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GOVERNO DE
ANGOLA

aipex
AGÊNCIA DE INVESTIMENTO PRIVADO
E PROMOÇÃO DAS EXPORTAÇÕES



INVESTING INTO THE FUTURE

**Connecting you to Angola,
Connecting Angola to the World**

Welcome to Angola

ANGOLA QUICK OVERVIEW

- Located in Southern Africa
- Population: 33 million
- GDP: USD 62.3 billion
- Angola is the third largest economy in sub-Saharan Africa
- Angola is the continent's second-largest oil producer after Nigeria and is also a significant producer of rough diamonds.
- Number one banana producer in Africa
- 35 million hectares of arable land, of which only 14% is under cultivation
- **One the greenest countries in Africa**, with hydropower accounting for 68% of its installed capacity, followed by 31% fossil fuels and 0.7% hybrid (solar & fossil fuel).
- **Industrial investment opportunities** in agri-processing, manufacturing, pharmaceuticals, engineering, logistics and supply chain .

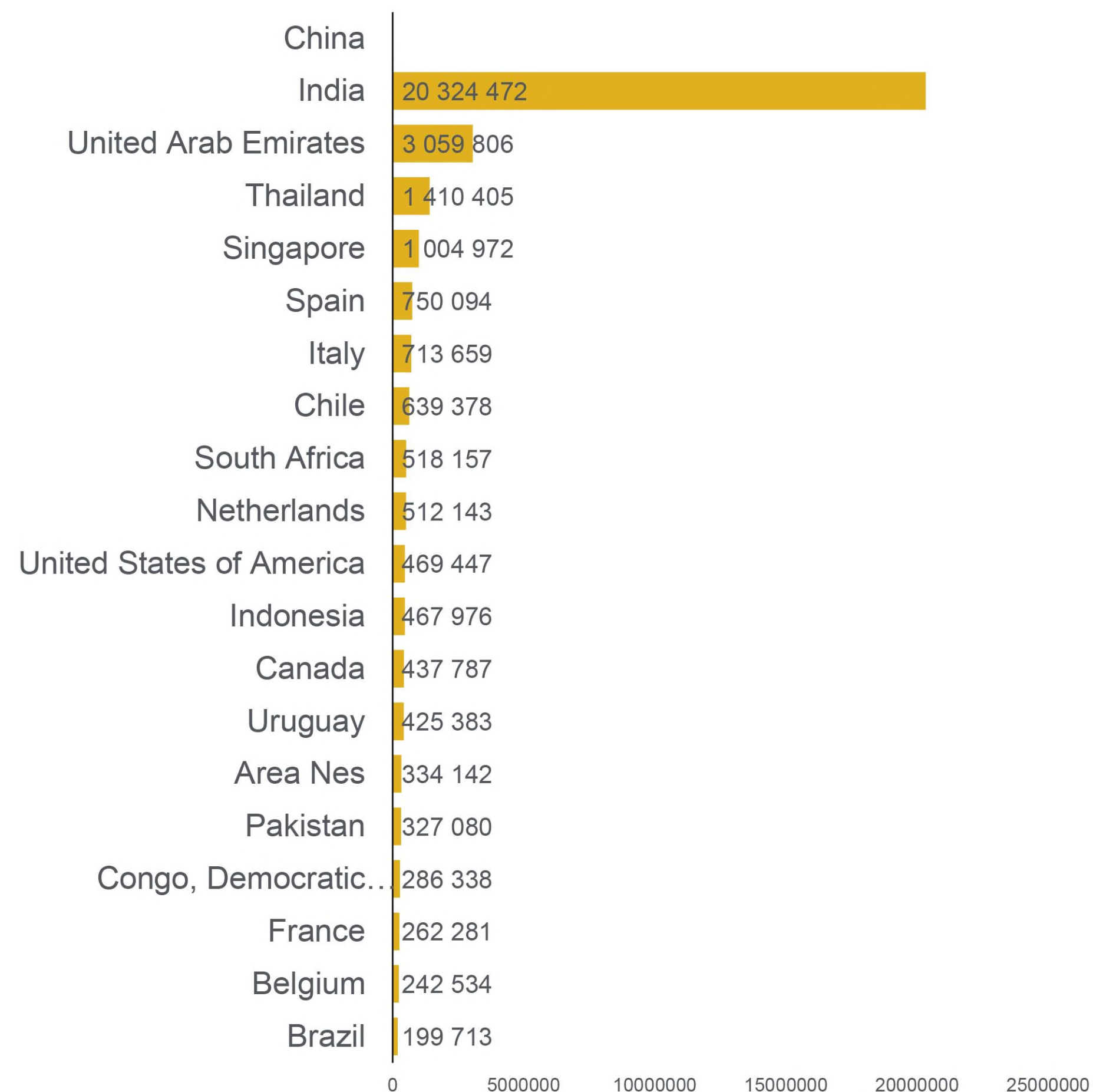


Angola's trade portfolio – Top 20 Partners



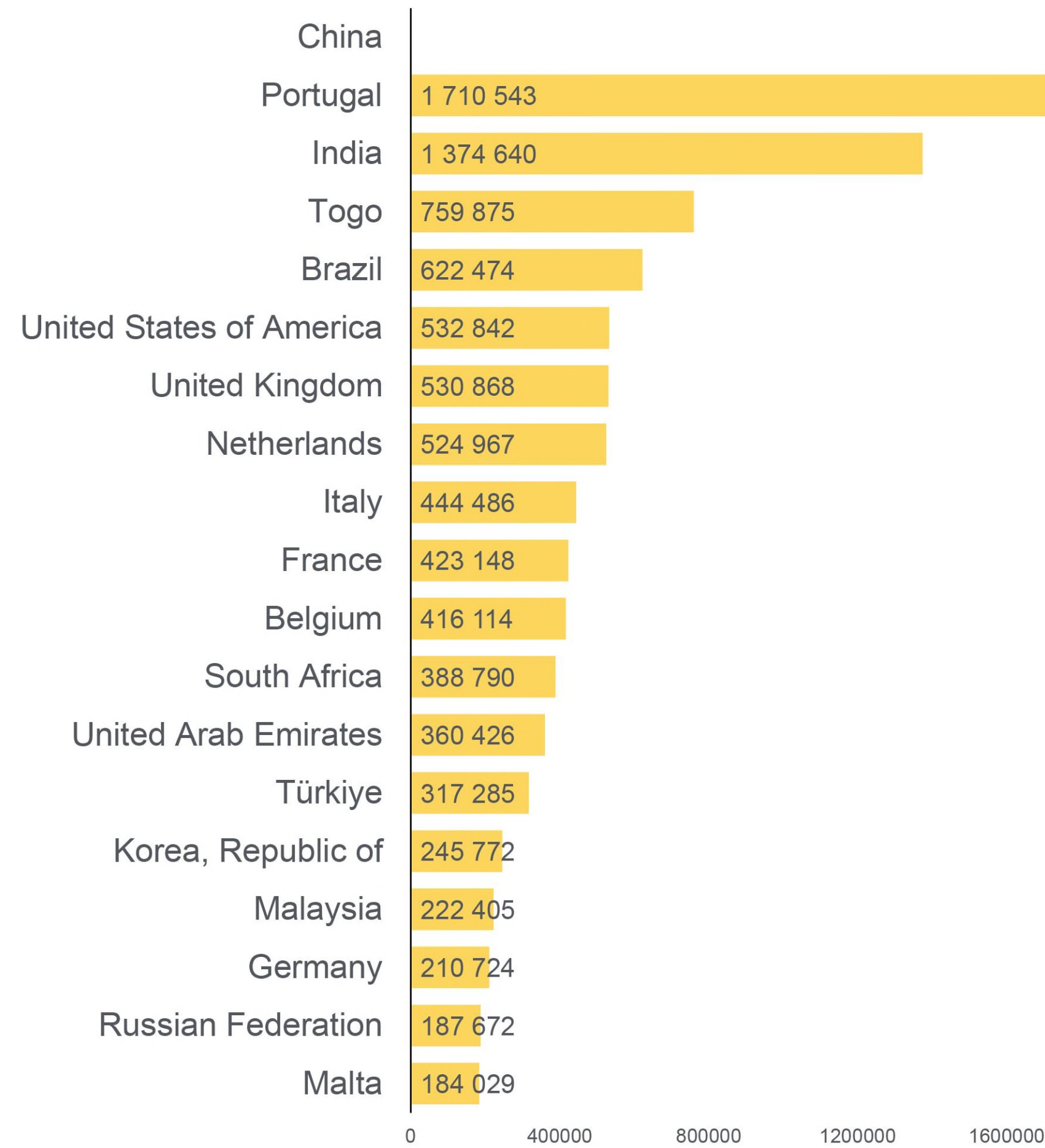
TOP 20 EXPORT PARTNERS

Thousands \$US



TOP 20 IMPORT PARTNERS

Thousands \$US



SOURCES: wto.org; trade.gov

SPECIFIC INVESTMENT OPPORTUNITIES



AGRICULTURE

Seed production
 Fertilizers, pesticides
 Irrigation systems
 (large pivot to the small drop-by-drop)
 Tractor assembly units and implements



LIVESTOCK PRODUCTION

Poultry
 Pig farming
 Small ruminants
 Cattle farming



FISHING

Shipbuilding and Shipyards
 Construction of articles of Fisheries
 Salt processing and production
 Aquaculture
 Exploitation of fish waste for animal feed and agriculture.



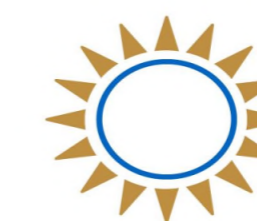
CROP PRODUCTION

Perennial crops: corn, beans, rice, Cassava, Soybeans and traditional crops
 Industrial crops/yield:
 Coffee, Cocoa, Palmares, Cashew and Cotton



EXTRACTION OF METALS AND MINERALS

Iron ore
 Gold ore
 Quartz
 Aluminium
 Copper
 Manganese
 Ornamental stones



TOURISM

Cabo Ledo Tourist Pole
 Tourist Pole of Calandula
 House Project - Okavango
 Campsite
 Tourist information office

Our objective is to increase domestic production and reduce food imports



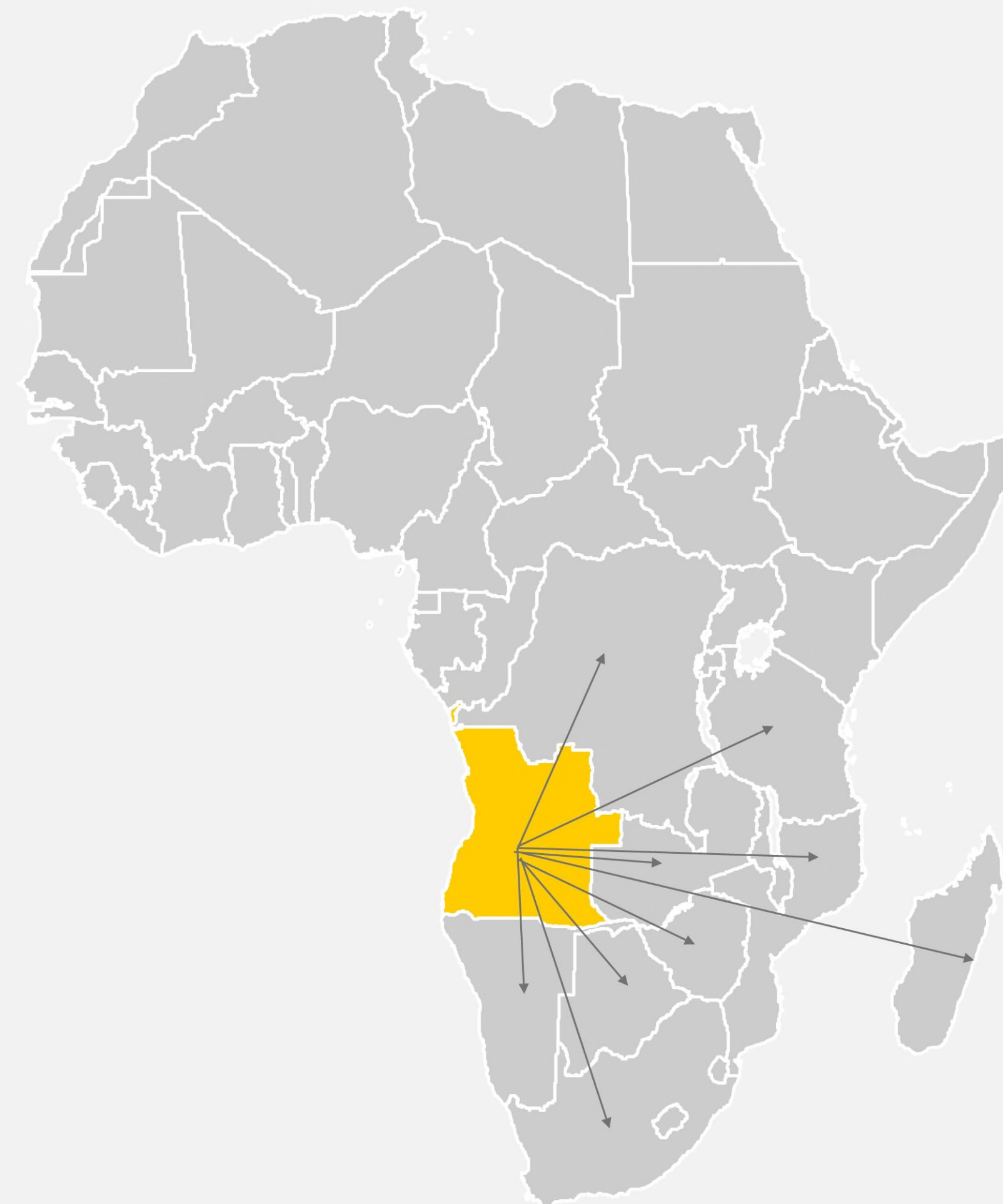
To be the gateway for international companies to the African market



Reduce imports of agricultural products in Angola and diversify exports







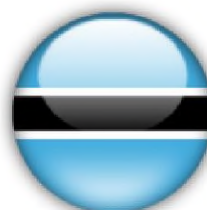


Increase employment of the young population



Angola is the gateway into the sub-region

ACCESS A SUB-REGION THAT HAS CURRENTLY 177M HAB AND WILL GROW TO 355M IN 2050

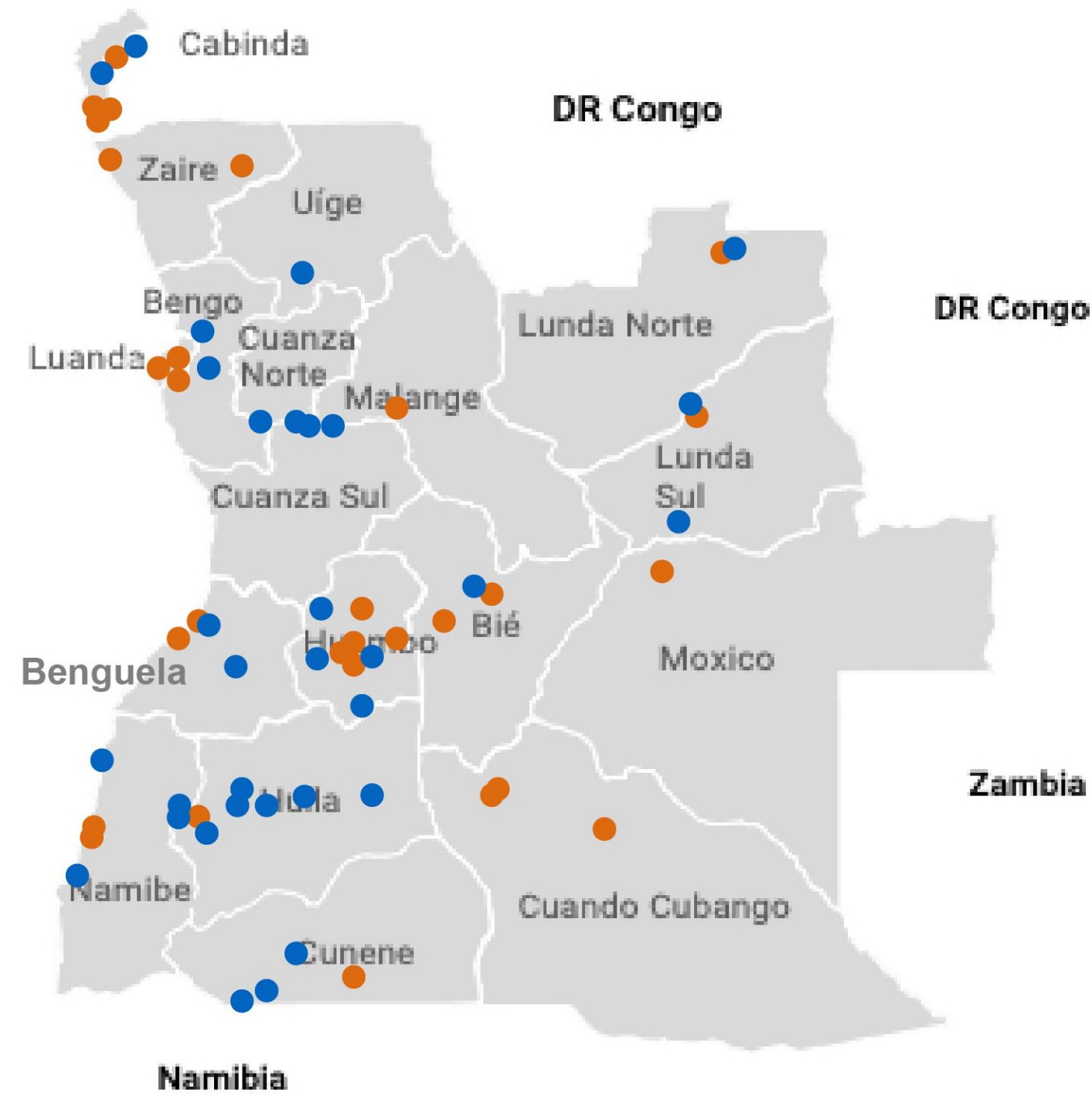


	GDP – \$US 2021	Imports – \$US From Angola	Imports - \$US From the world	Population Millions (2023)	Forecast Pop Millions (2050)
	12.5 B	29,699	2,351,503	5.8	10.7
	53.9 B	262,281	8,585,373	97.3	194.4
	21.2 B	2,666	7,111,525	19.8	39.1
	28,3 B	-	7,577,619	15.4	23.9
	17.6 B	9,063	8,405,634	2.4	3.5
	72.5 B	-	11,359,681	35.7	77.4
	12.2 B	19,246	5,860,357	2.6	3.9

Electricity is available in all major cities

ELECTRICITY TRANSMISSION AND DISTRIBUTION IS A PRIORITY FOR THE GOVERNMENT

POWER GENERATION



- Thermopower
- Hydropower

POWER STORAGE & DISTRIBUTION

National Development Plan - 2022/25



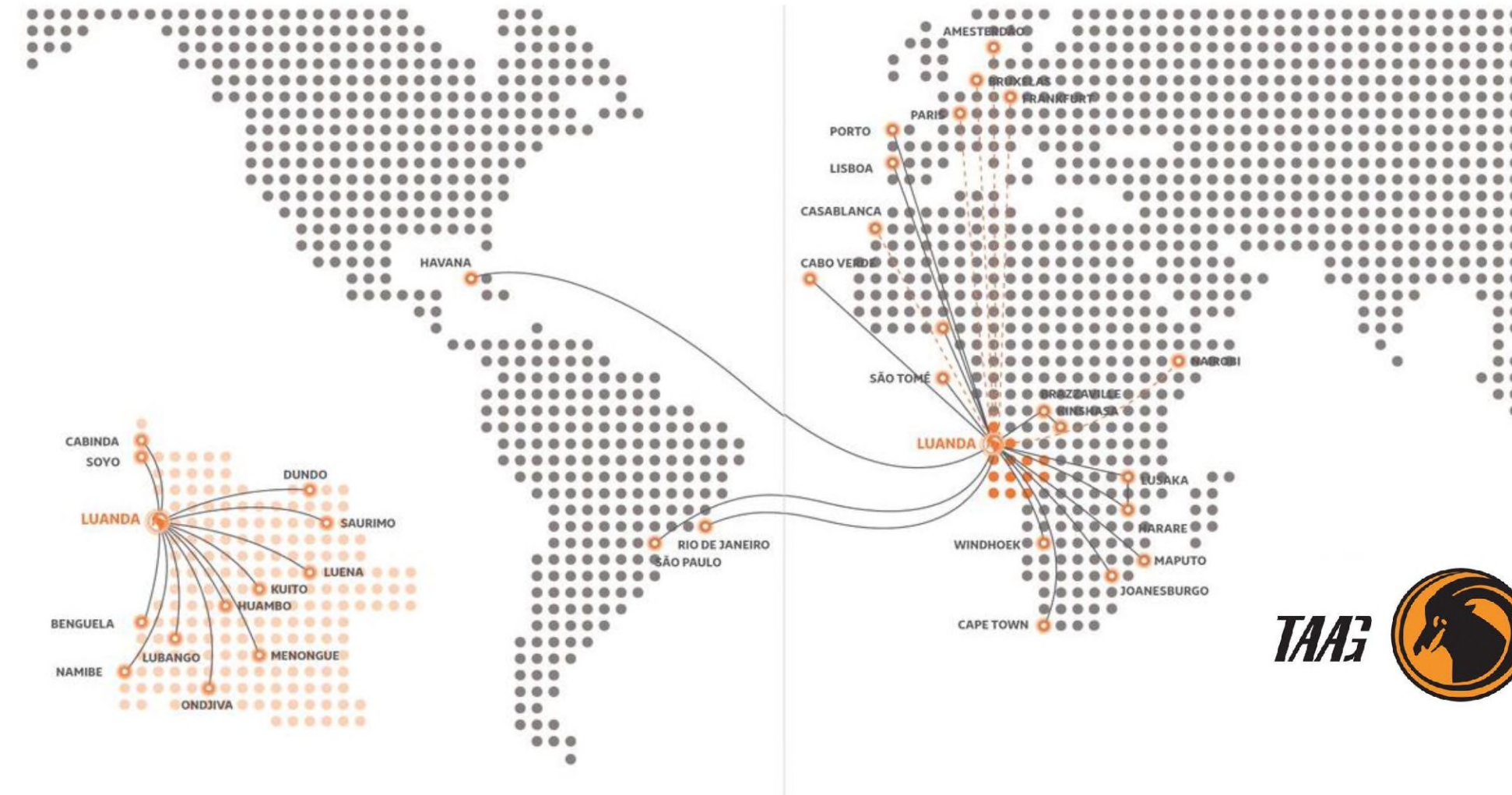
- ⊙ Substations
- 60/66 KW
- 110 KW
- 132 KW
- 150 KW
- 220 KW
- 400 KW

Airport and international connections

AIRPORTS National and International Facilities



AIRLINES INTERNATIONAL DESTINATIONS



OTHER INTERNATIONAL CARRIERS



Strategic ports network

PORTS OF ANGOLA



THREE MAJOR PORTS IN THE COUNTRY

Port of Luanda: AOLAD

Situated in the capital city – the largest commercial centre - it is one of the largest deep-water sea ports of Angola and is divided into 8 terminals, including one passenger terminal. In 2021, the port handled 14,2 million tonnes of cargo.

Port of Lobito: AOLOB

Located in Benguela Province, it is the largest deep-water seaport of Central Angola and the second largest port (by container traffic) of Angola - handling more than 2 million tonnes of cargo annually.

Port of Namibe: AOMSZ

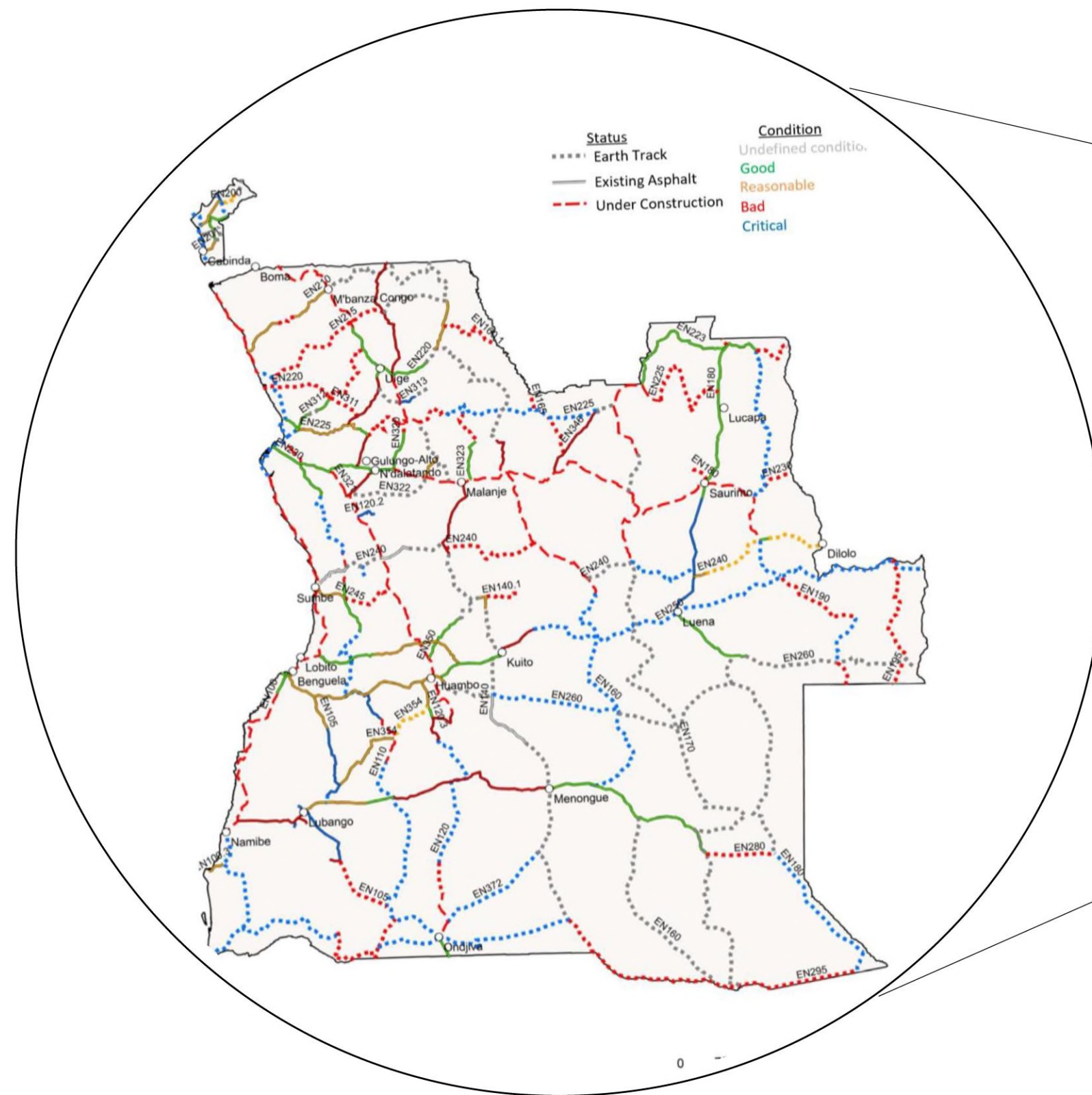
A small natural harbour in Namibe Province, originally used for fishing, and later expanded for handling complex cargo. The port serves the southern region, as a transit port for the supply of goods inland to the far southeast of Angola.

