and by 6 pp in rural areas (Figure 2.2-a).

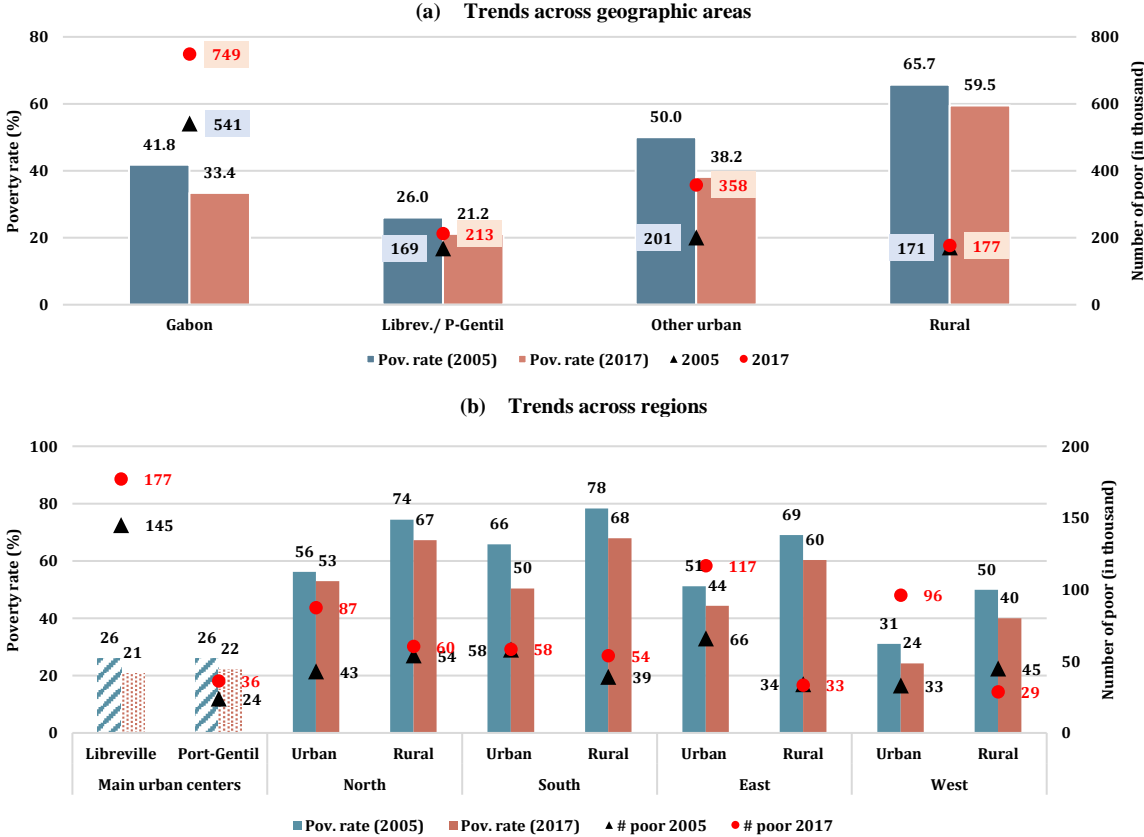
**Poverty declined more slowly than the population grew, so that the absolute number of poor Gabonese went up.** Poverty declined annually by about 1.6 percent in 2005–17, when population growth averaged 3 percent. This resulted in an increase in the number of poor people, which reached about 749,000 in 2017 up from 541,000 in 2005 (Figure 2.2-a).<sup>9</sup> This increase occurred across all areas, but was markedly higher in secondary urban zones, where the number of poor increased by 78 percent (+ 157,000 poor), compared to an increase by 26

<sup>9</sup> According to EGEP 2017 the total population of Gabon is 2.2 million while WDI data show a population of two million only in 2017.

percent (+ 44,000 poor) in Libreville and Port-Gentil and by less than 4 percent (+ 6,000 poor) in rural areas. This is the result of a faster increase of the population in urban areas outside Libreville and Port Gentil, even though a large of part of the population remains located in these two main cities.<sup>10</sup>

**At the regional level, the reduction in the incidence of poverty was the highest in the South, while the number of poor grew faster in the urban West.** From 2005 to 2017, the poverty rate declined by 16 pp in the urban South and 10 pp in the rural South, where the number of poor increased by almost 40 percent. The West and North also witnessed a quite important reduction in poverty (-13 pp in the West and -11 pp in the North). The decline occurred in both the urban and rural areas. However, while the number of poor declined in the rural zones of these regions it increased markedly in their urban parts, particularly in the urban West where the number of poor more than doubled.<sup>11</sup> The urban East also saw an important increase in the number of poor people despite a decline in the poverty incidence by 7 pp. This suggests that the reduction in the poverty rate is too slow and that efforts to alleviate poverty are offset by population growth on the one hand and migration movements on the other hand, which seem to contribute to a displacement of poverty.

**Figure 2.2: Trends in Poverty and Number of Poor, 2005 and 2017**



Source: EGEP 2005 and 2017.

Note: The regional areas are defined as follow: *North* (Ogooué-Ivindo & Woleu-Ntem Provinces), *East* (Haut-Ogooué & Ogooué-Lolo Provinces), *West* (Estuaire, Moyen-Ogooué & Ogooué-Maritime Provinces), and *South* (Ngounié Province & Nyanga Provinces). Urban West does not include Libreville nor Port-Gentil. The poverty rate for Franceville was not available in 2005 as the city was merged with urban east region.

<sup>10</sup> Based on EGEP data, the population size of secondary urban areas outside the main cities more than doubled between 2005 and 2017, while it increased by 53 percent in Libreville and Port Gentil and only 13 percent in rural areas, despite high fertility rates in these areas. This suggests high migration movements towards secondary cities.

<sup>11</sup> Figures need to be taken with caution as the changes may be related to changes in administrative delimitations.

### Box 2.2: Poverty Estimation in the EGEP 2005 and 2017

*EGEP 2017* follows the Living Standards Measurement Study (LSMS) approach with the core food consumption module based on a one-week recall, while *EGEP 2005* followed the Core Welfare Indicator Questionnaire (CIWQ) approach where the food consumption module was based on average one-month recall. In addition, the *EGEP 2005* consumption module was designed mainly to capture expenditures on essential goods and only probed for a limited number of item categories, while the most recent survey included a much more detailed and broader module. These changes affect the comparability of consumption and poverty estimates over time.

To partly overcome the problem, the National Statistical Office estimated separate poverty lines for each survey year, obtaining poverty estimates of respectively 32.7 percent and 33.4 percent for 2005 and 2017. While this method provides accurate poverty measures for each survey, it does not resolve the comparability problem to assess the poverty trend and progress towards shared prosperity. This is addressed using the Small Area Estimation Prediction method of Elbers, Lanjouw and Lanjouw (2003) and Christiaensen et al. (2012). The approach replaces per-capita consumption data in *EGEP 2005* by predicted consumption using both available information on household characteristics (sociodemographic attributes and assets ownership) in 2005 as well as the parameter estimates obtained from a model of consumption estimated using 2017 survey data. The explanatory variables used in the model are restricted to those that are comparable across the two surveys, and the relationship between consumption and its correlates is assumed to be stable over time in order to ensure the perfect comparability of consumption across the two surveys.

The first step is to identify a set of household characteristics that were collected in the same way in both surveys. It then estimates the relationship between these variables and consumption in 2017; that is to calculate the extent to which possession of each of these characteristics by a household predicts their level of consumption in 2017.

**The reduction in poverty was coupled with some progresses in living conditions.** The lack of comparability between household surveys prevents a clear understanding of the drivers of the reduction in poverty rates. In addition to the changes in method of data collection on households' consumption mentioned above, EGEP 2005 does not include information on productive assets (e.g., transportation means and telephones, sources of income, financial transfers) that could be compared to 2017 and used to explain the positive changes in living standards. However, the available information suggests some improvements – though limited and mainly concentrated in urban areas—in access to electricity, piped water, sanitation and housing conditions, which may have helped the reduction in poverty. Ownership of computers and access to internet also increased, which point to a potential improvement of the stock of productive assets. Unemployment remained persistently high and the structure of employment only marginally changed, which suggests limited structural transformation of the economy and thus limited impact on poverty.

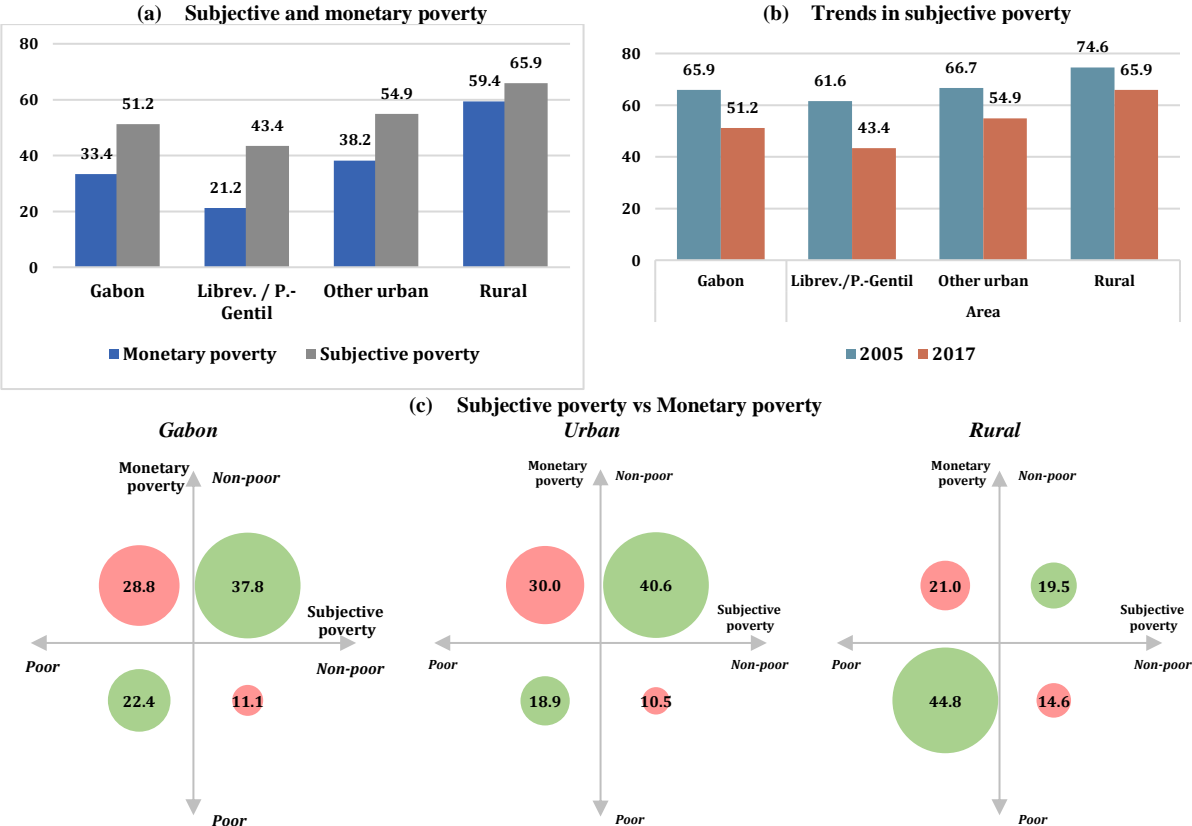
*Subjective poverty has declined over time yet remains widespread pointing towards unmet aspirations for better living conditions.*

**Half of the population identifies itself as poor.** Subjective poverty is based on the feeling of individuals and whether they consider themselves as poor or not (Box 2.3). More than half of the population identified itself as poor in 2017, a rate nearly 20 pp higher than monetary poverty incidence (Figure 2.3-a). The perception of poverty is particularly high in rural areas as well as in Southern and Northern regions, but the discrepancy between feeling poor (subjective poverty) and being poor (monetary poverty) is more acute in the urban areas, particularly in Libreville and Port-Gentil (43 percent compared to 21 percent – 22 pp difference) and in the Western region (50 percent compared to 26 percent – 24 pp difference), indicating a highly negative perception of economic conditions in these areas.

**The Gabonese have been feeling less poor over time.** Between 2005 and 2017, the subjective poverty rate declined by nearly 15 pp, suggesting that welfare dimensions non-captured by the monetary measure improved (Figure 2.3-b). The improvement in poverty perception was particularly important in Libreville and Port-Gentil, where the share of individuals identifying themselves as poor declined by 18 pp. The decrease was more limited in other urban centers (-

12 pp) and in rural areas (- 9 pp). However, due to population growth, the total number of people feeling poor increased by 32 percent – from 860,000 in 2005 to 1.13 million in 2017.

Figure 2.3: Subjective Poverty, 2005 – 2017, Percent



Sources: EGEP 2017 and WDI 2017.

Note: The rates in the figures are for total population. For example, the rate of 22.4 percent in the SW quadrant of Figure 2.3-c (Gabon) means that 22.4 percent of the population is at the same time poor and feeling poor, which translates to 67 percent of the poor considering themselves also as poor. Conversely, a rate of 28.8 in the NW quadrant means that 28.8 percent of the population is monetary non-poor but feel poor, which translates into 43 percent of the non-poor identifying themselves as poor.

**Box 2.3: Subjective Poverty**

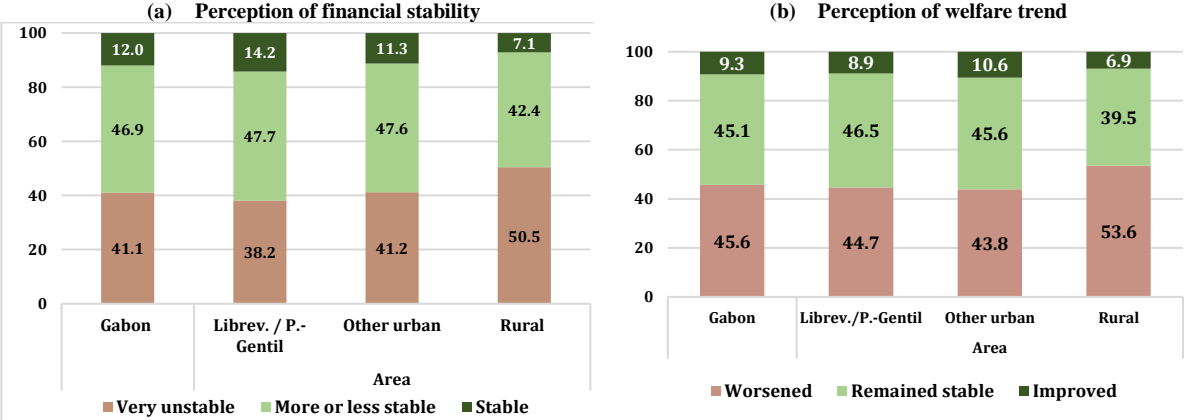
Subjective poverty reflects the self-assessment of people’s own welfare and living conditions, independently from their real level of income or consumption, and is therefore strongly related to the individuals’ perception of local economic conditions and their expectations in life. In contrast, monetary poverty is strongly related to income/consumption and reflects the incapacity of people to meet their basic consumption needs. Subjective and monetary poverty measures usually diverge, the former being generally higher as people tend to have higher monetary expectations than their estimated real basic needs (from a pure financial point of view).

**The discrepancy between the monetary and subjective poverty rates points towards unmet aspirations for better living conditions, particularly among those relatively well-off.** Subjective poverty is remarkably high among those relatively well off, reflecting unmet aspirations for better living conditions. While 67 percent of the (monetary) poor perceive themselves also as being poor (Figure 2.3-c), 43 percent of the non-poor consider themselves as poor despite having sufficient resources to meet their basic consumption needs. Rural people tend to have a more realistic perception of their poverty situation than urban ones, as evidenced by the lower difference between the monetary poverty rates and the subjective one, revealing higher economic standing and higher unmet aspirations in urban areas. Moreover, the perception of poverty is remarkably high among the relatively well-off population groups, as

over 40 percent of the Gabonese in upper income groups (4th and 5th quintiles) consider themselves as being poor. This reflects a socio-economic malaise even among richer groups.

**The widespread subjective poverty is explained by the heavy financial stress faced by a large part of the population.** Only 12 percent of Gabonese households consider their financial situation as stable whereas 41.1 percent of them estimate that their finances are very unstable (Figure 2.4-a). The stress is particularly heavy for the poor as the share of poor households considering their financial situation very unstable is 24 pp higher than for non-poor households (60.1 percent versus 35.9 percent respectively). Beyond the current perception of financial difficulties of households, they also report a marked deterioration of their welfare over the course of 2016. Nearly half of the households report they have experienced a decline in their general welfare while only 9.3 percent saw an improvement of their situation (Figure 2.4-b).

**Figure 2.4: Subjective Measures of Financial and Welfare Stability, 2017 (percentage of households)**



Sources: EGEP 2017.

## II. The Incidence of Growth and Shared Prosperity

*The reduction in poverty contrasts with the deterioration of economic growth.*

**The decline in poverty contrasts with the pattern of economic growth measured as changes in GDP per capita.** Despite the apparent negative trends in real per capita GDP, survey-based household consumption seems to have increased, contributing to the reduction in poverty.<sup>12</sup> The discrepancy between national accounts and household survey data is quite common in developing economies where informal sectors are large. A more accurate assessment of the contribution of the informal sector to Gabon’s GDP could help to reconcile the trends in economic growth-based household surveys and national accounts data. However, a full understanding of the underlying causes of this contrast remains beyond the scope of this report and requires further investigation.

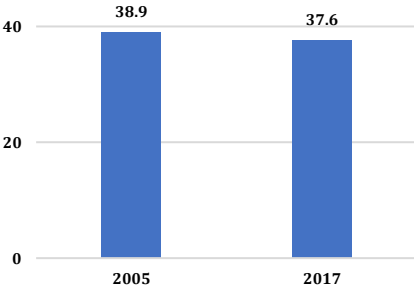
**Leaving aside the national accounts data, the response of poverty reduction to survey-based consumption growth appears to be low.** The growth elasticity of poverty based on household survey consumption is estimated at  $-1.4$ , meaning that a 1 percent increase in the survey mean consumption per capita will reduce the poverty headcount by only 1.4 percent.<sup>13</sup>

<sup>12</sup> National account (NA) data support this increase. NA data from the national statistics office show an increase in private consumption per capita by about 0.5 percent per year during 2005-17, while WDI 2019 data indicate an increase in household final consumption per capita by 1.5 percent a year during 2005-17.

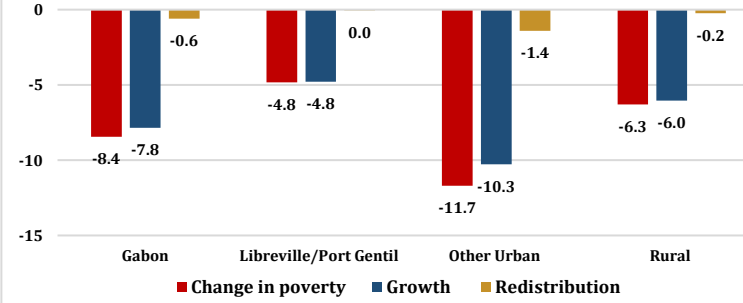
<sup>13</sup> Two broad approaches can be used to estimate the growth elasticity of poverty. The first measures growth as changes in per capita GDP or private consumption based on NA data and the second estimates growth directly from the household surveys on which the poverty estimates are based. Growth rates estimated from these two sources can differ significantly, which has implications for the estimated elasticities.

This is significantly lower than the available estimates for African countries (of about  $-3.0$ ) suggested by previous studies using survey mean consumption (Adams, 2004). The relationship between consumption growth and poverty involves changes both in mean consumption and in the distribution of consumption across households. The reduction in the poverty headcount was mostly driven by the increase in mean household consumption (growth effect) with limited distribution effects, as inequality seems to have only marginally declined (Figures 2.5 and 2.6). Household consumption growth contributes by 93 percent to poverty reduction, while the reduction of inequality contributes by 7 percent.

**Figure 2.5: Inequality by Gini Coefficient, 2005 and 2017**



**Figure 2.6: Growth and Redistribution Effects of Poverty Reduction (percentage points)**



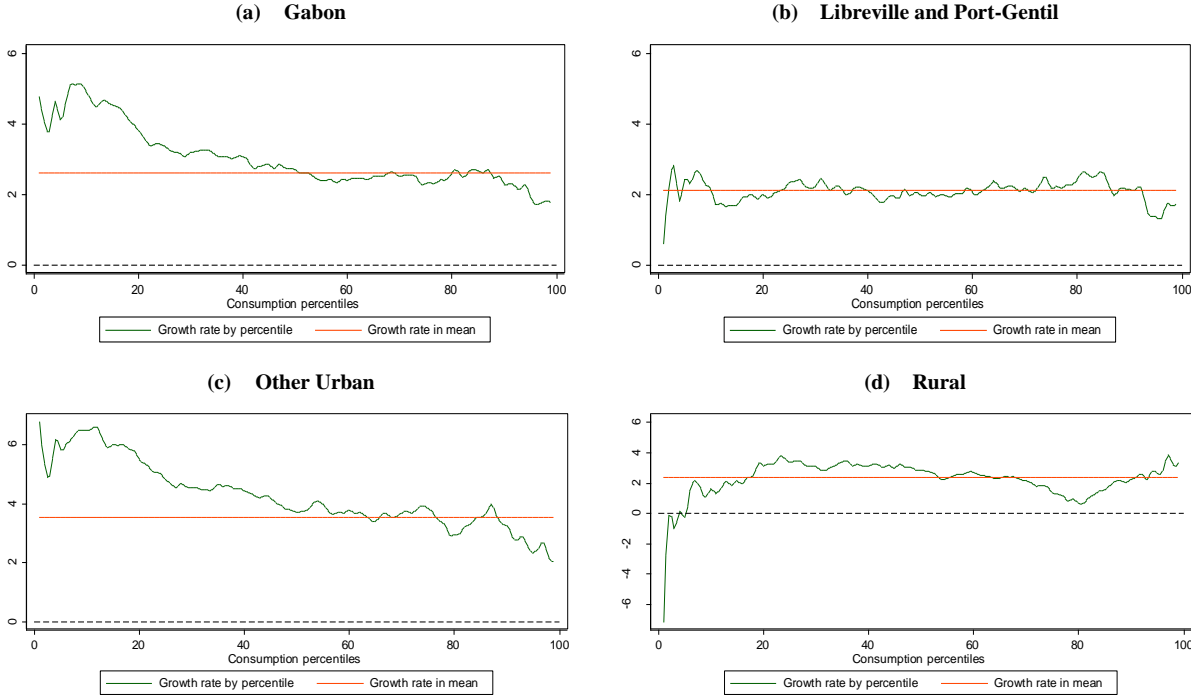
Source: EGEP 2005 and EGEP 2017

Notes: Gini indicator for 2005 in Fig. 2.5 is based on the imputed data. The decomposition in Fig 2.6 is based on Datt and Ravallion (1992) approach. Poverty estimates for 2005 are based on small area estimation model.

*Gabon has made some strides toward shared prosperity, but they remain small.*

**Some signs of pro-poor growth have been emerging since 2005.** Consumption growth seems to have been higher for people in the bottom 40 percent of the income distribution than among those better-off, suggesting a pro-poor pattern of growth (Figure 2.7). These positive results are tempered by the modest increase of consumption, which rose by only 8,455 CFAF per person per month in 12 years, and by the fact that the pro-poor growth pattern is observed only in urban areas— while the poorest rural groups witnessed a decline of their consumption level.

**Figure 2.7. Growth Incidence Curves, 2005–2017**



Source: EGEP 2005 and 2017.



### III. The Structure of Inequality

*Inequality is primarily driven by differences in household demographic composition, followed by differences between geographic regions.*

**Consumption based Gini coefficient indicates moderate levels of inequality in 2017.** The Gini coefficient of real per capita consumption indicates that the level of inequality for Gabon is approximately 38, slightly declining from 39 in 2005.<sup>14</sup> Among SSA upper middle-income countries, Gabon's Gini coefficient is below that of Botswana, Namibia and South Africa and is only higher than Mauritius. Levels of inequality in Gabon are likely higher than the figures reported here, as the available household surveys fail to sample the richest households and to capture the rising concentration of wealth among people at the top end of the distribution. Also, the consumption aggregate used to measure inequality excludes expenditures on large durable goods, which are more common purchases by richer households and better reflect the dispersion of welfare.

**The positive picture of relatively limited inequality in consumption distribution may hide persisting inequalities between groups.** It is important, thus, to examine the structure of inequality and to investigate the extent to which consumption inequality is attributable to variations between population subgroups. This investigation can be carried out by the breakdown of inequality by population subgroups, which consists of separating overall inequality in the distribution of consumption into inequality within population subgroups and inequality between them (See Appendix A for more details). Inequalities between population groups contribute to the perpetuation of poverty and vulnerability among resource deprived groups. A better understanding of these inequalities helps to inform targeted policies and programs to address poverty.

**Differences in households' demographics characteristics contributes the most to overall inequality.** The shares of inequality explained by the differences between population subgroups according to individual household attributes are summarized in Table 2.1.<sup>15</sup> Differences in demographic composition of the household (based on whether households are composed by single parents with or without children, couples with or without children and elderly heads) account for around 18 percent of total inequality.<sup>16</sup> This is driven by large gaps between households whose members are all over 14 years old, and those with large numbers of dependents. Other households' head demographic characteristics do not seem to matter for inequality as the explanatory power of the gender and age of the household head is less than 1 percent. The low share of gender in these decompositions can be explained by the low proportion of woman-headed households in the sample, which represent less than 30 percent, and the particular status of women who head their own households, who benefit from wide family support.

**Inequality between geographic regions is also relatively high.** Consumption gaps between geographic regions accounts for about 11 percent of total inequality, while differences between urban and rural areas account for only 4 percent. The low contribution of urban rural inequality

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<sup>14</sup> This is based on imputed consumption for 2005 and spatially deflated per capita consumption. Using WDI data, Gini coefficient appears to have declined somewhat faster, from 42.2 in 2005 to 38 in 2017. But consumption aggregates used to assess inequality trends are not comparable.

<sup>15</sup> Eight household attributes are considered: the gender, age, educational level, employment status and sector of employment of the household head, and regional location, urban/rural status, and household demographic composition.

<sup>16</sup> Households are grouped into five categories by the demographic types: (i) single parents, no kids, (ii) single parents with children aged below 15 years, (iii) couples, no kids; (iv) couples with children below 15, (v) elderly head aged 65 years and older.

to overall inequality is explained by both the low proportion of rural households in the sample (due to high urbanization) and the high inequality within rural areas, where Gini coefficient is estimated at 42.3 percent compared to 36.2 percent in urban areas. Inequality between regions is driven by significantly lower consumption levels in northern and southern regions compared to the rest of the country.

**Inequality between households sorted by the educational attainment of their head is relatively important.** Consumption gaps between educational groups contribute around 10 percent to overall inequality. Households whose head had completed upper-secondary education and higher were best able to be employed in more productive sectors and at higher level positions. Their mean consumption level is significantly higher than those who have no education or who simply completed primary. There are also large differences between sectors of employment and occupational status, with average consumption levels being significantly lower among households whose head works in agriculture or as an unqualified employee compared to those whose head works in public administration.

**Table 2.1: Decomposition of Inequality by Household Attributes, 2017.**

	Share of inequality explained by (%)	
	<i>Theil-L</i>	<i>Theil-T</i>
<b>Education of head</b>	9.1*** (0.01)	9.8*** (0.01)
<b>Gender of head</b>	0.14 (0.00)	0.14 (0.00)
<b>Age of head</b>	0.7* (0.00)	0.7* (0.00)
<b>Employment status of head</b>	6.9*** (0.01)	7.2*** (0.01)
<b>Employment sector of head</b>	7.7*** (0.01)	6.9*** (0.01)
<b>Family type</b>	15.6*** (0.01)	18.0*** (0.01)
<b>Urban/rural status</b>	4.5*** (0.01)	4.0*** (0.01)
<b>Regional location</b>	11.2*** (0.01)	10.7*** (0.01)

Sources: EGEP 2017.

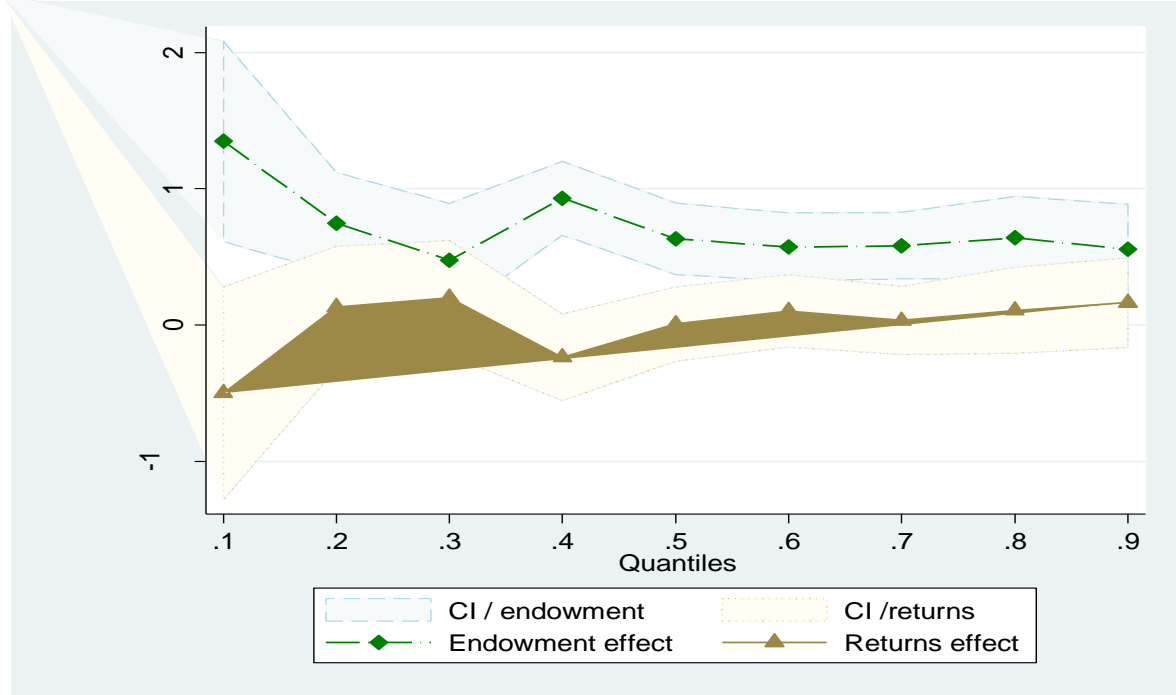
Note: Significance: \* At the 10 percent level; \*\* at the 5 percent level; \*\*\* at the 1 percent level. Numbers in parentheses are bootstrap standard deviations based on 100 replications.

*Inequality between urban and rural households is primarily caused by differences in endowments.*

**Urban households are better off and consume more than their rural counterparts because they have more physical assets, higher education and better access to basic services** (Figure 2.8). Even though urban-rural inequality contributes a low share to total inequality, the consumption gap between the two areas is quite substantial. To help a better understanding of the sources of this gap and the potential ways to facilitate spatial integration, the analysis uses the Recentered Influence Function (RIF) unconditional quantile regression to examine how the difference in the distributions of observed household characteristics between urban and rural locations contribute to the consumption gap and how the economic returns of these characteristics vary across the different income groups (see Appendix A for details). The urban-rural gap in consumption is higher among households in lower-income groups than among those in richer groups, largely driven by inequality in households endowments in terms of assets such as modern transportation and communication means, and in terms of access to basic services,

essentially improved sanitation and drinking water followed by electricity. Urban households have higher education than their rural counterparts. Rural-urban gaps in primary and lower secondary education attainment matter more for poorest households while differences in upper secondary and above matter more for the moderate poor and richer groups (those in the third decile and above). Poor urban households are also better off than their rural counterparts because they have less dependents. These patterns are quite similar to those observed in lower income countries such as Tanzania, Comoros and Burundi.

**Figure 2.8: Determinants of Inequality Between Urban and Rural Areas**



	Extreme poor	Poor	Middle class	Richest
<b>Total Consumption Gap</b>	<b>0.849***</b>	<b>0.678***</b>	<b>0.641***</b>	<b>0.748***</b>
<b>Endowments Gap</b>	<b>1.348***</b>	<b>0.477**</b>	<b>0.633**</b>	<b>0.640***</b>
Access to basic services	0.224***	0.027**	0.179	0.267
Education	0.049*	0.057**	0.049**	0.067*
Assets	0.586***	0.352***	0.284***	0.264***
Employment	0.074**	0.01	0.052	0.025
Demographic Structure	0.102**	0.068*	0.067**	0.066*
<b>Returns Gap</b>	<b>-0.5</b>	<b>0.201</b>	<b>0.008</b>	<b>0.076</b>
Access to basic services	0.686*	0.305	1.512*	-0.148
Education	0.589*	0.623***	0.434***	0.395**
Assets	-1.584**	0.044	0.410	-0.124
Employment	0.257	0.204*	0.138*	0.094*
Demographic Structure	-0.023	0.567	-0.547	0.641

Sources: EGEP 2017

Note: \* Significant at the 10 percent level; \*\* significant at the 5 percent level; \*\*\* significant at the 1 percent level. Numbers in parentheses are bootstrap standard deviations based on 100 replications.

Extreme poor are households in the first decile, poor households are those in the third decile, median households are those in the 5<sup>th</sup> decile and richest households are in highest quintile.

**Economic returns to education are significantly higher in urban areas.** The difference between urban and rural areas in economic returns to overall household characteristics does not seem to be important, particularly for poorest households engaged in activities that pay only slightly above subsistence level. However, differences in rewards to years of schooling between the two locations are quite substantial– similar levels of education receive significantly higher

returns in urban areas than rural ones. These differences hold for the various education levels of households in all income groups, but the gaps in returns are markedly higher for lower secondary and higher education levels than primary. Urban poor households working in services and manufacturing have also higher economic returns to their activities than rural poor households working in the same sectors, but differences are significant only for moderate poor and richer groups. These differences make it difficult for rural households to catch up with their urban counterparts and to overcome spatial inequalities.

### *Characteristics of the poor affect economic mobility across generations.*

**Intergenerational transmission of parental educational attainment limits the upward mobility of their children.** Gabonese of less-educated parents are more likely to be less educated and those of better-educated parents are likely to have more education, suggesting relatively low intergenerational education mobility (Figures 2.9-a and A.1 in appendix A). Education mobility is lower among the poor and among women; it appears that low human capital perpetuates vulnerability and gender inequality in future generations. Only 16 percent of Gabonese adults, and less than 8 percent of the poor, achieve education beyond lower secondary when the father has no education. This rate drops to less than 6 percent for daughters of poor mothers who had no education but is nearly 12 percent for boys. Individuals whose father is educated beyond lower secondary school have more education; 48 percent in the general population, and 22 percent in poor households, have upper secondary schooling or more.

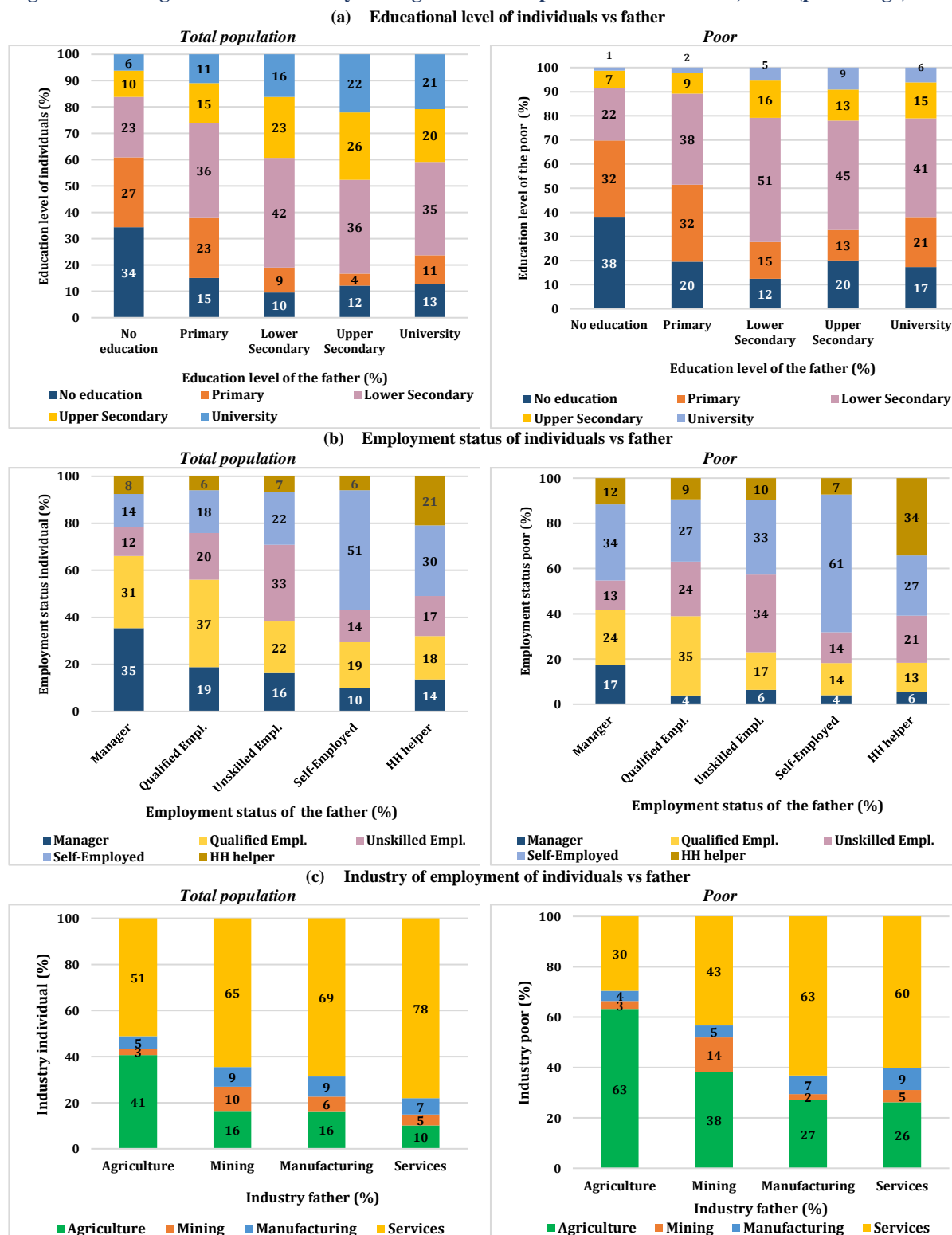
**Parental economic status seems to severely constrain the employment of their children – intergenerational mobility across economic sectors seems very limited.** The vast majority of individuals whose father is self-employed or an unqualified worker work in the same sectors – nearly 70 percent of the general population and 80 percent of the poor. When the father is a farmer, children tend also to work in agriculture but around 50 percent (and 30 percent among the poor) are also employed in the service sector (Figure 2.9-b). Employment of fathers in, e.g., services, manufacturing, public administration, military, generally increases the chances that their children will be employed in more productive sectors, yet over 30 percent in poor households are engaged in agriculture or low-profile jobs even though their father work in the nonfarm sector or in higher employment status (Figures 2.9-c and A.1).

**The family background of poor households contributes to the intergenerational persistence of poverty and inequality.** Inequality in outcomes, such as in income, consumption or education, reflects differences in effort and in circumstances that are beyond an individual's control such as gender, family background, and place of birth. Strategies for directly equalizing outcomes and reducing overall inequality may come at the cost of weakening incentives for individual effort, investment, and innovation. However, inequality stemming from circumstances is widely considered unfair and deserving of attention from policymakers. This type of inequality also called inequality in opportunities perpetuates the lack of capabilities and opportunities for large parts of society, wastes productive potential, and contributes to institutional frailty. In Gabon about 17 percent of total inequality in consumption is due to individual's circumstances (see Appendix A for the methodology). This is a sizable share compared with other African countries, where inequality of opportunity is lower.<sup>17</sup>

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<sup>17</sup> Inequality of opportunity is 20 percent in Tanzania, 18 percent in Comoros, 12 percent in Ghana, 15 percent in Ivory Coast, and 21 percent in Madagascar. See Comoros Poverty Assessment (2018), Brunori et al. (2016) for an analysis of inequality of opportunity in Sub-Saharan Africa, and Belhaj Hassine (2011) for inequality of opportunity in relation to labor earnings in Egypt.

