



MAYS MOUISSI
CONSULTING

Impacts of Olam Group's activities on the Economy of the Republic of Gabon between 2010 - 2017

Study of :
Mays Mouissi

In collaboration with :
Richelieu Zué Obame
Claude-Tania Mengue
Ariole Meye me Ndong
John Nzenze
Florence Coniquet Gondjout
Valérie Aleksandrowicz
Chris Vianney Sutu
Yacine Bio-Tchané



Mays Mouissi Consulting

Registered in Québec (Canada) under the NEQ
2272329394

<https://mays-mouissi-consulting.com>

© Reproduction subject to prior authorization

TABLE OF CONTENTS

Acronyms	5
Executive Summary	6
Introduction / Context	10
Methodological approach	11
□ Study Parameters.....	11
□ General Methodology of the Study	12
□ Data Preparation and Analysis	13
□ Interviews with Stakeholders	14
□ Difficulties Encountered.....	16
Part 1: Direct and Indirect Economic Impacts of Olam Group's Activity	17
1.1 Impacts on value creation.....	17
1.1.1 The influence of Olam Group on Gabon's GDP	17
1.1.2 Olam Group Impacts on GDP Growth by Sector	19
1.2 Impacts on investment in Gabon	48
1.2.1 Situation of foreign direct investment in Gabon	48
1.2.2 Contribution of Olam group in foreign direct investment in Gabon	50
1.3 Impacts on public finances and tax contribution	54
1.4 Impacts on exports and the trade balance.....	56
1.5 Impacts on the diversification and resilience of the Gabonese economy	58
1.6 Impacts on the Gabonese Economic Model (Increased PPP)	62
1.7 Competitiveness, international influence and investor attraction	64
Part 2: Social impacts of Olam Group's Activity.....	66
2.1 Impacts on job creation and poverty reduction	67
2.1.1 Impact on the national employment structure and the unemployment rate	67
2.1.2 Poverty reduction and empowerment (distributed income / purchasing power)	74
2.1.3 Indirect social impacts (people impacted in the broad sense)	76
2.2 Impacts of the social commitment	78
2.3 Impacts on the cost of living	81
2.3.1 Impacts related to the commissioning of a new port.....	81
2.3.2 Impacts related to increased domestic agricultural production	81
2.3.3 Impacts related to the electrification of villages	83
2.4 Impacts on rural populations	85
2.4.1 Revitalization of economic activity in the hinterland	85
2.4.2 Settlement of the population and reverse exodus	86
2.5 Impacts on the improvement of the quality of life	87
2.5.1 Housing.....	87
2.5.2 Nutrition Quality for the populations	87
2.5.3 Access to basic social amenities	88
2.5.4 Purchasing Power	88
Overall conclusion and recommendations	89
Bibliography.....	93
Appendices	94

Table List

Table 1 Macro-sectoral distribution of nominal GDP in 2010 and 2016	17
Table 2 Evolution of GDP contribution in Olam's business sectors	18
Table 3 Olam and GSEZ contribution to nominal GDP in 2016	18
Table 4 Evolution of Olam Palm Gabon's production between 2015 and 2017	22
Table 5 Synthesis of the impacts on the Palm Oil Sector.....	23
Table 6 Synthesis of impacts on the Hevea sector	24
Table 7 SOTRADER figures in 2017	26
Table 8 Number of wood processing units by specialty in Gabon	27
Table 9 Projection of total industrial capacity on Nkok in the short term	28
Table 10 Wood processing enterprises operating or under construction in Nkok SEZ.....	36
Table 11 Summary of impacts on the wood industry.....	37
Table 12 Other Industries Installed in the Nkok SEZ.....	38
Table 13 Summary of impacts on port activity in Owendo	42
Table 14 Comparative table of the activity of GSEZ Mineral Port and the COMILOG ore port in 2017.....	44
Table 15 Key figures of GSEZ Mineral Port in 2017.....	44
Table 16 Synthesis of impacts on the manganese sector	47
Table 17 Greenfield investments in Gabon between 2005 and 2016.....	49
Table 18 Olam and GSEZ investments in Gabon since 2010	51
Table 19 Situation of the debt of GSEZ in 2018.....	51
Table 20 Tax incentives granted to OLAM, GSEZ and companies operating in the Nkok SEZ	55
Table 21 Evolution of exports by product between 2014 and 2016.....	57
Table 22 GDP growth by sector between 2010 and 2016.....	58
Table 23 PPPs concluded by the Government of Gabon in the field of infrastructure.....	63
Table 24 Evolution of Gabon's Doing Business position between 2010 and 2018.....	64
Table 25 Evolution of Olam's weight in the distribution of jobs in Gabon between 2010 and 2017	68
Table 26 Job Distribution at Nkok SEZ	69
Table 27 Direct and indirect impacts of Olam and GSEZ on employment in 2017.....	69
Table 28 summary of social impacts	72
Table 29 Positive and negative observations of Olam employees in relation to their work	73
Table 30 Staff satisfaction.....	75
Table 31 Nombre de personnes impactées indirectement pour chaque employé d'Olam en zone rurale.....	76
Table 32 Basic infrastructure existing in the villages visited.....	78
Table 33 Approximate investment costs for the 14 sample villages (Mouila and Bitam)	79
Table 34 Evaluation of the investment cost of solar panels per village	83
Table 36 Recommendations related to social conditions and CSR.....	91
Table 37 Recommendations on the working conditions of Olam and GSEZ employees.....	92

Figures List

Figure 1 Contribution of Olam and GSEZ to Gabon's nominal GDP and non-oil GDP in 2016.....	18
Figure 2 Public budgets for agriculture and Olam investments in the agricultural sector	20
Figure 3 Evolution of farmland developed since 2009	20
Figure 4 Evolution of Gabon's agricultural GDP	21
Figure 5 Added value created by the agricultural sector in Gabon's economy	26
Figure 6 Main exporters of tropical sawn timber	29
Figure 7 The top 10 African producers of sawn timber in 2010 and 2016.....	30
Figure 8 Main producers of tropical veneer.....	31
Figure 9 The Top 10 African Veneer Producers in 2010 and 2016	32
Figure 10 The Top 10 African Plywood Producers in 2010 and 2016.....	34
Figure 11 Investments in the construction, equipment and modernization of ports between 2010 and 2017	39
Figure 12 Volume of goods transiting through Owendo ports (in tons)	40
Figure 13 Container traffic and number of boat movements in Owendo	41
Figure 14 Plan of the NOIP and its supporting infrastructures	41
Figure 15 Evolution of manganese production and exports	45
Figure 16 Evolution of manganese sales between 2010 and 2017.....	45
Figure 17 Expected contribution of the mining sector to Gabon's GDP	46
Figure 18 Inward FDI flows in Gabon between 2010 and 2016	48
Figure 19 Evolution of FDI stock in Gabon between 2010 and 2016	49
Figure 20 Origin of the GSEZ debt at the end of March 2018.....	52
Figure 21 Contribution indirecte de GSEZ dans les investissements	53
Figure 22 Payments made by Olam to the tax authorities	55
Figure 23 Value of Gabon's imports and exports between 2010 and 2017	56
Figure 24 Contribution of the sectors of activity where Olam intervenes in the formation of the GDP	60
Figure 25 Gabon's rank in classement Doing Business 2018.....	64
Figure 26 Breakdown of jobs between Olam projects in Gabon in 2017	67
Figure 27 Evolution of the unemployment rate between 2010 and 2017	68
Figure 28 Previous Olam Employee Positions.....	71
Figure 29 Olam's global impact on employees' social conditions	73
Figure 30 Departmental roads maintained by Olam near Bitam (in blue)	80

Appendices List

Appendix 1 Table of Mining Rights in Gabon	94
Appendix 2 The top 30 global producers of sawn timber in 2016.....	95
Appendix 3 Evolution of African production of veneer	96
Appendix 4 Top 20 global producers of veneers (hardwood & softwood) in 2016	97
Appendix 5 Table of social impacts of Olam on its employees (Estuaire)	98
Appendix 6 Interview Guide	99
Appendix 7 Africa Investment Index 2018.....	102

Acronyms

AFC	Africa Finance Corporation
AFDB	African Development Bank
ANPI	National Agency for the Promotion of Investments
CEMAC	Economic and Monetary Community of Central Africa
CICMHZ	Huazhou Industrial and Commercial Mining Company
CIMAF	African Cement Company
CLIP	Informed and Prior Informed Consent
CNAMGS	National Health and Social Insurance Fund
COMILOG	Mining Company of Ogooué
CSP	Country Strategy Paper
DTF	Distance to frontier
DGEPP	Directorate General of the Economy and Tax Policy
DGFP	General Directorate of Public Finance
EPSA	Enhanced Private Sector Assistance for Africa
FAPA	Fund for African Private Sector Assistance
FDI	Foreign Direct Investments
FOB	Free On Board
GDP	Gross Domestic Product
GPM	Gabon Port Management
GRAINE	Gabonese Agricultural Achievements and Committed National Initiatives
GSEZ	Gabon Special Economic Zone
IFAD	International Fund for Agricultural Development
IGA	Income Generating Activities
ILO	International Labor Organization
IRPP	Income Tax of Physical Persons
ISIN	International Securities Identification Number
MCBF	Microfinance Capacity Building Fund
MT/year	Metric tons per year
NOIP	New Owendo International Port
PDAR	Rural Agricultural Development Project
PPP	Private public partnership
PRODIAG	Agricultural Development and Investment Project in Gabon
CSR	Corporate Social Responsibility
SEZ	Special Economic Zone
SOTRADER	Agricultural Transformation and Rural Development Society
TBE	Dashboard of Economy
TEU	Twenty-Foot Equivalent Unit
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
VTA	Value added tax
XAF	African Financial Community Franc
ZERP	Economic Zone with Preferential Regime

Executive Summary

Established in Gabon since 1999, the Singaporean group Olam has been involved in forestry activities for more than 10 years. In 2010, a strategic reorientation was implemented, leading to the expansion and diversification of its activities. In this context, Olam has concluded PPPs with the Gabonese Government in the agricultural, industrial and transport sectors in which it has made investments.

From the socio-economic impact study of the activities of the Olam group on the Gabonese Republic economy during the 2010 – 2017 time period, the following conclusions emerge:

At the Economic Level

Olam had a critical impact in the sectors of activity it is involved in, directly or indirectly. Between 2010 and 2016, the value added of the agricultural sector in the formation of GDP increased by 30%, that of the wood industry increased by 193%, the agribusiness industry by 40% and the transport industry by 34%.

At the national level, in 2016 Olam contributed XAF 295 billion in the formation of Gabon's nominal GDP. The added value created by Olam in the Gabonese economy represents 3.6% of the nominal GDP (XAF 8 311 billion) and 5% of the nominal GDP excluding crude oil and oil services (5 895 billion XAF).

At the macro-sectoral level, in 2016 Olam was responsible for 50% of the added value created by the agricultural sector, 40% of the added value created by the wood industry, 30% of the added value created by the food industry and 5% of added value created in the transport industry.

Agriculture

In the agricultural sector, Olam's cumulative investment between 2011 and 2017 reached XAF 508 billion. It is the largest investment in value ever achieved in national agriculture within a similar timeframe. In comparison, the share of the national budget devoted to agriculture between 2011 and 2017 was only XAF 38 billion. 73% of Olam's agricultural investments are in palm oil against 23% for rubber and 4% for the GRAINE project. These investments contributed to the increase in agricultural GDP, which rose from 3.9% to 6.1% between 2013 and 2017.

As a result of Olam's activity, the agricultural area developed in Gabon increased from 16,212 hectares in 2009 to 91,801 hectares in 2017 and could reach 98,212 hectares in 2020 with the expansion of Mouila and Bitam's plantations. Cropland area devoted to palm oil cultivation increased by 626% from 7,300 hectares in 2010 to 53,300 hectares in 2017, or about 1% of the country's arable land. The area devoted to rubber cultivation increased in the same period from 12 000 hectares to 22 860 hectares (+ 91%) and represent approximately 0.4% of arable land.

As a logical consequence of Olam's agricultural investments, between 2015 and 2017, national production of palm nut increased from 3 472 tons to 99 596 tons (+ 2769%). The same increase was recorded for virgin oil production increasing from 713 tons to 26 539 tons (+ 3622%) and for red palm oil production increasing from 129 tons to 1 718 tons (+ 1232%). Increased production volumes have enabled Gabon to improve its position amongst global palm oil producers. Between 2010 and 2017, Gabon went from 35th world oil palm producer to 27th (11th African producer). It now provides about 0.04% of world production against 0.01% in 2010. According to projections, when Olam Palm's plantations will reach maturity, Gabon could become the 3rd largest African producer of palm oil, entering the world top 10.

Finally, the contribution of the GRAINE project to the agricultural GDP is still negligible.

The Forest Industry

Following the government's decision of 6 November 2009 banning log exports starting 2010, GSEZ's investment in the Nkok SEZ (XAF 307 billion) favored the installation of 77 companies at the end of 2017, including 55 companies in production and 22 under construction. Among the enterprises in production, there are about 40 wood industries (29% of wood processing units in Gabon). The Nkok SEZ has been the main support for structural changes in the timber industry. To date, it absorbs 46% of the national production of logs. 42% of processed wood from Gabon and 53% of processed wood exported comes from the Nkok SEZ. On the industrial front, it accounts for 36% of industrial capacity in the wood sector (914,050 m3 on 2.5 million m3). As of March 31, 2018, Nkok's timber-sector enterprises employed approximately 2,500 people (19% of direct jobs in the industry)

In 2010, the timber industry accounted for 1.5% of Gabon's nominal GDP. In 2016, it rose to 2.3%. During this period, the contribution in value of the sector in the formation of the GDP went from XAF 62.2 billion to XAF 160 billion (+ 157%). The output of Nkok's timber industries is about 0.6% of GDP. In 2017, Gabon was the African leader in plating (12th worldwide) and 4th in the sawing segment (26th worldwide).

In 2017, with a production of 270,000 m3, Gabon was the African leader in veneer (6th world producer of tropical veneer and 12th worldwide producer of all types of veneers). For sawn timber, Gabon was the 4th largest producer in Africa and the 26th worldwide, all types of sawnwood combined. With around 650,000 cubic meters of sawn timber, Gabon is the world's fourth largest exporter of tropical timber sawn behind Cameroon (752,000 m3 exported) but ahead of Viet Nam (477,000 m3 exported).

If Gabon's rate of increase in industrial capacity was maintained, particularly within the Nkok SEZ, national production of veneers could eventually reach 396,867 m3. As for the sawing segment, with constant production growth rate, in 2020, Gabon could export 851,070 m3 of sawn wood per year. Under these circumstances, the contribution of the plating segment in the formation of GDP could increase by 35% and that of sawing by 20%.

Transport and mining

The commissioning of two new ports by GSEZ favored the increase of the volumes treated, an increase of the number of ship rotations (+ 14%) and probably an increase in the revenue of the sector.

The General Cargo port of the GSEZ group had a positive impact on the port performance, the quality of service and the reduction of the wait time for ships went from 4 days on average in 2016 to less than 24 hours today. The port also contributed to an increase in palm oil exports of 600%, a 40% drop in the airfare and the introduction of the box rate, which was still not practiced at the time in Gabon. However, in 2017, despite the new dock with a theoretical annual capacity of 300,000 TEUs and modern unloading cranes, container traffic at Owendo has remained stable at 145,000 TEUs since 2014.

As for the GSEZ Mineral Port, it contributed to a record export of manganese ore in 2017. The new ore port has provided one fifth of the transit of manganese volumes exported (about 4.8 million metric tons). Thus, in 2017, The GSEZ Mineral Port welcomed 25 ships (compared to 80 for COMILOG's Owendo ore carrier) to transport the NGM and CICMHZ manganese ore to their international customers. The GSEZ Mineral Port performed an average load of 32,000 tons for each export vessel, compared to 50,000 tons for the competing ore port. The availability of two port infrastructures (the Owendo Mineral Port and GSEZ Mineral Port), the increase in storage capacity, the increase in COMILOG, CICMHZ and NGM production as well as the good performance of manganese prices have allowed the Gabonese mining sector to cross the 4% threshold in GDP formation in 2017 and almost 10% of non-oil GDP.

Investments and tax contribution

Between 2010 and 2016, the cumulative flow of inward FDI into Gabon, all sectors combined, amounted to 5.1 billion USD. At the end of 2016, the stock of FDI represented 52.3% of the national wealth. Since 2010, Olam and GSEZ have invested 1,320 billion XAF in Gabon. 39% of the investments made by Olam in Gabon relate to agricultural projects. Olam Palm Gabon focuses 28% of Olam's investments in the country (370 billion FCFA) while the construction of the two port infrastructures in Owendo represented 30% of Olam's investments in the country over the period 2010-2017. The 307 billion FCFA invested by Olam to implement the Nkok SEZ represented at the end of 2017 about 19% of investments made by Olam in Gabon during the last 8 years. However, investments within the Nkok SEZ have been of a structuring nature, as they have attracted a new influx of FDI, especially from Asian countries whose companies have settled in the SEZ.

Regarding Olam's investments, the information gathered by the Company's management in the framework of this study shows that the projects were funded mainly by the shareholders and in particular by Olam International.

Regarding GSEZ investments, they are financed in a hybrid way with funds from both shareholders and financial institutions through loans. The total loans subscribed by the GSEZ group over the study period amounted to XAF 219 billion. XAF 53 billion has already been reimbursed. The balance to be paid on the group's debt amounted to XAF 166 billion at the end of the first quarter of 2018. Overall, GSEZ's debts come from 39% of international banks excluding CEMAC (XAF 85 billion), 33% from Gabonese banks (XAF 72 billion), 27% of CEMAC banks outside Gabon (XAF 60 billion) and 1% of other donors (XAF 2 billion).

Within the SEZ of Nkok, GSEZ has attracted between 130 and 200 million Euros of investment (all industries combined) from more than 90% of foreign manufacturers. The World Bank estimates the average investment for the implementation of the type of wood processing units found in the Nkok SEZ to be between 2 and 3.5 million EUR.

The impact of Olam on the government's fiscal revenue is weak. In fact, Olam and active companies in the Nkok ZES are exempt from custom fees and corporate tax for 10 years, VAT for 25 years and property tax. In addition, several projects launched by Olam in recent years were in the investment phase (eg plantations, ports, etc.). As a result, they were not beneficiaries and would not have been subject to corporate tax even in the absence of exemptions. Between 2012 and 2017, Olam and GSEZ paid XAF 8.54 billion to the Head Office of Public Finances (Direction générale des finances publiques DGFP) or XAF 1.42 billion per year on average. Despite its growing weight in the national economy, the annual tax contribution of the Olam group in government revenues represents less than 0.08% of total revenue. While the impact of Olam and GSEZ on the ongoing economic diversification process in Gabon is significant, their impact on the diversification of government revenues is still negligible.

Trade balance and exports

The impact of Olam on the value of exports and the balance of trade is mainly related to processed and exported timber. Indeed, the wood processing units operating in the Nkok SEZ (around 40 to the end of 2017) made it possible to increase the value of timber exports in a context where the value of other export products was declining. Thus, between 2014 and 2016, the value of exports of processed wood rose from XAF 240 billion to XAF 335 billion (+ 40%), while at the same time the value of exports of petroleum products fell by 49%, that of manganese 34% and other exports by 11%.

Container exports from the SEZ accounted for about 28% of total container exports at the national level. The first exports of palm oil amounted to XAF 2 billion.

Diversification of the economy

Oil remains a pillar of the Gabonese economy. However, its contribution to GDP formation declined between 2010 and 2016 as a result of lower world oil prices and increased private investment in other sectors of the economy. By investing heavily since 2011 in agriculture, the special economic zones and a mineral port, the Olam group has contributed to increasing the added value created by these sectors. These investments are of particular interest because they allowed to develop the non-oil sector around which the Gabonese economy will eventually have to be structured because of the downward trend of its oil production.

Macroeconomic results at this stage are encouraging:

- Agricultural GDP rose from 3.6% to 5% between 2010 and 2017
- The GDP of the wood industry increased from 2.8% to 3.7% between 2010 and 2017
- The mining sector's GDP increased from 3.7% to 6% between 2010 and 2017

At the Social Level

Employment is to this day the social aspect where Olam's impact is the most significant. Between 2010 and 2017, the unemployment rate in Gabon dropped by 1.9% according to the ILO. 24.21% of this decrease is directly attributable to the recruitments made by Olam and its subsidiaries, a downward impact on the unemployment rate of 0.46%.

During this period, nearly 24% of formal jobs created in Gabon were by Olam and its subsidiaries. In the formal private sector, Olam created 42% of new jobs. From 1,100 employees in 2011, this conglomerate employed 17,480 people at the end of 2017, positioning itself as the largest private employer in Gabon. Olam has also changed the sectoral distribution of employment. At the end of 2017, the agricultural sector employed 16,704 people, or 17.8% of the formal private sector jobs in the country, compared to 0.2% in 2010. The activity of Olam Palm Gabon allows the agricultural sector to be the main employer in the country after public administration.

At the end of 2017, Olam and its subsidiaries together accounted for 8.7% of formal employees in Gabon and 18.6% of employees in the formal private sector. More than 80% of the jobs created are blue collar jobs. If Olam's recruitment rate were maintained over the 2018-2022 period, it would allow the formal private sector to have more employees than the public sector for the first time since Gabon's independence.

Regarding the social commitment of Olam, from the field survey carried out in 14 villages, it appears that almost 80% of the commitments contained in the social contracts signed between Olam and the populations were made. In addition to the aspects contained in the social contracts, Olam opened 142.5 kilometers of dirt roads in the Bitam area and maintained them. The number of roads maintained by Olam in this zone represents 26% of the roads in registered lands and 23% of all roads in the department, including paved roads.

Regarding the rural electrification program implemented by Olam in the context of its CSR, exchanges with the village populations have made it possible to retain that the cost-effectiveness ratio is unsatisfactory. The population thinks that with the funds allocated to equip the villages with public solar panels, Olam could have equipped each village with more efficient mechanisms, notably allowing them to access electricity in their homes, which would have had a real impact on their quality of life and their economic activities.

Lastly, Olam's activity in the inland has encouraged the urban exodus of people looking for work and the sedentarisation of the populations around Mouila and Bitam.

Introduction / Context

Olam International Limited is a Singaporean group operating mainly in the agri-food industry, of which it is one of the world leaders. Listed on the Singapore Stock Exchange (Singapore Exchange SGX - ISIN code: SG1Q75923504), it employs approximately 80,000 people in over 65 countries, including 28 on the African continent and has more than 13,800 customers worldwide.

Established in Gabon since 1999, the Olam group initially operated in the wood industry. In 2010, Olam Gabon made a strategic reorientation in order to diversify its activities by engaging, with the Gabonese Government, in Public Private Partnerships (PPP), one of the most emblematic of which is the establishment of the special economic zone Nkok located 27 kilometers from Libreville (40.5% stake for Olam, 38.5% for the government of Gabon and 21% for the AFC). Olam Gabon has also developed palm oil plantations (70% stake for Olam, 30% for the government of Gabon) and rubber (80% stake for Olam and 20% for the government of Gabon), with the ambition to make Gabon one of the African leaders in these areas.

In 2014, Olam Gabon sold its assets in the forest sector to focus on PPPs with the Gabonese government.

Between 2014 and 2017, as a privileged partner of the Gabonese Government, Olam Gabon undertook investment in new areas. In this context, two new ports in the southern suburbs of Libreville were built, as well as power lines to connect rural communities to the national electricity grid. The Singaporean group is preparing to partake in the construction and management of airports.

Nearly 20 years after its establishment in the country, Olam has become a leading multisectoral group in Gabon. Thus, in the first quarter of 2018, the Olam group led 9 major projects in the country through its subsidiaries:

- **Olam Palm Gabon** (development of oil palm plantations and industrial processing)
- **Olam Rubber Gabon** (development of rubber plantations and industrial processing)
- **Zone économique spéciale de Nkok** (development of industrial SEZs)
- **Gabon Fertilizer company** (construction of a fertilizer plant in the Mandji Island SEZ)
- **Program GRAINE - SOTRADER** (support for farmers and support for agricultural cooperatives)
- **GSEZ Bulk Terminal** (port management)
- **GSEZ Multi-purpose Terminal** (port management)
- **GSEZ infra-Electrical lines** (connection of rural areas to the national electricity grid)
- **GSEZ Airports** (construction and development of airports, airport management)

The results of the present study should help highlight and assess the socio-economic impacts of the activities of the Olam group in Gabon between 2010 and 2017 in the various fields in which it operates.

Methodological approach

- **Study Parameters**

The objective of this study is to evaluate the socio-economic impacts of the Olam group in Gabon over the 2010-2017 timeframe through the various projects it has conducted in the country. The study is divided into two parts focusing on the economic impacts of the Olam Gabon group's activity on one hand and on the social impacts on the other.

The first part assesses more precisely the impact of the Olam group on the following economic and financial aspects:

- Wealth creation
- Investments
- Public Finances
- Exports and more broadly, the trade balance

The second part analyzes the social impacts of the Olam group against the following indicators:

- Employment
- The cost of living
- The social and responsible commitment of the group

The evaluation and the analysis of the economic impacts of the Olam group in Gabon was then carried out, sector by sector, on a quantitative basis by seeking the contribution of the Olam group in the formation of several macroeconomic benchmark aggregates. The study assesses Olam's contribution to the formation of Gabon's gross domestic product (GDP), foreign direct investment (FDI) inflow, industry-specific revenue, value creation, tax revenues and exports. In addition, the study analyzes the role played by the Olam group in accelerating the diversification of Gabon's economy, suffering from its over-dependence on the oil sector to this day.

The assessment of the social impacts of the Olam Group in Gabon is a cross-analysis that shows how employment created by the group changed the structural distribution of jobs at the national level and in the provinces where it operates. In addition, for the aspects of the study related to Olam's impacts on the cost of living, the following data was collected: Olam's investment in port infrastructure (90% of trade in Gabon is made by sea), volumes of food production of the Olam group (via the GRAINE program), the evolution of the prices of basic necessities before and after the commissioning of the new commercial port built by the Olam group in Owendo. Finally, this data was supplemented by field observations in some twenty towns and villages impacted by Olam's activities.

- **General Methodology of the Study**

The methodology used for this study includes six complementary steps. The following table gives a short description:

Steps	Description
Meeting with the leaders and experts of Olam Gabon	Working sessions were held at the headquarters of Olam Gabon in Libreville between the experts of Mays Mouissi Consulting (in charge of the realization of the study) on one hand and the Managing Director of Olam Gabon and his teams on the other. These working meetings made it possible to agree on the scope of the study, the revision period and collect the data necessary for its realization. These meetings also identified resource persons to meet within and outside the Olam group as part of the study.
Visit of the main sites of Olam Gabon	Officials of Olam Gabon group have been appointed to assist the experts in charge of carrying out the study on various sites. Seven sites were visited with a working session at each stage with the site managers and discussions with the employees. In addition, the consultants had working sessions with business partners (including those operating in the Nkok SEZ and NOIP).
Meeting with the populations	Hundreds of formal and informal interviews were conducted with local residents of Olam Gabon's sites in order to gather their opinion and their point of view on the impacts of these projects on their daily lives. Exchanges with the populations were carried out in 14 villages.
Literature review	Dozens of documents related to the projects and activities of Olam Gabon were collected. Their socio-economic aspects were analyzed to enrich certain parts of this study. They were regularly referenced throughout the analysis.
Data Collection	This step consisted in gathering all the data useful for the realization of the study; mostly economic, financial, fiscal and both social quantitative and qualitative data.
Data preparation and report writing	This concluding step consisted of analyzing and synthesizing the data collected before the final report was prepared.

- **Data Preparation and Analysis**

The preparation and analysis of the quantitative data collected from Olam Gabon, national authorities, international agencies and other local sources required the use of descriptive statistics.

The qualitative data was processed according to the triangulation method through crossing of opinions and information collected from various sources.

In addition to the data preparation and analysis, the experts in charge of carrying out this study visited several Olam sites, met various local Olam officials, exchanged with employees of the group, interviewed on each occasion. A sample of people living in the immediate environment of ongoing projects, worked with technicians from the Gabonese Ministries of Economy, Industry and ANPI, met with officials from NGOs working to protect the environment, etc. The site visits and the various exchanges made it possible to gather the opinions of active and passive actors on the socio-economic impact of the activities of Olam Gabon and to compare their views with the quantitative data collected.

The various sites visited during the realization of this study are:

- NOIP (Estuaire, Owendo municipality)
- New mineral port (Estuaire, Owendo municipality)
- Nkok SEZ (Estuaire, Komo-Mondah county)
- Awala palm plantation (Estuaire, Komo-Kango county)
- Mouila palm plantation (Ngounié, Douya-Onoye county)
- Mouila palm oil processing plant (Ngounié, Douya-Onoye county)
- Bitam rubber plantation (Woleu-Ntem, Ntem department).

- **Interviews with Stakeholders**

210 interviews were conducted with stakeholders in 3 provinces of the country:

- **46 interviews** with Olam officials, GSEZ, SOTRADER, public administration and local business leaders.

OLAM - GSEZ - SOTRADER

First name and last name	Role	Company	Interview Count
Gagan GUPTA	Country Director	Olam	2
Laetitia YUINANG	Deputy General Counsel	Olam	5
Alain SARAKA	Risk Director	GSEZ	5
Théophile OGANDAGA	General Coordinator	GSEZ	1
Roselyne CHAMBRIER	Business Development Head	Olam	1
Philippe GERY	Port Director	GSEZ Ports	1
Ranjan KUMAR SAHU	Chief Executive	GSEZ Mineral Port	1
Rahul ACHAREKAR	Commercial Director	GSEZ Ports	1
Sri HARI SANTHANAM	QHSE Manager Cargo Port	GSEZ Ports	1
Quentin MEUNIER	QHSE	Olam	1

19

PUBLIC ADMINISTRATION

First name and last name	Role	Company	Interview Count
Jean-Baptiste NGOLO ALLINI	Director General of Economics & Fiscal Policy	Ministry of Economy	2
Francis Thierry TIWINOT	Director General of Statistics	Ministry of Economy	1
Liban SOLEMAN	General Coordinator	BCPSGE	1
Emmanuel LEROUEIL	Chief of Staff	BCPSGE	1
Régis LACCRUCHE LELABOU	Harbormaster	OPRAG	1
Gabriel NTOUNGOU	General Manager	Nkok Administrative Body	1
Nina Alida ABOUNA	Executive Director	ANPI	1
Yannick EBIBIE NZE	Head of Strategy and Marketing	ANPI	2
Pascal Eva NZE	Financial Advisor	ANPI	1
Mme ONGALA	General Manager SMEs	Ministry of Industry	1
Patrick IBASSA	Civil Servant	Ministry of Industry	1
BIYOGHE OBAME	Civil Servant	Ministry of Industry	1
Anonymous	Senior Official		2
Anonymous	Senior Official		1

17

COMPANY LEADERS

First name and last name	Role	Company	Interview Count
Archit GOEL	Executive Director	Gabon Venner - Nkok	1
Indraneel BHAN	Senior Vice President	Greenply Gabon - Nkok	1
Amit GARG	Executive Director	Solid Wood Gabon	1
Rishabh SHRISHRIMAL	Executive Director	Africa View - Nkok	1
Anonymous	Executive Director	Woodville	1
Anonymous	Executive Director	-	3
Anonymous	Executive Director	-	1
Anonymous	Executive Director	-	1

10

- **100 interviews conducted in 14 villages** impacted by Olam projects in the provinces of Ngounié and Woleu-Ntem.