Roads network

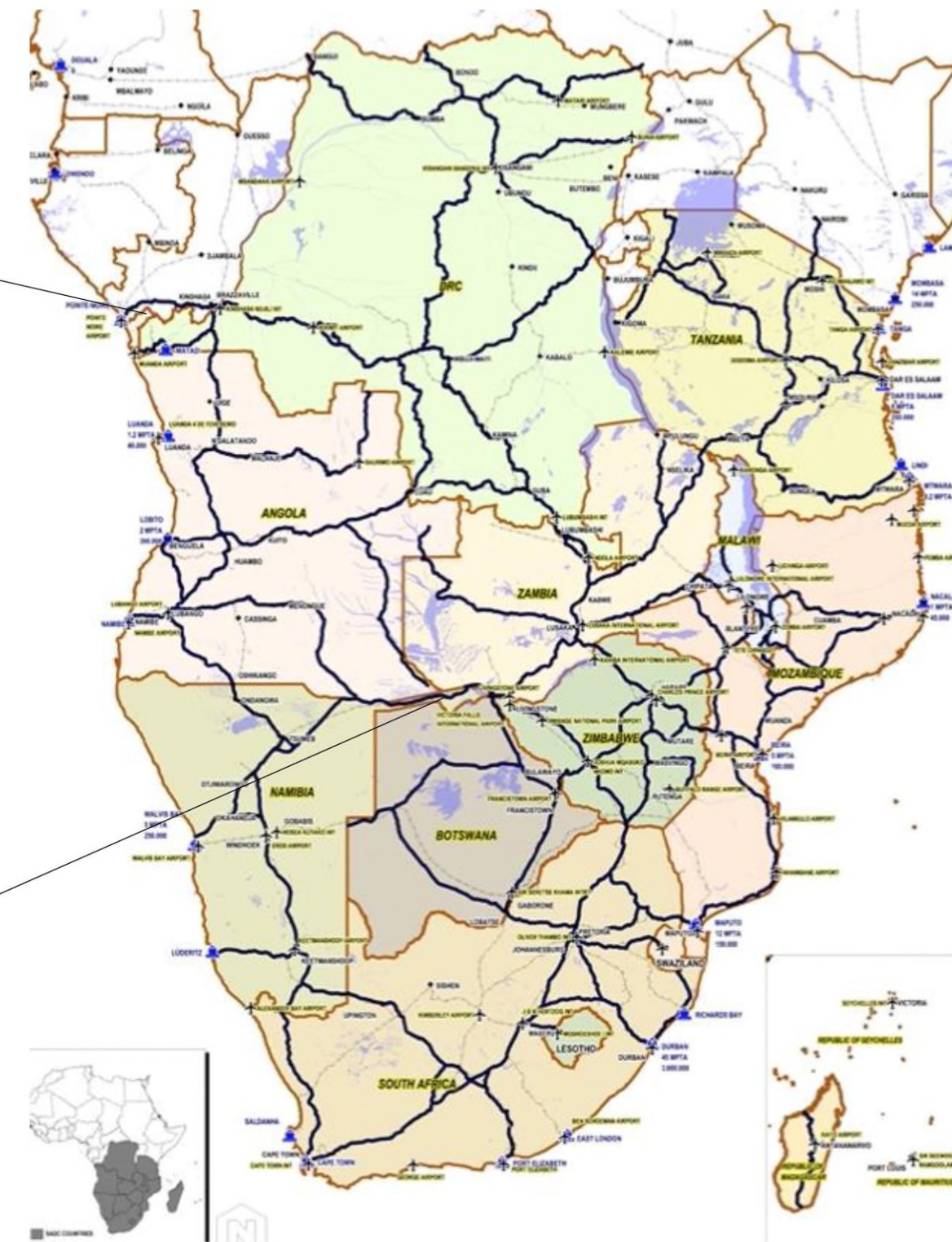
ROADS CONSTRUCTION AND REHABILITATION REMAINS A NATIONAL PRIORITY

NATIONAL ROAD NETWORK

Status and Condition



SADC MAJOR ROAD NETWORK



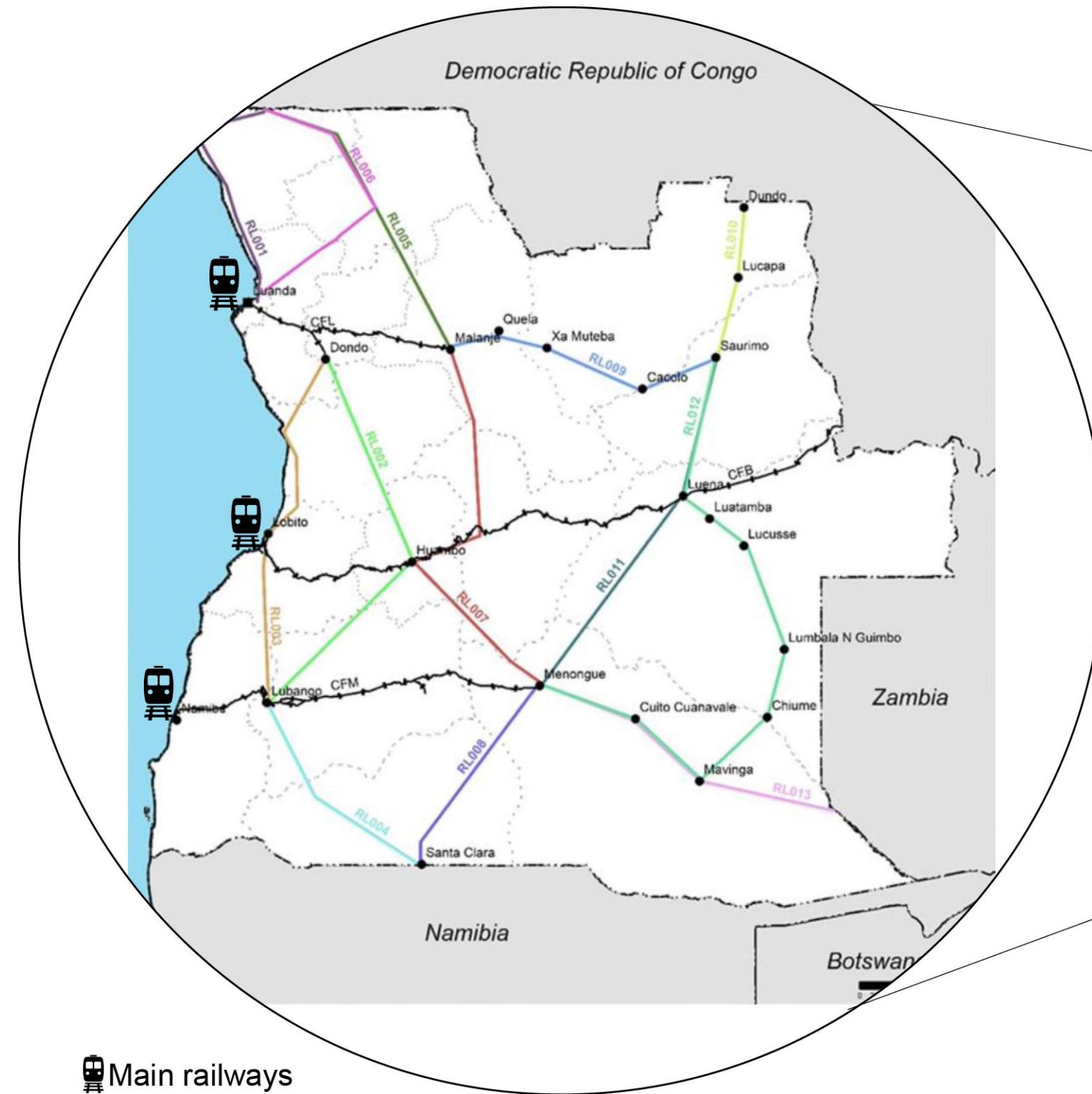
There is a plan of not just maintain and recover the current network but to build highways in the long run

Railway network

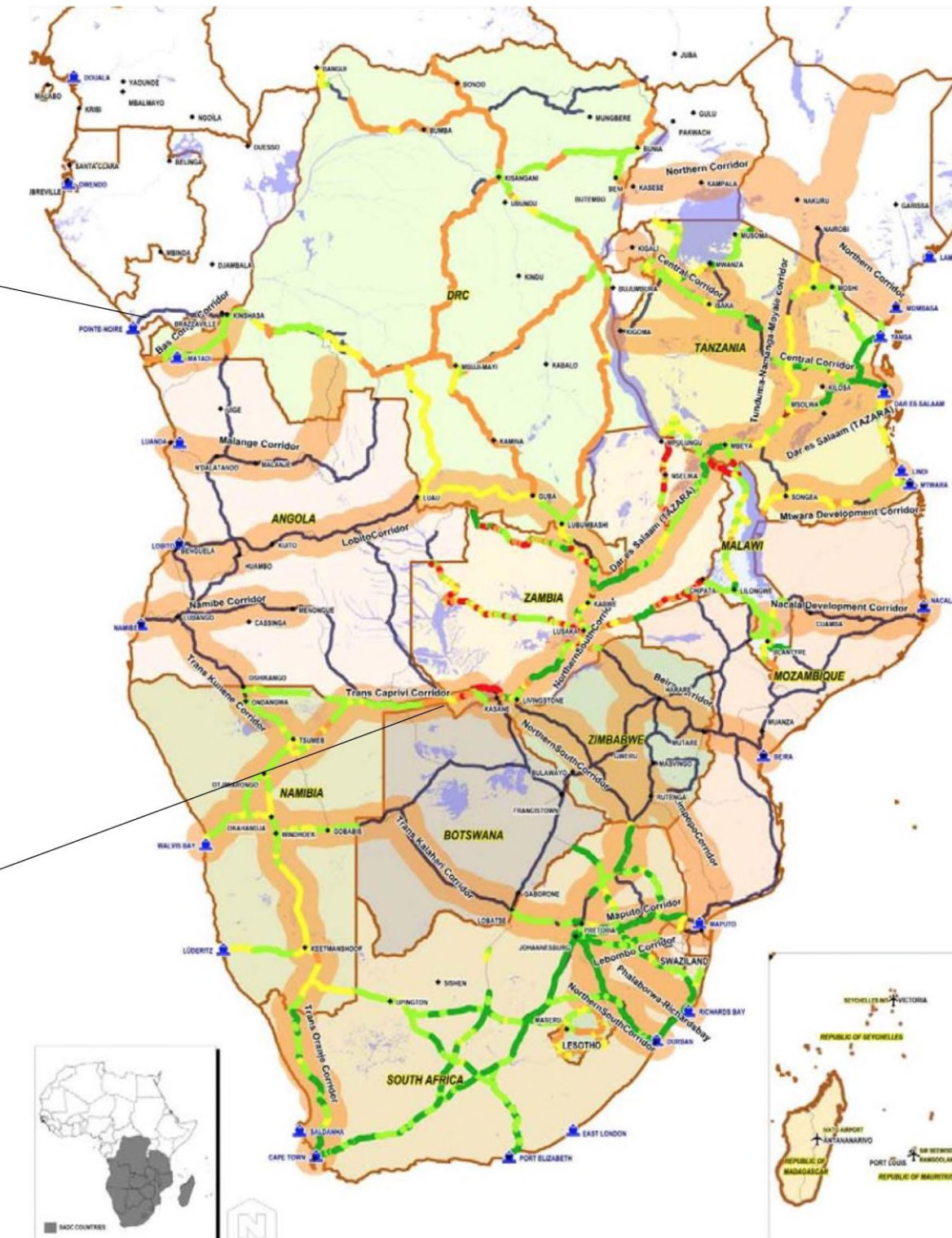
THE NORTH-SOUTH RAIL NETWORK WILL BE TRANSFORMATIVE FOR THE COUNTRY

NATIONAL RAILWAY NETWORK

Current and future railway (until 2038)



SADC RAILWAY NETWORK



The Lobito corridor as always been of major importance for the “copper belt” but the connection of the Namibe corridor to Zambia and the connection of Luanda to Congo on the north and west is of major strategic importance

Reforms are improving market conditions

**Top 10
Best African
Countries to
Invest in 2022**
- from Business Insider
Africa

**Anti-corruption
and
economic
diversification**

**Improved
investment law
& new
contractual
regime**

**Strengthening
public institutions
and restoring
confidence**

The role of AIPEX and how we support investors

Objectives

- Improve the business environment
- Promote competition and productivity
- Support national production, industrialisation, inclusive development and import substitution
- Promote export diversification and rising trade



Source: BNA

Core Business

- Investment Promotion and Attraction
- Exports promotion and internationalization of Angolan companies
- Register and monitor the implementation of private investment proposals
- Coordinate institutional support for investors

AIPEX and its support to the investors

INVESTOR'S RIGHTS

Transfers abroad of the corresponding value:

- **Of the dividends** resulting from the profits made by the investor;
- Of the **liquidation amount of the investments**;
- Of **royalties or other income** derived from the remuneration of indirect investments associated with technology transfer.

JURISDICTIONAL GUARANTEES

In the event of a dispute, the investor may ...



Access Angolan courts, which recognize equal rights for all investors;



Use alternative means of dispute resolution in relation to private investment – i.e. negotiation, conciliation and mediation

Investment regimes options

PRE-DECLARATION REGIME

- Investment proposals framed within the non-priority sectors are included in this scheme
- Tax benefits and incentives are granted automatically

SPECIAL REGIME

- Investment proposals framed within the priority sectors are included in this scheme
- Incentives and benefits are granted automatically and graded according to the Development Zone where the project will be implemented

CONTRACTUAL REGIME

- Projects with structural impact in the economic development of the country
- Allowing negotiation, between the Investor and the Angolan Government, for incentives and fiscal benefits

More incentives and benefits for rural areas

INCLUDING TAX EXEMPTIONS BETWEEN 20 - 90% (NOT APPLICABLE FOR CONTRACTUAL REGIME)

ZONE A

Luanda e Huila municipalities
Benguela and Lobito

ZONE B

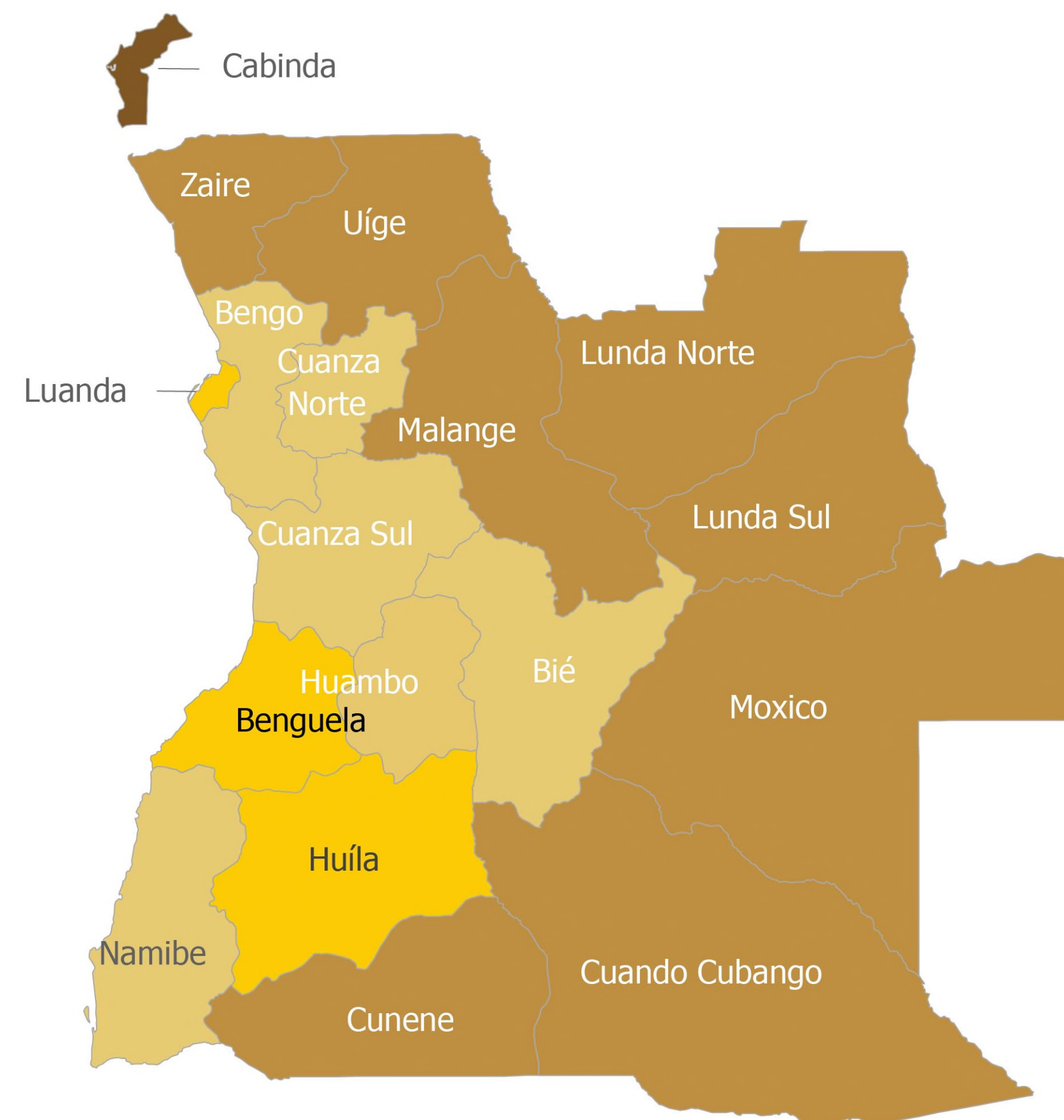
Bengo, Bié, Kwanza Norte, Kwanza Sul,
Huambo, Namibe and the municipalities of
Benguela and Huila

ZONE C

Cuando-Cubango, Cunene, Lunda-Norte,
Lunda-Sul, Malange, Moxico, Uige e Zaire

ZONE D

Cabinda



Angolan tax landscape

INDUSTRIAL TAX

General Industrial Tax Rate	25%
Income from activities exclusively on agricultural, aquaculture, beekeeping, poultry, livestock, fishing and forestry holdings, with the exception of logging	10%
Provisional settlement on services rendered	6,5%
Provisional settlement on sales	2%
Liberatory taxation on accidental services provided by non-residents without a permanent establishment in Angola	15%

OTHER TAXES

Labor Income Tax (IRT) a) Employee b) Self-employed	0% - 25 % 6,5% - 15%
Capital Investment Tax	5% - 15%
Property Tax a) Ownership b) Rent	0,1% - 2 % 15%
Stamp Tax	0,1% - 1 %
Special Consumer Tax aims to tax, in an autonomous and aggravated way, the consumption of certain goods, insofar as their use harms the health of consumers, pollutes the environment or is superfluous in nature.	2% - 25%
Contributions to Social Security a) Employing entity b) Employee	8% 3%

Regimes applied to value-added tax



GENERAL REGIME

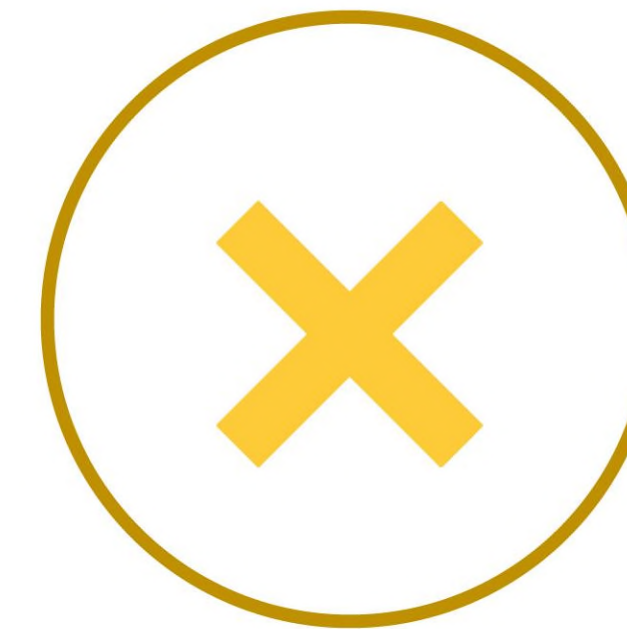
- Mandatory for taxable persons with a turnover > 350 million kwanzas;
- Manufacturing industry (except if turnover ≤ 10 million kwanzas).

General VAT	14%
Hotels and restaurants	7%
Meat, fish and some dairy products	7%
Agricultural inputs	4%
Basic food basket	4%



SIMPLIFIED REGIME

- Monthly payment of VAT at the rate of 7% (on receipts);
- 7% VAT deduction;
- Possibility of annual reimbursement (if the amount exceeds 300 thousand kwanzas), paid in a tax credit certificate.

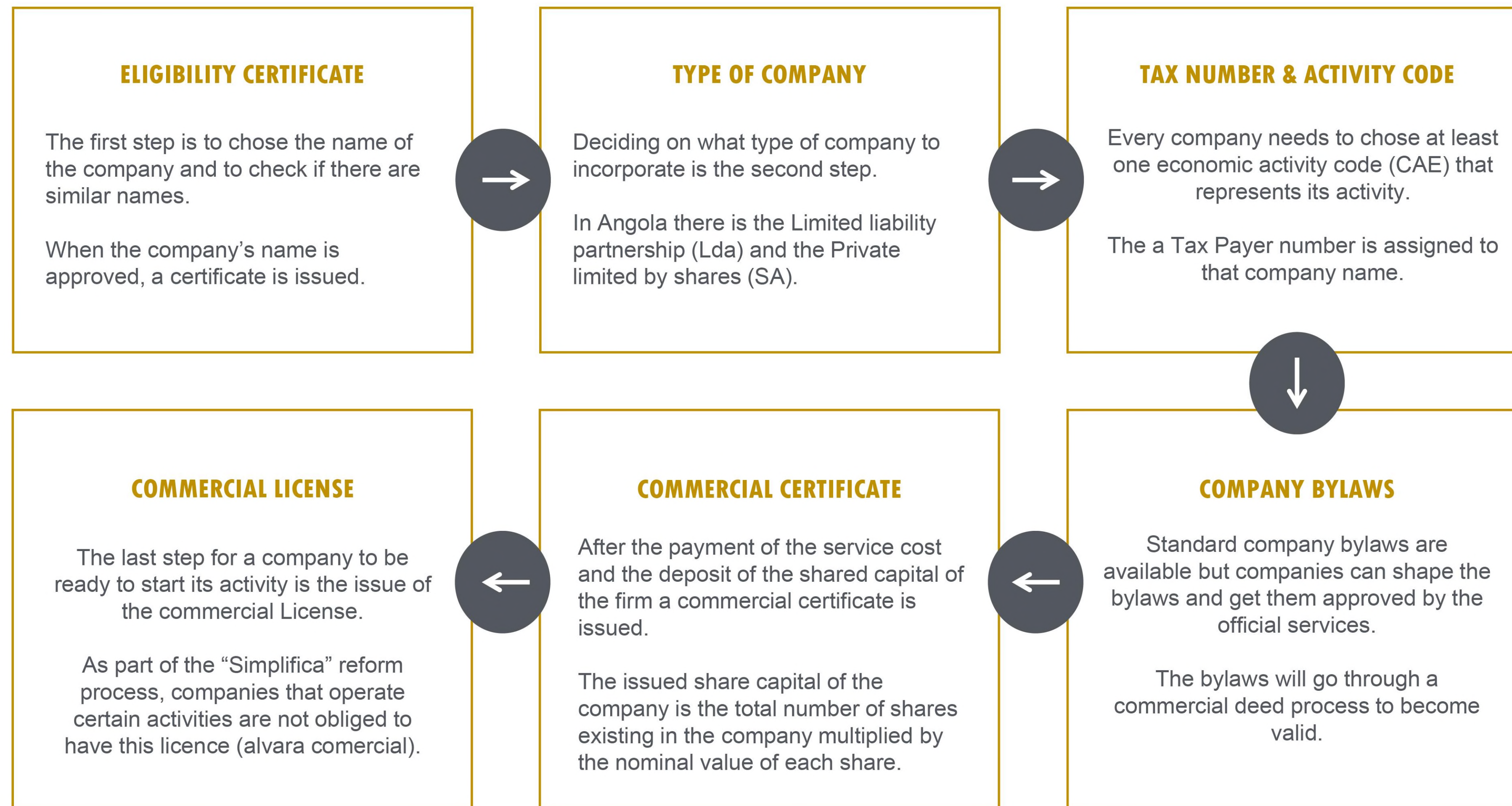


EXCLUSION REGIME

Turnover ≤ 10 million kwanzas.

Registering a company in Angola

REGISTER A COMPANY AND THE INVESTMENT PROJECT AT THE AIPEX “ONE STOP CENTRE”



Three investment regimes to structure benefits ...

Pre-declaration Regime

- Investment proposals framed within the non-priority sectors are included in this scheme;
- Tax benefits and incentives are granted automatically.

Special Regime

- Investment proposals framed within the priority sectors are included in this scheme;
- Incentives and benefits are granted automatically and graded according to the Development Zone where the project will be implemented.

Contractual Regime

- Projects with structural impact in the economic development of the country
- Allowing negotiation, between the Investor and the Angolan Government, for incentives and fiscal benefits.

Tax benefits under the pre-declaration regime

Type of tax	Period	Reduction
Property for the Acquisition of Real Estate	N/A	50%
Industrial		
• General → 25%		
• Agriculture → 10%		
• Provisory → 2%	2 years	20%
Application of capital → 10%	2 years	25%
Stamp → 1%	2 years	50%

Property: for the acquisition of real estate for the office and the establishment of the investment;

Industrial: It is levied on the profits obtained in the exercise of any activity of a commercial or industrial nature, even if accidental

Application of capital: It is levied on income from the simple application of capital

Stamp: It concerns all acts, contracts, documents, titles, books, papers and operations.

Tax benefits under the special regime

Tax	Zone A	Zone B	Zone C	Zone D
Acquisition of real state for investment (2%)	50% for a period of 2 years	75%	85%	92,5% for a period of 8 years
Industrial tax (General, Agriculture, Provisional) (25%;10%,2%)	20% for a period of 2 years	60% for a period of 4 years	80% for a period of 8 years	90% for a period of 8 years
Application of tax on capital (10%)	25% for a period of 2 years	60% for a period of 4 years	80% for a period of 8 years	90% for a period of 8 years
Ownership of property intended for investment (0,5% < AKZ 5 million)	N/A	50% for a period of 4 years	75% for a period of 8 years	82,5% for a period of 8 years

Tax Benefits for the Contractual Regime

- Reduction of Industrial Tax (final and provisional), Urban Property Tax, Capital Investment Tax and Stamp Duty, for a period of up to 15 years;
- Tax credit of up to 50% of the investment value, for a period of up to 10 years;
- Increase in depreciation and reintegration rates of up to 80%, for a maximum period of 10 years, for projects located in development zones B, C and D;
- Deferral of tax payment time;
- Consider as a cost 80% of the value of investment expenses for the creation of infrastructure, necessary for the execution of the project, which by their nature must be provided by the State.



Other benefits and facilities

Customs:

Exemption from payment of customs duties on the import of goods and equipment necessary for the implementation of the project, with the exception of VAT.

Facilities:

Exemption from the payment of fees and emoluments due for any requested service, including customs, by a non-business public entity, only for projects included in the Special Regime

Assistance with the implementation of projects at all stages of the investment process through the Investor's Gateway.

Final Remarks



The government is repositioning itself for long-term sustainable development, based on principles of good governance, economic diplomacy, and regional industrialization.



As a growing hub in southern Africa, we seek to boost the diversification and structural transformation of Angola and its neighboring African economies.



Benefiting from ongoing reforms, Angola geo-strategically very well-positioned to become a preferred gateway for investment, trade, transport, and tourism.





Food and Agriculture Organization
of the United Nations



Hand-in-Hand
Initiative

Investment Forum | Rome, Italy | 17-20 October 2023



Angola
for Investment Forum

SECTION 1: Angola Economic Overview



USD 106.7B GDP (2022)

GDP per capita: USD 2,998.5

HCI: 0.4

Poverty headcount ratio (at \$2.15): 31.1 %



34M Population (2023 projection)

Men: 48.8% & Women: 51.2%

Youth (15 - 34 age): 33.7%

Median age: 17.3



US\$ 2.9B (17%) Food import (2022)

US\$ 791M grain imports (2021)

US\$ 3.5B poultry imports from 2017 - 2021

Angola's economy is strongly tied to the global oil market, which serves as vital source of revenue and stability.