Figure 2.9: Intergenerational Mobility among the Total Population and the Poor, 2017 (percentage)



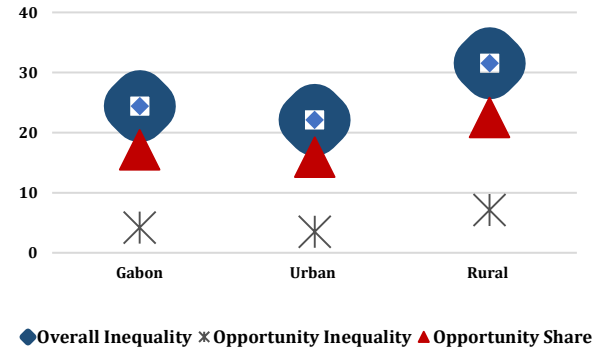
Source: EGEP 2017.

Note: Figures are for individuals aged 15 years and above.

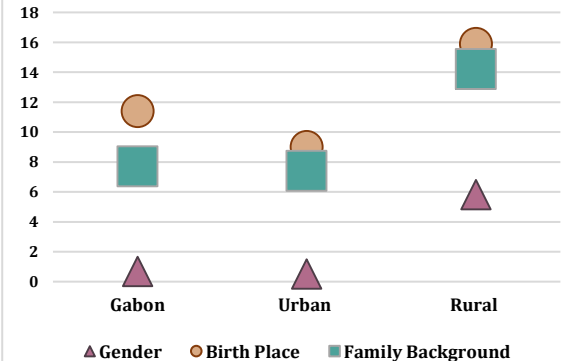
**Region of birth accounts for the largest share of inequality, suggesting that even when people migrate the local conditions in their place of birth continue to exert a drag on their welfare.** Of all observed circumstance variables, the region of birth is associated with the largest share of consumption inequality. It accounts for around 11 percent of total inequality and 70 percent of the total effect of circumstances (Figures 2.10 and 2.11). This suggests that

even when people migrate to improve their living conditions, the local circumstances in their region of birth continue to affect their prospects to improve their welfare and contribute to perpetuate the lack of capabilities and opportunities for these groups.

**Figure 2.10: Overall Inequality and Inequality of Opportunity in Consumption, 2017, Percent**



**Figure 2.11: Contributions of Individual's Circumstances to Inequality, 2017, Percent**



	Gabon	Urban	Rural
Overall inequality	24.4***	22.1***	31.5***
Opportunity inequality	4.2***	3.5***	7.1***
Opportunity share	17.1***	15.9***	22.5***
Gender	0.7***	0.5*	5.9***
Mother education	0.2	2.1**	5.7***
Father education	0.09*	1.4**	6.7***
Mother employment status	0.0	0.1	2.9*
Father employment status	0.7*	2.3*	0.1
Mother industry	2.8*	2.1*	10.1***
Father industry	2.2*	1.7*	8.2***
Mother occupation	2.3*	3.7**	2.9
Father occupation	0.2*	0.1	6.6**
Birth place	11.4***	9.0***	15.9***
Family Background	7.7***	7.4***	14.2***

Source: EGEP 2017.  
 Note: \* Significant at the 10 percent level; \*\* significant at the 5 percent level; \*\*\* significant at the 1 percent level. Numbers in parentheses are bootstrap standard deviations based on 100 replications.

**Parental background has also a significant influence on the prospects of their children and their opportunities for economic mobility.** About 8 percent of total inequality in consumption is due to parental background. Mother’s followed by father’s sectors of employment have the most influence on the welfare of their children, accounting for 2–3 percent of total inequality and of around 40 percent of the total effect of parental background.

**Inequality of opportunity is two times higher in rural areas than in urban ones.** This reflects two facts: (1) Intergenerational mobility is higher in urban areas limiting the influence of family background variables on households and individuals who have more education and are engaged in more diversified occupations and jobs. (2) To the extent that unobserved circumstances and institutional measures (e.g., parental financial situation, supply and quality of schooling, and labor and land market institutions) shape opportunities for urban Gabonese, estimates of inequality of opportunity that do not take these circumstances into account are significantly biased downward. This is supported by how little parental employment and education affect urban consumption. Although these factors are significant determinants of inequality compared with the observed circumstances, their role is much weaker in urban areas than in rural ones. Inequality of opportunity related to mother’s employment sector and education varies between 6 and 10 percent in rural areas while it is less than 4 percent in urban

zones. Father’s education and employment have also a markedly higher influence on opportunities of rural households and individuals than urban ones. Inequality of opportunity resulting from region of birth is also significantly higher in rural areas, suggesting that local conditions affects opportunities in various ways in these zones. Gender plays an important role in shaping opportunities in rural areas but makes a limited contribution to urban inequality.

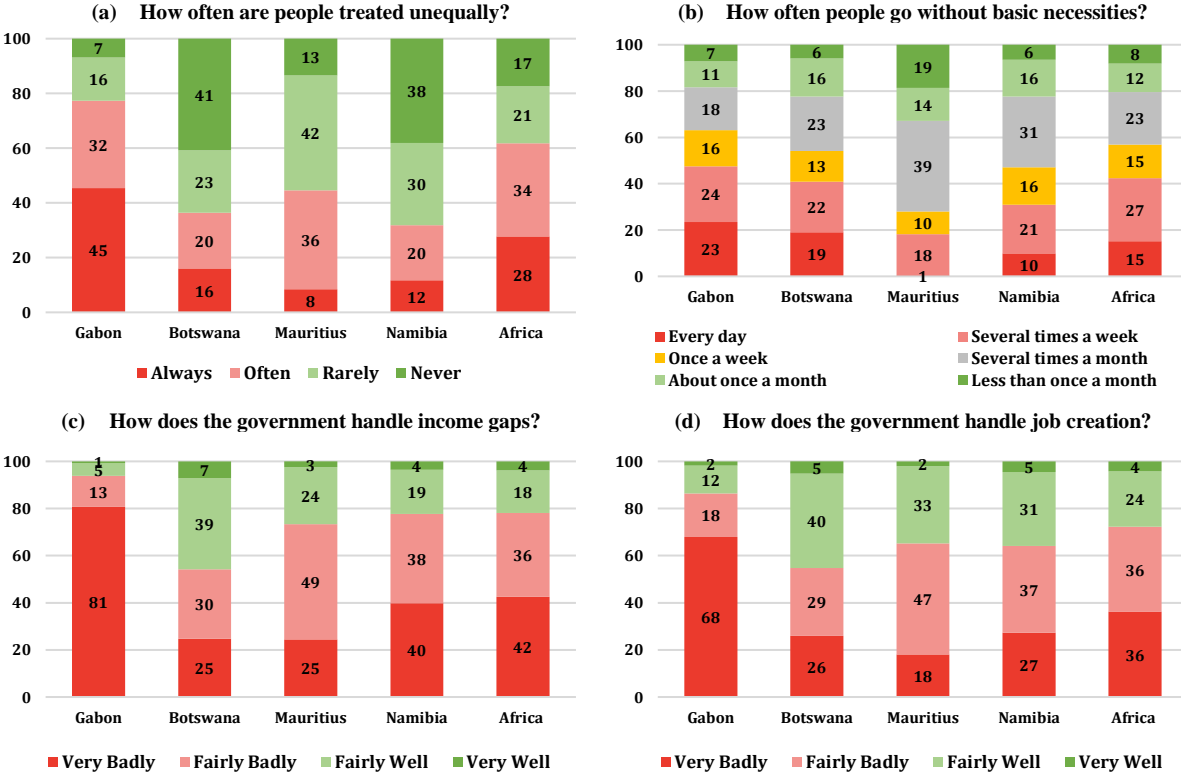
**The important influence of family background and individual’s circumstances on rural economic outcomes indicates significant problems of intergenerational transmission of inequality and poverty.** To a large extent, these circumstances shape opportunities for the next generations and affect their chances to move up the economic ladder. Without additional policy actions, there are little chances for these generations to spring out of the poverty and inequality lived by their parents, engendering poverty and inequality traps in the country.

**IV. Social Inclusion**

*Perception of unfairness and exclusion is high.*

**Gabonese tend to consider the government as ineffective in addressing the country’s most pressing needs.** Results from the *Afrobarometer*’s perception survey of 2017 show that the feeling of exclusion is high in Gabon (Figure 2.12). While the sense of discrimination against ethnic groups and minorities is very limited, the feeling of being treated unequally is significantly higher than in African countries with comparable income level such as Botswana, Mauritius and Namibia. It is also larger than averages in SSA. Furthermore, a large share of the Gabonese population reports important gaps in basic necessities, with half of the population going without basic necessities on a daily basis or several times a week. These shares are significantly larger than in African peers.

**Figure 2.12: Perception of Exclusion, 2017 (percentage of total population)**



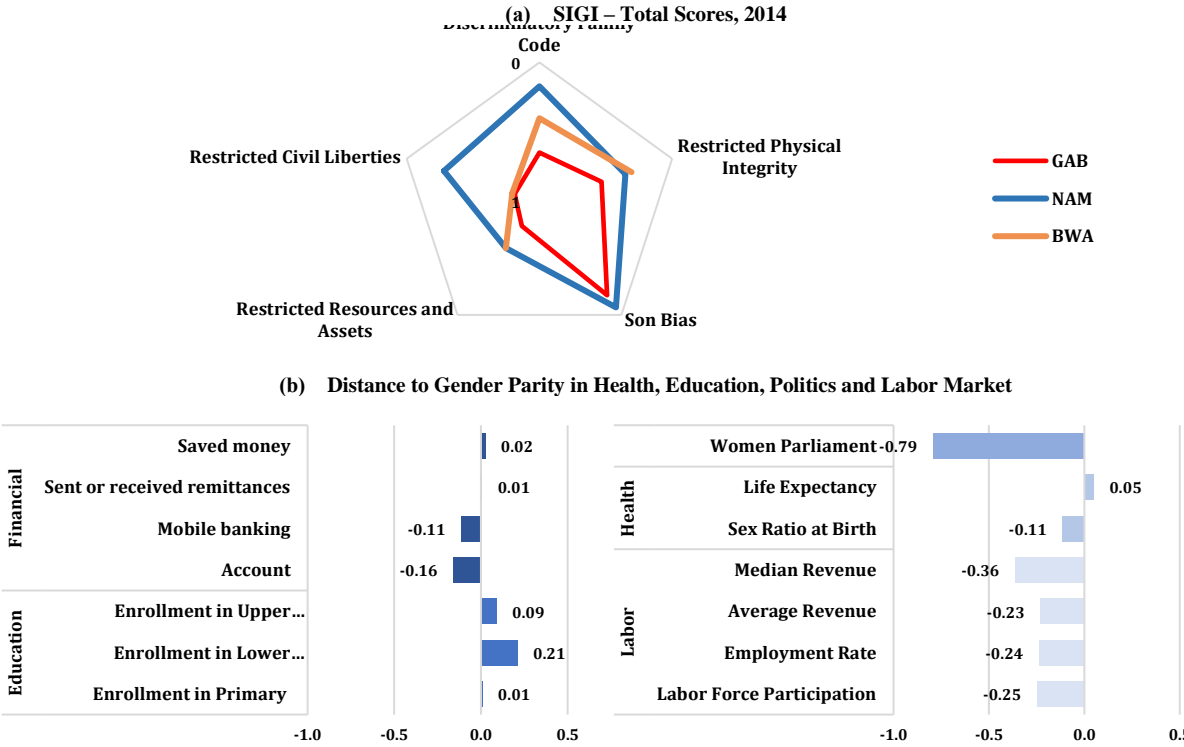
Source: Afrobarometer 2017.  
 Note: “Africa” comprises the countries surveyed in Wave 6 of the *Afrobarometer*. Individual countries in the figure are those with comparable income level to Gabon for which data is available in the survey.

The overall assessment of the government’s action is heavily negative, particularly regarding its capacity to handle income gaps and job creation. The perception about the government’s capacity to handle the improvement of the living conditions of the poor is also very negative. More than 90 percent of the population considers that the government handles these problems very or fairly badly compared to 33 percent in Botswana and less than 70 percent in most African countries.

*Gender gaps exist in different social sectors of the country, but perception about women inequality in access to opportunities is relatively limited.*

Social discrimination against women remains fairly high, but the government is undertaking important reforms to address gender inequality. The *Social Institutions and Gender Index* (SIGI) measures the formal and informal laws, attitudes and practices that restrict women’s and girls’ access to rights, justice and empowerment opportunities. The results for 2014 point toward important social discrimination against women, especially compared to some of Gabon’s African peers (Figure 2.13). However, the SIGI data has not been updated since 2014, therefore not accounting for reforms and changes that have been carried out since then. Following the revision of the Civil Code in 2011, most of the legal constraints and discriminations existing by law have been abolished. The remaining obstacles in terms of gender discrimination in education, access to jobs, and revenues are more culturally-driven and tougher to address. Gender parity ratios in education, health, politics, and the labor market reveal such existing constraints and inequalities. More recently, as part of the *Décennie de la Femme Gabonaise 2015-2025*, a report was given to the President of the Republic identifying all sources of legal discrimination against women (e.g., civil, social, penal – see Box 2.4) and reforms aimed at further closing gender gaps are under implementation. A new revision of the Civil Code is currently under consideration and would likely address the remaining legal gender discriminations in the law.

**Figure 2.13: Social Institutions and Gender Parity**



Sources: SIGI 2014, ENEC 2010, DHS 2012, EGEP 2017, Findex 2017 and WDI 2018.  
 Notes: The Social Institutions and Gender Index is multi-composite index that ranges from 0 (best) to 1 (worst).  
 Fig. 2.13-b presents the distance to parity that is the difference to a gender parity ratio of 1 (= distance of 0).

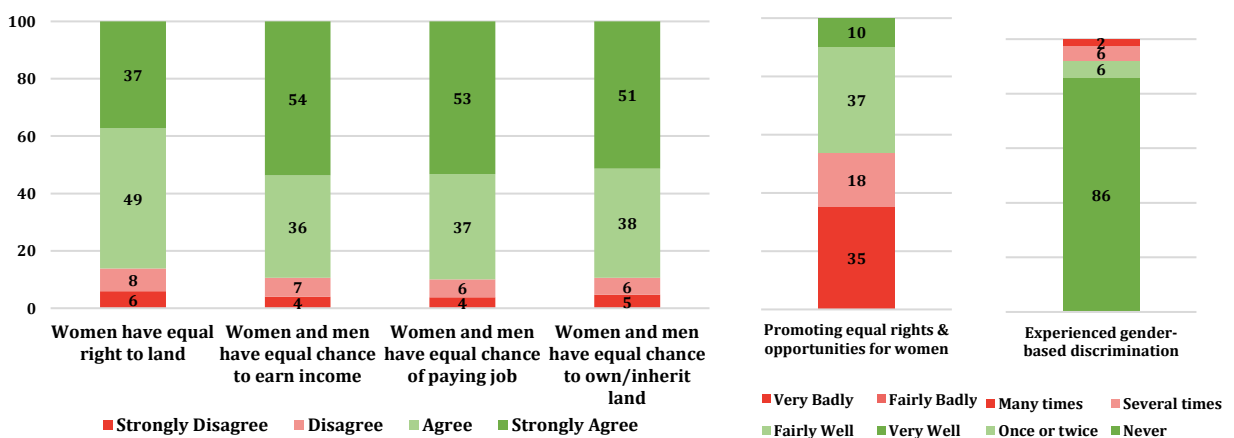


### Box 2.4: Gender Discrimination in Gabon

The legal condition of women in Gabon has greatly improved since 2011 and the revision of the Civil Code stripped the law from most of its legal discriminations against women. Remaining constraints and discrimination are expected to be addressed in a second revision. However, Gabon’s unofficial practices still severely constrain married women as cultural resistance to the changes implemented in the 2011 revision is strong, particularly in rural areas. For instance, married women are discriminated in terms of land and assets’ property rights as they cannot own land independently. The weak property legal framework, still mostly based on customary practices rather than real property, further aggravates the existing gender discrimination with regards to access to land property. Further details can be found in the *2018 Women, Business and Law Report*, which underscores the fact that married women continue to face a number of social and cultural restrictions in different aspects of their lives (World Bank, 2018).

**The picture about gender inequality in control over assets and access to opportunities is relatively positive.** The *2012 DHS* shows that about two third of women have complete control over the use of their revenues, however ownership of houses and land by women is very limited as nearly 80 percent do not have any of these assets. Most of the population think that women and men have equal rights in owning assets and accessing jobs and dispose of the same income opportunities, but half of the population think that the promotion of equal rights and opportunities for men and women is badly handled (Figure 2.14). If bank account ownership still displays lower levels for women than men (64 percent of men vs 54 percent of women), the rapid development of mobile banking has allowed more and more women to have access to financial account. In 2017, 54 percent of women have an account, compared to 17 in 2011, while 41 percent of women have a mobile money account, compared to 6 percent in 2014. The discrimination based on gender identity also seems to be limited and significantly lower than in SSA countries (Box 2.5).

Figure 2.14: Perception About Gender Inequality in Access to Opportunities



Source: Afrobarometer 2017.

### Box 2.5: Discrimination Based on SOGIESC Characteristics

The World Bank approaches exclusion based on sexual orientation, gender identity and expression, and/or sex characteristics (SOGIESC) through its commitments on gender equality and social inclusion. The negative social and economic impacts of exclusion have been well documented and underline the importance of more inclusive programs and policies (World Bank, 2013). In 2019, Gabon enacted laws that criminalize same-sex activity. Article 402(5) of the Penal Code criminalizes “sexual relations between persons of the same sex”, punishable with up to six months’ imprisonment and a fine of up to 5 million FCFA.<sup>18</sup> The new penal code further stigmatizes sexual and gender minorities in Gabon and has reportedly already led to the arrest of people based on their SOGIESC. This takes the country in a new, negative direction as previously Gabon was one of only 10 African countries to have signed one or more statements in support of LGBTI rights or stating opposition to discrimination and violence against LGBTI people, either in the UN General Assembly or at the UN Human Rights Council.

<sup>18</sup> Gabon Code Penal Loi n°042/2018 du 05 juillet 2019. <http://www.droit-afrique.com/uploads/Gabon-Code-2019-penal.pdf>.

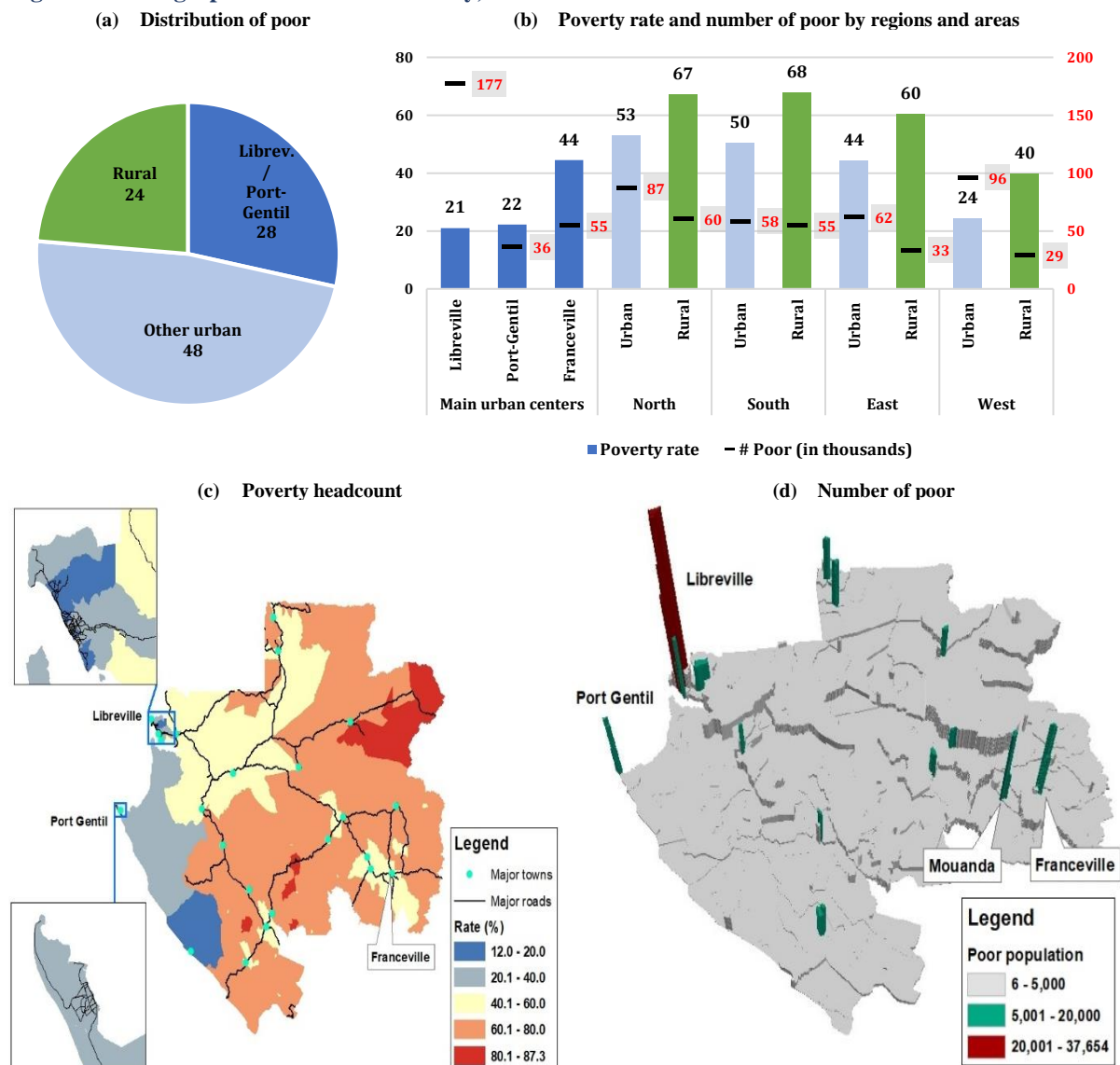
# Chapter 3: The Geographic Pattern of Poverty

## I. The Spatial Disparity of Poverty Across Gabon

*The incidence of poverty is higher in rural areas, but the poor are disproportionately concentrated in urban centers.*

**Poverty rates are markedly higher in rural areas, but over three quarter of the poor are located in urban zones.** The rural poverty headcount is almost double the urban headcount (29.4 vs 59.5 percent). However, the high urbanization of the country – around 89 percent, compared to 40 percent for SSA’s average—translates into a considerable concentration of the poor in urban areas: 24 percent in rural areas; and 76 percent in urban zones—28 percent in Libreville and Port-Gentil and 48 percent in the other urban centers (Figure 3.1-a).

**Figure 3.1: Geographical Pattern of Poverty, Percent**



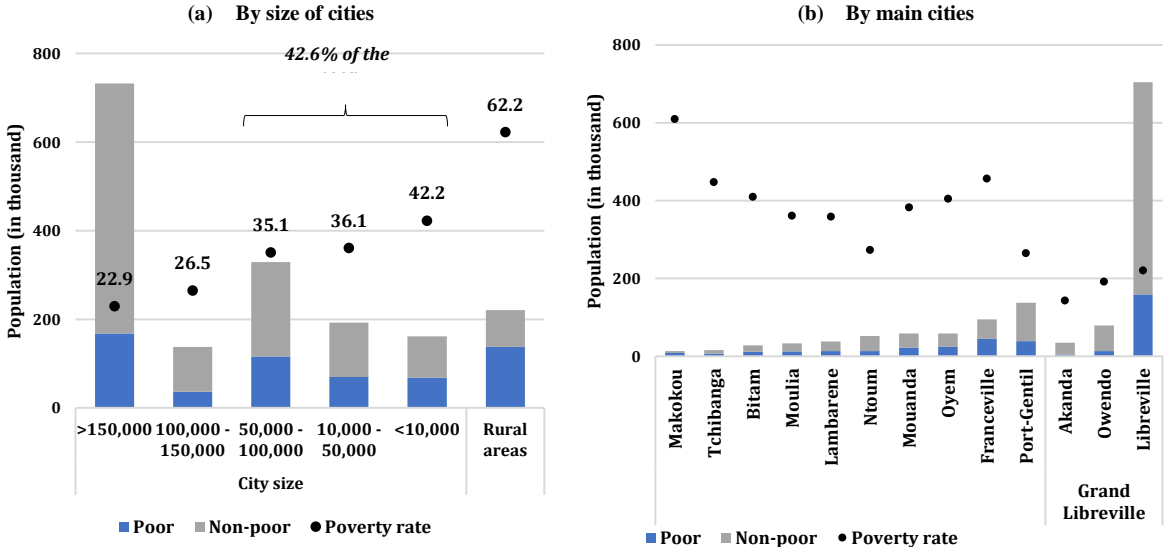
Sources: RGPL 2013 and EGEP 2017.

**Wide disparities in the incidence and density of poverty are observed across geographic regions.** Northern and southern rural regions have the highest rates of poverty, but the largest number of poor people is located in eastern and western urban regions. In the North and South, almost 70 percent of the rural population is classified as poor and so are about half of the urban

dwellers. However, because of lower population density in these regions, the number of poor people is significantly higher in eastern and western urban areas. These regions, setting aside Libreville and Port Gentil, host respectively 16 and 13 percent of the total poor, concentrating nearly 40 percent of the urban poor. Conversely, their rural parts have the lowest number of poor people, representing 8 percent of total poor and 35 percent of rural poor (Figures 3.1-b:d).

**The incidence of poverty declines with cities sizes, but the concentration of the poor is higher in large cities.** The incidence of poverty is inversely correlated with cities’ size: poverty being more widespread in small towns (population below 50,000) than in medium sized cities (50,000-100,000), which in turn record higher poverty rates than the large cities of 100,000 inhabitants or more (Figure 3.2). The incidence of poverty is also markedly lower in small towns surrounding the main urban centers compared to the rest of small urban and rural zones. There are large variations across cities in terms of density of poverty: the two largest cities, Libreville and Port-Gentil, which account for nearly half of the national population, represent 28 percent of the poor. Conversely, 48 percent of the poor are scattered throughout small and medium towns (population 10,000-100,000) as well as small urban communes with under 10,000 population, which all contain just 40 percent of the population.<sup>19</sup> Large cities are critical for growth and poverty reduction, given that they concentrate an important number of poor and they hold the potential of larger economies of agglomeration and structural transformation. Yet, secondary towns can also hold a powerful policy tool for poverty reduction and inclusive growth by giving a broader base of the population the ability to become economically and physically mobile and access new income opportunities, and by spillovers to their surrounding rural hinterland (Lanjouw and Murgai, 2014; Christiaensen and Kanbur, 2017; and Ingelaere et a., 2018).

**Figure 3.2: Disparity in Poverty across Urban Centers, Percent**



Source: RGPL 2013 and EGEP 2017.  
 Notes: Poverty rates in these figures are based on the mapping of EGEP 2017 into RGPL 2013, which explains the small difference in rural poverty rates with those in previous figures.  
 In Fig. 3.2-b, cities are arranged from left to right in order of least to most populated.

**The association between urban poverty incidence and city size possibly reflects urban agglomeration effects that could be fostered.** Urban agglomerations’ externalities – such as access to capital goods, labor pooling, knowledge diffusion, and so forth—can radiate from dominant cities – Libreville and Port Gentil—and exert downward pull on urban poverty rates. The location of towns also matters as cities located near major urban centers (e.g., Owendo and

<sup>19</sup> Small urban communes host around 7 percent of the population and 11 percent of the total poor.

Akanda that are part of the *Grand Libreville*) tend to be relatively larger in size and to experience lower poverty rates, while those in remote areas, such as Makokou or Tchibanga, are poorer (Figure 3.2-b).<sup>20</sup> The agglomeration effects generated by large cities matter most for neighboring towns and surrounding territories, underlying the role played by urban clusters to generate opportunities and promote higher wealth. The low poverty rates of the western region, in both urban and rural areas, points towards the role played by factors such as the close location of major urban centers, more littoral zones, and improved access to infrastructure (Figure 3.1-b). In addition, the lower poverty rates even in rural zones of the western region point to possible spillover effects from major urban agglomerations.

**Separate agglomeration benefits can arise out of secondary cities, which may also serve as an important entry point to rural poverty reduction given their tighter connection to rural hinterlands.** Differences in terms of connectivity infrastructure and service provision across city sizes are central to agglomeration economies and spatial disparity of poverty, as they ultimately define the environment that allow the different cities to benefit from agglomeration's economies, to control for congestion costs, and to generate positive welfare spillovers.<sup>21</sup> The allocation of resources to large cities in order to improve the infrastructure and the overall urban environment remains imperative to better materialize the benefits of agglomeration effects. Regarding areas that are distant from the largest agglomerations, laying the foundations to stimulate the growth of secondary cities and small towns can be considered as a driving force to reduce poverty. This may in turn constitute an important pillar within a larger strategy to alleviate rural poverty. Nevertheless, the cost of infrastructure provision may be very high in some small towns – given low population density and natural barriers—and further analysis, including cost-benefit analysis, are required to identify cost effective strategies to promote faster poverty reduction and spatial integration.

**Market accessibility and cities' connectivity strongly influence the incidence of poverty.** In general, *cantons* with better access to markets have lower poverty rates. Areas with high market accessibility index (MAI) are concentrated around Libreville, including the city and its immediate *hinterland*, while market access remains very limited in the rest of the country except for Franceville and some of its surrounding areas (Figure 3.3-a). Conversely, secondary cities identified as poverty centers appear to have low MAI, compounding their ability to curb poverty.<sup>22</sup> The underlying mechanisms to explain the role played by market accessibility might vary from one *canton* to another, but a central determinant is the correlation between MAI and economic sectors. Well-connected areas are more likely to attract diversified economic opportunities from different sectors of the economy (Figure 3.3-b). In turn, diversification of economic activities increases the wealth accruing to a specific territory through more added-value and the creation of more productive jobs.

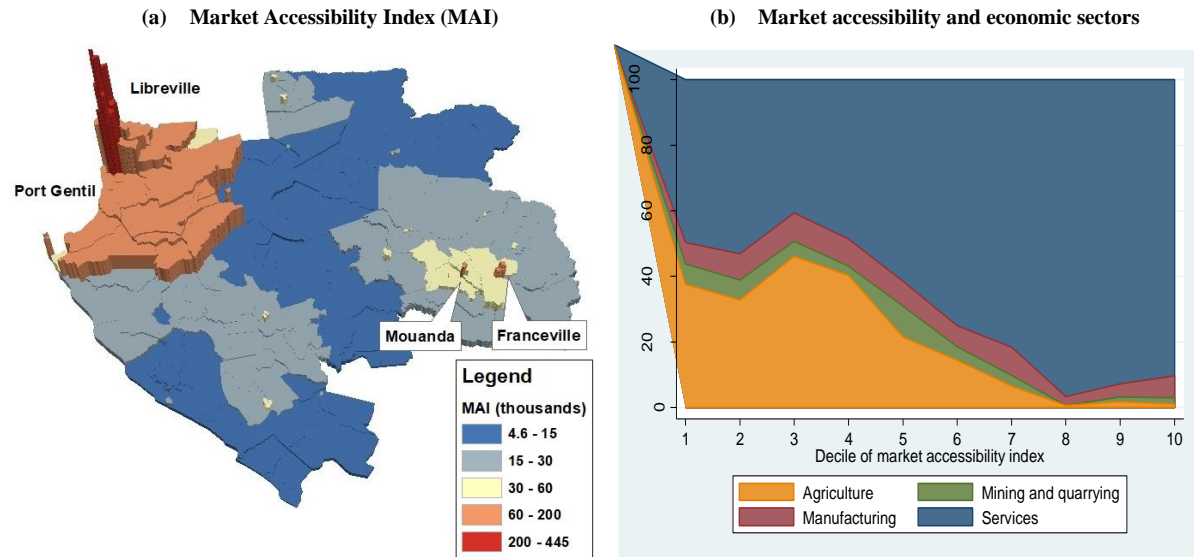
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<sup>20</sup> The prevalence of poverty in some medium cities such as Franceville, Mouanda and Oyem remains puzzling though and requires further investigation. The prevalence of mining in Franceville and Mouanda may have crowded out more productive investments and job generating activities, but more analysis is needed to better understand the obstacles to economic development in these cities.

<sup>21</sup> See World Development Report 2011, World Bank, 2011; and Castells-Quintana, 2017.

<sup>22</sup> Secondary towns are defined here as urban areas with a population in the range of 10,000 to 100,000 inhabitants.

**Figure 3.3: Market Accessibility**



Sources: RGPL 2013 and EGEP 2017.

Note: MAI is estimated for each canton by summing up the population of surrounding towns/villages within a certain travel time divided by the cost to trade with these towns/villages.

*The spatial typology of the country shows a clear divergence between regions.*

**Large spatial disparities in welfare underscore the need for interventions tailored to local conditions.** Economic activity is concentrated in a few cities, which also concentrate most of the population (Figure 3.4-b). While economic concentration generates agglomeration economies, notably labor pooling and proximity to markets as well as information spillovers, it also leaves out some populations, exacerbating spatial disparities in living standards and poverty. A better understanding of the differences of challenges between regions can help to customize policies to connect leading and lagging areas and realize the benefits of economic concentration and agglomeration while reducing disparities in living conditions.

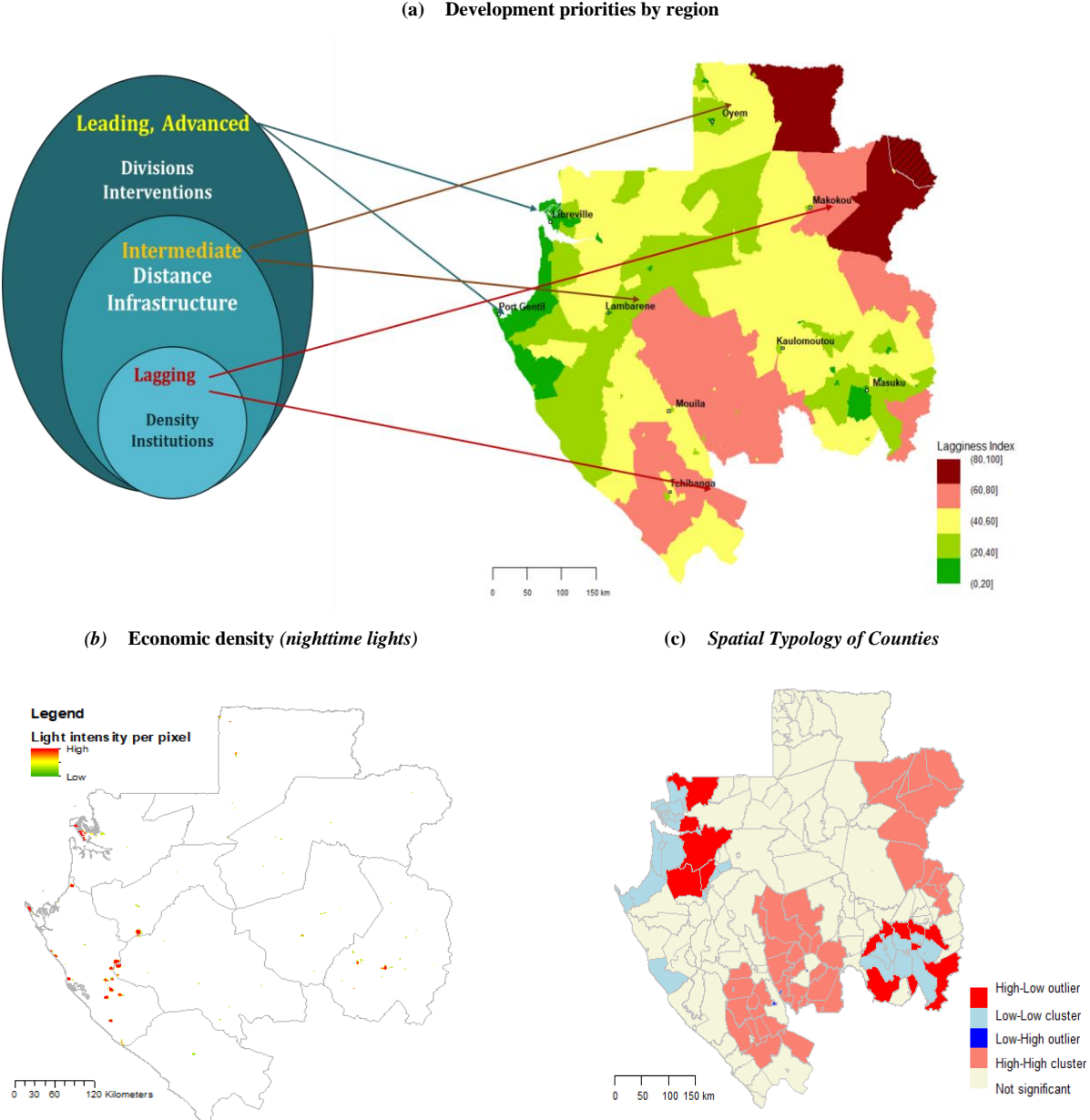
**The northern and southern provinces lag the most in terms of living conditions and economic activities.** The spatial typology, based on accessibility to markets, night-time lights (a proxy for economic activity), and poverty, shows three types of areas: (1) lagging and sparsely populated provinces; (2) lagging provinces with a relatively large number of poor; and (3) leading areas where economic and population density are highest.<sup>23</sup> The results are consistent with the distribution of poverty across the nation: the northern provinces of Ogooué-Ivindo and Woleu-Ntem lag the most (Figure 3.4-a). They are predominantly rural but have cities at incipient urbanization levels. They tend to be sparsely populated, lack basic services and connective infrastructure, and must contend with a variety of natural barriers. Southern provinces such as Ngounié and Nyanga, where a larger number of poor people live, are also lagging but at a lesser level. Leading areas, in the west, have cities at advanced urbanization levels such as Libreville, Port-Gentil. While they have better living conditions, they tend to contain a large number of poor people.

**The challenges of lagging areas also depend on the challenges faced by their neighbors.** An underperforming county surrounded by leading areas could develop faster if its product and labor markets are better connected to the thriving area. Conversely, lack of connective infrastructure or institutional barriers may prevent the benefits of economic activities in leading

<sup>23</sup> The typology uses the *lagginess* index, which summarizes how each county scores on the different indicators and provides information on each county's position relative to the others. Its advantage is that it allows to look at several dimensions of laggingness under a single indicator.

zones from spilling beyond their borders to benefit the broader economy. Several counties surrounding Libreville, Port Gentil, and Franceville are in this situation (areas in bright red in Figure 3.4-c). In contrast, few urban counties in the south (e.g., Mayumba and Okundja) appear as leading within lagging areas and may serve as an important entry point to rural poverty reduction given their tight connection to rural hinterlands (areas in bright blue in Figure 3.4-c).