SAMPLE OF VILLAGES IMPACTED BY THE PROJECTS OF OLAM (NGOUNIE)			
Village Names	Province	County	Interview count
Mbadi	Ngounié	Douya-Onoye	7
Nanga	Ngounié	Douya-Onoye	7
Saint Martin des Apindji	Ngounié	Douya-Onoye	7
Bougonga	Ngounié	Douya-Onoye	7
Rembo	Ngounié	Douya-Onoye	8
Mboukou	Ngounié	Douya-Onoye	7
Mounigou	Ngounié	Douya-Onoye	7
Nguiamba	Ngounié	Douya-Onoye	7
57			

SAMPLE OF VILLAGES IMPACTED BY THE PROJECTS OF OLAM (WOLEU-NTEM)			
Village Names	Province	County	Interview Count
Avelemang	Woleu-Ntem	Ntem	7
Bibe Eba	Woleu-Ntem	Ntem	7
Assok	Woleu-Ntem	Ntem	7
Bikondom	Woleu-Ntem	Ntem	7
Okok	Woleu-Ntem	Ntem	8
Woumou	Woleu-Ntem	Ntem	7
43			

- **64 interviews with Olam employees spread over 6 sites:** GSEZ Port (General Cargo), GSEZ Mineral Port, Olam Palm Awala – Kango, GSEZ Nkok, Olam Palm Mouila and Olam Palm Batouri – Bitam.

SAMPLE OF OLAM EMPLOYEES INTERVIEWED		
Village Names	Interview count	%
Executing agents	50	78%
Foremen	9	14%
Managerial staff	5	8%
Senior executives	0	0%
64		

- **Difficulties Encountered**

The main difficulty encountered in this study relates to data, specifically:

- Its accessibility: although significant data were collected from Olam, in reports from the public administration, from local company managers and in the databases of international organizations, relevant data that would have allowed deeper analysis were not available. For the data available in the public administration, officials have been reluctant to share them with us at times.
- Its contradictory nature: the experts who carried out this study sometimes had to face contradictory data from different sources. Whenever this situation has occurred, data from the most credible source was taken into account in the study.

Accessibility to Olam sites outside Libreville and Owendo was extremely difficult because of the state of the roads. For example, the 92 kilometers between Libreville and Kango were completed in a 5-hour 4100000 drive. The poor condition of the road and the numerous accidents (4 truck accidents0 recorded that day) on this stretch pose a serious security problem and are a major obstacle to economic activity.

When discussing with Olam and GSEZ employees, some of them were hesitant to express themselves. However, our teams were given warm welcomes in the villages visited.

Part 1: Direct and Indirect Economic Impacts of Olam Group's Activity

1.1 Impacts on value creation

1.1.1 The influence of Olam Group on Gabon's GDP

The Nominal GDP of the Gabonese Republic amounted to XAF 8 311 billion in 2016. This economic aggregate reflects the total wealth produced in the country during the calendar year by all economic agents. Market GDP, which measures the added value of goods and services traded for a fee, accounted for 84% of nominal GDP, compared to 16% for non-market GDP.

The primary, secondary and tertiary sectors contributed almost equally (around 25% to XAF 2,100 billion) in the formation of the nominal GDP at the market price in 2016, whereas the primary sector was predominant (XAF 3,839 billion and 52% contribution to nominal GDP in 2010). The observed contraction of the primary sector results from 3 phenomena:

- A cyclical phenomenon linked to the decline in world crude oil prices, a mainstay of the Gabonese primary sector;
- A statistical readjustment that has led the government to include in the secondary sector the "oil services" formerly taken into account in the calculation of the contribution of the primary sector ;
- The increase in the value contribution of non-oil activities in the formation of nominal GDP.

GDP growth by sector between 2010 and 2016 (XAF billions)					
Year	2010	2016	GDP contribution in 2010	GDP contribution in 2016	Variation
Nominal GDP (market price)	7 371	8 311			
Merchant GDP	6 553	6 942	89%	84%	-5%
Primary sector	3 839	2 114	52%	25%	-27%
Secondary sector	700	2 053	9%	25%	15%
Tertiary sector	1 551	2 100	21%	25%	4%
Non-market services	817	1 369	11%	16%	5%

Table 1 Macro-sectoral distribution of nominal GDP in 2010 and 2016

Evaluating the contribution of Olam and its subsidiaries in Gabon's GDP amounts to determining their weight in the added value created in the sectors of activity where they operate. At the end of 2016, Olam Gabon and GSEZ were active in four areas of the national economy¹ :

- Agriculture with palm oil and rubber plantations
- Agro-industry with palm oil factories
- The wood sector with the Nkok SEZ
- Transports with its ports.

Between 2010 and 2016, the contribution to GDP of the sectors where Olam and GSEZ entered into operation increased. These increases range from 30% for agriculture (+ XAF 75 billion) to 193% for the wood industry (+ XAF 98 billion) and result partly from investments made by Olam and GSEZ in these sectors.

¹ Since the fertilizer plant and Nkoltang airport projects were not initiated yet, Gabon Fertilizer Company and GSEZ Airports are not considered here.

Evolution of contribution to GDP in Olam's business sectors (XAF billions)								
Year	2010	2011	2012	2013	2014	2015	2016	Variation 2010-2016
Agriculture, livestock, fishing	247	207	243	239	261	292	322	30%
Lumbering	52	44	51	51	65	75	91	76%
Food industry, drinks	115	133	120	125	145	151	162	40%
Wood industry	51	61	93	85	114	140	149	193%
Transport and communication	386	399	365	388	434	476	516	34%

Table 2 Evolution of GDP contribution in Olam's business sectors
(Source: DGEPF)

In 2016, Olam and GSEZ contributed XAF 295 billion in the formation of Gabon's nominal GDP. The creation of added value by the conglomerate is found mainly in the agricultural sector where 50% of the added value created is directly attributable to Olam (XAF 161 billion) and in the wood industry where 40% of the value added in the sector (XAF 60 billion) is directly attributable to the Nkok SEZ set up by GSEZ.

In the agri-food industry, the commissioning of large-scale, export-oriented palm oil processing plants has resulted in additional wealth creation in the sector by Olam Palm. In 2016, 30% of the value added created in agribusiness (XAF 49 billion) was attributable to Olam. While in transport, Olam contributed XAF 26 billion in value added sector (about 5%).

Contribution of Olam and GSEZ to nominal GDP in 2016 (XAF billions)			
Year	2016	Attributable to OLAM in 2016	Added Value OLAM 2016
Agriculture, livestock, fishing	322	50%	161
Lumbering	91	0%	0
Food industry, drinks	162	30%	49
Wood industry	149	40%	60
Transport and communication	516	5%	26

Table 3 Olam and GSEZ contribution to nominal GDP in 2016

At the national level, the XAF 295 billion value added created by Olam represents 3.6% of Gabon's nominal GDP (XAF 8,311 billion) and 5% of nominal GDP excluding crude oil and oil services (XAF 5,895 billion). These figures reflect the weight of Olam and GSEZ in the Gabonese economy, which has grown strongly since the implementation of the expansive development strategy in 2010.

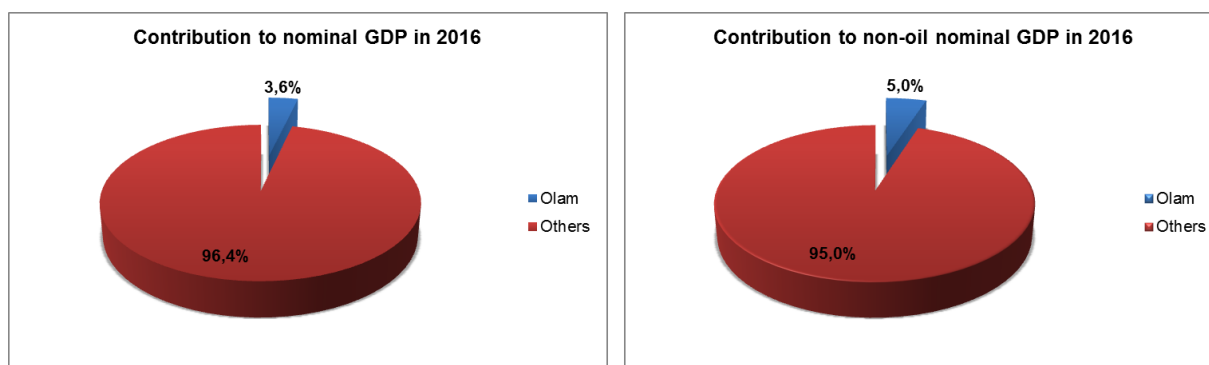


Figure 1 Contribution of Olam and GSEZ to Gabon's nominal GDP and non-oil GDP in 2016

1.1.2 Olam Group Impacts on GDP Growth by Sector

1.1.2.1 *Agriculture*

Nestled in the heart of the African equatorial forest and rich in a reserve of arable land of 5.2 million hectares, Gabon is naturally endowed with a large agricultural potential. Its dense hydrographic network and its rainfall levels (Gabon records annually between 1.5 and 4 meters of precipitation) predispose it to be an agricultural country. Upon the Gabon's accession to independence, the agricultural sector contributed 15% in the formation of GDP before gradually declining following the structuring of the national economy around the mining and oil sectors, the rural exodus, the devaluation of agricultural professions, the decline in investment and the absence of a strong agricultural policy. In 2017, the contribution of the agricultural sector in GDP formation was around 5%.

Since transforming its development model in Gabon in 2010, Olam has initiated 3 agricultural projects across the country. These projects are implemented by three distinct companies:

- **Olam Palm Gabon** : development of 58,000 hectares of palm plantations (38,000 hectares in Mouila in the province of Ngounié and 20,000 hectares in Awala in the Estuary), modernization of the old plantations of SIAT Gabon in Makouké in the province of the Moyen-Ogooué taken over by Olam and an existing plant and construction of two palm oil processing plants in Kango and Mouila
- **Olam Rubber Gabon** : Development of 28,000 hectares of rubber plantations near Bitam (Woleu-Ntem) and a processing plant
- **SOTRADER** : development of 20 000 hectares of plantations across the country around two cash crops (oil palm and rubber) and four food crops (cassava, banana, tomato and pepper).

Between 2011 and 2017, Olam invested XAF 508 billion in agricultural projects in Gabon. This is the largest investment in value ever made in national agriculture for any similar duration. In comparison, the share of the national budget devoted to agriculture between 2011 and 2017 was only XAF 38 billion (budget forecasts), more than 13 times less than the investment made by Olam in the sector during the same period. This gap between the volume of public investment in agriculture and the investments made by Olam confirms its structuring role in the Gabonese agricultural sector.

In the absence of significant public investment and competition in the agricultural sector, Olam has emerged as the main driver of national agriculture. Other ongoing projects, such as PRODIAG partially financed by international donors and IFAD-financed PDAR, though to be encouraged, remain relatively limited due to their size and the rather modest investment is devoted to them. Thus, the weight of agriculture in the Gabonese economy is now structurally correlated with Olam's activity, investments and performance. As a result, Gabonese agriculture is essentially a cash crop based on oil palm, rubber and, to a lesser extent, on coffee and cocoa production, and essentially family-oriented subsistence agriculture.

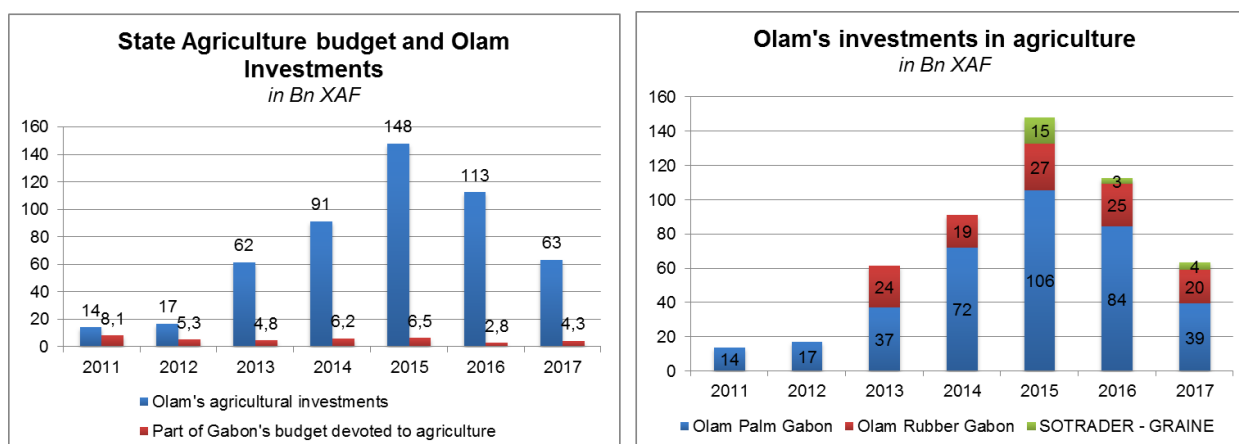


Figure 2 Public budgets for agriculture and Olam investments in the agricultural sector

Palm oil - Olam Palm Gabon

Between 2011 and 2017, 73% of Olam's investments in the agricultural sector were related to the development of palm plantations amounting to XAF 370 billion, 23% of these investments were used to develop rubber plantations (for about XAF 116 billion) and 4 percent was spent on the GRAINE project (about XAF 23 billion). This massive investment by a private operator in agriculture has transformed the sector. At the end of 2017, Olam Palm Gabon, Olam Rubber Gabon and SOTRADER employed 16,704 people. This is the largest number of agriculture-related jobs ever recorded in the formal private sector in Gabon.

The combined implementation of the Olam Palm Gabon, Olam Rubber Gabon and SOTRADER projects has significantly increased Gabon's managed **agricultural area from 16,212 hectares in 2009 to 91,801 hectares in 2017 (+ 466%)². It could reach 98,212 hectares in 2020 with the extension of the Mouila and Bitam plantations.** This increase illustrates the trend observed in the Gabonese agricultural sector over the past decade with an increasingly important role played by Olam.

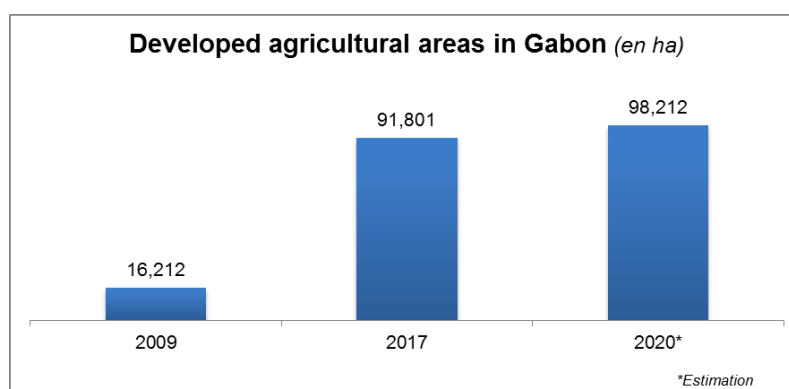


Figure 3 Evolution of farmland developed since 2009

² Gabon had 80,527 hectares of farmland developed in 2016. Between 2016 and 2017, farmland developed increased by 14% according to statistics compiled by the Ministry of Agriculture and the DGEPP.

At the macroeconomic level, the contribution of the agricultural sector to Gabon's GDP, which had been declining for several decades, increased slightly since 2014. In fact, while agricultural GDP had dropped from 5.4% to 3.6%, between 2009 and 2013, it rose again in 2014 as a result of investments made in the sector, particularly to develop new cash crops. In 2014, agricultural GDP rose to 4% before continuing its upward trend in 2015 (4.2%) and in 2016 (5%). It could possibly reach 6.1% in 2017.

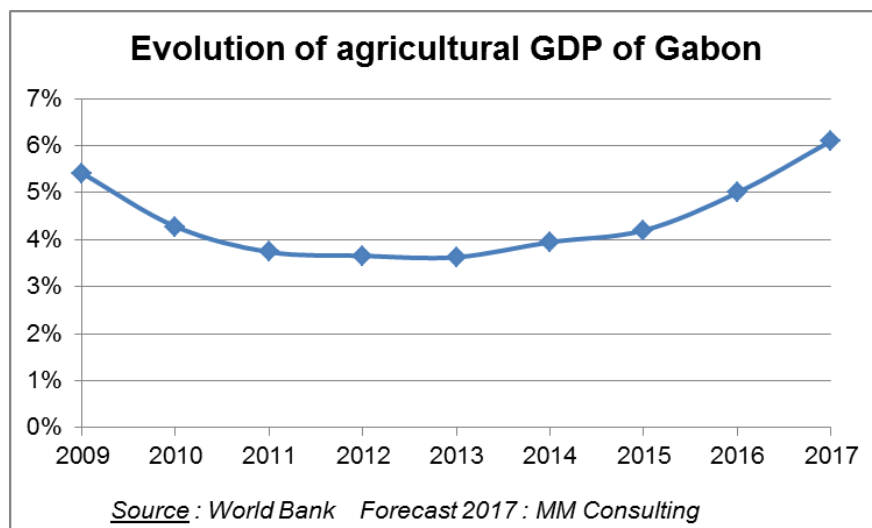


Figure 4 Evolution of Gabon's agricultural GDP

The increase in the impact of the agricultural sector in the formation of the national GDP can be attributed mainly to the projects led by Olam in the country and their induced effects. Effectively, Olam Palm Gabon's investments have significantly increased the production of palm, crude palm oil and palm kernel oil. **Between 2015 and 2017, national production of palm nut increased from 3 472 tons to 99 596 tons, an increase of 2769% in just 3 years. The same increase was recorded for crude oil production (+ 3622%) from 713 to 26,539 tons. Finally, production of palm kernel rose from 129 to 1,718 tons (+ 1232%).**

With the acquisition of SIAT Gabon's assets in the Moyen-Ogooué province (center), Olam Palm Gabon now produces more than 95% of the country's palm nut, 100% of the raw oil and 100% of the country's palm oil. The commissioning of the Awala and Mouila plants, whose production capacity exceeds the national demand for crude oil and red palm oil, enables Olam Palm Gabon to export its surplus production. In 2017, part of the production was exported to Nigeria, Cameroon and Benin. Production volumes and the number of exporting countries are expected to increase in the coming years with the gradual exploitation of agricultural land granted to Olam Palm Gabon. The company could export some of its palm oil production to India, where demand is strong. It plans to take advantage of the opening of a direct shipping line between the port of Olam in Owendo and a port in northern India to sell part of its production.

Production Olam Palm Gabon (in tons)				
Production	2015	2016	2017	Variation 2015 - 2017
Palm nuts	3 472	29 169	99 596	2769%
Crude Palm Oil	713	6 973	22 385	3040%
Palm Kernel Oil	129	435	1 246	866%

Table 4 Evolution of Olam Palm Gabon's production between 2015 and 2017³

Thus, **between 2010 and 2017, Gabon went from 35th world producer of palm oil to 27th (11th African producer). It now provides about 0.04% of world production.** According to Olam's projections, when Olam Palm's plantations will reach maturity, Gabon could become the 3rd largest African oil palm producer, entering the world's top 10. Olam's production has reduced domestic imports and should ultimately cover the entire local demand for palm oil.

In addition, Gabon now exports palm oil. Exports of Olam Palm Gabon were worth XAF 2.1 billion in 2017. The value of palm oil exports is still modest, but it is expected to increase in the next few years when the Kango and Mouila factories will run at full capacity.

In addition, **Olam Palm Gabon's activity has increased the area cultivated for oil palm cultivation by 626%, from 7,300 hectares in 2010 to 53,300 hectares in 2017, ie around 1% of the total area of arable lands.**

At the social level, Olam's activity in the palm sector has a significant impact on employment in Gabon. The sector now provides 14,317 direct jobs, or 7.12% of the country's formal private sector jobs, compared to just 0.2% (1,000 jobs) in 2010. Olam Palm Gabon's activity generates 2147 indirect jobs and enables the agricultural sector to be the country's main employer after the public administration.

³ Source : Olam

Impacts on Palm Oil Sector in Gabon					
Impact Zone	2010		Data	2017	
Global and regional standing of Gabon	0,01% of global production	35th	World Rank	27tg	0,04% of world production
	0,1% of African production	20th	African Rank	11th	ND
	17 000 tons over 20 000	85%	Imports	75%	15 000 tons over 20 000
Economic and social impact in the country	Not significant impact on GDP	<0.01% of the total Gabon	Real GDP	Between 2 and 3% of GDP	Progressive increase in agricultural GDP (5% in 2016)
	Negative growth rate (-30%)	2,800 t	Production	26,539 t	847% growth since 2010
	0.2% of formal jobs	1,000	Direct Jobs	14,317	7.12% of formal jobs
	15% of indirect jobs generated	150	Indirect Jobs	2,147	15% of indirect jobs generated
	0.1% of arable land	7,300 ha	Hectares cultivated	53,300 ha	1% of arable land
Productivity	10.3% of average yield	0.38 t / ha	Rate of return	4t / ha	118% of average yield
Impacts financiers		XAF 10.15 billion	Revenue	ND	
	Down 41.5% from 2009	XAF 2.6 billion	Volume of investments	XAF 39.4 billion	508 billion agricultural investments since 2011
		ND	Tax contribution	XAF 696 million	XAF 698 million in various tax contributions
	No exports of palm oil	0 XAF	Volume of exports	XAF 2.1 billion	+ 600% between 2016 and 2017
Actor	Unique Actor	SIAT Gabon	Actor	Olam Gabon	Unique Actor
Business models	Local production of low value palm oil and derived products in a plant for local market needs		Business model	Local production of crude oil and palm kernel oil to cover local market needs and some regional needs (exports to Benin, Cameroon and Nigeria)	

Table 5 Synthesis of the impacts on the Palm Oil Sector

Hevea – Olam Rubber Gabon

In the rubber sector, Olam Rubber Gabon's plantations in Woleu-Ntem have not yet matured due to a slow development cycle. Despite planting several thousand hectares of rubber from 2013, the industrial production of rubber has declined sharply since 2014. As a result, between 2014 and 2016, the industrial production of wet rubber increased from 36 881 tons to 28 699 tons (-22%) while the production of machined rubber decreased from 17,066 to 14,917 (-13%). This trend, however, is expected to reverse in the next five years with the maturing of Olam Rubber Gabon plantations and the commissioning of a plant near Bitam. **Since 2013, the XAF 116 billion invested by Olam Rubber in the sector helped create 1,550 jobs, mainly blue collar, and injected more than 6 billion payroll annually.**

Impact sheet on the Hevea sector in Gabon					
Impact Area	2010		Data	2017	
Global and Regional Standing of Gabon	0.1% of world production	21st	World Rank	22nd	Less than 0,1% of the global production
	2.5% of African production	7th	African Rank	8th	2% of the African production
	100% of exported production	100%	Exports	100%	100% of the exports
Economic and social impact in the country		ND	Real GDP	ND	
		19 559 t	Production	14 197	
	less than 0.01% of formal jobs	135	Direct Jobs	1 746	Including 1,550 employees of Olam Rubber. 0.9 of formal jobs
	15% of indirect jobs generated	21	Indirect Jobs	262	15% of indirect jobs generated
	0.2% of arable land	12 000	Hectares cultivated	22 860	of which 10,860 ha were planted by Olam. 0.4% of arable land
Productivity	Global average	1,1t/ha	Rate of return	1,1t/ha	Global average
Financial Impacts		XAF 22 billion	Revenue	XAF 15 billion	
	Down from the previous period	1.8 billion XAF	Volume of investments	XAF 20 billion	XAF 116 billion invested by Olam since 2013, representing more than 70% of investments recorded in the sector
		XAF 751 million	Payroll	XAF 28 billion	of which 26 billion for ORG (Olam data)
		ND	Tax contribution	ND	XAF 454 million tax contribution for Olam Rubber Gabon in 2017
	100% of exported machined rubber production	19 559	Volume of exports	15 152	More than 100% of exported machined rubber production
Actor	Single actor	SIAT Gabon	Actor	Olam et SIAT	Concurrence in the sector
Business models	Local production of natural rubber intended for export		Business models	Local production of natural rubber intended for export	

Table 6 Synthesis of impacts on the Hevea sector

Food Crops - SOTRADER

Food agriculture remains the weakest link in the Gabonese agricultural sector. In 2015, Gabon imported 364 billion XAF food products against 250 billion in 2010 (+ 45.6% in 5 years)⁴. Conversely, only XAF 4 billion of food products were exported. Reducing the country's food dependency should be a central issue in public policies. The GRAINE project, led by SOTRADER and launched in 2014, aims to ensure food security, contribute to the elimination of unemployment and improve the trade balance. However, despite the announcement of ambitious goals, the first harvests of the program are disappointing. In 2017, only 100 tons of bananas were harvested for an initial target of 4,000 tons. As for cassava, only 1,500 tons were harvested (initial target 12,000 tons). Several factors contributed to the poor performance of the program:

- The destruction of plantations by pachyderms
- The low productivity of cooperatives
- The lack of commitments of dozens of cooperators who are often absent and whose activity within the cooperative is not the main activity
- The use of heavy machinery in plantations that have compacted soils, making them unsuitable for certain crops
- The lack of interest of young people for agriculture
- The withdrawal of some of the cooperators following the abolition of the monthly subsidy of XAF 100,000 paid to them
- The negative image of the program to a part of the population
- Etc.

While food crop production remains below expectations, oil palm cultivation on behalf of SOTRADER is showing encouraging results. The company has an oil palm plantation in savannah zone at Ndendé in Ngounié province (south) where 7,500 hectares have already been planted. In March 2018, SOTRADER had 1,200 employees, 1,004 of whom were active in the Ndendé oil palm plantation.

The contribution of SOTRADER and partner cooperatives in agricultural GDP is still negligible. However, it could increase over the next five years thanks to funding received from international donors:

- **XAF 65 billion loan in November 2017;**
- **XAF 1.2 billion grant from ADB specialized agencies in December 2017, including:**
 - **XAF 550 million from the Fund for African Private Sector Assistance (FAPA)**
 - **XAF 276 million of the Microfinance Capacity Building Fund (MCBF).**

⁴ Gabonese Customs

The figures of SOTRADER at the end of 2017		
Figures	2017	Initial Objectives
Provinces where the project was launched	7	9
Co-ops enlisted	850	-
Number of members (independent farmers included)	17 500	20 000
Cooperatives in activity	110	-
Number of active members (independent farmers included)	3 000	-
Cassava - Planted area	1 010 ha	-
Cassava - Production 2017	1 500 t	12 000 t
Banana - planted area	500 ha	-
Banana - Production 2017 (in tons)	100 t	4 000 t
Oil Palm SOTRADER (Ndende) - planted area	7 500 ha	7 500 ha

Table 7 SOTRADER figures in 2017⁵

Olam's agricultural investments have contributed significantly to the increase in value added⁶ created annually by the sector. This rose from 222 billion XAF created over one year in 2009 to 380 billion created in 2017 according to the World Bank (+ 71%). On an annual basis, the value added growth of the Gabonese agricultural sector went from -5.2% in 2010 to 15.3% in 2017. The added value creation of the sector observed over 7 consecutive years reflects the positive effect of ongoing agricultural projects on the national economy, diversification and wealth creation.

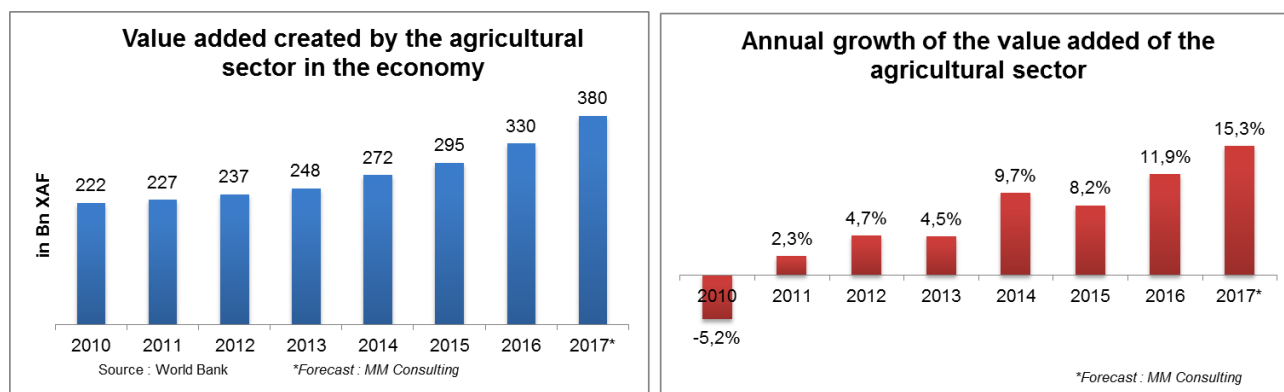


Figure 5 Added value created by the agricultural sector in Gabon's economy

⁵ Source : SOTRADER

⁶ INSEE defines value added as the balance of the production account. It is equal to the value of production less intermediate consumption. Value-added is the value added that a business, through its business, is able to provide to a good, branch or service from a third party. Value added is therefore an economic indicator of wealth creation.

1.1.2.2 Industry

In 2010, a public-private partnership between Olam and the Gabonese Republic gave birth to the SEZ of Nkok. Located 27 km from Libreville, this multi-sector industrial area covers 1126 hectares and also includes a commercial area (15.4 hectares) and a residential area (44 hectares).

Aimed at attracting foreign investment in the timber sector, the Nkok SEZ provides businesses with managed plots, hangars for purchase or lease, and tax incentives.

At the end of 2017, the Nkok SEZ welcomed 91 investors (including plot holders), of whom 77 were active (55 in production and 22 under construction) from 18 countries.

Wood Industry⁷

The Gabonese government's decision of 6 November 2009 banning log exports starting 2010 benefited local processing and became a milestone of Gabonese policy in recent years. This decision, which deeply disrupted the industry and significantly reduced wood industry revenue, eventually reshaped the sector with the launch of Nkok's SEZ activities and the installation of several industrialists, often from Asia.