Youth unemployment, exceeding 50%.

80% of jobs are informal and half are in the primary sector (mostly subsistence work).

Main imbalances vs. Macroeconomic Reforms

Imbalances

Significant reduction in international reserves

Increasing public debt as a % of GDP

Successive budget deficits and the weakening of the country's external position

Reforms

Programmes aimed at relaunching the productive sector (**PRODESI**, **PREI**, **PIIM** and **PROPRIV**) and reducing inflation levels (**REA**)

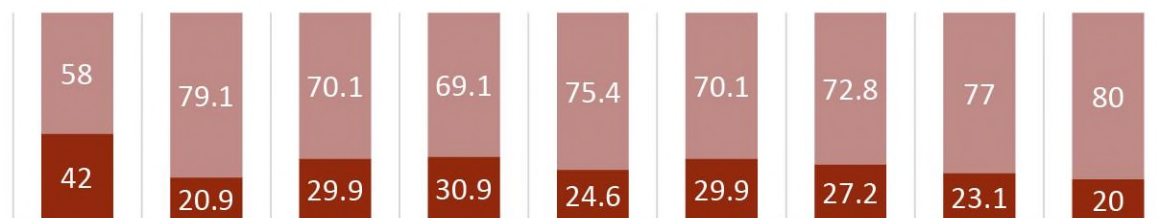
Public Finance Sustainability Law and the medium-term debt strategy, and Value Added Tax (VAT)

Flexible exchange rate regime that made it possible to adjust the value of the national currency to market conditions

New operational framework for monetary policy (improved liquidity flow forecasting)

Economic Diversification

■ Weight of Oil GDP ■ Weight of Non-Oil GDP



2011 2017 2018 2019 2020 2021 2022 2023 2027

PREL. PREV. PREV.

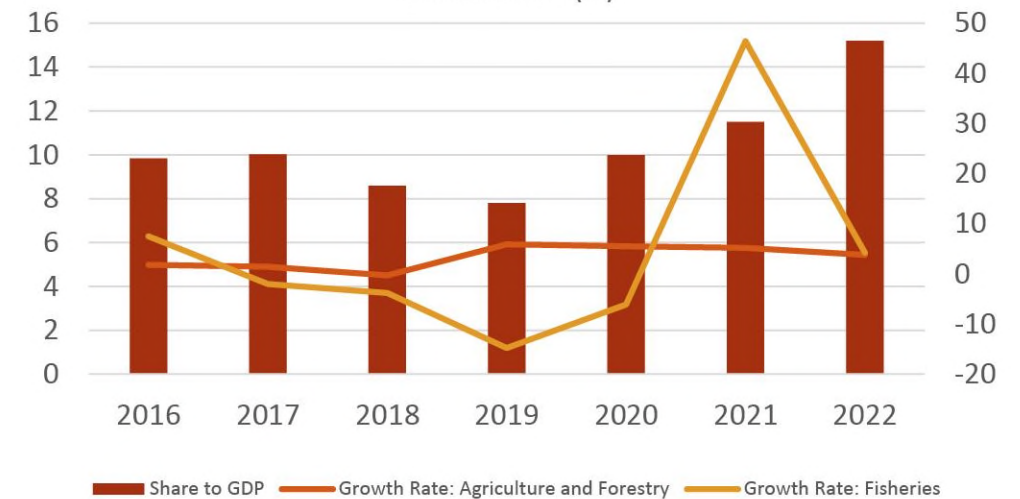
Agriculture Sector – current trends



- Agriculture is the largest employer (55% of total jobs) - mostly informal.
- Smallholders account for over 80% of agricultural production and 92% of cultivated land.
- Only 5 % of parcels owned by smallholders have a land concession title.
- Exports of food and agricultural products remain below 1% of total exports.
- **Agriculture output has been rising:** Non-oil output accelerated with agriculture and fisheries growing almost 7%.



Agriculture and Fisheries Share to GDP & Agriculture Growth Rate (%)



Key Challenges

The **dependence on food imports** persists, with a noticeable upward trend in 2022, reaching approximately 46%. As an illustration, the nation imports substantial quantities of essential items, such as 600,000 tonnes of rice, 106,000 tonnes of wheat flour, and 300,000 tonnes of chicken legs annually. It's worth noting that chicken is the most widely consumed meat in the country.

Agricultural productivity is currently below its potential due to limited access to capital, technical skills and agricultural inputs.

Maize: 2.85 ton/ha **Rice:** 2.02 ton/ha
Soya: 1.03 ton/ha **Wheat:** 0.62 ton/ha

Recurrent droughts in the southwestern region have had a considerable impact on crop and livestock production, creating a significant risk of food insecurity (Both value chains are intricately connected, particularly in terms of feed production).

SECTION 2: Why invest in Angola?

Strong Government Support

- Around US\$ 3B available financial facility over the next 5 years (Planagrão e Planapecuária).
- Production Support, Export Diversification and Import Substitution Programme (PRODESI).
- Informal Economy Conversion Programme (PREI).
- Lobito Corridor (Angola, Zambia e DRC).

Untapped Productive Capacity: abundance of fresh water and arable land

- 35 million hectares of arable land, and only approximately 10 % is currently cultivated.
- 1 650 km of seacoast and 69 million hectares of forest.
- Suitable climatic conditions for large-scale agriculture developments.

Demographic Dividend

- Angola has one of the youngest demographic structures in the world, with around 60 per cent of the population under the age of 25 and 47 per cent aged between 15 and 35.
- Rapid growing population: 3.1%

Investments in Human Capital through skills development

- Substantial investments in the Rural Extension System is being funded with public resources. There are systematic capacity building programs targeted to small and medium sized farmers that contributes to de-risking private investments.



Agriculture Sector – targeted efforts

The **National Development Plan (NDP 2023-2027)** foresees economic diversification by promoting the agriculture sector.

The government has approved several planning instruments aimed at food self-sufficiency, lower economic vulnerability and higher domestic productive capacity.

Targets (NDP)	2022*	2023	2025	2027
Contribution of agriculture sub-sector to GDP	8.6%	8.8%	9.4%	10.3%
Contribution of livestock sub-sector to GDP	0.6%	0.7%	0.8%	0.9%
Contribution of the fisheries sub-sector to GDP	4.1%	4.1%	4.3%	4.5%

- ❑ The National Grain Plan (**PLANAGRÃO**) 2023-2027 aims to boost national production of maize, wheat, soybeans and rice.

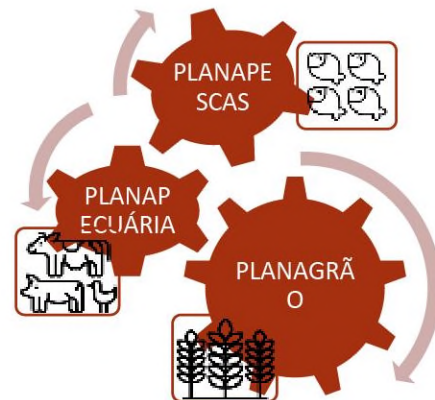
Target: 6.104.282 tons of grain (wheat, rice, soy and maize).

Financial requirement over the next 5 years = US\$ 5.7 billion:

- US\$2.4 billion investment from the State to finance **public infrastructure**, essentially delimitation of production areas and subsequent subdivision, as well as access roads.
- US\$3.3 billion from the **Private Sector**, reinforcing the existing capital in the Development Bank of Angola (BDA) and the Angola Venture Capital Active Fund (FACRA).

Food and Agriculture Delivery Compact

Products	Production (Tons)	
	2020	2027
Rice	10 514	2 322 000
Maize	2 970 200	4 437 336
Wheat	8 100	1 213 000
Soybean	37 317	1 102 000
Poultry	36 348	244 316



- ❑ The National Plan for the Promotion and Development of Livestock (**PLANAPECUÁRIA**) aims, among others, to promote the production of eggs and poultry meat.

Over the next 3 years, the State will invest US\$ 300 million.

- ❑ The National Plan for fisheries (**PLANAPESCA**) aims promote entrepreneurial fishing activity, to increase the production and processing of fish and salt.

Over the next 5 years, the State will invest US\$ 300 million.

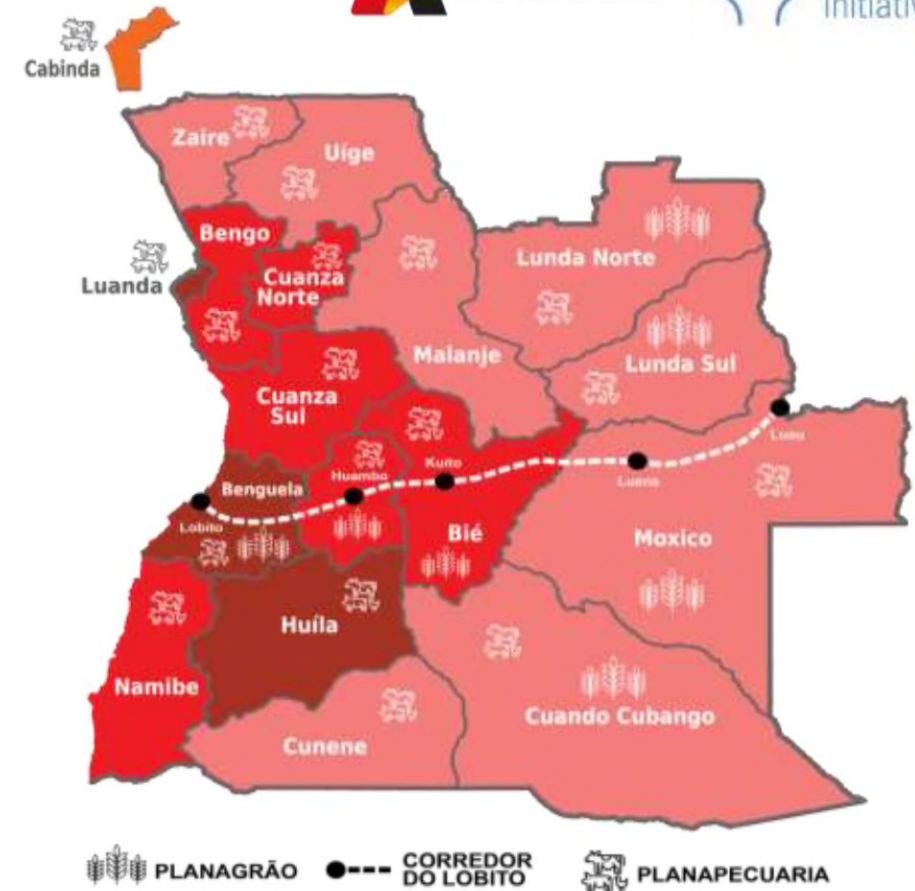
Enabling Factors

Fiscal Incentives

Industrial tax rate
25%



- | | |
|---------------|---|
| Zone A | Luanda and the municipalities headquarter of Benguela, Huila and the municipality of Lobito. |
| | <ul style="list-style-type: none"> Reduction of the industrial tax rate by 20%, for a period of 2 years. 50% reduction in property tax for the acquisition of an office property. Reduction of the tax on the distribution of profits and dividends by 25%, for a period of 2 years. |
| Zone B | Bié, Bengo, Cuanza Norte, Cuanza Sul, Huambo, Namibe and remaining municipalities of the provinces of Benguela and Huila. |
| | <ul style="list-style-type: none"> Reduction of the industrial tax rate by 60%, for a period of 4 years. 75% reduction in property tax for the acquisition of an office property. Reduction of the tax on the distribution of profits and dividends by 60%, for a period of 4 years. |
| Zone C | Quando Cubango, Cunene, Lunda Norte, Lunda Sul, Malanje, Moxico, Uíge and Zaire. |
| | <ul style="list-style-type: none"> Reduction of the industrial tax rate by 80%, for a period of 8 years. 85% reduction in property tax for the acquisition of an office property. Reduction of the tax on the distribution of profits and dividends by 80%, for a period of 8 years. |
| Zone D | Cabinda |
| | <ul style="list-style-type: none"> Reduction in industrial tax rate: half the tax rate applicable in Zone C, for a period of 8 years. Reduction in property tax for the acquisition of an office property: half the tax rate applicable in Zone C. Reduction of the tax on the distribution of profits and dividends: half the tax rate applicable in Zone C, for a period of 8 years. |



Doing Business in Angola



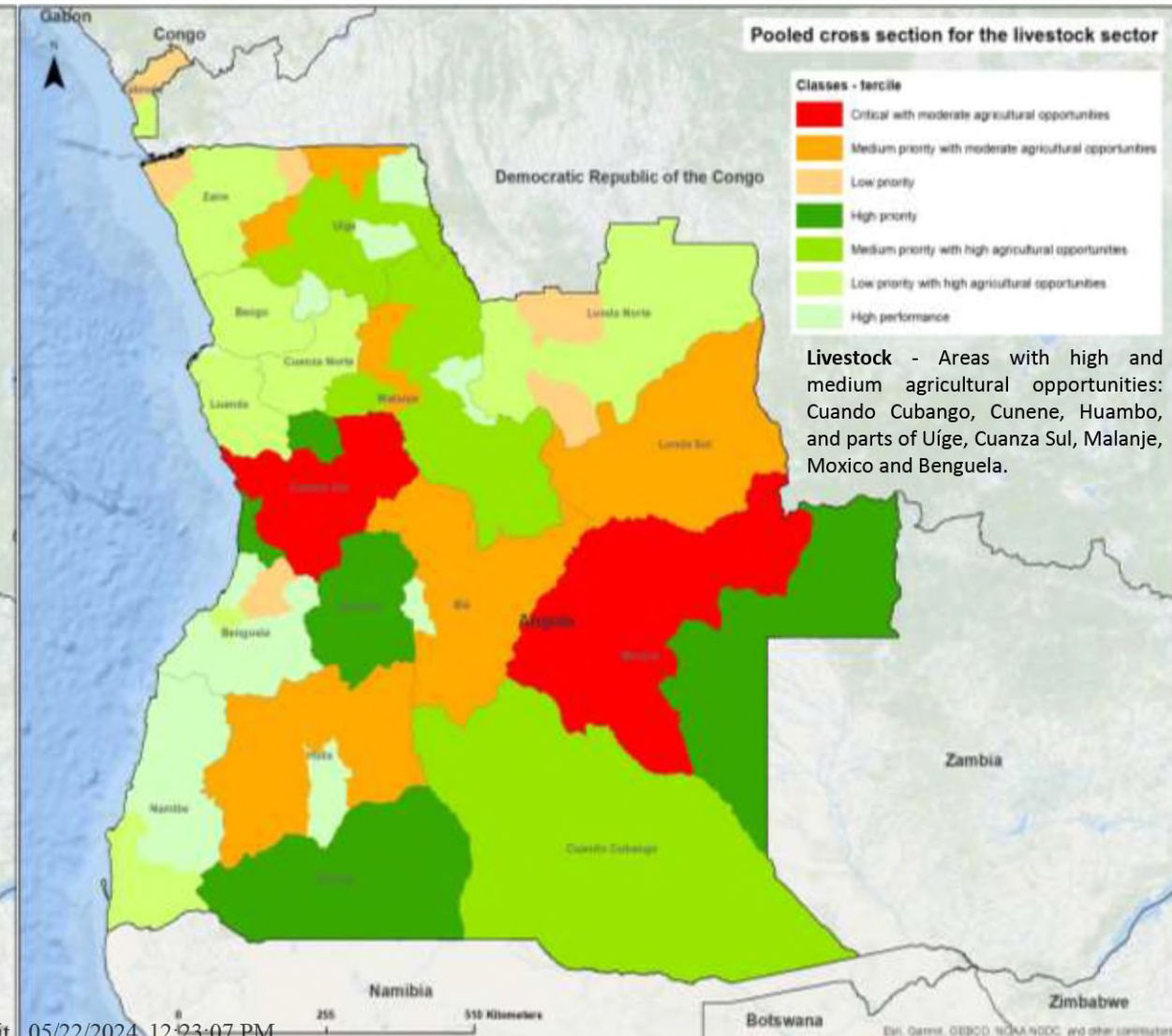
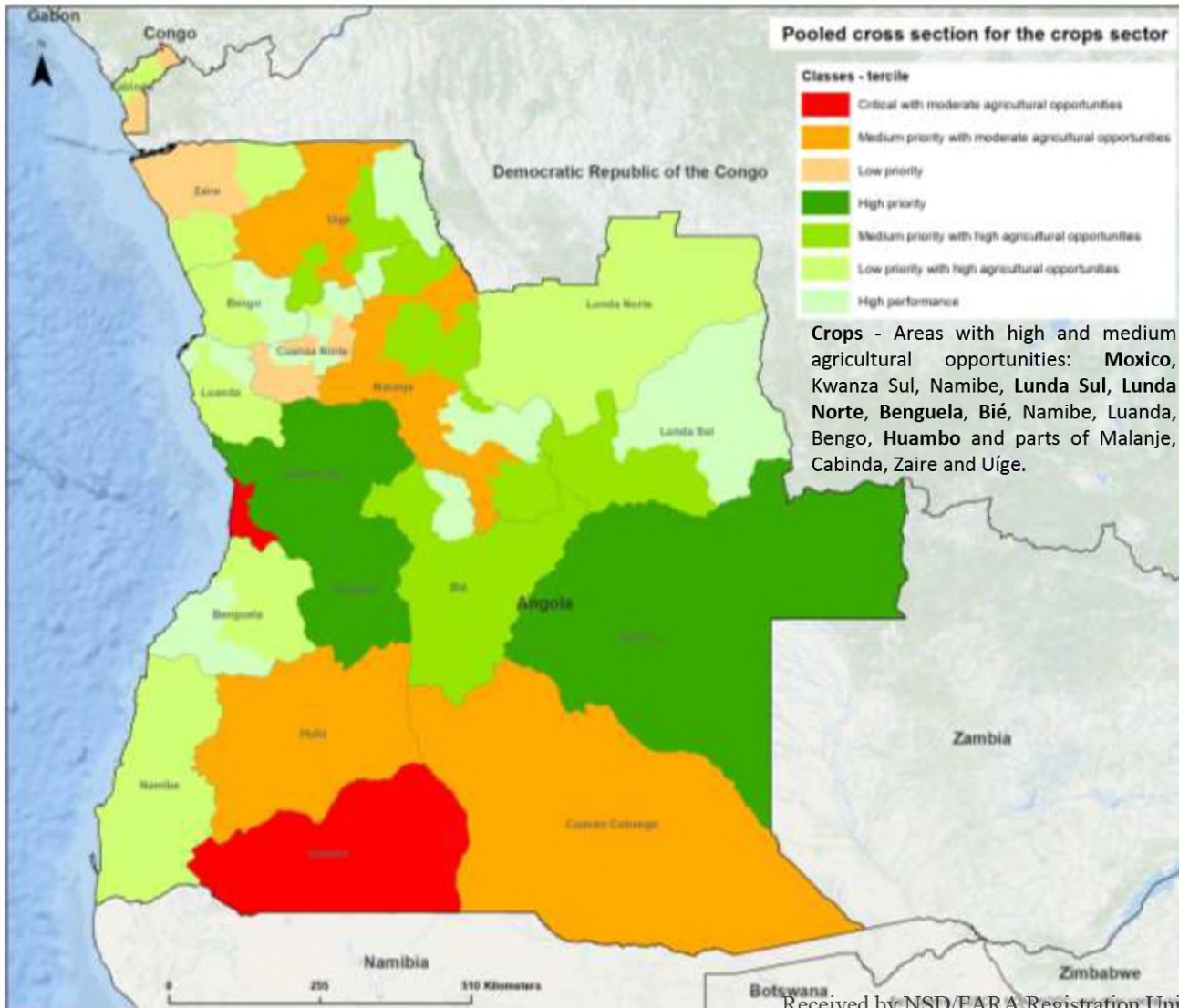
24h Starting a Business	30 days Dealing with construction permits	30 days Getting electricity	72h Registering property
Credit Bureau Getting Credit	BODIVA Protecting minority investor	VAT Paying tax	CNFC Trading across border
	Specialised rooms Enforcing contracts	Law Resolving insolvency	

Access to Land

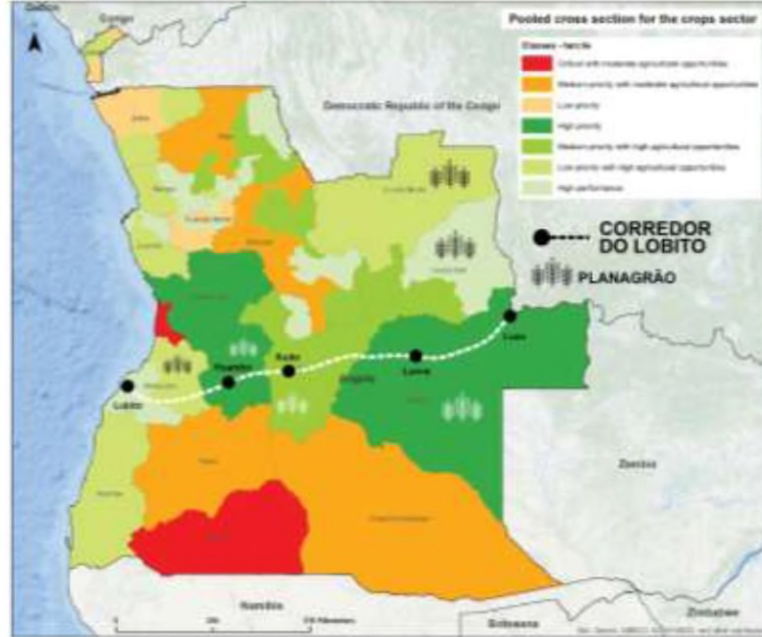
Angola has three types of land uses:

- land in the private domain of the state, which the government can grant to individuals for their own use;
- land in the public domain of the state, which the government cannot grant to individuals or groups for their own use;
- rural community land, which is occupied by families from local rural communities for housing, economic activity, or other purposes recognized by local custom. It is important to note that this land is utilized by rural communities according to their customs.

SECTION 3: Investment Opportunities in Angola

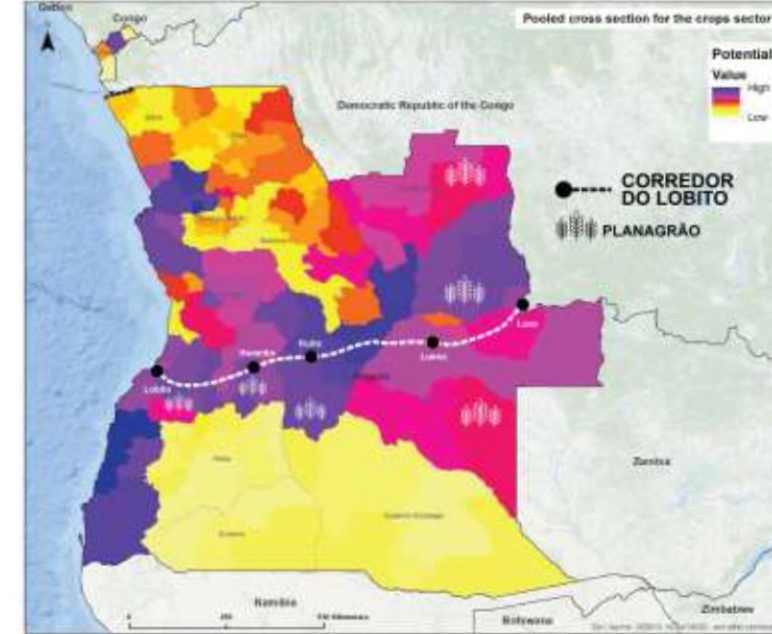


Investment Case # 1: *Grains*



Rationale

- Difficulty in procuring grains and notable price escalation in 2022.
- By 2027, an estimated average annual growth in grain consumption of about 6%. This growth is attributed to the rapid expansion of the population and evolving consumption habits.
- The production of animal feed is hindered by a shortage of essential grains.
- Only around 16% of the land owned by the private sector is cultivated and current productivity per ha is limited.



Objective and Areas of Interventions

- **PLANAGRÃO: Over the next 5 years, the Government will invest US\$ 2.4 billion** for infrastructure development, improve market access and value chain integration, irrigation, research and extension services.
 - Area: Lobito corridor + Planagrão
 - These are regions with high land availability, with rainfall above 1200 mm/year and soils suitable to produce selected crops.

Investment Opportunity

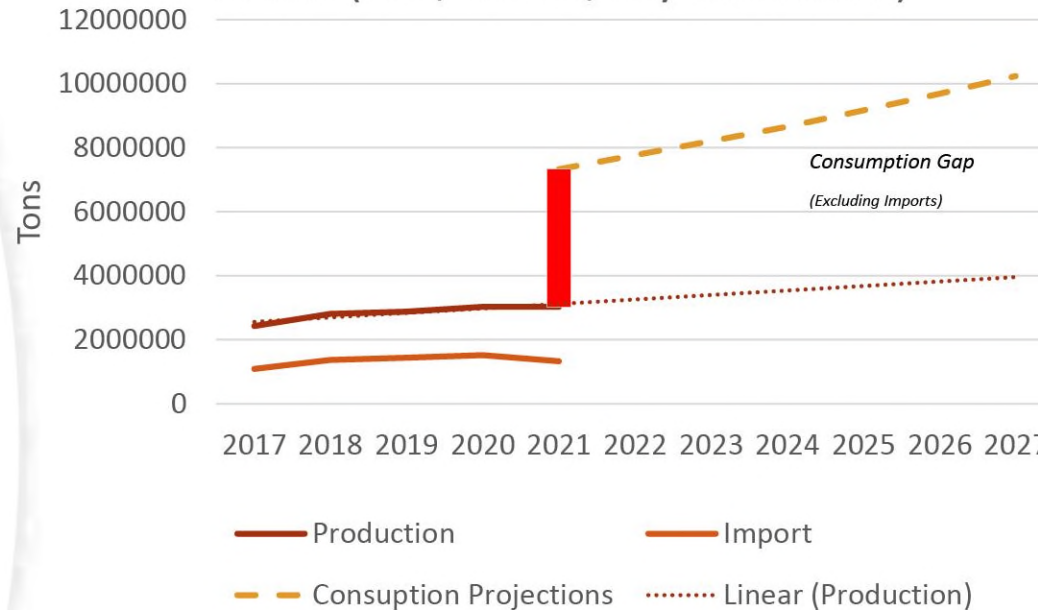


Lobito Corridor

The Lobito Multimodal Corridor is an important transport route for agro-industrial products, which includes not only the Benguela railway, but also a port, roads, airports and logistics platforms linking Angola to the Democratic Republic of Congo and Zambia.

- US\$ 300 million - Increase private investment and resilient growth of micro, small and medium enterprises in non-oil sectors, particularly in the Lobito Corridor (WB-financed project).
- US\$ 455 million - A joint US-EU partnership through the Partnership for Global Infrastructure and Investment (PGI), that aims, among other things, growing agriculture value chains to enhance local food production for the region's expanding population and to address global food insecurity.

Grains (rice, wheat, soy and maize)

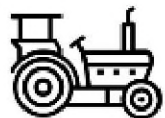


Source: Presidential Decree no. 200/22 of 23 July

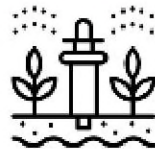
- ❖ By 2027, the average annual increase in consumption of these products is expected to be around 6%, as a result of population growth and consumer habits.
- ❖ In terms of consumption, Angola has a significant degree of dependence on imports of these products, representing US\$791 million in 2021.
- ❖ Consumption Gap = 6 million tonnes.

Lobito Corridor + Planagrão

- Only 16% of the 391,622 ha of legalized land available to commercial farms is under cultivation.
- Total irrigated area by commercial farms: 42,066 ha.
- Commercial farms per crops out of the country total: Maize (60%), rice (67%), wheat (97%) and Soya (72%).