Figure 3.4: Spatial Typology



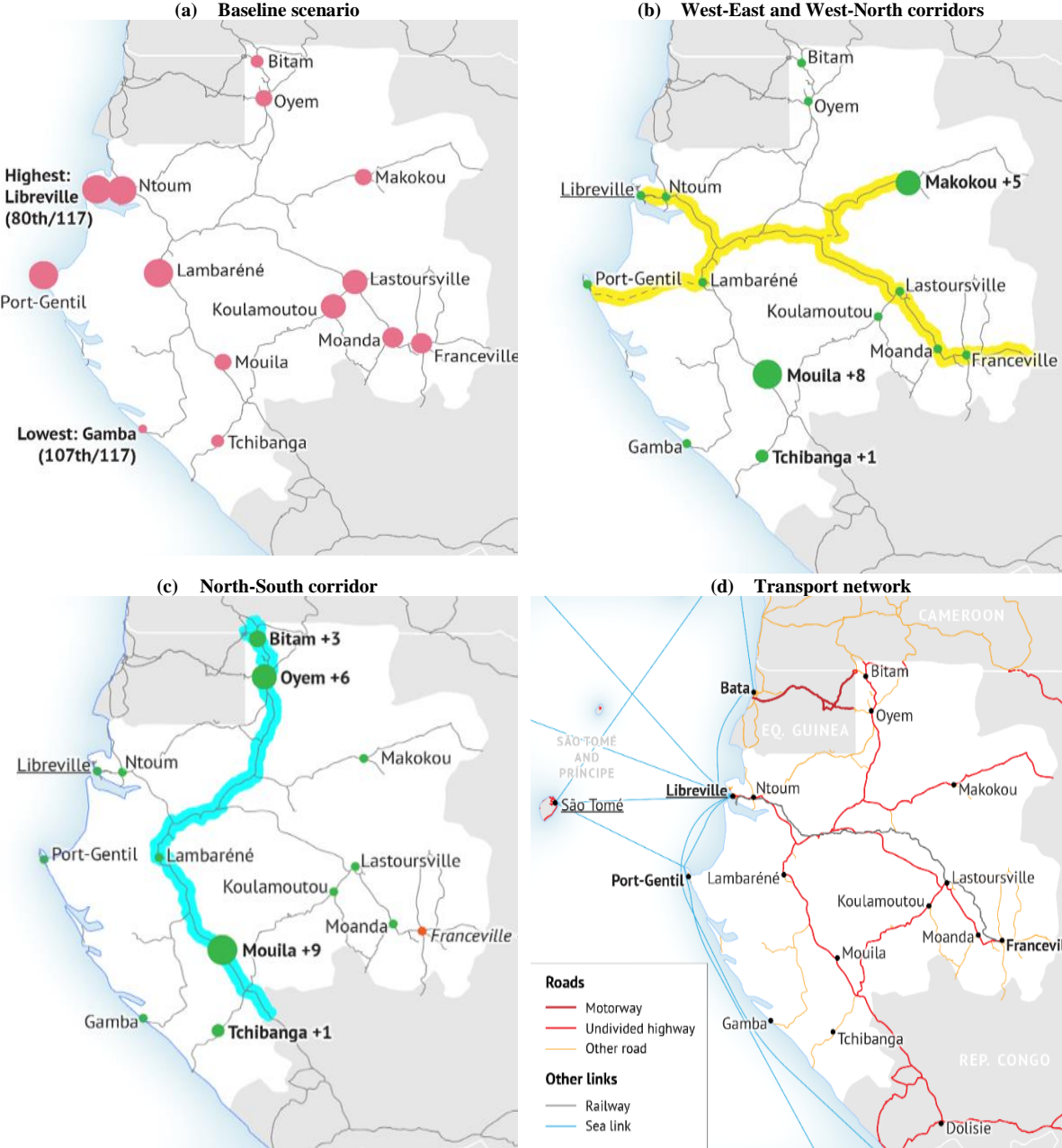
Sources: National Oceanic and Atmospheric Administration (NOAA) Earth Observation Group’s website, RGPL 2013, EGEP 2017 and US Defense Meteorological Satellite Program.

Note: in Figure 3.4-c pink areas constitute the core of the lagging clusters. Areas shaded in bright red identify lagging cantons close to leading areas. Areas shaded in bright blue are leading cantons close to lagging ones. Very few leading counties (in bright blue) can be seen towards the south east.

**Large investments to improve connectivity may not have the expected returns given the small size of cities and barriers to access neighboring countries markets.** Gabon’s transport network is underdeveloped and connectivity across the country is limited (Figure 3.5-d). The National Infrastructure Master Plan (NIMP) of 2012 aimed at addressing these shortcomings through development corridors (see Box 3.1 for details). While the NIMP was never

implemented, large investments with foreign investors and development partners are ongoing along these lines. However, these investments are not part of a more comprehensive and coordinated territorial development framework and may not bring the expected benefits. The analysis of the expected changes in market access through development corridors shows that accessibility will only marginally increase in few cities given the small size of Gabon cities and difficulty to access markets in neighboring countries such as Cameroun and Congo (Figures 3.5 a-c).<sup>24</sup> Policy instruments, tailored to local conditions, are required to lay the institutional foundations to foster density, reduce economic distance and maximize the returns of these investments towards inclusive development.

**Figure 3.5: Market Accessibility Changes through Development Corridors**



Sources: NIMP 2012, RGPL 2013, EGEP 2017 and OpenStreetMap.  
 Note: Cities ranking is based on the market accessibility index within 117 cities in Central Africa and Gulf of Guinea countries. 1 is the best and 118 the lowest. The analysis uses the Donaldson and Hornbeck (2016) model.

<sup>24</sup> The analysis uses the Donaldson and Hornbeck (2016) model.

### Box 3.1: Gabon National Infrastructure Master Plan

The National Infrastructure Master Plan (NIMP) developed in 2012 aimed at supporting Gabon's development program throughout the national territory. It was developed by Bechtel firm. The NIMP identifies possible development corridors with fairly high population, natural resources and industrial development potential that need to be connected by transport, energy and telecommunications networks to respond to national development priorities in terms of job creation and equity— a corridor is a geographical area linking major centers of economic activity through existing or potential communication infrastructures e.g., transport, power or telecommunications. These corridors respect both topography and ecologically-sensitive zones and incorporate existing infrastructure and socio-economic factors to increase economic opportunities and spatial integration. The NIMP pinpointed several shortcomings in the existing infrastructure, including the inadequacy of the road network with the economy and population needs, the isolation of Port-Gentil from the rest of the economy despite its high concentration of natural wealth, and the inefficiency of the Transgabonais corridor. Different options for development corridors were examined, with recommendation to prioritize the modernization of the Transgabonais corridor linking Libreville and Franceville, the creation of an intermodal transport center at Ndjolé, and the completion of west-north and west-east corridors, which concentrate around 70 percent of the population and include the railway line and most of the natural resources

The rehabilitation of the rail infrastructure is carried out under a 20-year concession agreement (2015-35) attributed to SETRAG, a 100 percent subsidiary of COMILOG, itself a subsidiary of the French mining conglomerate ERAMET. The IFC is supporting the SETRAG, providing nearly EUR 200 million of debt in support of the EUR 400 million rehabilitation of the rail corridor which is underway. Completion is expected by 2022 with operational improvement of more than 30 percent in terms of productivity already achieved, and actual reduction of tariffs of more than 10 percent since 2015.

The overall cost of the projects in the NIMP, excluding the health and education budget, and including investment over 2012-25 was estimated at 7,403 billion FCFA, giving an average annual investment budget of around 5 percent of GDP. The NIMP was never implemented given its prohibitive cost.

### *Internal migration offers prospects for poverty alleviation, but also raises challenges for urban growth.*

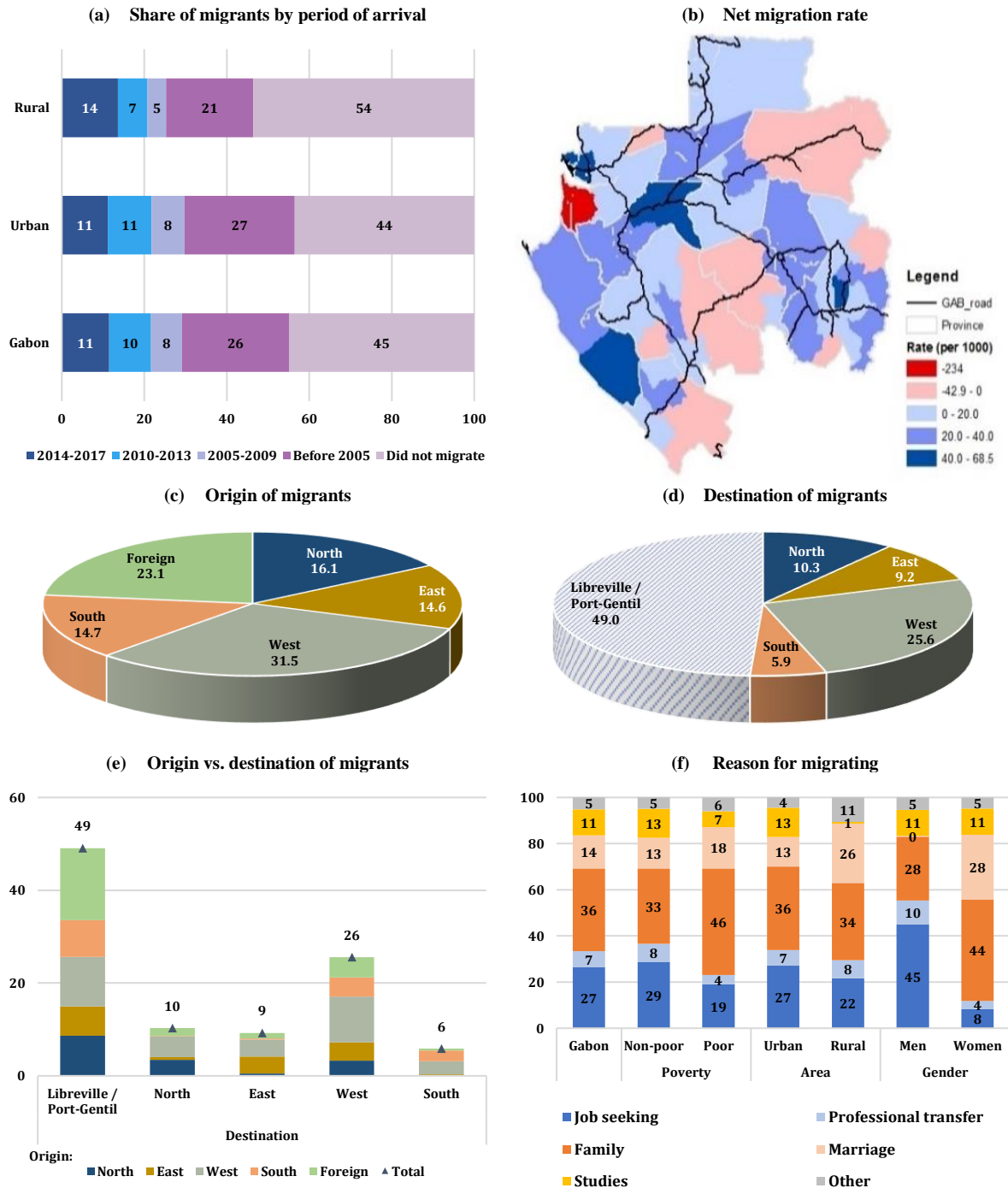
**Important migration flows continue to be directed toward large cities and western regions.** As of 2017, over half of the population – 55 percent—has moved out of their province of birth and around one fifth have migrated during the past seven years (Figure 3.6-a). Migrants predominantly move to the largest cities and the western region. In total, 75 percent of migrants have moved towards the western region, with 49 percent establishing themselves in Libreville or Port-Gentil (Figure 3.6-d). Intra-regional migration within the western region is also quite important: 22 percent of migrants moving to Libreville/Port-Gentil come from another part of the western region and 38 percent of the migrants moving to another place in the western region come from another province of the western region (Figure 3.6-e). Not surprisingly, the vast majority of international emigrants (32 percent) are concentrated in the area of Libreville and Port-Gentil.

**However, recent migration is increasingly shifting toward new economic poles, particularly the northern part of the country.** Over the last three years, internal migration patterns seem to have changed in favor of new destinations where economic activity is growing fast, whether under the form of renewed exploitation of natural resources, or the development of large agricultural projects. New locations – mainly in the north and rural west—seem to slowly replace Libreville, and to a lesser extent Port-Gentil, as the primary destinations of internal migration (Figure 3.6-b). Around 17 percent of those who migrated to Libreville and Port-Gentil moved during the last three years compared to 45 percent for those who moved to the North and 32 percent for those who moved to other western regions (excluding Libreville and Port-Gentil). Moreover, among those who migrated over the last three years, around 28 percent moved to Libreville and Port Gentil, 19 percent to the North and 30 percent to the other western regions, essentially rural parts that concentrate most of the recent large agricultural



development projects —compared to respectively 53 percent, 9 percent and 24 percent among those who migrated before 2014.

**Figure 3.6: Origin and Destination of Migrants, Percent**



Source: RGPL 2013 and EGEP 2017.

Note: The population of reference is the adult population aged 15 years and older.

**Migration driven by push factors creates challenges and poses sustainability risks.** Migration flows generally result from push factors such as underemployment, low income, and poor living conditions, or pull factors such as better economic opportunities. Migration resulting from pull factors and economic reasons contributes to urban expansion and is more likely to increase agglomeration benefits, to stimulate income growth, and to alleviate poverty in home communities through remittances. Conversely, internal mobility driven by lack of

social services, family reasons, and other push factors is more likely to increase congestion costs and might offset the benefits of migration.

**Recent migration pattern seems to be shifting from economic considerations towards family reunification and formation, particularly among women, potentially offsetting the benefits from migration.** Around 27 percent of the migrant population declares having migrated to find a job in a different province –and 7 percent due to a professional transfer. Conversely, 36 and 14 percent of the migrants respectively moved for family and marriage purposes, that is half of migration driven by family-related reasons (Figure 3.6-f). This may be explained by the fact that migration often evolves as a gradual process in which one member of a household moves to richer areas in search of employment and is later followed by other members of the household. The picture also underlines the condition of women who follow their husbands and whose migration is almost entirely family-driven. Indeed, while 28 percent of men declared having moved for family or marriage reasons, the proportion rises to 72 percent in the case of women – 44 moved for family reasons and 28 percent to marry. Conversely, 45 percent of men that have migrated did so to find a job, and an additional 10 percent for professional transfer, compared to respectively only 8 and 4 percent of migrant women. Therefore, current migration trends in Gabon coupled with the high urbanization may not be conducive to further development and economic growth, as it may lead to higher urban fertility, unemployment particularly for women, and congestion diseconomies that could offset the benefits of agglomeration and urban concentration, and contribute to urbanization without growth (Jedwab et al., 2017).

**This pattern is particularly important among the poor, challenging the perspective of migration as a pathway out of poverty.** About 65 percent of poor migrants move for family-related reasons or to marry, compared to 46 percent of non-poor migrants (Figure 3.6-f). Moreover, the importance of family reunification as a reason for migration seems to have increased over time among the poor: 51 percent of poor migrants who moved over 20 years ago cited family reasons as the primary motivation, compared to nearly 70 percent of poor migrants who migrated within the last 2 years. In addition, poor recent migrants are significantly younger on average than non-poor recent migrants – 18.5 years old compared to 24 years old. The intensification of family-based internal migration, particularly among the poor, could lead to an increase in informality, unemployment and vulnerability in the host regions and might add to the burden of family members migrants are joining.

**Migrants tend to be less poor, but migration to main cities may not fulfill migrants expectations for better living conditions.** The poverty rate is about 14 pp lower among migrant households than non-migrant ones (28.1 compared to 42.5 percent). The gap is significantly larger in rural areas and other urban zones than in main cities (respectively 23.4 pp, 13 pp and 2 pp). This suggests that those who migrated to rural areas, and to a lesser extent those who moved to secondary cities, were able to achieve much higher living standards than local residents. However, those who migrated to large cities had only slightly better living standards than local ones. This may be related to the different profile of migrants in the three areas.<sup>25</sup> Around 20 percent of those who moved to rural areas and secondary cities migrated for professional reasons compared to only 8 percent for those who moved to main cities. These are the least poor among all migrants. Migrant job seekers are slightly higher in main cities than in other urban areas and rural zones (respectively 41 percent, 36 percent and 31 percent). Nearly 80 percent of them found jobs in their respective residence areas and tend to be significantly less poor than migrants who moved for family reasons. Migrant job seekers in rural and other

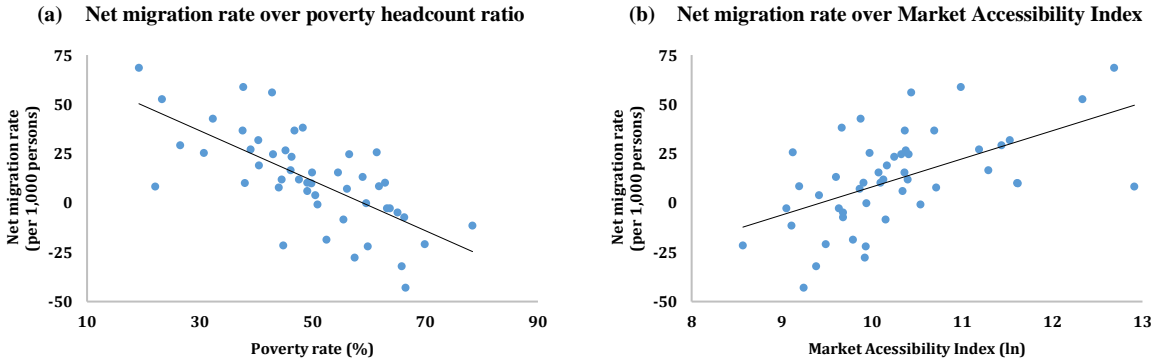
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<sup>25</sup> The proportion of migrants in main cities and other urban areas is 40 percent and in rural areas 35 percent. This may have not affected the differences in poverty incidence between migrants and non-migrants.

urban areas tend also to have lower poverty rates than the averages in their respective areas of residence, while those in main cities have higher poverty rates than the average in these cities. This suggests that those who moved to large cities could only partly fulfill their economic prospects, as even if they found jobs they were not able to achieve higher living standards than average residents probably due to the high and increasing cost of living in these cities.<sup>26</sup> Local conditions likely matter for migrants welfare, as households whose head migrated from the East or immigrated from foreign countries are the least likely to be poor, while those who migrated from southern and to a lesser extent northern regions are much poorer than the rest of migrants. Recent migrants tend to be poorer than long term ones, probably reflecting the shift toward family-driven migration discussed above.

**The relationship between poverty and internal migration appears bidirectional with two mechanisms at stake.** In general, the lower incidence of poverty among migrants is due to two factors: on the one hand, people move out of poorer areas to richer ones with better amenities, market accessibility and economic opportunities, which results in an increase of their welfare (Figure 3.7-a). This is evidenced by the positive net migration rates in towns with high market accessibility potential —cities with a large population size and/or a good connectivity to other populous towns, which indicates that within-country migration is primarily directed towards well-connected urban center and away from rural areas (Figure 3.7-b). On the other hand, internal migration could be limited to individuals with education levels and living standards above a certain threshold, resulting in a self-selection bias. Therefore, less poor individuals with certain levels of human capital and resources would tend to migrate more easily, further improving their welfare, as they are not constrained by resources, whereas those willing to migrate and who do not dispose of the necessary resources would be deter by the cost attached to such a move. Overall, the positive effects of migration on poverty need to be taken with caution and should be balanced against the consequences of excessive migration.

**Figure 3.7: Origin and Destination of Migrants, 2017 (percentage of adult population)**



Source: RGPL 2013 and EGEP 2017.  
 Note: The data points are Gabon’s departments. The data point for the department of *Komo-Océan* was excluded as an outlier (net migration rate of -234 percent).

**The sustainability of migration as a poverty-reduction mechanism is uncertain.** On average, both poor and nonpoor people tend to move to regions where employment is higher. About 33 percent of non-poor migrants moved to regions where the unemployment rate is lower than their origin region. A similar proportion (31 percent) is observed among poor migrants. However, poor migrants tend to be more motivated than nonpoor ones to move to regions where access to social protection (CNAMGS) is higher. About 44 percent of non-poor recent migrants

<sup>26</sup> About half of those who migrated to seek a job are employed in the formal sector and this pattern is similar across the three areas. However, unemployment and informality have increased among recent migrant job seekers in Libreville and Port Gentil.

moved to regions where enrollment rates in CNAMGS are higher, whereas 55 percent of poor recent migrants did so. Given data limitations of the EGEP 2017 survey, it is difficult to tell if migrants who moved into regions with higher CNAMGS enrollment did so consciously, or if the family members the migrants intended to reunite with already lived in regions with higher enrollment rates in CNAMGS for other structural reasons. Since there is a clear pattern of family-motivated migration among the poor and unclear evidence for improved economic conditions in the destination region, more investigation is required to assert whether migration could be a pathway out of poverty.

## II. A Deep Dive into Urban Poverty

*A deep dive into urban poverty reveals the presence of poverty pockets in neighborhoods surrounding the core of largest cities and in peri-urban areas.*

**Given the high concentration of the poor in main urban centers, effective policy interventions to address poverty in Gabon require accurate understanding of the spatial pattern and characteristics of poverty within large cities.** Poverty maps at the neighborhood level in largest cities allow to provide a detailed profile of the spatial dimension of urban poverty to identify the pockets of poverty and to design effective antipoverty interventions. Poverty maps were produced using data from the 2013 population census (RGPL) and 2017 EGEP, and small area estimation techniques to estimate the incidence of poverty in 143 neighborhoods in Grand Libreville (Libreville, Akanda and Owendo), Franceville and Port Gentil (see Appendix D for details).

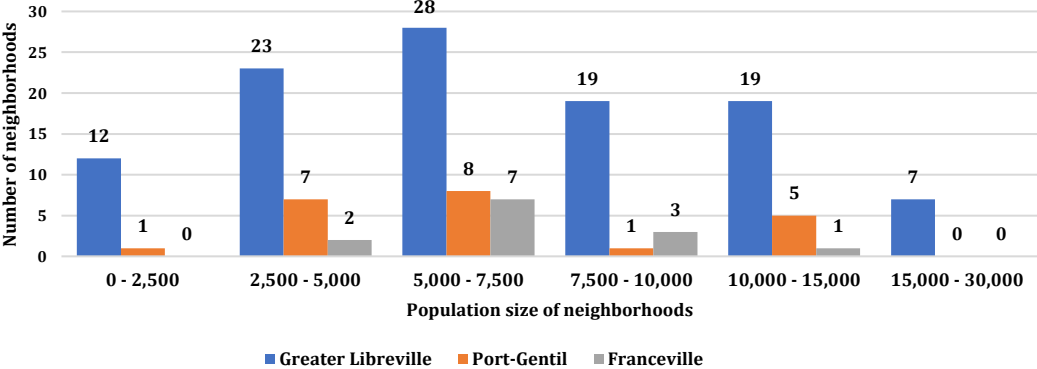
**Detailed poverty maps at sub-city levels provide useful tools to inform cost effective geographic targeting of poverty alleviation programs.** These poverty maps help guide priority-setting and target poverty-alleviation interventions by disentangling the spatial heterogeneity of poverty in large cities, informing where there may be a concentration of poverty and identifying where development efforts may best be directed. They could improve targeting of public expenditures by identifying where the neediest populations are located. They can help reduce leakage to the nonpoor and improve resources allocation in the face of large public deficits and shrinking public resources. Geographic targeting can be particularly useful in case of high concentration of the poor in small communes or in presence of pockets of poverty, but its efficiency can be challenged if the poor are scattered across the cities. Whether geographic targeting is a cost-effective alternative to wider (or near-universal) coverage, or other targeting methods such as proxy means tests, in case of large disparities in living standards within smaller geographic areas remain to be investigated.

**Understanding the distribution of poverty at the sub-city level opens the door to a more comprehensive strategy for increasing welfare and reducing poverty.** The rationale for targeting antipoverty interventions on the basis of geography is the existence of large similarities in living conditions and socio-economic characteristics between households in small localities or neighborhoods and the concentration of poverty in some areas. However, even though income disparities tend to be lower within smaller geographic areas, poverty can be scattered across different neighborhoods, in which case geographic targeting would likely result in high leakage, increasing the budgetary costs and reducing program effectiveness. Detailed poverty maps at sub-city levels allow a better understanding of the variation of the incidence and density of poverty between main urban neighborhoods and of the potential for geographic targeted strategies to effectively address poverty. They also allow a better understanding of the importance and variation of spatial constraints across residential locations and can be helpful to better tailor policy instruments to the specific conditions of the urban local community, increasing the choice of policy instruments that can be used to combat poverty.

They can inform the allocation of resources for public projects and provide clear geographic criterion, which can be combined with other eligibility criteria based on individual or household characteristics for better helping poor populations.

**Sub-city level poverty maps at the neighborhood level makes it possible to identify three types of areas based on the incidence and density of poverty.** They provide estimates of poverty for 108 neighborhoods in Grand Libreville (89 in Libreville, 6 in Akanda and 13 in Owendo); 13 in Franceville and 22 in Port Gentil. Neighborhoods were defined based on geographic continuity and similarity, as well as local knowledge.<sup>27</sup> The population size of neighborhoods, based on the 2013 RGPL, ranges from 100 to 28,700 (the average is 7,500) in Grand Libreville, from 2,200 to 118,00 (the average is 6,300) in Port-Gentil, and from 4,000 to 11,200 (the average is 7,300) in Franceville (Figure 3.8). Three types of sub-city areas emerge of the maps depending on the incidence and density of poverty: (1) **type 1** neighborhoods where poverty rates and number of poor are low; (2) **type 2** neighborhoods, where poverty rates and population density (and therefor the number of poor) are high; and (3) **type 3** neighborhoods, which are sparsely populated areas and thus accommodate a small number of poor people despite high incidence of poverty (Table 3.1).

**Figure 3.8: Population Distributions of Neighborhoods in Major Cities**



**Table 3.1: Typology of Urban Poverty**

Type	Pop. density	Poverty incidence	Grand Libreville	Port-Gentil	Franceville
1	Low/High	Low	Coastal area / suburbs in Akanda and Owendo	City core	City core
2	High	High	Surrounding city core / Suburban	Surrounding city core / Suburban	Surrounding city core / Suburban
3	Low	High	Suburban / peri-urban	Suburban / Peri-urban	Suburban/ peri-urban

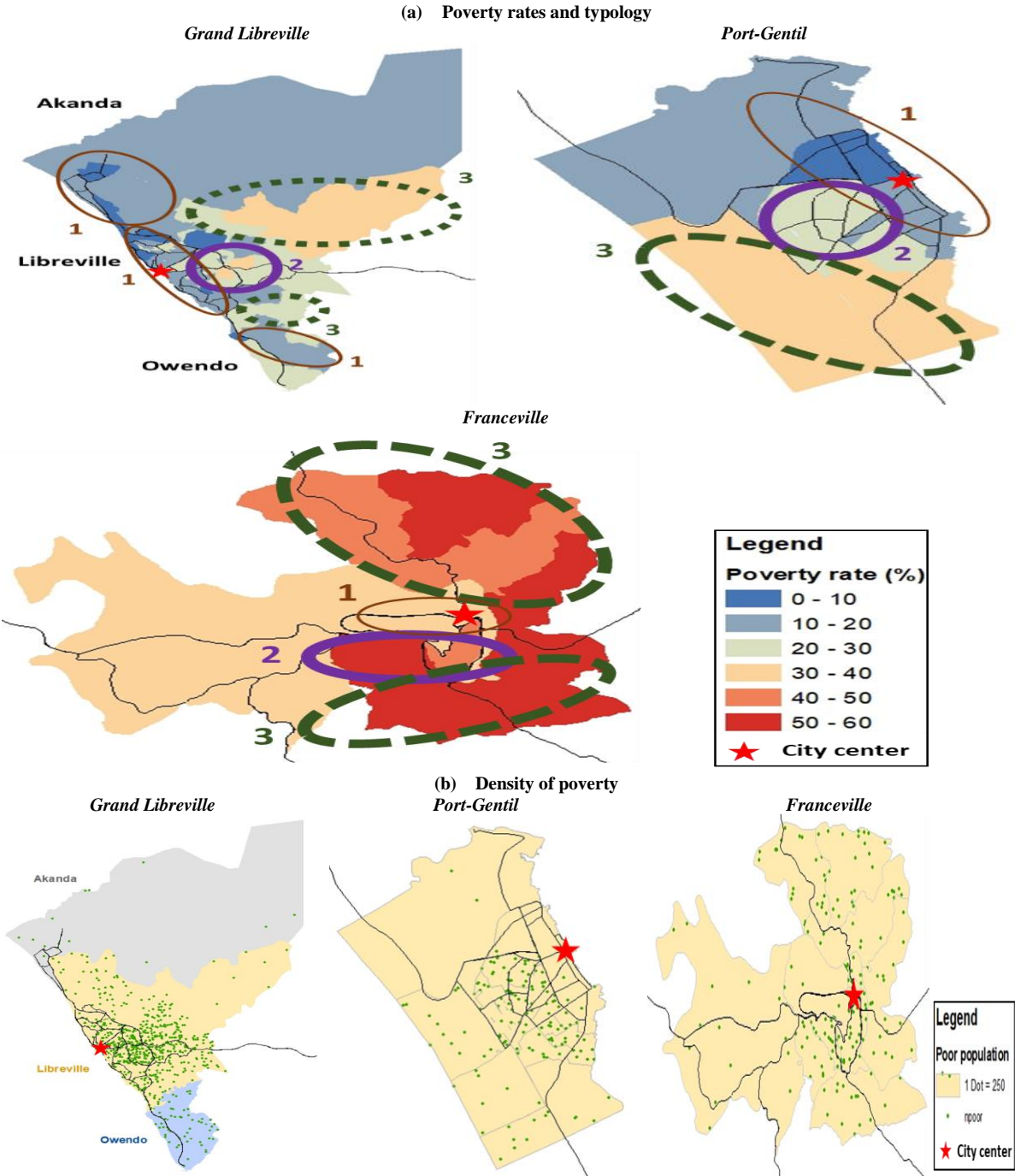
Source: RGPL 2013.

**The maps reveal the presence of pockets of poverty in neighborhoods surrounding cities cores as well as in suburbs towards city center, but the incidence of poverty is higher in less densely populated peri-urban areas.** There are large variations in the incidence and density of poverty across the cities: poverty rates vary between 6 and 35 percent in Grand Libreville (6-35 percent in Libreville; 8-15 percent in Akanda; and 7-25 percent in Owendo); 8 and 38 percent in Port-Gentil; and 30 and 57 percent in Franceville. In Libreville, Port Gentil and Franceville, both the incidence of poverty and the number of poor people tend to be lower in neighborhoods closer to the coastal line and in city cores (type 1 -brown circle in Figure 3.9-a). Neighborhoods in Akanda and Owendo, are also less poor, accommodating many upper-

<sup>27</sup> The selection of the neighborhoods, definition of their boundaries and preparation of GIS shapefiles were prepared in close collaboration with Gabon National Statistical Office.

middle class households who commute to Libreville. In the capital city, relatively poor neighborhoods, with poverty rates around 30 percent, are located in the inland part close to the city center (type 2 -purple circle in Figure 3.9-a). Because population density is also higher in these neighborhoods, they account for a large number of poor, resulting in pockets of poverty (Figure 3.9-b). Suburbs towards city center tend also to have higher incidence and density of poverty. The North-Eastern peri-urban zone remains sparsely populated and despite a higher incidence of poverty the number of poor tend to be limited (type 3 -green circle in Figure 3.9-a). In Port-Gentil and Franceville, neighborhoods surrounding city centers have both high incidence and density of poverty (type 2), but poverty rates remain highest in less-dense outer areas (type 3).

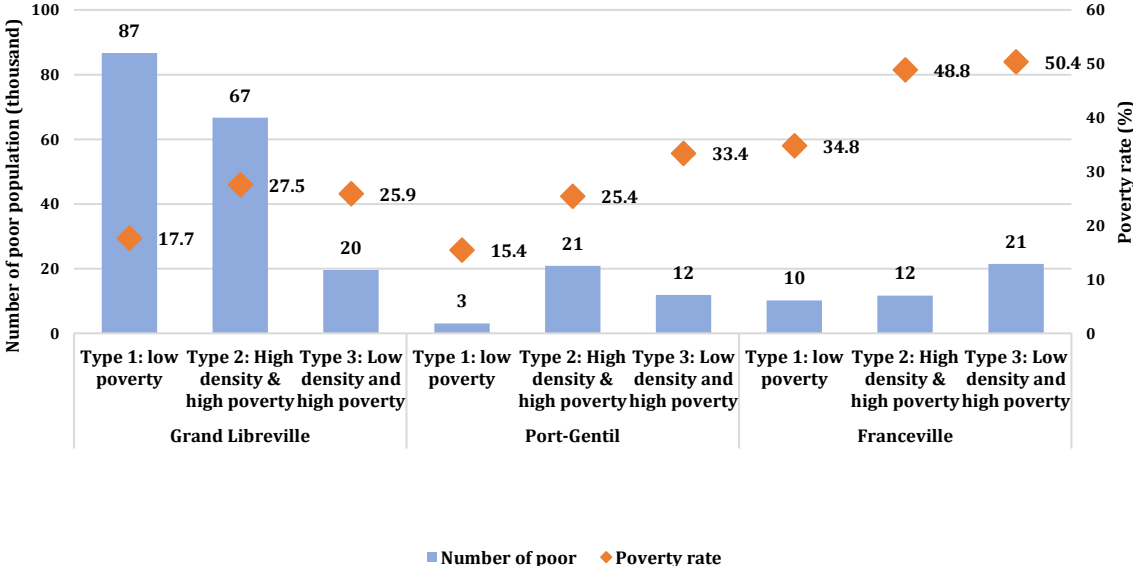
**Figure 3.9: Poverty Maps and Typology**



Sources: EGEP 2017 and RGPL 2013.  
 Note: The numbers in panel (a) correspond to the typology of Table 3.1.

While there is some spatial concentration of poor populations in certain areas, particularly in Libreville, the poor remain scattered all over the cities. Libreville has a larger concentration of poor people in neighborhoods around the city center than the other two cities (Figure 3.9-b). About 40 percent of the capital city’s poor are concentrated in these neighborhoods (type 2 neighborhoods, Figure 3.10). Peri-urban areas (type 3 neighborhoods) have slightly lower poverty incidence on average compared to those around center town—26 vs 28 percent— but poverty rates vary widely across these areas, reaching 35 percent in some neighborhoods in the outskirts of the city. But, due to their low population density these areas accommodate about only one tenth of the city’s poor. The rest of poor populations—around 50 percent of the poor population in Grand Libreville—is scattered among the population in less poor neighborhoods (type 1 neighborhoods). In Port-Gentil, nearly 60 percent of the poor live in relatively densely populated poor neighborhoods (type 2), which represent half of the city’s neighborhoods. In Franceville, significant numbers of the poor are dispersed throughout the city, essentially across type3 and to a lesser extent type 2 neighborhoods (Figure 3.10). The relatively wide dispersion of poverty, both in terms of incidence and density, across the largest cities complicates geographic targeting and calls for combined targeting approaches to design effective policy interventions to reduce poverty.

**Figure 3.10: Poverty Incidence and Populations by Typology**



Source: EGEP 2017 and RGPL 2013.

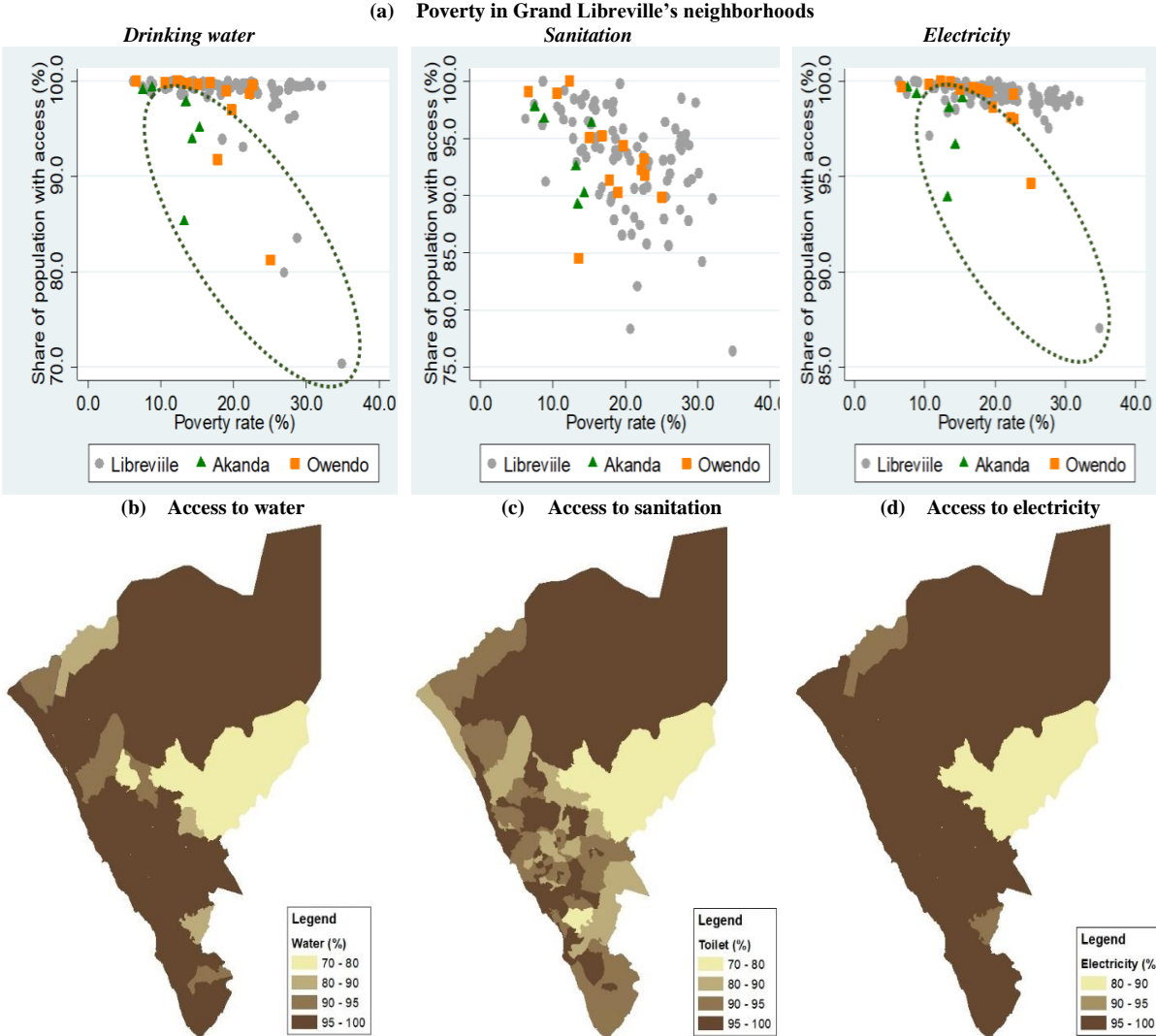
**The prevalence of unemployment and out-of-school children is higher in poorer neighborhoods, while enrollment in secondary school is much lower.** In the three cities, employment and unemployment rates are on average respectively 10pp lower and 6 pp higher in poorest neighborhoods than better off ones. The unemployment rate among the 25-64 years old ranges from 2 percent in least poor neighborhoods to 14 percent in poorest ones in Grand Libreville; from 4 to 15 percent in Port Gentil; and from 2 to 18 percent in Franceville.<sup>28</sup> Self-employment tends also to be slightly higher in poorer parts of the cities. The net enrollment rate in secondary education is over 7 pp lower in poorer neighborhoods, while proportion of 7–12 year old out-of-school children is around 3 pp higher. The proportion of 13–19 year old out-of-school children also increases significantly in neighborhoods with higher prevalence of

<sup>28</sup> The unemployment rates are based on RGPL 2013 and are on average lower than those from EGEP 2017, but as the latter is not representative at small geographic levels it does not allow to estimate unemployment rates by neighborhoods.

poverty. Gender employment gaps are high everywhere but seem to be slightly higher in areas with larger concentration of poverty.