The ban on log exports, the constraint of prior processing and tax incentives for investors seeking to settle in Nkok's SEZ have led to the growth of industrial units specialized in wood processing. Between 2010 and 2016, their number increased from 86 to 136 (+ 58%), mainly in the sawing segment (+ 66%), and should reach 150 units by 2020 at a constant rate.

Wood processing units by specialties in Gabon							
Year	2010	2011	2012	2013	2014	2015	2016
Wood processing units	86	118	128	130	131	131	136
Sawing	70	100	108	110	111	112	116
Plating	11	11	11	11	11	11	10
Plywood	4	6	7	7	6	6	8
Trenching	0	0	1	1	2	2	2
Planing mill	1	1	1	1	1	0	0

Table 8 Number of wood processing units by specialty in Gabon

(Source : DGEPP et DGIBV)

⁷ The figures relating to the production of sawn timber, veneer and plywood are not identical according to the dashboards of the economy (TBE) of Gabon or the FAO Stats. In this study, we chose to use mainly data from the TBE, however the data of the FAO Stats database (often quite close to that of the TBE) is used to determine how Gabon stands compared to other producing countries African and global.

At the industrial level, projected log consumption capacities for the 40 wood processing units operating in the Nkok SEZ and running at full capacity reach **914,050 m³**. At the current utilization rate, the World Bank estimates that the Nkok SEZ consumes 731 240 m³⁸ of logs per year in 4 processing segments: sawing, veneer, plywood and carpentry.

Less than 5 years after its launch, the Nkok SEZ consumes about 50% of Gabonese log production and is expected to increase to 63% in the short term.

Short-Term Total Industrial Capacity in Nkok				
Type of industry	Units Count	Consumption capacity (m ³ gr/an)	Use rate	Real consumption capacity (m ³ gr/an)
Sawmill	12	325 600	80%	260 480
Veneer unit	14	329 100	80%	263 280
Plywood unit	1	10 000	80%	8 000
Mixed unit (sawing / veneer / plywood)	4	126 350	80%	101 080
Carpentry	9	123 000	80%	98 400
Total	40	914 050	80%	731 240
Share of national log production		63%		50%

Table 9 Projection of total industrial capacity on Nkok in the short term

(Source : World Bank)

The Nkok NES has been the main support for structural changes in the timber industry. To date, 42% of Gabon's processed wood and 53% of exported processed wood come from the Nkok SEZ. On the industrial front, it accounts for 36% of industrial capacity in the wood sector (914,050 m³ on 2.5 million m³).

As of March 31, 2018, Nkok's Wood Sector Businesses employed approximately 2,500 people. This corresponds to 19% of the direct jobs in the sector, which were estimated at 13,000 in 2017.

⁸ The ZERP administrative authority in Nkok reported 600,300 m³ of logs consumed by the ZERP industries in 2017 excluding furniture.

- **Sawing Segment**

In 2010, Gabon was ranked 42nd in the world (out of more than 160 countries) and 5th in the list of countries producing sawn timber. In 2016, it was now ranked 26th in the world and 4th in Africa. Its production increased by more than 50% over the period (0.5% of world production against 0.3% in 2010 and 8.9% of African production against 5.6% in 2010).

Regarding the sawing of tropical timber, Gabon is the 4th largest exporter in the world after Cameroon, which exported 752,000 m³ in 2016 but ahead of Vietnam (477,000 m³ exported). If the rate of growth of production remained constant, from 2020, Gabon could export 851 070 m³ of sawn wood per year⁹.

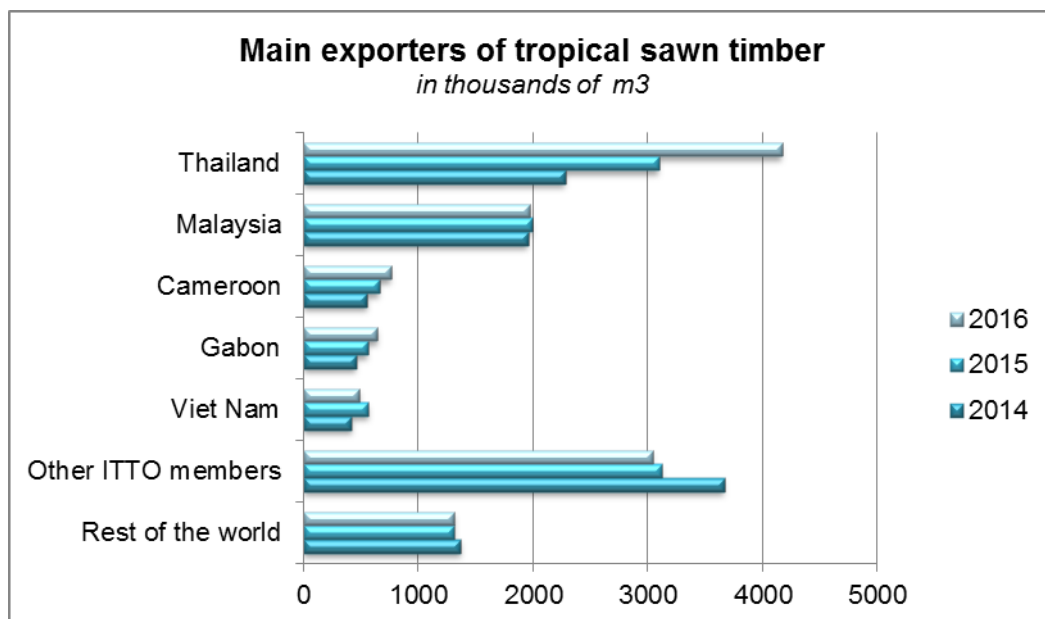


Figure 6 Main exporters of tropical sawn timber

The ban on log exports and the increase of the industrial capacity of the timber industry through the establishment of new factories, particularly in Nkok¹⁰, have contributed to increasing the national production of sawn timber.

In fact, despite a drop in the volume of log production from 1.8 million m³ to 1.6 million m³ between 2010 and 2017, the national production of sawn wood has increased sharply to 505,962 m³ in 2017. **The NGS industrial units in Nkok produced 103,800 m³ of sawn timber in 2017, representing 21% of national production and about 1.5% of African production. Much of the sawnwood in Nkok is exported. 90,306 m³ of sawn timber in the area (87%) was exported while 13,494 m³ was sold locally in 2017.**

The commissioning of the Nkok NZS stimulated sawing activity. In 2010, the production of sawn timber reported by the TBE was only 334 839 m³. It increased by 51.1% in this segment between 2010 and 2017.

⁹ Average annual growth rate of national sawnwood production estimated at 9.4%.

¹⁰ The sawing units within the Nkok District of Nkok produce lumber including slats, rafters and planks.

Sales in this business segment increased due to continued growth in production. **In 2016, the sawn wood segment posted a turnover of XAF 112 billion against XAF 54 billion in 2013 (+ 107% over 4 years). The added value of this business segment has increased sevenfold, from XAF 6 billion in 2014 to XAF 47 billion in 2016.** The increase in production capacity of enterprises in Nkok's SEZ and sawmill positive impact on exports. The sale of sawn timber is underpinned by ever-increasing external demand, which could favor the interest of new investors for the Nkok SEZ. **Quantitatively, 46 sawing units were created between 2010 and 2016 in Gabon; a dozen of them are installed in the SEZ of Nkok. At the end of 2016, Gabon had 116 industrial units in this segment.**

Companies operating in the Nkok SEZ have industrial capacities capable of producing 150,000 m³ of sawn wood compared to 103,800 m³ produced in 2017.

Over the next 5 years, sawn timber production in the Nkok Zone could reach 224,000 m³ with the start of plants currently under construction at the site and the increase in production at the ten or so factories existing. By 2023, the Nkok Zone could provide 44% of the national production of sawn timber.

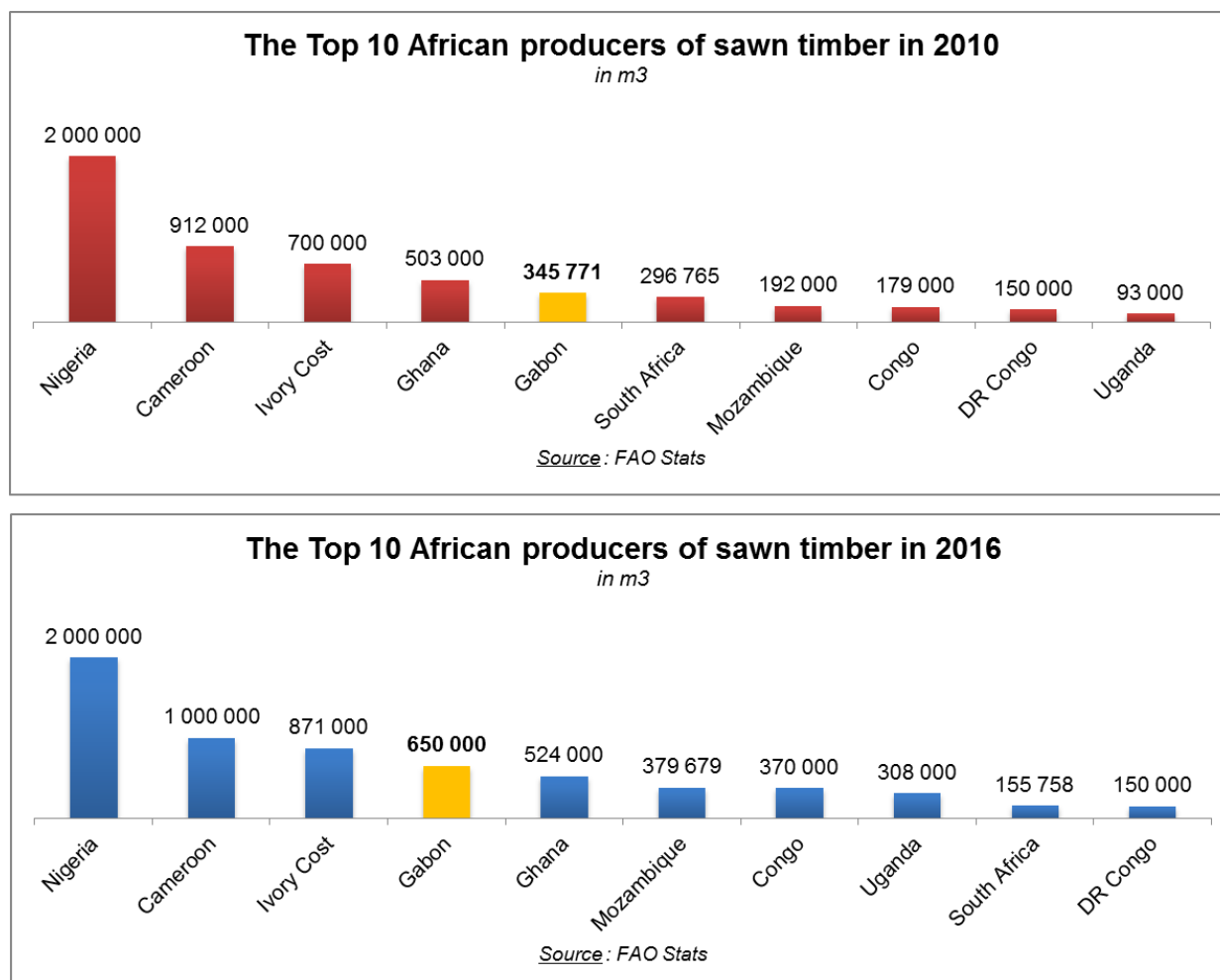


Figure 7 The top 10 African producers of sawn timber in 2010 and 2016

- **Veneer segment**

In 2010, Gabon was ranked 18th in the world (out of 128 countries) and third in the rankings of the world's leading producers of veneers. In 2016, it was now ranked 12th in the world and 1st in Africa. Its production increased by more than 30% over the period (1.9% of world production against 1.6% in 2010 and 31% of African production against 22% in 2010).

Regarding tropical veneer, the country now ranks 6th worldwide behind Vietnam, China, Indonesia, Malaysia and Brazil. Gabonese tropical veneer production accounts for about 6% of world production. If the rate of increase of Gabon's industrial capacity is maintained, the national production of veneers could reach 396 867 m³ in 2020¹¹.

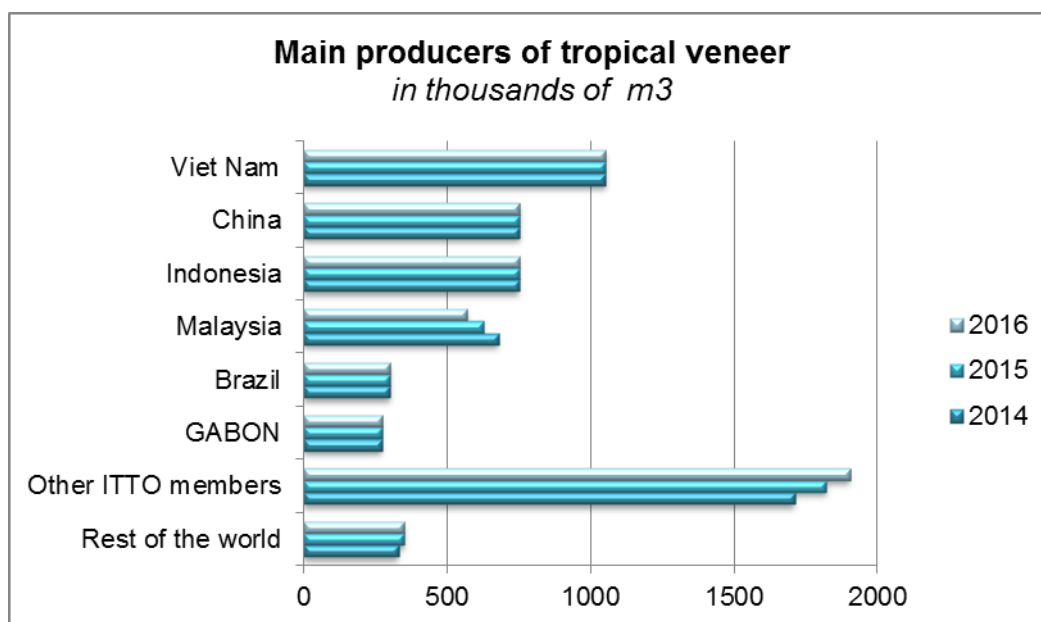


Figure 8 Main producers of tropical veneer

Between 2016 and 2017, Gabonese production of veneer¹² increased by 13,7% to establish itself at 286 697 m³. NKOK SEZ produced around 114 480 m³ of veneer in 2017. The frequency of log supplies from the Nkok companies in Nkok would therefore tend to increase with the increase in the volume of wood processing produced by the industries, but also the installation of new plants. **National Production of veneer increased as a result, going from 196 804 m³ in 2010 to 286 697 m³ in 2017, a spike of 46%. The veneer production of Nkok's SEZ accounts for about 40% of the national production.**

At the financial level, veneer sales increased by 48% between 2013 and 2016, from XAF 33 billion to XAF 49 billion in 2016. This increase illustrates the trend observed in this segment over the past 5 years. **Although the number of veneer units has remained stable since 2010, local industries have increased their industrial capacity, production volume and reduced wood residue. The value added of the**

¹¹ Average annual growth rate of national veneer production estimated at 13.7%.

¹² Veneers are usually used in furniture manufacturing. Within the SEZ of Nkok, a space of 2000 m² is dedicated to the exhibition of furniture fabricated there.

sector increased from XAF 8 billion to XAF 12 billion between 2014 and 2016 (+ 50%).

At full capacity, veneer units installed in the SEZ could produce 189,380 m³ and rise to 66% of current national production, which should also increase with the entry into production of new plants currently under construction in NKOK SEZ. The production of veneered wood in the SEZ could then amount to 366,980 m³.

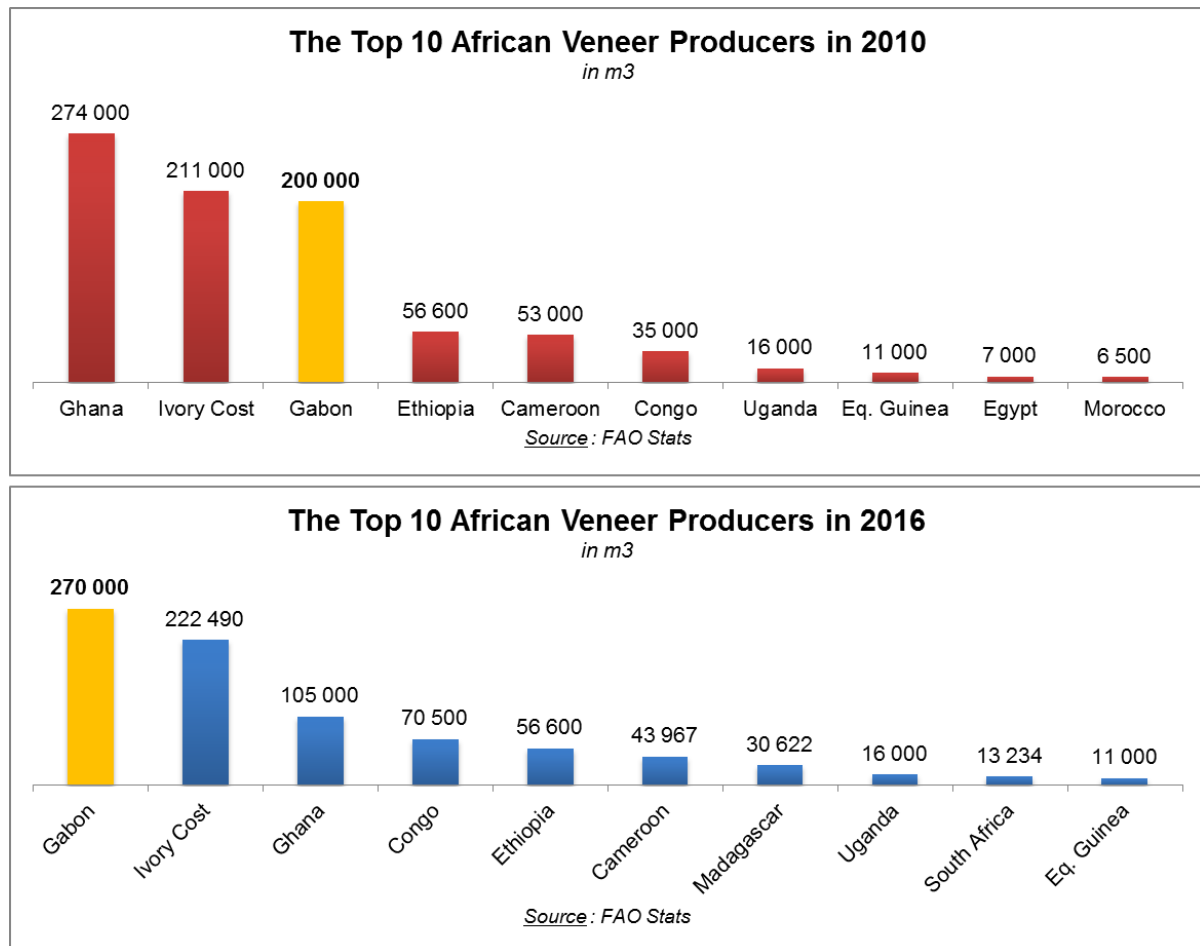


Figure 9 The Top 10 African Veneer Producers in 2010 and 2016

- **Plywood Segment**

In 2010, Gabon was ranked 43rd in the world (out of 132 countries) and 3rd in the rankings of countries producing plywood panels¹³. In 2016, its global and African positioning was identical. As for its production, it represented 0.08% of world production in 2010, it represented only 0.06% in 2016 (9.2% of African production in 2010 and 11.1% in 2016).

Unlike sawing and veneer, the plywood market accounts for only 6% of Gabon's processed wood production. Processing units specializing in the production of plywood panels have difficulties in the supply of logs. There is therefore a decline in activity of 1.3% with 51 232 m³ in 2017 at the national level according to the data reported by TBE. **The Nkok SEZ provides for the production of 10 000 m³ plywood panels (19.5% of national production).** Domestic production is down by 28% compared to 2010 when Gabon produced 71 364 m³. Log supply in other segments of the timber industry could therefore be at the expense of the plywood segment.

However, despite a drop in domestic production, it should be noted that the only processing unit specializing in the manufacture of plywood panels installed in the Nkok SEZ provides 19.5% of the national share. It intends to increase its production of 10 000 m³ to 12 500 m³ (+25%).

In addition, despite the decline in plywood production, sales in this business segment increased by 67% over four years, from XAF 15 billion in 2013 to XAF 25 billion in 2016. This increase can be explained by the rise in prices of local products linked to the quality that has become better and the good performance of prices on the international markets.

This also explains the rise in exports and added value created by this segment. **Sector added value increased from XAF 5 billion in 2014 to XAF 7 billion (+ 40%).**

¹³ Plywood is an indispensable material in the construction industry. Its functions are multiple and can be used for flooring or even formwork.

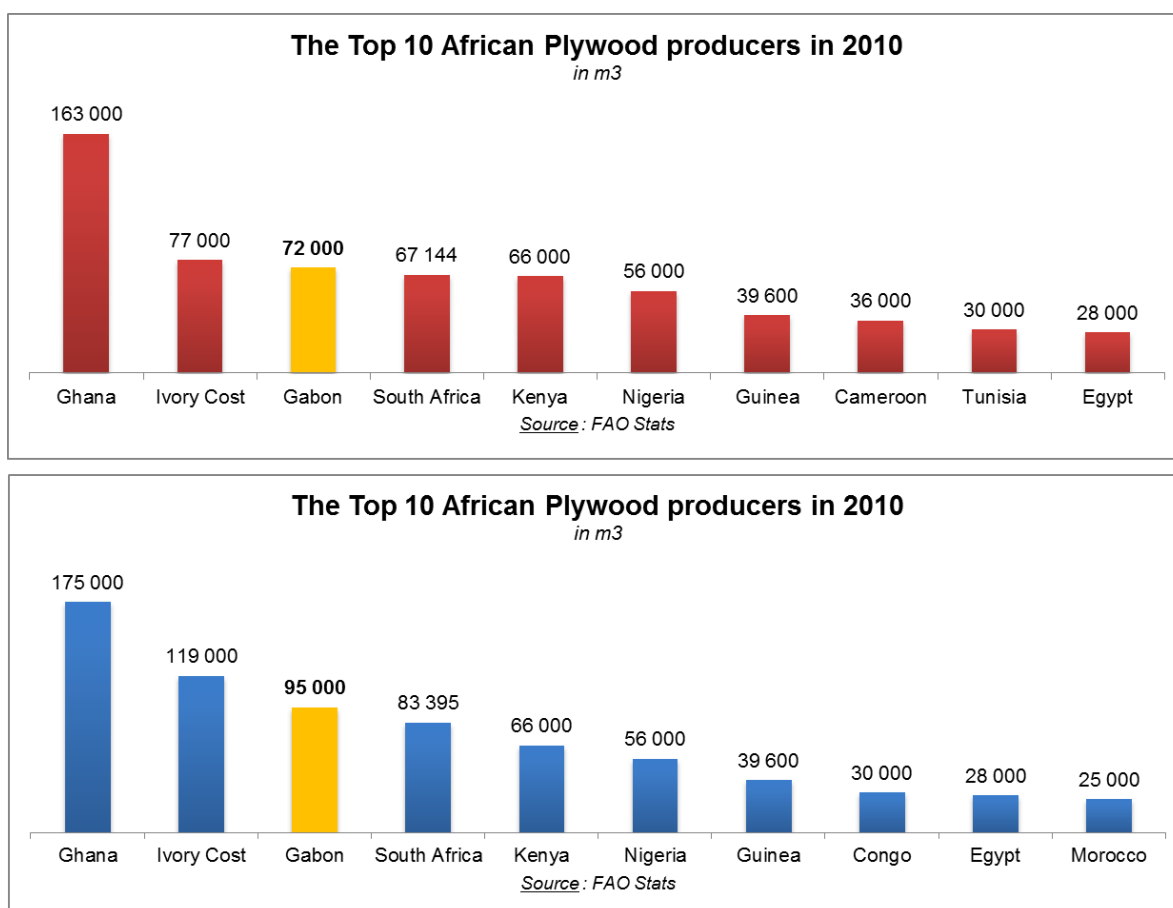


Figure 10 The Top 10 African Plywood Producers in 2010 and 2016

- **Carpentry, cabinet-making and wood sales depots**

Before the installation of the SEZ, the third transformation of the wood was practiced by small artisanal carpentry and cabinetmaking units. With a small volume of production, their products were destined for the local market. Launched in 2014, the installation of industrial units in the Nkok SEZ specializing in the manufacture of doors, windows, benches and furniture has led to a 112% increase in the number of parts manufactured between 2015 and 2016. **4,353 pieces were produced in 2016 against 2,050 pieces. 72,503 table-benches intended to equip public schools were manufactured in the SEZ in 2017.**

The Nkok SEZ, which did not exist in 2010, accounted in 2017 for about 29% of the national production of processed wood, ie 245 800 m³. In the same period, locally processed wood production increased by 40%.

The impact of the implementation of the Nkok SEZ is being made in Gabon's economy. **The timber industry, which accounted for 1.5% of nominal GDP in 2010, now represented 2.3% of the national GDP in 2017. During this period, the contribution in value of the sector in the formation of GDP increased from XAF 62.2 billion to XAF 160 billion in 2017 (+ 157%). The production of wood processing units installed in the Nkok SEZ now accounts for 0.6% of the national GDP.**

The industrial processing capacity of logs increased by 108% with the commissioning of the SEZ to 2.5 million m³ in 2017. As for the number of processing units, they rose from 86 in 2010 to 136 in 2016.

Lastly, the local demand, boosted by the public order, has enabled joinery units present at the Nkok SEZ to increase sales volumes from 2,383 m³ in 2016 to 25,193 m³ in 2017.

WOOD PROCESSING UNITS IN THE Nkok SEZ							
ENTREPRISES	FIELD OF ACTIVITY	ETAT	FIELD OF ACTIVITY	ENTREPRISES	FIELD OF ACTIVITY	STATE	FIELD OF ACTIVITY
AFFEEFA OVERSEAS	WOOD	OPERATIONAL	INDUSTRIAL	PRIME WOOD	BOIS	OPERATIONAL	INDUSTRIAL
AFRICA VIEW	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL	RESURGENT GABON	WOOD (SAWING)	OPERATIONAL	INDUSTRIAL
AKACHI WOOD	WOOD (SAWING)	OPERATIONAL	INDUSTRIAL	SHINAGO	WOOD (SAWING)	OPERATIONAL	INDUSTRIAL
ART BOIS	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL	SOLID WOOD	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL
COMPAGNIE DAN GABON	WOOD (SAWING)	OPÉRATIONNEL	INDUSTRIAL	SOMIVAB	WOOD (SAWING)	OPÉRATIONNEL	INDUSTRIAL
CREST WOOD	WOOD	OPERATIONAL	INDUSTRIAL	SUN VEENER	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL
WOOD INTERNATIONAL	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL	TIMBERWORKZ GLOBAL	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL
DRAGON WOOD	WOOD	OPERATIONAL	INDUSTRIAL	SOCIETE GABONAISE DE TRANSFORM	BOIS	UNDER CONSTRUCTION	INDUSTRIAL
ECO SCIENCE ENGNERING	WOOD	OPERATIONAL	INDUSTRIAL	ACCURATE INDUSTRIES SARL	WOOD (PLYWOOD)	UNDER CONSTRUCTION	INDUSTRIAL
EVERGREEN	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL	GABON TIMBER INDUSTRY	WOOD (PLYWOOD)	UNDER CONSTRUCTION	INDUSTRIAL
GABON ECO WOOD	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL	CLASSIC VEENER	BOIS (CONTREPLAQUE)	UNDER CONSTRUCTION	INDUSTRIAL
GABON VEENER	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL	ELITE VENEER IND	WOOD (PLYWOOD)	UNDER CONSTRUCTION	INDUSTRIAL
GABON WOOD INDUSTRY	WOOD - FURNITURE MANUFACTURE	OPÉRATIONNEL	INDUSTRIAL	EVEREST WOOD GABON	WOOD (PLYWOOD)	UNDER CONSTRUCTION	INDUSTRIAL
GREENPLY GABON SARL	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL	FOREST DEVELOPPMENT GABON (TBNi)	WOOD (SAWING)	UNDER CONSTRUCTION	INDUSTRIAL
VD AFRO	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL	FORTUNE LUMBERS SARL (EARLIER, TEJ WOODS)	WOOD (SAWING)	UNDER CONSTRUCTION	INDUSTRIAL
IGNITE	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL	GULIN SHENGDA INVESTMENT SARL	WOOD (SAWING)	UNDER CONSTRUCTION	INDUSTRIAL
IKONI INTERNATIONAL	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL	RELIANCE WOOD INDUSTRIE	WOOD (SAWING)	UNDER CONSTRUCTION	INDUSTRIAL
KHLL	WOOD (SAWING)	OPERATIONAL	INDUSTRIAL	WOODPRO INDUSTRIES SARL	WOOD (SAWING)	UNDER CONSTRUCTION	INDUSTRIAL
KRISHNA	WOOD (SAWING)	OPERATIONAL	INDUSTRIAL	GABON VEENER 2nd PLOT	WOOD (PLYWOOD)	UNDER CONSTRUCTION	INDUSTRIAL
MERIDIAN INDUSTRIES	WOOD	OPERATIONAL	INDUSTRIAL	WOOD TECH	BOIS	UNDER CONSTRUCTION	INDUSTRIAL
OTIM PLYWOOD	WOOD (PLYWOOD)	OPERATIONAL	INDUSTRIAL	EGYPTE GABON VEENER	WOOD (PLYWOOD)	UNDER CONSTRUCTION	INDUSTRIAL
OTIM VEENER	WOOD (VENEER)	OPERATIONAL	INDUSTRIAL				

Table 10 Wood processing enterprises operating or under construction in Nkok SEZ

Impacts on the wood industry

Impact Zone	2010		Data	2017	
Global and regional positioning of Gabon	0.1% of world production	86th	World rank	90th	less than 0.1% of world production
	0.9% of African production	27th	African Rank	30th	less than 0.9% of African production
	More than 60% of log production exported	60%	Log exports	0%	Total stop of log exports in 2011
Economic and social weight in the country	GDP contribution: 116 billion	2.8% of national GDP	GDP wood industries	3.7% of national GDP	GDP contribution: XAF 260 billion (+ 124% compared to 2010)
	GDP contribution: XAF 53.7 billion	1.3% of national GDP	GDP forestry exploitation	1.1% of national GDP	GDP contribution: 100 billion XAF (+ 86%)
	GDP contribution: XAF 62.2 billion	1.5% of national GDP	GDP wood industries	2.3% of national GDP	GDP contribution: XAF 160 billion (+ 157%)
	Production down in 2010 with the ban, initially partial, on log exports	1.8 million m3	Log production	1.6 million m3	Production down as a result of log export ban
		86	Number of processing units	136 *	* 2016 data. + 58% compared to 2010.
	Relatively low local wood processing capacity	1.2 million m3	Log processing capacity	2.5 million m3	Local log processing capacity up 108%
		603 168 m3	Production of processed wood	843 891 m3	40% increase in locally processed wood
		335,000 m3	Sawing	505 962 m3	51% increase in locally sawn timber
		196,804 m3	Plating	286 697 m3	46% increase in locally clad wood
		71,364 m3	Plywood	51,232	Decrease of 28% of locally processed wood
	The wood industry, the country's largest employer after the public administration	4,328	Direct Jobs - Forest	ND	
		4,095	Direct Jobs - Industries	ND	
		8,423	Total direct jobs	13,000	
		19,577	Indirect Jobs		
	65% of the national forest area	13 million ha	Hectares of concessions	17 million ha	86% of the national forest area
Productivity	Forest exploitation rate (log / ha)	0.19 m3 / ha	Rate of return	0.19 m3 / ha	Forest exploitation rate (log / ha)
Financial impacts	-32% compared to the previous year	XAF 1.64 billion	Payroll	ND	
		ND	Volume of investments	ND	
	of which 35% from the surface tax, 21% from the slaughter tax and 44% from the SDRs	XAF 16.29 billion	Taxes levied by the State on the sector	ND	
	of which 36% from log exports and 64% from wood industries	XAF 201 billion	Volume des exportations	ND	
Actor	10 actors group more than 60% of the concessions		Actor		10 actors group more than 60% of the concessions
Business models	> 90% of processing plants are primary (sawing and peeling)			> 90% of processing plants are primary (sawing and peeling)	

Table 11 Summary of impacts on the wood industry

Other Sectors

Originally established to house wood processing units, Nkok's SEZ was opened to other industries. A dozen companies specializing in metallurgy, chemistry, concrete production, pharmacology and agro-industry was installed at the end of 2017. The NZES of Nkok is multi-sectoral despite the predominance of companies in the wood sector.