Mechanization



Irrigation



Modernization



Grains

Total target production: 1.3 Million MT

Target hectares: 391,622

Total Investment requirement: US\$ 550 million (2023-2027)

NPV: US\$ 215 million

IRR: 20.9%

Direct beneficiaires: 130,540

Indirect beneficiaries: 783,244

Wheat

- **Target production:** 177,535 MT
- **Target hectares:** 44,384 Ha
- **Target yield:** 4 MT/ha
- **Investment requirement:** US\$ 71 million (2023-2027)
- **NPV:** US\$ 49 million
- **IRR:** 19%

Maize

- **Target production:** 313,298 MT
- **Target hectares:** 62,660 Ha
- **Target yield:** 5 MT/ha
- **Investment requirement:** US\$ 88 million (2023-2027)
- **NPV:** US\$ 7.3 million
- **IRR:** 13%

Rice

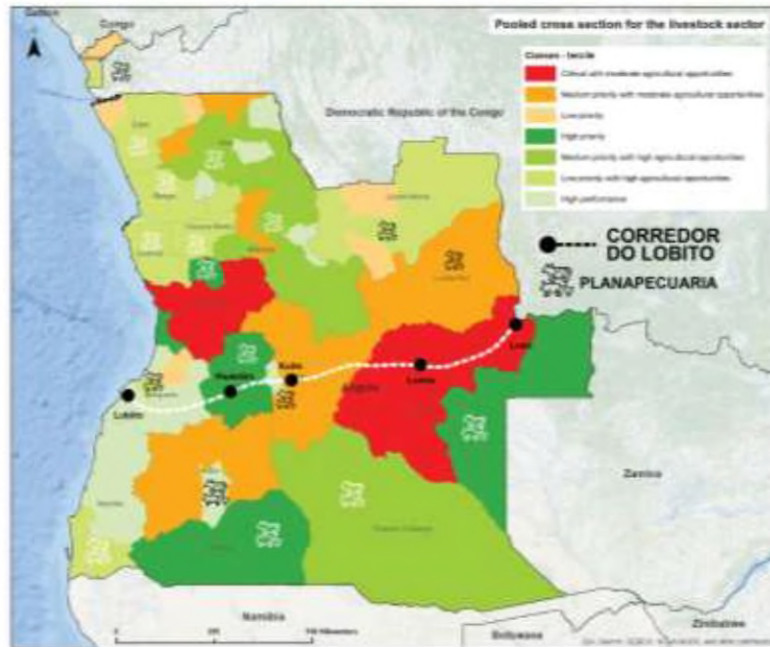
- **Target production:** 402,664 MT
- **Target hectares:** 117,487 Ha
- **Target yield:** 3.4 MT/ha
- **Investment requirement:** US\$ 201 million (2023-2027)
- **NPV:** US\$ 143 million
- **IRR:** 24%

Soy

- **Target production:** 85,800 MT
- **Target hectares:** 78,324 Ha
- **Target yield:** 1.1 MT/ha
- **Investment requirement:** US\$ 49 million (2023-2027)
- **NPV:** US\$ 15.8 million
- **IRR:** 21%

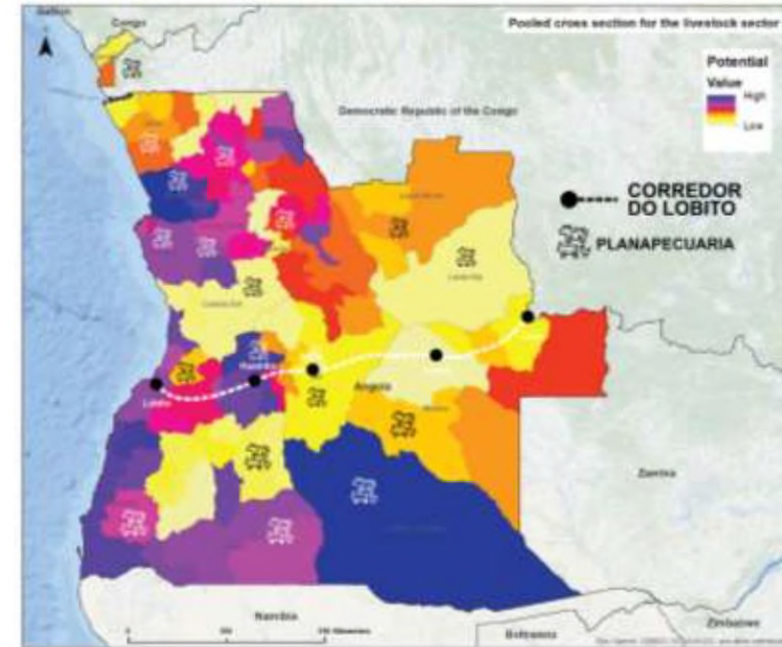
Investment Case # 2: *Poultry Value Chain*





Rationale

- Much of the food imports are chicken, which is the most consumed meat in the country.
 - Angola imported more than US\$1.6 billion worth of poultry meat between 2017-2022.
 - Great volatility of imports of Poultry, but market with potential.
 - Challenge of replacing imports with national production.
- Develop poultry value chain will allow Angola to reduce dependency on imports and transforms poultry into an income generator for low-income families.



Intervention

- Planapecuária: Over the next 3 years, the Government will commit US\$ 300 million:**
- Encourage private investment in the various value chains of meat and other livestock product production.
 - Enhance herd health control and improve the resilience of livestock production systems.
 - Develop a comprehensive system for surveillance, prevention, and control of animal diseases to safeguard the growth and development of national livestock production.

Macro-Trends Impacting Poultry Consumption in Angola

1 Population Growth

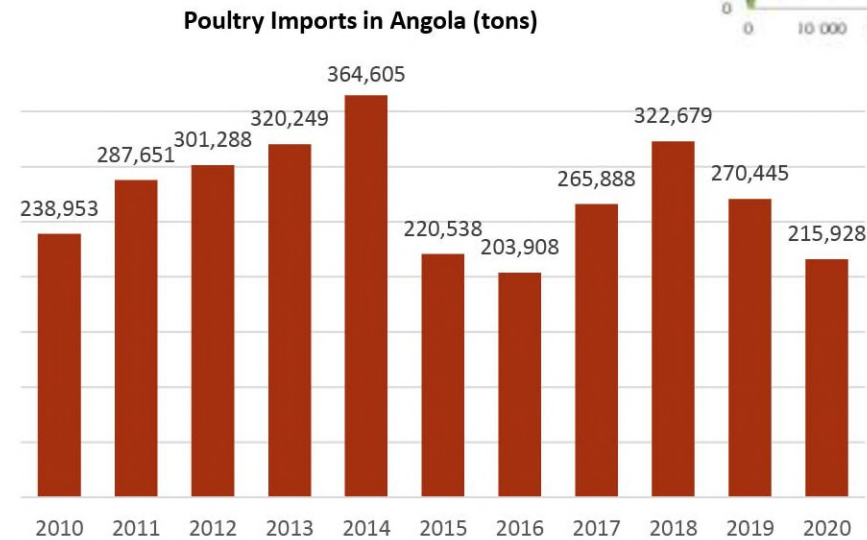
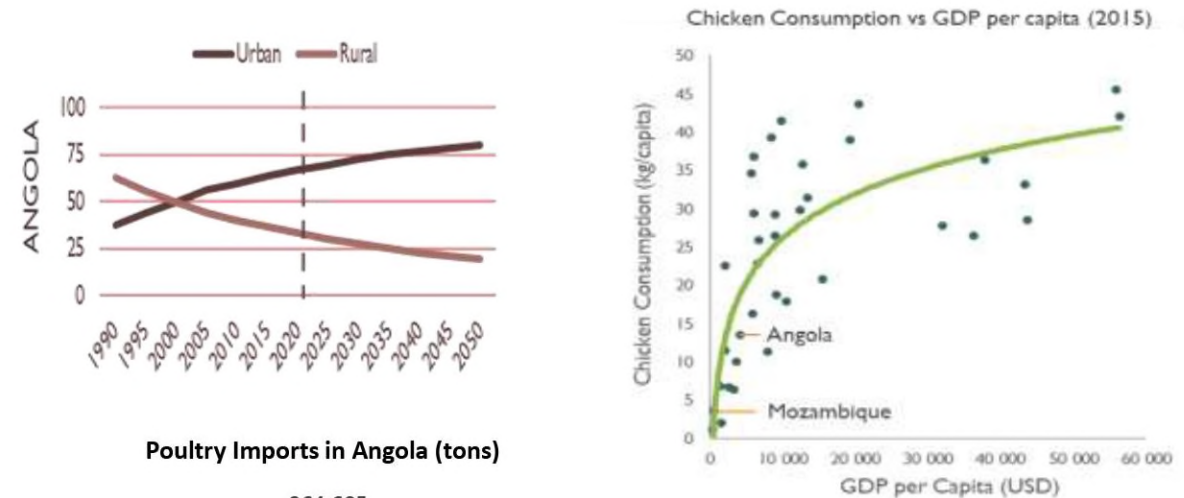
The long-term shift in meat consumption toward poultry in Angola will continue to strengthen, particularly due to population growth currently estimated at 3.1% per annum.

2 Per Capita Income Growth

Higher income, measured by GDP per capita, has been shown to have significant correlation to higher poultry consumption. This is one of the reasons why Angola has a much higher Poultry Consumption per capita than Mozambique, for instance.

3 Urbanization Rate

Another factor, no less important, is urbanization rate, which fosters poultry processed in slaughterhouses instead of the more traditional “live chicken” market that proliferates in more rural areas.



Angola to produce 30.000 annual tonnes of poultry

Total Investment Requirement: US\$ 527 million

NPV: US\$ 493 Million IRR: 18.7%

Direct beneficiaries: 41 496

	Breeding	Hatching	Animal Feed	Poultry Farming (from DOC to grown chicken)	Processing	
Main Assumptions	<p>Breeding hens lay, on average, of 179 hatching eggs (HE) during its lifetime;</p> <p>4 flock placements per year with 25 employees each</p> <p>Rate of Hatching Eggs Dismissed 0,5%.</p>	<p>2 Hatches per Week;</p> <p>80% Hatchability Rate of Day-Old Chicks (DOC);</p> <p>7 days per week;</p> <p>50 employees</p>	<p>Animal feed is 100% locally produced;</p> <p>Works 3 shifts per day, 7 hours per shift, 6 days per week = 126hrs/week;</p> <p>20 employees per shift</p> <p>Feeds all 78 million DOCs per year</p>	<p>Hybrid Method</p> <ol style="list-style-type: none"> Aggregator Companies (big size; economies of scale) Outgrowers (smaller, but professional) Birds reach market weight of 1.7 Kg (47-day cycle); 4% mortality rate 1+2 = Processed Chicken Market Subsistence Farming "SF" (local family and goes for live chicken market) 	<p>Abattoir: slaughtering, processing and packaging;</p> <p>71% Yield (from Live Bird to Carcass Weight)</p> <p>1,2Kg Carcass Weight per Bird;</p> <p>Works 3 shifts per day, 7 hours per shift, 6 days per week = 126hrs/week</p>	
Main Outputs	Hens housed per placement	DOCs per hatched day	Pellet Production per Hour	Birds per Cycle SF	Birds per Cycle 1+2	Slaughtered birds per hour
	41 347	225 962	9	1 858 151	1 666 849	1 908
	Hens housed per year	DOCs per year	Total Pellet per Year	Birds per Year SF	Birds per Year 1+2	Slaughtered birds per day
165 389	23 500 000	60 143	10 500 000	13 000 000	40 064	
Hatching eggs per year				Employment 1+2	Slaughtered birds per year	
29 521 875				>40 883 pax	> 272 pax	12 500 000
Cap Exp	22.6 M USD	6.2 M USD	8 M USD	4.8 M USD (funded separately)	20.8 M USD	10.8 M USD

SECTION 4: Summary Angola Investment Plan

US\$1.07B Total Investment	20% Overall Average IRR	956,280 Beneficiaries	US\$ 451 Income Increase Per Capita	2.145 million MT Emission Co2e
--------------------------------------	-----------------------------------	---------------------------------	---	--

KEY INVESTMENTS

1

Intervention
Increase the country's capacity to produce grains.

Cost (USD)
US\$550M

IRR (%)
20.9%

VPN
US\$ 215M

Sustainability Benefits
Direct beneficiaries: 130,540
Indirect beneficiaries: 784,244
Income increase per capita: US\$275
Emission Co2e: 2.1 million MT



2

Intervention
Promote the production of poultry to substitute 30% of imports.

Cost (USD)
US\$527M

IRR (%)
18.7%

VPN
US\$ 493M

Sustainability Benefits
Beneficiaries: 41,496
Income increase per capita: US\$300
Emission Co2e: 0.045 million MT





Obrigado!





GOVERNO DE
ANGOLA

PLANAGRÃO

PLANO NACIONAL DE FOMENTO PARA A PRODUÇÃO DE GRÃOS



MILHO



TRIGO



ARROZ



FEIJÃO



SOJA



AMENDOIM



GIRASSOL

Luanda, 11 de Julho de 2022

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ACRONYMS, ABBREVIATIONS AND

AIPEX Agência de Investimento Privado e Promoção das
Exportações
BDABanco de Desenvolvimento de Angola
CEEACEconomic Community of Central African States
CIATInternational Center for Tropical Agriculture
CIRADCenter for International Cooperation in Agricultural
Research for Development
CIMMYInternational Maize and Wheat Improvement Center
CPLPCommunity of Portuguese Speaking Countries
DAPDiammonium phosphate
EAFFamily Farming
EAEEnterprise Farming
EMBRAPA Brazilian Agricultural Research Corporation
USAUnited States of America
FACRAAngolan Active Venture Capital Fund
FAOUnited Nations Food and Agriculture Organization FADAFundo de
Apoio ao Desenvolvimento Agrário
FGCCredit Guarantee Fund
GPGlobal Positioning System
Ha Hectare
IDAInstitute for Agrarian Development
FDIForeign Direct Investment
IIAInstitute of Agronomic Research
IRRIInternational Rice Research Institute INACERNational
Cereal Institute
KzKwanza (National Currency)
MEPMinistry of Economy and Planning MINAGRIP
Angolan Ministry of Agriculture and Fisheries

MINDCOMMMinistry of Industry
and Trade MINFINMinistry of Finance
MIREMPETMinistry of Mineral Resources, Oil
and Gas OTMOperators of Transportation and Goods
PAC Credit Support Project
PALOPPortuguese-speaking African countries
GDPGross Domestic Product
PLANAGRÃO National Plan for the Promotion of Grain Production
PDNPNational Development Plan
PIEIndependent Energy Producers
PRODESIProgram to Support Production, Export Diversification
and Import Substitution
Strategic Food Reserve
SADCCommunity for the Development of Southern
Africa ICTInformation and Communication Technologies
Ton Tons

1. INTRODUCTION AND FRAMEWORK

01. International trade has been disrupted both by the effects of Covid-19 and by geopolitical situations that have jeopardized global supply chains.
02. Currently, with far fewer Ukrainian and Russian grains and fertilizers entering the global markets, experts fear that this year will be marked by a dark period of food shortages and rising prices.
03. Together, Russia and Ukraine produce almost 30% of the wheat and barley sold worldwide, 20% of the corn and around 50% of the sunflower oil¹. Russia is also the world's largest exporter of natural gas, second in oil exports and among the world's largest exporters of fertilizers.
04. The scarcity of cereals on the international markets, the difficulty of obtaining these products and the escalation of prices in 2022 compared to previous years (see the grain price index in the table below) are contextual conditions that present both a challenge and an opportunity for Angola to invest in promoting grain production.

Figure 1: Grain Price Index



Source: International Grains Council

¹ UNCTAD (2022). The Impact on Trade and Development of the War in Ukraine

05. The extension of Angola's territory and the existence of favorable natural conditions represent an extraordinary potential for agro-livestock activity, similar to what happened in Brazil in the 1960s, when it began its agricultural development program in the Cerrado region.
06. Family farming is the most predominant subsector in the country and is mainly carried out by peasants who still practice farming systems using family labor and are responsible for producing around 80% of cereals, 90% of roots and tubers and 90% of pulses and oilseeds.
07. Angola's annual grain crop totals 3,666,479 tons. Of the total grain crop, corn and rice account for 81.3% of total production.
08. It is in this context that the National Promotion Plan for Grain Production (PLANAGRÃO) was drawn up, which, in line with the Targeted Cereals Program approved by the Council of Ministers in March 2016, has the fundamental aim of contributing to food and nutritional sovereignty and food security by increasing production, productivity, the size of the cultivated area and the profitability of agri-livestock activities, in a permanent and sustained manner, and minimizing the impacts of the current international context and the environment resulting from the development of agri-livestock activities, as well as contributing to the goal of diversifying the economy.
09. Likewise, PLANAGRÃO aims to contribute to the development of an agricultural sector that is more balanced at a territorial level, more competitive, innovative and environmentally friendly, within a framework adapted to the singularities of each province.
10. From the point of view of its strategic framework, PLANAGRÃO is in line with (i) the National Development Plan (PDN) 2018-2022, insofar as it materializes the Policy for the Promotion of Production, Diversification of Exports and Substitution of Imports, implementing the Program for the Promotion of Agricultural Production; (ii) the constitutional and legal framework, as it establishes

the guarantee of the right to nutritious, sufficient and quality food, enabling the eradication of hunger and the achievement of food security; and (iii) the Sustainable Development Goals of the 2030 Agenda approved by the United Nations, in particular (1) Eradicate Poverty and (2) Eradicate Hunger.

11. PLANAGRÃO is a plan to promote grain production (corn, rice, wheat, millet, millet, beans, soybeans, peanuts and sunflowers) nationwide, focusing on the provinces of eastern Angola, specifically Lunda Norte, Lunda Sul, Moxico and Cuando Cubango, and with a special focus on rice, corn, soybeans and wheat.
12. PLANAGRÃO is based on objectives aimed at promoting the transfer of knowledge and innovation in the agricultural sectors of rural areas, namely: (i) improving the viability of farms and competitiveness in grain production in regions with the best soil and climate characteristics for grain production and promoting the use of innovative and sustainable agricultural technologies; (ii) promoting the organization of the food chain, including the processing and marketing of agricultural products, animal welfare and risk management in the agricultural sector; (iii) restoring, preserving and improving ecosystems related to agriculture; (iv) promoting the efficiency of natural resources and encouraging the transition to a low-carbon economy capable of adapting to climate change in the agricultural sector; and
(v) promote social inclusion, poverty reduction and economic development in rural areas.
13. PLANAGRÃO is part of a series of institutional reforms that the Executive has been carrying out over the last five years, ranging from promoting domestic agricultural production, improving the business environment and competition, and improving competitiveness and productivity.
14. These reforms have allowed growth in economic activity to resume, and it is estimated that GDP in the first quarter of 2022 will have grown by around 2.6%, maintaining the growth momentum that began in 2021 (0.7%), as a result of

the robust performance of the non-oil sector, which has been able to counterbalance the systematic decline of the oil sector.

15. It is intended that the implementation of PLANAGRÃO will fundamentally result from coordination and consultation between the Executive, companies, cooperatives, associations and families, with the State creating the conditions with access routes, the availability and legalization of land, incentives and credit at competitive interest rates for the development of private initiative in the operationalization of the plan.

2. OBJECTIVES

16. PLANAGRÃO aims to supply various types of grain (maize, rice, wheat, millet, millet, beans, soya, peanuts and sunflower), in the short and medium term (2022 to 2027) to ensure self-sufficiency for families, prioritizing the production of maize, rice, wheat and soya, as well as reducing dependence on imports of these crops. To this end, the aim is to accelerate local production in the medium term, with a greater focus on the eastern region of the country (provinces of Lunda Norte, Lunda Sul, Moxico and Cuando Cubango).
17. The general aim of PLANAGRÃO is to guarantee food security, generate income and promote competitiveness, with the medium-term intention of making Angola a major grain producer in the southern and central regions of Africa, ensuring that high levels of production and productivity are available on the market and guaranteeing quality, income, employment and the sustainable use of natural resources.
18. For the period 2022 to 2027, PLANAGRÃO has 9 specific objectives:
 - a. To promote national grain production (corn, rice, wheat, millet, millet, beans, soybeans, peanuts and sunflowers) in Angola, with a view to self-sufficiency and food security, especially corn, rice, wheat and soybeans;
 - b. Improving soil productivity and, consequently, the profitability of both family farms and business farms, improving the living conditions of families engaged in grain production;
 - c. Increase the number of agricultural entrepreneurs (national and foreign) and employment, both by creating incentives to attract qualified young people into the business and by attracting investment

foreign direct investment (FDI) from large international companies that bring technology and *know-how* to Angola;

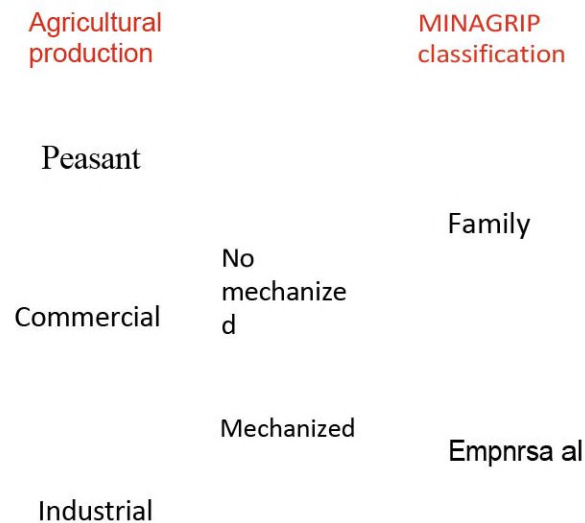
- d. Promoting the internal development of the value chains of these products, both upstream and downstream, namely the processing of grains for human consumption (drinks, cooking oils) and animal consumption (feed), as well as the emergence of the input industry, agricultural implements, and other derived products such as cleaning products, among others;
- e. Promoting stable incomes for producers, through the rehabilitation of the National Cereals Institute (INACER), the Strategic Food Reserve (REA) or even purchases of national production by state institutions (institutional purchases), creating conditions for the disposal of production at fair prices;
- f. Increasing scientific research and improving quality standards, pest control, soil productivity and improved seeds;
- g. Promoting agricultural development and, consequently, social development (through the development of basic infrastructures and the settlement of people), with the availability of land that has favorable soil and climate conditions for the development of these products, thus contributing to the balanced economic development of these regions;
- h. In the medium term, creating the conditions for exporting these products, both to the southern region and to other regions that are highly demanding in terms of quality standards;
- i. Increasing Angola's resilience to external shocks, such as the recent geopolitical conflicts or Covid-19, as well as climate resilience, making the country more self-sufficient from a food point of view.

3. DIAGNOSIS AND EVOLUTION OF THE PRODUCTION OF GRAINS

3.1. Production segmentation model agricultural

19. The non-mechanized peasant and commercial farming segments, due to their predominantly family labour component and practically non-existent use of mechanization, could be seen as analogous to the term family farms (EAF).
20. On the other hand, the mechanized and industrial commercial farming segments, where there is greater use of wage labour, technology and additional *inputs*, correspond to the term entrepreneurial farms (EAE).

Figure 2: Agricultural production segmentation model



21. According to data from the 2020/2021 agricultural season, in terms of occupation of agricultural land, the EAF have the largest area of land, representing around 92% of the area sown, 92% of the area harvested and 82% of the volume of agricultural products produced in the country.
22. In terms of crops, cereals account for around 74% of the total area sown, and around 920a of this area was harvested.

3.2. Grain production performance and import requirements



23. Overall, there has been a 20% increase in grain production from 2017 to 2021, with particular emphasis on corn (+25%) and rice (+12%).

Figure 3: Global grain production 2017-2021

Row	Culturas selecionadas	2017 Produção (Ton.)	2018 Produção (Ton.)	2019 Produção (Ton.)	2020 Produção (Ton.)	2021 Produção (Ton.)	Absolute (2017-2021)	Relative (2017-2021)
Cereals	 Arroz	9 426	9 699	10 102	10 567	10 514	1 088	12B
	 Milho	2 380 522	2 762 619	2 818 684	2 972 177	2 970 209	589 686	25%
	 Massango	54 431	61 426	37 243	43 981	42 481	-11 950	-22%
	 Massambala	33 463	39 788	32 257	34 991	34 447	984	3f6
	Wheat	8 505	4 474	9 172	9 368	8 100	105	-5%
Legumes	 Feijão	313549	323648	325828	347762	341080	27531	9%
	 Soja	36 001	35 266	37 350	37 961	37 317	1 315	4%
Oilseeds	Peanuts	217 522	212 091	211 776	223 976	222 332	4 810	2%
Total		3 053 420	3 449 011	3 482 412	3 677 783	3 666 478	613059	20b









24. "In terms of consumption, Angola is significantly dependent on imports of these products, having spent USD 819 million on imports in 2021, 38% more than the amount spent in 2017. Of these products, wheat weighed the most, with 37% of the total, followed by rice with ^{320/a}.
25. Even so, in the last year there has been a slowdown in the growth of imports of these products (including rice, which has shown the highest growth rate in the last 5 years), as a result of the policies of the Program to Support Production, Diversify Exports and Substitute Imports (PRODESI).
26. Although sunflower is not relevant in terms of imports, we cannot fail to mention that edible oils are one of the most imported PRODESI products, which is why there are no grain imports, but rather processed products.

Figure 4: Grain imports (USD)

row	Selected crops ¹	Importações (USD)					Growth Rate (2020-2021)	Growth Rate (Annual Average) (2020-2021)
		2017	2018	2019	2020	2021		
Cereais	Rice	23 438	251 691	286 857	347 980	263 462	83W	-2#A
	Corn	161 866	123 793	77 753	71 056	73 259	-18B	3%
Legumes	 Feijão	98 729	82 183	53 994	41 784	24 388	-30%	-42B
Oleaginosas	Peanuts	121	95				-34%	25%
	 Girassol	2 430		7 632	4 476	3 453	9%	-23W
Total		kgf gyl	876485	839 924	845 594	819 622		396

For the emanating years, the mass media are also perte'<en res and fiialacormais do not show impo"aso searches.
Ee Is:Wm tVa5ão TO

Figure 5: Grain imports (tons)

row	Cultures 	Import (ton)					Growth Rate (2020-2021)	Growth Rate (Annual Average) (2020-2021)
		2017	2018	2019	2020	2021		
Cereais	 Arroz	37 420	350 725	455 352	537 971	488 722	90B	-9%
	 Milho	435 506	241 376	209 706	139 762	138 984	-25W	-1%
	 Trigo	588 494	634 134	595 245	768 602	599 461	0%	-22%
Leguminosas	 Feijão	110 345	74 016	49 754	31 085	21 113	-34%	-32R
	 Soja	23 898	144 440	182 055	77 489	98 902	43%	28%
Oleaginosas	 Amendoim	22	362	" "			26' &	110B
	 Girassol	1 415	8 489	" "	ics	"q	10%	
Total		1 197 100	1 453 543	1 498 808	1 558 552	1 349 297	3%	-13%

¹Para os anos em análise, as culturas de massango e massambala pertencentes à fileira cereais não apresentam registros de importações

27. "Average annual growth in the consumption of these products is projected to be around 7% until 2027, as a result of population growth and consumer habits. This plan aims to ensure that this increase in demand will be met mainly through domestic production, which will require a series of measures and investments aimed at the production of these grains.

28. What's more, if we take into account the increase in prices that these products have experienced on the international market, particularly in the last year, PLANAGRÃO also aims to increase Angola's resilience to these phenomena,

a set of essential foodstuffs for which the country has favorable soil and climate conditions.