**Access to basic services is lower in poor neighborhoods in peri-urban areas.** Access to piped water and electricity is almost universal in the three cities, but poorer neighborhoods tend to have lower access to improved sanitation (Figures 3.11). The negative correlation between poverty rates and the share of population with access to safe sanitation across neighborhoods in the cities is evident in figure 3.11-b. Peri-urban areas, where the incidence of poverty is higher, tend to have significantly lower coverage in terms of basic sanitation and to a lesser extent improved water and electricity (Figure 3.12). This suggests that infrastructure networks may have not reached those areas. The prevalence of poverty in neighborhoods around cities centers may be related to the precarious condition of local infrastructure, public services and housing that inhibit economic opportunities. Satellite images suggest the presence of poor local infrastructure and housing conditions in neighborhoods where there are pockets of poverty in Libreville (Box 3.2 and Figure 3.13). Low housing costs and proximity to city centers in these poor neighborhoods may have attracted poor migrants from other areas thereby deepening the pockets of poverty.

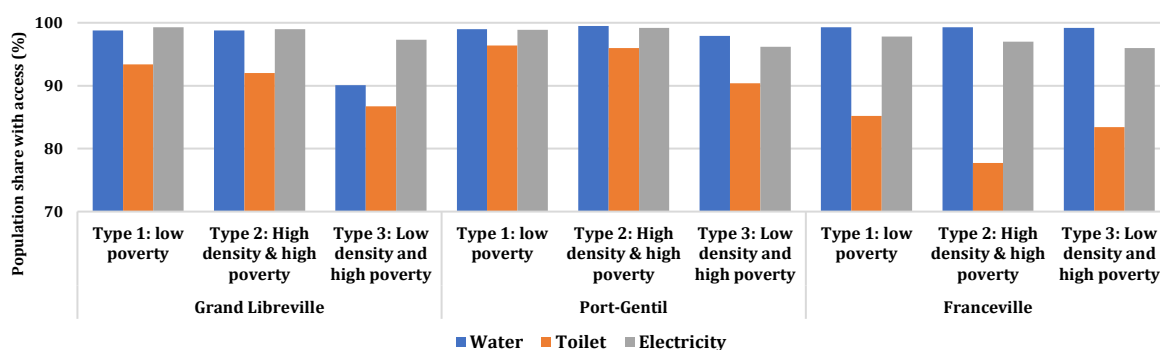
**Figure 3.11: Poverty and Living Conditions in Grand Libreville’s Neighborhoods**



Source: EGEP 2017 and RGPL 2013.  
 Note: Each marker indicates a neighborhood.



Figure 3.12: Access to Services by Typology

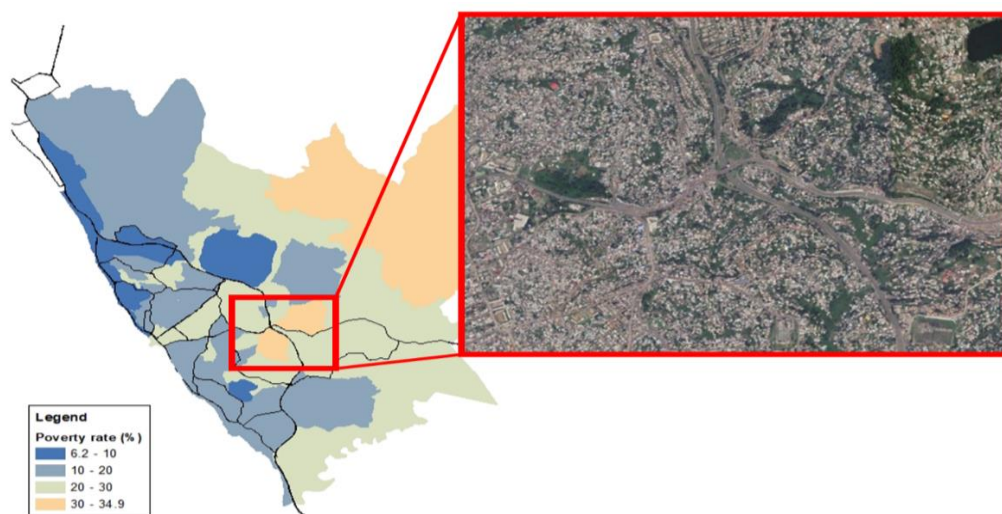


Source: EGEP 2017 and RGPL 2013.

### Box 3.2: High-density Poverty Pocket in Libreville

The cluster of high-density poor neighborhoods is located around the intersection of the N-1 road and the ring road (Figure 3.13). The satellite image shows that those neighborhoods are characterized by unplanned roads and high built-up density with small housing structures. A comparison of satellite images over the last decade also shows the increase in built-up density, by encroaching open spaces. As reviewed in the report, access to basic services, such as piped water and electricity, may not be a serious problem in this area. Nevertheless, their living conditions may not be desirable since many of the open spaces are swamps.

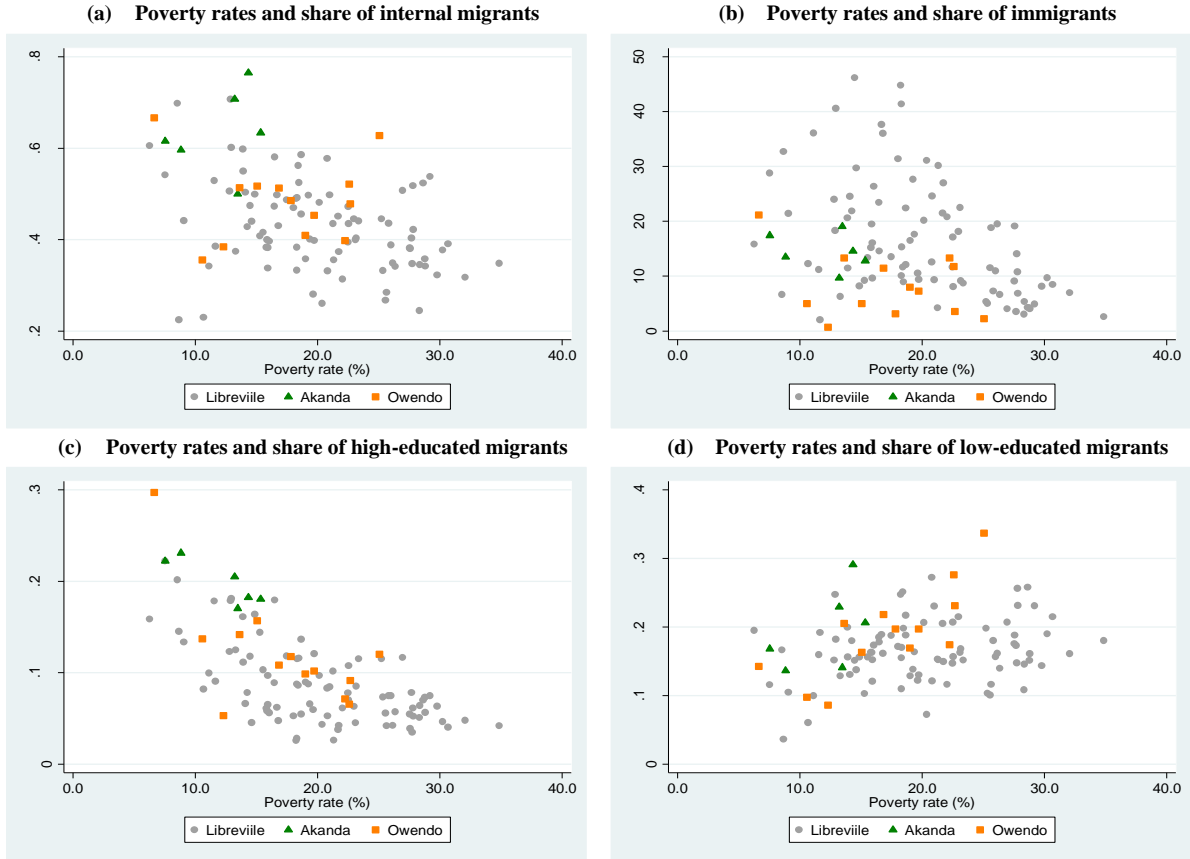
Figure 3.13: High-density Poor Neighborhoods in Libreville



**The recent migration pattern indicates that the influx of migrants is higher in wealthier neighborhoods, but poorer neighborhoods attract more low-skilled migrants.** There is a negative correlation between the share of recent migrants and poverty rates in neighborhoods, suggesting that recent internal migrants have arrived in less poor neighborhoods (Figure 3.14-a). However, this pattern is observed only among highly-educated migrants, as migrants who completed higher education tend to settle in neighborhoods with low poverty rates (Figure 3.14-c). These skilled migrants have been pulled by larger economic opportunities in Libreville. By contrast, low-skilled internal migrants, with primary education and less, tend to move to poorer neighborhoods, such as type2 and type 3 ones (Figure 3.14-d). The pattern of international immigrants is very different from that of internal migrants. They are generally less poor and tend to live in wealthier neighborhoods around the coastal line in Libreville. Akanda and Owendo tend to have less migrants and accommodate mainly wealthy Gabonese.

**Different policies would be necessary to effectively and efficiently address urban poverty, depending on the locations and characteristics of the neighborhoods.** In neighborhoods with high population density and poverty incidence, overcrowding (both at the dwelling and neighborhood levels) and environmental and health risks can inhibit poverty reduction. In outer suburbs or peri-urban poor areas, rapid population growth can be expected due to high fertility and the influx of migration, particularly low-skilled migration that could cause further deepening of poverty. In those areas, high prevalence of unemployment and of out-of-school children as well as limited access to high education and basic services continue to challenge economic mobility. Based on the typology of the poor neighborhoods, different types of policy interventions could be suggested. Developing infrastructure and basic services would be needed to better integrate the low-density poor (type 3) neighborhoods to the cities. In view of unfolding urban sprawling, proactive urban planning and service delivery would be an essential approach. In high-density poor (type 2) neighborhoods, a mix of geographically targeted and non-geographic interventions would be required. Projects for upgrading informal settlements are quite commonly used to address poverty in developing cities. These projects could be used as a model for the design of interventions to improve living conditions in these neighborhoods but would require a careful assessment of the current living conditions to ensure their efficiency. Given the wide disparity of poverty across the cities, spatially blind policies —that ensure well-functioning labor markets, land markets, enforce property rights etc. —remain essential.

**Figure 3.14: Migration and Poverty in Grand Libreville’s Neighborhoods**



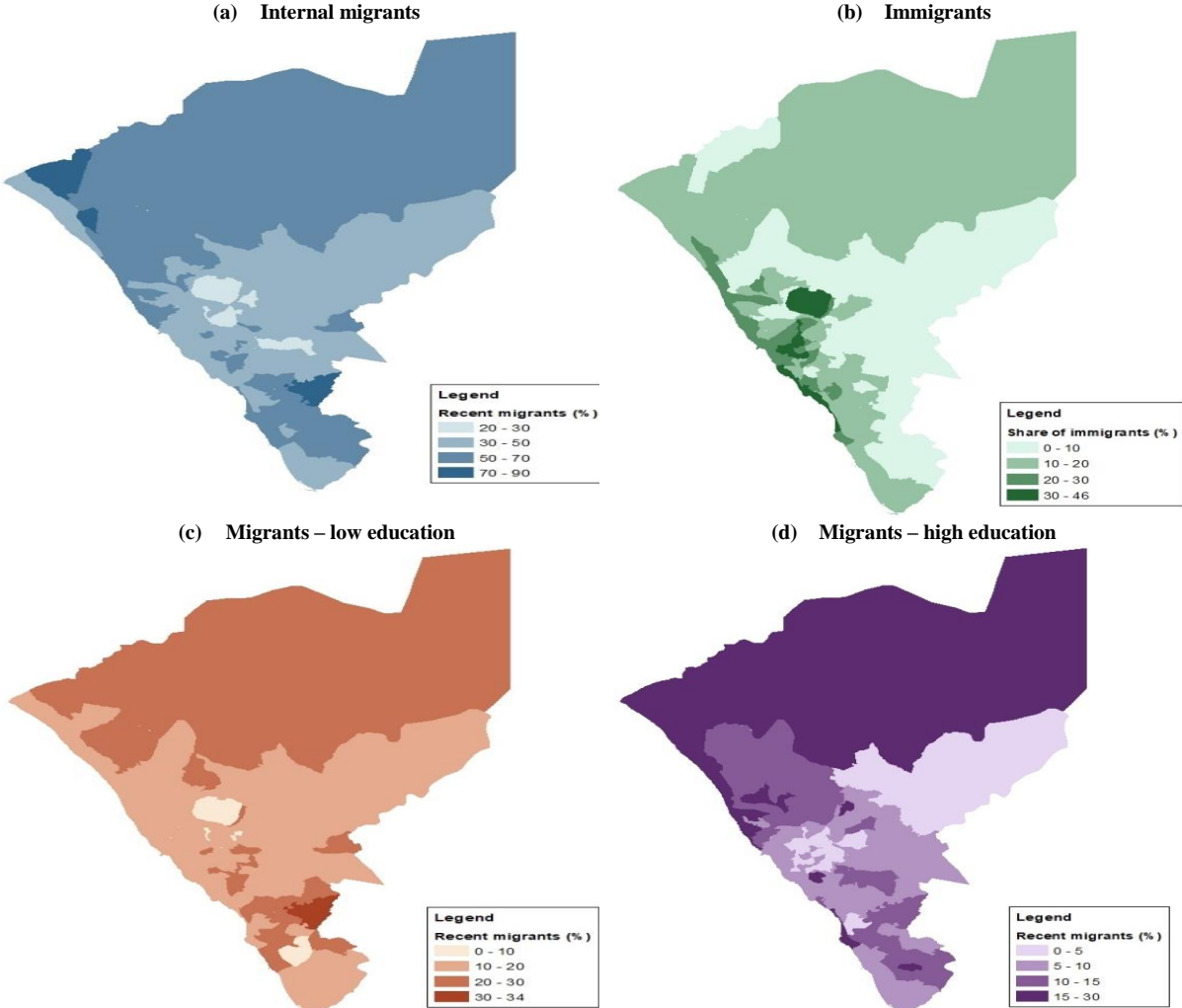
Source: EGEP 2017 and RGPL 2013.

Note: Migrants are those who moved to the current city from other parts of Gabon during the last 6 years. Immigrants are those who were not born in Gabon. The shares of migrants and immigrants were calculated only for working-age populations.

**Social assistance programs are among the key policy levers to alleviate poverty, but their cost-effectiveness would require a combination of geographic targeting with additional targeting tools to limit leakage.** Targeting within the main cities will not be able to rely on

geographical targeting only as, although small collections of poorer households can visibly be seen throughout the city particularly in Libreville, most of the poor tend to be spread out throughout the cities. Even in situation of high concentration of poverty, some benefits of targeted interventions inevitably leak to the nonpoor who reside in target areas, and the poor who reside in nonpoor areas will not be covered. Yet leakages may be higher in the case of Gabon. The wide spatial disparity of poverty and living conditions across the country suggests that the costs of universal coverage programs or ill targeted schemes may far outweigh the leakage (and resulting cost) of geographic targeting. In the absence of relevant data to monitor poverty and in the face of mounting constraints on public resources, combining geographic criterion with other eligibility conditions, based for example on proxy means test (PMT) models, could significantly improve the cost-efficiency of social assistance programs. The instruments of targeted interventions can include not only direct transfers to the target population but also a wide variety of other measures aimed at increasing the living standards and empowering the entire population of the area such as improve the quality of infrastructure and public services, provision of financial services etc... Geographical targeting using detailed poverty maps thus can provide guidelines for allocating resources under a country's development program.

**Figure 3.15: Migration and Poverty in Grand Libreville’s Neighborhoods**



Source: EGEP 2017 and RGPL 2013.  
 Note: Migrants are those who moved to the current city from other parts of Gabon during the last 6 years. Immigrants are those who were not born in Gabon. The shares of migrants and immigrants were calculated only for working-age populations. Migrants of low (high) education are those who completed only primary education (higher education).

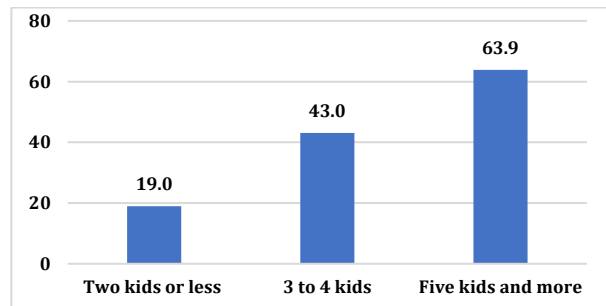
# Chapter 4: The Profile of the Poor

## I. Socio-Demographic Characteristics of the Poor

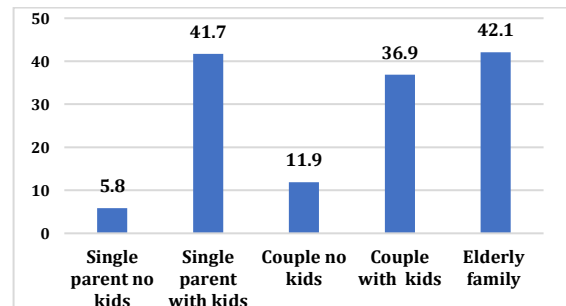
*Poor households have more members, more dependents and lower human capital.*

**Poor households are larger in size and have more dependents.** The average numbers of members and children in poor households are respectively 6 and 2.8 compared to 3.3 and 1.1 in non-poor ones. As a result, the dependency ratio is over two times higher for those living in poor households (Table 4.1). Urban poor households tend to be larger and to have more children on average than rural poor ones, but they have less elderly resulting in a larger dependency ratio among the latter. Poverty rates increase significantly as the number of children increases. Poverty is also significantly higher among households with a single parent and with kids as well as among elderly families—the headcount rate is around 42 percent for these groups compared to 12 percent and less for households with no kids (Figures 4.1 and 4.2). These effects are supported by regression models after controlling for other sociodemographic characteristics of the households (Tables B.1 and B.2 in Appendix B).<sup>29</sup> The interaction between family size and poverty is bidirectional. On one hand, the large number of children and dependents affects the ability of the poor to cover basic food needs and move out of poverty. On the other, poor households tend to have more children to compensate their inability to invest in the human capital of their kids and as an insurance strategy against infant mortality, trapping them in a vicious circle of poverty.

**Figure 4.1: Poverty Rate by Number of Children, Percent**



**Figure 4.2: Poverty Rate by Family Type, Percent**



Source: EGEP 2017.

Note: Elderly family are households whose head is aged 65 years old or above.

**Poor households are more likely to be headed by a woman and a non-migrant.** Women-headed households are more likely to be poor, but this is true only in urban areas. However, in both areas households that are headed by women widowers are more likely to be poor than households headed by men widowers as the poverty rate among the former is 43 percent compared to 34 percent among the latter. Around 42 percent of persons living in households headed by a non-migrant are poor compared to 28 percent in migrant households. This is partly because migrants have initially higher assets and skills, and partly related to improvements in their living conditions after migration. Households whose head migrated over the past three years are poorer than old migrants, suggesting a decline in the potential of migration as a driver for poverty reduction. On the surface, households with younger heads seem to fare better than those with older ones. However, this is largely due to the fact that young heads have generally higher education and only just started their family lives and so have few children. The effect of

<sup>29</sup> The multivariate regressions in appendix B examine the main factors affecting households' consumption and poverty, in order to identify the main correlates of poverty. The direction of causality is sometimes difficult to establish, but the results allow to identify variables related with higher consumption and likelihood of poverty.

head's age on living standards and poverty vanishes after controlling for other sociodemographic characteristics of the household (Tables B-1 and B-2).

**Table 4.1: Socio-demographic Characteristics of Households, 2017**

	Gabon	Libreville /P.-Gentil	Other urban	Rural	Non-poor	Poor	Urban poor	Rural poor
Household size	3.9	3.7	4.2	3.5	3.3	6.0	6.2	5.2
Children <15 years	1.4	1.3	1.7	1.3	1.1	2.8	3.0	2.4
Adults 15-64 years	2.3	2.3	2.4	1.8	2.1	2.9	3.2	2.3
Elders >64 years	0.1	0.1	0.1	0.4	0.1	0.2	0.1	0.5
Dependency Ratio	0.71	0.59	0.77	0.92	0.56	1.25	1.18	1.42
Age of Household Head	43.4	41.4	42.5	52.3	42.6	46.4	43.8	53.6
Sex of Household Head, percent								
Male	70.4	72.0	67.6	72.6	71.2	67.3	64.8	74.2
Female	29.6	28.0	32.4	27.4	28.8	32.7	35.2	25.8
<i>Proportion of individuals that live in a household in which...</i>								
Education level of the head is, percent								
No education	19.3	18.5	19.0	23.2	17.1	23.9	23.8	24.1
Primary	16.3	9.6	17.6	34.4	12.0	24.9	20.3	39.6
Lower secondary	30.0	30.3	30.5	28.1	27.8	34.6	37.4	25.4
Upper secondary	18.4	19.8	19.3	10.4	21.1	12.9	14.2	8.8
Tertiary	16.0	21.8	13.6	4.0	22.1	3.7	4.2	2.2
Employment sector of the head is, percent								
Agriculture	18.1	2.7	18.1	65.0	11.3	32.3	18.6	70.8
Mining	5.3	4.7	5.7	6.2	5.4	5.2	4.9	6.0
Manufacturing	7.5	7.5	8.6	4.6	7.3	8.0	8.9	5.3
Services	69.1	85.1	67.7	24.2	76.0	54.5	67.5	18.0
Economic activity status of the head is, percent								
Household	12.5	12.3	10.7	18.1	10.4	16.9	16.0	19.3
Informal	31.6	25.1	32.0	50.1	27.8	39.5	34.1	54.6
Formal	56.0	62.6	57.3	31.8	61.9	43.7	49.9	26.1
Migration status is, percent								
Non migrant	36.7	28.9	39.5	54.4	31.7	46.7	41.3	64.2
Migrant	63.3	71.1	60.5	45.6	68.3	53.3	58.7	35.8

Source: EGEP 2017.

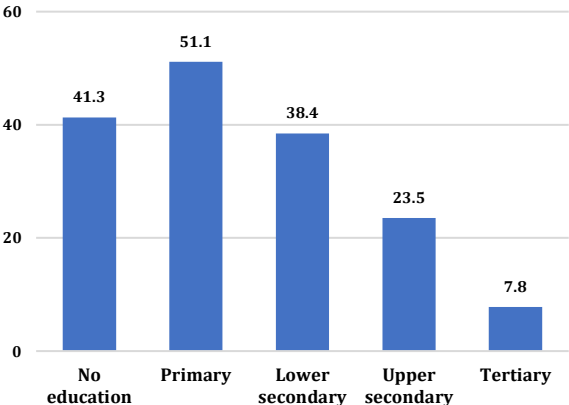
**The education level of poor households' heads is notably lower than non-poor ones – and is particularly low among the rural poor.** Gabonese households have relatively high level of education, but it remains low among poorer households, particularly rural ones. Over 60 percent of household heads have higher than primary education. Within the poor, this is around 50 percent compared to 70 percent within the non-poor. This rate drops to 35 percent within poor rural households (Table 4.1 and Figure 4.4). Less than 20 percent of poor households' heads (and 10 percent of rural ones) have education levels above lower secondary, underscoring the difficulty for poor households to access higher levels of education. Enrollment in secondary schools and higher education is significantly lower among poor households than non-poor ones. Net enrollment rates in upper secondary and tertiary education are respectively 7 and 4 percent among children in poor households compared to 24 and 16 percent within non-poor ones. School dropout seems also to be significantly larger among children in poor households than non-poor ones and is essentially due to lack of financial means, suggesting that poverty and lack of human capital reinforce each other and perpetuate over time.<sup>30</sup>

**Poverty declines significantly with the increase of the educational level of the household head, particularly secondary and upper education.** Nearly half of individuals living in households whose head have primary education at most are poor compared to, respectively, 24

<sup>30</sup> Only 3 percent of children aged 6-14 declared not being in school the year preceding the survey and among them 63 percent live in poor families. They gave lack of financial means as the main reason for not being in school. More information on school dropout is not available. But, the high rate of out of school suggest high dropout.

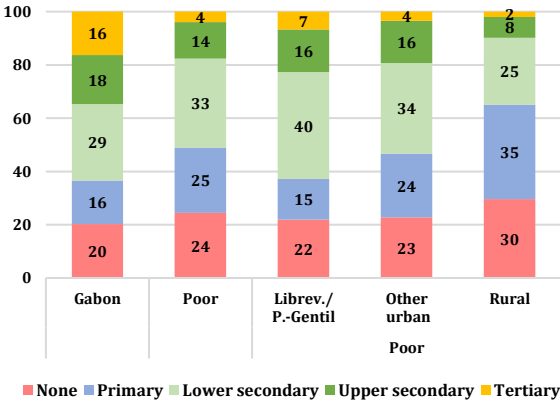
percent and 8 percent in households whose head have upper secondary and tertiary education (Figure 4.3). Education remains the best shield from poverty, but primary and even lower secondary education seem no longer sufficient to increase poor people’s opportunities for economic mobility and for moving out of poverty. The expansion of education and the increase of the general population’s education level have induced changes in the requirements of the labor market and generated a decline of the rewards for years of schooling under a certain level (Tables B-1 and B-2).

**Figure 4.3: Poverty Rate by Level of Education of the Household Head, Percent**



Source: EGEP 2017.

**Figure 4.4: Educational Attainment of the Household Head (percentage of households)**

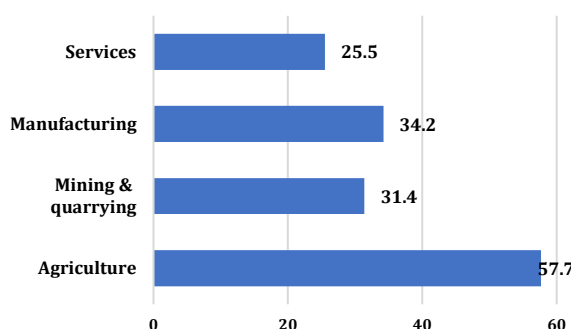


*Heads of poor households tend to work in the agricultural or informal sectors as low-status workers.*

**Households whose heads work in the services and formal sectors are less likely to be poor.** Poor and non-poor households display similar unemployment and inactivity rates, but unemployment is significantly higher among urban poor (19 percent) than rural ones (4 percent). About half of poor household heads work in the services sector, compared to a national average of 70 percent and nearly 80 percent for nonpoor households, with a larger concentration of the latter in public administration. However, important discrepancies exist between urban and rural poor households, with the latter being overwhelmingly concentrated in agriculture and the former predominantly working in services, essentially informal services. Poverty rates are lowest among households whose head works in services and highest among those whose head works in agriculture (26 percent compared to 58 percent). The manufacturing as well as the oil and mining sectors are supposed to offer relatively high revenues, but over 30 percent of persons living in households whose head is employed in these sectors are poor (Figure 4.5). However, these figures hide important discrepancies between regions as households in Libreville and Port Gentil whose head works in manufacturing have low poverty rates, while households in the other urban areas whose head is employed in mining are the least likely to be poor.<sup>31</sup> Overall these sectors remain very low providers of jobs with 7 percent or less of the population working in them. Poverty rates are also significantly lower among households whose head works in public administration and in formal sectors than among those engaged in informal activities (25 compared to 41 percent).

<sup>31</sup> Poverty rates for households in main cities employed in manufacturing is 20 percent compared to 18 percent in services and 37 percent in mining. In secondary cities, poverty rates are 17 percent for those employed in mining compared to 32 percent in services, 40 percent in manufacturing and 55 percent in agriculture. Regression analysis uncover a strong relationship between working in mining and quarrying, and higher level of consumption as well as lower likelihood of being poor in these areas.

**Figure 4.5: Poverty Rate by Sector of Employment of the Household Head, Percent**



**Figure 4.6: Poverty Rate by Status of Occupation of the Household Head, Percent**



Source: EGEP 2017.

**Higher status of occupation of the household head is also associated with higher levels of income and lower likelihood of poverty.** Only 9 percent of poor households’ heads hold high positions such as managers or employer compared to 24 percent for nonpoor households. Similarly, a lower proportion of poor households are headed by qualified workers than nonpoor ones (27 percent compared to 32 percent). As a consequence, the proportion of poor persons living in households whose head has lower occupational status is significantly higher than that of those living in households with higher occupation status. It attains the low of 14 percent for households whose head is a manager or an employer and the high of 51 percent for those whose head is a household helper (Figure 4.6). Self-entrepreneurs and unskilled workers have also high poverty rates exceeding 40 percent.

## II. Living Conditions and Asset Ownership

*The poor live in worse housing conditions and have lower access to basic services than nonpoor, with strong discrepancies across urban and rural areas.*

**Poor households’ dwellings tend to be smaller and made of lower material quality than for their non-poor counterparts.** On average, poor households have much smaller houses than non-poor ones, with dwellings being smaller in urban areas than rural ones. The proportion of dwellings with improved walls, floor and roofs is considerably smaller for poor households, particularly the rural poor (Figures 4.7-a and b). Most houses with unimproved walls and floor material have plank walls and earth floors.<sup>32</sup> A smaller share of poor households than non-poor ones have a kitchen inside the dwelling. The rate is particularly low in rural areas where only 23 percent of poor households have a kitchen inside the dwelling compared to over 50 percent in urban zones (Figure 4.7-d).

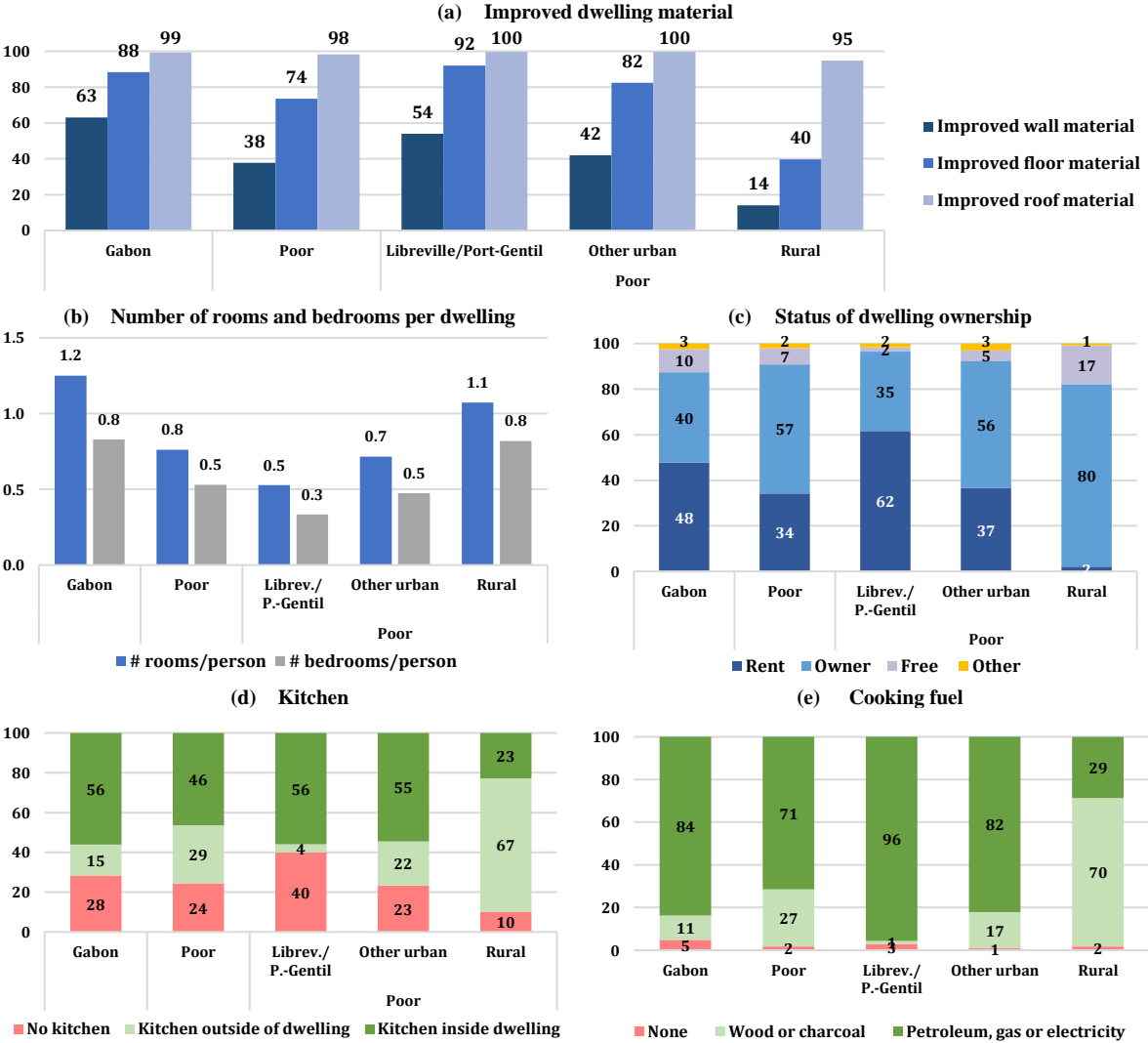
**Most households have access to efficient cooking fuels including the poor, but only in urban areas.** The share of households having access to efficient cooking fuels – such as electricity, petroleum, and gas—reaches 84 percent nationally and 71 percent among the poor. However, access remains very low for rural poor households as about 70 percent of them continue to use wood and charcoal for cooking (Figure 4.7-e).

**Home ownership is higher among the poor, but about three quarter do not have any property title.** Over half of poor households own their dwellings compared to 35 percent of non-poor. The shares are significantly larger among the rural poor than urban ones —80

<sup>32</sup> The relatively high share of households equipped with improved roof material is driven up by the fact that the majority of households possess roofs made of aluminum. If removing the later material from the improved roof category, the share drops to 5 percent at the national level, and 1 percent for poor households.

compared to 48 percent—and are the lowest in Libreville and Port-Gentil where population density is higher, and where land and houses are rarer (Figure 4.7-c). However, most owned houses by poor families are self-built and do not have property titles. Around 74 percent of poor households who own their houses do not have any legal title compared to 47 percent of the non-poor, the share increases to 93 percent for rural poor households. Therefore, most poor families cannot use their owned dwellings in strategies to alleviate poverty, such as a collateral to obtain financial funds, an investment against inflation, or an inter-generational transfer of assets.

**Figure 4.7: Dwelling Characteristics, 2017 (percentage of households)**



Source: EGEP 2017.

Notes:

- Improved wall material includes bricks of cement, metal sheets, sun-dried bricks, and baked bricks.
- Improved floor material includes cement, concrete, ceramic tiles, wooden floor, and linoleum.
- Improved roof material includes concrete, tiles, and aluminum sheets.

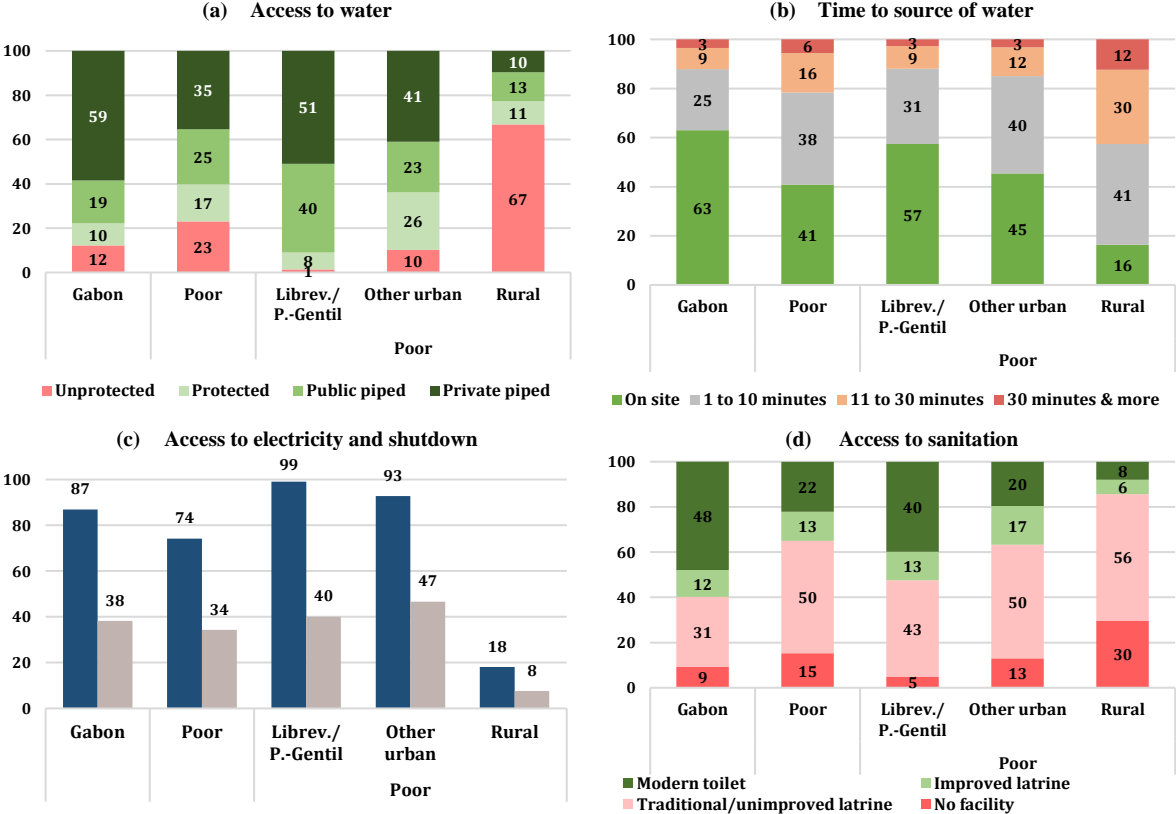
**Poor households display limited access to basic services such as drinking water, sanitation facility, and electricity.**

Access to water remains a tremendous challenge for many poor households, particularly in rural areas where people mostly use unprotected water sources. At the national level, 59 percent of households have access to water through a private piped system, and 20 percent through a public piped one (Figure 4.8-a). These shares respectively stand at 51 and 25 percent for poor households. Furthermore, 22 percent of poor households only have access to an



unprotected source of water – that is streams, rivers, open water surfaces, and unprotected wells. The challenge to access water is particularly acute in rural areas where 66 percent of poor households only have access to unprotected sources of water. Access to an improved source of water is found to be closely associated with higher living standards and lower likelihood of poverty (Tables B-1 and B-2).

**Figure 4.8: Access to Basic Services, 2017 (percentage of households)**



Source: EGED 2017.

Notes:

- Fig. 4.8-a: *Private piped water* includes piped water directly within the dwelling or the plot; *public piped water* includes piped water outside of the dwelling or the plot, including at a neighbor’s place; *protected* sources include public pumps and protected wells inside the community; and *unprotected* sources include streams, rivers, open water surfaces, and unprotected wells. The classification follows WHO definitions.
- Fig.4.8-d: *Modern toilet* includes toilets within or outside the dwelling, and with or without flush; *improved latrine* includes public toilets and latrines with ventilation system; *traditional/unimproved latrine* includes latrines without ventilation system; and *no facility* includes pits and open defecation.

**Poor households also suffer from longer distances and time to access water sources.** While 63 percent of households can access water directly on site, only 41 percent of poor households do so (Figure 4.8-b). While the situation compares favorably with averages in SSA, access to water sources remains poor compared to Gabon’s income level. The challenge is particularly acute in rural areas where only 16 percent of poor households have access to water on site, and 43 percent of them must travel more than 10 minutes to the nearest source of water. Conversely, more than half of poor households in main cities can access water directly on site. On average rural poor households have to travel over twice the distance and time to access water sources than urban ones. However, even though long distances to access the source is problematic, the most worrying issue is the prevalent use of unprotected sources for drinking water in rural areas, which contributes to the perpetuation of diseases and to weakening human capital.

**Access to sanitation also remains very limited for poor households.** At the national level, 67 percent of non-poor households have access to modern toilets or improved form of latrines,

compared 35 percent of poor households (Figure 4.8-d). Again, access of poor households tends to decrease across geographical areas: while only 5 percent of poor households in main cities have no access to any form of sanitation facility, the share rises to 30 percent for rural poor households. Access to modern sanitation is found to be significantly and strongly correlated with higher living standards and lower likelihood of poverty, particularly in secondary cities and rural areas (See Tables B-1 and B-2).