At the industrial level, non-timber companies in Nkok's SEZ have increased production of construction materials and metallurgical industries. **Indeed, two companies in the SEZ recycle ferrous scrap to make iron ingots or concrete reinforcing bars. Together, they have an annual production capacity of more than 120,000 tons of reinforcing bars¹⁴ and could eventually cover domestic demand and reduce imports of this highly used building material.** Even though the production of concrete reinforcing bars in the SEZ does not currently make it possible to ensure self-sufficiency, it has nevertheless made it possible to industrialize an area of the economy that was to this day very artisanal.

COMPANY	FIELD OF ACTIVITY	STATE	ZONE
AFRICA ALLOYS GABON	METALLURGY	OPERATIONAL	INDUSTRIAL
BETON GAB	CONSTRUCTION	OPERATIONAL	INDUSTRIAL
CHAUDRENERIE DU GABON	STEEL	OPERATIONAL	INDUSTRIAL
CONSULTING HOUSE	CONSTRUCTION	OPERATIONAL	INDUSTRIAL
GABON MEUBLES MODERNE	FURNITURE MANUFACTURE	OPERATIONAL	INDUSTRIAL
CHEN SHI ORIGEN EAU PURE	WATER	OPERATIONAL	INDUSTRIAL
GIM	GAS	OPERATIONAL	INDUSTRIAL
HAI SHENG RONG HUA	BATTERY MANUFACTURING	OPERATIONAL	INDUSTRIAL
LES ACIERIES DU GABON	METALLURGY	OPERATIONAL	INDUSTRIAL
METALCO	METALLURGY	OPERATIONAL	INDUSTRIAL
RAIN FOREST MANAGEMENT	FURNITURE MANUFACTURE	OPERATIONAL	INDUSTRIAL
SCI SERENA (SOFERGA)	STEEL	OPERATIONAL	INDUSTRIAL
SOGAMETAL	METALLURGY	OPERATIONAL	INDUSTRIAL
AFRICA CEMENT	CONSTRUCTION	UNDER CONSTRUCTION	INDUSTRIAL
INCINEX	RECYCLING	UNDER CONSTRUCTION	INDUSTRIAL
L7H	AGRICULTURAL	UNDER CONSTRUCTION	INDUSTRIAL
LA SANTE PHARMACEUTIQUE	PHARMACY	UNDER CONSTRUCTION	INDUSTRIAL
BHTP	OIL AND GAS	UNDER CONSTRUCTION	COMMERCIAL
TRACTAFRIC	SUPPLIER EQUIPMENTS	UNDER CONSTRUCTION	COMMERCIAL
GABON OIL MARKETING	HYDROCARBONS	UNDER CONSTRUCTION	COMMERCIAL
ASSINCO	INSURANCE	UNDER CONSTRUCTION	COMMERCIAL
AGEOS	GEOGRAPHIC INFORMATION SYSTEM	OPERATIONAL	RESIDENTIAL
AVIC GABON	AERONAUTICAL TRAINING CENTER	UNDER CONSTRUCTION	RESIDENTIAL

Table 12 Other Industries Installed in the Nkok SEZ

¹⁴ Aciéries du Gabon (ACG), company based in Nkok, have an annual production capacity of 70,000 tons per year of latch bars and 10,000 tons of welded pipe. Chaudronnerie du Gabon has an annual production capacity of 60,000 tons of concrete reinforcing bars.

1.1.2.3 Transport

The Olam Group's transportation impacts result from the commissioning of a mineral port in 2016 and a cargo port in 2017 in Owendo.

Between 2015 and 2017, GSEZ invested XAF 398 billion in the construction of a general cargo port (XAF 150 billion) and a mineral port (XAF 248 billion). These investments were made in a context where the main CEMAC countries were engaged in the modernization of their ports. In Gabon the historic port of Owendo operated by Gabon Port Management despite its aging and saturation has received very little investment (10 billion XAF). In this context, the 150 billion XAF invested by Olam to erect the NOIP are particularly structuring for the sector.

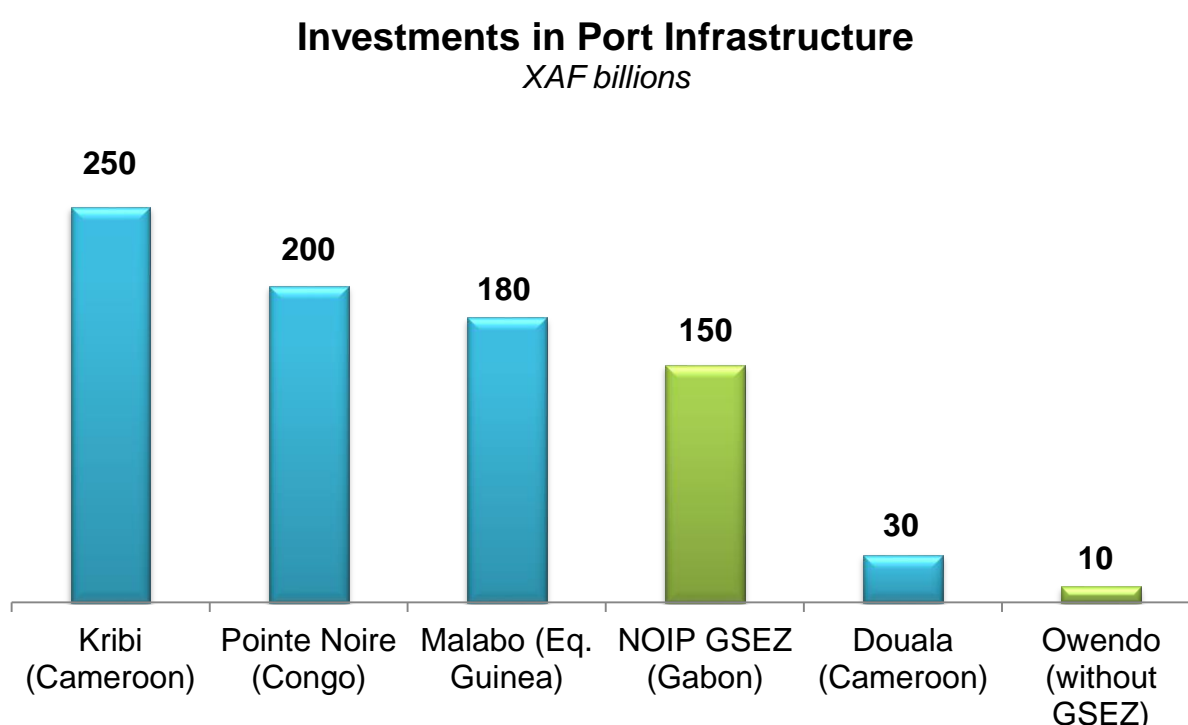


Figure 11 Investments in the construction, equipment and modernization of ports between 2010 and 2017

Between 2016 and 2017, the volume of goods handled in the Owendo port area reached 7.6 million tons, up 28.4%. Despite the decline in the volume of goods handled outside manganese¹⁵ (-5% compared to 2016 and -8% compared to 2014), the exceptional level of manganese ore exports in 2017 was enough to boost port volumes.

The introduction of two new ports by GSEZ has led to an increase in volumes handled, an increase in the number of ship rotations and probably an increase in the sector's revenue (although no consolidated data is available on this last part since 2012).

¹⁵ Other commodities consist mainly of lumber, clinker, food products and miscellaneous imports

The 3 months of activity of the cargo port of GSEZ in 2017 do not allow to have the necessary hindsight to appreciate its quantitative impact on the port volumes at the scale of a calendar year. However, starting in 2018, the volume of processed goods (excluding manganese) in the Owendo port area should increase, year-on-year, as a result of the NOIP activity and the increase in the volume of timber exports. **By the end of 2018, the volume of goods handled excluding manganese could reach 2.8 million tons and the total volume (including manganese) of 9 million tons of processed goods.**

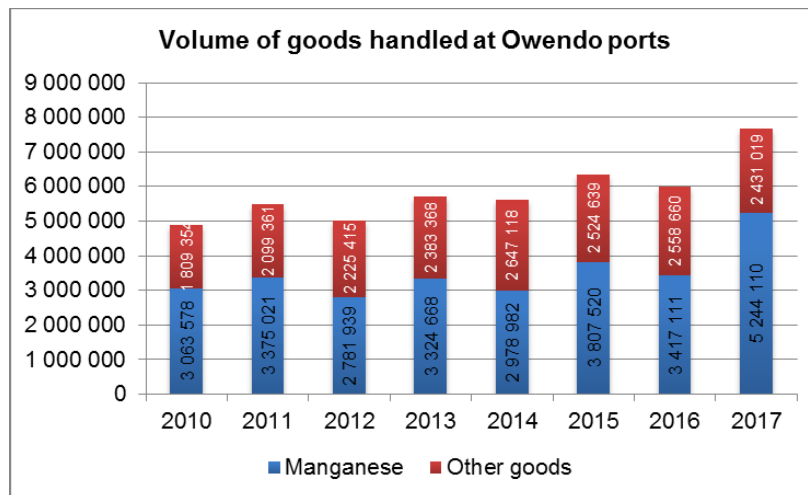


Figure 12 Volume of goods transiting through Owendo ports (in tons)

In 2017, despite the commissioning by GSEZ of a new wharf, with an annual theoretical capacity of 300 000 TEUs, modern unloading cranes and 4 wheeled gantry cranes, container traffic at Owendo remained stable, to 145,000 TEUs as in 2014. The brief container activity of GSEZ General Cargo, which was later sold to GPM, a Bolloré Group company, did not increase the density of container traffic at Owendo. **However, the General Cargo port of the GSEZ group had a significant impact on port performance, quality of service and reduced waiting time for vessels from an average of 4 days in 2016 to less than 24 hours.** The NOIP helped to solve the problems encountered on the old port facility¹⁶ :

- Congestion of the port;
- Lack of efficiency (2,000 t / day for General Cargo);
- Insufficient port infrastructure (2 berths);
- the absence of competition;
- High prices.

The construction of a new wharf and the reduction of ship unloading time have allowed the Owendo port area to become more competitive. **Thus, while the number of ship rotations in Owendo had declined three consecutive years between 2014 and 2016 from 622 to 515 rotations, 588 rotations were recorded in 2017 (+ 14% over one year).** This increase is attributable mainly to cyclical effects such as increased manganese exports. However, the availability of modern and equipped port

¹⁶ Choice and integration of a single window in a port infrastructure project. Example: GSEZ in Gabon, Philippe Gery. July 24, 2017

infrastructure should be a catalyst in the future for converging more vessels into the Owendo port area.

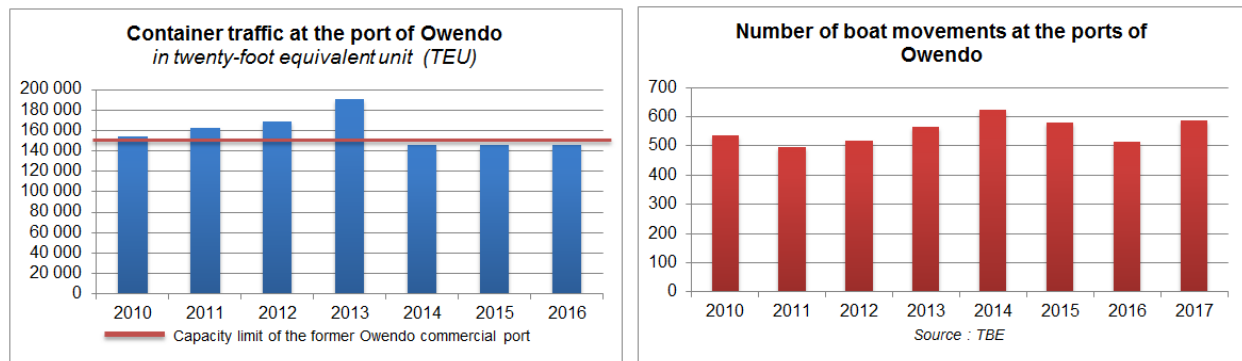


Figure 13 Container traffic and number of boat movements in Owendo

After only one year of activity for the Port General Cargo and GSEZ Mineral Port, it is difficult to measure accurately and comprehensively the contribution of these two infrastructures in the formation of the GDP of the transport sector in Gabon. However, it is easier to see how they will contribute, directly or indirectly, to competitiveness and wealth creation in other sectors such as mining, industry, import-export or price levels. In fact, over the first nine months of 2017, **the commissioning of the GSEZ Group's ports already made it possible to increase palm oil exports by 600% and to reduce the rates for accelerations by 40% as it was practiced by the competition and introduce the pricing to the box¹⁷, which was still not practiced in Gabon.**

As for the airport sector where GSEZ intends to develop, the impact of the group is still negligible. GSEZ Airports, the specialized company created to build an international airport in Nkok likely to accommodate 2 million passengers in phase 1 and 5 million passengers in phase 2, is still in launch. Land rights-of-way around the site were reserved and declared of public utility by the Council of Ministers in February 2018, but to this date, the works have not started.

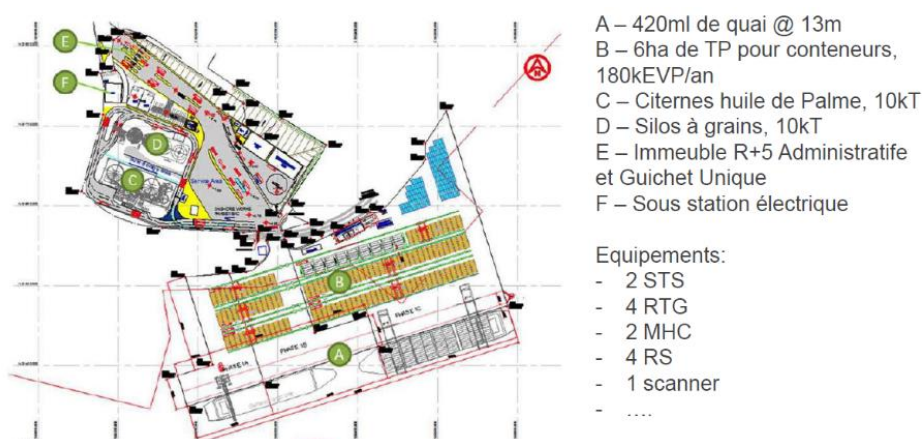


Figure 14 Plan of the NOIP and its supporting infrastructures

¹⁷ Box pricing is like applying a single pricing to the container instead of charging a specific fee for each item it contains..

Impacts on port activity in Owendo

Impact Zone	2010		Data	2017	
Economic and social Impact in the country		1	Commercial ports	2	
		1	Mineral ports	2	
		8 days	Waiting time of ships	1 day	
		475 m	Total length of docks	1,165 m	670 m additional dock with NOIP
	Not available before 2015	0	Unloading cranes	4	2 ship unloading cranes and 4 GRT type gantry cranes for the port of Olam
	Saturation level regularly reached	150,000 TEU	Annual theoretical capacity (containers)	450,000 TEU	Up 200% with the construction of NOIP and a storage area
		3 million tons	Capacity of ore ports	8 million tons	New facilities promoting the development of new mining sites
	Non-existent before commissioning NOIP	0	Capacity of grain silos	20,000 tons	2 grain silos with a capacity of 10,000 tons
		0	Capacity of palm oil storage tanks	10,500 tons	7 tanks with a total capacity of 10 500 t for storing crude palm oil
		536	Ship movements	588	Up 10% from 2010
	Main processed goods: manganese. COMILOG in a monopoly situation	4.9 million tons	Volume of goods processed	7.7 million tons	Overall increase in processed goods due to higher manganese exports (COMILOG production increase and NGM and CICMHZ mines operational)
		3.4 million tons	Volume of manganese treated	5.2 million tons	
		2.6 million tons	Other goods	2.4 million tons	
		153,657 TEU	Container traffic	145 000 EVP	
Actor	GPM on the commercial port and COMILOG on the ore port. Monopoly.	GPM et COMILOG	Actors	GPM, COMILOG, GSEZ Cargo Port, GSEZ Mineral Port	Sector competition: -GPM and GSEZ Cargo Port on the Commercial Port -COMILOG and GSEZ Mineral Port on the Mineral Port

Table 13 Summary of impacts on port activity in Owendo

1.1.2.4 Mines

Often called a “geological scandal” because of the extraordinary richness of its soil, Gabon has a significant mining potential. However, in 2017 the Gabonese mining sector contributed only 4% in the formation of the national GDP. The ambition of the government is to increase this contribution to 10% over the next decade.

The state's mining sector covers 60,000 km² of which only 3.7% is currently in operation¹⁸. The geochemical exploration rate remains below 40%¹⁹. In 2017, only two ores were subject to industrial exploitation in Gabon: manganese ore and gold. Several mining sites identified throughout the territory such as iron (Belinga or Milingui), marble (in Nyanga), diamond, Niobium, phosphate, rare earths, etc. whose studies have shown that they are economically viable, remain unexploited mainly because of logistical problems that complicate the evacuation of the ore. In fact, Gabonese mines are often located in inaccessible forest areas and far from the coastal areas from where the ore can be exported. Unlocking Gabon's mining potential and increasing the sector's contribution to GDP is therefore tantamount to solving two major problems:

- Access to mineral resources via modern communication channels (connection to the road network, railway, waterways, etc.);
- Have mineral ports sized to handle large quantities of minerals without congestion.

In August 2016, GSEZ inaugurated GSEZ Mineral Port, a new mineral port, the second in the country after the COMILOG, inaugurated in 1988 and reserved for the exclusive use of this company that has been mining Moanda manganese (southeast) since 1962. **The theoretical capacity of GSEZ Mineral Port when it was commissioned was 4 million tons per year, the same as that of the Owendo ore port operated by COMILOG. For this new port for which Olam and the Gabonese government are in partnership, GSEZ has invested 134 million euros (about 88 billion XAF). The investment was fully financed by borrowings from two banks in the CEMAC area: the Central African Development Bank (70%) and BGFI Bank Gabon (30%).**

The commissioning of GSEZ Mineral Port has enabled Gabon to have an export platform dedicated to mining companies other than COMILOG. GSEZ Mineral Port settles a structural problem consubstantial with the mining activity in the country, which was the absence of an open and competitive mineral port.

This infrastructure has also enabled the development of two other manganese mines in Franceville (south-east) and Ndjolé (center), where in 2017 almost all production (about 800,000 metric tons) passed through GSEZ Mineral Port.

Thus, in 7 months of activity during the year 2017, GSEZ Mineral Port has welcomed 25 ships (against 80 for the COMILOG Owendo ore carrier) to transport the NGM and CICMHZ manganese ore to their international customers. GSEZ Mineral Port performed an average load of 32,000 tons for each export vessel, compared to 50,000 tons for the competing ore port. In 2017, GSEZ Mineral Port

¹⁸ Source : Ministry of Mines

¹⁹ 60% of the national territory has not been prospected

used only 20% of its capacity for manganese exports, which gives an overview of its margin of progress.

The activity of the ore ports in 2017 relating to the transit of manganese	GSEZ Mineral Port	COMILOG Mineral Port of Owendo
Annual capacity of the ore port (in million MT / year)	4	4
Number of months of activity	7	12
Number of ships in exports	25	80
Average tonnage of ore transport vessels (in tons)	32 000	50 000
Exported manganese volume (in million MT / year)	0.8	4
Port capacity utilization rate	20%	100%
Number of clients	2	1

Table 14 Comparative table of the activity of GSEZ Mineral Port and the COMILOG ore port in 2017

On the import side, 10 ships, mainly supplying Cement clinker to CIMAFA, the main cement manufacturer in the country, passed through the GSEZ Mineral Port in 2017. A total of 35 vessels and 1.7 million metric tons of goods have passed through GSEZ Mineral Port in 2017. The ore port generates 166 direct jobs and around 2,000 indirect jobs.

GSEZ Mineral Port - Key Figures 2017	
Number of months of activity	7
Number of international ships welcomed	35
<i>Ships in exports</i>	25
<i>Ships in imports</i>	10
Volume of goods in transit (in million MT / year)	1,73
Number of companies present on the site	5
Direct Jobs	166
Contractual jobs	60
Indirect Jobs	2 000

Table 15 Key figures of GSEZ Mineral Port in 2017

The impact of GSEZ Mineral Port on national mining production was noticeable in its first year of operation. Indeed, the commissioning of the new ore port on an area of 45 hectares (25 hectares for the mineral terminal and 20 hectares for the multipurpose terminal for aggregates) has contributed to the increase in the national production of manganese. This reached a record level of 5 million tons in 2017 against 3.6 million tons in 2016 (up 39%), a level of production never before achieved.

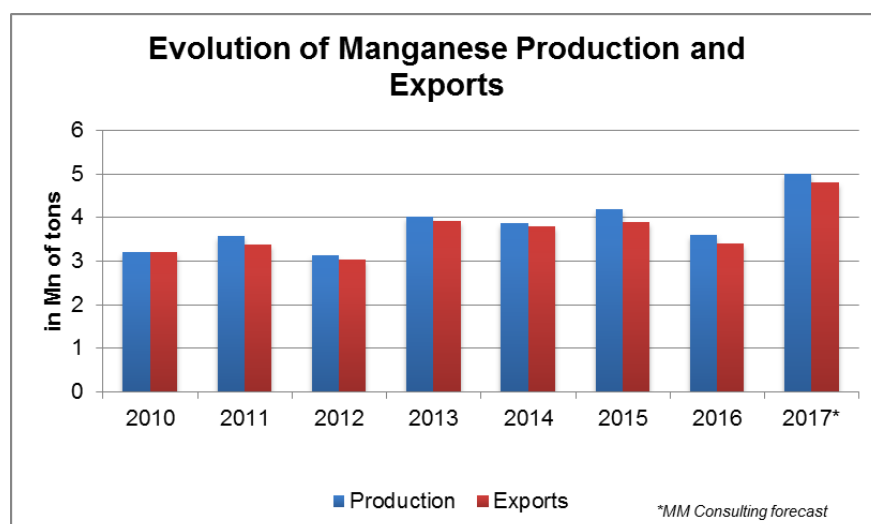


Figure 15 Evolution of manganese production and exports

Although still in the start-up phase, GSEZ Mineral Port handled 1 / 5th of the manganese volumes exported in 2017 (about 4.8 million metric tons, + 41% compared to the previous year). The availability of two port infrastructures (Owendo Mineral Port and GSEZ Mineral Port), increased storage capacity, increased production of COMILOG, CICMHZ and NGM, as well as the good performance of manganese courses allowed the Gabonese mining sector to cross the 4% threshold in GDP formation in 2017.

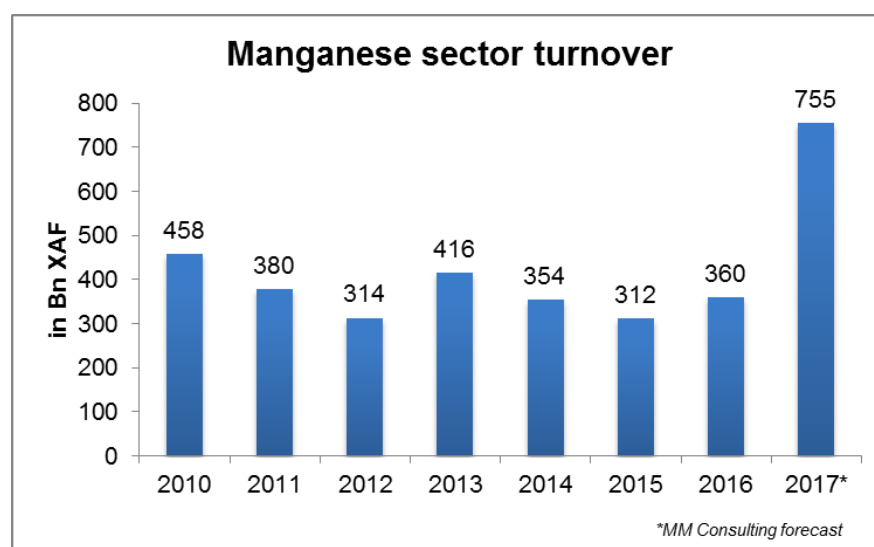


Figure 16 Evolution of manganese sales between 2010 and 2017

In addition to the structural advantages associated with the commissioning of the new ore port, the manganese sector benefited from favorable market conditions in international markets. In 2017, the average price of the unit of metric ton of manganese was twice that of the year 2016 due to the sharp increase in Chinese demand. This surge in prices, coupled with a historic rise in domestic manganese production, has enabled the sector to achieve a turnover of 755 billion XAF, one of the best in its history, up 110% over the previous year.

The impact of GSEZ Mineral Port on the Gabonese mining sector could increase if the manganese production targets set for the period 2018-2020 were achieved by the three companies operating in the sector:

- COMILOG : 5 million tons in 2020²⁰ ;
- NGM : 1,7 million tons in 2019²¹ ;
- CICMHZ: 1,5 million tons in 2020²².

In this case and at constant prices, **the contribution of the mining sector in the formation of Gabon's GDP could double and reach 8% in 2020 for an annual national production of more than 8 million tons of manganese. Gabon would position itself as the world's leading manganese producing country and GSEZ Mineral Port would provide port transit for 40% of exported manganese (about 3 million metric tons) compared to 20% in 2017.**

In 2018, GSEZ Mineral Port anticipates a volume of goods in transit (import-export) of 4 million metric tons. The ongoing construction of two manganese storage platforms and the prospect of extensions to the port will undoubtedly increase the density of Gabonese production in general and manganese production in particular.

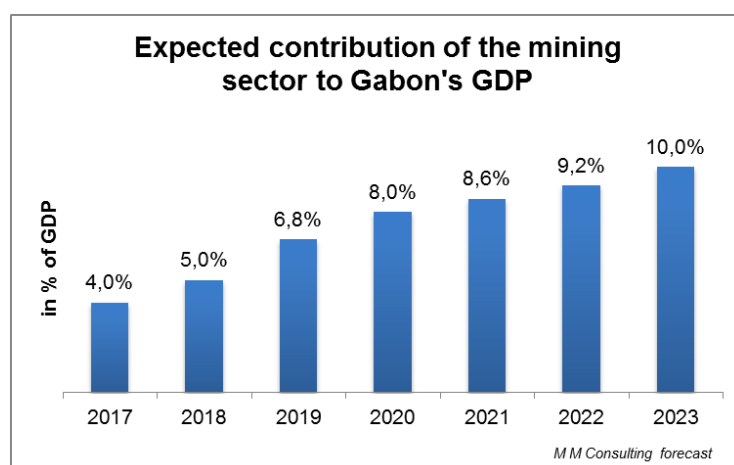


Figure 17 Expected contribution of the mining sector to Gabon's GDP

The 10-year objective of GSEZ Mineral Port is to ensure the transit of 10 million metric tons of goods per year. This objective is in line with the national ambition to increase the contribution of the mining sector in the formation of GDP to 10% by 2025. However, the achievement of these objectives remains conditional on the attractiveness of new investors in the sector, the increase in the production of existing mines, the putting into operation of new mining sites across the country and their connection to the mineral terminals via communication channels practicable and sized to support their activity. This requires large investments in infrastructure (mostly public in nature) and increased FDI in the sector to bring previously undeveloped mining sites into operation. In this perspective, the existence of a new modern ore port will be an important asset for Gabon in its search for international investors and in the longer term in its quest for economic diversification.