Figure 6: Grain consumption projections in quantity (tons)



Figure 7: Coverage rate of consumption by domestic production

Fileira	Culture, selections	Taxa Cover of consumption by domestic production							Situação no final do período
		Base Year		Projeção					
		2021	2022	2023	2024	2025	2026	2027	
Cereals	Arroz	2%	2%	6%	17%	27%	36%	45%	Deficitária
	Com	49%	49%	66%	75%	81%	87%	92%	Deficitária
	Massango	100%	100%	100%	100%	100%	100%	100%	Neutra
	Massambala	100%	100%	100%	100%	100%	100%	100%	Neutra
	Wheat	1%	1%	5%	16%	23%	27%	32%	Deficitária
legumes	Feijão	95%	91%	122%	155%	134%	173%	177%	Excedentária
	Soy	17%	17%	26%	26%	31%	34%	41%	Deficitária
Oilseeds	Amendoim	99%	100%	153%	160%	184%	186%	172%	Excedentária
	Girassol							30%	Deficitária
TOTAL		46%	46%	62%	73%	74%	87%	92%	Deficitária

29. With this plan, the rate of coverage of consumption by overall domestic production will be 92%. However, this should be corrected, as the surplus in beans and peanuts could be for export. Therefore, strictly speaking, the corrected total coverage rate, considering that these products will not exceed 100%, will be 86% in 2027.
30. In terms of production storage capacity, Angola has an installed capacity of more than 520,000 tons, the result of a series of infrastructures installed throughout the country. However, this installed capacity is concentrated in the provinces of Malange and Benguela, and is insufficient for the storage needs inherent in the expected increase in production, which is expected to reach close to 11 million tons by 2027.

3.3. Zoning agricultural

31. Agricultural zoning is a fundamental tool for increasing agricultural production and productivity, making it possible to select the most suitable crops for each area, as well as reducing the risk of losses due to climatic issues. Agricultural zoning indicates which crops are recommended for each region or province of the country, according to soil, altitude, climate and rainfall data.
32. In an aggregate analysis, there are 5 major agro-ecological zones in Angola², with zonada “Baixa Tropical” being the one that covers most of the territories of the eastern provinces, and where there is a predominance of grain crops as suitable crops for cultivation in this region.

²FAO, *Review of the agricultural sector and food security strategy for defining investment priorities (tcp/ang/2907)*, 2004.

Figure 8: Production systems by producer class and agro-ecological zone

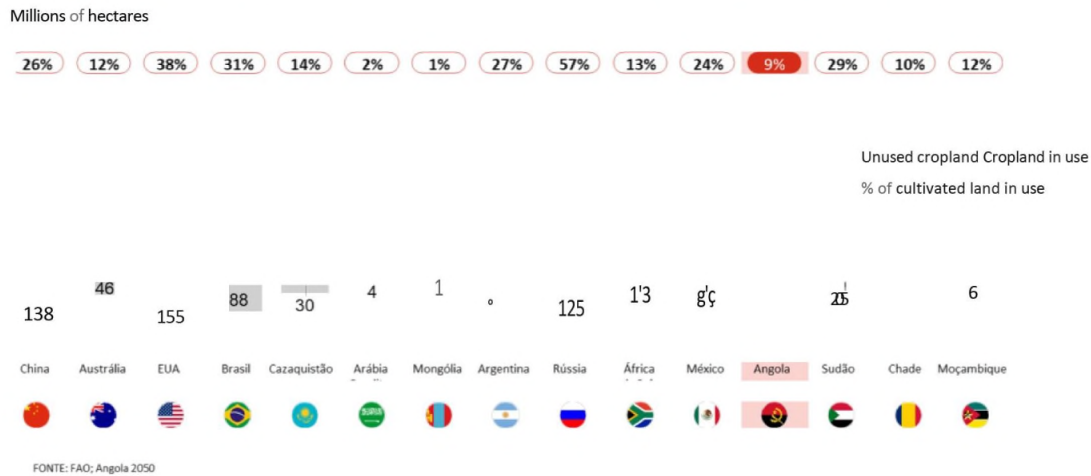
Agroecological Zones	Classes			
	Peasant	Small Producer	Medium Producer	Business Producer
Planáltice (Ranafto do Congo)	Coffee, cassava, peanuts and beans	Coffee, peanuts, corn, beans and sweet potatoes	Coffee, cassava, peanuts, corn, beans and sweet potatoes	Coffee, fruits, corn and beans
Central Planalto (8iú Region)	Maize, feFyao, cassava and sweet potatoes	Corn, beans, rice, wheat, cassava, potatoes, sweets and fruit and vegetables, beans, soybeans, fruit and vegetables potatoes.	Corn, sweet potatoes, fruit and vegetables, rice, wheat and	Corn, beans, reindeer potatoes, sweet potatoes, peanuts, cassava, soybeans and h0f1if0U colSS
Tropical Lowlands (Moxice Region)	Cassava, corn, sweet potatoes, peanuts and beans	Cassava, corn, potatoes candy, peanuts, rice and ugly	Corn, millet, rice, massambala, sweet potato, beans and fruit	Massar0o, massambala, corn, rice, beans and fruit and vegetables.
Low rainfall (Cunene Region)	Massan0o, massambala and corn	Massango, massambala and honifruticolas	Massan0o, massamhala, produce and fruit and vegetables	Massango, massambala and corn
Orla Baixa Costeira (Benguela Region)	Sweet potato, maize, maize, massambala, massango, massambala, massango and beans and peanuts vegetables	Sweet potato, massambala, fruit and	Corn, bananas, potatoes and fruit and vegetables	Corn, beans, sweet potatoes, massambala e vegetables

3.4. Land ownership and concession of use by the State

33. In countries where rural private property exists, the existence of a land title and the legal possibility of using it as collateral to obtain financing can be decisive for banks to grant rural credit. In Angola, land is the original property of the state, and rural private property is replaced by a Use Concession Title with different terms.
34. Obtaining the Concession Title is very important for reducing legal uncertainties about production, both for financial agents and for farmers. The current Concession Title, although not accepted as a real guarantee for financing, reduces the risks for the bank because it indicates that the credit resources for financing and investments will be applied in regularized areas. For rural producers, the regularization of their areas reduces insecurity in making investments and consequently the possibility of losing or having their land taken by the state without compensation.
35. Angola has exceptional agricultural production potential in the world, given the availability of arable land. According to the most recent data from the Food and Agriculture Organization of the United Nations (FAO), Angola is the

12th country in the world with the most unused farmland (approximately 54 million hectares). In the world's *top* 15, Angola is the 3rd country in percentage growth potential of cropland.

Figure 9: Ranking of the 15 countries with the greatest cropland potential



36. The government has adopted a policy of granting land to national and international investors with tax benefits for a few years. In return, it has only required that the area be exploited for a certain period of time.
37. If the granting of land use to large producers and investors is made simpler and more transparent, and requires some level of productive integration with the farmers around the project, these investments could contribute to both the reduction of imports and the local development and economic integration of the communities where they are installed.
38. Regarding the production areas (sown area) needed to achieve these targets, 6,352,073 ha will be needed for PLANAGRÃO, compared to the 4,241,195 ha used in the 2021 campaign, i.e. 2,110,878 ha more, representing an increase of approximately 50%.

3.5. Soil correction and fertilizers

39. Angola has many areas with flat terrain that are easy to mechanize, while most of its soils are suitable for grain production, especially

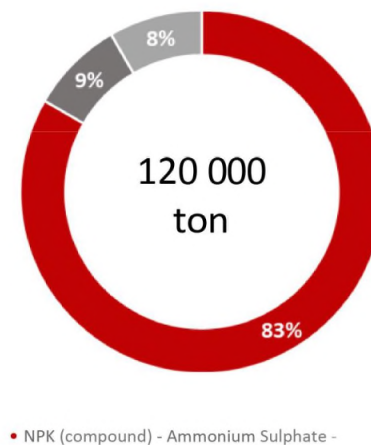
in the provinces of Huíla, Huambo, Bié, Malanje, Uíge, Benguela, Kwanza Norte and Kwanza Sul, are acidic and have a strong presence of iron and aluminum. In this type of soil, the absorption of phosphate and potassium fertilizers by plants tends to be very low, making these fertilizations ineffective in soils not corrected with lime, gypsum or organic matter in the recommended quantities.

40. The relief and the physical and chemical conditions of the soils in these provinces are very similar to those found in the Brazilian Cerrado region. This region, after correcting the soil with lime and phosphate and potassium fertilization, and using crops adapted to its climatic conditions, has become one of the most productive in Brazil.
41. Large national and foreign agricultural producers already use and recognize the need to correct soil acidity in order to produce and increase productivity. Among family farmers, on the other hand, although the majority recognize that the fertility of their soils is low, many are still unaware of the benefits of using soil improvers, or when they do know the advantages of using them, they don't have the financial resources to buy them in the quantities they need.
42. Government actions to support family farmers in soil preparation, such as distributing or facilitating access to animal-drawn or mechanized equipment, tend to produce ineffective results if there are no policies aimed at reducing acidity and increasing soil fertility.
43. In Angola, there are different types of limestone, of good quality, available in large quantities in various provinces, and there is no need to import it. In general, its extraction is simple, as there are limestone rocks outcropping on the surface, especially in the provinces of Huíla and Malanje. Although limestone has a low cost per ton, because large quantities are required per hectare, it ends up requiring significant transportation costs.
44. In the Brazilian Cerrado, for example, the widespread use of lime as a key element in correcting acidity and increasing soil fertility among farmers, especially family farmers, took place in the 1980s and 1990s. The

Provincial governments, through technical assistance and rural extension, demonstrated the positive results of limestone application on productivity by carrying out field experiments with farmers. After convincing them of its importance, the provincial governments subsidized part of the cost of transporting the product to the regions furthest from the limestone production areas. Rural credit also played a decisive role in increasing its use, when it began to encourage its inclusion among the inputs eligible for investment financing.

45. Recognizing the need to improve the application of soil improvers and fertilizers in agriculture, the Angolan government has invested in building equipment for some soil laboratories, thus creating the conditions to make technical recommendations in the country itself. However, some of these laboratories are not operational due to a lack of resources to purchase reagents or a shortage of qualified personnel to operate them.
46. The country currently has two industrial mixing plants in operation in the province of Benguela, and another two are in the process of being completed in the provinces of Benguela and Luanda, but the quantity produced does not meet the needs of the market.
47. As a result of liaison with national companies in the fertilizer subsector, it is estimated that there is less than 10,000 tons of NPK-12/24/12 in *stock on* the national market, around 5,000 tons of ammonium sulphate and less than 1,000 tons of urea.
48. The country's minimum annual fertilizer needs are 120,000 tons, of which 100,000 are NPK, 10,000 ammonium sulphate and 10,000 urea.

Figure 10: Minimum annual fertilizer requirements



49. According to data from the 2019/2020 campaign, the government supported family farming by distributing inputs of 17 products, of which fertilizers stand out, with 9,600 tons of NPK fertilizers, 2,300 tons of urea and 3,700,000 tons of ammonium sulphate.

3.6. Agricultural machinery and equipment

50. The reduction in the availability of labor in the field, the need to increase productivity and technological development have been the driving force behind the technological evolution of the agricultural machinery and equipment sector over the last 30 years. The use of machines guided by the global positioning system (GPS), the use of satellite images and drones to monitor crops is now a reality in the world, but one that is still little used in Angola. Although the development of agricultural machinery and equipment is often focused on production on large tracts of land, there are options available on the market for different production systems and sizes, adapted to the most distinct characteristics of soil, terrain and production activity.
51. According to data from the 2020/2021 Agricultural Campaign Report, of the 5.9 million hectares cultivated in that campaign, soil preparation for cultivation was carried out using tractors on only 141.3 thousand hectares (4.4%). Animal traction was used to prepare the soil on a further 825,614

hectares

(25.7%), while 2,244,620 hectares (69.9%) were prepared manually using mainly hoes. The use of animal and mechanical traction accounted for only 30.1% of the soil prepared.

3.7. Seeds

52. The grain seeds used in Angola are: a) produced by the farmers themselves from a selection of grains produced in the previous season; b) imported directly by producers or by resellers for marketing on the domestic market; c) produced by private companies from the improvement of native or foreign seeds and; d) reproduced in the country by producers and companies on the basis of commercial and cooperation agreements with public companies or international institutions.
53. Large corporate producers usually use directly imported seeds of corn (hybrids), soybeans, rice (irrigated), wheat and, in some cases, beans. Most of these seeds have the genetic potential to guarantee high levels of productivity, but to do so, they need to be grown in appropriate soil, water, temperature and fertilization conditions. Seeds imported for domestic resale have a great diversity of quality and characteristics.
54. For many farmers, the seeds distributed by the government are the only alternative for production, but they are not always the most suitable for the climatic conditions and production systems. Producers' main complaints about the seeds they receive from the government are their quality, the (long) production cycle and late distribution, which compromises production and increases risks.
55. For maize, the main grain grown in Angola, despite the greater production potential of hybrid seeds compared to traditional varieties, their use is currently not recommended for the majority of family farmers. In addition to the fact that producers do not correct the acidity of their soils and few have the fertilizers necessary for the growth of hybrid plants, its




use would make them even more dependent on buying new seeds every year. On the other hand, national seed producers have already developed maize varieties adapted to the climatic and soil characteristics of the central region of the country, with the potential to produce 4 to 6 tons/ha, allowing farmers, provided they are trained, to use selected seeds among the grains produced for a few years. Only when farmers reach this yield, which is 5 times higher than the current average yield, should the use of hybrid seeds be encouraged. The same principle should be considered for massambala and massango seeds.

56. Angola already has its own production of good varietal seeds for some crops, such as maize, peanuts and sorghum. For some of these products, the national limitation is due to the small quantity of seeds produced in relation to the total demand in the country. For others, although their production potential is lower than that of their international competitors, it is much higher than the seeds used by the majority of producers in the country. It is up to the government to stimulate and encourage national seed production, increasing its volume and quality.
57. On the other hand, it is not possible to wait until own seeds are developed to increase agricultural production and productivity in Angola. For this reason, the government should try to encourage the production of registered, certified or inspected seeds of the main crops in the country, even if the seed is foreign-owned. With rapid technological development, it is possible that seed companies, even if they do not operate in Angola, will authorize the reproduction in the country of seeds with good production potential, but which are outdated in their countries, charging attractive prices for Angola for the authorization and availability of the genetic material.

3.8. Factor requirements

58. Taking into account the production forecasts for the selected crops (maize, rice, wheat, millet, millet, beans, soybeans, peanuts and sunflower), the production factor requirements were calculated, as shown in the table below.

Figure 11: Input requirements table

Fileira	Selected culturas	Input requirements						
		Seeds (Ton/ha)	Eenilizers Simple (Ton/ha)	Phenilizer Gates (Ton/ha)	Calcury (Yon/ha)	Fungi Insects (Lt/ha)	(Ton/ha)	Herbicides (Lt/ha)
Cereals		16084	77 883	194 708	833 379	888	888	888
	Corn	564 451	2 059 008	4 632 768	29 363 6dd	3B137	38 137	38 137
	Massango	28 386	146 55d	329 745	2 t52 OAB	2 839	2 839	2 839
	 Massambala	23 J09	t16 037	261 082	t 735 654	2311	t311	2 311
	Wheat	19#72	96 932	187 306	906 606	1038	1 038	1 038
Leguminase	 Feijão	290 620	134 665	830 267	1 443 1d2	9842	9 842	9842
	 Soja	2134A	17 518	105 t10	752 53t	804	804	804
Oleaginases	Peanuts	153 996	59 027	354 165	3 4J6 305	4 472	4 472	4 472
TOTAL		Z t17 2G2	2 707623	6 895 t51	40 603 308	60 331	60 332	60 331

Fonte: Ministério da Agricultura e Pesca

4. SWOT ANALYSIS OF GRAIN PRODUCTION

59. The current challenge facing the national economy is to invest in the promotion and development of agriculture and agro-industry, which are fundamental sectors for promoting the diversification of the economy. It is therefore important to analyze the strengths and weaknesses, opportunities and threats of the strategy to be adopted for grain production, using the SWOT analysis shown in the table below.

Figure 12: *SWOT* analysis

STRENGTH
Existence of a young workforce
Existence of agri-livestock training institutions at national level Existence of water resources
Existence of financial instruments at commercial bank level
Partial exemption from payment of customs duties for agricultural raw materials
Existence of soil and climatic and anthropological conditions
WEAKNESSES

Low productivity of grain crops

Little mechanization in the production, processing and transformation
process High level of soil acidity

Low-quality or uncertified seeds Poor pest and disease control

Poor use of water resources Lack of agricultural
insurance and specialized credit

Use of imports for most agricultural inputs and production factors

Insufficient installed capacity for the process of demarcating land and granting titles

Lack of a designation of origin code Lack of investment
in the agricultural sector

Low population density in the eastern regions

Imperfect agricultural commodity markets and value chains affect both farm profitability
and food security

The skills gap in agriculture limits productivity and profitability

The agricultural sector currently fails to maximize the contribution and benefits for
women and young people

No reference prices for grains

OPPORTUNITY - OPPORTUNITIES

Insertion in the Southern African Development Community (SADC) and the Economic Community of Central African States (ECCAS) with a consumer market of more than 200 million inhabitants and an imminent free trade zone

Privileged relations with the Portuguese-speaking African countries (PALOP) and the Community of Portuguese-speaking Countries (CPLP) with more than 250 million inhabitants

The economic growth of the non-oil sector is creating domestic and regional markets for an increasing range of Angolan agricultural products

A relatively young population will be encouraged into entrepreneurship

Agricultural innovation can help improve food security, increase farmers' incomes and protect natural resources

General rise in world grain prices Availability of arable land

Financial availability for investment in the non-oil sector due to increased oil revenues

THREAT

Importers' domination of distribution chains Slowness and difficulties in accessing agricultural credit

Network of infrastructures to support production and distribution precarious and/or under construction










Escalating prices and scarcity of agricultural inputs on international markets

Demanding regulatory and certification framework for exports to Europe and the US Climate change

5. GOALS TO

60. PLANAGRÃO aims to achieve a set of goals related to (i) increasing the quantity and quality of grains produced, thus replacing the use of imports; (ii) improving productivity, using the available land more efficiently and with better results; and (iii) increasing the land under cultivation, so that production can take place on a larger scale, particularly in the country's eastern provinces.
61. With PLANAGRÃO, by 2027 Angola should produce 92% of its consumption needs in corn, 45% in rice, 32% in wheat, 41% in soybeans and 30% in sunflowers. It will be self-sufficient in massango and massambala and surplus in beans and peanuts, with the conditions to export these two products.
62. In the following tables we present the projections of the targets to be achieved by 2027, on the assumption that all the favorable conditions will be created and the current constraints faced by producers in the agricultural sector will be overcome, as part of the implementation of PLANAGRÃO, and materialized in the proposals in section 6.

Figure 13: Overall goals

Fileira	Culturas selecionadas	2021				2027			
		Área Semeada (ha)	Área Colhida em (ha)	Produção (Ton)	Produtividade (Ton/ha)	Área Semeada (ha)	Área Colhida em (ha)	Produção (Ton)	Produtividade (Ton/ha)
Cereais	 Arroz	8 572	8079	10514	1	109708	98737	268790	2,7
	 Milho	2 741 051	2 592 239	2 970 208	1,1	391 066 1	351 980 8	791 929 1	2,5
	 Massango	239 747	154 885	*2A81	0,2	315 951	284 356	340 278	1,20
	 Trigo	151 828	121 025	34 447	0,2	245 919	221 327	243 460	1,10
	 Girassol	13 721	11 06	8 100	0,6	131 696	118 526	220 891	1,86
Leguminosas	 Feijão	698 972	675 124	341 081	0,5	1 046 679	945 194	1 069 311	1,13
	 Soja	36 437	35 565	37 317	1,05	74 962	68 929	154 652	2,24
Oleaginosas	 Amendoim	350 824	329 508	222 332	0,67	462 602	417 199	547 673	1,41
	 Girassol								
Total		4 241 195	3 929 551	3 666 479	0,93	6 352 073	5 722 360	10 788 644	1,89

Fonte: Ministério da Agricultura e Pecuária

63. The aim is to achieve a total production of 8,992,710 tons of grain from the selected cereal crops, with an average 12% increase in the productivity rate, 1,223,963 tons of grain production from the

selected crops from the legume row with an average 15% increase in the productivity rate and 571,971 tons of grain production from selected crops from the oilseed row with an average 10% increase in the productivity rate, giving a total production of approximately 10,788,644 tons.

64. Regarding the production areas (sown area) needed to achieve these targets, 6,352,073 ha will be needed for PLANAGRÃO, compared to the 4,241,195 ha used in the 2021 campaign, i.e. 2,110,878 ha more, representing an increase of approximately 50%.
65. The following assumptions were made for these estimates: *i)* the rural population is growing by 3%/year in line with the estimated growth of the general population, *ii)* the introduction of mechanization will allow entrepreneurs (EAFs) to increase the areas they cultivate, *iii)* significant investment will be made in resource training, improved seeds and soil correction, which will allow productivity rates to increase, *iv)* there will be a state investment program in infrastructure development, subsidies for productive factors and credit for companies.

6. GUIDELINES FOR THE IMPLEMENTATION OF PLANAGRÃO

6.1. Scope territorial

66. PLANAGRÃO will cover the national territory, with a production target of 10,788,644 tons of grain (including corn, rice, wheat, millet, millet, beans, soybeans, peanuts and sunflowers), with a focus on corn, rice, wheat and soybeans, and in the provinces of eastern Angola, specifically Lunda Norte, Lunda Sul, Moxico and Cuando Cubango. These are regions with high land availability, rainfall of over 1 200 mm/year and soils suitable for the production of the selected crops, according to the zoning presented above.

6.2. Research scientific

67. To reform and optimize the industrial structure and the agricultural system in order to guarantee the implementation of the policy of grain promotion and production, emphasizing scientific research and *stock* management, with a view to increasing the level of intensive agriculture in grain production and the rate of use of agricultural resources, based on science, technology and education.
68. Invest in the Instituto de Investigación Agronómica, the agricultural research body, to improve research services, especially in the field of knowledge (training more breeders) and the testing and transfer of technologies.
69. Investing in applied research, based on multi-location trials, is fundamental in determining the most productive varieties, depending on the soil and climate conditions of each region. Genetic improvement work and the production of basic seed, which is delivered to companies that produce certified seed, is also the subject of applied agronomic research, based on pure (homozygous) lines and their parents. These services will be

complemented by soil and plant pathology analysis, also carried out in the Institute's laboratories.

70. Articulate the actions of the Instituto de Investigação Agronómica with similar research institutions such as the Empresa Brasileira de Pesquisa Agro-pecuária (EMBRAPA), the Centro Internacional de Melhoramento do Milho e do Trigo (CIMMYT), the Centro Internacional de Agricultura Tropical (CIAT), the Instituto Internacional de Investigação do Arroz (IRRI), the Center for International Cooperation in Agricultural Research for Development (CIRAD), among others, namely in the production of pre-basic and basic seed and in multi-location trials, with these research institutions, mainly in the transfer of highly productive genetic material (germplasm), will allow for an increase in agricultural grain productivity in our country in the short term. The experience of agricultural development programs in the Brazilian Cerrado has shown, through research, that it is possible to correct acidic soils, considered to be not very fertile, through fertilizers and lime, making them suitable for agricultural production, with high levels of productivity.
71. Articulate with national seed production companies the production of good quality certified seeds. This action should be overseen by the Angolan Institute of Agronomic Research (IIA) and should be coordinated with the national seed production companies that carry out this activity. At international level and given the similarities in production schemes, a partnership with Zambian seed production companies would also be desirable.
72. Activate the academic network to ensure that the cooperatives are monitored.
73. Build a strong, demand-driven research sector that develops and disseminates locally adapted inputs, technologies and innovations to improve productivity and mitigate risks.
74. To develop agricultural research and disseminate improved varieties and breeds, as well as new approaches and technologies in areas where irrigation plays a key role in improving crop and land productivity,

promoting sustainable land use and intensification, mitigation and adaptation to environmental degradation and current and future climate risks.

75. Emphasizing research in areas such as soil health and fertility, pests and diseases and the development of resistant varieties and animal breeding, integrated agricultural systems - including climate smart agriculture and crop-livestock integration - and in previously underexplored areas; specifically fisheries and aquaculture.
76. Create research and extension structures at the local MINAGRIP level. To this end, the necessary investments will be made to improve and maintain national and decentralized agricultural research, including the modernization and construction of new laboratories, research stations, greenhouses and post-harvest research facilities. These facilities will be equipped with the latest information and communication technology (ICT) equipment and information and documentation systems.

6.3. Training

77. Focusing staff training on a number of areas that have become more pertinent in the face of the modernization sought in the agricultural sector. This includes research on long-term trends in climate and their impact on agriculture (including changes in agro-climatic zones and the suitability of crops, livestock and the value chain) and gender-sensitive socio-economic research on the impact of technologies.
78. Support experimental and innovative projects aimed at improving skills and extending the practical use of ICT in agricultural research.
79. Investing in the training of specialized technical staff in the sector, particularly young farmers.
80. Developing a modern, quality cooperative model by disseminating good management practices, training staff and modernizing technology, among other things.

81. Work with universities to develop increasingly specialized agronomy courses, both for productive areas and for the reality of Angola.
82. Diversify the areas of training, which should focus not only on the direct production of grains, but also on the operation and repair of agricultural machinery, the marketing and industrialization of production, in order to develop production chains.
83. Sending young people from agricultural science schools and agro-livestock technical schools to boost agricultural production in the future irrigated perimeters. Regardless of who benefits from the land, everyone will need to receive training and skills to operate irrigated production, as well as technical assistance and access to rural credit to develop their activities.

6.4. Production

Soils and fertilizers

84. Encouraging and subsidizing limestone production. The limestone industries, as well as contributing to increased agricultural production, can become an opportunity for private investment. For this reason, it is recommended that the government encourages the restructuring and modernization of the current limestone extraction industries, as well as facilitating the granting of limestone quarries, the installation of new industries and ensuring the distribution of limestone to the regions most in need.
85. Facilitate and simplify imports of fertilizers in bulk, as long as national production is not available. Domestic production of fertilizers and nitrogen fertilizers is crucial if Angola is to increase the productivity of its crops, particularly in the current geopolitical context. Nitrogen fertilizers and other by-products for industrial use can be destined both for the domestic market and for export, especially to countries on the African continent.

86. Adopt a strategy to control fertilizer prices on the domestic market, seeking to reduce their cost, through the application of regulatory measures similar to those of the REA, in which the state should set up a fertilizer reserve to be injected into the market in the event of a reduction in supply in a given period. It is also suggested that fertilizers be included in the set of products with monitored prices.
87. Create more public soil laboratories. Especially in the regions selected by the Plan, to carry out sample analyses to control the quality of fertilizers imported and sold on the domestic market.
88. Subsidizing the supply of fertilizers, through the recently approved policy measures to reduce the retail price of fertilizers for the 2021/2022 Agricultural Season, particularly for EAFs. Given the significant increase in fertilizer prices on the international market, the government should continue and intensify subsidies for these products, particularly for EAFs. It should be noted that this is an investment that the government will make with a view to increasing GDP, boosting employment, reducing imports and the foreseeable increase in tax revenue through the formalization of the economy and indirect taxes.

Mechanization

89. Facilitating the import of agricultural machinery, equipment and tools, regardless of whether they are for manual use or for use with animal or mechanical traction.
90. Encourage more companies to set up assembly lines and/or manufacture machinery and equipment in Angola to avoid high prices.
91. Require a minimum after-sales service for agricultural machinery and equipment. Among the after-sales services, importers and manufacturers of these goods should be required to keep a minimum replacement stock of the most requested parts, and to guarantee the rapid import of parts not available in the country. Domestic dealers of agricultural machinery and equipment should be required to maintain a minimum number of

technicians, in-house or outsourced, who are trained and distributed throughout the territory in which they operate so that they can carry out the main maintenance and repair services for the machines and equipment they sell.