**Most households have access to electricity but rural households, particularly poor ones, remain disconnected from the grid.** About 87 percent of Gabon’s households have access to electricity, but only 21 percent of rural households are connected to the grid, and the share drops to 18 percent for rural poor ones (Figure 4.8-c). Around 17 percent of rural poor households use community generators for lighting, 2 percent use solar energy and the rest rely on inefficient sources (e.g. petroleum lamps, gas lamp etc.). Conversely, urban households, including the poor, are almost fully connected to the electrical grid.

**Urban households face frequent electrical shutdowns caused by power cuts.** The country’s electrical grid primarily suffers from fragmentation with different independent generation units that are not interconnected through a common grid. Such a situation prevents any transfer of spared generated capacities to the areas experiencing demand spikes.<sup>33</sup> Electrical shutdowns’ rate remains high with 38 percent of households reporting having suffered from at least one shutdown in the 30 days prior to the EGEP 2017 (Figure 4.8-c). The rate rises to 47 percent within poor households in secondary urban centers. Most of these shutdowns are power cuts that are caused by the low spared generation capacity in certain areas of the region, particularly around Libreville. The relatively low rate of power cuts for rural poor households is primarily explained by the low connection rate –households are not exposed to power failures’ risk as they are not connected in the first place.

*Poorer households own less assets, with important gaps between urban and rural poor households.*

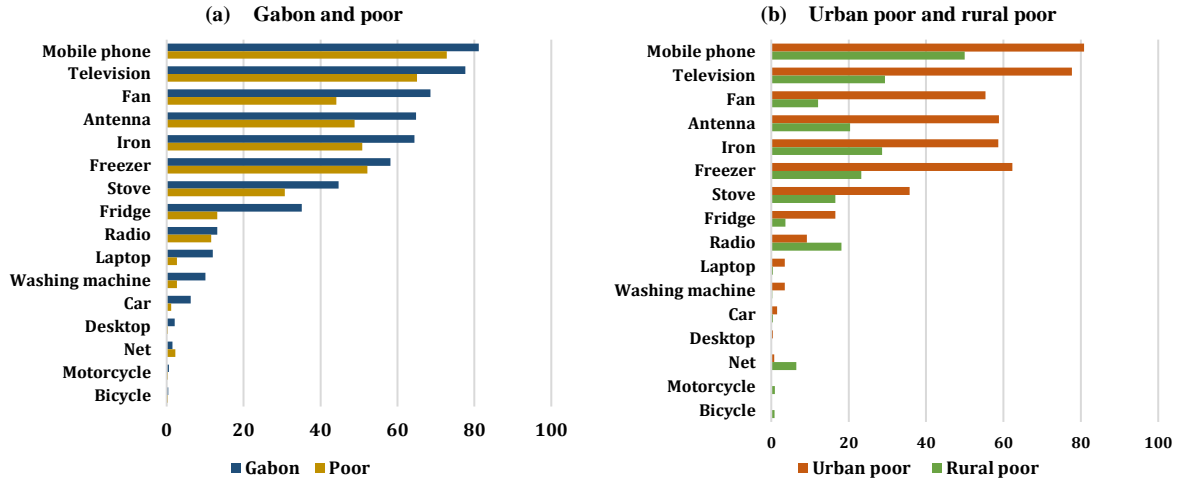
**Equipment in modern assets remains low, particularly transportation means.** Not surprisingly, poor households own fewer modern assets such as fridges, freezers, television, antennas, and stoves than non-poor ones (Figure 4.9-a). Nevertheless, ownership rates among urban poor households are quite similar to national averages while they are significantly lower among rural poor households (Figure 4.9-b). For instance, 78 percent of Gabon’s households own a television and 65 percent of poor households do so, but the rate drops to 29 percent for rural poor households. Overall ownership of transportation means is very low: only 6 percent of total households own a car, and a mere 1.2 percent of the poor possess one, a proportion that drops to 0.4 percent for rural poor households. Likewise, nearly none of Gabon’s households are equipped with motorcycles or bicycles.

**Ownership of mobile phones is relatively high at the national level but remains low among rural poor households.** In 81 percent of households, at least one member owns a mobile phone. For poor households, more than 70 percent are so equipped, as are 81 percent in urban areas but the rate drops to 45 percent in rural zones (Figure 4-9-b). Ownership of mobile phone is found to be significantly correlated with higher living standards and lower probability of poverty, with a stronger impact in secondary cities and rural areas (Tables B-1 and B-2).

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<sup>33</sup> Efforts to increase the generation capacity of the country and to create a nationally interconnected grid are ongoing with the planned construction of four new dams – and potentially a fifth one—under PPP financing contracts with Chinese and French contractors, as well as with the development of connections between the different parts of the network through a PPP agreement between Gabon and StateGrid.

**Figure 4.9: Asset Ownership, 2017 (percentage of households)**



Source: EGEP 2017.

### III. Social Protection and Vulnerability to Shocks

*Many poor are excluded from the national health and social protection systems.*

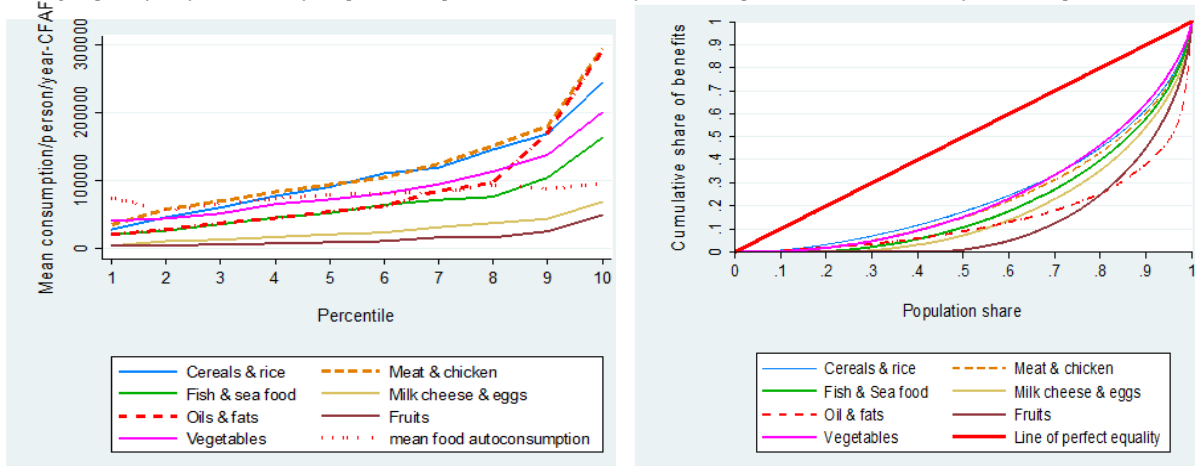
**Poorly targeted tax exemptions benefit significantly more the richest than poorest groups.**

In an effort to mitigate the negative effects of the expensive cost of living and to safeguard the purchasing power of the population, the government granted Value-Added Tax (VAT) and tariff exemptions on a selection of consumer goods. These exemptions, while costly to the government, lack a clear rationale in terms of containing food-price inflation and reducing the cost of living of the poor. These exemptions benefit essentially the upper income-classes and only very small amounts (between 1 percent and 13 percent depending on the food item) benefit the poorest 40 percent (Figure 4.10-b). In particular, exemptions on products in fruits, milk, cheese and eggs groups have very small benefits to the poor. Moreover, the poorest groups tend to rely on self-produced food – which represents around 25 percent of the food consumption of the poorest 20 percent compared to only 9 percent of the richest 20 percent—which reduces potential benefits from the exemptions (Figure 4.10-a). Nevertheless, any future reforms of these fiscal measures need to be managed very carefully and should be based on robust analysis of the direct and indirect effects on the poor and vulnerable groups.

**Figure 4.10: Food Exemptions from Taxes & Duties and Targeting, 2017**

(a) **Basket of food by decile and product**  
*Meat & chicken, followed by cereals & rice and vegetables account for the largest part of the food basket of the poorest 40 percent.*

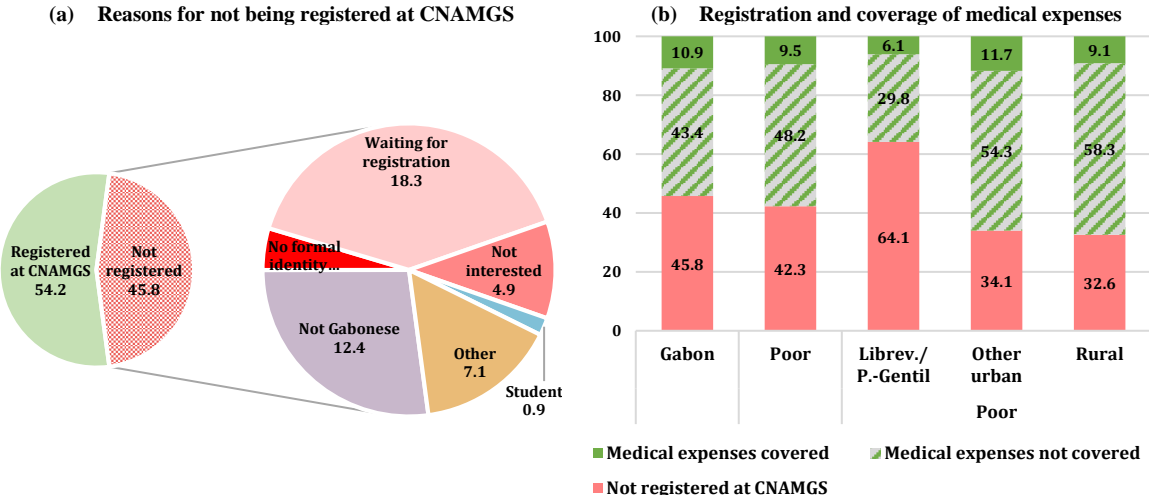
(b) **Tax exemption by decile and product**  
*The poorest 40 percent benefit from between less than 1 percent (fruits) to 13 percent (cereals & rice) of total exemptions.*



Sources: EGEP 2017 and National Authorities.

**The health protection system provides limited coverage to both the total population and the poor.** Only half of the population (54 percent) is registered at the CNAMGS, meaning that half of the country is excluded from the national formal health protection system (See Box 4.1 for more details on the structure of the CNAMGS). Registration to CNAMGS is higher in rural areas where it reaches 68 percent, compared to urban areas where the rate of registration drops to 52 percent. It is also slightly higher for the poor than for the non-poor (58 and 53 percent respectively). The CNAMGS is supposed to provide full coverage for the poor and vulnerable populations, based on their categorization as GEF. However, the GEF classification does not fully match the definition of basic needs poor. The update of the definition of GEF and revision of the list of beneficiaries based on 2017 EGEP are ongoing. The current structure of the CNAMGS prevents workers in informal activities (except GEF) from being covered by health insurance. This results in around 18 percent of the population and 21 percent of the urban poor being excluded (category *Waiting for registration* in Figure 4.11-a). Other important reasons that constrain the registration to the CNAMGS are the absence of formal identity – a valid ID is required to register—which concerns 2 percent of the population and 3 percent of the poor, as well as the difficulty to understand the process and requirements in order to properly register.<sup>34</sup>

**Figure 4.11: CNAMGS’ coverage in 2017, Percent**



Source: EGEP 2017.

**The coverage of medical expenses for those enrolled in the health system remains low.** Only 20 percent of the registered population, and 16 percent of the registered poor, have their medical expenses covered (Figure 4.11-b). The coverage of medical expenses is slightly higher among the registered urban poor than rural ones (respectively 18 and 14 percent).

**Gaps in birth registration limit opportunities for better health and social protection coverage.** According to the 2013 population census, over one fifth of the population is not in the civil registry and do not have formal ID. The problem is particularly acute in rural areas and southern provinces, where nearly 30 percent of the population is not registered (Figure 4.12-c). However, the high birth registration rate of under-4 children throughout the country, suggests progress in addressing the problem over time (Figure 4.12-d). The visual investigation of the spatial maps in figures 4.12 a and b as well as results of empirical regressions analysis

<sup>34</sup> The EGEP 2017 asks the question about the possession of a formal identity only within the context of registration to the CNAMGS, which induces a selection bias. In addition, as individuals without formal identity are probably marginalized and not registered in the census, they are likely left out of the survey design. All this may lead to underestimate the exclusion rate from the health protection system due to absence of ID.

underscore various ongoing dynamics intertwining poverty, birth registration and social protection coverage. The poorest areas have lower rates of birth registration. While this does not impact negatively on registration in CNAMGS, it does severely affect enrollment into the CNSS pension scheme. This points towards a lack of retirement planning from the poor and limited opportunities for better health and social coverage due to absence of formal IDs.

**Box 4.1: The Gabonese Social Protection Landscape**

Social protection programs are managed by four main institutions: National Health Insurance Program (CNAMGS), National Social Assistance Fund (FNAS), National Social Security Fund (CNSS) and Pension and Family Benefits Fund (CPPF).<sup>35</sup> Each has well-defined responsibilities and offer benefits and services depending on the labor market and socio-economic status of beneficiaries:

**CNAMGS**

The CNAMGS (*Caisse Nationale d'Assurance Maladie et de Garantie Sociale*) is the core of the health and social protection system, primarily in charge of health insurance and social transfers to the poorest. CNAMGS have different types of schemes, mainly: insurance schemes for GEFs (Gabonese Economically Weak), under which enrollment is automatic and non-contributory, and schemes for civil servants and formal private sector workers, which are compulsory and contributory. There are no schemes for informal sector workers or self-employed, to the exception of those who are also GEF, but the CNAMGS is currently going through a large overhaul, which should lead to the creation of a fourth fund targeting this category of workers. CNAMGS also manages social safety nets. The CNAMGS is confronted with important problems of funding related to the way contributions to the health and social protection system are undertaken. All contributions go through the government, which then redistributes them to the different schemes, resulting in important losses of resources during the process.

**CNSS**

The CNSS (*Caisse Nationale de Sécurité Sociale*) is a private organism, under the tutelage of the Social Affairs ministry, in charge of pensions and family benefits in Gabon.

**FNAS**

The FNAS (*Fond National d'Assistance Sociale*) aims to help low-income households develop income-generating activities and become economically self-sufficient by facilitating access to funding and offering technical assistance. Based on the micro-credit model, the FNAS provides credits to small business of GEFs at a preferential rate of 8 to 9 percent (compared to 12 percent for commercial banks, and 18 to 22 percent for microfinance institutions) and gives grants. It also provides technical support throughout the business evolution (e.g., assistance for formulation of business plans, accounting and bookkeeping, formalization of the activity). Since its inception in 2016, the FNAS has financed 40 business activities, of which 20 are still in activity and generating profits.

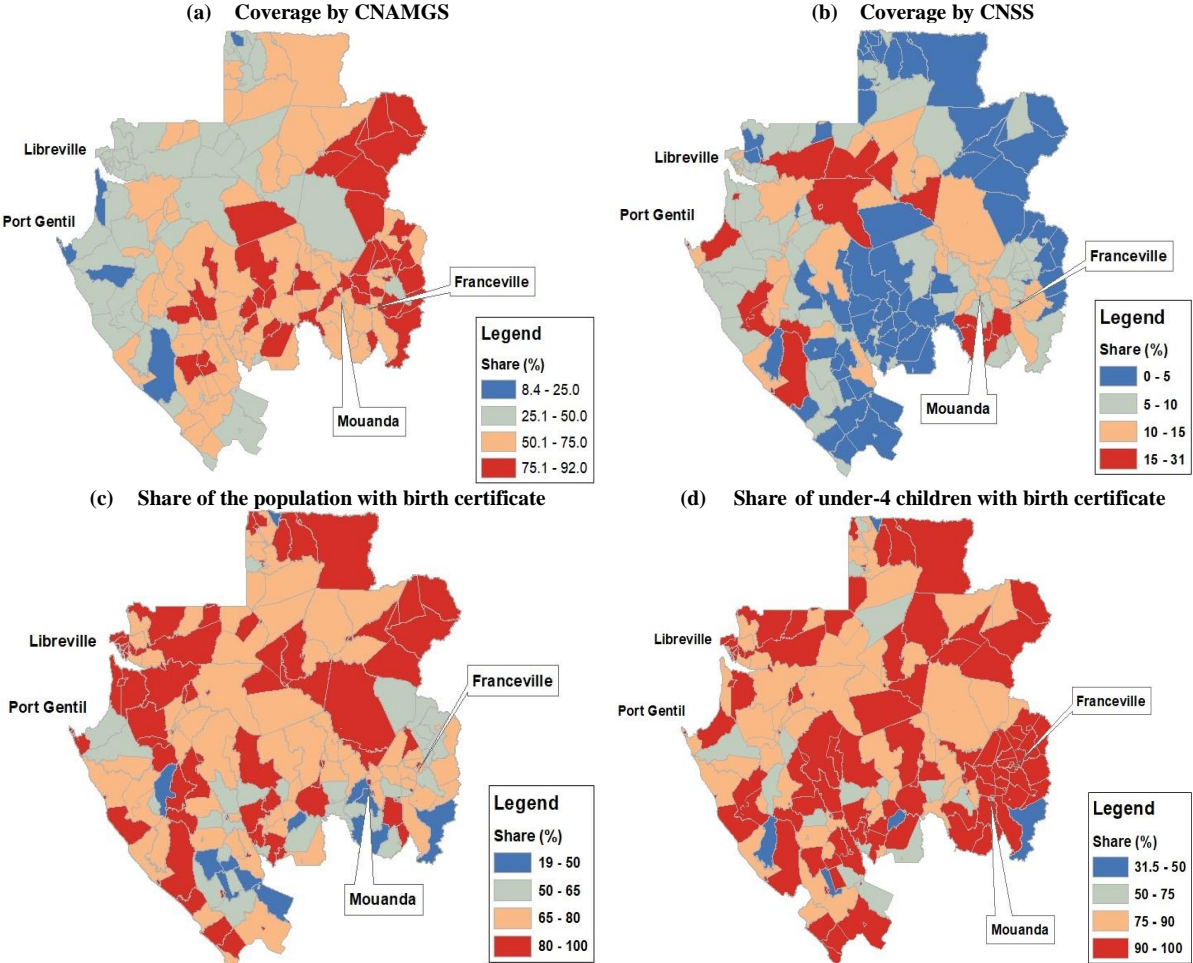
**The fragmentation and underfunding of the social protection system undermine its capacity to support the poor.** It contains 19 different programs designed for seven specific vulnerable groups. These programs range from cash and in-kind transfers to fee exemptions and water and electricity subsidies.<sup>36</sup> Cash transfers are delivered irregularly due to unpredictable fund transfers to the CNAMGS. For instance, family and school cash allowances have been suspended since 2015 due to lack of funds. The National Social Assistance Fund (FNAS), which aims to enhance self-reliance among vulnerable people through supporting income-generating activities for GEFs, faces several challenges (Box 4.1). The main challenges are the absence of a strong and sustainable financing mechanism and the lack of human resources—constraining its capacity to meet its objectives in terms of reach and level of funding. The program relies primarily on public budget endowments, which remain insufficient to meet its needs. In the midst of the current budgetary crisis, all public disbursements towards

<sup>35</sup> The CPPF manages pension and social benefits for public employees. It was established in 2014 and became operational only in 2016.

<sup>36</sup> They are classified in four broad groups: (i) the non-contributory health insurance schemes for GEF, (ii) cash transfers for elderly, widows and disabled citizens, (iii) family benefits (i.e., child birth bonus and schooling costs for children under 18), and (iv) in-kind benefits (free school lunch, subsidies for water and electricity).

the FNAS have been cut. With the expansion of its activities, the financial and human capacities of the FNAS appear undersized and cannot properly face the current level of demand, particularly in terms of technical assistance.

**Figure 4.12: Health and Social Protection Coverage and Birth Registration, 2017**



Sources: RGPL 2013 and EGEP 2017.

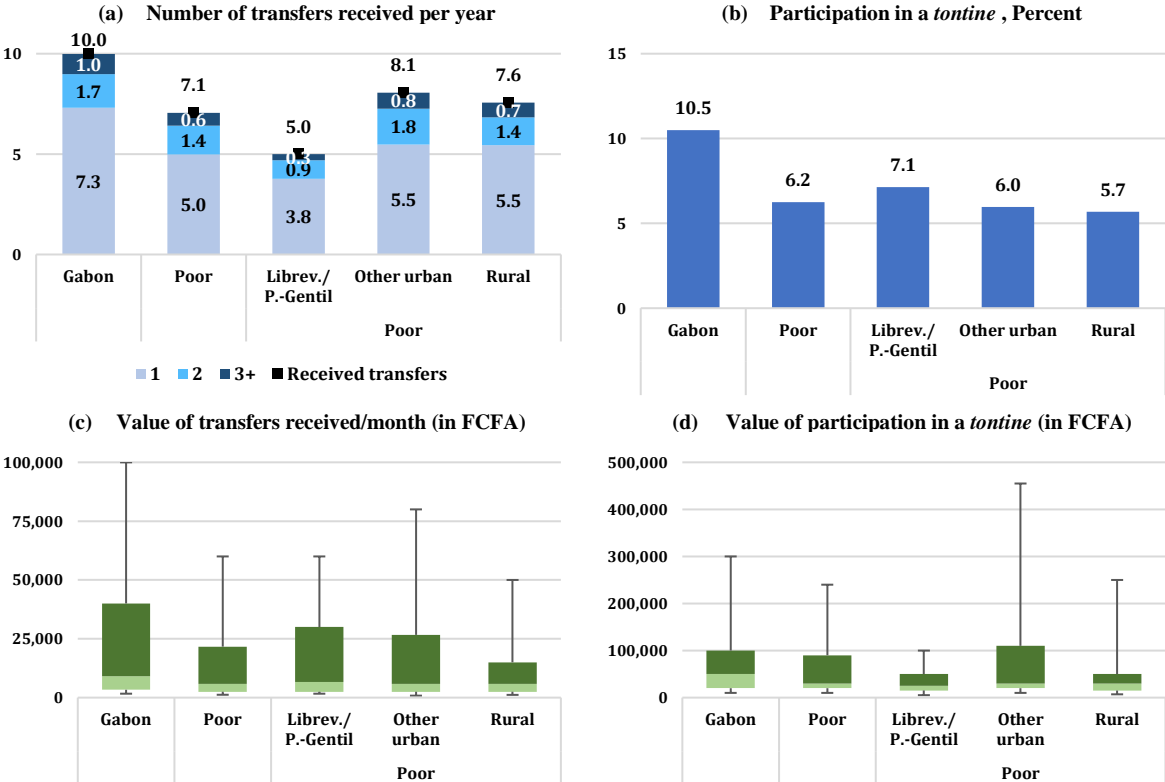
*Informal saving schemes are emerging to overcome shortcomings of the social protection system.*

**Assistance from family and relatives appears as the primary source of support for households in economic difficulties.** Informal support from family and relatives appears as the primary source of social protection for households in situation of economic difficulties. In the *ENEC 2010*, when asked to whom households would turn in case of serious economic and financial difficulties, 37 percent indicate family and relatives while 52 percent would turn to neighbors. Implications of primarily resorting to extended family and friends instead of the official social protection system are multiple. First, the heavy reliance on family and relatives support networks tend to disincentivize employment and to increase social burdens. Second, there is a phenomenon of “hidden” demand for social protection schemes – many people would potentially use a well-designed system but are not actively asking for it as their familial network covers it. Consequently, the country’s real needs in terms of social protection remain unknown and largely underestimated.

**Inter-household transfers provide a way for households to partly overcome the weak social protection system.** Data from EGEP 2017 show that only 10 percent of the population benefit from interhousehold transfers, however other data sources indicate a significantly larger

share at nearly 50 percent.<sup>37</sup> Based on EGED data, the proportion of poor people benefitting from these transfers is lower than the non-poor (respectively 7 and 11 percent). The amount of money transferred is also larger for the non-poor than for the poor (Figure 4.13). The former receive on average FCFA 32,700 per month (median value at FCFA 11,000 per month) compared to an average of FCFA 44,800 per month for the latter (median value at FCFA 5,800 per month).

**Figure 4.13: Alternative Forms of Credit and Social Protection, 2017**



Source: EGED 2017.

**Limited access to finance for income-generating activities increased propensity to resort to informal financing schemes such as tontine.** Around 11 percent of the population subscribes to an informal saving scheme known as *tontine* (Box 4.2). The participation rate to these schemes is higher among the non-poor – 12 percent—compared to the poor – 6 percent, underscoring the larger capacity of non-poor individuals to set aside resources and to invest in an informal saving schemes, while the poor, and especially extreme-poor, face difficulties in freeing extra resources for this purpose (Figure 4.13). Individuals’ participations to *tontines* of the non-poor (median amount of CFAF 50,000 per month) are also larger than for the poor (median of CFAF 30,000 per month).

**Nevertheless, the impact of such schemes on the creation of business activities remains limited.** Out of all non-agricultural household enterprises, only 1 percent of them have been primarily financed with capital mobilized through a *tontine* scheme, while only 0.1 percent have

<sup>37</sup> According to *Global Findex*, 61 percent of the population aged 15+ received or sent domestic remittances in 2017 (47 percent received domestic remittances; 39 percent sent domestic remittances), compared to 10 percent of the population receiving transfers per *EGED 2017*. The startling discrepancy raises the question of the appropriate measurement of the indicator. The rapid emergence of mobile-banking appears to have bolstered the growth of remittances as the share of the population sending or receiving remittances through mobile phone went from 4 percent in 2014 to 46 percent in 2017, representing 75 percent of all the remittances sent or received in 2017(*Global Findex*, 2017).

mobilized capital through a banking loan. Households overwhelmingly rely on their own resources to finance their businesses. Around 87 percent of household enterprises are financed by personal and own equity, and 6 percent with capital loaned by a family member.

#### **Box 4.2: Mechanisms of a *Tontine***

*Tontines* are semi-formal group savings and microcredit schemes that work as savings clubs in which each member makes regular payments and is lent the common pot in turn. They are wound up after each cycle of loans.

More precisely, a *tontine* starts with a group of individuals getting together. They first agree on a fixed amount for the different payments as well as the frequency of these payments. Subscribers are then required to contribute the agreed-on fixed sum to the common pot and take turns collecting the money after an agreed period. The scheme goes on for as many turns as necessary until all members have received once the content of the common pot.

When a member receives the content of the pot, he/she is free to invest it in whatever income-generating economic activity that he/she sees fit. Such a system therefore leads to various outcomes and windfalls:

- The *tontine* system forces the members to save on a regular basis in order to be able to cover for their required payments to the common pot. It reduces the risk of consuming the money or to lose it as it is not physically owned until receiving the whole pot once per cycle.
- When one member receives the content of the common pot, the large sum received is generally sufficient to serve as a kick-off investment for an income-generating activity, bypassing the usual collateral requirements of traditional lenders (bank, micro-credit institutions, etc.) as well as the necessary interest rate coming with traditional loans.

The *tontine* schemes usually involve an internal agreement stating that the common pot can only be used as an investment in income-generating activities. That is to avoid members who just consume the sum received and then are not able to pay their future contributions.

#### ***Poor households are highly exposed to shocks and have limited coping strategies.***

**About half of Gabonese households have been exposed to at least one shock over the last 12 months.** Around 45 percent of all households experienced at least one shock that had a negative impact on their welfare in the past year. The share is slightly higher among poor households (49 percent) compared to non-poor ones (44 percent) (Figure 4.14-a).

**Households are primarily exposed to food-related shocks, particularly urban poor.** About one quarter of all households and 27 percent of poor households are confronted with rising food prices. The rise of food prices appears as the main shock affecting both poor and non-poor households as well as urban and rural households. However, urban poor households appear to be more exposed to the shock than their rural counterparts (29 percent compared to 21 percent), suggesting that reliance on own agricultural production provides better resilience for rural households to food price shocks.

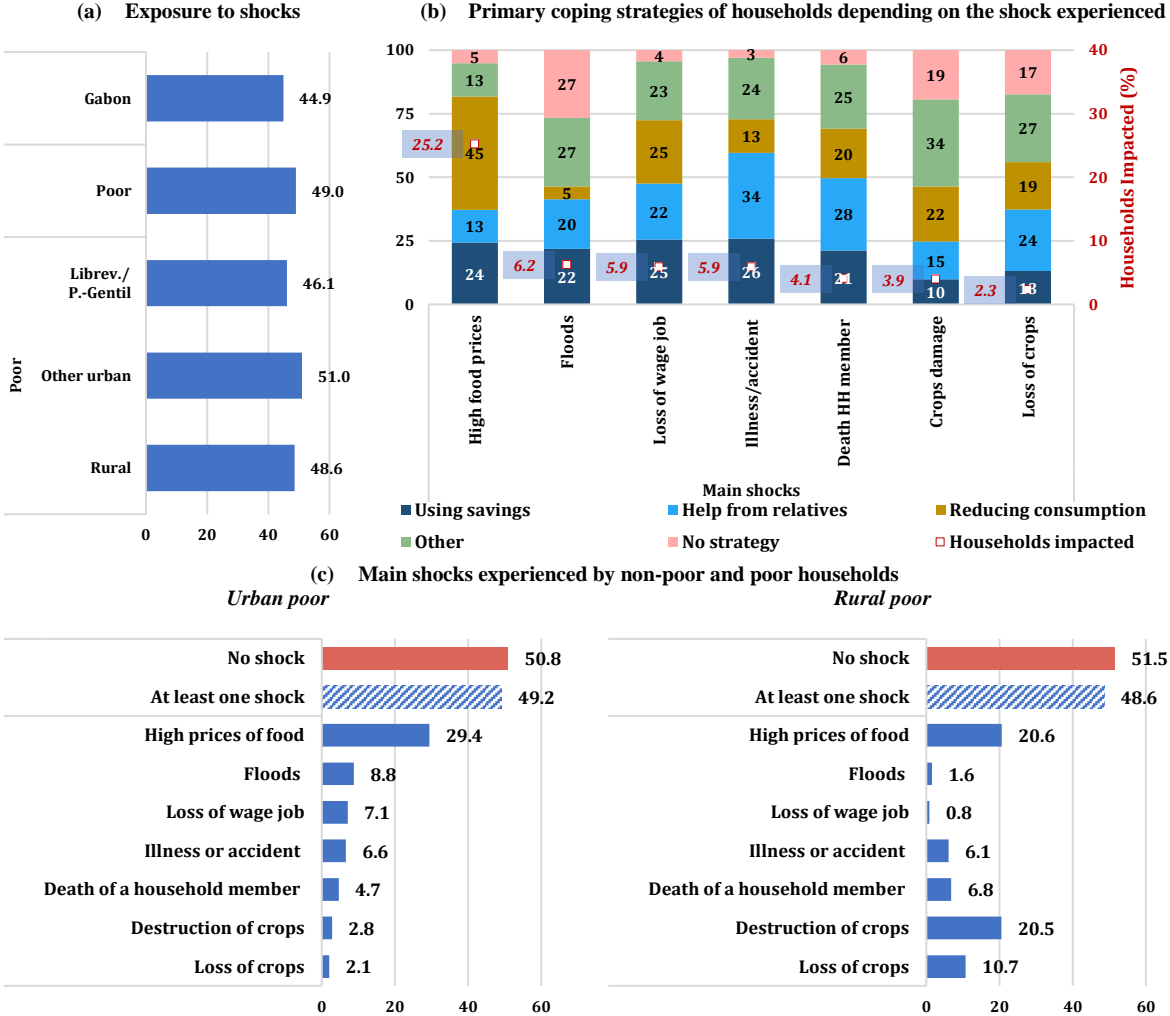
**Shocks related to floods and job loss disproportionately affect urban poor households.** Around 6 percent of Gabonese households experienced a shock due to the loss of wage job by one of their members. The rate is significantly higher in urban areas (7 percent) than in rural areas (1 percent) due to the higher concentration of wage employment in cities. While, nationally, the poor were slightly less exposed to the shock than the non-poor (5 percent compared to 6 percent), in urban areas, particularly in Libreville and Port-Gentil, poor households were the most exposed as over 10 percent were affected by a loss of a wage job (Figures 4.14-c). Exposure to floods follows a similar urban-skewed pattern: flood-driven shocks affected 6 percent of all households and 7 percent of urban ones. The rate rises to 9 percent among urban poor households. Conversely, less than 2 percent of rural and rural poor households were affected by floods.

**Rural households, particularly poor ones, are more affected by agriculture-related shocks such as loss or destruction of crops.** At the national level, only 4 percent of total households



reports being exposed to shocks due to the destruction of crops. However, the share rises to respectively 18 and 21 percent among rural and rural poor households (Figure 4.14-c). Likewise, the share of rural households reporting loss of crops stands at 10 percent, and reaches 11 percent for rural poor ones, compared to 2 percent at the national level.

**Figure 4.14 Shocks and Coping Strategies, 2017 (percentage of households)**



Source: EGEP 2017.

**Households’ strategies to face the most common and pressing shocks, and mitigate their consequences, remain very limited.** Whatever the shock the household experienced, the primary response usually consists in non-sustainable coping strategies such as drawing on the household’s savings or reducing the level of consumption of the household (Figure 4.14-b) – the latter mainly referring to actions such as buying cheaper food, reducing the number of daily meals, and cutting on non-very essential expenses. For instance, the most common strategy in response to high price of food was to reduce consumption (45 percent), followed by using savings (25 percent). Gabonese households also seem to rely heavily on family members or friends in response to shocks. This strategy was the most frequent in cases of illness or accident, loss of crops, and death of a household member. Finally, many households report not using any strategy to mitigate the effects of the shocks experienced particularly when it comes to agriculture-related shocks – around 27, 19 and 17 percent of households respectively confronted with floods, destruction of crops and loss of crops declare not adopting any mitigating strategy.

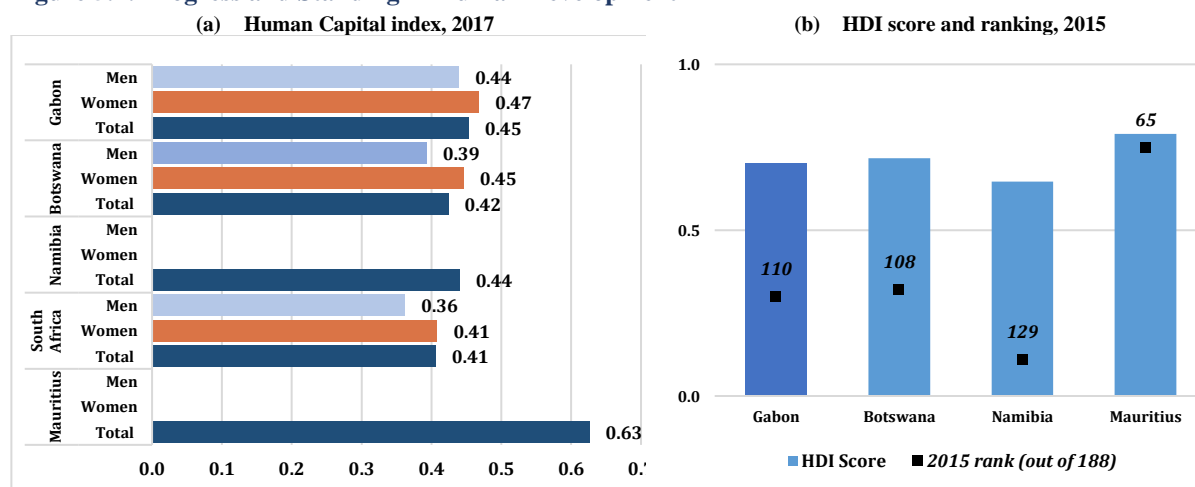
## Chapter 5: Multidimensional Poverty

### I. Non-monetary Dimensions of Wellbeing

*Gabon's Human Development Indicators have yet to improve.*

**Gabon has made some progress in Human Capital but continues to score relatively low in Human Development indicators.** The Human Capital Index (HCI) marginally improved since 2012 – from 0.44 to 0.45—but Gabon continues to rank relatively low (110<sup>th</sup> out of 157) among the countries for which the indicator is available. Nevertheless, within SSA upper-middle income countries, Gabon ranks only behind Mauritius (Figure 5.1). It also ranks only behind Kenya in SSA lower middle-income group. Yet, Gabon's HCI is closer to that of countries that perform worse than those which perform better: Kenya's and Mauritius HCIs are respectively 7 pp and 17 pp higher than Gabon's HCI, which in turn is higher by only 4 pp than South Africa's HCI. Overall, Gabon's HCI is closer to averages in SSA and lower-middle income countries, of respectively 0.4 and 0.48, than the average in upper middle-income countries of 0.58. Like in most SSA comparators, Gabon's HCI for women is higher than for men but the gender gap is smaller. Gabon underperforms most countries that have similar economic structures or income level in the Human Development Index (HDI). It also ranks quite low – 100<sup>th</sup> out of 156—in terms of the Sustainable Development Goals (SDGs), mainly due to important deficiencies in terms of health and decent work. These deficits point to the lack of investment in efficient human capital development, which will likely continue to constrain what can be achieved in terms of economic progress even if appropriate employment and poverty reduction policies are developed.

**Figure 5.1: Progress and Standing in Human Development**



Sources: WDI 2019, Human Development Indicators 2015 and Human Capital Index 2017 reports.

Note: countries in the figure are those in SSA upper-middle income group for which HCI is available.

**Looking at the components of the HCI, Gabon scores worse than countries with comparable income levels on child survival and education.** With 95 percent of its newborns surviving to age 5, and with 6 learning adjusted years of school, Gabon only scored better than Namibia and Botswana. It is worth noting that among the non-African peers, the next lowest value for learning adjusted years of school is Uruguay with 8.3 years, which is 2.3 years (almost 40 percent) above the value for Gabon. In the health component of the index (stunting and adult survival), again only Namibia and Botswana scored lower than Gabon.

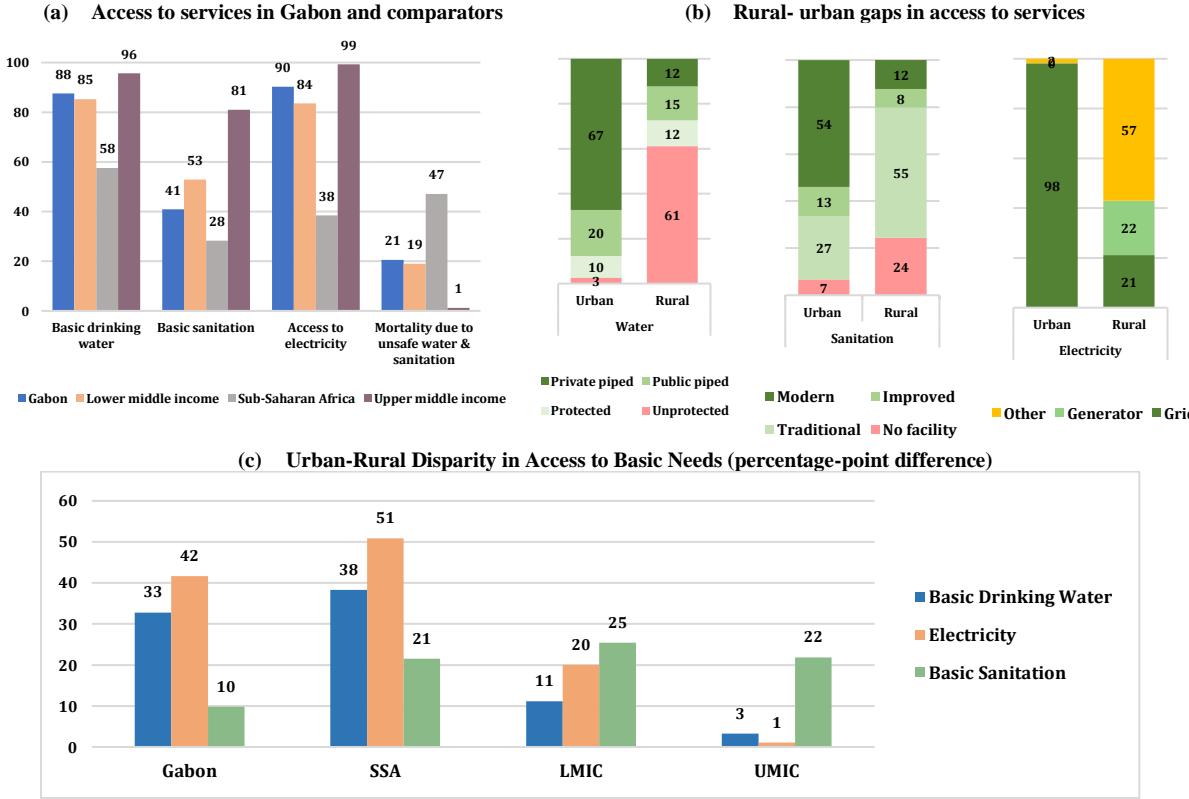
**In terms of the contribution of the various factors to the HCI, Gabon's performance in education remains the key limiting factor, though improvements could be made in other**

**areas.** If Gabon had the same level of performance in the education component as the average of countries with similar income level, holding its performance in other areas constant, its overall HCI would have increased by 23 percent —from 0.45 to 0.56. Applying the same approach to the child survival and health components would only produce increases of 3.2 and 2.7 percent respectively. This does not mean that further attention to health outcomes is not needed, but just that improvement in educational attainment offers the best opportunity to improve the overall HCI score. It is important to note that within the education component the actual years of schooling remains the main problematic area (8.3 years versus an average of 10.9), while Gabon’s performance in terms of harmonized test scores is slightly higher than averages in other upper middle income countries (456 versus 454).