²⁰ Source : projections of the Compagnie minière de l'Ogooué

²¹ Source : projections Nouvelle Gabon Mining

²² Source : projections of Huazhou Industrial and Commercial Mining Company

Impacts on the Manganese Sector					
	2010		Data	2017	
Global and regional positioning of Gabon	12% of world production	3rd	World rank	2nd	25% of world production
	40% of African production	2nd	African Rank	2nd	45% of African production
	100% of exported production	100%	Exports	100%	100% of exported production, including 5% after local processing
Economic and social impact in the country	GDP contribution: 241 billion	3.7% of national GDP	GDP die Manganese	6% of national GDP	
	GDP contribution: 241 billion	3.7% of national GDP	GDP mining activities	ND	
	Negligible mining industry	0%	GDP mining industry	ND	
		3.2 million tons	Production	5 million tons	+ 56% increase in production of crude ore
		3.2 million tons	Exports	5 million tons	+ 56% increase in exports
	1 orebody with a capacity of 3 million tons / year dedicated to exporting COMILOG ore	1 ore port	Infrastructures dedicated to export	2 ore ports	New Olam ore port with a capacity of 3 million tons / year in 2017 and 5 million tons / year in 2020
		1,484	Direct Jobs	1,929	+ 30% more direct jobs in the sector
Financial impacts		XAF 458 billion	Turnover	XAF 686 billion	Sector turnover up 50%
		XAF 33 billion	Volume of investments	ND	
		XAF 19.3 billion	Payroll	XAF 50 billion	Up 159% from 2010.
		ND	Tax contribution	ND	
Actor	Single actor	COMILOG	Actors	COMILOG, NGM, CICMHZ	Competition in the sector
Business models	Gross extraction of ore for export		Business model	Gross extraction of ore for export and local processing of 5% of silicomanganese and manganese metal production before export	

Table 16 Synthesis of impacts on the manganese sector

1.2 Impacts on investment in Gabon

1.2.1 Situation of foreign direct investment in Gabon

The situation of FDI in Gabon is mixed. Between 2010 and 2016, the cumulative flow of inward FDI in Gabon, all sectors combined, amounted to 5.1 billion USD, with a peak in 2014 when inward FDI inflow reached 1.01 billion USD as a result of the conjunction of investments made in the primary sector. As an annual average over this period, Gabon garnered 733 million USD inward FDI. The impact of these foreign investments in gross fixed capital formation (GFCF)²³ has been relatively stable. In fact, the inflow of inward FDI as a percentage of the GFCF fluctuated between 12.5% and 16.6% for an annual average over the period of 14.2%.

Inward FDI inflows in Gabon dropped sharply as world oil prices declined, Gabon's first export resource, with the sector capturing a large share of FDI. The fall in prices has led to a decline in investment in the sector. Several oil majors, surprised by the fall in prices, took advantage of the economic situation to reduce their costs, restrict their investments and refocus their activity on certain countries. Large oil companies such as Anglo-Dutch Shell and French Total, which have been operating in Gabon for decades, have sold all or part of their oil assets in the country.

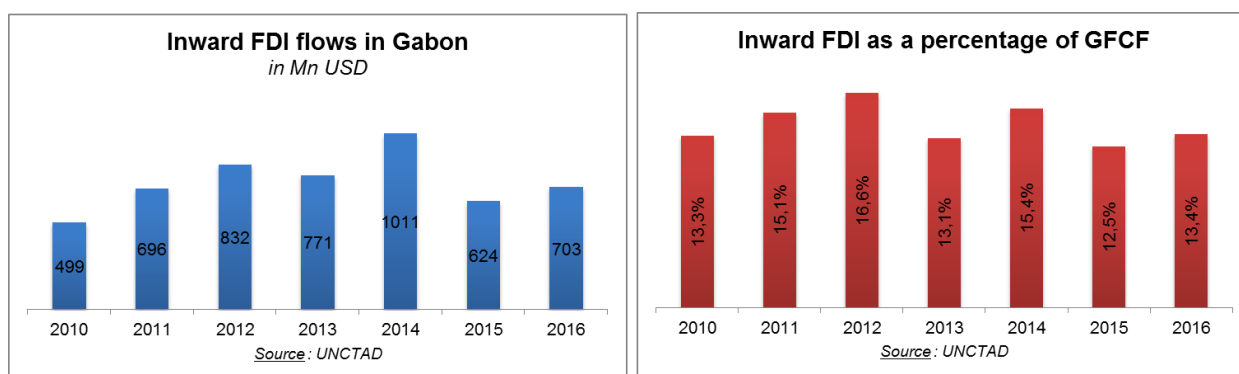


Figure 18 Inward FDI flows in Gabon between 2010 and 2016

However, FDI inflow between 2010 and 2016 had a positive impact on FDI stock²⁴ in Gabon. During this period, the stock of FDI increased by 164% from US \$ 2.8 billion to US \$ 7.4 billion. The cumulative FDI inflow over the period (USD 5.1 billion) accounted for 69% of the total FDI stock in 2016. Between 2014 and 2016, FDI stock strengthened by crossing the threshold symbolic of one third of the national GDP (in 2014). At the end of 2016, the stock of FDI represented 52.3% of the national wealth.

²³ Gross fixed capital formation (GFCF) is an indicator measuring the sum of investments, mostly material, made during a year in a country or region (World Bank definition).

²⁴ The stock of FDI represents cumulative FDI recorded year after year. This is the net outstandings of FDI.

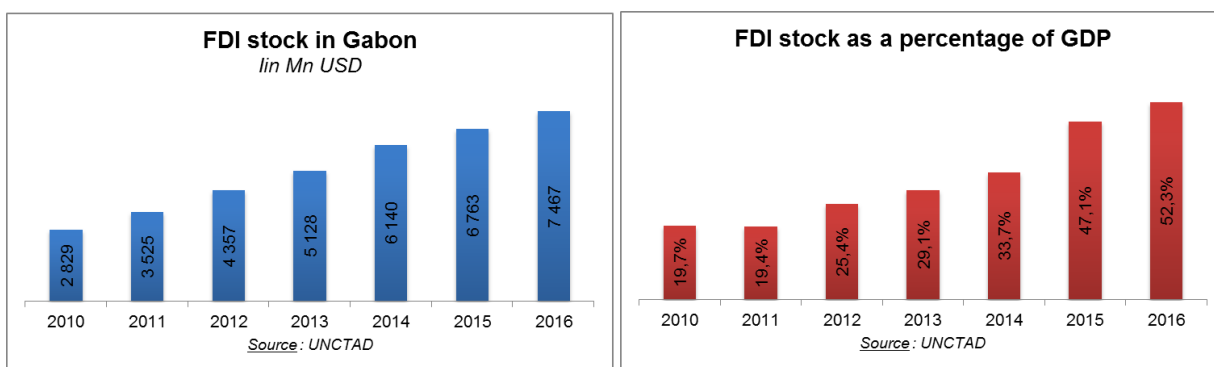


Figure 19 Evolution of FDI stock in Gabon between 2010 and 2016

Despite the increase in FDI stock and an annual inflow of FDI between 0.5 and 1 billion USD, the number of greenfield projects²⁵ financed by FDI in Gabon remains relatively low. **Between 2010 and 2016, only 28 greenfield projects were financed in Gabon by FDI against 62 in Cameroon, 66 in Senegal, 127 in Côte d'Ivoire, 295 in Ghana and 437 in Kenya²⁶.**

Thus, only 4 subsidiaries of foreign companies whose creation is directly financed by FDI are open ex nihilo every year in Gabon, in contrast with the needs of the country which has set itself the objective of welcoming more and more incoming FDI to accelerate its growth rate. This discrepancy can be explained in part by the overall business environment in the country, which is a major variable when making an investment decision.

Number of greenfield projects funded by FDI announced between 2005-2016				
Year	Announced by sources	Value of investments (in millions of USD)	Announced by the destination country	Value of investments (in millions of USD)
2005	-	-	4	2 148
2006	-	-	2	427
2007	-	-	3	337
2008	-	-	5	2 880
2009	-	-	4	709
2010	-	-	6	2 493
2011	2	22	3	225
2012	-	-	6	259
2013	-	-	5	48
2014	1	11	5	195
2015	1	11	1	17
2016	1	11	2	ND

Table 17 Greenfield investments in Gabon between 2005 and 2016

²⁵ A greenfield project is the creation by a parent company of a subsidiary ex nihilo. In the case described here, it involves the creation of subsidiaries ex nihilo of foreign companies financed by inward FDI.

²⁶ World Investment report 2017 – Investment and digital economy, UNCTAD 2017

The business environment in Gabon is still perfectible. Overall, Gabon remains poorly ranked in the world benchmark rankings that measure the quality of the business environment. Gabon ranks 167th out of 190 countries in the World Bank Doing Business 2018. Even though the country is better ranked than its neighbors in the CEMAC sub-region, its DTF (or Distance to frontier) indicator measures the gap between the business environment in Gabon and the reference business environment is 46.19 out of 100²⁷.

As for the attractiveness of investments, Gabon ranked 29th out of 50 in the Africa Investment Index 2018²⁸. As a brake on investment inflows, there is weak economic growth, the quality of the business environment (including Gabon's Doing Business position) or the size of the national economy. (See the [appendix Africa Investment Index 2018](#)).

1.2.2 Contribution of Olam group in foreign direct investment in Gabon

1.2.2.1 Direct Contribution

Between 2010 and 2016, Gabon received USD 5.1 billion of FDI (about XAF 2 550 billion). The multiplicity and heterogeneity of the projects led by the Olam and GSEZ group in Gabon as well as the absence of exhaustive data on all sources of funding and their geographical origin have not made it possible to isolate the direct contribution of Olam in the influx of inward FDI in Gabon. Indeed, not all investments made by a foreign company in a country are FDI. Thus, investments made from loans granted by local banks or the CEMAC regional economic area are not considered FDI since the sources of financing are local.

We will therefore analyze the investments of Olam and GSEZ in the form of gross investments without distinguishing the global share that integrates FDI from that which would come from local or regional donors.

Since 2010, Olam and GSEZ have invested 1,320 billion XAF in Gabon in 7 major projects impacting 7 provinces of the country. 39% of the investments made by Olam in Gabon concern agricultural projects. Olam Palm Gabon concentrates 28% of Olam's investments in the country while the construction of the two port infrastructures in Owendo represented 30% of Olam's investments in the country over the period 2010-2017.

The XAF 307 billion invested by Olam to implement the Nkok SEZ represented at the end of 2017 about 23% of the investments made by Olam in Gabon during the last 8 years. However, investments within the Nkok SEZ have been of a structuring nature, as they have attracted a new influx of FDI, especially from Asian countries whose companies have settled in the SEZ.

²⁷ Doing Business 2018

²⁸ Annual ranking published by Quantum Global Group

Investissements d'Olam et de GSEZ au Gabon depuis 2010		
Projets	Investment (in Bn XAF)	Weight in Olam's investments
Olam Palm Gabon	370	28%
ZES de Nkok	307	23%
GSEZ Bulk Terminal	248	19%
GSEZ Multi-purpose Terminal	150	11%
Olam Rubber Gabon	116	9%
SOTRADER - Graine	23	2%
GSEZ Infra	50	4%
Others	57	4%
Total	1 320	100%

Table 18 Olam and GSEZ investments in Gabon since 2010

In absolute terms, the XAF 947 billion invested in Gabon by Olam, GSEZ and their subsidiaries between 2010 and 2017 constitutes a significant part of the productive private investments made in the country. In particular, they helped to increase the volume of non-oil investments.

Regarding Olam, the information gathered from the Company Management in the framework of this study indicates a financing of the projects carried mainly by the shareholders and in particular by Olam International.

As for GSEZ and its subsidiaries, the investments are financed in a hybrid way with funds from both shareholders and borrowing resources. **The total loans subscribed by the GSEZ group at the end of the 1st quarter of 2018 amounted to XAF 219 billion, of which XAF 53 billion has already been reimbursed. The balance owed on the group's debt amounted to XAF 166 billion.**

Drawdown Schedule - MAR FY18 (FCFA Mn)											
EXTERNAL PARTY	Tenure	GSEZ NKOK		GSEZ Ports		GSEZ MT		INFRA GEP		TOTAL	
		Facility/ Drawdown Amount	Balance to Pay	Facility/ Drawdown Amount	Balance to Pay	Facility/ Drawdown Amount	Balance to Pay	Facility/ Drawdown Amount	Balance to Pay	Facility/ Drawdown Amount	Balance to Pay
BGFIBank Gabon	5 Years	-	-	14,075	6,282	1,212	291	-	-	15,287	6,573
BGFIBank Gabon	7 Years	-	-	-	-	16,419	11,725	4,154	4,154	20,573	15,878
BGFIBank Gabon	5 Years	-	-	-	-	1,534	1,534	-	-	1,534	1,534
Afriland First Bank	5 Years	-	-	11,125	3,38	-	-	4,119	4,119	15,244	7,499
UGB	5 Years	20,555	20,555	13,907	4,681	-	-	-	-	34,461	25,236
Banque Atlantique	5 Years	-	-	9,271	6,1	-	-	3,572	3,561	12,843	9,661
Afexim	5 Years	41,264	41,264	27,629	9,751	-	-	16,203	16,203	85,096	67,218
BDEAC	10 Years	-	-	-	-	31,632	31,237	-	-	31,632	31,237
SMT GROUP	4 Years	-	-	-	-	2,215	1,512	-	-	2,215	1,512
TOTAL LOAN		61,819	61,819	76,007	30,195	53,012	46,298	28,047	28,036	218,885	166,348

Table 19 Situation of the debt of GSEZ in 2018

Overall, GSEZ's debts come from 39% of international banks excluding CEMAC (85 billion XAF), 33% from Gabonese banks (72 billion XAF), 27% from CEMAC banks outside Gabon (60 billion XAF) and 1% other donors (XAF 2 billion).

Origin of GSEZ debts at the end of March 2018			
External party	Amount (in Mn XAF)	%	Origin
Afrexim Bank	85 096	39%	International Bank
BGFIBank Gabon	37 394	17%	Local bank (Gabon)
UGB	34 461	16%	Local bank (Gabon)
BDEAC	31 632	14%	Bank of the sub-region (CEMAC)
Afriland First Bank	15 244	7%	Bank of the sub-region (CEMAC)
Banque Atlantique	12 843	6%	Bank of the sub-region (CEMAC)
SMT GROUP	2 215	1%	Others

Figure 20 Origin of the GSEZ debt at the end of March 2018

1.2.2.2 Direct Contribution

By investing in the realization of the SEZ of Nkok, GSEZ has favored the investment of companies, mostly foreign, who settled there. Business investments within the Nkok SEZ constitute an indirect contribution of GSEZ to FDI.

The implementation of the Nkok SEZ in its first phase required an investment of 240 million USD from GSEZ. Through this investment, GSEZ wanted to eventually attract \$ 1.5 billion in foreign investment in the area and promote the creation of 7,000 jobs.

At the end of 2017, 91 companies had acquired plots within the Nkok SEZ, 55 of which were in production, including around 40 in the timber sector. **The timber industries of the Nkok District of Nkok are specialized mainly in sawing and plating. The World Bank estimates that the average investment required to set up this type of processing unit is between 2 and 3.5 million euros²⁹.** This level of investment also corresponds to that reported by the industrialists, operating in the Nkok SEZ surveyed in this study.

Thus, the wood processing units created within the Nkok SEZ generated between 80 and 140 million euros of investment. The installation of other industries (excluding wood industries) generated between 50 and 60 million euros of investment.

Within the SEZ of Nkok, GSEZ has attracted between 130 and 200 million euros of investments (between 85 and 132 billion XAF) from more than 90% of foreign manufacturers.

²⁹ Impact of the 2010 log export ban on forests, the timber industry and the Gabonese economy, World Bank, 2016

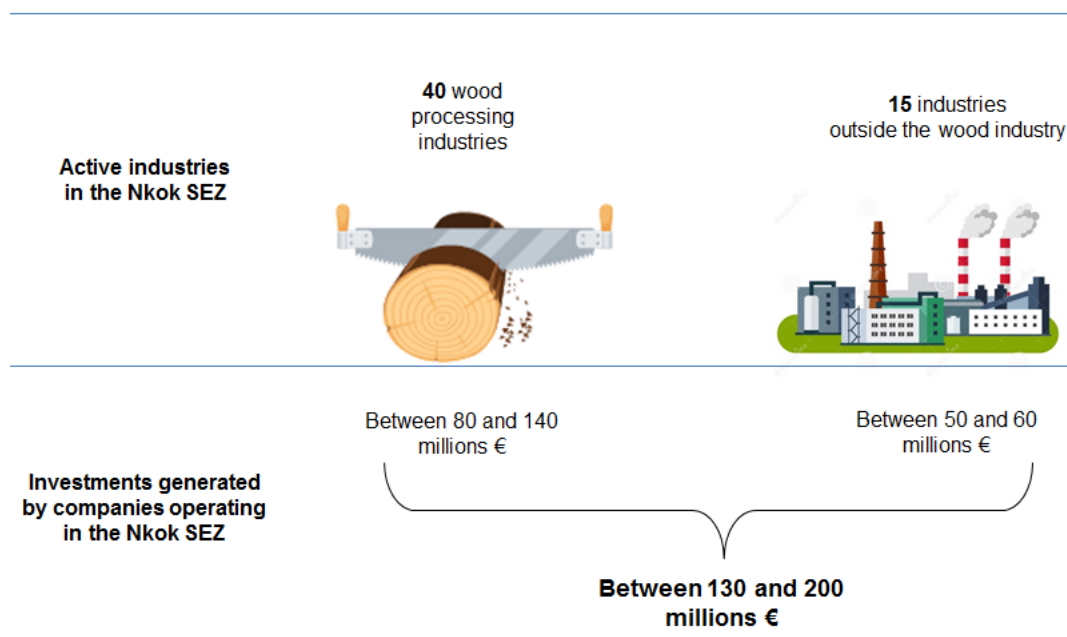


Figure 21 Contribution indirecte de GSEZ dans les investissements

1.3 Impacts on public finances and tax contribution

For the implementation of its projects in Gabon, Olam has benefited from tax incentives and various benefits from the Gabonese State with which it is a joint venture in several projects. 2 types of exemptions have been put in place:

- Exemptions for the benefit of Olam's projects
- Exemptions for the benefit of companies established in the NOC of Nkok erected by Olam.

In summary, Olam and companies operating in the Nkok SEZ are exempt from payment of customs duties, corporation tax for 10 years (10% of IS from the 11th year), VAT for a period of 25 years and the property tax. The Gabonese authorities explain the use of these generous exemptions by the desire to encourage private foreign operators to invest in the country, in a context where countries in the CEMAC regional area compete to attract FDI. However, the interviews carried out in this study with government officials shed light on **the strategy of the Gabonese authorities, which postulates that if tax incentives had not been offered to them, Olam and companies operating in ZES from Nkok would not have developed their projects in the country.** However, this point of view needs to be qualified. Indeed, the leaders of wood processing companies operating in the Nkok SEZ questioned on the reasons that motivated the installation of their plant in Gabon gave four reasons in order of importance:

- **The availability of the raw material at a lower cost;**
- **The socio-political stability of the country vis-à-vis the other countries of the sub-region;**
- **Freedom to import labor and repatriate profits;**
- **Tax exemptions.**

Even if the benefit of tax exemptions is one of the reasons for setting up industrial enterprises in Gabon, it comes only in 4th place in the responses of the managers of exempt companies in Nkok. In spite of this, the Gabonese government thinks it will be possible to profit from the shortfall created by these exemptions for the public finances in the long term notably via the job creations realized by Olam and GSEZ, the gains of growth generated by their activity, the arrival of new investors attracted by Olam's influence in Gabon, transfers of skills and technologies operated within the framework of the activity of the different companies.

Tax incentives for Olam projects		
Dues and Taxes	Olam Projects	Investors in Nkok SEZ
Dues and Import Taxes	0%	0%
Dues and Export Taxes	0%	0%
Corporate Taxes	0% for 10 years then 10%	0% for 10 years then 10% for 5 years
Value added tax	0%	0% for 25 years
Taxes on dividends	-	0%
Property taxes	-	0%
Income taxes	-	0%
Capital gains tax	-	0%

Table 20 Tax incentives granted to OLAM, GSEZ and companies operating in the Nkok SEZ

Despite the exemptions they enjoy, the companies of the Olam Group and GSEZ do not have a zero contribution. In fact, for each project in progress, these companies pay directly or indirectly certain taxes, notably the IRPP deducted from the salaries of their employees and transferred to the DGFP (the tax administration) and other taxes on goods and services.

Thus between 2012 and 2017, Olam and GSEZ paid 8.54 billion XAF³⁰ to the DGFP gold 1.42 billion XAF per year on average. Despite its growth in the national economy, the annual tax contribution of the Olam group in government represents less than 0.08% of total revenue.

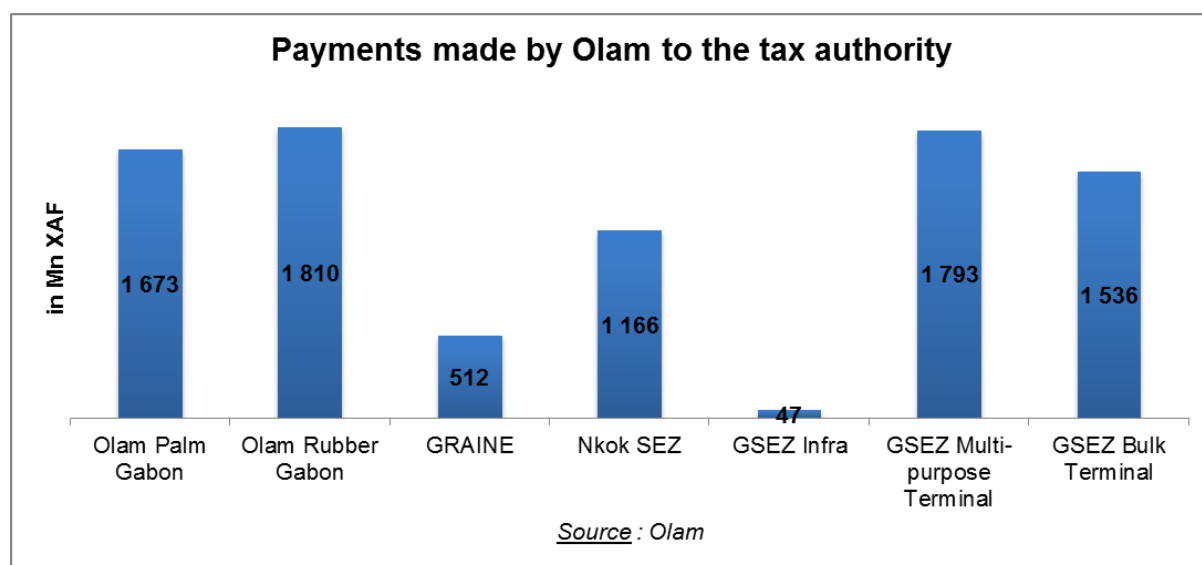


Figure 22 Payments made by Olam to the tax authorities

While the impact of Olam and GSEZ on the ongoing economic diversification process in Gabon is significant, their impact on the diversification of government revenues is still negligible.

³⁰ Data provided by Olam not reconciled with that of the DGFP which does not publish the detailed and individualized tax data of corporate taxpayers

1.4 Impacts on exports and the trade balance

Gabon's trade contracted between 2010 and 2017 as a result of lower oil prices, which account for more than half of exports in value terms. During this period, the value of exports increased from XAF 3 653 billion to XAF X 2 495 billion while the value of imports increased from XAF 1 357 billion to XAF 1 188 billion.

In general, between 2010 and 2017, the maintenance of imports at a relatively stable level and the volume of oil production in Gabon enabled it to maintain a positive trade balance. However, the non-oil trade balance remains structurally in deficit.

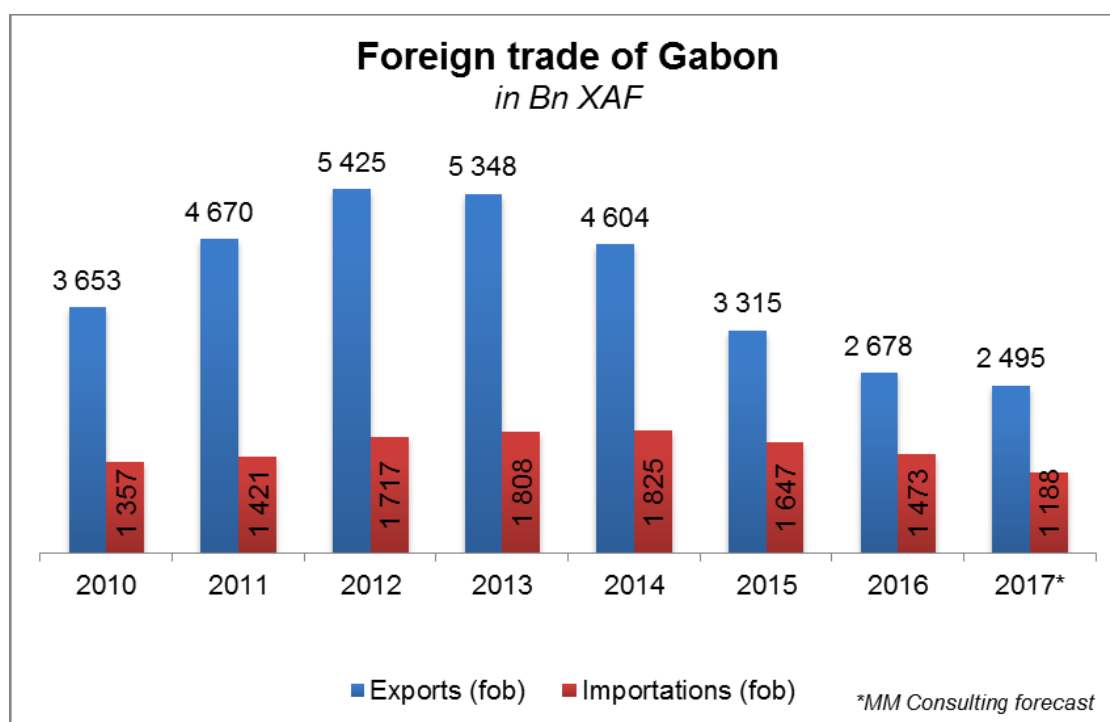


Figure 23 Value of Gabon's imports and exports between 2010 and 2017

The impact of Olam on the value of exports and the balance of trade mainly concerns processed and exported timber. Indeed, the wood processing industries operating in the Nkok SEZ (some 40 to the end of 2017) have helped to increase the value of timber exports in a context where the value of other export products was declining. Thus, between 2014 and 2016, the value of exports of processed wood rose from XAF 240 billion to XAF 335 billion (+ 40%), while at the same time the value of exports of petroleum products fell by 49%, that of manganese 34% and other exports by 11%.

Evolution of exports by product between 2014 and 2016 (XAF billions)				
Export products	2014	2015	2016	Variation 2014-2016
<i>Oil</i>	3 810	2 494	1 941	-49%
<i>Manganese</i>	420	421	279	-34%
<i>Gold</i>	8,6	9,3	12,4	44%
<i>Wood</i>	240	293	335	40%
<i>Other</i>	125	99	111	-11%

Table 21 Evolution of exports by product between 2014 and 2016
(Source: DGEPPF)

Increasing the industrial capacity of Nkok's wood processing plants is expected to have a positive effect on the value of Gabon's timber exports. **At full capacity, the 40 wood processing units operating in Nkok will have an industrial capacity of 914,050 m3 of logs per year, compared to 731,240 currently.**

As of January 31, 2018, the rate of container exports through the Nkok SEZ was approximately 521 containers per month. Container exports from the SEZ account for about 28% of total container exports at the national level and could double in the coming months as the expected production of processed timber in the area increases.

Over the next few years, Olam Palm Gabon's palm oil and rubber exports to Olam Rubber are expected to increase in Olam Rubber, and Olam's impact on exports could be even more significant.

Finally, the commissioning of two new ports by Olam already plays a structuring role on exports and imports since they have made it possible to increase the country's structural and logistics processing capacity.

1.5 Impacts on the diversification and resilience of the Gabonese economy

The diversification of the economy is a major challenge for Gabon, which still derives a large part of its public resources from oil revenues. In 2015, oil accounted for about 30% of GDP, 76% of the value of exports and 39% of government revenue³¹. The regular need to diversify Gabon's economy and the public policies put in place to achieve this goal have not been very successful. Oil remains predominant in Gabon's economy, and fluctuations in international oil prices have a strong impact on the general state of the Gabonese economy.

However, even if the oil remains structuring for the Gabonese economy, its contribution in the formation of the GDP has eroded between 2010 and 2016 under the combined effect of the fall of the world oil prices and the increase of the private investments in other sectors of the economy. The contribution in value of crude oil in the formation of the GDP decreased by 1,733 billion passing from 3,299 billion XAF to 1,566 billion XAF between 2010 and 2016. Between these 2 years, the average price of the barrel on the international markets has been divided by 3.

In this context, the contribution of the primary sector (which includes oil) in the formation of GDP fell by 27% between 2010 and 2016 while those of the secondary and tertiary sectors respectively increased by 15% and 4%. Thus, the contribution in value of the secondary sector excluding oil services amounted to XAF 1 203 billion in 2016 against XAF 700 billion in 2016 (+ XAF 500 billion) while the value contribution of the tertiary sector rose from XAF 1 551 billion to 2,100 billion (+549 billion XAF).

GDP growth by sector between 2010 and 2016 (XAF billions)					
Year	2010	2016	GDP contribution in 2010	GDP contribution in 2016	Variation
Nominal GDP (market price)	7 371	8 311			
Merchant GDP	6 553	6 942	89%	84%	-5%
Primary sector	3 839	2 114	52%	25%	-27%
Secondary sector	700	2 053	9%	25%	15%
Tertiary sector	1 551	2 100	21%	25%	4%
Non-market services	817	1 369	11%	16%	5%

Table 22 GDP growth by sector between 2010 and 2016

(Source: DGEPP)

By investing heavily since 2011 in agriculture, the special economic zones and a mineral port, the Olam group has contributed to increasing the added value created by these sectors. These investments are of particular interest because they allow to develop the non-oil sector around which the Gabonese economy will eventually have to be structured because of the downward trend of its oil production.

³¹ Perspectives économiques en Afrique. BAD, OCDE, PNUD 2017

Macroeconomic results at this stage are encouraging:

- **Agricultural GDP rose from 3.6% to 5% between 2010 and 2017**
- **The GDP of the wood industry increased from 2.8% to 3.7% between 2010 and 2017**
- **The mining sector's GDP increased from 3.7 to 6% between 2010 and 2017**

However, these performances must be assessed taking into account the recessionary context of the oil sector since 2014, which is constraining the national economy and, by mathematical effect, amplifies the contribution of other sectors of the economy in the formation of GDP in percentage terms. The beginning of diversification at the national level is still too fragile and must be confirmed in the coming years by maintaining a sustained pace of investment over a long period. It would be difficult to talk about the diversification of the national economy so that at constant GDP oil will represent more than 50% of the value of exports and more than 25% of state revenue.

In its development strategy, Olam intends to promote an increase in the value of exports in at least 3 sectors and thus increase its impact on the diversification of the national economy. These are agribusiness (oil palm and rubber), the timber industry and mining. To date, agribusiness (direct impact) and the wood sector (indirect impact) are the sectors where the impact of Olam in terms of diversification is the most notable.