92. Encouraging the establishment in the country of metallurgical industries involved in the production of agricultural machinery and equipment, particularly hand tools, animal and mechanical traction equipment, stationary machinery and irrigation equipment. In addition to the incentives normally granted by the government, private investment in these industries can be made more attractive if the government, for example through MINAGRIP, commits to acquiring a minimum amount of equipment in the first few years.
93. Facilitating the import of renewable energy production equipment (exemption from customs duties and other taxes) to encourage independent energy producers (IPPs) to install their own energy production networks, particularly in places where the public grid does not reach, not only for self-consumption, but also to sell any surplus production. This measure has a dual objective, not only to increase the national electricity grid, but also to promote the use of cleaner energies for the environment.
94. Facilitating access to the public electricity distribution network, whenever feasible.
95. Study mechanisms to subsidize energy and fuel costs for grain production, so that production costs are contained.

Seeds

96. Intensify the production of basic seed, through technical and commercial cooperation agreements between the IIA and seed producers, of crop varieties adapted to the other agro-ecological zones where grain production is to be intensified.
97. Whenever possible, purchase seeds from domestic producers through the government's existing distribution program for family farmers.

98. Create standards and procedures for the certification of grain seeds adapted to Angola's soil and climate conditions.
99. Ensure the supply of certified seeds, either directly through public or private entities.

6.5. Marketing

100. Supporting the creation of logistics centers, preferably private, for marketing inputs and technical support materials, as well as guaranteeing storage for the purchase of grains for later marketing. This would involve, among other things, reactivating the National Cereals Institute or the Corn Guild, expanding to all grains. It is intended that this institute will not only be responsible for monitoring the Plan but also for carrying out concrete actions, namely:
 - a. Maintain a strategic reserve of improved seeds, the most suitable for Angola's climatic conditions and terrain;
 - b. Marketing seeds at controlled prices to EAF and Cooperatives;
 - c. Promote the creation of future purchase contracts between producers and the processing industry;
 - d. Ensuring the purchase of part of the production in order to guarantee price stability and outlets for the EAF;
 - e. Ensure that silos or warehouses comply with international storage standards (insulation, temperature, humidity), safeguarding the quality of the packaged products;
 - f. Providing technical assistance to cooperatives and EAFs;
 - g. Ensuring production quality control with frequent analysis of product samples.
101. To conclude purchase and sale contracts between the Strategic Food Reserve (SFR) and the logistics centers, specifying the terms and conditions of their acquisition.

102. Create marketing standards for the main grains produced in Angola, especially corn, rice, wheat and soybeans. Classification can help create reference prices for agricultural products, allowing for a better comparison of prices between different producing regions, including with imported products.
103. Encouraging the drawing up of future purchase contracts in order to provide producers with guarantees for the disposal of production, as well as ensuring the supply of raw materials to the industry.
104. Promote the institutional purchase of national production. Public entities (Armed Forces, Police, Health, Schools, etc.) should give equal preference to national grains over imported ones.
105. Mapping and supporting a structured network of freight transport operators (FTOs) dedicated to rural trade in a more specialized way.
106. Revitalizing rural markets in Angola, namely by boosting existing storage and disposal infrastructures, promoting national products, applying local regulations on street and fair trade and encouraging the purchase of national products under the integrated rural trade development programme.
107. Revitalize the rural marketing chain with technical support for marketing, payment systems and the sale of agricultural inputs to associations, cooperatives and individual producers.

6.6. support infrastructures

108. Promote the rapid implementation of programs to repair municipal roads considered a priority in support of PLANAGRÃO, to allow communication between production areas and marketing areas. In the agricultural development program for the Brazilian Cerrado, the role of the state is to

in promoting the construction of infrastructure and access roads, was fundamental for the flow of production.

109. Ensure that water resources are made available to promote the irrigation system, particularly in rice and corn production areas.
110. Encouraging the provision of basic social infrastructures that allow the population to settle, namely housing, schools, hospitals, health centers and electricity.
111. Delimit and subdivide around 2 million hectares for grain production. The state will provide and maintain secondary and tertiary access roads in these allotments, even if they are dirt roads with tout-venant. Accesses inside the farms will have to be part of the business project promoted by the developers. These allotments, provided they are properly delimited, could become free zones or benefit from tax incentives similar to those of free zones.

6.7. business environment

112. Speed up the process of revising the Land Law so that it provides the necessary guarantees of stability for entrepreneurs and the financial system, as well as streamlining the process of granting land.
113. Create a database containing all the areas available for Concession of Use to national or foreign investors, with basic information on each one. In addition to georeferencing each area, it should include information on the condition of access roads, distance to paved roads, availability of water and electricity and the main crops recommended for the region.
114. Create one-stop shops for companies in all the provinces of eastern Angola, according to a geographical distribution to be defined, but which will make it more accessible to start a business.

115. Simplifying the process of starting a business by creating the concept of a company on the spot, as well as exempting people from paying the fees involved in starting a business.
116. Create incentives to attract young farmers with a set of training measures, simplifying the granting of land, financing and other support.
117. Guarantee competitive tax benefits through:
 - a. Creation of free zones in the delimited and allotted areas, and which comply with the previously defined requirements, in order to enjoy the tax benefits already legally established, in accordance with the state's strategic interest. According to Article 7 of Law 35/2020, which regulates the creation of free zones, all types of private investment that promote the development of agro-industry, including the production of raw materials; or
 - b. Revision of the Tax Benefits Code to include specific benefits for grain producers.
118. Applying the incentives and tax benefits provided for in the contractual regime of the private investment law, thus allowing the package of benefits to be adapted to the needs and objectives of the projects. Structuring projects can benefit from the tax incentives of the private investment contractual regime: Industrial Tax, Property Tax, Capital Gains Tax and Stamp Duty, for a period of up to 15 years, with a tax reduction of up to 99%.

6.8. Resources human

119. Reinforce the staff of MINAGRIP and local administrations with specialized technicians (number of technicians needed by each MINAGRIP body), as follows:
 - i) MINAGRIP Central Body: 100 Technicians;
 - ii) Institute for Agrarian Development "IDA": 1,560 Technicians;
 - iii) Institute for Agronomic Research "IIA": 64 Technicians;
 - iv) National Cereals Institute: 60 Technicians.
120. Create and implement an internal labor migration policy to increase the supply of labor in sparsely populated places.

7. RESOURCES FINANCIAL

121. PLANAGRÃO is a five-year plan that will mobilize major public and private investment. Below is a summary table of the financial effort planned for implementing the program:

Figure 14: Table of investment amounts ('000)

Designação	2023	2024	2025	2026	2027	TOTAL	
Recursos Materiais (Factores de Produção)	189 806 794	218 522 391	254 092 767	291 944 898	334 629 187	1 288 996 037	
Recursos Humanos	932 712	1 073 820	1 248 613	1 434 619	1 644 369	6 334 133	
Equipamentos e Infra-estruturas	173 484 342	199 730 539	232 242 038	266 839 072	305 852 721	1 178 148 712	
Serviços (Mecanização, Transporte, etc)	85 368 698	85 368 698	85 368 698	85 368 698	85 368 698	426 843 490	
Gestão, Monitorização e Avaliação	250 000	334 370	447 214	598 140	800 000	2 429 723	
Total	449 842 546	505 029 818	573 399 329	646 185 426	728 294 975	2 902 752 095	
FACRA	20 000 000	20 000 000	20 000 000	20 000 000	20 000 000	100 000 000	
Total	20 000 000	20 000 000	20 000 000	20 000 000	20 000 000	100 000 000	
TOTAL CONJUNTO	AOA	469 842 546	525 029 818	593 399 329	666 185 426	748 294 975	3 002 752 095
	USD	939 685	1 050 060	1 186 799	1 332 371	1 496 590	6 005 504

Fonte: MINAGRIP; MEP

Taxa de câmbio | 1 USD = 500 AOA

122. Over the five years of the Plan, an overall investment of Kz 3,002.75 billion is planned, to finance infrastructure and equipment (Kz 1,178.15 billion), the purchase of inputs (Kz 1,289 billion), support for mechanical means of treating land and crops (Kz 426.84 billion), reinforcement of technical staff in the Ministry of Agriculture and Fisheries (Kz 6.3 billion) and Control and monitoring of the Program (Kz 2.4 billion).
123. Part of this investment will take the form of investment projects público ($\approx 58\%$), outra parte através do reforço financeiro das instituições públicas credit support (BDA, FADA and FACRA) in the form of loans at rates competitivas ($\approx 42\%$
124. It will therefore be necessary to increase BDA funding by Kz 200 billion/year, FADA by Kz 30 billion/year and FACRA by Kz 20 billion/year, for a total of Kz 1,250 billion over the five-year period.

Figure 15: Table of funding sources (000)

Equipamentos e Infra-estruturas							
Investimentos Públicos	Recursos materiais subvencionados	14 806 794	43 522 391	79092767	t.1694489B	159629187	4t8996037
	Serviços (Mecanização, Transporte, etc)	30368698	30368698	30068698	3036869B	30368698	1538#3490
	Recursos Humanos	932 7t2	2 073 820	1 248 613	1 434 619	L 644369	6 334 \33
	Management, Monitoring and Evaluation	250 000	334 170	4472t4	598 140	800RIO	2 429 723
	Recursos Materiais (Factores de Produção)	175 000 000	175 000 000	175 000 000	175 000 000	175 000 000	875 000 000
Serviços (Mecanização, Transporte, etc)	25 000 000	25 000 000	25 000 000	25 000 000	25 000 000	125 000 000	
			30 000 000				
			20 000 000				
			250 000 000	2			
			93 399 329	664			
			1 186 799				

Legenda: Recursos para suprir as necessidades identificadas pelo MINAGRIP
 Resources for institutional financial reinforcement

Taxa de câmbio | 1 USD = 500 AOA

126. Private banks should also be mobilized for the programme, through the continuation of initiatives such as the current Notice 10/22 of the National Bank of Angola (BNA), which allows commercial banks to use part of their mandatory reserves with the BNA to support projects in certain sectors that are seen as priorities, at more favorable interest rates.
127. For public investments, the government may resort to external financing, negotiating financial resources with the World Bank, the African Development Bank, the European Union, among other entities.
128. In the Cerrado's rural development program, the Brazilian government promoted rural credit, albeit at negative real interest rates (below the inflation rate), which was fundamental to making investments and agricultural development in the region viable.
129. Study the possibility of creating a retail bank specializing in agricultural credit, from a mutualist perspective, and with specific financial products.
130. Providing agricultural insurance with public and private insurance institutions. Specific insurance for the agricultural sector can help entrepreneurs mitigate the risks of their activity. At this point, particular attention is drawn to the differences in the needs of EAFs, Cooperatives and EAEs.

8. GOVERNANCE AND INDEPENDENT SYSTEM OF CONTROL

131. The rapid transformation of agriculture for economic growth and food security at farm level will require strategic investments in production, value chains and support infrastructure. PLANAGRÃO defines the guiding principles for public investment in the sector, with the aim of increasing the quality of public investment and attracting private investment to achieve the policy objectives. Thus, the following principles will be used to determine the alignment between public and private investment:

The public sector acts as a market facilitator to leverage private sector investment and harness its full potential;

Ensuring the provision of targeted, quality public goods that benefit society but would be insufficient by the private sector (e.g. infrastructure, research, education, social protection, emergency response, etc);

Ensuring an enabling environment through predictable and stable agricultural policies and regulatory and legislative frameworks with rules-based market interventions;

Address market failures through appropriate instruments and incentives, better coordination and information management and through capacity building.

132. The Executive must guarantee:

Targeting interventions, recognizing the needs and ambitions of different farmers, with flexibility in implementation to maximize impact;

Subsidiarity, allowing local governments to lead planning at local level and the provision of frontline services, complementing and supporting Provincial Development Plans;

Allotment of land and conditions of access to the plots, through the construction of secondary and tertiary access roads in rammed earth with tout-venant;

Strengthening the role of the Agrarian Development Institute (IDA) as a key player in implementing agricultural policies throughout the country, in particular the implementation of PLANAGRÃO;

Investment will be driven by the private sector: the Executive recognizes the central role that the private sector will play in the transformation from subsistence to commercial agriculture. The change will be driven by investments from private actors, from small farmers and cooperatives to commercial farms in production suppliers, inputs and support services, traders/exporters, agro-processors and agro-producers.

133. Create a system to control the support to be granted so that the whole process has credibility and it is possible to check that the producer is benefiting from the prices to be practiced and included in the monitored prices, as stated in Presidential Decree 206-11 - Approves the General Bases for the Organization of the National Price System.
134. Create a Multisectoral Plan Supervision Commission, coordinated by the Minister of State for Economic Coordination and made up mainly of the Ministers of Economy and Planning, Finance, Agriculture and Fisheries, Industry and Commerce and Public Works and Spatial Planning.
135. The Multisectoral Commission mentioned above will be supported by a Technical Monitoring Unit, coordinated by the MEP and made up of representatives of the member ministries for periodic monitoring and any necessary revision proposals.

ANNEXES

A. GOALS

Figure 16: Targets for the EAF












Cereais	 Arroz	S 701	5 501	5 310	o.e	75 256	67730	135 #1	Z . W
	MBho	2 512 106	2 375 805	2 374 495	1	3 584 530	3 226 077	6 J52 155	2,B
	 Massango	Z338B9	150 907	40 643	o,z	305 407	274 866	329 839	1,70
	 Massambala	1S1 208	1J0*50	3t0S0	0,2	2V 803	2T0323	2*2J5S	1,10
Leguminosas	 Trigo	13 413	12 797	7 904	o,s	59855	53869	g H8	1,70
	 Feijão	640 036	618 378	301 267		940 594	846 535	931 188	1,10
	 Soja	202W	23 855	25 250	1	45698	41 129	74 031	1,80
Oleaginosas	 Amendoim	334 950	314 749	210555	0,6	4Z4029	390626	507014	1,30
	e.-					22 386	20 147	10 074	
Total		3 915 547	3 622 442	2 999 474	0,83	5 712 556	5 14t 302	8 774 495	1,71

Figure 17: Targets for EAEs

Fileira	Culturas selecionadas	2021			2027				
Cereais	 Arroz	2 871	2 578	5 204	2,02	34 452	31 007	133329	
	 Milho	228 986	216*Z4	595 713	2,t	326030	293*27	14d7136	5,00
	 Massango	5 858	3 978	1838	0	10 544	9490	10439	1,10
	 ---				0,	1 116		1105	1,10
	 Trigo	311	20e	196	0,6	71 841	6t657	12931B	2,00
Leguminosas	 Feijão	58 936	56 74z	39 813	o,7	106 085	98 659	138 122	1,40
	 Soja	12193	11 Z30	120 67	t,0	29263	278D	80 620	2,90
	 Girassol		Não disponível			31610	28 449	14 225	0M
Total		325 649	3071CG	667005	2,17	639 515	581 066	2 014 150	3,47

Fonte: Ministério da Agricultura e Pesca

B. LIST OF SILOS INSTALLED AT ANGOLA

Figure 18: List of silos installed in Angola

INFRASTRUCTURE	LOCATION	INSTALLED CAPACITY (STORAGE)
Matala silo complex	Huíla/ Caconda	4,250 TON
Ganda silo complex	Benguela/ Ganda	2,000 TON
Catete silo complex	Catete/ Luanda	2,000 TON
Caala silo complex	Caala/Huambo	1,330 TON
Catabola silo complex	Catabola/ Bié	1,330 TON
Silos on the Pungo Andongo farm	Malange	30,000 TON
Quizenga farm silos	Malange	4,300 TON
Silos on the Quizenga II farm	Malange	9,000 TON
PIPE Farm	Malange	1500TON
Monte Negro Farm	Malange	9,500 TON
Sopemba Farm	Malange	35,000 TON
Silos at the Pedras Negras farm	Malange	27,500 TON
Cristalina Farm	Malange	4,500 TON
Silos at the Sanza Pombo farm	Uíge	3,000 TON
Silos at Camacupa farm	Bié	22,000 TON
Kimucundo Farm	Bié	10,000 TON
Silos at the Cuimba farm	Zaire	12000 TON
Silos at the Longa farm	Cuando Cubango	9,000 TON
Silos at Camaiangala farm	Moxico	5700 TON
Silos on the Manquete farm	Cunene	5,000 TON
Cubal farm silos	Benguela	4,300TON
Kambondo Farm	Kwanza Sul	2000 TON
Santo António Farm	Kwanza Sul	6,000 TON
SEDIAC	Kwanza Sul	20,000 TON
Aldeia Nova Company	Kwanza Sul	20,000 TON
Ndumbave Nest	Huambo	870 TON
Leonor Carrinho	Benguela	150,000 TON
Angola's major mills	Luanda	60,000 TON
Induve	Luanda	58,000 TON

C. SUMMARY OF INSTALLED CAPACITIES FROM PRODUCTION

Figure 19: Installed Production Capacity

Installed Production Capacity				
Product	UM	Production Cap. Installed (Actual)	Annual raw material requirements (to be installed)	Labor Status (Total)
Fuba de Bombó	Ton	1500		1 500
Fuba de Mil ho	Ton	465650	150000	615 650
Wheat flour	Ton	1 307 000	807000	2114000
Animal feed	Ton	580800	100000	680800

Figure 20: Need for Raw Materials for Industry

Need for raw materials				
Product	ONE	Current	New Projects	Total
Cassava	Ton	6 150		6 150
Corn	Ton	906060	240000	1 146 060
Wheat	Ton	1 633 750	1 008 750	2 642 500

D. AVAILABILITY OF STORAGE INFRASTRUCTURES AND DISPOSAL

Figure 21: MINDCOM's logistical infrastructure

Categorization		Characterization - Situation (7.1 + 8.1)					
		Shipbuilding	Size - Areas (m ²)				
Name			Land	Const.	Cold (+)	Cold (-)	Dry
CLOD Viana	Km 30	4	2 404 674	9 150			
MAB Viana 1	CLOD Viana	4	48 144	16 908	2 100	2 100	12 681
MAB Viana 2		2	56 924	15 332	2 500	2 500	
MAB Viana 3		5	52 671	12 362	2 730	2 730	
EL Viana 1		6	111 647	36 116			13 000
EL Viana 2		2	109 433	25 044			25 000
EL Viana 3		1	88 509	15 182	2 500	2 500	10 000
MAB Benfica		Isolated	6	55 515	17 500	250	250
EL Gabela	6		30 000	10 000	250	250	
MAB Quibala	2		17 452	5 680	250	250	2 080
MAB Cabinda	1		19 200	6 000	300	300	3 000
MAB Ondjiva	3		22 016	5 860	250	250	1 900
EL Chinguar	3		29 258	4 856	500	500	2 700
EL Calenga	3		39 047	5 700	410	410	2 900
EL Catumbela	2		39 341	9 492	500	500	7 000
Total (without CLOD Viana)			40	689 157	176 032	12 290	12 290
Total (with CLOD Viana)		44	3 093 831	185 182			

Source: MINDCOM, 2020

E. CHARACTERIZATION OF THE SELECTED CROPS

Maize cultivation

The overall controlled area of maize production ranged from 2,638,714 ha in the 2016/17 agricultural year to 2,741,091 ha in the 2020/21 year, increasing by 3.8% over this period for both family and business farms. Just over 90% of the total area cultivated was by family farms.

Productivity on family farms ranged from 879 kg/ha to 999 kg/ha, while on business farms it was twice as high, ranging from 2214 kg/ha to 2752 Kg/ha. This superiority can be explained by the fact that production is carried out using good practices and a better combination of agricultural inputs on business farms.

Product Group: Cereals		
Production	Main Product	Subsidiary Products (Exemplos)
 Corn	Ração Animal	Fubá, Farinha, cereais matinais, -Produção de combustível (etanol) Indústria farmacêutica -Brewery Industry

Rice cultivation

National rice production rose from 9,426 tons in the 2016/17 crop year to 10,514 tons in the 2020/21 crop year, corresponding to an increase of 11.5%.

Productivity on family farms (961 - 1050 kg/ha) was relatively lower than productivity on business farms (1819 - 2049 kg). While the average productivity between family and business farms ranged from a minimum of 1,295 tons/ha to a maximum of 1,337 tons/ha.

Product Group: Cereals		
Production	Main Product	Subsidiary Products (Examples)
Rice	Direct Consumption	-Brewing Beers -Making biscuits, breakfast cereals, etc.

Wheat cultivation

Statistics show that local wheat production is incipient, ranging from 11,552 tons in the 2016/17 agricultural year to 13,724 tons in the 2020/21 agricultural year, considering an increase of 18.79%.

The national average productivity between family and business farms varies between 618 kg/ha and 736 kg/ha.

Product Group: Cereals		
Production	Main Product	Subsidiary Products (Examples)
Trigo	Animal feed	-Wheat flour, breakfast cereals, etc. -Drèches, soluble from distillation from TNgo, etc

Massango culture

The area under cultivation of massango has remained relatively stable over the five-year period, both in the family farming sector, which is predominant, and in the business sector. On family farms, the largest area was cultivated in the 2016/17 agricultural season followed by a reduction and then an increase in the third and fourth agricultural seasons and again a reduction (2020/21).

This state is largely due to the occurrence of drought episodes in most of the agricultural years in the period under analysis and, probably, with the loss of cattle used in land preparation at the root of this variation. Similarly, there were no major variations in the area worked on business holdings, with the largest recorded in 2016-2017 (6135 ha) and the smallest in 2017-2018 and 2018-2019 (5862 ha and 5862 ha, respectively). The downward trend observed in national production contradicts the high rate of

population growth in the region, where the soil and climate conditions make the cultivation of massango favorable and traditional.

Product Group: Cereals		
Production	Main Product	Subsidiary Products (Examples)
Massango	Direct Consumption	-Transformation into a drink -Animal feed

Massambala's culture

As with the cultivated areas of massango, family farms are the producers of the very large proportions of massambala production (97.37% - 98.79%), which showed a decrease from the 2016/17 to 2017/18 crop year, followed by an increase and stability in production in the 2018/19 to 2020/21 crop years.

Although the yields observed in the production of massambala in the period under analysis are relatively higher than those of massango, ranging from 261 kg/ha to 283 kg on family farms and from 558 kg/ha to 705 kg/ha on business farms, they are still very low compared to the country's needs.

Product Group: Cereals		
Production	Main Product	Subsidiary Products (Examples)
Massambala	Direct Consumption	-Animal feed

Fei8o Culture

Beans are a widely accepted food throughout the country and rank second in terms of cultivated area, just behind corn. Similarly, family farms cultivate a very large proportion of the area (90.86% - 91.57%) compared to the area cultivated by corporate farms (8.43% - 9.14%).

The areas of family farms during the five-year period under review increased from 585,479 ha to 640,036 ha, corresponding to a 9.3% increase, while the areas cultivated on business farms showed a negligible increase (58,739 ha - 58,936 ha).

Product Group: Legumes		
Produção	Main Product	Subsidiary Products (Exemplos)
Beans	Consumo Directo	-Industrial use in the form of flour -Industrial use in the form of canned beans

Growing Peanuts

Statistics from the agricultural campaigns carried out in the five-year period under review show that corporate farms cultivated peanuts on insignificant areas (15,655 ha - 16,618 ha) compared to the areas of family farms (308,828 ha - 334,950 ha), which produce just over 90% of the peanuts consumed on the national market.

However, productivity is very low both on family farms (655 kg/ha - 675 kg/ha) as well as on corporate farms (701 kg/ha - 798 kg/ha), proving to be a great investment opportunity.

The peanut is a strategic product whose large-scale production could be a raw material for the country's much-needed cooking oil, condiment and confectionery industries. In this context, establishing a strategy to promote peanut production is essential.

Product Group: Oilseeds Main		
Peanut	Product	Subsidiary Products (Exemplos)
productio	ConMmo Direct	-Making oil, butters, sweets, etc -Paints, varnishes, etc.

Soybean cultivation

Soybean cultivated areas on family farms showed a downward trend from 2016/17 to 2020/21 (27,852 ha - 24,244 ha), representing

annually around two-thirds of the global area, while the area cultivated by corporate farms is on an upward trend.

The areas cultivated with soya in this period were larger than those planted with wheat and rice, either individually or together.

On the other hand, soybean production in the period under review rose from 36,001 tons in the 2016/17 season to 37,317 tons in the 2020/21 season on family and business farms. The yields seen on the two types of farms show no significant differences, which suggests that business farms are probably not introducing better practices and techniques that could make a difference.

Product Group: Legumes		
Production	Main Product	Subsidiary Products (Examples)
Soy	Direct Consumption	-Soybean oil, tofu, soy sauce, soy milk, etc. -Cosmetics, plastics, paints, etc.

Sunflower cultivation

Studies describe sunflower as a crop with a broad capacity to adapt to different latitude, longitude and photoperiod conditions. On the other hand, its greater tolerance to drought, lower incidence of pests and diseases, as well as nutrient cycling, especially potassium, are some of the factors that have enabled it to expand and consolidate as a technically and economically viable crop in production systems.

It should be noted that Angola does not have any production records for this crop in its agricultural statistics reports.

Product Group: Oilseeds		
Production	Main Product	Products Subsidiaries (Examples)
GI dSSOI	Edible oil	-Biodiesel Seeds used for human and bird food -Cosmetics industry

F. PROMOTING GRAIN PRODUCTION– THE BRAZILIAN“CERRADO CASE STUDY”³

The programs aimed at developing the Brazilian Cerrado were an extension of a political project that began in the mid-1960s and sought the orderly occupation of Brazil's Midwest, as well as promoting its economic development through the agricultural expansion of the region.

The agricultural expansion of the Cerrado is related to the process of occupation of the region, and can be understood as the extension of a project aimed at modernizing the productive sector of the Brazilian economy, as a mechanism for growth. Within this logic of modernization, Brazilian agriculture underwent a process of transformation that sought independence in the global agri-food system and which, in the meantime, ended up conditioning it to a model of production and priority crops. In the case of the Cerrado, soya was chosen because it was a *commodity* with considerable demand on the international market, which at the time saw an increase in prices.

In this process, the state played a very important role, acting both as a provider of subsidies and as an inducer of models to be followed. In addition to the state, the Brazilian Agricultural Research Corporation (EMBRAPA) and financial resources from international cooperation have also played a major role in the economic and agricultural development of the Cerrado region.

Until the 1950s, the region was poorly valued due to the false idea of the low fertility of its soils. Only after research by EMBRAPA was it possible to correct the soils and gradually increase grain production in the region. No less important, external resources financed part of the government programs and even international technical cooperation projects to improve agricultural techniques.

³ EMBRAPA, *Agricultural Dynamics in the Cerrado*, 2020; Revista Contribuciones a las Ciencias Sociales, *Cerrado Brasileiro: um estudo exploratório nas políticas para o seu desenvolvimento*, 2017.

Of the various programs aimed at the Brazilian Cerrado, the following stand out: the Alto do Parnaíba Directed Settlement Program (PADAP), the Program for the Development of the Cerrados (POLOCENTRO) and the Japanese-Brazilian Cooperation Program for the Development of the Cerrados (PRODECER).

These programs included various initiatives aimed at multiple dimensions, such as:

- Investment in scientific research into the correction of acidic and nutrient-poor soils through liming and the intensive use of manure and fertilization;

- Implementation of a road network that makes it feasible to transport products;

- Population occupation of the Cerrados, due to government incentives, foreign investment from agricultural cooperation programs, as well as other factors such as the low price of land and the legal backing that ensured tax incentives;

- Construction of electricity transmission lines, rural centers and housing;

- Reorganization of the region's cooperatives to settle people, through technological, economic and administrative capacity in general, the coordination and control of activities, the processing, industrialization and marketing of production, as well as the supply of inputs. These cooperatives served as intermediaries with large groups, as they integrated industry with agriculture, organized and channelled the purchase of inputs from farmers and collected and stored production.

- Granting credits at favourable rates with a six-year grace period, for: storage; energy; assistance; research and farming; transport, as well as other infrastructure works, such as rural electrification, mechanization and the intensive use of soil improvers.