*Geographic disparities in basic services’ provision hinder prospects for equal opportunity and poverty relief.*

**Gabon fares low compared to countries with similar economic structures or income levels in terms of access to basic services.** Gabon’s provision of basic services is better than SSA averages. However, access remains closer to levels in lower middle-income countries than upper middle-income ones due to limited access in rural areas and in northern and southern regions. If the country compares favorably with lower middle countries in terms of access to electricity and basic drinking water, access to sanitation is significantly worse, scoring 12 pp lower (Figure 5.2-a). Limited access to improved sanitation and to safe water sources in some of Gabon’s regions has led to a high related mortality rate – 21 per 100,000 people—, which though lower than averages observed in SSA remains larger than averages in both lower and upper middle-income countries.

**Figure 5.2: Levels and Urban-Rural Gaps of Access to Basic Services in Gabon and comparators, Percent**



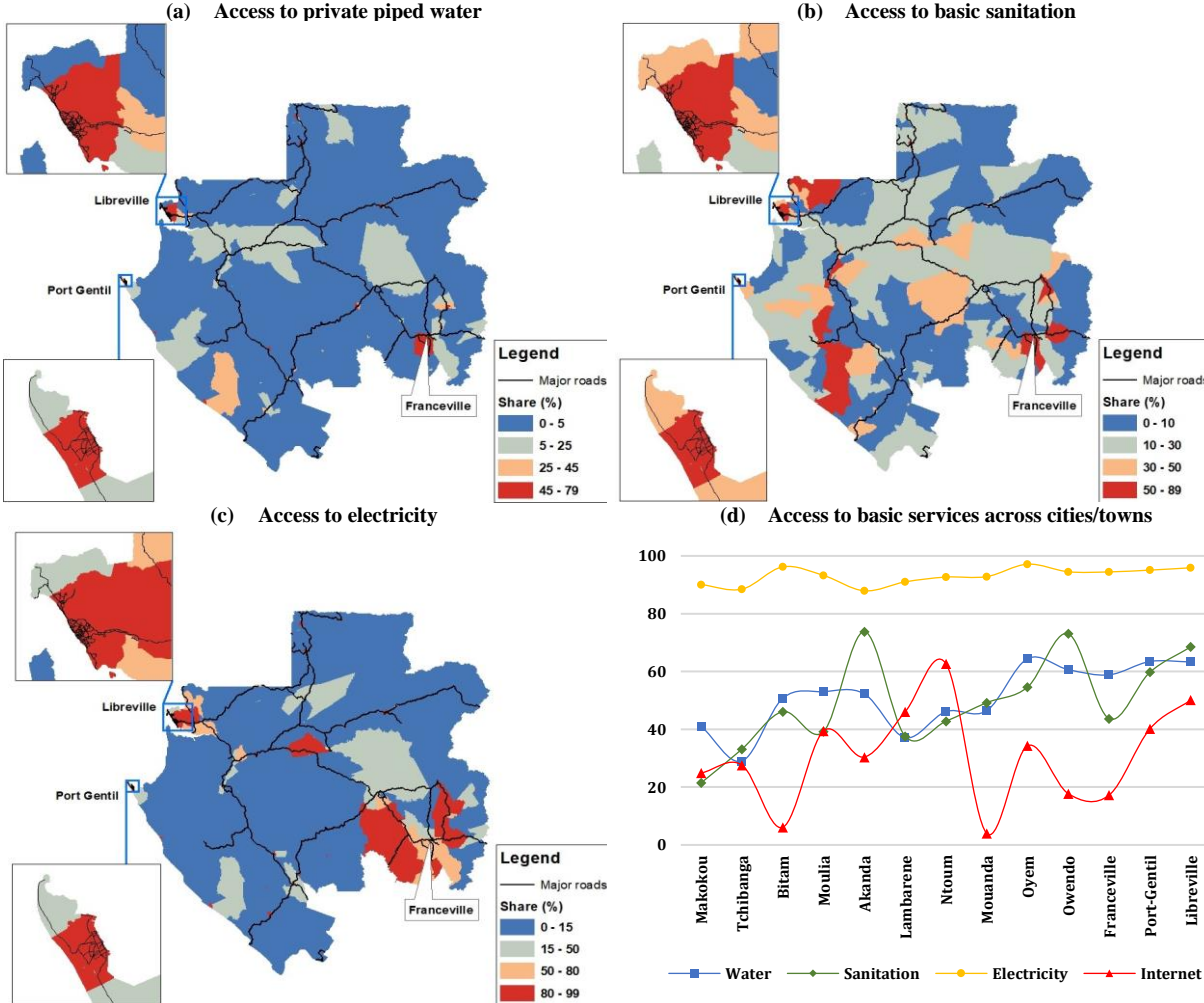
Sources: EGEDP 2017 and WDI 2019.  
 Note: Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (per 100,000 population)

**Furthermore, gaps in access to basic services between urban and rural are greater than those in lower and upper middle-income countries.** Urban-rural gaps in access to basic

services in Gabon are lower than average gaps in SSA. However, urban-rural gaps in access to electricity and basic drinking water are significantly larger (more than double) than in both lower and upper middle-income countries (Figure 5.2-b and c). The urban-rural gap in access to basic sanitation services is lower in Gabon because access remains limited in both areas.

**Beyond the urban-rural gap, geographic disparities in terms of coverage and access to basic services are substantial (Figure 5.3).** In rural areas and in northern and southern Gabon, over one-third of households use water from unprotected sources and more than half lack any sanitation facilities or use unimproved ones. These households also suffer from longer distances to access water sources. Most rural dwellers rely on generators or inefficient lighting sources and so do around a third of households in the north and south. While most urban dwellers are connected to the grid, they face frequent shutdowns and power cuts due to the fragmentation of the electrical grid and the low spared generation capacity in areas experiencing demand spikes, particularly around Libreville. Areas with limited service delivery tend to have lower human capital outcomes, worse employment rates and higher poverty incidence. Expanding coverage and equitable provision of services would contribute to close regional disparities in opportunities and living standards. However, getting services to remote areas and sparsely populated, lagging regions remains fiscally and institutionally challenging.

**Figure 5.3: Spatial Disparities in Access to Basic Services, Percent**



Sources: WDI 2018, EGEF 2017 and RGPL 2013 and Airtel database.

**Equitable basic service provision across and within regions is pivotal for narrowing spatial disparities and bringing about inclusive development.** The highest service provision is concentrated in large cities and resources rich sites. Most towns with a population of 100,000

people and up have higher access rates to electricity, water and sanitation – averaging more than 75 percent. By contrast, access to services, particularly private piped water and improved sanitation, is less than 50 percent in cities with 10,000 inhabitants and less; and reaches the low of 10 percent in towns with an average size of less than 5,000 people. Rural areas distant to towns tend also to have very limited public services provision, indicating insufficient investment in scarcely-populated and remote areas and towns. These smaller cities and rural communes have lower employment levels (around 57 percent compared to 67 percent in large cities), much lower enrollment rates in secondary education (27 percent compared to 69 percent) and much larger proportions of out-of-school children (32 percent compared to 16 percent) than large cities. Low population density compounded by natural barriers poses a challenge to service delivery. Yet, not addressing the spatial differences in services provision, would further widen spatial discrepancies in living standards and inequality of opportunities. Populations in these areas start life at a disadvantage. They are hobbled by limited resources, poor access to social services and low education. They lack the requisite skills to take advantage of job opportunities and remain limited to low-paid jobs. These deficits limit their upward mobility and are likely to be passed on to their children, perpetuating poverty and inequality across the generations.

**Improving livability in main cities, through better quality of public infrastructure, is also crucial to better materialize the agglomeration benefits of urbanization and enhance economic integration.** These cities offer the possibility for economic and social mobility through a range of new opportunities. However, in many instances the growth of these cities was unplanned, creating serious problems of service provision and congestion, and exacerbating the overall economic inefficiency. Improving the functioning of these cities would allow a wider diffusion of the economic benefits to the overall economy and a more inclusive development pattern.

*The educational system suffers from severe shortcomings that hinder the development of human capabilities.*

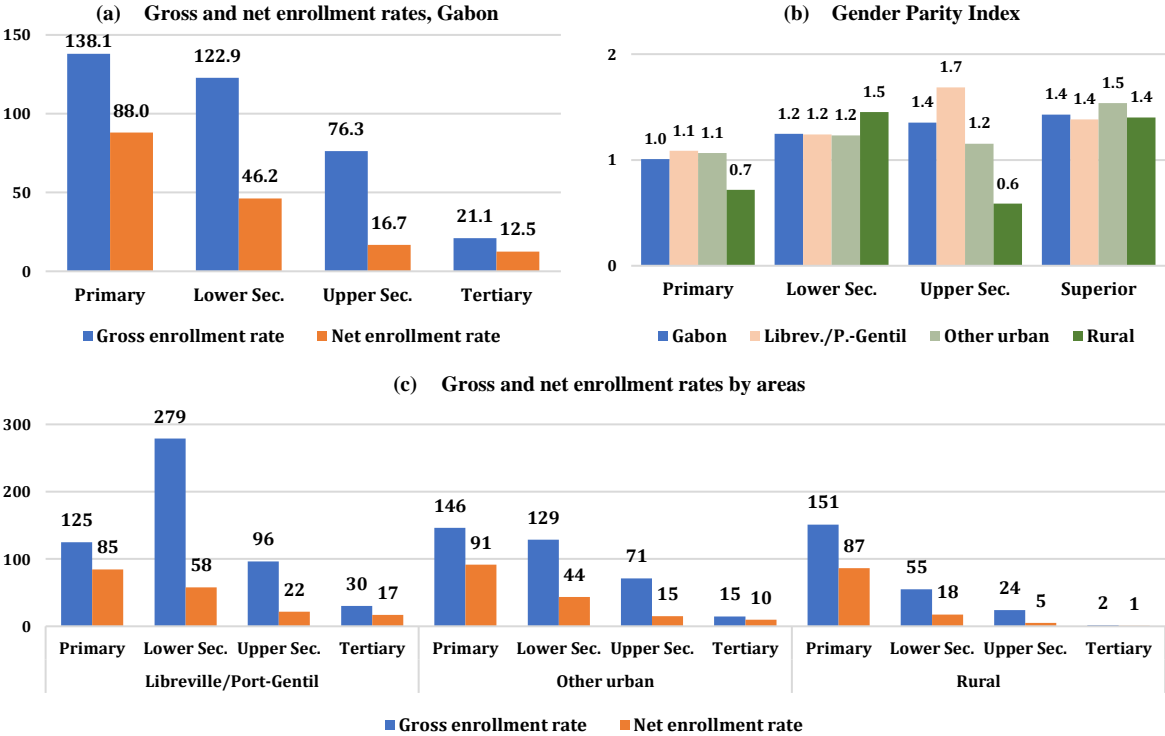
**Net enrollment rate in primary education is high, but starts declining sharply as from lower secondary education, particularly in rural areas and among the poor.** The net primary enrollment rate stands at 88 percent (Figure 5.4-a), reaching 91 percent in secondary urban centers, and 87 percent in rural areas (Figure 5.4-c). The high net enrollment rate illustrates the good coverage of primary education across the country and for all layers of the population. However, the situation starts to deteriorate as from the lower secondary cycle. Nationally, the net lower secondary enrollment rate drops to 46 percent while net upper secondary and tertiary enrollment rates stand further lower at respectively 17 and 13 percent. Discrepancies across geographic areas are important: while lower secondary enrollment attains 48 percent in Libreville and Port Gentil, it decreases to 44 percent in secondary cities and to only 18 percent in rural areas. Meanwhile, net upper secondary and tertiary enrollments are almost non-existent in rural areas, while they respectively attain 18 percent and 14 percent in urban areas. Post-primary education enrollment is also much lower among the poor, at 30 percent in lower secondary and 7 percent in upper secondary. Yet, enrollment of girls appears higher than boys' enrollment with gender parity index higher than 1 for both poor and non-poor groups as well as across geographic areas— except for enrollment in primary and upper secondary among the poor and in rural zones where enrollment is higher for boys (Figure 5.4-b).

**Moreover, the large differential between net and gross enrollments points towards deeper issues of class repetition.** Primary and lower secondary gross enrollment rates respectively stand at 138 and 123 percent, with a differential 50 and 77 pp with the net enrollment rates, indicating that the large majority of the students enrolled in a certain level actually belong to a

different school-age population (Figure 5.4-a and c). For instance, many children enrolled in the primary cycle are older than 11 years and should already study at the lower secondary level.

**Low enrollment in professional technical education also contributes to the persistence of skills mismatch problem.** The secondary educational system is divided in two main pathways: general and technical, and the latter offers professional training that gives direct access to the labor market. The large majority of students engage in the general pathway and follow a literary curriculum while few students enroll in scientific and engineering studies. While the technical path has shown promising results in terms of employability after completion of the cycle, it is largely underused. In 2017, less than 1 percent of all students were enrolled in this pathway, and only 20 percent of those enrolled follow the professional sub-pathway that displays the most promising employment results. The main underlying reasons for the underuse of the technical pathway are related to the choice of fields that increase chances of employment in public sectors as well as to the lack of funds that prevent appropriate education and training of professional students.

**Figure 5.4: Enrollment in Education and Gender Parity, 2017 (percentage)**



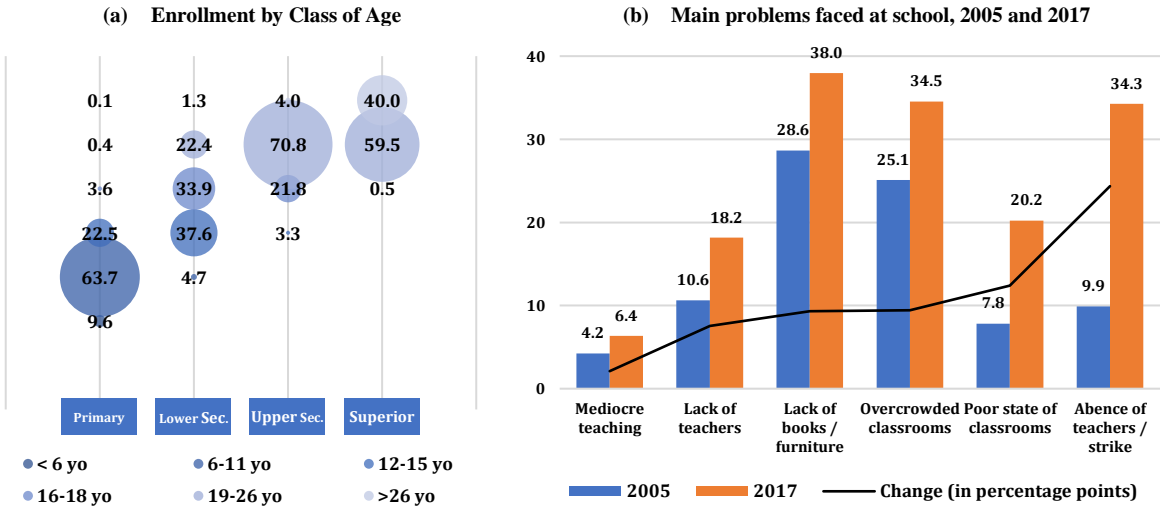
Source: EGEP 2017.

Notes:

- *Gross enrollment rate* refers to the total number of children who are enrolled in a school level as a percentage of the total children of the official school-age population of that level.
- *Net enrollment rate* refers to the number of children of the official school-age who are enrolled in a school level as a percentage of the total children of the official school-age population of that level.
- *Gender Parity Index* is the ratio of enrolled girls over enrolled boys. A GPI equal to 1 signifies equality between males and females. A GPI less than 1 is an indication that gender parity favors males while a GPI greater than 1 indicates gender parity that favors females
- The Gabonese educational system is modeled on the French educational system with three main cycles, and an additional two sub-cycles. The primary cycle lasts five years and receives children aged from 6 to 11 years on average. The end of the primary cycle is sanctioned by the Certificat d'Étude Primaire (CEP – Certificate of Primary Studies) and opens the way to the secondary cycle, which is divided in two sub-cycles. The lower secondary cycle lasts four years and welcomes students aged 12 to 15 years old on average, while the upper secondary cycle lasts three years and welcomes students aged 16 to 18 years old. The lower secondary cycle leads to the Brevet d'Études du Premier Cycle (BEPC – equivalent of the GCSE) and the upper secondary cycle is sanctioned by the baccalaureate degree.

**The issue of class repetition, and inadequacy between the cycle in which students are enrolled compared to their age, starts very early on and compounds itself over the course of the academic career.** Over 15 percent of students report they failed their class and many pupils are older than the expected age in their cycle. As early as in the primary level, only 64 percent of the pupils enrolled belong to the correct school-age population – that is 6 to 11 years old—while more than 25 percent belong to older school-age classes (Figure 5.5-a). Such figures are explained by high rates of repetition early on. Moreover, the persistence of these repetitions over the course of the subsequent education cycles aggravates the problem and carries a magnifying effect. At the upper secondary level, only 22 percent of the students enrolled belong to the suitable school-age population, while 71 percent of them are aged 19 to 26 years old. Overall, the Education Ministry estimates that although nearly all children attend school until the official mandatory age of 13 years old, the drop-out rate amount to over 30 percent once passed that age. This is supported by the 2013 RGPL data which show that 29 percent of 13–19 year old children are out of school.

**Figure 5.5: Constraints and Blockages in Education, 2017 (percentage of enrolled students)**



Source: EGEP 2017.

**The educational system is plagued by severe day-to-day and operational problems that have worsened over the past decade.** Overcrowded classrooms constitute one of the foremost problems of Gabon’s national education system. The Education Ministry reports average sizes of classrooms up to 80 students, sometimes reaching 130 students, with informal systems of rotation implemented to address the classroom shortage – the same classroom would serve for primary education level in the morning, and for secondary level in the afternoon. The education infrastructure throughout the country is old and debilitated. The *internat* system, once considered the crown jewel of the Gabonese educational structure, closed 10 years ago because of the administration’s incapacity to bear with costs of maintaining and operating the required infrastructure (See Box 5.1). The few existing projects aiming at addressing the issue by building new schools and renovating old ones are all at a standstill, plagued by administrative issues regarding the allocation of land titles and by failure of the Gabonese counterpart to honor its commitments due to severe budgetary tightening.<sup>38</sup> Students – particularly those in rural areas and from poor families—suffer from strikes, lack or absence of teachers, poor schooling conditions, and severe shortages of books and educational equipment (Figure 5.5-b).

<sup>38</sup> The PISE project (*Projets d’investissement dans le secteur éducatif*), which started in 2016, in collaboration with the AFD (*Agence Française de Développement*) aims at building 500 new classrooms (primary and secondary) in 17 different schools located in Libreville and Port-Gentil. The project would ultimately benefit 25,000 students. However, it has been on a standstill due to problems in terms of land titles for the new buildings.

Furthermore, there is a widespread perception that the education system and school environment have markedly degraded since 2005.

**Box 5.1: The *Internat* System**

The lower and upper secondary education of Gabon has historically been structured around the system of *internats*, which are public boarding schools where students would live. The entrance is based on a combination of social and academic criteria. These establishments have been instrumental in providing affordable education to students coming from poor families and in offering affordable accommodation for students coming from far away as it is in the case in rural areas.

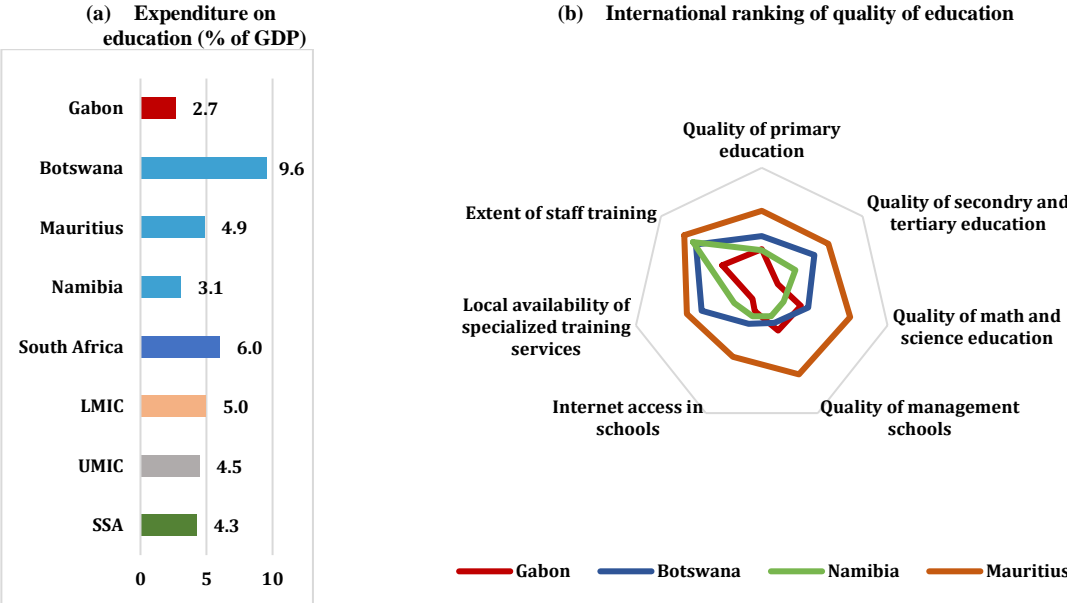
Nevertheless, because of the lack of funds and budgetary cuts, the *internats* have all been closed for more than 10 years, only opening temporarily during the period of the exams to host students coming from far away. The closure of the *internats* has had several negative impacts, among others:

- Students from poor families that could not afford accommodation in cities have either dropped out of school or have been forced to pay extra rent in order to pursue their studies.
- The closure has prevented many students coming from remote and rural areas to study in quality schools located in urban settings.

The general quality of education has decreased as students have not been able to study in a conducive environment anymore.

**Government spending on education has deteriorated and the quality of the educational system steadily declined over time.** Gabon’s level of education spending is among the lowest in SSA and comparable countries, at about 2.7 percent of GDP (Figure 5.6-a). Furthermore, spending on education has declined over the past two decades in Gabon, compared to increasing trends in SSA and upper middle-income countries.<sup>39</sup> The systematic issues of the educational system have considerably downgraded the quality of the educational system. For instance, the *Global Competitiveness Report* ranks Gabon 116<sup>th</sup> among 138 countries for the quality of education, underscoring the deterioration of the whole educational system (Figure 5.6-b).

**Figure 5.6: International Comparison of Education Systems**



Sources: WDI 2019 and Global Competitiveness Report 2016-2017.  
 Note: Rates in Fig.5.6-a are for 2014 except Botswana where last available rates are for 2009. Data points in Fig. 5.6-b are ranking from the *Global Competitiveness Report*. Scale is inverted: center of the diagram corresponds to the lowest possible ranking – 138<sup>th</sup>—; outside boundary of the diagram corresponds to the highest possible ranking – 1<sup>st</sup>.

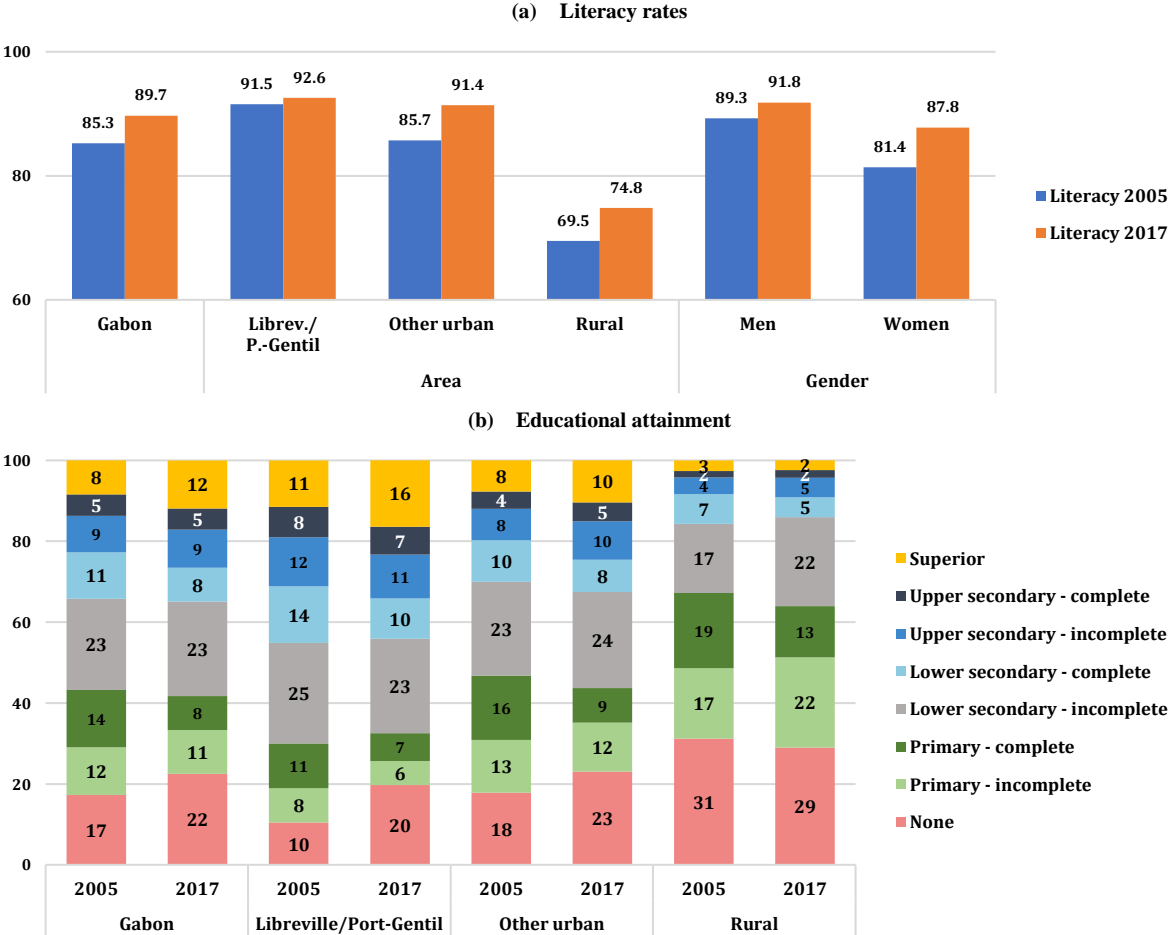
<sup>39</sup> According to WDI data, government expenditure on education (as % of GDP) decline from 3.1 to 2.7 percent in Gabon during 2010-14 while it increased by about 0.5pp in SSA and LMIC during the same period.



**The literacy rate has progressed since 2005 but remain lower for women and rural populations.** The adult literacy rate increased from 85 percent to 90 percent of the adult population between 2005 and 2017 (Figure 5.7-a). The improvement was across all regions as well as both for men and women. Nevertheless, around one quarter of the rural population is still illiterate, while 12 percent of women and 15 percent of the poor cannot read and write.

**Likewise, educational attainments show important discrepancies across geographic areas and gender, with overall low post-secondary attainment.** Little progress was achieved in terms of educational attainment since 2005. In 2017, around 20 percent of the population aged 15+ have not received any formal education, and an additional 12 percent have not completed the primary cycle (Figure 5.7-b). In rural areas, these shares reach 29 and 22 percent respectively, while in the case of women they amount to 24 and 12 percent respectively. In total, 65 percent of the population, and 82 percent of the poor, have never reached the end of the lower secondary cycle. Conversely, the share of individuals obtaining their baccalaureate diploma is very small, with only 17 percent of total population and 6 percent of the poor. At the regional, level rates vary greatly: 23 percent in Libreville and Port-Gentil; 15 percent in secondary urban areas; and 4 percent in rural areas.

**Figure 5.7: Educational Attainment in 2005 and 2017, Percent.**



Sources: EGEP 2005 and 2017.

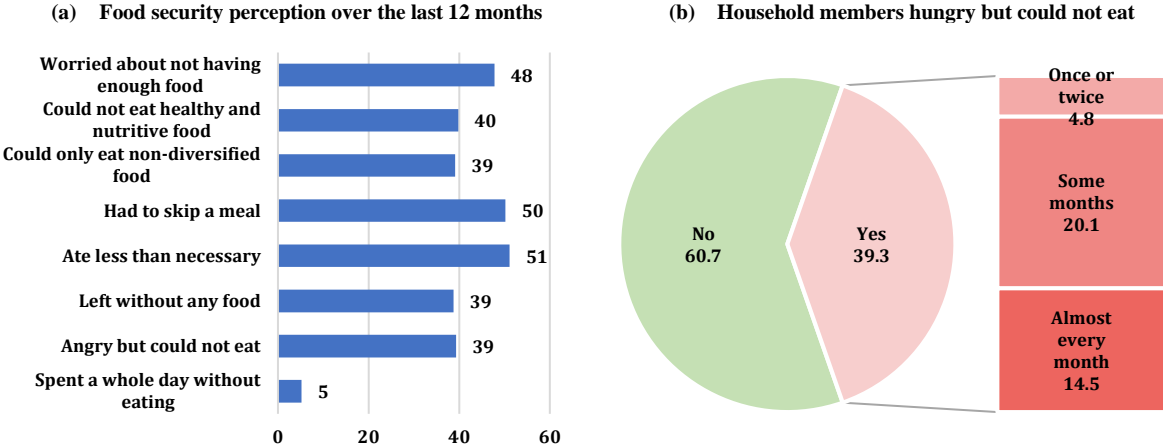
Note: Figures are for individuals aged 15 years and older and not currently in school.

*Important food stress, persistent high maternal and children mortality rates, and evidences of children malnutrition point towards significant delivery gaps of the health system.*

**A large part of the population experiences high food stress, particularly poor households that have difficulties to correctly and regularly feed themselves.** The perception of food

security by households reveals that between 40 and 50 percent of them live in a stress of not being able to cover their basic food needs – either skipping meals or eating less than necessary because of lack of food (Figure 5.8-a). In total, 39 percent of households declare having been hungry but unable to eat in the last 12 months, a situation that occurred almost every month for 15 percent of them (Figure 5.8-b). This stress is much more widespread among poor households as 27 percent declare facing situations where they were unable to eat almost every month, compared to 11 percent for the non-poor.

**Figure 5.8: Food Security, 2017 (percentage of households)**



Source: EGEP 2017.

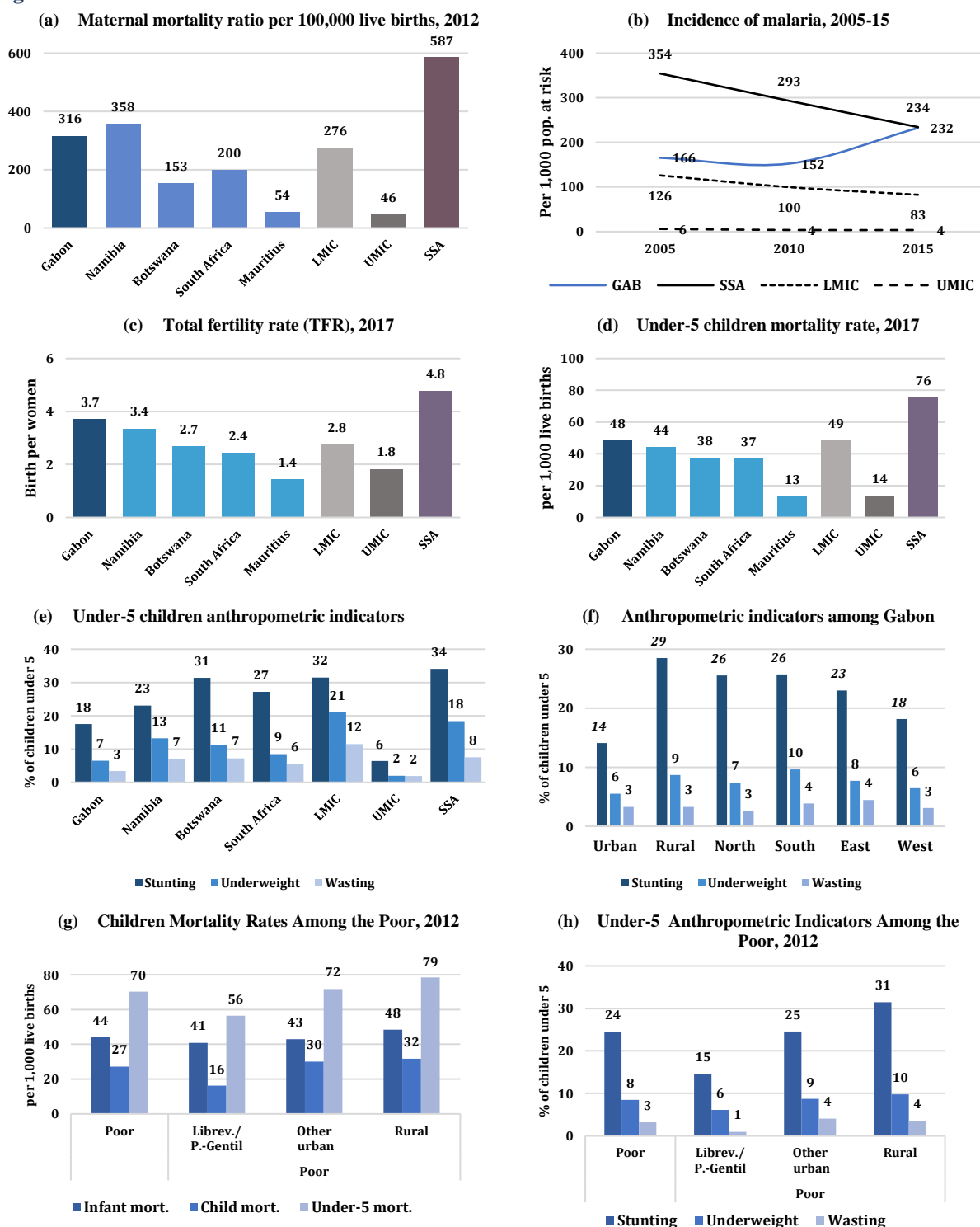
**Performances in health indicators indicate limited results.** Compared to countries of similar income level and health spending, Gabon’s health status is lower than would be expected. Even though Gabon’s maternal mortality rate remains below SSA’s average, it lags behind most comparable countries, but Namibia, with 316 deaths per 100,000 live births (Figure 5.9-a). The malaria incidence rate has also been trending upward since 2005, in contrast with the decreasing trend observed for the rest of SSA and upper and lower middle-income countries (Figure 5.9-b). While Gabon’s incidence rate was much lower than the rest of SSA in 2005, it reached the same level in 2015, with 232 cases per 1,000 people of the population at risk.

**In addition, the fairly high fertility level and subsequent growth of the population risk to jeopardize prospects for health improvement.** The total fertility rate (TFR) remains fairly high (3.9 births per woman), although it is below the SSA’s average (Figure 5.9-c). Despite its small population size, high fertility rates result in a population age structure that is concentrated towards dependent children. At the current population growth rate, the population will double by 2045, and the dependency ratio may exceed 80 percent by 2025, which would put an even higher pressure on the country’s health systems. The 2012 DHS reveals that 28 percent of 15-19 girls gave birth. This rate increases to over 40 percent among girls with primary education and less and among rural girls. The challenge has equity dimensions: households with highest fertility rates are largely those from the bottom income quintiles – the population least able to invest in the human capital of their children; the ability of young adolescent mothers to accumulate human capital is limited; and international evidence suggests close links between births at a young age and stunting prevalence.

**Children mortality has decreased over the last two decades, but remains high in certain areas, and compares unfavorably with other similar income countries.** The under-5 mortality rate has almost halved since 2000, decreasing from 83 deaths per 1,000 live births in 2000 to 48 deaths in 2017. However, while it remains below averages in SSA and lower middle-income countries, it is higher than in countries with similar income level (Figure 5.9-d).

Children mortality rates remain also very high among the poor and in rural areas, where under-5 mortality rates exceed 70 deaths per 1,000 live births (Figure 5.9-g).

**Figure 5.9: Health Indicators**



Sources: DHS 2012 and WDI 2019.

Notes:

- The “poor” in the health-related graphs are those in the two lowest wealth quintiles.
- *Infant mortality rate* is calculated for children under one year of age; *Child mortality rate* is for children aged 1-5 years old; and *Under-5 mortality rate* is for all children under 5 years of age. All rates are per 1,000 live births.
- A child is defined as stunted, underweight, or wasted when his height-for-age, weight-for-age, and/or weight-for-height is more than two standard deviations below the WHO Child Growth Standards median.

**Gabon’s anthropometric indicators compare favorably with most peer countries, but nutritional deficiencies remain a challenge for poor and rural populations.** Gabon scores better than SSA upper middle income countries in terms of stunting (height-for-age), underweight (weight-for-age) and wasting (weight-for-height). While the indicators show higher levels of child malnutrition than averages in upper middle-income countries, the nutritional status in Gabon remains much better than in SSA and lower middle income countries on average (Figure 5.9-e). However, the underweight and stunting measures point towards important nutritional deficiencies and repeated infections among poor and rural children: about 29 percent of children in rural areas are stunted compared to 14 percent in urban zones. The proportion reaches 24 percent for children in poor families and 31 percent for poor rural children (Figure 5.9-h). Likewise, 26 percent of children in northern and southern regions are stunted compared to 18 in western regions.