In fact, through its investments, Olam has strongly developed the oil palm and rubber sectors in the country. In these sectors, agro-industrial activities already existed. However, their size and impact on the economy were negligible. **With the investment of Olam in its sectors, Gabon should position itself during the next decade among the African leaders in the production of palm oil (exceeding 100,000 tons in annual production) and rubber (more 50,000 tons of production). The development of these cash crops has already made it possible to increase agricultural GDP (+ 1.4% over 7 years) and the number of formal jobs in the sector.** Agriculture now employs over 20,000 people when combined with the figures provided by Olam Palm, Olam Rubber, SIAT Gabon, SOTRADER and PRODIAG.

As for the timber industry, whose contribution to the formation of GDP has increased by 1% since 2010, it owes its development to the establishment of the Nkok SEZ, which has attracted some 40 foreigners' investors in the sector. These new investors operate mainly in the sawing and veneering of wood. Their investment is generally between 2 and 3.5 million euros. The equipment of these new processing units has often been considered as hardy and the added value of their industrial production too low. However, they are an important link in the creation of an industrial fabric in Gabon. The World Bank summarizes this situation as follows: *"We can deplore this low level of technology and investment for these new industrial units, but for all that, they correspond well to the profile of these new investors who often occupy a place until then or little occupied in Gabon. Their level of transformation can be high, because they are careful to maximize the value of the log, they adapt better to the lower qualities of the resource, and are generally better able to accept new species"*³².

³² Impact of the 2010 log export ban on forests, the timber industry and the Gabonese economy, World Bank, 2016

Nevertheless, to significantly increase the contribution of the wood sector in the creation of national wealth, it is necessary to move upmarket and go to the third transformation³³ that offers more added value. A furniture cluster where a dozen companies operate has been set up in the Nkok SEZ. The Gabonese authorities and GSEZ hope to create more value in the SEZ by carrying out more 3rd transformation of wood.

The above observations are confirmed by the net increase in the contribution in value of the sectors in which the Olam group intervenes (directly or indirectly) in the formation of GDP. This is agriculture, agro-industry and the timber industry, but also the transport sector often coupled with communication in national statistics.

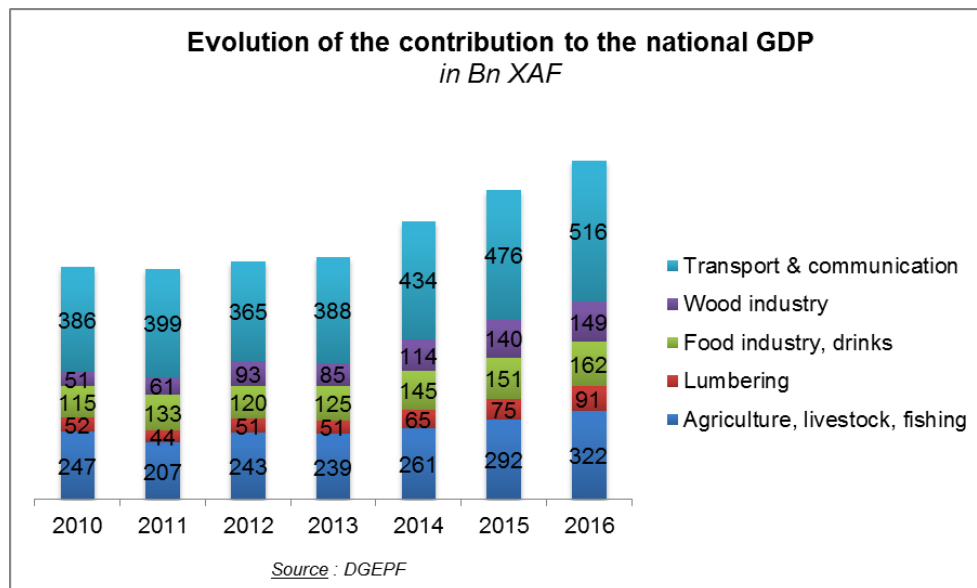


Figure 24 Contribution of the sectors of activity where Olam intervenes in the formation of the GDP


While Olam's investments contribute to the diversification of Gabon's economy, their impact on the diversification of government revenues is negligible to date. There are several reasons to explain it:

- The tax exemptions granted to Olam.
- Olam's main projects are not profitable because they are still in the development phase. They would therefore not have been taxable in respect of corporation tax.
- The decision of the authorities to encourage the development of industrial projects and job creation even foregoes tax contributions for the time being.

In summary, Olam and its subsidiaries are among the private companies that contribute the most to the process of diversification of Gabon's economy. This process is still shy.

³³ Three levels of transformation in the wood industry:

- 1st level of processing: sawing and peeling
- 2nd level of transformation: moldings, profiles, parquet and plywood
- 3rd level of transformation: carpentry and cabinet making



The beginning of diversification of the observed national economy increases economic resilience, but is not yet able to absorb the shock created by a sharp decline in oil prices in international markets.

1.6 Impacts on the Gabonese Economic Model (Increased PPP)

The need to diversify the Gabonese economy has led the authorities to change the Gabonese economic model hitherto based on a system of oil and mining income. The announced strategy aims to attract more private investment, increase structuring investments across the country and share the costs / risks / benefits of certain projects between the State and private investors. In this perspective, the Gabonese State has set itself the goal of multiplying PPPs.

For the purposes of Gabonese law³⁴, PPPs are contracts or agreements by which a public authority entrusts to a private person *"the design, financing, realization, operation, management, maintenance or maintenance of a project or property; all or part of the works, equipment, immaterial goods or any public service provision falling within the competence of the Contracting Authority concerned"*. Although this definition of the 2015 ordinance corresponds to project models developed in the 1990s by the government, like the Transgabonais, it was only in the 2000s that the development of PPPs was put at the center of national development strategies, notably in the 2011-2015 Country Strategy Paper (CSP).

Indeed, between 1997 and 2017, the Gabonese State concluded 21 PPPs in the field of infrastructures including 17 concluded between 2003 and 2017. All of these PPPs generated an investment of about 5 billion USD in telecom, railway, electricity generation infrastructure, etc. **Of the 21 PPPs infrastructure identified over a 20-year period, the 2 PPPs infrastructure (ZERP of Nkok and NOIP) with the Olam group represent between US \$ 3.1 and 3.3 billion representing more than 60% of infrastructure investments made under PPP in Gabon. Nkok's NERP alone generated US \$2.8 billion in investment, which represents about 56% of infrastructure investment in PPPs.**

Thus, the ZERP of Nkok was established as a model of PPP developed in the country because of the level of investment that has been granted, the involvement of public authorities in the simplification of administrative procedures in this area and its effect. Potential training on the economy since its vocation is to favor the installation of foreign companies, to increase the industrialization of the wood industry and to diversify the national economy.

Olam is the foreign group with which the Gabonese government has concluded the most PPP in the last decade. Outside the field of infrastructures, it is in PPP with the State in 3 agricultural projects:

- The development of oil palms via the company Olam Palm Gabon owned 70% by Olam International and 30% by the Gabonese State
- The development of rubber plantations via the company Olam Rubber Gabon 80% owned by Olam International and 20% by the Gabonese State
- The development of mixed plantations (food crops and cash crops) via SOTRADER owned 51% by the Gabonese State and 49% by Olam

³⁴ Ordonnance n°22/PR/2015 du 11 août 2015 relative aux Partenariats Public-Privé

The example of PPPs between the State of Gabon and Olam (or GSEZ) has led the government to encourage certain public administrations like the Ministries of Private Investment Promotion, Trade, Economy, ANPI, FGIS and BCPSGE to:

- Identify projects that can be implemented in the context of PPPs;
- Look for new partners that can accompany the State in their realization.

PPP concluded by the Gabonese Government in infrastructure ³⁵						
Financial year of closure	Project Name	Investment Type	Project Status	Sector	Investment in millions USD	Project Sponsors
1997	Energy and Water Company of Gabon (SEEG)	Brownfield	In distress	Water	294	Veolia Environment (26% / France) Electricity of France EDF (26% / France)
1999	Airtel Gabon	Greenfield	Active	Telecom	310.5	Bharti Airtel Limited (80% / India)
1999	Moov Gabon (Etisalat)	Greenfield	Active	Telecom	67.4	Etisalat (40% / UAE), Atlantic Bank (40% / Ivory Coast)
1999	Concession of the Transgabonais (1)	Brownfield	canceled	railway	46.7	Transurb (50% / Belgium) DEG (50% / Germany)
2003	Port Owendo et Port-Gentil	Brownfield	Active	Port	89.5	Portek International Limited (51% / Singapore)
2003	Management Contract of the Transgabonais	Management Contract	concludes	railway	0	Eramet (France)
2004	Temporary power station Aggreko 14 MW	Greenfield	Active	Electricity	N-D	Aggreko Plc (100% / United Kingdom)
2005	Concession of the Transgabonais (2)	Brownfield	Active	railway	91.8	Eramet (France)
2007	Power station Aggreko Bellevue and Owendo	Greenfield	Active	Electricity	N-D	Aggreko Plc (100% / United Kingdom)
2007	Gabon Telecom	Cession	Active	Telecom	93.4	Maroc Telecom (51% / Morocco)
2009	Azur Gabon	Greenfield	Active	Telecom	50	Bintel (100% / UAE)
2011	CODER FE II SHPP	Greenfield	Active	Electricity	234	CODER (Gabon)
2012	CODER Ngounie Imperatrice SHPP	Greenfield	Active	Electricity	134	CODER (Gabon)
2016	Rehabilitation of the Transgabonais	Brownfield	Active	railway	349.6	Formang Holdings BV (7%), Eramet (64%), Others (30%)
2010	Preferred Regime Economic Zone (ZERP)	Greenfield	Active	Other	2,800	Olam International Ltd (60% / Singapore), GdG, (Gabon)
2010	Oil and Gas Institute (IPG) of Port-Gentil	Greenfield	Active	Education	11	Total Gabon, Addax Petroleum, ENI, Gabon Shell, Perenco Gabon, GdG
2012	School of Mines and Metallurgy of Moanda of Gabon (E3MG)	Greenfield	Active	Education	24	Comilog, Eramet (France), GdG, (Gabon)
2015	Panafrican School of Music Libreville	Greenfield	Active	Education	16	Berklee College of Music (United States), GdG, (Gabon)
2016	New Owendo International Port (NOIP)	Greenfield/ Brownfield	Active	Port	300-500	Olam International Ltd. (Singapore), Africa Finance Corporation, Bolloré (France), GdG, (Gabon)
2017	Hydroelectric dam of Ngoulmendjim	Greenfield	Active - Under construction	Energy	134	ERANOVE (France), FGIS (Gabon)
2017	Hydroelectric dam of Dibwangui	Greenfield	Active - Under construction	Energy	50	ERANOVE (France), FGIS (Gabon)

Table 23 PPPs concluded by the Government of Gabon in the field of infrastructure

³⁵ Source : ANPI et Private Investment in Infrastructure database

1.7 Competitiveness, international influence and investor attraction

Ranked 167th out of 190 countries in the Doing Business 2018, Gabon is among the 40 countries in the world where the business environment is considered particularly difficult and unfavorable for companies. Its DDF indicator, which measures the overall ease of doing business in comparison with the reference business environment, is 46.19 out of 100. Gabon is therefore below the regional average in Sub-Saharan Africa, which is 50.43 out of 100 and is positioned at the 35th place sub regionally.

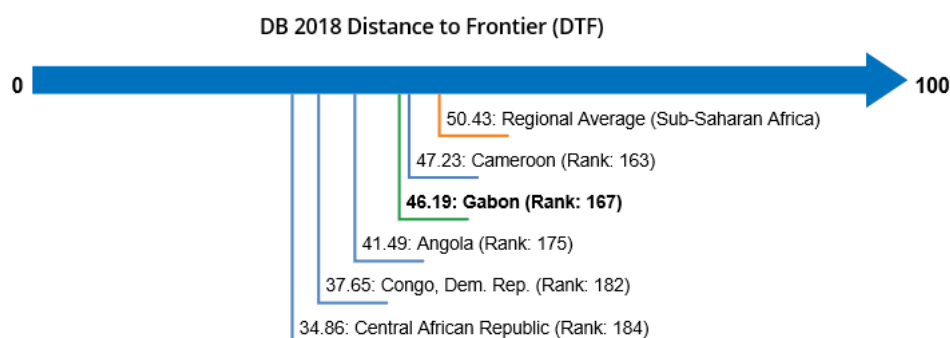


Figure 25 Gabon's rank in classement Doing Business 2018

Since 2010, the indicators taken into account in the realization of the Doing Business ranking tend to show that the quality of the business environment has only slightly improved. In 2010, Gabon was ranked 158th out of 183 countries, in 2018, the country dropped in the rankings and is now 167th out of 190 countries. As for the DDF score, which makes it possible to assess over time the changes observed in an economy, it went from 47.14% to 49.19% (+ 4.3%), but remains below the regional and the world average. The need to radically reform the business environment in Gabon is also confirmed by Switzerland Quantum Global Group's 2018 Africa Investment Index, where it ranked only 29th out of 50 countries in Africa in terms of investment attractiveness.

Evolution of Gabon's position in the Doing Business ranking			
Year	Gabon's rank	Number of countries evaluated	Score DDF (over 100)
2010	158	183	47,14
2011	156	183	47,93
2012	165	183	50,31
2013	170	185	49,88
2014	163	189	52,28
2015	156	189	46,13
2016	162	189	45,14
2017	164	190	44,86
2018	167	190	49,19

Table 24 Evolution of Gabon's Doing Business position between 2010 and 2018

Despite the structural weaknesses of the business environment in Gabon, the investments made by the Olam Group and GSEZ have had a significant impact in terms of investor attraction. This is particularly the case for the investments made for the establishment of the Nkok SEZ, which have allowed the installation

of 55 factories whose investors come mainly from Asia. In addition to the investments made for the development of this area, which has increased the country's industrial production, particularly in the wood sector, between 130 and 200 million euros³⁶ (between XAF 85 and 130 billion) have been invested in the ZES Nkok by private operators to start 55 active factories.

Thus, in a difficult business context, Olam by its investments and relying on the facilities offered to it by the Gabonese State has strongly contributed to the installation of new investors in structuring areas of the national economy. These investments also give Gabon more international exposure to foreign investors, notably through the promotion of the Nkok NZS and opportunities in the timber sector provided by Olam in Asia (and more particularly in India), the opening of a direct sea line between Owendo's Cargo port and the Indian port of Mundara, etc.

At the end of 2017, companies operating in the Nkok SEZ came from 18 countries, but mainly from India and China. More than 42 industrials located in the Nkok SEZ are Indian or are of Indian origins. The country's investment in Gabon, which was relatively low, increased with the establishment of the Nkok SEZ, where its nationals are particularly active in wood processing.

³⁶ Investments for this type of industrial units (sawing and veneer) range between 2 to 3.5 million euros according to the World Bank

Part 2: Social impacts of Olam Group's Activity

Methodological approach to collecting and analyzing social data		
Methodological approach	The semi-directive interview	Focus Group
<p>Assessing the social impacts of the Olam Group in Gabon required defining a clear and precise working methodology in order to collect the data, process them and answer the question of whether, beyond the macroeconomic impacts, Gabonese people in general and those social basins impacted by Olam's investments in particular, benefit from Olam's investments.</p> <p>Three methodological tools for collecting and analyzing data were used to frame our research approach. Complementary to each other and justifying a certain practical and theoretical efficiency, the tools we used to collect the information were the semi-directive interview by survey guide and focus group interview.</p> <p>With regard to the data processing, it was understood that the work to be done was essentially to determine the perception of the riparian populations on the Olam investments. We privileged the qualitative analysis because of its flexibility and its perfect adaptation to the type of work to do. The main tool of qualitative analysis that we have used has been the triangulation of information. Indeed, the majority of the social information taken into account has been validated by at least 3 sources. When information was only validated by 2 sources, the experts supplemented it with a deductive approach...</p>	<p>During the on-site exchanges with Olam employees, the semi-directive interview was the information-gathering tool used. A maintenance guide previously designed for this purpose served as a driver. This document is attached for reference.</p> <p>The semi-directive interview as a flexible collection tool made it possible to obtain the maximum of information from the employees. Indeed, the low directivity of this survey instrument has resulted in trusting informants, which in the end led them to provide as much data as possible.</p>	<p>As the second data collection tool used, the focus group interview takes shape within a specific group. Used in the villages impacted by Olam's activities in Mouila and Bitam, it allowed to collect the answers to the questions asked to the people present during the exchanges and to obtain their perceptions of the presence of Olam in their environment of life.</p> <p>This tool proved particularly suitable when it came to starting discussions within the villages to assess the social impact of the implementation of social contracts that bind Olam to these villages.</p> <p>The discussions were sometimes stormy and passionate, but the focus of the focus group was to allow the beneficiaries of the social contracts to deliver the depth of their perceptions vis-à-vis the Olam group's investments, as well as their effects on the populations. .</p> <p>For both sites, a sample of 100 people, including 40 employees and 60 residents of impacted villages, was initially arrested. Field constraints and the need to grasp problems in depth have led the team to review its intervention strategy by resizing the study sample. In addition, it is finally a total of 28 employees of the province of Estuaire, 36 employees of the two sites Mouila and Bitam who were surveyed as well as 100 people distributed in the 14 focus groups created. Each village is a focus group.</p>

2.1 Impacts on job creation and poverty reduction

2.1.1 Impact on the national employment structure and the unemployment rate

Between 2010 and 2017, the unemployment rate in Gabon dropped by 1.9%, from 20.4% to 18.5%³⁷. According to national statistics, during this period Gabon registered 68,577 net job creations. Although the public sector remains the largest employer in the country with around 107,000 employees in 2017 compared to 94,000 in the private sector³⁸, the private sector has created more net jobs in the recent period. In fact, between 2010 and 2017, the private sector created 39,153 net jobs, 9,729 more than the public sector.

During the period 2010 - 2017, nearly 24% of the net jobs created in Gabon were created by Olam and its subsidiaries. In the private sector, 42% of the new net jobs were created by Olam.

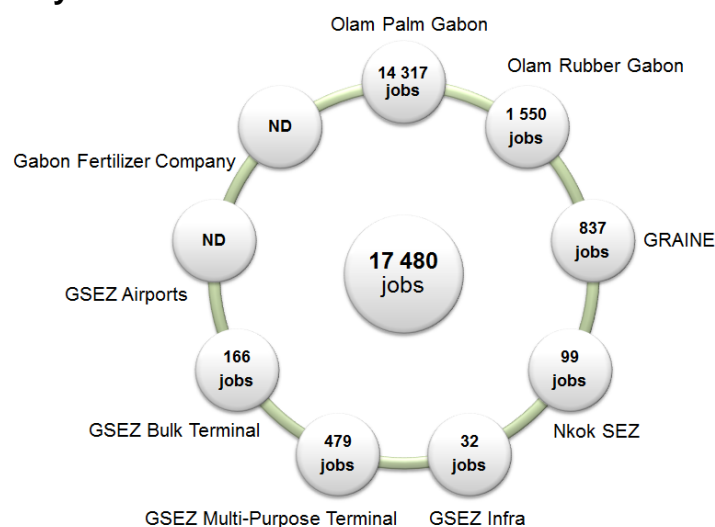


Figure 26 Breakdown of jobs between Olam projects in Gabon in 2017

Engaged in several projects across Gabon, Olam and its subsidiaries have had a significant impact on job creation in the private sector. This conglomerate, which had only 1,100 employees in 2011, had 17,480 employees at the end of 2017 (+16,380 jobs in 6 years), thus positioning itself as Gabon's largest private employer. Thanks to their massive recruitment, at the end of 2017, Olam and its subsidiaries together accounted for 8.7% of formal employees in Gabon and 18.6% of the formal private sector.

In 7 years, the pace of job creation at Olam and its subsidiaries is unprecedented in Gabon's private sector. **If this rate of recruitment were maintained over the 2018-2022 period, it would allow the formal private sector to have more employees than the public sector, which would be a first since the independence of Gabon.**

³⁷ Modeled Estimate of ILO

³⁸ Mays Mouissi Consulting forecast

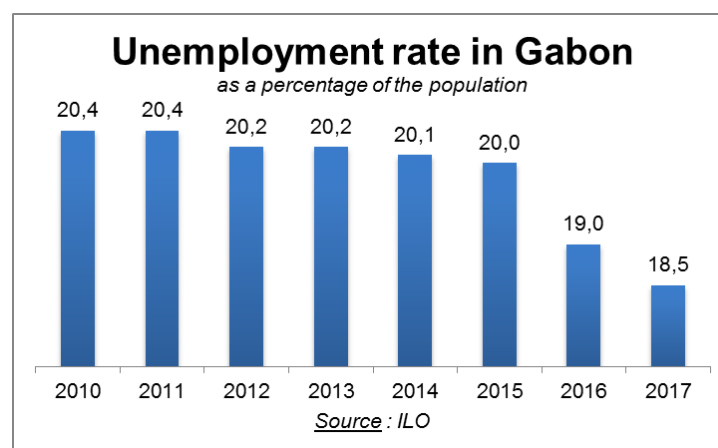


Figure 27 Evolution of the unemployment rate between 2010 and 2017

The 16,380 net job creations of Olam and its subsidiaries over the last 7 years have had a significant impact on the slight reduction in unemployment observed at the national level between 2010 and 2017.

Indeed, while the unemployment rate in Gabon has fallen by 1.9% between 2010 and 2017, more than 24.21% of this decrease is directly attributable to the recruitments made by Olam and its subsidiaries, which is a direct impact on the unemployment rate. The unemployment rate fell by 0.46%.

Formal public and private employment in Gabon between 2010 and 2017						
Year	Number of Public jobs	Number of private jobs	Number of jobs public + private	Number of OLAM jobs	Share of OLAM in private jobs	Share of OLAM in jobs in Gabon
2010	77 576	54 847	132 423	ND	ND	ND
2011	89 867	59 232	149 099	1 100	1,9%	0,7%
2012	100 442	66 437	166 879	3 200	4,8%	1,9%
2013	103 339	72 717	176 056	4 000	5,5%	2,3%
2014	109 050	90 188	199 238	5 100	5,7%	2,6%
2015	109 564	90 327	199 891	8 389	9,3%	4,2%
2016	108 150	91 224	199 374	18 268	20,0%	9,2%
2017	107 000	94 000	201 000	17 480	18,6%	8,7%

Table 25 Evolution of Olam's weight in the distribution of jobs in Gabon between 2010 and 2017
(Sources: Economics Scoreboards 2011 - 2016, Olam data and estimates by Mays Mouissi Consulting)

The social impact of Olam and GSEZ in terms of jobs should be extended to the jobs created by the companies located in the Nkok GSEZ, which are an indirect consequence of the investment in the establishment and valorization of this area of activity.

Statistical data collected from the ZERP administrative authority in Nkok reported 2,850 jobs as of January 31, 2018 and 3,000 jobs as of April 15, 2018, thanks in particular to the launch of the activities of Indian industrialist Accurate Industries, which employs 100 people. These figures are quite similar to the projections made by the World Bank in a

study³⁹ that estimated 3,000 jobs created by the wood industry in the Nkok SEZ at the end of 2017.

Outlook for job creation by the 40 wood industries operating in the NKOK SEZ			
Type of industry	2016	>2017	Total
Sawmill	90	760	850
Veneer unit	530	770	1 300
Plywood unit	40	10	50
Mixed unit (sawing / veneer / plywood)	250	250	500
Carpentry	100	200	300
Total	1 010	1 990	3 000

Table 26 Job Distribution at Nkok SEZ
(Source: World Bank)

As a result, the wood manufacturing units of the Nkok SEZ have created about 23% of the direct jobs in the sector (3,000 out of 13,000 jobs) and have increased the number of direct jobs in the sector that has passed from 8,423 to 13,000 between 2010 and 2017 (+ 54%).

The cumulative employment of the Olam - GSEZ conglomerate with those created within the Nkok district of Nkok by companies makes it possible to measure the impact of Olam at large in the creation of formal jobs in Gabon. **Through its activity, Olam has enabled the direct and indirect creation of at least 20,480 jobs across Gabon, which represents 21.8% of formal private sector jobs in the country and 10.2% of formal jobs (including public sector jobs).**

Direct and indirect impacts of Olam and GSEZ on employment in 2017	
Direct Jobs Olam + GSEZ	17 480
Indirect Jobs Generated at Nkok SEZ	3 000
Direct Jobs Olam + GSEZ + Indirect Jobs at Nkok SEZ	20 480
Number of formal private jobs in Gabon	94 000
Number of formal jobs in Gabon (public + private)	201 000
Direct weight of Olam and GSEZ in formal private employment in Gabon	18,6%
Direct weight of Olam and GSEZ in formal jobs in Gabon	8,7%
Direct and indirect weight of Olam and GSEZ in formal private jobs	21,8%
Direct and indirect weight of Olam and GSEZ in formal jobs	10,2%

Table 27 Direct and indirect impacts of Olam and GSEZ on employment in 2017

On a structural level, Olam has modified the sectoral distribution of formal jobs in Gabon by considerably increasing the jobs related to the agricultural sector. **The group's agricultural companies employ 16,704 people, or 17.8% of the country's formal private sector jobs. They generate 2,409 indirect jobs and enable the agricultural sector to be the main employer of the country after the public administration.**

³⁹ Impact of the 2010 log export ban on forests, the timber industry and the Gabonese economy, World Bank, 2016

Focus on the social conditions of Olam employees in the Estuaire province

In the Estuaire province, a sample of 28 employees was set up to measure Olam's impacts on their social conditions. These 28 employees were selected from 4 companies:

- Olam Palm Kango
- GSEZ Mineral Port
- GSEZ General Cargo Port
- GSEZ Nkok

The distribution of the sample was made in such a way as to over represent the non-management employees to remain faithful to the distribution of jobs within the company. The selected sample comprises 75% of men, 25% of women whose age varies between 25 and 45 years:

- Managers (14%);
- Master agent (30%);
- Operating agent (7%);
- Implementing agent (39%);
- Operators (10%).

In order to appreciate the nature of the impacts of society on the lives of these individuals, the survey relied on criteria of significant social change, including employment, income, housing, transportation, health and number of dependents. The nature of the impact is broken down according to the indicators⁴⁰ below:

- **Positive:** the impact positively changes the life of the employee
- **Negative:** the impact negatively changes the life of the employee
- **Moderate:** the impact moderately changes the life of the employee
- **Major:** the impact significantly changes the life of the employee
- **Minor:** the impact does not perceptibly change the life of the employee

- **Employment and income**

Of the 28 employees surveyed, 43% were unemployed before being recruited by Olam or GSEZ. 57% of them worked in other fields of activity for national and / or international structures. 39% of the people were in local industries (agricultural, dairy, port, building, etc.) and the rest (18%) in private institutions or administrations (see survey table attached).

⁴⁰ Following this method, we will affirm that Olam or GSEZ has a major positive impact on an employee with 3 children, unemployed before recruitment, benefiting from insurance offered by the company and / or housing. Conversely, we will say that the impact is negative for an individual with 10 dependent children, having a greater workload at Olam than in his former job for the same or lower pay even though he benefits from 'health insurance.

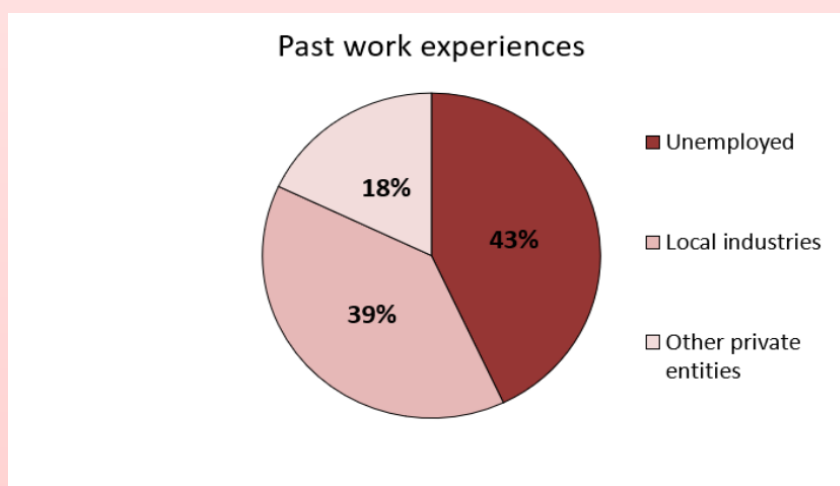


Figure 28 Previous Olam Employee Positions

The majority of the employees surveyed were unemployed before being recruited by Olam. During the survey, **several employees focused on the financial stability of their job in the Olam group. For 60% of them, this financial stability results in the regularity of the payment of their wages.** For these employees, the impact of Olam can be considered as a major positive.

25% of employees surveyed believe that their workload has increased significantly since their recruitment into Olam. However, they say they have better financial stability. For these employees, Olam had a minor positive impact.

10% of respondents think that Olam did not bring them anything more compared to their previous situation except health coverage. One could consider that Olam had a moderate positive impact because it has not brought any particular constraints.

3% of employees experienced a decrease in salary compared to their former activity. Their recruitment to Olam had a major negative impact on their social conditions. Nevertheless, these employees say they hope to see improvements in the years to come.

Overall, out of 28 people surveyed, Olam gave the majority of them the opportunity to have a job, financial stability and to improve their living conditions for some.

- **Health Insurance / Health Care**

Olam and GSEZ offer health coverage to all their employees. This health insurance covers the employee, his spouse and up to 3 children in the household. The number of children of each Olam employee is therefore an important social indicator since employees with more than 3 children will have some of their offspring who will not be covered by the health insurance offered by Olam.

However, more than half of Olam and GSEZ employees surveyed said that they have more than 3 dependent children in their homes. This has the effect of

limiting the impact of the health insurance offered by Olam. They wished it could extend to all children in the household.

Company	Number of dependents	Number of dependents	Number of dependents	Number of dependents
	(1 to 3)	(4 to 5)	(6 to 9)	(10 to 15)
Olam Palm Kango employees	38%	37%	13%	12%
	Minor positive impact in care management			
GSEZ Mineral Port employees	25%	50%	25%	-
	Minor positive impact in care management			
GSEZ General Cargo Port employees	42%	25%	-	16%
	Moderate positive impact in care management			

Table 28 summary of social impacts

- **Living and working conditions**

Concerning the living and working conditions, the employees surveyed point out as a positive point the career possibility in the companies where they work, the rigor, the regularity of the salary payments and the CSR policy put in place by these companies. Overall, employees, especially executing agents, find their job difficult and want more recognition from the company and greater consideration of the strain of their jobs in their remuneration. This observation is shared by the employees of the ports and plantations.

Despite a gradual allocation of housing to employees based on seniority and positions held, especially for those working in Kango, several employees consider it a handicap to live far from their workplace.