- Training for medium-sized farmers and landowners, planning and monitoring of properties and environmental concerns.

Creation of development centers to promote the settlement of families (promoted the settlement of 717 families and the incorporation of 350,000 hectares of land in the Cerrado).

Public policies that have had an impact on agricultural development in the Cerrado:

Natural resources

- Soil and water conservation
- Legal reserves
- Conservation areas
- Indigenous lands
- Availability of land for production

Infrastructure and inputs

- Infrastructure and logistics
- Genetic improvement (plants and animals)
- Mechanization
- Correctives and fertilizers

Production

- Agricultural research
- Minimum prices
- Rural credit
- Technical assistance
- Rural insurance
- Support for the purchase of inputs
- Sustainable

intensification Post-production

- Storage
- Marketing (support for purchasing products, travel between regions)
- Food safety
- Support for strengthening agro-industry (inputs and processing)
- Export support



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ANGOLAN RAILWAYS



TABLE OF CONTENTS

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1. Introduction

With a railway network **capable of boosting a country's development**, Angola has in its strategic plan a **set of railway projects with high socio-economic impacts**, contributing to the **reduction of regional asymmetries**, to better flow of products, as well as boosting passenger transport.

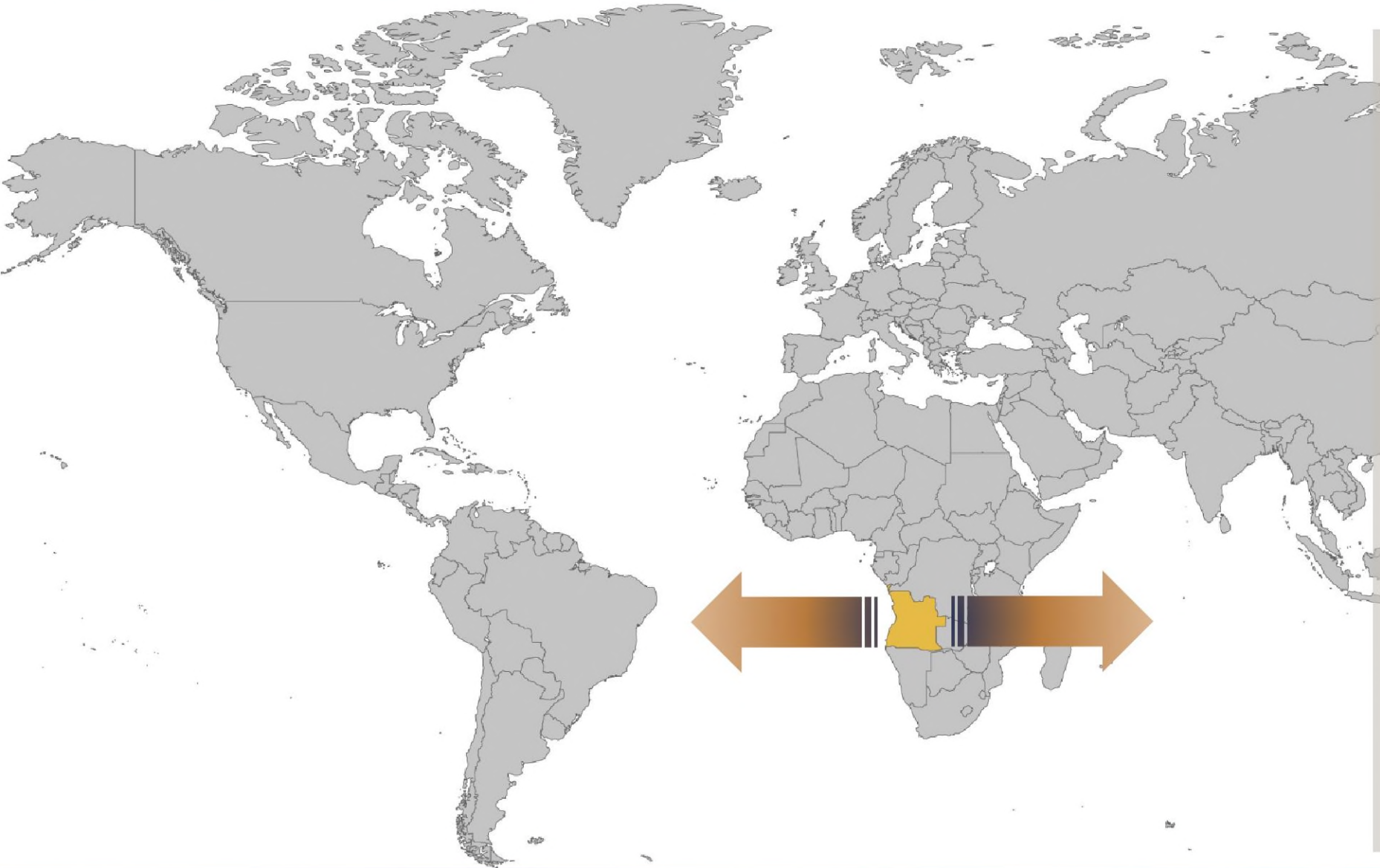
On the other hand, the proposed routes are located in **regions with high agricultural, mineral, agro-industrial and manufactured production**, whose exploitation potential will be further **enhanced** by the implementation of appropriate flow infrastructure.



1. Introduction



GOVERNO DE
ANGOLA



Angola, due to its **geographical position and natural resources**, associated with the new political dynamics at national and international ground, has **unique characteristics**, which **strategically position** it as one of the main logistic players in Southern Africa.

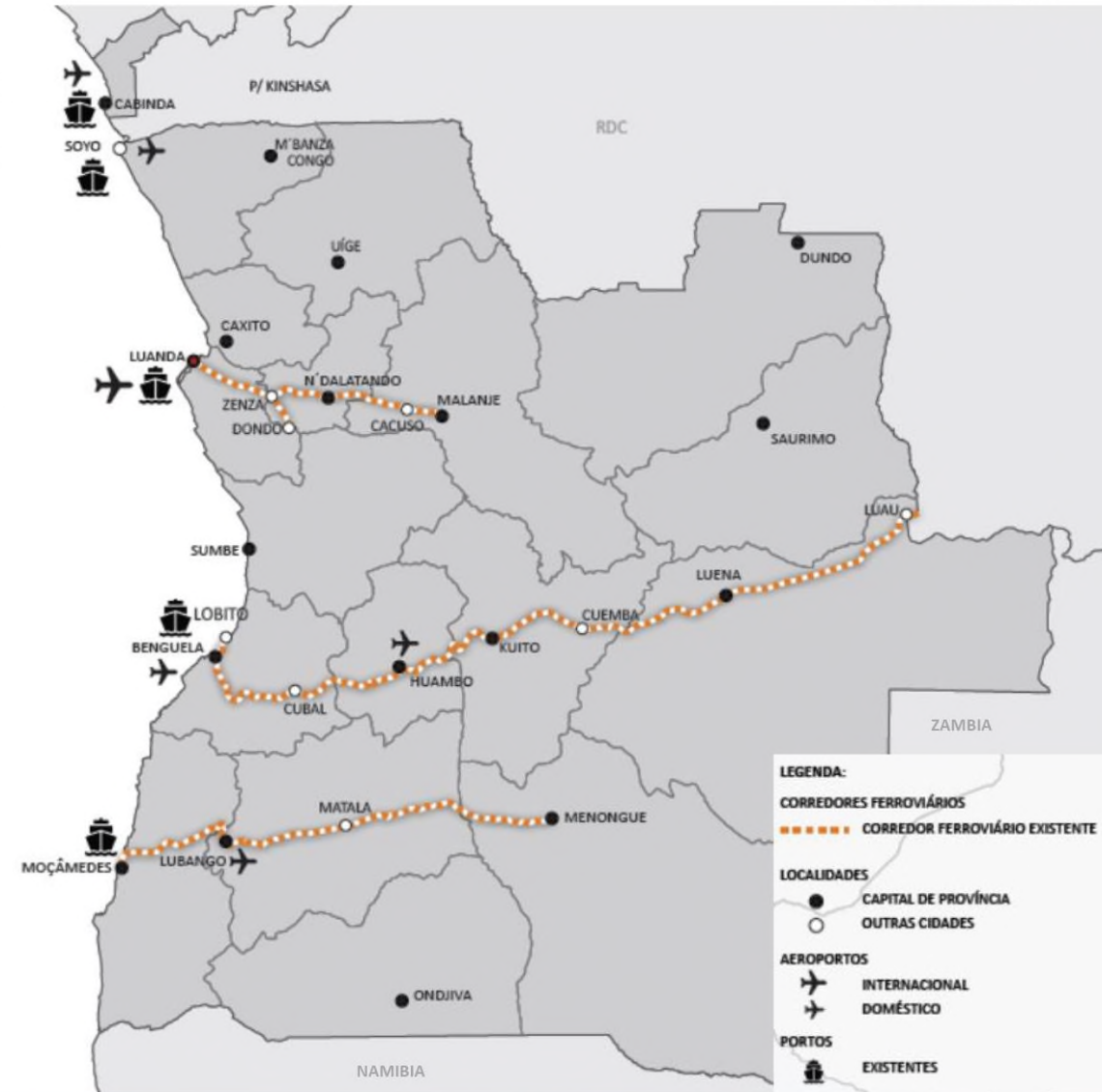
The country has enormous **potential to connect the Central, Eastern and Southern sub-regions** of the continent and to influence the region's current **trade dynamics with Asia, America and Europe**.

2. Existing Network

The Angolan railway network is made up of **three (3) main lines**, connecting the most important Atlantic ports, namely **Luanda, Lobito and Namibe** with the **country's interior**, through economic and population corridors, which essentially consist of radial lines.

In terms of length, Angola's railway network covers approximately 2,730 km, as follows:

- **Luanda Railway (CFL)** – from port of Luanda/Malanje – **479km**
- **Benguela Railway (CFB)** – from port of Lobito/Luau – **1344km**
- **Moçâmedes Railway (CFM)**– from port of Namibe/ Menongue – **907km**





NETWORK EXPANSION PLAN

3. Network Expansion Plan

The main objective of the expansion is to **establish trans-African connections** through the interconnections with the rail networks of the **Democratic Republic of Congo, Zambia and Namibia**, in accordance with the African Union's Agenda 2063 and to **increase Angola's integration** into the **Tripartite Free Trade Zone**.























In order to **further enhance transport logistics** it is also **necessary to promote the interconnections** between the three existing lines with the deployment of **north-south radials**, as well as to **operationalise strategic logistics platforms**, which will concentrate and **improve the distribution of materials/products** focusing on a reduction in flow and costs, thus increasing the **efficiency** of the activity itself and boosting the **growth of business and access to new markets**.

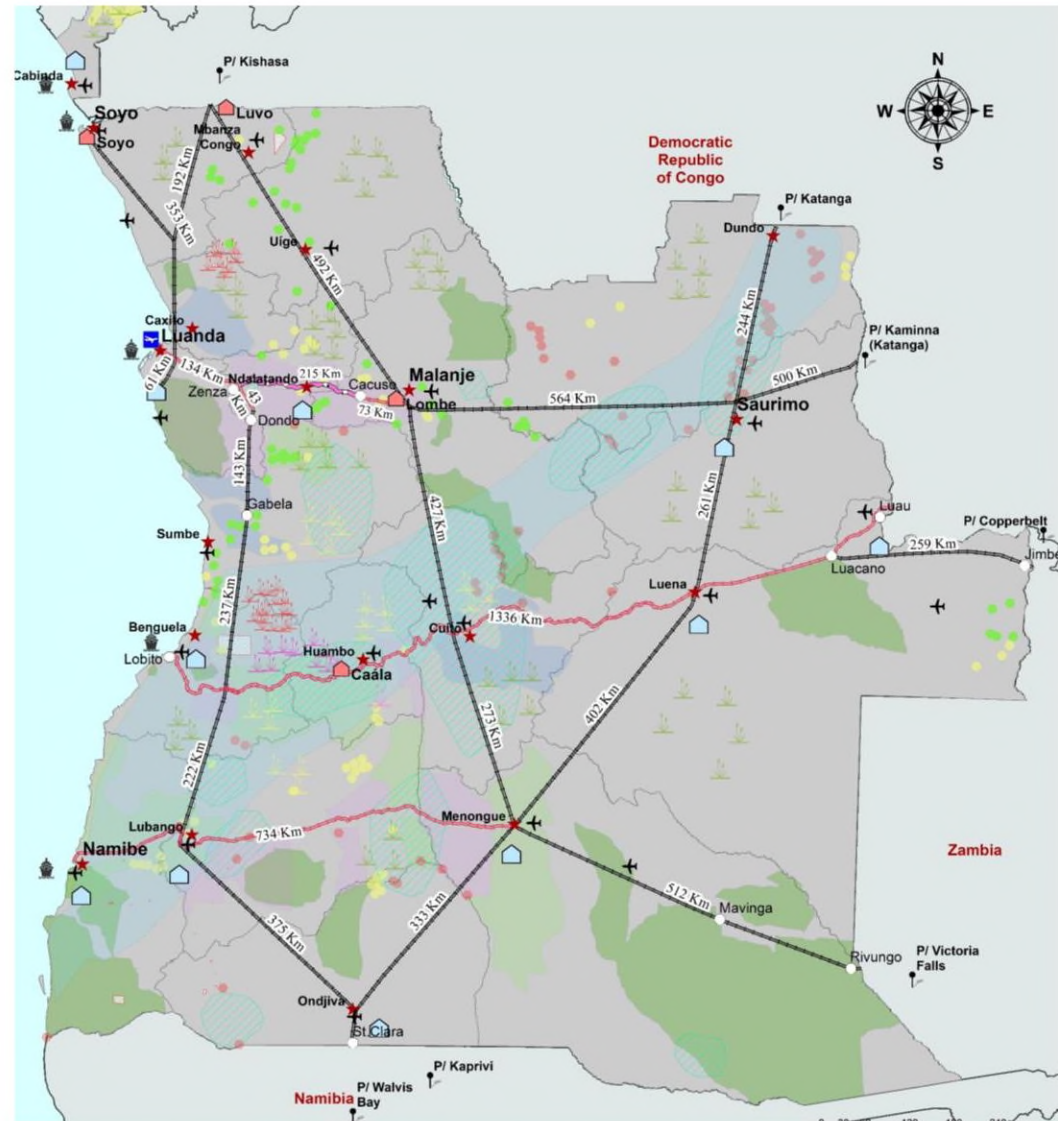
Tripartite Free Trade Zone



3. Network Expansion Plan

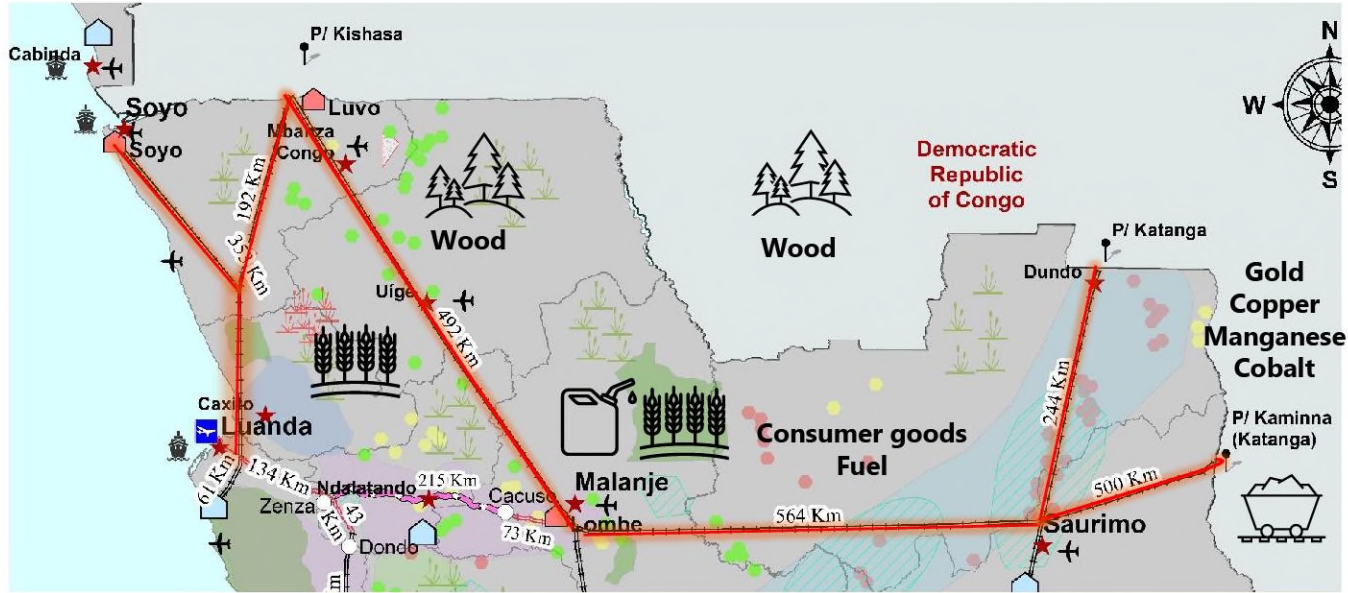
Subtitle

-  Existing Rail Corridor
 -  Existing Rail Corridor (rehabilitation)
 -  Planned Rail Corridor
 -  Priority Logistic Platform
 -  Planned Logistic Platform
 -  Port
 -  International Airport
 -  Domestic Airport
 -  Capital of the Province
 -  Cities
 -  International Connections
-
-  Vegetables
 -  Fruits
 -  Tubers
 -  Cereals
 -  Diamond
 -  Gold
 -  Copper
 -  Deposits
 -  Kimberlites
 -  Lucapa Corridor
 -  Natural Reserve





3.1. Connection Luanda railway (CFL) to RDC



Route	Extension*	Cost*
Zenza – Cacuso	215 km	USD 376 465 000,00
Luanda/ Entroncamento/ Soyo	353 km	USD 618 103 000,00
Entroncamento/ Kishasa (DRC)	192 km	USD 336 192 000,00
Malanje/ Uíge/ Kinshasa (DRC)	492 km	USD 861 492 000,00
Malanje – Saurimo	564 km	USD 987 564 000,00
Saurimo – Kamina (DRC)	500 km	USD 875 500 000,00
Saurimo – Dundo – DRC	244 km	USD 427 244 000,00

The Luanda railway begins at Angola's most important port, the Port of Luanda. Its northern expansion also covers the movement of the **ports of Soyo and Matadi (DRC)**.

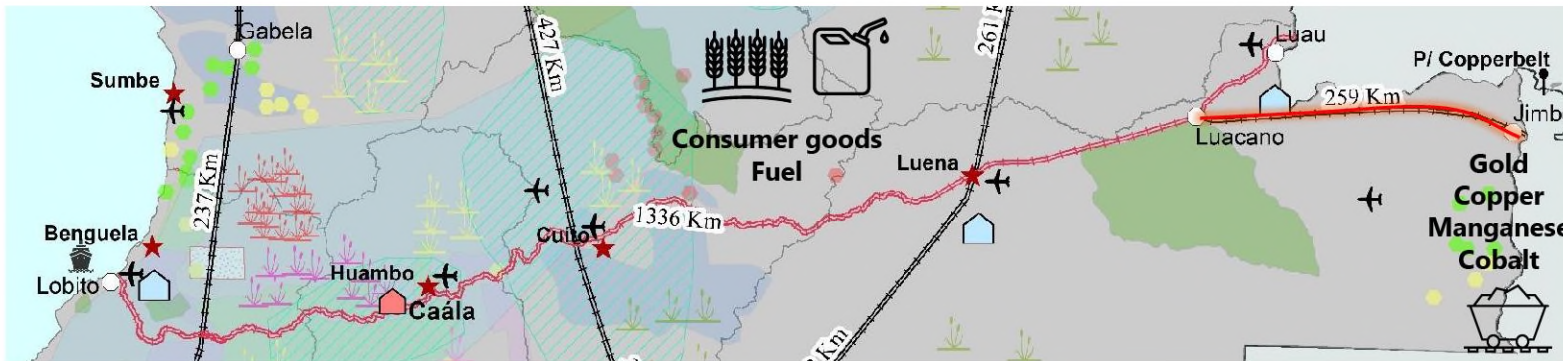
The interconnection with the RDC focuses on **oil production and wood and mineral extraction**. There is also the possibility of marketing agricultural products produced in Uíge, Kwanza-Norte, Bengo, Malange and Zaire with the support of the **Soyo, Malanje, Luvo and Lombe Logistics Platforms**.

The expansion of the Luanda railway (CFL) to the DRC will enable interconnection with Kamina, known as an **important railway junction**. Three lines of RC railways run from Kamina to the north, west and southeast of the country, also interconnecting with other neighbouring countries; **Katanga** is known to be part of the **copper belt of Central Africa**, from where there is also gold, cobalt, manganese, tin, radio, uranium and diamonds mining.

3.2. Connection Benguela railway (CFB) to Zambia



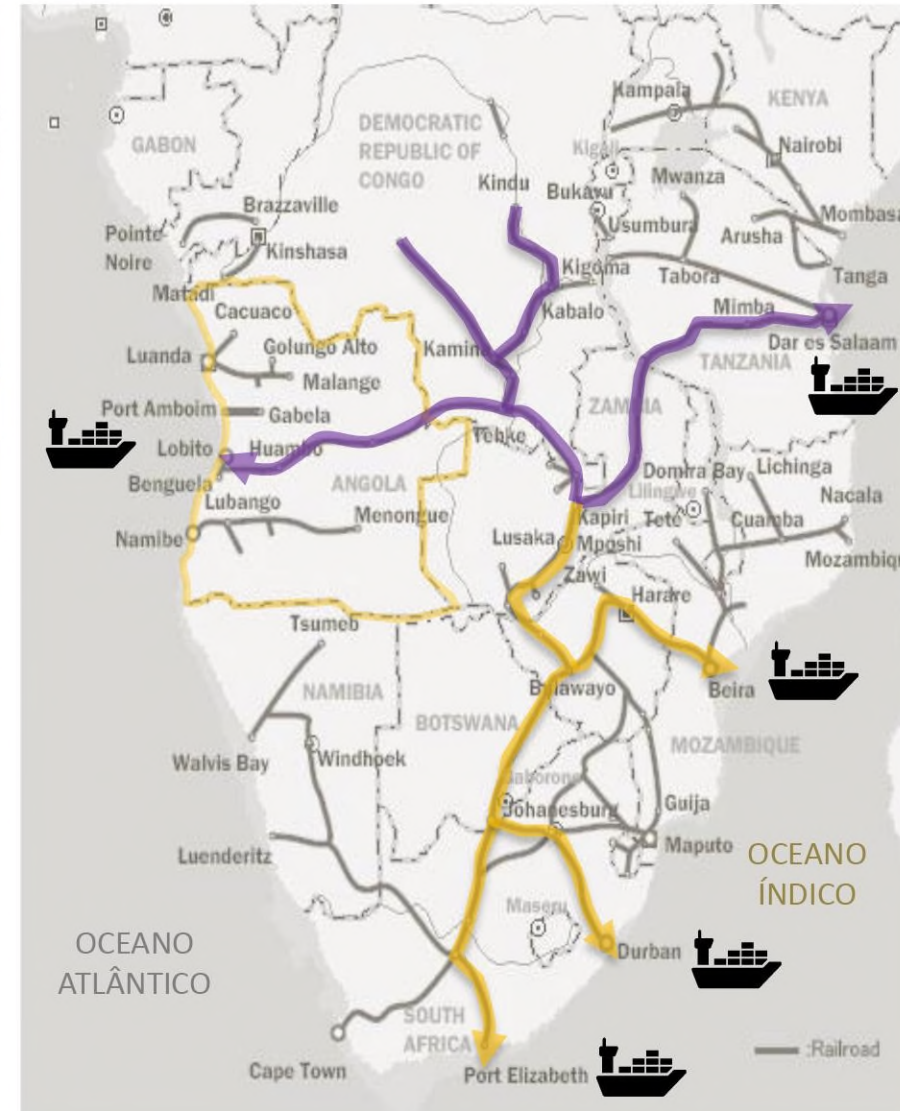
GOVERNO DE
ANGOLA



Route	Extension*	Cost*
Lucano/ Jimbe	259 km	USD 940 833 284,00

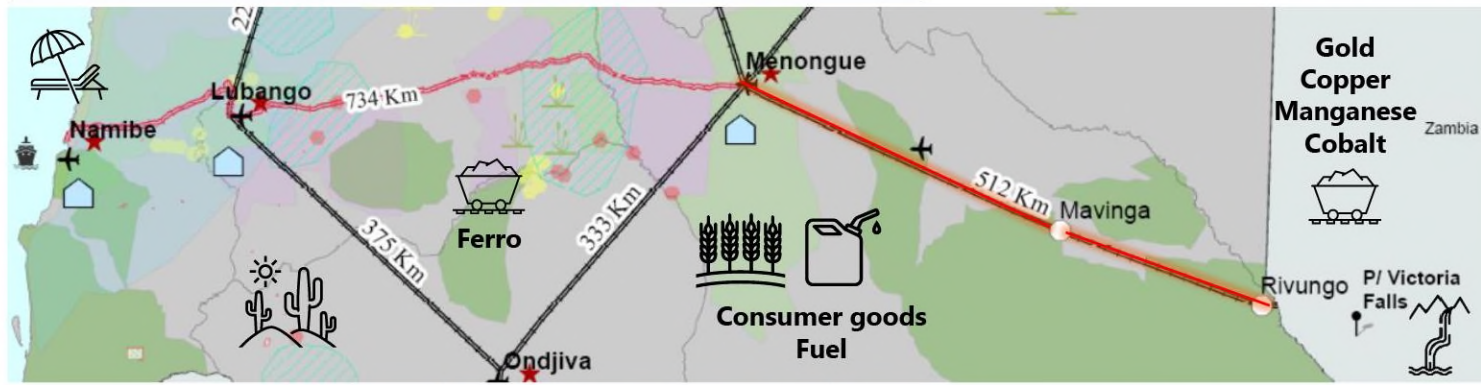
The Benguela Railway is Angola's largest and most important railway branch, begins at the port of Lobito. Its expansion into the DRC aims to reach **Zambia** and **integrate** more efficiently one of the **most productive areas of the Copperbelt to the Atlantic Ocean**. There is also the potential to outflow the production of Angolan consumer goods with the support of the **Caála Logistics Platform**.

The expansion of this line will enable integration with a transcontinental rail network in Africa, interconnected with the Democratic Republic of Congo, Zambia, Beira (in Mozambique), Dar es Salaam (in Tanzania) and South Africa.