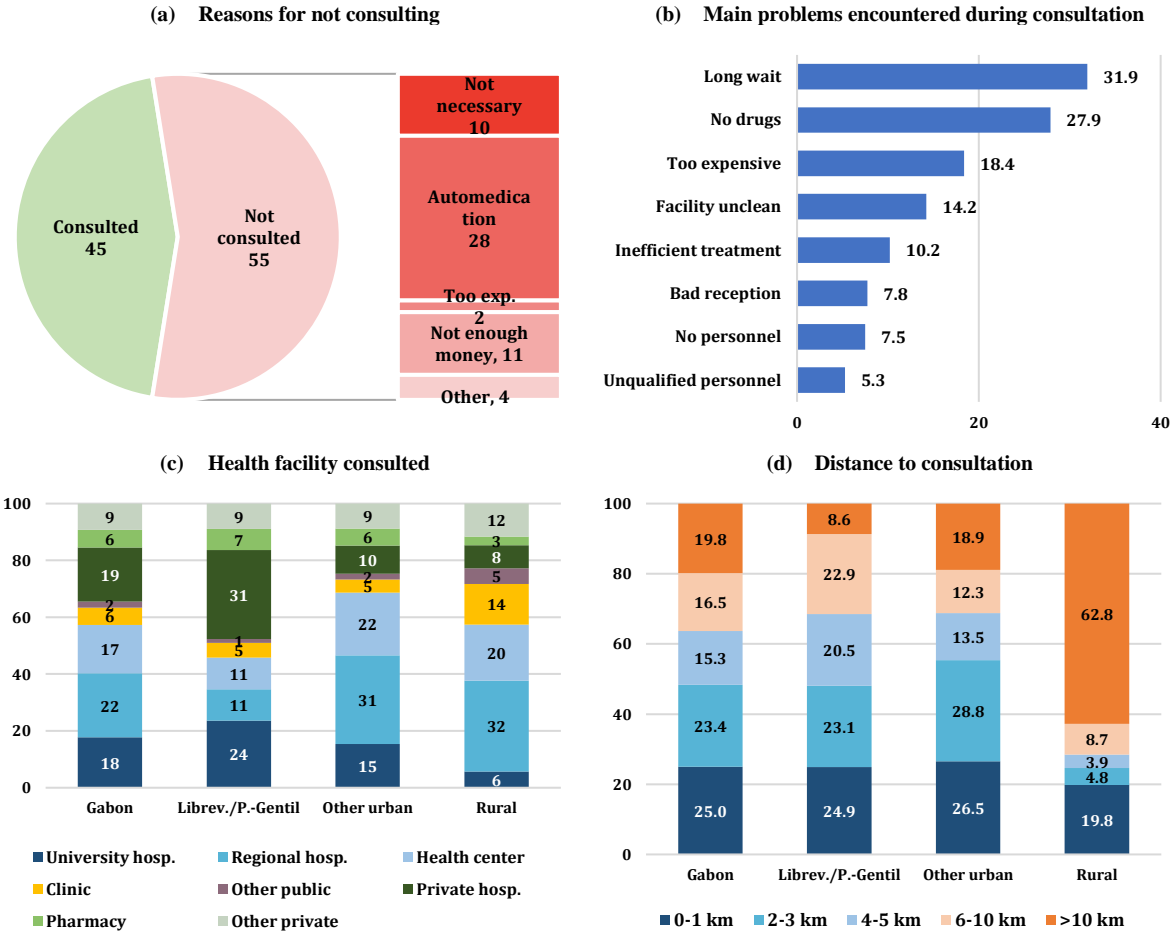
**Coverage and quality of health services in Gabon remain low with significant spatial disparities.** Available resources are disproportionately allocated to curative care – hospitals in particular—and average costs per occupied bed amount to about USD 40,000 annually, primarily resulting from higher than average beds per capita and low use (bed occupancy averages 40 percent in regional hospitals). The distribution of health staff and facilities is skewed towards Libreville and Port-Gentil, and to a lesser extent towards secondary urban areas (Figure 5.10). Rural-urban differentials are particularly important with respect to coverage of maternal health services (about 94 percent of urban women deliver in a health structure compared to 70 percent of rural women), and relevant diagnosis and treatment of children’s fever (70 percent in urban areas compared to 54 percent rural zones). Given Gabon’s income level, the quality of care is considered low, by international standards. Less than half of the population (45 percent) consults a health specialist when sick, with slight lower shares among the poor and in rural areas at respectively 41 and 40 percent. The main underlying reasons appear to be the cost of a consultation with a doctor – whether it is the cost of the consultation or the lack of fund available to cover it—and the recourse to auto-medication. Immunization also remain low: although measles vaccination went up from 55 percent in 2000 to 74 percent in 2012, it is still too low. There are also critical knowledge gaps in the treatment of some diseases (for instance, only 37 percent children with diarrhea receive oral rehydration therapy).

**Perception of the national health system is very poor.** The poor quality and high cost of public health services prevent people from consulting health specialists, and act as a major impediment for the improvement of health indicators. The DHS 2012 indicate that poor quality of care was the primary reason for dissatisfaction with public facilities. Data from EGEF 2017 show that the main problems encountered during consultations were the wait (32 percent), the lack of drugs available at facilities (28 percent), and the cost of the consultation (18 percent). The lack of equipment and drugs as well as the poor general state of health facilities is of particular concerns for the rural population. High distances to health facilities in rural areas – where over 60 percent of the population lives more than 10 kilometers away from the health facility—intensify the lack of efficiency of the health system and accentuate the delivery gap between rural and urban areas (Figure 5.10).

**The *Samu Social* attempts to overcome part of the shortcomings of the health system, but is confronted with severe lacks of resources.** Many of the poor and vulnerable Gabonese (GEF) are excluded from the health system and cannot receive the appropriate treatments, either because they do not have the necessary resources to cover the costs of medical expenses, or because public medical centers are not properly equipped with either material or personal – particularly in rural areas—to attend them. The *Samu Social*, created in 2017, aims to bridge this gap through multi-disciplinary centers for consultations coupled with medically-equipped ambulances that tour the poorest neighborhoods. The organization is fundamentally based on

the pro-bono work of hospital-based doctors that dedicate their free-time to the *Samu Social*. The rapid growth of the *Samu Social*'s interventions (70,000 consultations in 2017) is primarily concentrated in the poorest areas of the five cities where the organization operates.<sup>40</sup> Yet, its funding structure raises concerns about its sustainability since it receives very little public funds and principally relies on private donations. The *Samu Social* officially benefits from a budgetary line in the government budget but no withdrawals have been made because of the lack of funds and fiscal crisis. The vast on-the-ground experience of the organization reveals the proliferation of certain diseases in the poorest areas, such as paludism, arterial hypertension, skin diseases related to the lack of hygiene, and the cardio-vascular cases due to the poor quality of food, which require more technical and financial resources to be addressed.

**Figure 5.10: Quality and Perception of Health Services, 2017 (percentage of population)**



Source: EGEP 2017.

## II. Multidimensional Poverty Index

*The multidimensional poverty index reveals progress in some aspects of wellbeing since 2000, but large gaps in living conditions continue to persist across the country.*

**The Multidimensional Poverty Index (MPI) assesses the different deprivations that a person faces at the same time.** The literature and policy making community have embraced the fact that poverty is multidimensional in nature and that the well-being of a population can be jeopardized not only by severe shortfalls in consumption and income, but also by deficits in many dimensions of wellbeing. Hence monetary poverty measures alone are seen to provide an

<sup>40</sup> Libreville, Port-Gentil, Franceville, Mouila, and Oyem.

incomplete picture of the situation. Efforts to sustainably address poverty need to go beyond the proximate causes of deficits in consumption, to understand the different forms of deprivation and address the multiple underlying causes to poverty and vulnerability. However, the multitude of dimensions in which people suffer deprivation and the complicated ways in which these dimensions are intertwined made such analysis challenging. We used a relatively simple methodology proposed by Alkire and Foster (2011) to measure multidimensional poverty based on two elements: *shortfalls in each of the relevant dimensions of well-being*, and *the extent of deprivation in the different dimensions* (see Appendix C for details). The MPI measure based on this approach reflects the prevalence of poverty and the breadth of multiple deprivations among the poor.<sup>41</sup>

**The analysis of Gabon’s MPI here focuses on selected dimensions of education, health, and living conditions.** There are different methods to measure multidimensional poverty using the deprivation dimensions.<sup>42</sup> The analysis here uses data from DHS 2000 and 2012 and a similar approach to that developed by the Oxford Poverty and Human Development Initiative (OPHI).<sup>43</sup> We consider 13 indicators categorized in five main dimensions of wellbeing covering education, health and living conditions (Figure 5.11). The dimensions considered here include those that are reflected in the global MPI and use the maximum information available in both DHS rounds. Following OPHI 2016, a person is considered as multidimensionally poor if she/he suffers from deficiencies or deprivations in at least one third of the weighted indicators covering the five selected dimensions of well-being. People deprived in 10 to 33 percent of the weighted indicators are considered as *vulnerable to multidimensional poverty* and those deprived in 50 percent or more are identified as being in *severe poverty* or *severe deprivation*.

**The MPI declined between 2000 and 2012, indicating progress on some aspects of wellbeing, but the population remains vulnerable to deprivation and poverty.** In 2012, 17 percent of the population was multidimensionally poor, down from 38 percent in 2000 – a decrease by 21 pp (Figures 5.12- a and c). Likewise, the proportion of the population suffering from severe deprivations declined from 12 percent to 4 percent. However, the proportion of people vulnerable to deprivations markedly increased—from 50 to 66 percent—suggesting that those who were able to move out of (multidimensional) poverty remain near the deprivation thresholds and are therefore vulnerable to fall back into poverty. The average intensity of poverty across the poor remained high at 42 percent, declining by only 3 pp since 2000.

**The decrease of multidimensional poverty was consistent across all geographic areas and the reduction was faster outside the main cities but the multidimensionally poor remain concentrated in rural areas and in secondary cities.** The downward trend of multidimensional poverty was observed across all areas of the country: the multidimensional headcount respectively dropped by 14, 22 and 23 pp in Libreville/Port-Gentil, other urban centers, and rural areas (Figure 5.12-c). However, despite the faster decline of poverty outside cities of larger population concentration, the proportion of poor people remain largest in rural

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<sup>41</sup> The MPI was calculated by multiplying the incidence of deprivation (or poverty) (H) by the average intensity of deprivation (A) –  $MPI = H \times A$ —, where H represents the headcount or the proportion of the population that was deprived or poor in a multidimensional way, and A represents the average breadth or multiplicity of deprivation people suffered at the same time, measured by the average proportion of indicators in which poor people were deprived (see [www.ophi.org.uk](http://www.ophi.org.uk) for more details).

<sup>42</sup> Differences include the selection of: the dimensions of wellbeing, the indicators included in each dimension and weightings attributed to them, the cutoffs and thresholds to define the deprivation level etc.. The Global MPI recently developed by OPHI and UNDP attempted to address these divergences. It mainly uses data from Demographic and Health Surveys (DHS) or Multiple Indicator Cluster Surveys (MICS) to produce internationally comparable MPI using information from 10 indicators that are categorized in three dimensions: health, education and living standards. The global MPI is also better aligned with SDGs.

<sup>43</sup> See OPHI (2016) and Alkire and Jahan (2018).

areas and secondary cities (Figure 5.12-b). These trends and discrepancies reflect the persistent gaps in livings conditions and wellbeing across the country.

**Figure 5.11: Welfare Dimensions and Indicators of Gabon’s MPI**

Dimensions	Indicators	Weight	Deprivation criteria
Education (1/5)	Years of schooling	1/10	No household member age 10 years or older has completed at least five years of schooling.
	Child school attendance	1/10	Any school-age child (6 to 15 years old) is not attending school.
Health (1/5)	Child mortality	1/10	Any child has died in the family in the five-year period preceding the survey.
	Nutrition	1/10	Any child for whom there is nutritional information is undernourished in terms of weight for age.
Housing conditions (1/5)	Roof	1/20	The household has a plastic, cardboard, bark, straw, palm, bamboo, or ‘other’ (i.e., unspecified) type of roof.
	Wall	1/20	The household has a plastic, cardboard, bark, straw, palm, bamboo, mud bricks, or ‘other’ (i.e., unspecified) type of wall.
	Floor	1/20	The household has a dirt, sand, dung, or ‘other’ (i.e., unspecified) type of floor.
	Room	1/20	There are at least four household members per sleeping room.
Access to basic services (1/5)	Electricity	1/20	The household has no electricity.
	Improved sanitation	1/20	The household has no improved sanitation facility.
	Improved drinking water	1/20	The household does not have access to improved drinking water.
	Cooking fuel	1/20	The household cooks with dung, wood, or charcoal.
Assets (1/5)	Assets	1/5	The household does not own a car or truck and the household does not own at least two of the following assets: radio, TV, telephone, bicycle, motorbike or refrigerator.

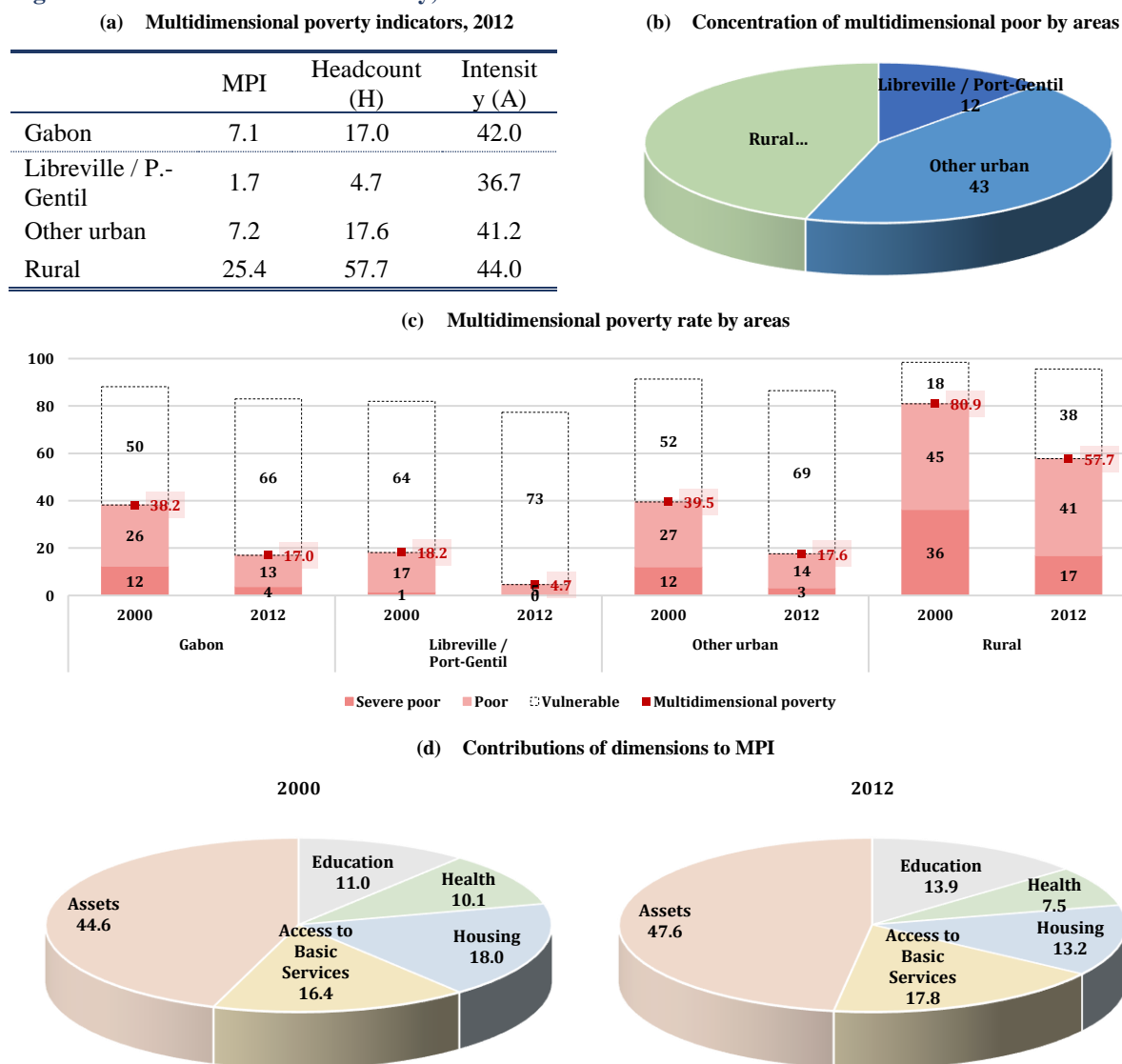
Sources: World Bank Staff based on OPHI (2016).

Notes: Figures btw brackets in the first column indicate the weight of each dimension. Indicators have been adjusted (compared to OPHI analysis) to allow for comparability of the two rounds of DHS and for the analysis of MPI trend.

**The urban-rural gap in multidimensional poverty has narrowed down over time, but it remains larger than the gap in monetary poverty.** Compared with monetary poverty, the multidimensional headcount ratio and MPI score are considerably higher in rural areas (58 percent and 25) than in urban areas (9 percent and 4), which indicates a much larger divide in living conditions than in monetary outcomes between urban and rural areas.

**The decrease in multidimensional poverty is the result of some improvements in housing conditions and health indicators.** To a lesser extent, progress was also made in child schooling and in access to improved drinking water and efficient cooking fuels, bringing down the proportion of households deprived in these dimensions. Health indicators (i.e., child mortality and nutrition) and housing conditions improved faster in rural areas, while access to basic services improved faster in secondary cities. Deprivations in child schooling declined faster in Libreville and Port Gentil. Nevertheless, deprivations in access to basic services, essentially piped water and improved sanitation remain widespread among rural and poor populations. Ownership of assets improved only slightly between 2000 and 2012, and remains a major determinant of multidimensional poverty. The assets dimension contributed by 48 percent to the 2012 MPI (Figure 5.12-d), up from 45 percent in 2000. Around 80 percent of households continue to be deprived in modern and productive assets across the country.

**Figure 5.12: Multidimensional Poverty, 2000 and 2012**



Source: DHS 2000 and 2012.

Note: the headcount in Fig. 5.12-a measures the proportion of people who are multidimensionally poor and the MPI represents the proportion of weighted deprivations experienced by the poor relative to the maximum potential deprivations that could be experienced by the whole population. The MPI reflects both the share of people in poverty and the degree to which they are deprived.

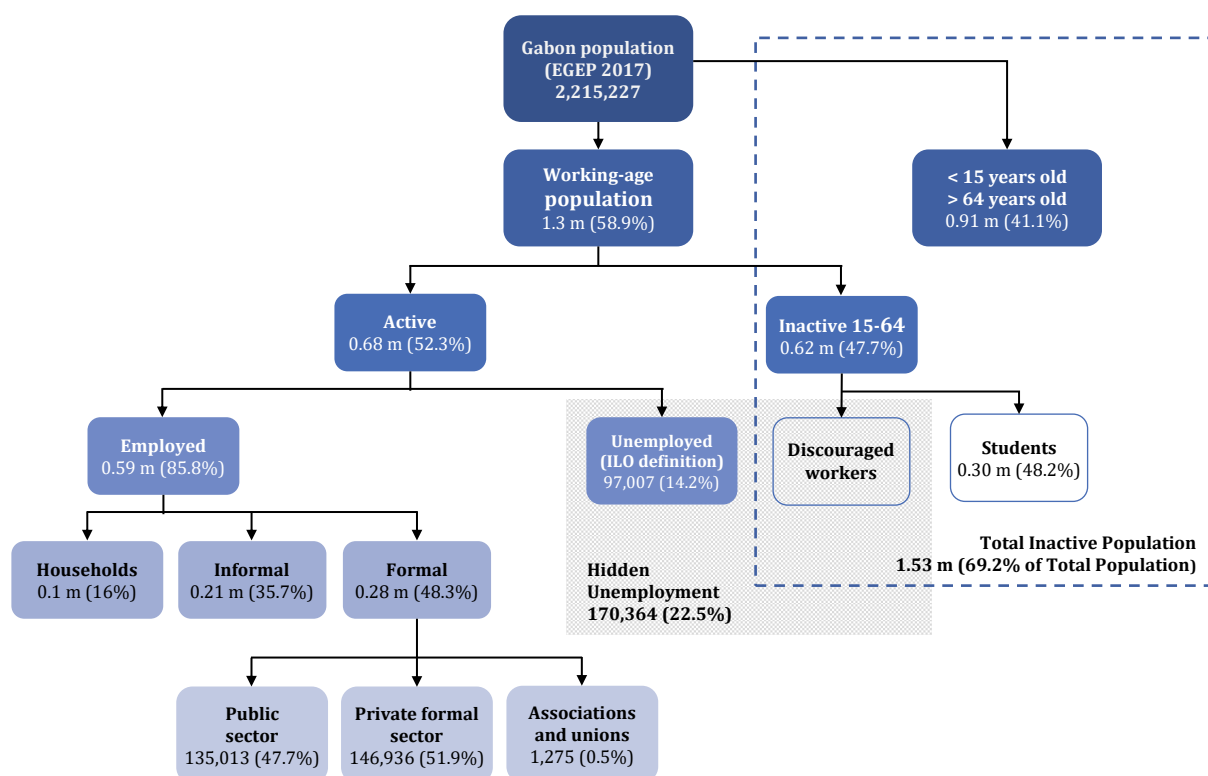


## Chapter 6: Employment and Poverty

*Unemployment is elevated, particularly in Libreville/Port-Gentil, and among the youth and women.*

**The labor market is characterized by a high unemployment rate that primarily affects the largest urban centers.** In 2017, the active population was estimated at respectively 31 percent and 52 percent of the total and working-age population (Figure 6.1). The strict ILO-based unemployment rate stood at 14 percent, rising to 23 percent when considering discouraged workers (hidden unemployment rate).<sup>44</sup> In comparison, the strict unemployment rate was 16 percent in 2005.<sup>45</sup> Overall, the unemployment rate is markedly higher in Libreville and Port-Gentil (20 percent) than in the secondary urban centers (around 10 percent) and in rural areas (around 4 percent). Compounded by Gabon's high rate of urbanization, such rates result in more than 9 out of 10 unemployed workers living in cities, with 67 percent of the unemployed population located in Libreville and Port-Gentil.

**Figure 6.1: Structure of the Labor Market, 2017**



Source: EGEP 2017.

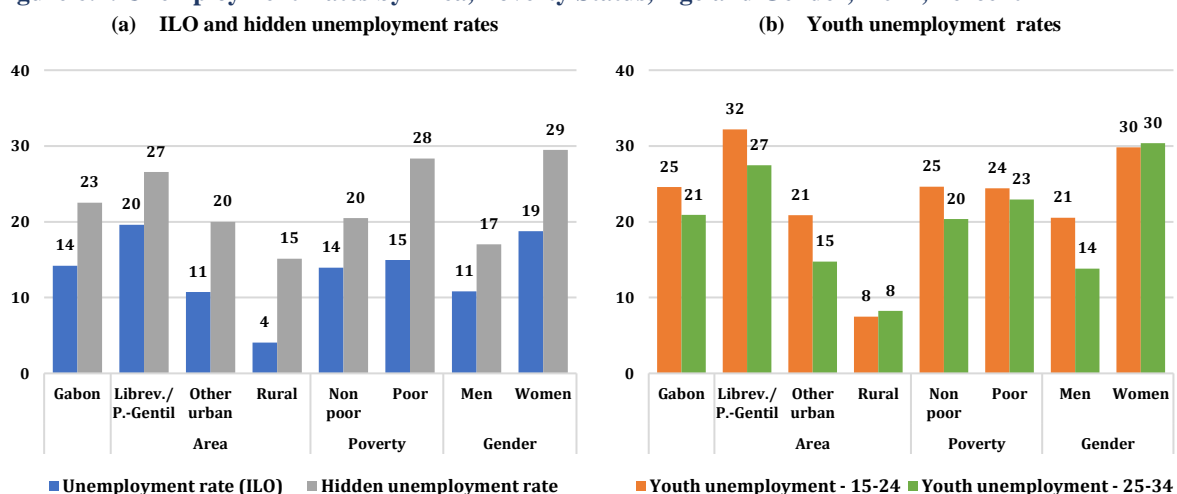
Note: All percentages are in function of the upper category. Therefore, each line sums to 100 percent.

<sup>44</sup> ILO definition of unemployment: all persons of working-age who is: (1) without work during the 7-day period preceding the survey; (2) belonging to the workforce (i.e. aged between 15 and 64 years old); (3) currently available for work i.e. less than 2 weeks; and (4) actively seeking work i.e. has taken steps within the last month. The hidden unemployment rate includes the said unemployed workers as well as the discouraged workers who are not actively seeking employment or are not available immediately. The difference between the ILO-based unemployment rate and the hidden unemployment rate indicates the presence of many discouraged job-seekers or individuals willing to work but unfamiliar with the processes to find a job.

<sup>45</sup> The strict unemployment rate from the labor force survey (ENEC 2010) was estimated at 20.4 percent. However, as labor force surveys generally provide a more accurate measure of unemployment, these differences cannot be interpreted as a decline of unemployment and actually might suggest a higher unemployment rate than the one measured by EGEP 2017.

**Unemployment rates are also particularly high in the case of women, the youth and the poor.** Unemployment is particularly high among youth as around 50 percent of the unemployed are less than 30 years old. In addition, about half of the unemployed are first-time job seekers, underlying difficulty of young generations and primo-applicants to access the labor market. Meanwhile, the unemployment rate of women reaches nearly 19 percent, compared to 11 percent for men (Figure 6.2-a). While the unemployment rate among the poor appears similar to the non-poor, their hidden unemployment rate is much higher (30 percent compared to 17 percent for the non-poor), underlying the presence of many discouraged workers among the poor who do not seek a job but would be willing or available to work.

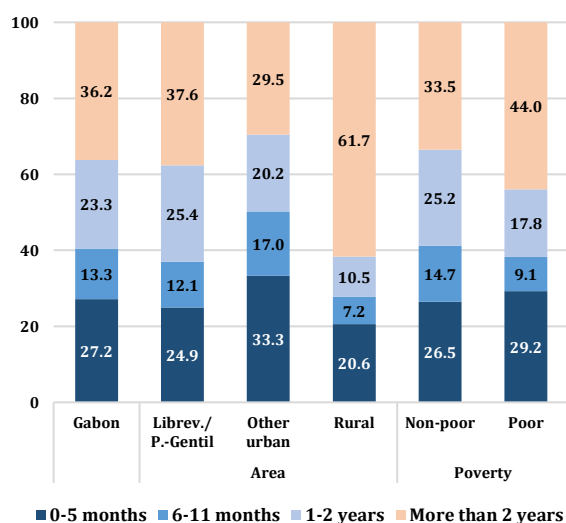
**Figure 6.2: Unemployment Rates by Area, Poverty Status, Age and Gender, 2017, Percent**



Source: EGEP 2017.

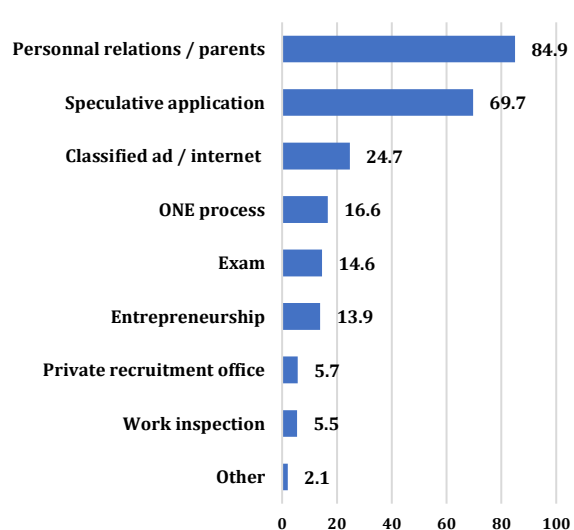
**Unemployment lasts long, particularly in rural areas.** On average, unemployment lasts slightly less than 2 years (22.1 months) – with a median value of 1 year—, but appears significantly longer in rural areas with an average of 34.5 months and a median value of 24 months. Nearly 60 percent of the unemployed had been out of job for more than a year, a proportion that increases to 72 percent in rural areas (Figure 6.3). Conversely, short-term unemployment only concerns around 30 percent of first-time job seekers, and 20 percent of previously-employed job seekers.

**Figure 6.3: Duration of Unemployment, 2017 (percentage of unemployed)**



Source: EGEP 2017.

**Figure 6.4: Resources Used to Find a Job, 2017 (percentage of unemployed)**



**Such an unusual length of unemployment is partly driven by mismatches between education and jobs.** The primary underlying reasons for the long length of unemployment observed is the lack of training for unemployed workers; the discrepancy between the skills owned and those demanded by hiring companies; institutional deficiencies, particularly from work placement structures; and the limited creation of jobs. The skills mismatch is evidenced by the large number of discouraged workers, the prevalence of unemployment among educated people and the low match to employment offers – as more than two third remain vacant due to the lack of suitable candidates. Individuals with lower secondary education are particularly affected by unemployment – 17 percent—followed by those who achieved upper secondary and tertiary education levels – 14 percent. Conversely, the unemployment rate for individuals with only primary education is 10 percent.

**Coping strategies remain limited as unemployed individuals primarily address their situation through informal and basic channels, with little recourse to specialized institutions.** Only 16 percent of the unemployed workers resort the National Office for Employment (ONE – *Office National de l'Emploi*), the official agency in charge of following unemployed individuals, placing them according to their skills, and proposing them training to answer the labor market demand. Conversely, the vast majority of unemployed individuals resort to their personal relations or apply directly without any job offer being advertised – respectively 85 and 70 percent (Figure 6.4).

#### Box 6.1: ONE Mechanisms to Stimulate Employment

The *Office National de l'Emploi* (ONE) disposes of three main mechanisms to stimulate the youth employment and to encourage companies to recruit.

The first mechanism consists of a training youth contract (*Contrat d'apprentissage jeunesse*) which aims at providing graduated first-time job seekers aged between 16 to 35 years old with an internship within a private company of more than 50 employees. The ONE covers the cost of registering the intern at the CNAMGS but the internship compensation is supported by the enterprise. This mechanism is primarily a career change mechanism that addresses the discrepancy between the nature of graduates and the demand on the labor market. Participants need to hold a degree, but the field of their internship can differ from the topic studied during their studies.

The second mechanism is a joint internship program with the World Bank targeting 16-to-34-year-old individuals that are already graduated in a specific field of competencies but lack their first professional experience. The ONE covers the internship compensation during 6 to 12 months, which allows participants to gain professional experience and to become more attractive and valuable on the labor market.

The third mechanism is a dual apprenticeship program targeting individuals aged between 16 to 24 years old without any degree nor professional training. The ONE places participants in a structure of training and finds them an internship over the course of 1 to 2 years. It serves as a pure insertion and professional training program for youth that have failed in the traditional educational system and can therefore rejoin the labor market. The latter appears as the most popular program of the ONE, channeling as much as some 250 new inscriptions per day and allowing a large part of the population without a proper degree to re-enter the job seeking process. However, the 24-year-old limit act as an impediment as the ONE receives many demands from 30-year-old individuals without degree and cannot integrate them to their programs. In additions, these profiles are usually more likely to take on manual jobs for which the demand from enterprises is higher.

**The mismatch between labor market supply and demand has led to the multiplication of training programs, although they lack coherence and coordination.** The ongoing efforts to adapt the labor supply to the demand of the market are primarily channeled through training programs, both from public agencies and the private sector. The public training effort is mainly supported by the ONE, which launched a series of training programs essentially targeting the youth (Box 6.1). Private economic actors attempt to address the skills mismatch through various in-house programs. Notorious examples include the case of the telecommunication company Airtel, which financed in cooperation with UNESCO the training of 5,000 individuals in ICT

over the course of 3 years, with the 30 best trainees being offered a 6-month internship at Airtel, or the SETRAG (Transgabonais Operating Company), which recruits after a basic exam at the ONE level and through a 2-year apprenticeship contract that serves as an in-house training period before being converted to a permanent contract. Other public and para-public institutions such as the ANFPP (National Agency in charge of Professional Training and Development), the Junior Achievement Gabon (JA Gabon), the Ministry of Social Insertion, and the Chamber of Commerce contribute to the efforts for competencies development through various training programs. However, these programs are not part of a comprehensive and coordinated strategy to respond to the current and future labor market needs. Recently, Gabon signed a convention with Morocco in order for the latter to supervise the professional training of Gabonese workers in a large range of sectors, from agriculture to transport and logistics, adding another layer to the already complex professional training landscape. Overall, the combination of a lack of initial proper training and skills of the unemployed with the fragmentation of the training landscape and the multiplicity of actors may contribute to perpetuate systemic unemployment and skills mismatch, particularly regarding the youth.

*Employment is concentrated in the services sector and largely characterized by low job status and informality.*

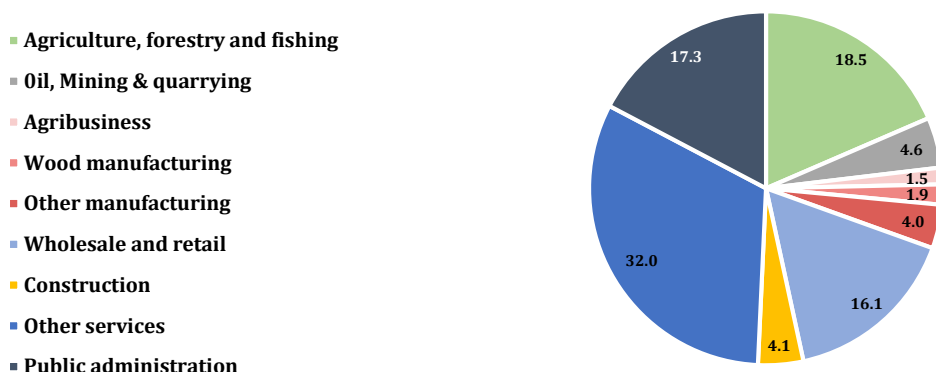
**Most of the employment is in services, while the contribution of manufacturing and mining sectors to employment remains limited.** There were no major changes to the structure of employment by sector since 2005. In 2017, more than two third of the country's employed workforce was in the services sector – a similar level than in 2005—and 18.5 percent in the agricultural, forestry and fishing sector, down from 25.4 percent in 2005 (Figure 6.5-a). While the oil and mining sector weighs heavily into the country's GDP and is a major source of international currency through exports, it only marginally contributes to the employment. Nevertheless, the share of employed population in this sector increased to nearly 5 percent in 2017 compared to less than 2 percent in 2005. Public administration remains an important provider of jobs, underscoring Gabon's historical tradition of large bureaucratic public administration. Finally, the contribution of the manufacturing sector to employment appears relatively limited, but promising and growing sub-sectors such as agribusiness and wood manufacturing still account for 3.5 percent of total employment, primarily concentrated in urban areas.

**Important discrepancies exist across areas.** Not surprisingly, the employment profile between rural and urban areas is completely different with nearly three quarter of the rural employed population working in the agricultural sector and only around 15 percent working in the private services sector and, to a much lesser extent, public employment. Conversely, Libreville and Port-Gentil appear as the epicenters of public sector employment with 20 percent of their employed population working in the public sphere, and 58 percent of all public employees based in these two cities (Figure 6.5-b). An additional 38 percent public officers are based in secondary urban areas. Important services' sub-sectors such as construction and trade (wholesale and retail) are also concentrated in urban areas and provide employment to a significant share of the urban population.

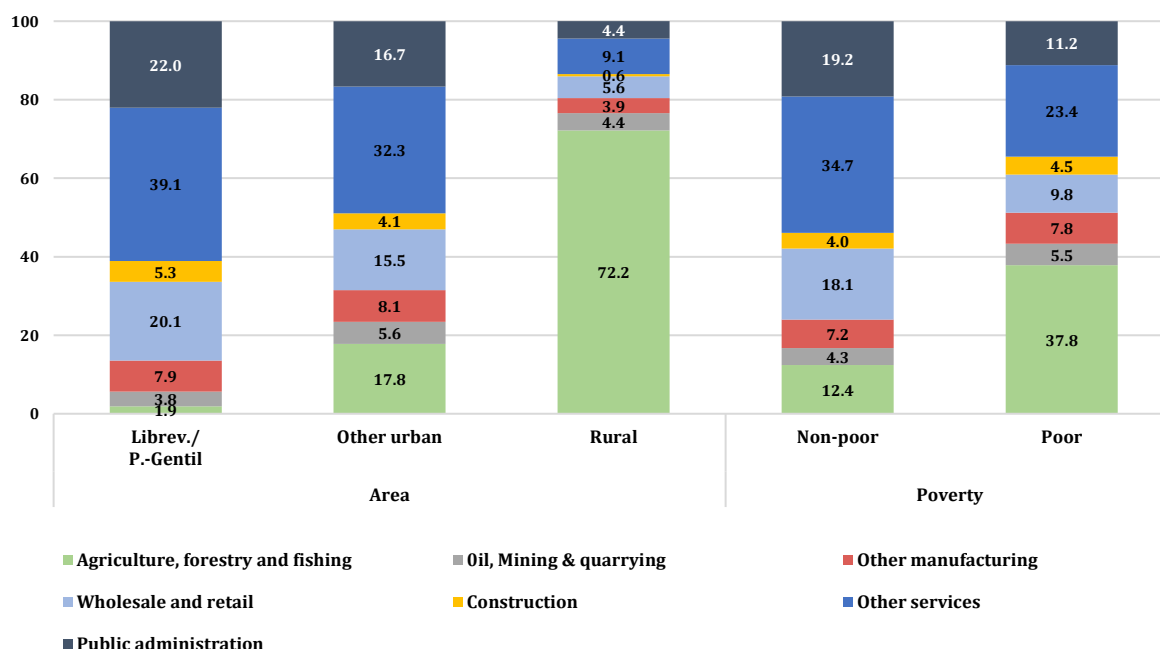
**Likewise, individuals belonging to poor households are much more concentrated in agriculture.** While 12 percent of non-poor workers work in agriculture, the proportion increases to 38 percent in the case of poor ones. Conversely, the involvement of poor workers in the services' sector and in the public administration is much lower than for non-poor ones. For instance, 18 percent of non-poor workers work in wholesale and retail compared to only 10 percent of poor workers; and 19 percent of non-poor workers are employed in the public administration compared to 11 percent of poor ones (Figure 6.5-b).

Figure 6.5: Employment by Sectors, 2017 (percentage of employed individuals)

(a) Gabon



(b) By area and poverty status



Source: EGEP 2017.

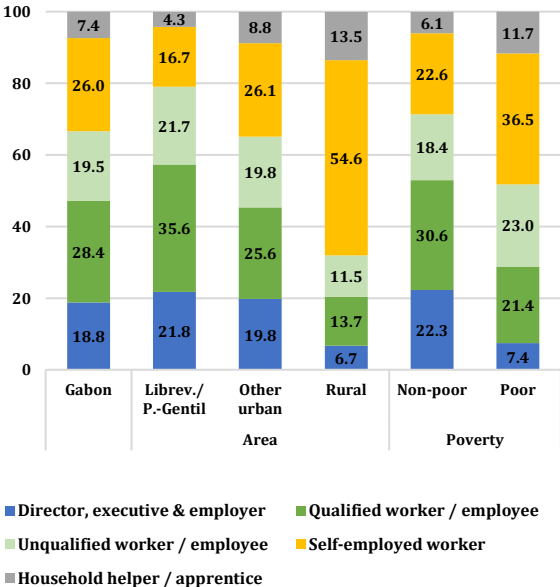
Notes:

- *Wood manufacturing* account for 2.4, 1.3, and 1.8 percent of employment in Libreville/Port-Gentil, other urban areas, and rural areas respectively.
- *Agribusiness* account for 1.3, 1.9, and 1.2 percent of employment in Libreville/Port-Gentil, other urban areas, and rural areas respectively.

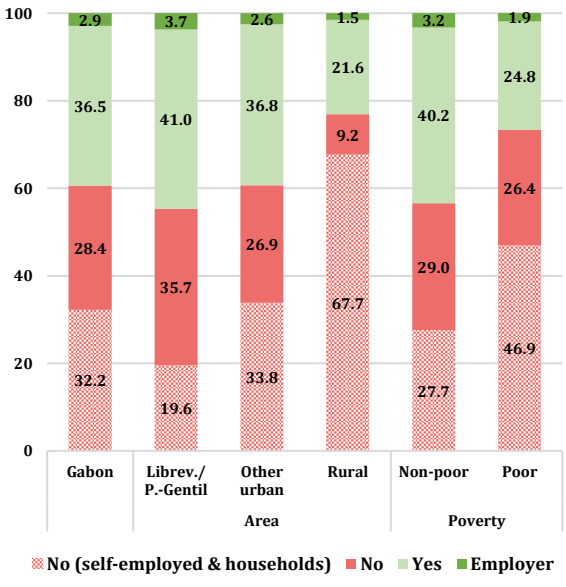
**A large part of the population is concentrated in lower forms of employment, particularly rural and poor individuals.** One third of the workers are self-employed (including household helpers and apprentices) and about a fifth are unqualified employees (Figure 6.6). In rural areas, self-employment and household work reaches 68 percent compared to 21 percent in Libreville/Port-Gentil and 35 percent in secondary urban centers. Likewise, poor workers tend to be confined to lower employment status with 48 percent of them working as a self-employed or a household helper compared to only 29 percent for non-poor workers. Formal private employment accounts for 25 percent of total employment and the public sector contributes 23 percent of jobs, while informal private and household employment represent respectively 36 and 16 percent. Rural areas and secondary towns concentrate most of the informal employment, which also prevails among people with primary and no education as well as among the poor

(i.e. 68 percent compared to 47 percent for non-poor individuals). In addition, a large share of workers does not have written contracts – only 39 percent is employed with a contract including both employees and employers (Figure 6.7). Rural workers and the poor are particularly vulnerable as only 23 percent and 27 percent of them respectively dispose of a written contract.