Some sites provide employees with transport buses that pick them up at pre-defined collection points. A majority of employees, however, say they want an increase in the number of pickup points. Employees also benefit from a series of training courses funded by the company to support the improvement of their skills on certain subjects. The table below contains all the findings of the employee survey.

Findings	
Positives	Negatives
Housing	Misunderstandings and frustrations that can be explained by cultural and linguistic differences between Olam national collaborators and their Indian colleagues
Transport	Employees' questions about the collective agreements applicable to them especially for those working on the ore port
Insurance	Questioning agents with the status of worker on the compliance of their remuneration under local legislation
Policy	Workers' dissatisfaction with the level of extra remuneration for hard work
Insurance	Transport: employee drop-off and pick-up points are limited and sometimes inaccessible
Career Opportunity	Permanent noise annoyance that can cause long-term migraines for employees working near machinery or machines
Rigor of the multinational	Lack of staff and health care equipment in the infirmary
Payroll Payments Regularity	Complaints about unpaid overtime
	Lack of several training programs for employees

Table 29 Positive and negative observations of Olam employees in relation to their work

During the survey, employees highlighted the difficulties encountered in their daily work with their colleagues of Indian origin. In addition to cultural differences, their collaboration is made difficult by the language barrier (Indian employees are often exclusively English-speakers and national executives are very rarely bilingual). Actions should be taken by Olam to improve communication between its employees.

The GSEZ Mineral Port employees surveyed said they questioned the collective agreement applied to them. Currently, these employees are attached to the collective agreement for ports. However, they compare their situation to that of the employees of the Mineral Port of Owendo operated by COMILOG, which would be attached to the collective agreement of mines, more advantageous. Communication actions should be initiated by Human Resources and Olam's Legal Department in order to provide the necessary clarifications.

In terms of salaries, the vast majority of employees surveyed want to see salaries upgraded and be rewarded with more bonuses. Executing agents at ports say they want to do more overtime to improve their pay. As for the employees of the plantations, they wish to be better taken into account in the CSR policy of their company.

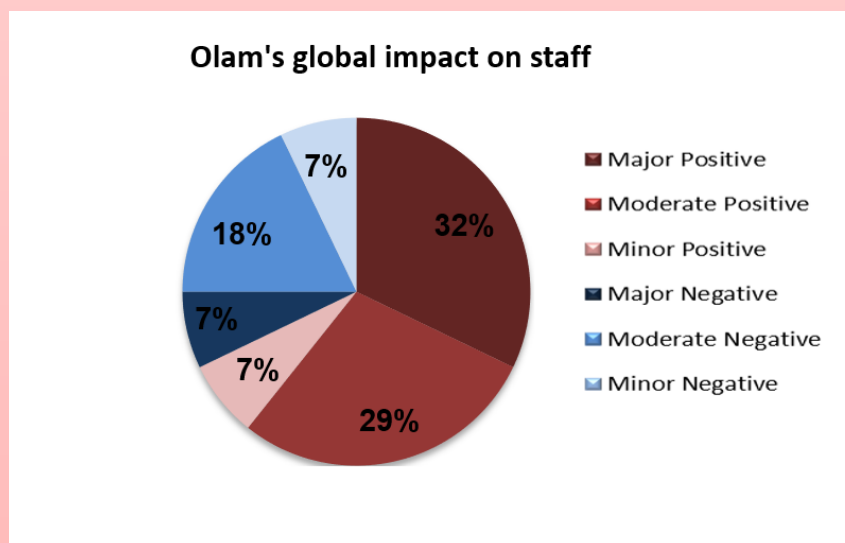


Figure 29 Olam's global impact on employees' social conditions

Finally, at the end of the survey we can conclude that Olam has had a globally positive impact on the social conditions of its employees. Some focus points remain on working conditions, remuneration, allocation of housing to a category of employees, efficiency of employee transport circuits and insurance coverage of which is limited to 3 children. The graph below taken from the table of impacts in the appendix shows us that the arrival of Olam in certain sectors overall positively impacted the social conditions of the employees surveyed.

2.1.2 Poverty reduction and empowerment (distributed income / purchasing power)

Employments created by Olam Group allowed to slightly reduce the unemployment rate at the national level. However, do these jobs really decrease the level of poverty?

The answer to this question depends on the category of each employee in the company. At Olam Palm Gabon Mouila, 95% of the employees surveyed are A1 farm workers⁴¹ and 5% are A6 grade supervisors. In Olam Rubber Batouri (Bitam), 34% of the respondents are A1 category farm workers, 25% are A4 category workers and 41% are category A6 agents.

The exchanges with the employees of these two sites located in the interior of the country made it possible to note that the living conditions of the employees in category A1 are more precarious than those of their colleagues of the other categories even if the differences are not considerable.

Among employees (all categories combined), **only 35% of respondents say that their job has improved their living conditions. These employees recognize that before joining the Olam group, the income they had (less than 70,000 XAF / month) was not sufficient to cover basic needs (housing, food, health, education, water, etc.).** Today, they manage to better organize themselves with the remuneration paid to them. **For the others, 65% of the respondents, there is not really a change since to cover all their expenses, they resort to other income-generating activities outside working hours within the company.**

The level of pay depends on the category of each employee. In both sites (Mouila and Bitam), category A1 employees surveyed all receive a monthly salary of XAF 150,000, those in category A4 and A6 receive a salary of over XAF 150,000. Exchanges with each employee revealed that most of them do not regularly receive the amount of compensation indicated in their employment contracts. Several endogenous and exogenous reasons explain these fluctuations in wages:

- Endogenous reasons:

The very high absenteeism of Olam Palm Mouila's female employees regularly causes fluctuations in the remuneration paid to adapt to the number of hours worked. Some of the women interviewed admitted to being away for several hours a month for family reasons. For lack of not having justified these absences, their wages are reduced.

In contrast, employees of Olam Rubber Batouri (Bitam) report that their absences are regularly justified to their superiors. However, their justifications are not taken into account when setting wages. They believe that justified or not, their absences systematically result in a reduction of their net salary.

⁴¹ Olam group internal classification corresponding to the status of operator or worker

- Exogenous reasons:

The deduction of employee contributions for the benefit of the National Health and Social Insurance Fund (CNAMGS) results in a reduction in the salaries of Olam employees in proportion to the amount of their contributions.

In addition, employees do not understand some of the deductions made on their salaries. The employees transported by the company do not received transport premium, which as a result, reduces their monthly net salary.

Regarding the impact of Olam on the living conditions of its employees in rural areas, the interview with employees interviewed in Mouila and Bitam revealed that their employment does not allow them to live decently and to cover basic needs such as housing, health, education, food and transportation. Even those who claim that their situation has improved since joining the Olam group are using indebtedness to cover part of their family expenses.

The table below shows the satisfaction of Olam employees in rural areas regarding the coverage of their most urgent needs.

Olam Palm Gabon Mouila			
Field	Yes	No	Not Applicable
Health	18%	82%	/
Education	26%	44%	30%
Food	65%	35%	/
Housing	32%	36%	32%
Transport	36%	18%	46%
Olam Rubber Batouri (Bitam)			
Health	25%	75%	/
Education	25%	67%	8%
Food	50%	50%	/
Housing	25%	50%	25%
Transport	33%	25%	42%

Table 30 Staff satisfaction

The salaries earned do not allow A1, A4 and A6 employees in our sample to cover all their expenses. In their spending, they tend to focus on food needs. This explains the fact that a significant part of the remuneration (around 45%) is allocated to cover these needs. The 55% of the remaining salary is distributed among all other expenses without being able to cover them completely. The gap is filled by overtime or odd jobs after the day's work in Olam.

The impact on poverty reduction remains quite low despite employment and the payment of a regular salary. The remuneration collected monthly does not allow the employees surveyed to save for future projects, especially for executing agents.

Respondents in category A4 and A6 said they do not feel the impact of internal or external training they have followed on their evolution within the company and their remuneration. Many of them say they have been in the same category for more than 3 years and feel stuck in their professional development. The career plan is not clearly explained by the Management so that everyone is aware and acting accordingly.

2.1.3 Indirect social impacts (people impacted in the broad sense)

The indirect beneficiaries of the jobs generated by the Olam Group companies are the people who live in settlements near Olam's plantations and activity sites, especially in rural areas.

As we passed through some villages of Ngounié and Woleu-Ntem impacted by oil palm and rubber plantations, people expressed their relief at seeing a good number of the young people from their villages recruited in Olam. In REMBO village, for example, nearly 85% of young people are employed by Olam Palm Gabon Mouila. The impact of these jobs on village populations is real since the majority of employees support several people in the family or community.

In the broad sense, the 35 employees surveyed in Mouila and Bitam have 194 people in charge. On average, every Olam employee has 6 family dependents. The table below shows the average percentage of people indirectly impacted by the jobs created by the Olam group in rural areas

	Number of people impacted (1 to 3)	Number of people impacted (4 to 5)	Number of people impacted (6 to 9)	Number of people impacted (10 to 15)
Olam Palm Gabon (Mouila) Employees	30%	40%	30%	-
Olam Rubber Batouri (Bitam) Employees	-	42%	33%	25%

Table 31 Nombre de personnes impactées indirectement pour chaque employé d'Olam en zone rurale

This table shows that 30% of Mouila employees surveyed have at least 3 dependents. 40% of Mouila employees and 42% of Batouri (Bitam) have between 4 and 5 dependents. 30% of Mouila employees and 33% of Batouri (Bitam) employees have between 6 and 9 dependents. Finally, only 25% of employees in Batouri (Bitam) have between 10 and 15 dependents.

These figures explain why the majority of employees at both sites are unable to meet their basic needs while they are in employment. The salary they receive is less than the level of their monthly expenses. One of the most effective ways to reduce poverty in these communities would be to empower more people either through paid employment or by supporting the creation of IGAs or by providing social assistance authorities.

2.2 Impacts of the social commitment

Olam's social commitment can be understood and evaluated only through the social contracts that bind the groups companies to the local populations impacted by their activities. The effective implementation of the contents of the social contracts becomes then, the barometer of evaluation of the social commitment of the Olam group.

As a reminder, the social contracts of the Olam Group companies are the result of a negotiation process with the populations of the villages bordering their sites of activity within the framework of the CLIP. The objective of this process is to allow the people to receive compensation in exchange for the deprivation of their lands henceforth integrated in the area granted to Olam by the Gabonese State.

As part of this study, we came into possession of copies of the social contracts of the villages we visited in Mouila and Bitam. A total of 14 villages served as a sampling base to assess the impact of the social commitment of the Olam Group companies towards the populations. In this part of our study, our approach was to compare the content of social contracts with the reality of Olam's social achievements in the signatory villages.

The table below presents all the villages visited and summarizes the main social achievements related to the social contracts signed by companies of the Olam group.

Basic Existing Infrastructure							
Village Name	Road	School	Teacher's Housing	Health case / dispensary	Nursing housing (s)	Rural electrification	Access to drinking water (hydraulic pumps)
Mouila Site							
Mbadi	RN1	OK	OK	OK	OK	OK	OK
Nanga (**)	RN1	OK	OK	In progress	OK	OK	OK
Saint Martin des Apindji	N.C	OK	OK	Not Available	Not Available	OK	Ok (nonfunctional pump)
Bougonga	N.C	OK	OK	OK	OK	OK (out of service)	Ok (nonfunctional pump)
Rembo	RN1	OK	OK	OK	OK	OK	OK
Mboukou	RN1						
Mounigou (**)	N.C	OK	OK	OK	OK	Ok (out of service)	Ok (nonfunctional pump)
Nguiamba		OK	OK	OK	OK	OK	OK
Bitam Site							
Avelemang	OK	OK	Not Available	OK	OK	OK	OK
Bibe Eba	NC (but in progress)	OK	OK			OK (out of service)	OK
Assok	NC (but in progress)	OK	OK	OK	In progress	OK (out of service)	Ok (nonfunctional pump)
Bikondom	NC	OK	OK	OK	OK	OK(*)	Ok (nonfunctional pump)
Okok	OK	OK	OK	OK	OK	OK(*)	OK
Woumou	-	-	-	-	-	-	-

Table 32 Basic infrastructure existing in the villages visited

Legend:

RN1: National Road 1 (indicates impacted villages, but located on RN1)

NC: Non Contractual (indicates non-contractual social investments, but sometimes supported by Olam)

():** indicates the villages benefiting from two social contracts

OK (*): indicates the villages benefiting from the extension project of the national electricity grid led by another company of the Olam group.

The observations made in the villages and the analysis of the data led to the following conclusions:

- The impact of the Olam Group's social commitment is real in the field, in terms of staffing the villages with basic infrastructures as agreed in the social contracts. Apart from some shortcomings sometimes related to technical reasons, **about 80% of the commitments contained in the social contracts were implemented.**

- In many cases, the Olam Group takes care of non-contractual requests that are not in their prerogatives and even concerns them as an economic operator. This is the case with road maintenance. Village populations believe Olam must maintain the departmental roads and they formulate it as a requirement. In several localities in both Mouila and Bitam, Olam has agreed to implement these requirements for certain roads. **In the Bitam area, Olam has made 142.5 kilometers of dirt roads accessible and is maintaining them. The number of roads maintained by Olam in this zone represents 26% of the registered dirt roads and 23% of all the roads in the department, paved roads included.**

As part of this study, it was not possible for us to know exactly how much Olam invested in each village as part of its social policy. In the absence of accounting records, the rough estimate made by Olam's social workers suggests that the group averaged about XAF 110 million per village impacted. If this figure were true, Olam would have invested 1.54 billion XAF in the 14 villages visited for the construction of the following social amenities:

- Roads
- Schools
- Teachers' housing
- Health huts
- nursing homes
- Rural electrification
- Village hydraulics.

Number of Villages	Average Cost Per Village	Total Investment Cost
14	110 000 000 XAF	1 540 000 XAF

Table 33 Approximate investment costs for the 14 sample villages (Mouila and Bitam)

Linéaire de routes entretenues par OLAM dans le Woleu-Ntem



- 86 Kms Routes bitumées
- 142.5 Kms Routes en terre ouvertes et entretenues par OLAM
- 402.5 Kms Routes en terre non ouvertes



Figure 30 Departmental roads maintained by Olam near Bitam (in blue)

2.3 Impacts on the cost of living

2.3.1 Impacts related to the commissioning of a new port

Section 1.1.2.3 of this study details the macroeconomic impacts of the commissioning of two new ports (commercial and mineral) for Gabon. In this section, only the impact on food prices in urban and rural areas will be addressed.

Thus, to verify whether the commissioning of a new commercial port by GSEZ had an upward or downward impact on prices, we looked at the structure of retail prices in Libreville, Mouila and Bitam of several imported staples. Without prejudice to the reproduction, here of the complete list of the products, which were the object of our investigation, it was noted almost identical price levels in these 3 localities whereas the standards of life are different (higher in Libreville).

The symmetry of the selling prices of the recorded products can be attributed to the new mercurial, defined and implemented by the commercial services. This mercurial has the effect of standardizing prices across the territory. However, while the mercurial is an important instrument for price stabilization and the fight against high prices, retailers surveyed say they have not seen a price drop since the new commercial port of Olam was commissioned.

In summary, the circulation of a mercurial had more observable impacts on prices than the commissioning of a new commercial port whose results will have to be observed over time.

2.3.2 Impacts related to increased domestic agricultural production

The issue of agriculture was discussed in each of the 14 focus groups we organized in the impacted villages. It emerged from these interviews that people are unanimously aware of the ability of subsistence agriculture to be an important source of income for them.

The populations emphasize in a reflexive way, a certain number of obstacles that they point as being blockages to the development of this activity in their respective villages.

Therefore, to objectively and effectively assess the impact of increasing national agricultural production, we had to formulate a working hypothesis and search for the indicators that validate or invalidate the hypothesis and hence the idea that Olam's activities have an impact related to the increase of national agricultural production other than its endogenous production.

Our working hypothesis was, therefore, that *"because of Olam's presence, agricultural activities have taken off in the impacted villages and both cultivated areas and production have increased."*

To test this hypothesis, the analysis was to ensure the availability of agricultural land in the villages, the increase of cultivated areas, and production. In total, 14 of the 14 selected villages in our sample participated in this data collection exercise to confirm or refute the indicators.

With regard to land availability, people have recognized that the question of farmland for growing their plantations was not an issue. They said they have enough land around their villages to develop agricultural activities.

When asked if their agricultural areas (plantations) increased or decreased since Olam became their neighbor, the populations in 12 focus groups out of 14 (80%) answered that the presence of Olam did not affect the areas cultivated by their community. The plantations kept the same proportions and in some cases the area cultivated by the villagers even decreased.

We were interested in the 2 villages that claimed to have increased their agricultural area; we wanted to check if these increases are global at the village level or if they are individual initiatives.

In the case of the village Rembo in Mouila, we discovered that this is an initiative prior to the establishment of Olam, including cassava plantations operated by a former women's cooperative. Although supported by Olam (preparation of 10 hectares of land, supply of plant material, technical support from IGAD), this initiative is losing momentum and only 3 hectares are exploited to date. Composed of 8 women at its beginning, the women's cooperative of Rembo is summarized to 4 people today. Production fell sharply, as did incomes. Each member now prefers to evolve individually.

In Okok (village of Bitam) it is the same case. It is an old rural women's association that operates 2 hectares of food crops (plantain and cassava). Here again, the trend is bearish and production has declined sharply.

Based on these findings, the study concluded that despite the presence of Olam and its plantations, peasant agricultural activities did not develop significantly in the impacted villages. The cultivated areas continue to be the same and the production remains subsistence. Pressure on village farmland is almost non-existent.

Going further our analysis, we wanted to check if the populations master and use techniques of high yield production. If processing and / or distribution were niches that people exploit.

Exchanges in the villages revealed that the agricultural practices known to the populations have not changed. These are essentially traditional farming techniques. There is therefore a need for new simple, basic and accessible knowledge that can increase village agricultural production and, consequently, national food production. Pending the implementation of these mechanisms, village agriculture remains a subsistence agriculture that impacts only very little national agricultural production.

With regard to processing and distribution, exchanges in the "flagship" villages of Rembo in Mouila and Okok in Bitam have shown that people do not master the chain of values. In these two villages, the issue of crop failure was mentioned by cooperative members as a recurring problem.

Indeed, due to the lack of means of transformation and transport towards the markets, the women of the Rembo co-operative, for example, have claimed that they record considerable crop losses, which they estimate at several tons. To these losses, is

added the impact of the presence of elephants that devastate the plantations. In conclusion, the field data does not confirm the indicators that we sought to validate the idea of an impact related to the increase of food crop production in villages impacted by Olam's activity. It must be emphasized, however, that there is a great potential and could allow impacted villages to help increase national agricultural production. Olam could contribute by putting in place appropriate and modernizing mechanisms that can pull up agricultural production in villages impacted by its activity.

2.3.3 Impacts related to the electrification of villages

As part of the social contracts that bind the Olam group to impacted villages, rural electrification was one of the priorities Olam had to tackle.

As with other basic social investments, the field survey noted that for all 14 villages in our sample, solar panels exist. They were installed by Olam.

In addition to the field survey, the analysis of the documents received from Olam and reporting on the level of implementation of the commitments contained in the social contracts, show the installation of several solar panels in all impacted villages.

For each village selected in our sample, the populations communicated to us the number of existing and / or functional solar panels. We are also interested in how people proceed when a solar panel stops working or no longer works.

These questions were intended to lead us to:

2.3.3.1 Evaluate the number of solar electric installations for the benefit of each village and the overall cost of this investment

Thorough reading of the social contracts shows that a defined number of solar panels for each village is not specified. This clarifies the reason for the variations that we noted between villages in terms of available solar panel counts. According to our findings, Olam has installed an average of 10 solar panels per village. For our sample of 14 villages, Olam invested in 140 solar panels.

Regarding the cost, the unverified information (the accounting documents were not provided) obtained assesses the purchase, transportation and installation of a solar panel at 2,500,000 XAF

Number of Villages	Average Number of Solar Panels	Unit Cost/Panel
1	10	2,500,000 XAF
Total investment solar panels / village		25,000,000 XAF

Table 34 Evaluation of the investment cost of solar panels per village

Subject to the reliability of this data, it appears that Olam invested on average 25 million XAF per village for rural electrification. Considering the 14 sample villages, a total of XAF 350 million would have been committed.

2.3.3.2 Evaluation of the cost-effectiveness ratio of the investments

Electricity is a development accelerator. In order to examine the effectiveness of this investment within the villages, we checked the nature of the electrification implemented in the villages (domestic, public or mixed). It was noted that solar panels within villages play a role of public lighting. **Installed along the departmental tracks that pass through the villages, the panels serve to illuminate the yards of the houses and the streets. No connection exists with the dwellings of the populations. It is therefore not about domestic lighting.**

Asked about the situation of the electrification of their village, the populations said they were not satisfied and did not choose that the village electricity supplied to them was not domestic. On the contrary, people say they would have liked domestic electrification. They expected that there would be a system to connect the village huts to the electricity generated by the solar panels installed by Olam. Based on these responses, we conclude that **the cost-effectiveness ratio is not satisfactory.**

For an average investment of XAF 25 million per village, Olam could have oriented its social action towards domestic electrification and obtain a greater impact in terms of reducing poverty and improving the quality of life of the impacted village populations.

2.3.3.3 Verify the existence of a maintenance system

Informed during interviews that some solar panels available in villages do not work or have unsatisfactory lighting quality, we wanted to know what maintenance system was put in place to overcome these situations.

According to the populations and services of Olam, there is a procedure to follow when a dysfunction is found. In case of malfunction of a solar panel, Olam is alerted by the villagers. Olam's services then take the necessary steps to resolve the reported malfunction. However, the populations emphasize that the reaction time of Olam following their alert is often very long. It is an average of two months.

Given the above observations, it appears that the rural electrification program contracted between Olam and the populations of impacted villages is perfectible. A redefinition of the operational model could lead to a situation that guarantees both:

- A real impact on reducing poverty and improving the quality of life
- Empowering villagers in the mechanism aimed at ensuring the electrification of their villages
- A reasonable limitation of expenses to Olam

2.4 Impacts on rural populations

2.4.1 Revitalization of economic activity in the hinterland

The revitalization of economic activity is the first field of investigation that we have verified concerning the evaluation of the impact on the populations in rural areas. To do this, we have attempted to identify indicators that support the view that economic activity in the hinterland is experiencing a new dynamism.

For the impacted villages, it was a question of identifying the economic activities that came about thanks to Olam's presence. In contrast to our working hypothesis that Olam's presence is likely to have generated a large number of small economic activities in impacted villages, we were unable to identify within the villages. The impact is zero.

With the exception of women from Rembo to Mouila and from Okok to Bitam, no income-generating activity worthy of the name has been identified in the villages. The economic life in the villages seems decoupled from the presence of Olam.

In total contradiction with the observations made in the villages, the urban areas near the sites of Olam that are Mouila and Bitam seem on the other hand to register a real economic dynamism. The following two indicators allowed us to verify it.

2.4.1.1 Increase in the number of small and medium commercial areas

In both Mouila and Bitam, the number of small and medium-sized retail spaces that have emerged has doubled in three years. It appears that the distribution of income to the agents of Olam is not without economic consequence in these two localities.

Indeed, following the creation of many jobs in these regions, the purchasing power of the populations has improved and their tendency to consume too. This translates into an increase in the number of shops in cities where people are trying to profit from the circulation of cash flows distributed in salaries to Olam agents.

2.4.1.2 Slight increase in rent costs

The slight increase in the cost of rent is the other indicator we used to test the revitalization of economic activity in the hinterland.

In this regard, it is notably the exchanges with Olam's employees that have allowed us to confirm that there has been an increase in rent prices in Mouila and Bitam. **In fact, to the question of whether they manage to find accommodation with the wages they receive, 9 out of 10 people (90%) answered that the wages do not allow them to be housed properly.** Rents have risen, putting pressure on incomes as a result.

The revitalization of economic activity in the hinterland is real. However, it is important to relativize this statement by stating that it is true only in urban areas. The villages could also follow if and only if Olam, with the technical assistance of specialized structures, proceeded to a reorientation of its model of social intervention within the villages. The potential exists to allow impacted villages to take off economically, but there is an urgent need to redefine the operational model of Olam's social commitment.

2.4.2 Settlement of the population and reverse exodus

The impact on the sedentarisation of the population and the reverse exodus has been verified. There is indeed an important phenomenon of people returning to the interior of the country in the areas where Olam is located. This reverse exodus we noted on 3 palliated:

- (i) The increase in the number of public schools in the villages, or the reopening of those formerly closed

The survey found that a large number of schools are open again, whereas they had closed a few years ago because of lack of students or teachers. **When asked what the reasons were for these reopening's, we were told two major reasons: the increase in the number of children in the villages and the school rehabilitation work done by Olam.**

- (ii) The repopulation of villages as a result of the returns of young and old attracted by the possibilities of salaried employment

The population in the villages has increased. During focus group interviews, particularly in Bitam, many people attended the discussions. We often asked whether they were all natives of the village and whether they had always lived there. The villagers' responses revealed that a large number of participants, although originally from the villages, had come back for economic reasons.

- (iii) The increasingly cosmopolitan trait of the population in impacted villages

It has been noted that **2 out of 5 inhabitants in the affected villages are non-native. The survey noted that these people are from other provinces and come to settle in Mouila, Bitam, or in the villages for employment reasons.**

2.5 Impacts on the improvement of the quality of life

The collection of data to certify the impact on improving the quality of life was conducted using indicators such as:

- Housing
- Nutrition Quality
- Access to basic social amenities
- Purchasing power

2.5.1 Housing

For all the people who have been approached in the context of the study and who are linked to Olam, it appears that in terms of quality of housing the impact is non-existent.

In regards to workers, especially blue collar, it has been established during the interviews that none of them has satisfactory housing conditions. Their level of remuneration does not give them the opportunity. Several workers interviewed claimed to live in precarious settlements.

In the villages, we tried to find people who, because of the presence of Olam and through their activities managed to build modern houses, providing acceptable living conditions. This research was unsuccessful for all the villages visited. **The improvement of the quality of life of the populations, understood in terms of access to better housing, is not verifiable in the areas impacted by Olam.**

2.5.2 Nutrition Quality for the populations

The concept of quality of life associated with the problem of food emphasizes the idea that people are able to provide for themselves a diet of quality and sufficient quantity for their physiological balance.

The exchanges with the populations did not make it possible to affirm that they benefit from quality nutrition. This is valid in impacted villages as well as in Olam workers. **When asked whether they are well fed, the response of 9 out of 10 was: "We're doing well. We eat what we find."**

These answers do not reflect a quality diet and we are told that this indicator is not verifiable for the impacts produced by Olam.

2.5.3 Access to basic social amenities

The information collected in the field is formal. Access to basic social amenities is real. In terms of providing villages impacted with basic social amenities, **Olam achieved 80% of the commitments contained in the social contracts signed with the population.**

However, it is important to underline with regard to the health structures that the endowment of medicines is a concern and that the result is relativized in terms of improving the quality of life of the populations.

Indeed, while access to health care and education is an indicator of quality of life (criteria defined by UNDP), the construction of clinics and other health huts alone cannot guarantee the quality of life. Should people still have better quality of care and access to medicines? However, in some villages, Olam has made only a one-time supply of drugs. In general, the costs related to the purchase of medicines remain out of reach for populations weakened by precariousness.

2.5.4 Purchasing Power

The purchasing power of both impacted village populations and Olam workers is residual. In the villages, no significant income-generating activities related to Olam's presence (except at Rembo in Mouila and Okok in Bitam) have been identified. The populations are precarious and have difficulty in providing for their needs.

As for Olam workers, the situation remains the same. It is true that the Olam group has created many jobs in the country. However, the analysis of the quality of these jobs and the levels of remuneration mean that the impact on purchasing power remains residual, especially for those in category A1.

Overall conclusion and recommendations

This study was conducted to measure the economic and social impact of Olam Group since its strategic reorientation in 2010 in Gabon.

Overall, the diversification of the Olam group's activities has had a positive impact on structuring economic and social indicators. On the economic front, Olam's activities contribute to the growth and creation of value added in the non-oil sector. At the social level, Olam's activity has helped create thousands of jobs, particularly in the agricultural sector, and revitalize certain localities in the interior of the country.

In the province of Ngounié, nearly 40,000 hectares of oil palm were planted by Olam Palm while in Woleu-Ntem province; more than 10,000 hectares of rubber were planted by Olam Rubber. These cash crops have boosted the Gabonese agricultural sector even if national food crop production is struggling to take off. As for the timber industry, GSEZ took advantage of the government's decision to ban the export of logs to build an industrial area with a favorable business microclimate. Nkok's SEZ attracted 77 companies and nearly 200 million euros of investment. Its weight in the Gabonese timber industry is now significant and its contribution in the formation of the national GDP has been increasing for 5 years. GSEZ's General Cargo port has reduced vessel-waiting times even though container traffic has remained stable since 2014. The commissioning of a new ore port has increased the volume of manganese exports two mining companies that use it to transit all of their production.

On the other hand, Gabon Fertilizer Company, Olam's subsidiary presented in 2012 as the one that was to have the most significant impact on wealth creation, has never really started its activities. The construction of the new Libreville International Airport by GSEZ Airports is still in its infancy. The evaluation of the two projects mentioned above could not be carried out.

The social data presented in the study led to some conclusions about the impact of the activities of the Olam group on the life of the population.

Thus, the group had a positive impact on the decline in the unemployment rate and the creation of jobs. However, concerning the improvement of the living conditions of the population, the study concluded with mixed results. The activities of the Olam group have certainly enabled thousands of people to have a job and a stable financial situation, but they have not made it possible to lift some employees, particularly those with worker status, out of poverty. The latter, despite the fact that Olam has paid a regular salary, has a family expense level, which is too high in relation to their income.

Finally, visits to the villages revealed that Olam maintains a number of roadblocks serving their plantations and certain road sections for which the villagers have asked for maintenance.

Recommendations

Recommendations related to economic activity	
Economy	Olam's weight in Gabon's economy and Olam Gabon's weight in the Olam International group requires greater caution in investment choices and greater risk control. This requires a better organization of monitoring within the group and its subsidiaries.
	<p>The state of deterioration of the national road 1 is an obstacle to the dynamism and competitiveness of the enterprises that settled in the Nkok SEZ. To circumvent this obstacle unanimously emphasized by the companies' managers active in the area, it is urgent to:</p> <ul style="list-style-type: none"> - Connect the Nkok SEZ to the Transgabonais railway (1 km of railway line to be built). - Organize the supply and removal of production from the Nkok SEZ for export only by rail; - Consider doubling the section of the railway between Nkok's SEZ and the Owendo port area to anticipate an increase in rail traffic with increased production from Nkok's SEZ. <p>As for the production of Olam Palm which transits mainly through the national road 1, it is necessary to engage a discussion with the local authorities so that they permanently develop this road on the whole of the route and concretize this bypass road project from PK15 Libreville to Owendo.</p>
	<p>The low supply of raw logs in the Nkok SEZ appears as a brake on the increasing volume of processed timber production desired by industry and job creation in the area. Faced with this difficulty, GSEZ Nkok and the administrative authority could:</p> <ul style="list-style-type: none"> - Create a permanent framework of exchange with forest operators and consider with them a better supply of raw materials for industrialists based in Nkok; - Encourage industrialists to improve the material yield of their processing units by looking for volumetric increase, productivity gains and a better valuation of "sawdust"
	Use public procurement as a strategic instrument for the development and densification of the 3rd transformation of wood. To achieve this, it would be useful to open a discussion with the government leading to the exclusive commission of public furniture to local manufacturers. This would prohibit all imports of furniture on behalf of the state, its agencies and administrations.
	In connection with the State, consider establishing a fund supplied by the companies in the wood sector for the financing of national SMEs specialized in wood processing.
	Make available on a regular basis, information on the activity of Olam in Gabon (annual reports, financial statements, results, dividends paid, etc.). Specific sections could be created on the company's website for broader access and more transparency.

Table 35 Recommendations related to economic activity

Recommendations on social conditions and CSR	
Social contracts	Sponsor an independent study every two years to measure the rate of fulfillment of the commitments contained in the social contracts signed between Olam and the village populations and their impact on poverty reduction. Make the results of the study public
	Primarily evaluate the effectiveness of social contracts in terms of their impact on poverty reduction and empowerment
	<p>Redefining the operational model of the social development plans provided for in the contracts signed between Olam and the impacted villages by prioritizing the actions as follows:</p> <ul style="list-style-type: none"> - Ensure for the benefit of the populations of each impacted village, a process of training in the management of cooperative enterprises and provide support for the creation of these cooperatives; - Supervise the populations of each impacted village in the efficient analysis of the areas of opportunity with a view to identifying economically promising niches; - Provide multifaceted assistance and individualize people in the assembly of micro projects likely to ensure their autonomy
	Set up facilities to ensure mastery of the value chain and minimize the risk of failure of village micro-projects
	Guarantee the visibility of the economic initiatives of the villages
Jobs	Organize the stability of employment within Olam by gradually switching the precarious majority jobs (CDD) to long-term contracts (CDI), which are more stable
Communication	Communicate to the opinion, sometimes skeptical about the diversification of the activities of Olam and GSEZ, the group's development strategy, its areas of intervention, the origin of funds to finance its projects and the composition of its shareholders. This exercise of transparency would make it possible to remove certain doubts and answer questions sometimes asked

Table 35 Recommendations related to social conditions and CSR

Recommendations on the working conditions and remuneration of Olam and GSEZ employees	
Remuneration	Better communicate on the pay structure within the company, especially with the workers
	Consider a better appreciation of the difficulty in determining the remuneration of certain types of trades. Set the gross salary of category A1 agents at 150,000 XAF (excluding bonuses and social contributions)
	Make pay scales accessible to explain differences in pay between employees
	Communicate on the related collective agreements and how they are chosen. More specifically, for the employees working at GSEZ Mineral Port, responding to the concerns of the social partners who are wondering about their attachment to the collective agreement of the ports rather than that of the mines
	In all the companies of the group and for each applicable collective agreement, communicate on the benefits it provides and the obligations it imposes
Internal communication	Improve communication between managers and employees so that subordinate employees do not feel devalued and disrespected
	Create spaces for discussion and exchange between employees and management. Announce internal changes transparently
	Engage employees and keep all employees at the same level of information on topics that concern them
	Valuing skills and improving the climate in the workplace
Transport	Better organize the employee transport circuit and multiply pickup points
	Increase the number of employee transport buses to better serve difficult-to-reach areas, particularly in rural areas (Olam Palm)
Noise and noise	Acoustic treatment of premises especially in the port area
	Adopt a noise prevention approach for companies operating in the NKOK SEZ
Health	For employees working on the ore port, arrange a medical visit once a year
	Extend the benefit of health insurance offered by Olam to 5 children per employee against 3 today
	Ensure the regular supply of medicines for the infirmaries of the Awala, Mouila and Bitam sites
painfulness	Manage physical constraints (awkward postures, mechanical vibrations, etc.)
	Manage the work environment (dangerous agents, temperatures, etc.)
	Manage the pace of work and ensure compliance with legal or contractual work schedules
	Manage the risks of wood dust, chemical hazards and raise awareness of the dangers
Training	Organize the learning of French for non-French speaking foreign workers
	Intensify safety training (gestures, postures, clearance, chemical risk, fire, etc.)

Table 36 Recommendations on the working conditions of Olam and GSEZ employees

Bibliography

Évaluation et maximisation de l'impact socio-économique des investissements stratégiques d'Olam au Gabon, MCKINSEY&COMPANY. 2012

Impact of the 2010 log export ban on forests, the timber industry and the Gabonese economy, WORLD BANK. 2016

Lois de finances, MINISTRY OF BUDGET - GABON. De 2010 à 2018

Tableau de bord de l'économie, MINISTRY OF ECONOMY - GABON. Éditions 2010 à 2016

Note de conjoncture sectorielle à fin décembre 2017, MINISTRY OF ECONOMY - GABON. 2018

Les populations gabonaises face à l'insécurité foncière. Étude sur l'impact des plantations agro-industrielles de palmiers à huile et d'hévéa sur les populations du Gabon, NDJIMBI Franck. 2013

Impacts de l'activité des entreprises chinoises dans la filière bois gabonaise, UICN – CAMEROON. 2013

Impact de la mesure d'interdiction d'exportation des grumes sur la forêt, l'industrie du bois et l'économie du Gabon. Identification d'un programme d'appuis au secteur industriel du bois, WORLD BANK. 2017

Choix et intégration d'un guichet unique dans un projet d'infrastructure portuaire. Exemple: GSEZ au Gabon, GERY Philippe. 2017

GSEZ. Manufacturing hub of West Central Africa, GSEZ. 2016

GSEZ Nkok – Update January 2018, GSEZ. 2018

World Investment Report, UNCTAD. 2013, 2014, 2015, 2016 and 2017 Editions

Rapport annuel de la zone Franc, BANQUE DE FRANCE. 2010 à 2017 Edition

ZES de Nkok, Rapport annuel de l'Autorité administrative de la ZERP de Nkok, NTOUGOU Gabriel. 2018

Rapport de suivi de l'exécution du Plan de relance de l'économie. Tome 1 : Suivi de l'équilibre des finances publiques. PRIME MINISTER STAFF. 2018

Rapport de suivi de l'exécution du Plan de relance de l'économie. Tome 2 : Dynamiser la croissance et la diversification économique. PRIME MINISTER STAFF. 2018

Technical Paper, Tropical Veneer Production and Export. Rank of Gabon. BERBARD CASSAGNE, 2018

Biennial review and assessment of the world timber situation 2015-2016. INTERNATIONAL TROPICAL TIMBER ORGANIZATION. 2018

Appendices

Appendix 1 Table of Mining Rights in Gabon

Table des droits miniers au Gabon à fin 2015						
Rang	Numéro	Opérateur	Type	Superficie Km ²	Désignation	Substances
1	C13	COMILOG	Concession	433	Concession Comilog	Manganèse
2	COMUF	COMUF	Concession	1189	Concession COMUF	Uranium
3	C240	Etat Gabonais	Concession	7224	Fer Bélinga	Fer
4	G1-281	CORE MINING	Permis de recherche	1818	Fer de Kango	fer
5	G1-340	APOLLO GABON SA	Permis de recherche	398	Fer et Or Monts de Cristal	Fer et Or
6	G1-558	RIO TINTO Exploration GABON SA	Permis de recherche	1441	Titane et Substances Minérales associées Remboué	Titane et Substances Minérales associées
7	G2-169	RESSOURCES GOLDEN GRAM	Permis de recherche	1976	Or Manyima-Bakoudou	Or
8	G2-263	RESSOURCES GOLDEN GRAM	Permis de recherche	645	Substances Lébombi	Or, Argent, Platinoides, Substances connexes
9	G2-270	RESSOURCES GOLDEN GRAM	permis d'exploitation	140	Or Bakoudou	Or
10	G2-278	AREVA	Permis de recherche	1993	Andjogo	Uranium
11	G2-279	AREVA	Permis de recherche	2100	Lékabi	Uranium
12	G2-280	AREVA	Permis de recherche	2097	Mopia	Uranium
13	G2-320	Goldstone Resources LTD Gabon	Permis de recherche	505	Bloc 17 Ngoutou	Or, Cuivre, Plomb et Zinc
14	G2-511	KIMIN GABON SA	Permis de recherche	1029	Bakoumba	Fer
15	G2-523	RESERVOIR MINERALS GABON Sarl	Permis de recherche	322	Or et substances connexes Boumango	Or et substances connexes
16	G2-537	REMINAC GABON SA	Permis de recherche	774	Fer Baniaka	Fer
17	G2-538	TK MINERAL	Permis de recherche	1130	Manganèse Ambinda	Manganèse
18	G3-190	MABOUMINE	Permis de recherche	361	Permis Mabounie	Niobium, Titane, Terres Rares et Substances Connexes
19	G3-223	CICM HUAZHOU	permis d'exploitation	46	Manganèse Bembélé	Manganèse
20	G3-223B	CICM HUAZHOU	Permis de recherche	2008	Manganèse Bembélé	Manganèse
21	G3-274	DOME VENTURES	Permis de recherche	1991	Substances NDJOLE	Or, Fer, Manganèse, Plomb, Cuivre, Zinc, PGE et Terres Rares
22	G3-518	ENGRAIS GABON SARL	Permis de recherche	1461	Potasse AZINGO	Potasse
23	G4-254	MANAGEM	Permis de recherche	1396	Substances Etéké 2	Or et Substances Connexes
24	G4-327	ALLANTE RESOURCES SARL	Permis de recherche	306	Or Malinga	Or
25	G4-556	WARATAH Resources Gabon SA	Permis de recherche	818	Or et Substances Waka	Or, Niobium et Cassitérite
26	G5-249	TAURIAN	Permis de recherche	710	Barytine de Dourékiki	Barytine
27	G5-325	JIA HUA MINES SARL	Permis de recherche	1951	Substances Nyanga	cuivre, zinc, cobalt et or
28	G5-503	Société des Potasse du Gabon	Permis de recherche	1275	Potasse BANIO	Potasse et magnésium
29	G5-525	IRON RIDGE GABON SA	Permis de recherche	1977	Fer et or Tchibanga	Fer et or
30	G5-530	ARMADA EXPLORATION GABON Suarl	Permis de recherche	2000	métaux de base et Arsenic	Cuivre, Plomb, Zinc, Arsenic
31	G5-531	ARMADA EXPLORATION GABON Suarl	Permis de recherche	1963	métaux de base et Arsenic	Cuivre, Plomb, Zinc, Arsenic
32	G5-553B	IRON RIDGE GABON SA	Permis de recherche	1399	Fer Tchibanga Nord	Fer
33	G6-315	IVANHOE GABON SA	Permis de recherche	1453	Fer Makokou	Fer
34	G5-553	WARATAH Resources Gabon SA	Permis de recherche	1606	Or et Cuivre Tchibanga	Or et Cuivre
35	G6-329	TORO GOLD GABON SARL	Permis de recherche	1122	or Zomoko Ngama Sud	Or
36	G6-330	TORO GOLD GABON SARL	Permis de recherche	1495	or Zomoko Ngama Nord	Or
37	G6-508	WARATAH Resources Gabon SA	Permis de recherche	1224	Fer Mekambo-Est	Fer et or
38	G6-514	Minga Developpement Gabon SA	Permis de recherche	1840	Or Mekambo	Or et métaux de base
39	G6-526	IRON RIDGE GABON SA	Permis de recherche	1976	Fer et or Bélinga Sud	Fer et or
40	G6-527	Société Minière et Industrielle du Gabon SA	Permis de recherche	1930	Permis Malouma	Or, Plomb, Zinc, Nickel, Cuivre, Etain
41	G6-533	VOLTA IRON SA	Permis de recherche	1950	Fer Ovan	Fer
42	G6-534	VOLTA IRON SA	Permis de recherche	1972	Fer Simintang	Fer
43	G7-317	IVANHOE GABON SA	Permis de recherche	203	Prospect de Ndangui	Or et Métaux Connexes
44	G7-322	ALLANTE RESOURCES SARL	Permis de recherche	157	Or Ndangui-Est Bloc 18	Or
45	G7-541	IVINDO GOLD SA	Permis de recherche	1190	Or Iboundji	Or
46	G7-539	TK MINERAL	Permis de recherche	597	Manganèse et Or Iboundji	Manganèse et Or
47	G7-535	REMINAC GABON SA	Permis de recherche	789	Fer Mafoungui	Fer
48	G8-546	ENGRAIS GABON SARL	Permis de recherche	1962	Potasse Madiéla	Potasse
49	G8-565	RIO TINTO Exploration GABON SA	Permis de recherche	287	Titane et Substances Minérales associées Mandji	Titane et Substances Minérales associées
50	G9-272	DOME VENTURES	Permis de recherche	1997	Substances MITZIC	Or, Fer, Manganèse, Plomb, Cuivre, Zinc, PGE et Terres Rares
51	G9-319	GOLDSTONE RESOURCES LTD Gabon	Permis de recherche	514	Or et Cuivre Bloc 3	Or et Cuivre
52	G9-512	AZINGO SA	Permis de recherche	1362	Fer Minvoul	Fer
53	G9-524	RESERVOIR MINERALS GABON Sarl	Permis de recherche	520	Or et substances connexes Mitzic	Or et substances connexes
54	G9-545	RESOURCES EQUATORIAL SARL	Permis de recherche	309	Fer Ngama	Fer

Source: Mining Ministry

Appendix 2 The top 30 global producers of sawn timber in 2016

The top 30 global producers of sawn timber in 2016						
Year	2010			2016		
Pays	Rang	Production in m3	%	Rang	Production in m3	%
China	1	22 300 000	21,0%	1	42 786 000	32,2%
USA	2	17 850 000	16,8%	2	22 524 000	17,0%
Viet Nam	4	5 800 000	5,5%	3	6 000 000	4,5%
Brazil	3	8 482 000	8,0%	4	5 997 000	4,5%
India	5	4 889 000	4,6%	5	4 889 000	3,7%
Indonesia	7	4 169 000	3,9%	6	4 169 000	3,1%
Thailand	8	2 850 000	2,7%	7	3 700 000	2,8%
Malaysia	6	4 301 000	4,0%	8	3 403 000	2,6%
Turkey	10	2 259 000	2,1%	9	2 680 000	2,0%
Russia	9	2 457 947	2,3%	10	2 506 275	1,9%
Nigeria	11	2 000 000	1,9%	11	2 000 000	1,5%
Canada	16	955 000	0,9%	12	1 563 300	1,2%
Myanmar	13	1 530 400	1,4%	13	1 530 400	1,2%
Argentina	15	1 398 000	1,3%	14	1 502 000	1,1%
Romania	12	1 610 000	1,5%	15	1 500 000	1,1%
France	14	1 421 742	1,3%	16	1 324 431	1,0%
Croatia	26	584 000	0,5%	17	1 301 597	1,0%
Laos	41	350 000	0,3%	18	1 200 000	0,9%
Germany	19	897 821	0,8%	19	1 068 000	0,8%
Cameroon	18	912 000	0,9%	20	1 000 000	0,8%
Japan	58	138 000	0,1%	21	947 000	0,7%
Pakistan	17	919 000	0,9%	22	919 000	0,7%
Ivory Coast	22	700 000	0,7%	23	871 000	0,7%
Latvia	28	550 000	0,5%	24	695 705	0,5%
Australia	20	877 000	0,8%	25	674 795	0,5%
Gabon	42	345 771	0,3%	26	650 000	0,5%
Nepal	26	610 000	0,6%	27	610 000	0,5%
Poland	35	455 000	0,4%	28	559 000	0,4%
Italia	33	500 000	0,5%	29	550 000	0,4%
Paraguay	29	550 000	0,5%	30	550 000	0,4%
World Production	106 200 326			132 820 342		

Source: FAO Stats

Appendix 3 Evolution of African production of veneer

Evolution of African production of veneer						
Year	2010			2016		
Pays	Rang	Production in m3	%	Rang	Production in m3	%
Gabon	3	200 000	22%	1	270 000	31%
Ivory Coast	2	211 000	23%	2	222 490	25%
Ghana	1	274 000	30%	3	105 000	12%
Congo	6	35 000	4%	4	70 500	8%
Ethiopia	4	56 600	6%	5	56 600	6%
Cameroon	5	53 000	6%	6	43 967	5%
Madagascar	-	0	0,0%	7	30 622	3%
Uganda	7	16 000	2%	8	16 000	2%
South Africa	11	6 307	0,7%	9	13 234	2%
Equatorial Guinea	8	11 000	1%	10	11 000	1%
Egypt	9	7 000	0,8%	11	7 000	1%
Morocco	10	6 500	1%	12	6 500	1%
Zimbabwe	12	5 000	0,6%	13	5 000	1%
Malawi	13	4 000	0%	14	4 000	0%
DR Congo	16	3 000	0,3%	15	3 490	0,4%
Algeria	17	2 300	0%	16	2 300	0%
Guinea	18	2 200	0,2%	17	2 200	0,3%
Mozambique	19	2 000	0%	18	2 000	0%
Angola	20	1 000	0,1%	19	1 000	0,1%
Benin	0	0	0%	20	1 000	0%
Mauritania	21	1 000	0,1%	21	1 000	0,1%
Nigeria	22	1 000	0%	22	1 000	0%
Central Africa Republic	14	4 000	0,4%	23	1 000	0,1%
Togo	23	1 000	0%	24	1 000	0%
Zambia	24	1 000	0,1%	25	1 000	0,1%
Liberia	-	0	0%	-	0	0%
Mali	-	0	0,0%	-	0	0,0%
Mauritius	-	0	0%	-	0	0%
Seychelles	-	0	0,0%	-	0	0,0%
Tunisia	15	4 000	0%	-	0	0%
Total		907 907	100%		878 903	100%

Source: FAO Stats

Appendix 4 Top 20 global producers of veneers (hardwood & softwood) in 2016

Top 20 global producers of veneers (hardwood & softwood) in 2016					
Year	2010		2016		
Pays	Production in m3	%	Rang	Production in m3	%
China	3 000 000	23,3%	1	3 000 000	20,9%
Brazil	1 420 000	11,0%	2	1 356 000	9,5%
Viet Nam	60 000	0,5%	3	1 050 000	7,3%
Russia	320 000	2,5%	4	888 000	6,2%
Indonesia	737 000	5,7%	5	761 000	5,3%
Malaisia	798 000	6,2%	6	553 000	3,9%
Canada	450 000	3,5%	7	530 000	3,7%
New Zeland	663 433	5,1%	8	523 413	3,7%
USA	400 000	3,1%	9	400 000	2,8%
Mexico	300 000	2,3%	10	350 000	2,4%
India	295 000	2,3%	11	295 000	2,1%
Gabon	200 000	1,6%	12	270 000	1,9%
Turkey	96 000	0,7%	13	270 000	1,9%
Equador	243 000	1,9%	14	243 000	1,7%
South Korea	224 000	1,7%	15	230 000	1,6%
Ivory Coast	211 000	1,6%	16	222 490	1,6%
Pakistan	217 000	1,7%	17	217 000	1,5%
Myanmar	33 000	0,3%	18	216 000	1,5%
Italia	317 000	2,5%	19	207 000	1,4%
Spain	111 199	0,9%	20	187 096	1,3%
World Production	12 891 232	78%		14 322 343	82%

Source: FAO Stats

Appendix 5 Table of social impacts of Olam on its employees (Estuaire)

Tableau des impacts sociaux d'Olam sur ses salariés (Estuaire)									
Entreprise	Statut du Salarié	Sexe	Age	Ancienneté dans l'entreprise	Situation professionnelle antérieure	Facteur de changement	Nombre Personnes à charge	Impact	Commentaires
Olam Palm (Awala)	Agent de maîtrise	H	31	5 ans	Industrie laitière	Charge de travail ajoutée	10	Positif mineur	Communication difficile avec les responsables, barrière linguistique, pression des responsables
Olam Palm (Awala)	Agent de maîtrise	F	40	4 ans	Chômage	Stabilité financière	4	Positif Majeur	Horaires de travail non respectés, Heures supplémentaires non rémunérées
Olam Palm (Awala)	Agent de maîtrise	H	32	3 ans	Banque	Stabilité financière	4	Positif modéré	Besoin de reconnaissance au niveau du travail et du salaire, respect des tâches écrites dans le contrat de travail
Olam Palm (Awala)	Agent d'exploitation	F	32	1 an	Industrie agricole	Stabilité financière	4	Positif modéré	Besoin de reconnaissance au niveau du travail et du salaire
Olam Palm (Awala)	Agent d'exploitation	F	38	7 mois	Chômage	Stabilité financière	3	Positif Majeur	Horaires du dimanche non payés, Horaires de travail non respectés
Olam Palm (Awala)	Opérateur agricole	H	30	2 ans	Chômage	Stabilité financière	3	Positif Majeur	Demande d'amélioration au niveau du transport, besoins matériels infirmerie
Olam Palm (Awala)	Opérateur agricole	H	26	3 ans	Chômage	Stabilité financière	2	Positif Majeur	Rendre le samedi facultatif, demande amélioration de l'infirmerie
Olam Palm (Awala)	Opérateur agricole	H	40	6 ans	Chômage	Stabilité financière	9	Positif mineur	Amélioration de Politique RSE, manque de formations
GSEZ Mineral Port	Agent de maîtrise	F	NC	2 ans	Industrie Portuaire	charge de travail ajoutée	1	Négatif mineur	Amélioration communication interne
GSEZ Mineral Port	Cadre	H	44	2 ans	Industrie Portuaire	charge de travail ajoutée	6	Négatif modéré	Amélioration communication interne
GSEZ Mineral Port	Cadre	H	39	2 ans	Industrie Portuaire	charge de travail ajoutée	5	Négatif modéré	Amélioration du management
GSEZ Mineral Port	Agent de maîtrise	H	35	2 ans	Industrie Portuaire	charge de travail ajoutée	5	Négatif modéré	Horaires de travail non respectés
GSEZ Mineral Port	Agent d'exécution	H	36	2 ans	Industrie Portuaire	charge de travail ajoutée	7	Négatif modéré	Conditions de travail difficiles
GSEZ Mineral Port	Agent d'exécution	H	28	1 an	Industrie du Batiment	Stabilité financière	3	Positif Majeur	Demande de suivi médical
GSEZ Mineral Port	Agent d'exécution	H	36	1 an	Chomage	Stabilité financière	4	Positif Majeur	Inégalité entre salariés (Indien-Gabonais)
GSEZ Mineral Port	Agent d'exécution	H	44	2 ans	Industrie Portuaire	Stabilité financière	5	Positif modéré	Inégalité entre salariés (Indien-Gabonais)
GSEZ Port	Cadre	F	40	moins 1 an	Entreprise logistique/Transport	charge de travail ajoutée	2	Négatif majeur	
GSEZ Port	Agent d'exécution	F	34	moins 1 an	Commerce	Aucun	1	Positif Majeur	
GSEZ Port	Agent d'exécution	H	25-45	moins 1 an	Chômage	Aucun	3	Positif modéré	Inégalité entre salariés (Indien-Gabonais)
GSEZ Port	Agent d'exécution	H	25-45	moins 1 an	Chômage	Stabilité financière	5	Positif modéré	Amélioration communication interne, pression des responsables
GSEZ Port	Agent d'exécution	H	25-45	moins 1 an	Chômage	Stabilité financière	5	Positif modéré	Amélioration communication interne, pression des responsables
GSEZ Port	Agent d'exécution	H	25-45	moins 1 an	Chômage	Stabilité financière	4	Positif modéré	Amélioration communication interne, pression des responsables
GSEZ Port	Agent d'exécution	H	25-45	moins 1 an	Chômage	Stabilité financière	3	Positif Majeur	Amélioration communication interne, pression des responsables
GSEZ Port	Agent d'exécution	H	25-45	moins 1 an	Industrie Alimentation	Stabilité financière	12	Négatif majeur	Amélioration communication interne, pression des responsables
GSEZ Port	Agent de maîtrise	F	30	2 ans	Structure etude économique	Baisse de salaire	0	Négatif modéré	Inégalité entre salariés (Indien-Gabonais)
GSEZ Port	Agent de maîtrise	H	29	2 ans	Chômage	Stabilité financière	3	Positif Majeur	
GSEZ Port	Agent de maîtrise	H	34	2 ans	Cabinet Audit	Aucun	0	Positif modéré	
GSEZ Port	Cadre	H	35	2 ans	Industrie du Batiment	Stabilité financière	10	Négatif mineur	Accompagnement pour développement personnel

SOCIO-ECONOMIC IMPACT STUDY OF OLAM ACTIVITY IN GABON

I- Localization

II. Sociodemographic Characteristics

Page 99

CS4d	What reasons led you to move to this village? (1. Job search 2. Marriage 3. Other reasons)	/__/_
CS5	How far is your village located from an OLAM platform? 1. Proximity to OLAM platform 2. <20 km from an OLAM platform 3. > 20 km from an OLAM platform	/__/_
CS6.	What is your level of education? (1. Without level 2. Primary 3. Secondary 4. Higher)	/__/_
CS7a.	What is your marital status? (1. Single 2. Cohabiting 3. Married Monogamous 4. Married polygamous 5. Divorced / Separated 6. Widowed)	/__/_
CS7	How many dependents do you have?	/__/_

III. Socioeconomic characteristics

EC1a.	Do you a professional relation with OLAM ? (1. Yes. 2. No)	/__/_
EC1b	If yes, what is your professional category in the company? (1. Manager 2. Worker 3. Supervisor)	/__/_
EC1c.	If no what is your income source (1. Employment 2. Agriculture 3. Livestock 4. Other 5. None)	/__/_
EC2	If you are an employee of OLAM, how were you informed about the implementation of the structure? (1. Information / Awareness 2. Radio / TV Communiqué 3. Other)	/__/_
EC3a	What is your monthly income? (01. < 80,000 ; 02. 80,000 ; 03. between 80 000 and 150 000 ; 04. 150,000 ; 05. >150,000)	/__/_
EC3b	Does your income allow you to cover your health needs? (1. Yes. 2. No)	/__/_
EC3c.	Does your income allow you to cover education needs..... (1. Yes. 2. No 3. Not applicable)	/__/_
EC3d	Does your income all you to cover for housing costs?..... (1. Yes. 2. No 3. Not applicable)	/__/_

EC3e.	Does your income allow to cover for your transport needs ?..... (1. Yes. 2. No.)	/ __/
EC3f.	Does your income allow you covering your food expenses? (1. Yes. 2. No.)	/ __/
EC4	Does one of your relatives have a socio-professional relationship with OLAM? (1. Yes. 2. No)	
EC5a	If you do not have direct employment with OLAM, is there an Income Generating Activity (IGA) in your village / town? (1. Yes. 2. No)	
EC5b	If yes what kind of IGA?	
EC5c	How many years has it been?	
	Does this activity allow you to cover your needs in health, food, education, housing, transportation?	
EC6a	If you are not a member of a Community Interest Group (IGA), what activity are you doing to support yourself?	
EC8	Quelles sont selon vous les installations OLAM qui ont amélioré le cadre de vie dans votre localité ? 1. The economic platform (Olam company) 2. The road 3. Electricity 4. Dispensary 5. School	
CE9	How do you think Olam's investments have affected people in your village / town?	

(End of the Interview)

Appendix 7 Africa Investment Index 2018

Country Name		Growth Factors ranking			Liquidity Factors ranking			Risk Factors ranking				Business Environment Ranking		Demographic Factor ranking	Social Capital ranking	Africa Investment Index	
		Size of Economy	Domestic Investment (%)	Economic Growth	Real Interest Rate	Excess money	Exchange Rate Risk	Import Cover	External Debt (% GNI)	Current Account Ratio	Trade openness	Doing Business	Total Population	Facebook penetration rate	Total rank score	Ranking	
Algeria		4	2	30	6	43	26	40	1	1	36	30	9	6	16.583	3	
Angola		6	52	38	2	14	49	18	3	23	22	47	14	16	23.583	19	
Benin		33	18	16	22	39	2	29		13	27	32	31	32	24.364	23	
Botswana		20	19	45	13	20	23	1	2	4	9	4	42	9	16.917	4	
Burkina Faso		26	13	21	16	16	7	28		10	32	21	19	47	20.455	1	
Burundi		43	30	51	29	31	28	46	24	8	48	26	30	46	32.667	44	
Cabo Verde		46	6	42	33	33	3	20	5	47	11	15	52	5	25.667	31	
Cameroon		15	25	12		38	14	13		11	41	43	16	24	21.200	12	
Central African Republic		49	48	26		35	3	25		31	42	51	37	51	39.100	54	
Chad		27	16	47		45	19	34		7	28	49	25	52	31.500	41	
Comoros		52	27	28	24	19	13	17		12	30	27	51	30	7.364	34	
Congo, Dem. Rep.		17	37	5	32	21	39	15	28	6	31	48	4	48	25.083	27	
Congo, Rep.		28	4	33		47	18	49		35	2	46	38	26	32.500	43	
Cote d'Ivoire		13	35	1	12	27	9	5		24	29	25	17	23	17.455	5	
Djibouti		48	5	7	25	34	21	50	10		41	41	49	14	27.727	36	
Egypt, Arab Rep.		2	44	31	4	6	45	11	21	5	49	16	3	7	16.333	2	
Equatorial Guinea		23	31	53		48	20	39			12	44	50	29	37.444	50	
Eritrea		42	53	20			43	4				52	36	53	38.000	51	
Ethiopia		8	7	2	9	9	40	33	26	22	47	22	2	43	18.667	7	
Gabon		24	12	23		46	17	10		27	26	36	46	11	25.300	29	
Gambia, The		47	34	39			36	38	22	42	34	23	44	22	34.800	49	
Ghana		12	21	24	34	3	50	27	18	40	15	9	13	18	22.500	16	
Guinea		38	47	44		13	41	44	27	9	20	42	26	31	33.000	47	
Guinea-Bissau		50	51	35	14	2	8	3		15	37	45	45	42	28.273	38	
Kenya		9	32	13	28	29	34	23	9	21	45	11	7	19	19.667	9	

Source: Quantum Global Group





MAYS MOUISSI
CONSULTING



mays.mouissi@gmail.com



+33 6 16 57 09 04



mays-mouissi-consulting.com