**Figure 6.6: Status of Employment, 2017 (percentage of employed individuals)**



**Figure 6.7: Written Contract, 2017 (percentage of employed individuals)**

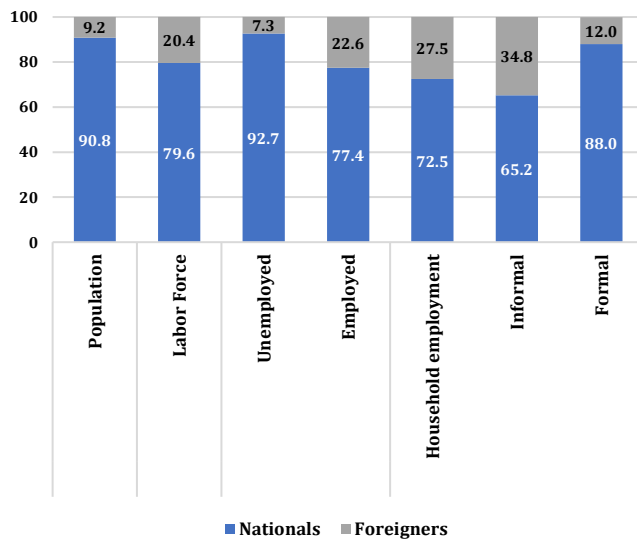


Source: EGEP 2017.

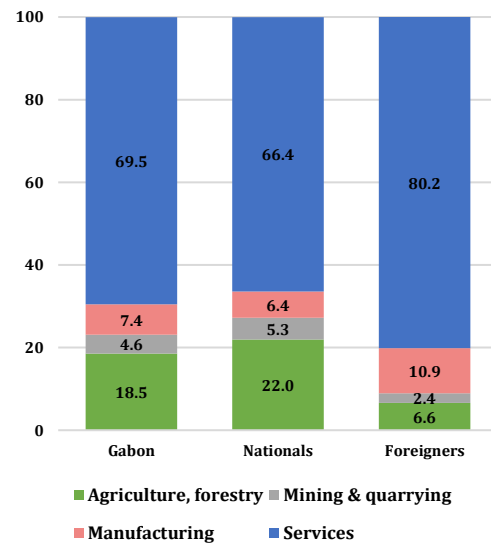
*To palliate the lack of qualified workers, around one fifth of the labor force comes from foreign countries.*

**Foreigners represent a significant share of the country’s workforce and work mainly in services.** Overall, foreigners account for 21 percent of the labor force and represent 23 percent of all the employed workers in Gabon (Figure 6.8). The presence of foreign workers compared to nationals is particularly important in the services sector – nearly 80 percent of foreign workers are employed in services (Figure 6.9). As public employment is largely – and not surprisingly—dominated by national workers (97 percent of public employment), most of foreign employment is concentrated in the formal and informal private sector (i.e. 77 percent of the foreigners work in the private sector, with more than half of them in informal jobs). Within the context of a high unemployment rate across the country, especially for nationals, it raises the question of foreigners coming into Gabon for a dual purpose: (i) to undertake jobs that Gabonese workers refuse to do; and (ii) because local workers do not have the necessary qualifications, pushing firms to recruit foreign workers with the required skills. For instance, 34 percent of informal employment and 26 percent of household employment are performed by foreigners. On the other hand, one fifth of formal private workers are foreigners, possibly indicating a phenomenon of labor importation due to lack of specific skills on the domestic labor market.

**Figure 6.8: Shares of Foreigners vs Nationals in Labor Market, 2017 , Percent**



**Figure 6.9: Sector of Employment of Foreigners vs Nationals, 2017, Percent**



Source: EGEP 2017.

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# Appendix

## Appendix A: Structure of Inequality

### *Decomposition of Inequality*

The static decomposition of inequality enables one to explore how the differences in households' characteristics affect the level of inequality and provide important clues for understanding the underlying structure of real per capita consumption distribution in Gabon.

The decomposition follows the approach of Cowell and Jenkins (1995) and consists of separating total inequality in the distribution of consumption into inequality between the different household groups in each partition,  $I_{Betw}$ , and the remaining within-group inequality,  $I_{Within}$ . As the most commonly decomposed measures in the inequality literature come from the General Entropy class, mean log deviation (Theil\_L) and the Theil\_T indices in real per capita monthly consumption expenditure are used to identify the contribution of between-group differentials to total inequality. The General Entropy inequality measures allow total inequality to be equal to  $I_{Betw} + I_{Within}$  and the amount of inequality explained by households attributes (or group of attributes) is measured by  $I_{Betw}/I_{total}$ , where between and within group inequalities are defined, respectively, for Theil\_L and Theil\_T indices as

$$I_{Betw} = \left[ \sum_{j=1}^k f_j \log \left( \frac{\mu}{\mu_j} \right) \right] \quad I_{Within} = \sum_{j=1}^k f_j GE_0^j$$

$$I_{Betw} = \left[ \sum_{j=1}^k f_j \left( \frac{\mu_j}{\mu} \right) \log \left( \frac{\mu_j}{\mu} \right) \right] \quad I_{Within} = \sum_{j=1}^k v_j GE_1^j$$

with  $f_j$  the population share,  $v_j$  the consumption share, and  $\mu_j$  the mean consumption of subgroup  $j$ ;  $\mu$  total mean consumption,  $GE_0^k$  Theil\_L index, and  $GE_1^k$  Theil\_T index of subgroup  $j$ .

$$\text{with: } Theil\_L = 1/n \sum_{i=1}^n \log \left( \frac{\bar{y}}{y_i} \right) \quad \text{and} \quad Theil\_T = 1/n \sum_{i=1}^n \left( \frac{y_i}{\bar{y}} \right) \log \left( \frac{y_i}{\bar{y}} \right)$$

$y_i$ : is real monthly per capita consumption expenditure for household  $i$  and  $\bar{y}$  is mean real monthly per capita consumption expenditure.

### *Urban-Rural Inequality: the Recentered Influence Function Unconditional Quantile Decomposition*

The static decomposition of inequality by population groups is a useful descriptive analysis and can be informative regarding the role played by certain household characteristics in inequality. However, it has several limitations. First, handling an important number of population groups with different categories for each population partition is often unwieldy and limits the reliability of the estimates. Second, it does not allow to infer causality in the relationship between inequality and the different household attributes. Some of the variables used to explain inequality may themselves be determined by the welfare patterns and the direction of causation cannot be determined from the descriptive analysis. Third, and most importantly, the decomposition gives little information regarding the importance of the welfare gaps across the various quantiles of the distribution and about the sources of these gaps.

We attempt to address this drawback via the unconditional quantile regression model. The model analyzes the sources of inequality between rural and urban areas. The procedure allows to understand how the difference in the distributions of observed household characteristics

between the locations contribute to the welfare gap and how the marginal effects of these characteristics vary across the entire distribution.

Popular approaches used in the decomposition of distributional statistics and the analysis of the sources of inequality include the standard Oaxaca–Blinder decomposition method, the reweighting procedure of DiNardo, Fortin, and Lemieux (1996) and the quantile-based decomposition approach of Machado and Mata (2005). The main drawback of the Oaxaca–Blinder technique is that it applies the decomposition to only the mean welfare differences between two population sub-groups and yields an incomplete representation of the inequality sources. The other conventional methods extend the decomposition beyond the mean and permit the analysis of the entire distribution, nevertheless they all share the same shortcoming in that they involve a number of assumptions and computational difficulties (Fortin *et al.*, 2010).

The Recentered Influence Function (RIF) regression approach recently proposed by Firpo, Fortin and Lemieux (2009) addresses these shortcomings and provides a simple regression-based procedure for performing a detailed decomposition of different distributional statistics such as quantiles, variance and Gini coefficient. The RIF-regression model is called unconditional quantile regression when applied to the quantiles. The technique consists of decomposing the welfare gaps at various quantiles of the unconditional distribution into differences in households endowment characteristics such as education, age, employment etc., and differences in the returns to these characteristics. These components are then further decomposed to identify the specific attributes which contribute to the widening welfare gap.

We apply the RIF unconditional quantile regression to examine the rural-urban welfare differentials at various points of the consumption distribution. The procedure is carried out in two stages. The first stage consists of estimating unconditional quantile regressions on log real per capita monthly household consumption for rural and urban households, then constructing a counterfactual distribution that would prevail if rural households have received the returns that pertained to urban area. The comparison of the counterfactual and empirical distributions allows to estimate the part of the welfare gap attributable to households characteristics differentials, the *endowment effect*, and the part explained by differences in returns to characteristics, the *return effect*. The second stage involves dividing the *endowment* and *return* components into the contribution of each specific characteristic variable.

The method can be easily implemented as a standard linear regression, and an ordinary least squares (OLS) regression of the following form can be estimated:

$$RIF(y, Q_\theta) = X\beta + \varepsilon \quad (1)$$

where  $y$  is log real per capita monthly household consumption, and  $RIF(y, Q_\theta)$  is the RIF of the  $\theta^{\text{th}}$  quantile of  $y$  estimated by computing the sample quantile  $Q_\theta$  and estimating the density of  $y$  at that point by kernel method:

$$RIF(y, Q_\theta) = Q_\theta + \frac{(\theta - I\{y \leq Q_\theta\})}{f_Y(Q_\theta)},$$

$f_Y$  is the marginal density function of  $y$  and  $I$  is an indicator function. RIF can be estimated by replacing  $Q_\theta$  by  $\theta^{\text{th}}$  sample quantile and estimating  $f_Y$  by kernel density.<sup>46</sup>

$X$  is the regressors matrix including the intercept,  $\beta$  is the regression coefficient vector and  $\varepsilon$  is the error term. The regressors include eight groups of variables: (1) the household demographic and general characteristics variables including household size, the dependency ratio, and the

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<sup>46</sup> For more details see Firpo, Fortin and Lemieux (2009).

gender of the household head; (2) the household human capital measured by the education level of head; (3) the household head employment sector and other attributes, which include a dummy variable indicating whether the head is a migrant, its marital status; (4) asset ownership including dummy variables indicating respectively whether the household owns bicycle, cell phone, telephone, computer; (5) the occupation status of the head; (6) access to basic services measured by categorical variables indicating the sources of lighting, drinking water and sanitation.

We estimate model (1) for the 10<sup>th</sup> to 90<sup>th</sup> quantiles and use the unconditional quantile regression estimates to decompose the rural-urban inequality, as well as the metropolitan-nonmetropolitan, inequality into a component attributable to differences in the distribution of characteristics and a component due to differences in the distribution of returns as follows:

$$\hat{Q}_\theta^i - \hat{Q}_\theta^{i'} = \{\hat{Q}_\theta^i - \hat{Q}_\theta^*\} + \{\hat{Q}_\theta^* - \hat{Q}_\theta^{i'}\} = (\bar{X}^i - \bar{X}^{i'})\hat{\beta}_\theta^i + \bar{X}^{i'}(\hat{\beta}_\theta^i - \hat{\beta}_\theta^{i'}) \quad (2)$$

where  $\hat{Q}_\theta$  is the  $\theta^{\text{th}}$  unconditional quantile of log real per capita monthly household consumption,  $\bar{X}$  represents the vector of covariate averages and  $\hat{\beta}_\theta$  the estimate of the unconditional quantile partial effect. Superscripts  $i$ ,  $i'$  and  $*$  designate respectively the urban, rural and counterfactual values.

$\hat{Q}_\theta^* = X^{i'}\hat{\beta}^i$  is the counterfactual quantile of the unconditional counterfactual distribution which represents the distribution of welfare that would have prevailed for group  $i'$  (rural households) if they have received group  $i$  (urban households) returns to their characteristics.<sup>47</sup>

The first term on the right-hand side of equation (2) represents the contribution of the differences in distributions of household characteristics to inequality at the  $\theta^{\text{th}}$  unconditional quantile, denoted *endowment effect*. The second term of the right-hand side of the equation represents the inequality due to differences (or discrimination) in returns to the household characteristics at the  $\theta^{\text{th}}$  unconditional quantile,

The *endowment* and *return* effects can be further decomposed into the contribution of individual specific households characteristics (or group of some characteristics) as follows:

$$\hat{Q}_\theta^i - \hat{Q}_\theta^* = \sum_k (\bar{X}_k^i - \bar{X}_k^{i'})\hat{\beta}_{\theta,k}^i \quad \text{and} \quad \hat{Q}_\theta^* - \hat{Q}_\theta^{i'} = \sum_k \bar{X}_k^{i'}(\hat{\beta}_{\theta,k}^i - \hat{\beta}_{\theta,k}^{i'}) \quad k:1\dots K \quad (3)$$

where  $k$  designates the individual specific household characteristics.

### *Inequality of opportunity*

The approach to estimate the degree of opportunity inequality associated with the distribution of consumption is based on the framework of Bourguignon *et al.* (2007). The method is based on the separation of the determinants of household's consumption (outcome),  $y_i$ , into a set of circumstances variables, denoted by the vector  $C_i$ ; efforts variables, denoted by the vector  $E_i$  and unobserved factors, represented by  $v_i$ . The outcomes function can be specified as:

$$y_i = f(C_i, E_i, v_i) \quad i:1\dots N \quad (1)$$

<sup>47</sup> The decomposition results may vary with the choice of the counterfactual distribution. For example, if the counterfactual used is the distribution that would have prevailed for group  $i$  if they have received group  $i'$  returns we would obtain different results. The choice of the counterfactual in this analysis is motivated by the aim of emphasising household groups living in disadvantaged areas.

The circumstances variables are economically exogenous since they are outside the individual's control but effort factors may be endogenous to circumstances as an individual's actions may be influenced by its gender, parental background etc.

Equality of opportunity occurs, in the Roemer's (1998) sense, when outcomes are independently distributed from circumstances. This independence implies that circumstances have no direct causal effect on outcomes and no causal impact on efforts. The degree of opportunity inequality can therefore be determined by the extent to which the conditional distribution of outcomes on circumstances,  $F(y/C)$ , differs from  $F(y)$ .

Inequality of opportunity can be estimated as the difference between the observed total inequality in the distribution of consumption and inequality that would prevail if there were no differences in circumstances. Let  $\tilde{F}(\tilde{y})$  be the counterfactual distribution of outcomes when circumstances are identical for all individuals. The opportunity share of inequality can be defined as:

$$\Theta_p^r = 1 - \frac{I(\tilde{F}(\tilde{y}))}{I(F(y))} \quad (2)$$

The first step for computing  $\Theta_p$  consists on estimating a specific model of (1), which can be expressed in the following log-linear form:

$$\ln(y_i) = C_i\alpha + E_i\beta + v_i \quad (3)$$

$$E_i = AC_i + \varepsilon_i$$

where  $\alpha$  and  $\beta$  are two vectors of coefficients,  $A$  is a matrix of coefficients specifying the effects of the circumstance variables on effort and  $\varepsilon_i$  is an error term. Model (3) can be expressed in reduced form as:

$$\ln(y_i) = C_i\delta + \eta_i \quad (4)$$

where  $\delta = \alpha + \beta A$  and  $\eta_i = v_i + \varepsilon_i\beta$ .

Inequality of opportunity can be measured using equation (2) where the counterfactual distribution is obtained by replacing  $y_i$  with its estimated value, from equation (4), and which can be expressed as:  $\tilde{y}_i = \exp(\bar{C}\hat{\delta} + \hat{\eta}_i)$ . In this decomposition, the variation in  $\tilde{y}_i$  can be interpreted as the influence of effort because circumstances are set to be equal for all households, and inequality of opportunity is measured as a residual.

Inequality of opportunity can also be measured directly by eliminating the contribution of effort to outcomes, using the *smoothed* distribution, obtained from the predicted values of outcomes based on circumstances in equation(4) while ignoring the remaining variation in the residuals:

$$\tilde{z}_i = \exp(C_i\hat{\delta}) \quad (5)$$

The share of inequality of opportunity can thus be measured by:

$$\Theta_p^d = \frac{I(\tilde{F}(\tilde{z}))}{I(F(y))} \quad (6)$$

The subscripts  $d$  and  $r$ , in  $\Theta_p$ , denote respectively that inequality of opportunity is estimated directly or residually by eliminating the contribution of effort or circumstances to outcomes.



The direct and residual methods can yield different figures of opportunity inequality and the only inequality measure for which the two methods give the same results is the mean log deviation (*Theil\_L*), which has a path-independent decomposition when the arithmetic mean is used as the reference income or consumption (Foster and Shneyerov, 2000). By using the mean log deviation inequality index the residual and direct methods give the same opportunity inequality measures.

The parametric approach allows the estimation of the partial effects of one or some circumstance variables on outcomes, while controlling for the others, by simulating distributions such as:

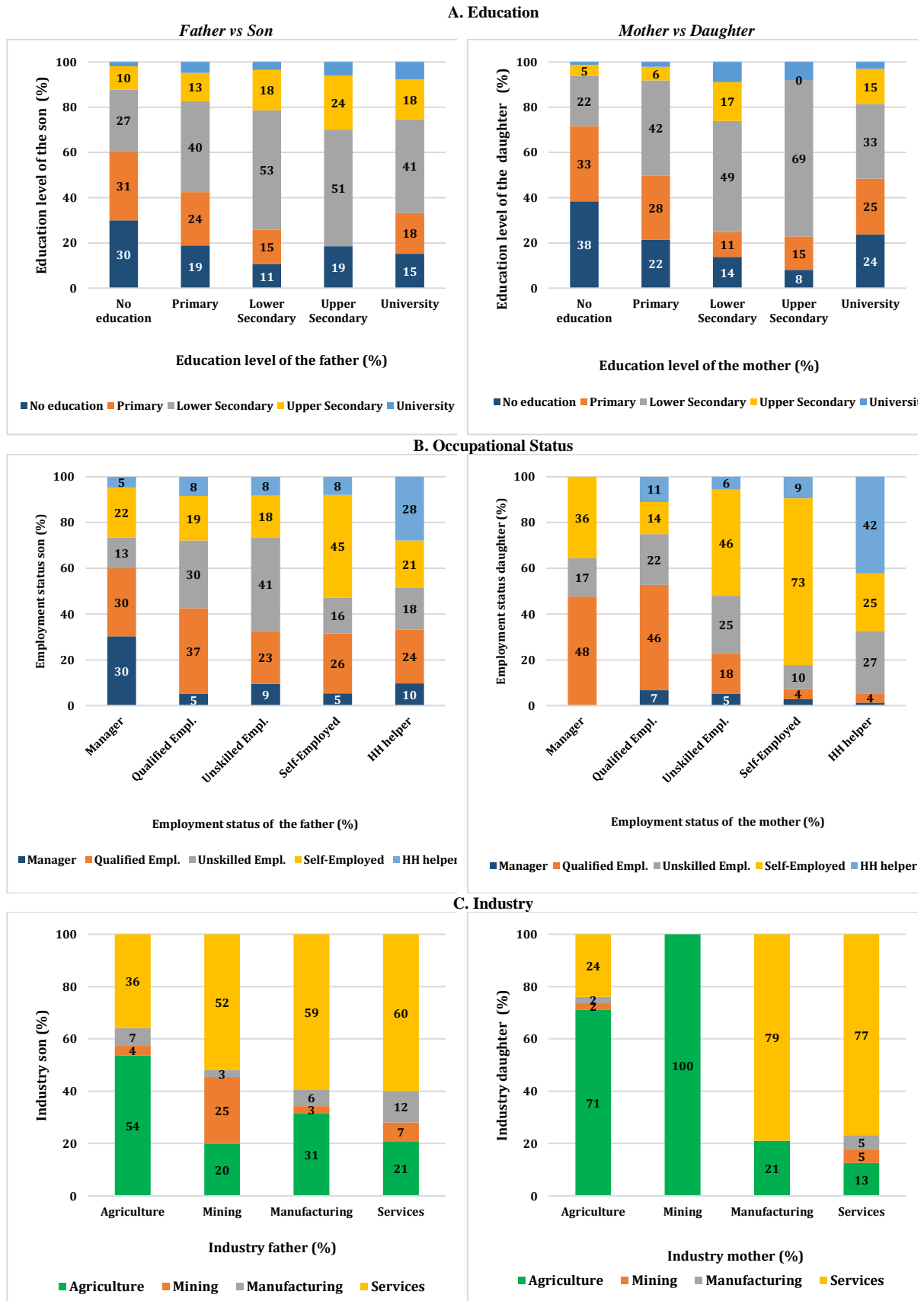
$\tilde{y}_i^j = \exp(\bar{C}^j \hat{\delta}^j + C^{h \neq j} \hat{\delta}^{h \neq j} + \hat{\eta}_i)$ , where  $\tilde{F}(\tilde{y}^j)$  is the counterfactual outcomes distribution obtained by keeping circumstance  $C^j$  constant.

The inequality share specific to circumstance  $j$  can be computed residually by:

$$\Theta_p^j = 1 - \frac{I(\tilde{F}(\tilde{y}^j))}{I(F(y))}$$

## Social mobility: Father vs Son and Mother vs Daughter

Figure A.1: Intergenerational Mobility Poor Population, Father vs Son and Mother vs Daughter, Percent



Source: EGEP 2017.

Note: Figures are for individuals aged 15 years and older.

## **Appendix B: Multivariate Regressions and Determinant of Consumption and Poverty**

We perform a regression analysis to examine the main factors affecting households' consumption and poverty. This allows us to identify the main correlates of poverty.

We use two regression models. The first examines the impact of the household socioeconomic characteristics on the logarithm of real per capita household consumption, and the second investigates the determinants of the probability of being poor. The first model is estimated using the Ordinary Least Square (OLS) method and the second using the probit model. The estimation results are reported respectively in Tables B.1 and B.2.

It is worth mentioning that the direction of causality is sometimes difficult to establish in these kinds of analysis. The results below allow the identification of variables closely related with poverty, but the direction of causation will require more sophisticated analysis.

**Table B.1: Correlates of Consumption, 2017**

	Gabon	Libreville/ Port-Gentil	Other urban	Rural
<b>Household socio-demographic characteristics</b>				
Household size	-0.105*** (0.01)	-0.094*** (0.01)	-0.113*** (0.01)	-0.107*** (0.01)
Share of members aged 0–14 years	-0.728*** (0.05)	-0.722*** (0.07)	-0.669*** (0.07)	-0.904*** (0.12)
Share of members aged 65+ years	0.031 (0.08)	0.355 (0.51)	0.129 (0.17)	0.044 (0.10)
Age of household head	0.011* (0.00)	0.002 (0.01)	0.013 (0.01)	0.011 (0.01)
Age of household head squared	-0.000** (0.00)	-0.000 (0.00)	-0.000 (0.00)	-0.000 (0.00)
Gender of household head	-0.016 (0.02)	-0.020 (0.03)	-0.014 (0.03)	0.023 (0.04)
Head of household migrant	0.064*** (0.02)	0.041 (0.03)	0.034 (0.03)	0.128*** (0.04)
Education of the head ( <i>omitted: no education</i> )				
Primary education	0.021 (0.03)	-0.018 (0.05)	0.017 (0.04)	0.080 (0.05)
Lower secondary education	0.068* (0.03)	0.014 (0.04)	0.085* (0.04)	0.153** (0.05)
Upper secondary education	0.104*** (0.03)	0.065 (0.04)	0.119* (0.05)	0.114 (0.06)
Tertiary education	0.224*** (0.04)	0.161*** (0.05)	0.292*** (0.06)	0.162* (0.08)
<b>Household economic activity</b>				
Sector of employment of the head ( <i>omitted: agriculture</i> )				
Mining & quarrying	0.193*** (0.06)	-0.141 (0.12)	0.316*** (0.09)	0.219** (0.08)
Manufacturing	0.056 (0.04)	-0.123 (0.11)	0.074 (0.06)	0.075 (0.07)
Services	0.135*** (0.03)	-0.057 (0.11)	0.142*** (0.04)	0.206*** (0.04)
Status of employment of the head ( <i>omitted: household worker / trainee</i> )				
Director, executive and employer	0.220*** (0.05)	0.307*** (0.09)	0.140* (0.07)	0.145 (0.08)
Qualified worker / employee	0.076 (0.04)	0.145 (0.09)	0.032 (0.06)	-0.010 (0.06)
Unqualified worker / employee	-0.015 (0.04)	0.039 (0.09)	-0.049 (0.07)	-0.149* (0.07)
Self-employed worker	0.131** (0.04)	0.220* (0.09)	0.082 (0.06)	0.029 (0.05)
<b>Housing characteristics</b>				
Access to water ( <i>omitted: unprotected water</i> )				
Protected water	0.082* (0.04)	-0.075 (0.14)	0.131 (0.09)	0.016 (0.04)
Public piped water	0.067 (0.04)	-0.155 (0.13)	0.159 (0.08)	0.071 (0.04)
Private piped water	0.162*** (0.04)	-0.015 (0.12)	0.204* (0.08)	0.108* (0.05)
Access to sanitation ( <i>omitted: no facility</i> )				
Traditional unimproved sanitation	-0.032 (0.03)	-0.128* (0.06)	-0.051 (0.06)	0.057 (0.04)
Improved latrine	0.043 (0.04)	-0.032 (0.06)	0.019 (0.06)	0.136* (0.06)
Modern toilet	0.222*** (0.03)	0.140* (0.06)	0.215*** (0.06)	0.243*** (0.05)
Mobile phone in the household	0.130*** (0.02)	0.061 (0.03)	0.121** (0.04)	0.231*** (0.04)
Geographic location ( <i>omitted: rural</i> )				
Libreville/Port-Gentil	0.179*** (0.03)			
Other urban	0.088** (0.03)			
Constant	13.878*** (0.11)	14.701*** (0.26)	13.953*** (0.19)	13.817*** (0.21)
Observations	5668	1775	2375	1518
R-squared	0.542	0.480	0.540	0.528

Standard errors in parentheses. \* p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01

Source: EGEP 2017.

**Table B.2: Correlates of Poverty, 2017**

	Gabon	Libreville/Port-Gentil	Other urban	Rural
<b>Household socio-demographic characteristics</b>				
Household size	0.207*** (0.02)	0.163*** (0.03)	0.235*** (0.02)	0.285*** (0.04)
Share of members aged 0–14 years	1.394*** (0.16)	1.403*** (0.29)	1.291*** (0.22)	1.433*** (0.29)
Share of members aged 65+ years	-0.070 (0.22)	2.146 (1.89)	-0.208 (0.46)	-0.052 (0.25)
Age of household head	-0.014 (0.01)	0.037 (0.04)	-0.029 (0.02)	-0.027 (0.02)
Age of household head squared	0.000 (0.00)	-0.000 (0.00)	0.000 (0.00)	0.000 (0.00)
Gender of household head	-0.040 (0.07)	-0.110 (0.14)	-0.014 (0.10)	-0.029 (0.11)
Head of household migrant	-0.139* (0.07)	-0.028 (0.15)	-0.142 (0.09)	-0.273** (0.09)
Education of the head ( <i>omitted: no education</i> )				
Primary education	-0.104 (0.09)	0.021 (0.21)	-0.194 (0.13)	-0.040 (0.14)
Lower secondary education	-0.220* (0.09)	-0.068 (0.17)	-0.323** (0.12)	-0.273 (0.15)
Upper secondary education	-0.338** (0.11)	-0.226 (0.19)	-0.384** (0.14)	-0.409* (0.20)
Tertiary education	-0.783*** (0.14)	-0.850*** (0.24)	-0.737*** (0.19)	-0.289 (0.29)
<b>Household economic activity</b>				
Sector of employment of the head ( <i>omitted: agriculture</i> )				
Mining & quarrying	-0.195 (0.16)	0.922 (0.49)	-0.598* (0.26)	-0.365 (0.23)
Manufacturing	-0.029 (0.13)	0.326 (0.47)	0.029 (0.21)	0.141 (0.19)
Services	-0.162 (0.09)	0.416 (0.44)	-0.121 (0.12)	-0.549*** (0.15)
Status of employment of the head ( <i>omitted: household worker / trainee</i> )				
Director, executive and employer	-0.418** (0.16)	-0.574 (0.36)	-0.451* (0.23)	-0.182 (0.28)
Qualified worker / employee	-0.172 (0.14)	-0.374 (0.32)	-0.201 (0.22)	0.224 (0.21)
Unqualified worker / employee	0.143 (0.15)	0.029 (0.33)	0.094 (0.22)	0.470* (0.22)
Self-employed worker	-0.152 (0.13)	-0.417 (0.34)	-0.087 (0.21)	0.080 (0.18)
<b>Housing characteristics</b>				
Access to water ( <i>omitted: unprotected water</i> )				
Protected water	-0.047 (0.11)	0.116 (0.60)	-0.184 (0.23)	-0.013 (0.14)
Public piped water	-0.094 (0.11)	0.122 (0.57)	-0.282 (0.23)	-0.183 (0.13)
Private piped water	-0.338** (0.11)	-0.314 (0.56)	-0.401 (0.22)	-0.116 (0.15)
Access to sanitation ( <i>omitted: no facility</i> )				
Traditional unimproved sanitation	0.093 (0.09)	0.593* (0.25)	0.072 (0.15)	-0.117 (0.11)
Improved latrine	-0.118 (0.11)	0.305 (0.26)	-0.131 (0.17)	-0.456* (0.20)
Modern toilet	-0.583*** (0.11)	-0.041 (0.25)	-0.747*** (0.16)	-0.563** (0.17)
Mobile phone in the household	-0.246*** (0.07)	-0.006 (0.17)	-0.316** (0.12)	-0.394*** (0.10)
Geographic location ( <i>omitted: rural</i> )				
Libreville/Port-Gentil	-0.427*** (0.11)			
Other urban	-0.200* (0.09)			
Constant	-0.604 (0.33)	-3.158** (1.13)	-0.292 (0.57)	-0.516 (0.50)
Observations	5668	1775	2375	1518
Pseudo R-squared	0.361	0.309	0.358	0.367
Log Likelihood	-131626.16	-46275.95	-57188.14	-24745.35

Standard errors in parentheses. \*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

Source: EGEP 2017.

## Appendix C: Multidimensional Poverty Index

Alkire and Foster (2011) propose a simple methodology for the measurement of multidimensional poverty, which employs a generalization of the conventional Foster-Greer-Thorbecke (FGT) poverty measures to account for multidimensionality. The approach builds on the work on multidimensional poverty and deprivation developed by the Oxford Poverty & Human Development Initiative (OPHI) and introduces an intuitive approach to identify the poor using two forms of cutoff: one within each of the relevant dimensions of the welfare to determine whether a person suffers shortfalls in that dimension, and a second across dimensions that delineates how widely deprived a person must be in order to be considered poor and identifies the poor by ‘counting’ the dimensions in which an individual is deprived. They propose an adjusted FGT measure that is particularly suitable for use with ordinal data and informs on the breadth of multiple deprivations of the poor.

Consider a number of relevant dimensions of well-being,  $d \geq 2$ , for a population of  $n$  individuals. The well-being dimensions might relate to education, living standards, or access to basic services and so forth. The individuals’ achievements are denoted by the  $n \times d$  matrix  $y = [y_{ij}]$ , where  $y_{ij} \geq 0$  is the achievement of individual  $i$  in dimension  $j$ .

The first step is to determine a threshold or *deprivation cutoff*,  $z_j > 0$ , for each dimension, according to which individuals can be considered as deprived in that dimension. Then, construct the  $n \times d$  matrix of deprivations  $g^0 = [g^0_{ij}]$ , where  $g^0_{ij} = 1$  when  $y_{ij} < z_j$  (*deprived*) and  $g^0_{ij} = 0$  if  $y_{ij} \geq z_j$  (*non-deprived*). A vector  $C$  of deprivation scores is constructed from the matrix  $g^0$ , where the deprivation score for each individual  $i$  is defined by the following weighted sum:

$$c_i = \sum_j w_j g^0_{ij}$$

where  $w_j$  is the weight associated with each dimension  $j$ , and summing to  $d$ .

The second step consists in identifying the poor and is based on the selection of a cutoff level for the deprivation scores and a definition of an identification function. Let  $k \leq d$  is the poverty cutoff and  $\rho_k(y_i; z)$  is the identification function defined as follows:

$$\rho_k(y_i; z) = 1 \quad \text{if } c_i \geq k \quad (i \text{ is poor})$$

and

$$\rho_k(y_i; z) = 0 \quad \text{if } c_i < k \quad (i \text{ is nonpoor})$$

$\rho_k(y_i; z)$  identifies individual  $i$  as poor when the number of dimensions in which he/she is deprived is at least  $k$ .

### *Incidence or headcount ratio*

Based on  $\rho_k$ , the headcount ratio, which measures the proportion of people identified as multidimensional poor, can be defined as:

$$H(y, z) = \frac{\sum_{i=1}^n \rho_k(y_i, z)}{n} = \frac{q}{n}$$

This is analogous to the conventional income headcount ratio which measures the incidence of poverty, but in a multidimensional setting.

The headcount ratio has two main shortcomings: first, it remains unchanged if a poor individual becomes deprived in a new dimension. Second, it does not allow the evaluation of the contribution of each dimension to poverty.

### Intensity of multidimensional poor's deprivation

To address these shortcomings, Alkire and Foster (2011) suggest an additional measure that assesses the breadth of deprivation experienced by the poor:

$$A = \frac{\sum_{i=1}^n c_i(k)}{dq}$$

where  $A$  measures the average proportion of deprivations in which the poor are deprived, through calculating the percentage of total deprivations each poor person has ( $c_i(k)/d$ ) and calculating the average of those percentages across the poor (dividing by the number of poor only,  $q$ ).

### Construction of the MPI

The Multidimensional Poverty Index (MPI) is then defined as a combination of the headcount and the average proportion of deprivation to inform on the prevalence of poverty and the average extent of a poor individual's deprivation. It is given by the simple product of  $H$  and  $A$ :  $MPI = HA$ . MPI represents the proportion of weighted deprivations experienced by the poor relative to the maximum potential deprivations that could be experienced by the whole population.

The contribution of each dimension to poverty,  $CD_j$ , can be calculated using MPI as:

$$CD_j = \frac{\left(\frac{w_j}{d}\right) \sum_{i=1}^n w_j g_{ij}^0(k)}{w_j n MPI}$$

### MPI in Gabon

To estimate multidimensional poverty in Gabon, we consider 13 indicators within 5 main dimensions (Figure C.1).

Figure C.1: Welfare Dimensions and Indicators of Gabon's MPI

Dimensions	Indicators	Weight	Deprivation criteria
Education	Years of schooling	1/10	No household member age 10 years or older has completed at least five years of schooling.
	Child school attendance	1/10	Any school-age child (6 to 15 years old) is not attending school.
Health	Child mortality	1/10	Any child has died in the family in the five-year period preceding the survey.
	Nutrition	1/10	Any child for whom there is nutritional information is undernourished in terms of weight for age.
Housing conditions	Roof	1/20	The household has a plastic, cardboard, bark, straw, palm, bamboo, or 'other' (i.e., unspecified) type of roof.
	Wall	1/20	The household has a plastic, cardboard, bark, straw, palm, bamboo, dirt, mud bricks, or 'other' (i.e., unspecified) type of wall.
	Floor	1/20	The household has a dirt, sand, dung, or 'other' (i.e., unspecified) type of floor.
	Room	1/20	There are at least four household members per sleeping room.
Access to basic services	Electricity	1/20	The household has no electricity.
	Improved sanitation	1/20	The household has no sanitation facility.
	Improved drinking water	1/20	The household has only access to unprotected drinking water.
	Cooking fuel	1/20	The household cooks with dung, wood, or charcoal.
Assets	Assets	1/5	The household does not own a car or truck and the household does not own at least two of the following assets: radio, TV, telephone, bicycle, motorbike or refrigerator.

Sources: DHS 2012 and World Bank Staff.

**Education** which includes two indicators:

- *Years of schooling* where a household is considered non-deprived if at least one member older than 10 years have completed at least five years of schooling.
- *School attendance* where a household is non-deprived if all his members between 6 and 15 years old are attending school.

**Health** which includes two indicators:

- *Child mortality* where a household is considered non-deprived if no child has died in the family in the five-year period preceding the survey.

- *Nutrition* where a household is considered non-deprived if no child is undernourished in terms of weight for age.

**Housing conditions** which includes four indicators:

- *Roof* where a household is considered non-deprived if the roof is not made of plastic, cardboard, bark, straw, palm, bamboo, or 'other' (i.e., unspecified) type of roof.
- *Wall* where a household is considered non-deprived if the walls are not made of plastic, cardboard, bark, straw, palm, bamboo, dirt, mud bricks, or 'other' (i.e., unspecified) type of wall.
- *Floor* where a household is considered non-deprived if the floor is not made of dirt, sand, dung, or 'other' (i.e., unspecified) type of floor.
- *Room* where a household is considered non-deprived if there are less than four household members per sleeping room.

**Access to basic services** which includes four indicators:

- *Electricity* where a household is considered non-deprived if it has access to electricity.
- *Sanitation* where a household is considered non-deprived if it has access to any kind of improved toilet facility.
- *Water* where a household is considered non-deprived if it has access to at least a protected source of water.
- *Cooking fuel* where a household is considered non-deprived if the household does not cook with dung, wood, or charcoal.

**Assets** ownership where a household is non-deprived if it owns a car or truck, and at least four of the following assets: radio, TV, telephone, bicycle, motorbike or refrigerator.



## Appendix D: Poverty maps

Monetary poverty indices were computed using EGEP 2017 and 2013 Population Census data (RGPL) as well as a long of series of education, employment, demographic and dwelling characteristic indicators. They have been computed at provincial, departmental and cantonal/communal levels. For the three largest cities (Libreville, Franceville and Port-Gentil), cantons were replaced by arrondissements.

The poverty map methodology yields statistically robust poverty figures as long as imputations are done on administrative units of at least 800-1000 households. In the case of Libreville, the six arrondissements had between 10,000 and 40,000 households. Such large units ought to be relatively heterogenous in terms of standard of living. Large geographic heterogeneity makes it difficult to target poorest populations as relatively rich arrondissements may have pockets of poverty, which will be difficult to identify. In order to understand the distribution of poverty at a more granular geographic level, it was necessary to refine the analysis at the neighborhood level in large cities. A World Bank mission worked closely with the Gabon National Statistics Office to define neighborhoods at sub-arrondissement levels. While these neighborhoods do not official administrative delimitations, they remain useful for a better understanding of the distribution of poverty within large cities.

The neighborhoods were defined by superposing aerial maps of arrondissements in largest cities with actual borders of the census-based enumeration areas (*SD, secteur de dénombrement*). We delimited neighborhoods as defined by roads/rivers/forest/swamp so they can be easily identified in the field. The six arrondissements in Libreville were split into 89 neighborhoods. Those neighborhoods were not attributed any names but simply numbers. In Port-Gentil and Franceville, the four arrondissements were broken down into respectively 22 and 13 neighborhoods. Neighborhoods were also defined for two communes surrounding Libreville that are usually seen as part of Grand Libreville: Akanda 2 (6 neighborhoods) and Owendo 1 (13 neighborhoods).

Poverty and non-monetary indicators – the same as in the main report – were computed for all these neighborhoods. GIS shapefiles were also created for all these neighborhoods to allow the visualization of these indicators on maps.

The neighborhood-level figures confirm large heterogeneity in living conditions and poverty across the different arrondissements, corroborating the importance of a detailed spatial analysis of poverty at a granular geographic level for a more efficient targeting of anti-poverty interventions.