* Approximate value established through conceptual studies to be confirmed after project detailing. The margin of error is approximately 30%

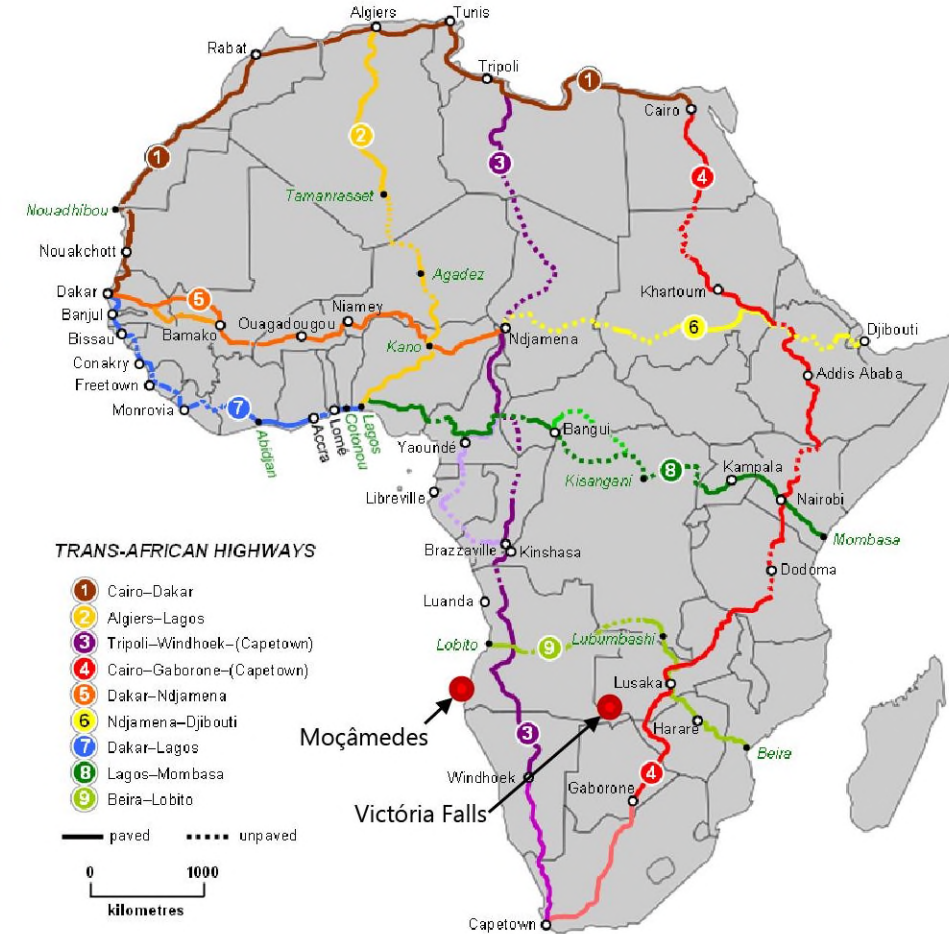
3.3. Connection Moçâmedes railway (CFM) to Zambia



Route	Extension*	Cost*
Menongue/ Rivungo	512 km	USD 896 512 000,00

The Moçâmedes Railway has its beginning in the **Port of Namibe**. Its expansion into Zambia is intended to enable the **export of large quantities of iron** in Namibe and the **import of minerals from Zambia**. In addition to boosting all the possible commercial transactions already mentioned between the two countries, **this route also has great tourism potential**, interconnecting Namibe with its well-known diversity and wealth of landscape and natural resources, with Victoria Falls, one of the most spectacular waterfalls in the world, and could also be a route to the Okavango Delta.

From Victoria Falls, there is a connection to the railway network, and also a **intermodality with the trans-African road network** and access to the capital Lusaka, as well as to Zimbabwe, Botswana and Malawi.



* Approximate value established through conceptual studies to be confirmed after project detailing. The margin of error is approximately 30%

3.4. Potentials – Connection DRC and Zambia

DEMOCRATIC REPUBLIC OF CONGO

It is one of the richest countries in mineral deposits in the world, highlighting :

- Copper – 300 thousand ton/year*
- Cobalt – 24 thousand ton/year (58% of world production)*
- Manganese – 10 thousand ton were transported by the Benguela railway (CFB) in 2018

* Source: Mining Weekly - 2018

ZAMBIA

The country is currently the second largest copper producer in Africa after the DRC. The Konkola North mine alone produces over 40,000 tons/year.



ANGOLA

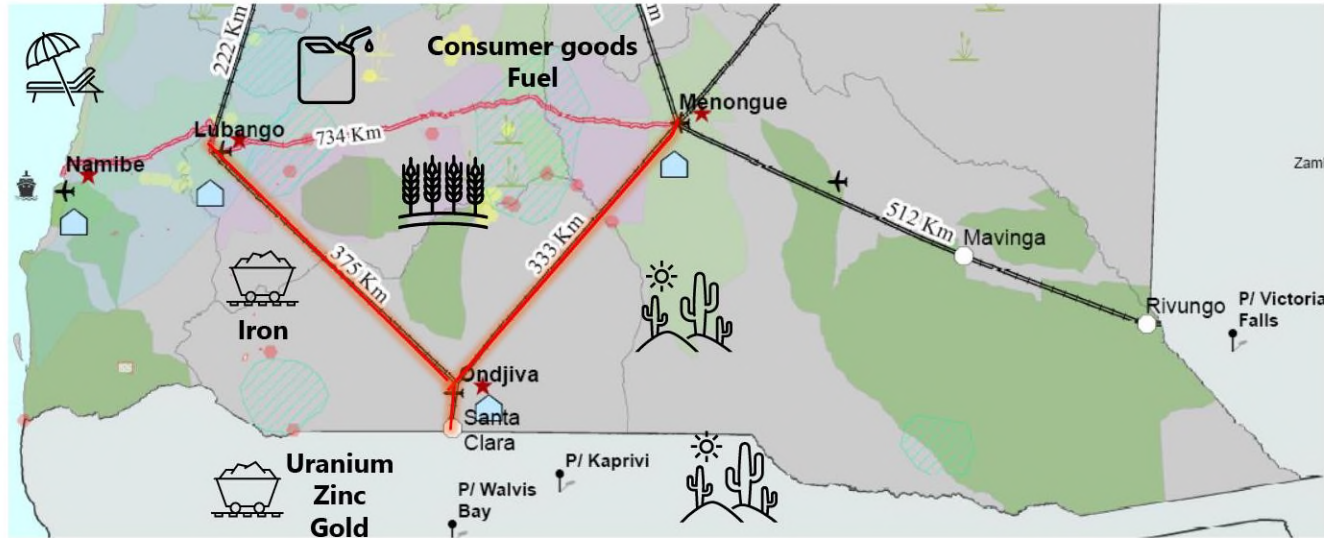
Angolan domestic production also has great demand and productive potential, for both domestic and foreign markets, among which the following stand out :

- Minerals – Quartz and Iron;
- Wood;
- Agricultural products;
- Fuel.

Exporting copper belt production via Angola would **reduce the transport distance from Beira by 5,700 km, and from Cape Town by 4,400 km.** It should also be noted that the port of Lobito has a mining terminal with an operating capacity of 600,000 tons per year.

Angola's railways are also the best option for transporting goods from Atlantic ports, promoting their interiorisation in a more efficient and economic manner.

3.5. Connection Moçâmedes railway - Namibia



Being close to Angola's southern border, on the border with Namibia, the Moçâmedes Railway has the potential to configure a strategic interconnection between the countries.

The basis of Namibia's economy is the **extraction and processing of minerals** and makes Namibia the **fourth largest exporter of non-fuel minerals in Africa and the fifth largest producer of uranium in the world**. On the other hand, its predominantly desert climate imposes a dependence on imports of agricultural products, especially cereals, many produced in Angola and some in the Americas, which can reach the port of Namibia.

It should be noted that there is also great potential for tourism to be explored on the routes chosen.

Interconnection with the Moçâmedes railways and the Namibian rail network will strengthen free trade between countries and increase the integration of the trans-African rail network.

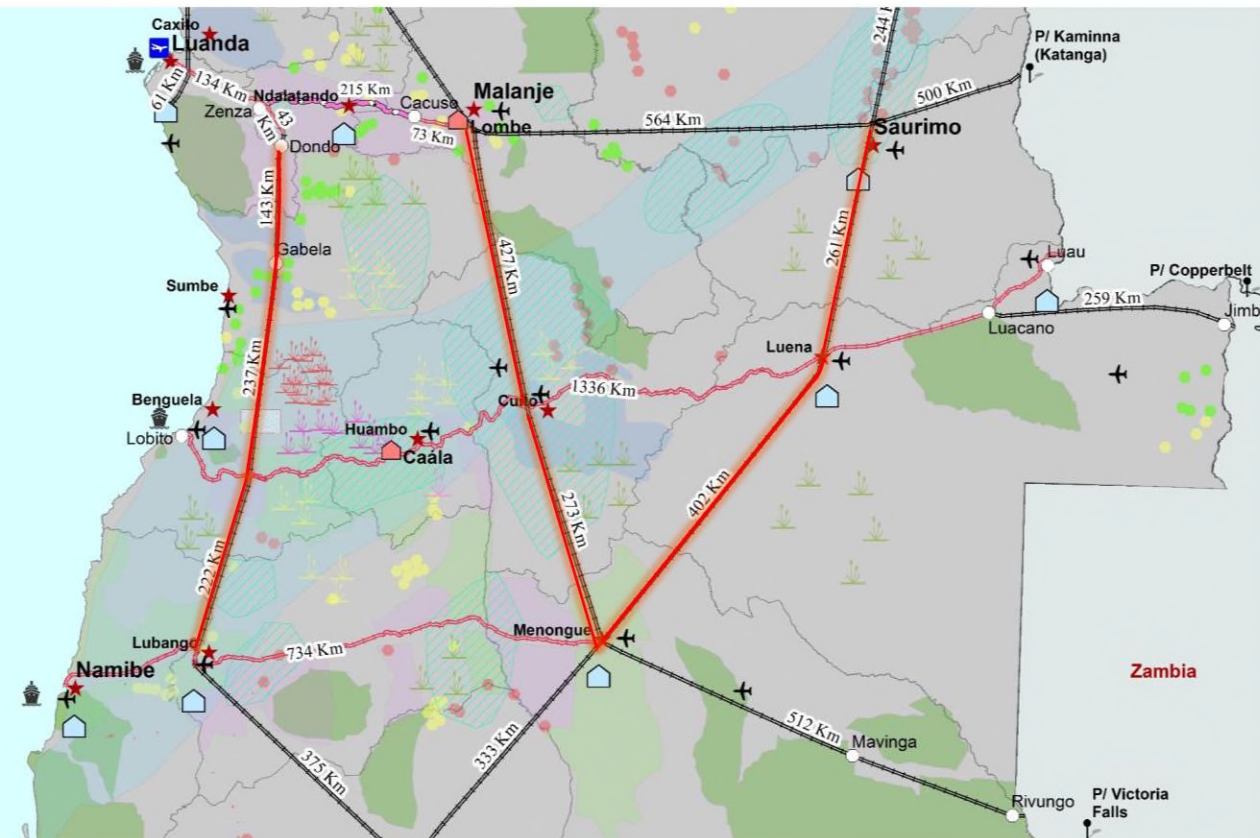
Route	Extension*	Cost*
Lubango/Santa Clara	375 km	583 083 000,00
Menongue/Ondjiva	333 km	656 625 000,00

* Approximate value established through conceptual studies to be confirmed after project detailing. The margin of error is approximately 30%



3.6. Connecting Railways

In order to boost the logistics of the outflow of Angola's domestic production, as well as the distribution of imported products through the ports and railways, it is essential to interconnect all the above-mentioned east-west corridors, duly enhanced by the operations of the Logistics Platforms, thus creating an efficient and profitable distribution network.



CFL - CFB		
Route	Extension*	Cost*
Malanje – Kuito	427 km	USD 747 677 000,00
Saurimo – Luena	261 km	USD 457 011 000,00
Dondo – Cuanza Sul	237 km	USD 414 987 000,00

CFB - CFM		
Route	Extension*	Cost*
Kuito – Menongue	273 km	USD 478 023 000,00
Luena – Menongue	402 km	USD 703 902 000,00
Cuanza Sul - Lubango	222 km	USD 388 722 000,00

* Approximate value established through conceptual studies to be confirmed after project detailing. The margin of error is approximately 30%

4. Summary of investments

Route	Extension*	Cost*
Connection Luanda Railway (CFL) to DRC		
Zenza – Cacusso	215 km	USD 376 465 000,00
Luanda/ Entroncamento/ Soyo	353 km	USD 618 103 000,00
Entroncamento/ Kishasa (DRC)	192 km	USD 336 192 000,00
Malanje/ Uíge/ Kinshasa (DRC)	492 km	USD 861 492 000,00
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Saurimo – Dundo – DRC	244 km	USD 427 244 000,00
Connection Benguela Railway (CFB) to Zambia		
Lucano/ Jimbe	259 km	USD 940 833 284,00
Connection Moçâmedes Railway (CFM) to Zambia		
Menongue/ Rivungo	512 km	USD 896 512 000,00
Connection Moçâmedes Railway - Namibia		
Lubango/Santa Clara	375 km	USD 583 083 000,00
Menongue/Ondjiva	333 km	USD 656 625 000,00

Route	Extension*	Cost*
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Malanje – Kuito	427 km	USD 747 677 000,00
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Connection CFB - CFM		
Kuito – Menongue	273 km	USD 478 023 000,00
Luena – Menongue	402 km	USD 703 902 000,00
Cuanza Sul - Lubango	222 km	USD 388 722 000,00

Total Investment – 5.861 km

USD 9 874 435 284



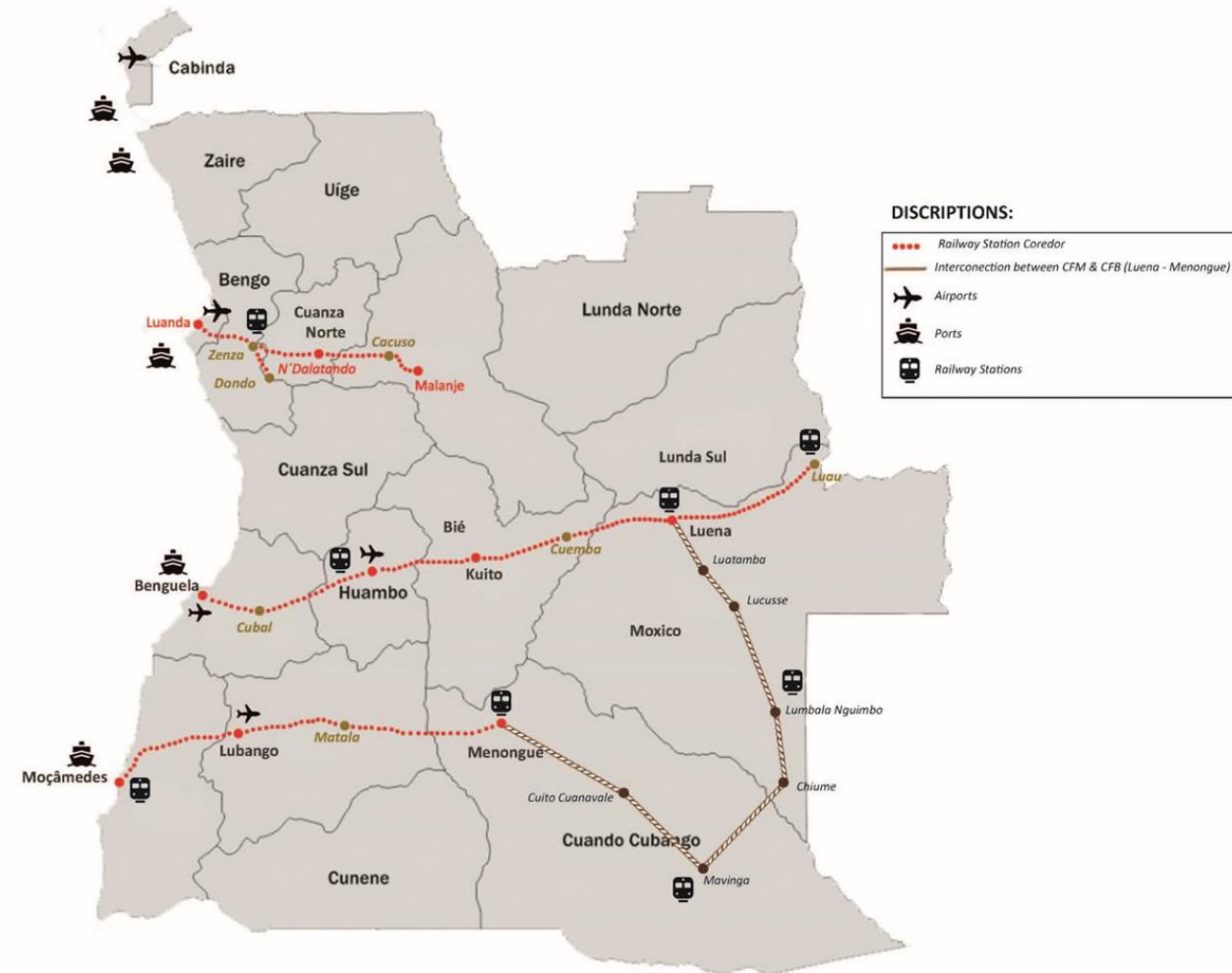
PRIORITY SEGMENTS

Interconnection of Benguela Railway and Moçâmedes Railway

Connection of the Benguela Railway (CFB) to the Moçâmedes Railway (CFM) between the Cities of **Luena** and **Menongue**.

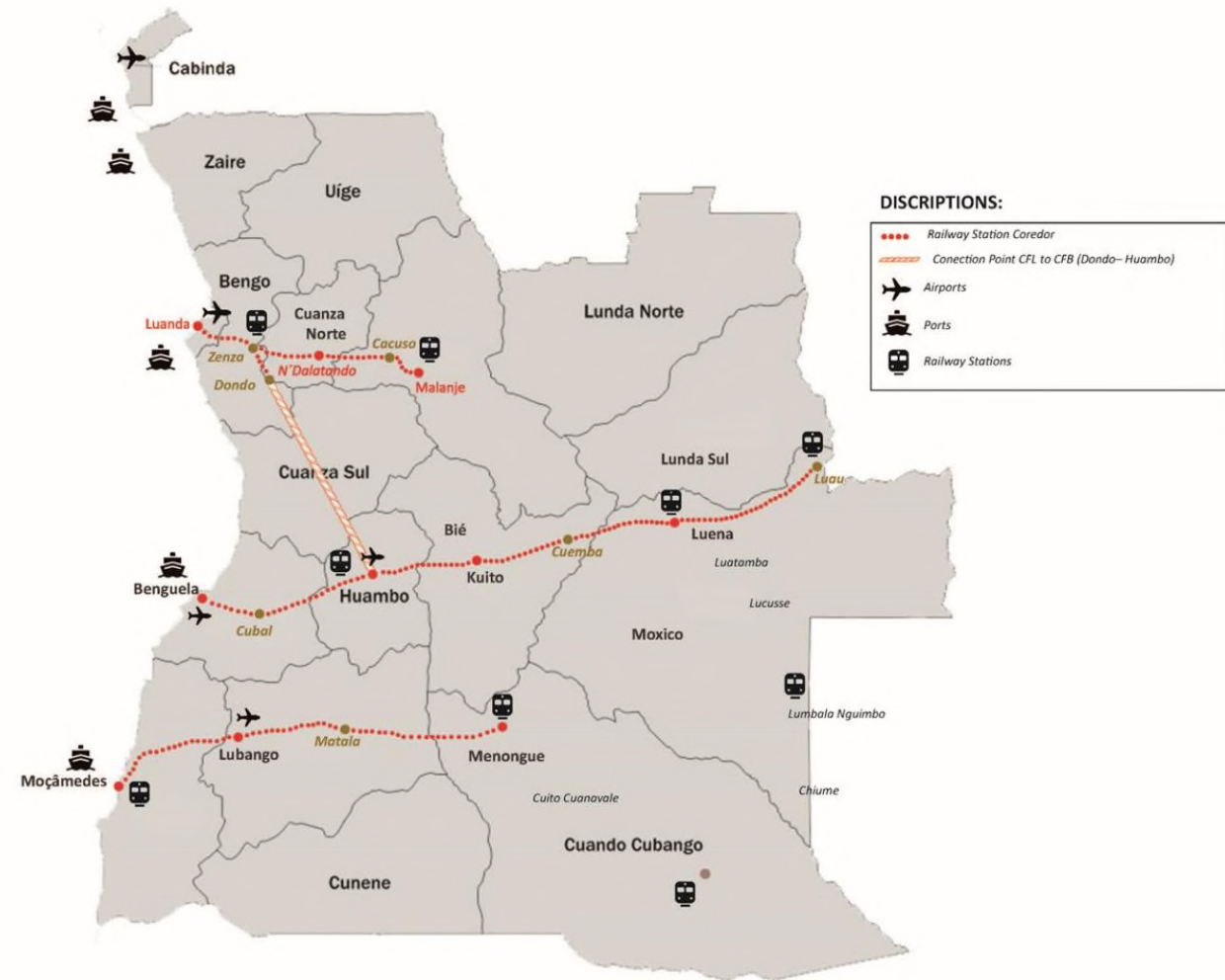
The rail link between the two Railways is a necessary project, which will be implemented, will **contribute to sustaining the development of the region**, and it will boost the transportation of goods, cargo and passengers in the North- South Corridor of Angola on a large scale and Zambia

- Passing through the following locations: **Luatamba, Lucusse, Lumbala N' guimbo, Chiume, Mavinga and Cuito Cuanavale**
- Length: 843 km.
- Total cost of the investment: USD ± 1,476,093,000



Interconnection of the Luanda Railway and the Benguela Railway

- Connection of the Luanda Railway (CFL) to the Benguela Railway (CFB) between the Cities of **Dondo** and **Huambo**.
- Passing through the following locations: **Dondo, Quibala, Waco Kungo and Huambo**, with huge potential on Agrobusiness
 - Length: 416 km
 - Total cost of the investment: USD ± 728,416,000

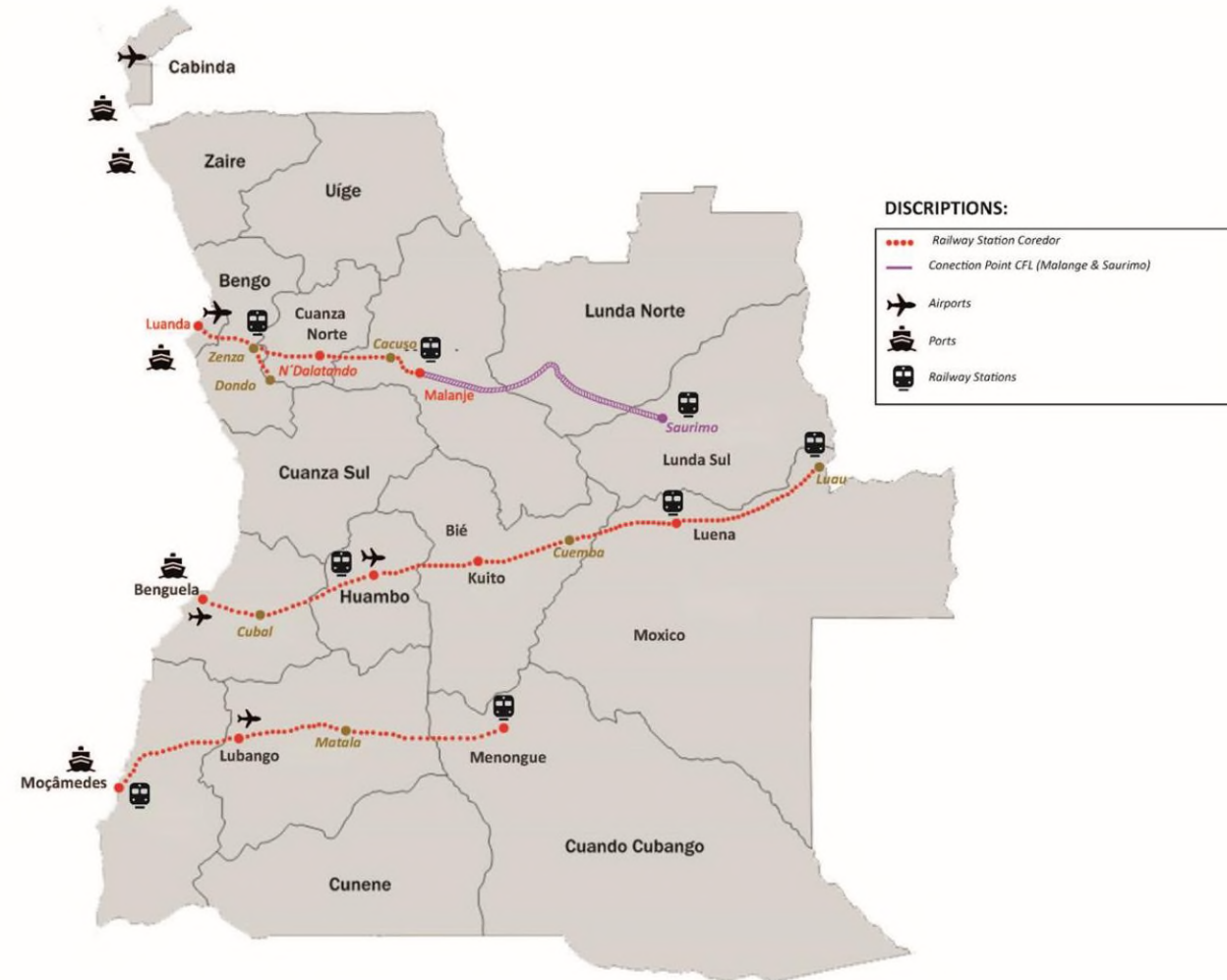


Luanda Railway (CFL)

- The Angola Railway development project comprises several national development corridors and at least six (6) Railway Connection Points in neighboring countries.

Malange → Saurimo, future connection with the DRC Railway in Kamina and Kasai.

- Length: ± 564 km
- Total investment cost: USD ± 987,564,000



4.2.3. Total Investment

The summary of the implementation costs of the priority segments

PRIORITY SEGMENTS			
Route	Extension *	Total Cost*	Remarks
1 – Luena ->Menongue	843 km	USD 1,476,093,000	Connection CFM/CFM
2 – Dondo ->Huambo	416 km	USD 728,416,000	Connection CFL / CFB
3 – Malange ->Saurimo	564 km	USD 987,564,000	Connection CFL / DRC
4 – Saurimo ->Luena	261 km	USD 457 011 000	Connection CFL / CFB

Total Investment – 2.084 Km

USD 3,649,084,000

* Approximate value established through conceptual studies to be confirmed after project detail. The margin of error is approximately 30%



CONCLUSIONS

4. CONCLUSION

The creation of an intelligent network structure for any single transporter not only allows the **development** of a large **supply of transporters**, but also promotes **synergetic effects** in almost all life and functional fields. Among the main impacts resulting from the implementation of this expansion plan are:

- The **interconnection** of Angola's railways **with a transcontinental rail network** will promote greater **integration** between Angola and other countries within the **Tripartite Free Trade Area**, boosting the economy in the entire region of influence, with the capacity to **connect the Indian and Atlantic oceans**;
- The **import of products** from Atlantic ports **into the southern African region** will be more efficient and **on optimised routes**;
- The implementation of **a broad network will** provide an appropriate outflow network, which associated with logistical platforms will **boost** agricultural and industrial **production in Angola**;
- Angola's **Atlantic ports** will have a large increase in hinterland, also **servicing southern African countries**;
- **Mineral production** in Angola, DRC and Zambia will have its **outflow optimised**;
- The **high demand** generated makes the Angolan railway profitable and **will make it possible to exploit the various systems and platforms proposed**.
- **For the feasibility of the mentioned projects** it is important to have **the master plans of the Ministry of Transports, Ministry of Natural Resources, Petroleum and Gas and Ministry of Agriculture and Fisheries** as supporting documents.
 - **NSTMPRI** – National Master Plan for Transport Sector and Road Infrastructure - **Ministry of Transports**
 - **PLANAGEO** - Geological Master Plan of Angola - Geological Institute of Angola (**IGEO**)
 - **IDA** - Agrarian Development Institute - **Ministry of Agriculture and Fisheries**



THANK YOU

NMPTSRI
BROCHURE



From: Kapla, Robert
Sent: Friday, May 17, 2024 5:08 PM
To: Foltz, Joe <Joe.Foltz@mail.house.gov>
Cc: Kulukundis, Christopher <Christopher.kulukundis@mail.house.gov>; Mount, Elizabeth <Elizabeth.Mount@mail.house.gov>; Schnittger, David <david.schnittger@squirepb.com>
Subject: Recommendations for staff delegation to Angola [I-AMS.FID2149054]

Joe,

Thanks for reaching out about Angola. Here's a quick summary of what we discussed, including a few adds I thought of afterwards:

1. Meetings. You should try to meet with:

- a. Minister of State for Economic Coordination, [Jose Massano](#)
- b. Minister of Finance, [Vera Daves](#)
- c. Minister of External Relations, [Tete Antonio](#)
- d. Minister of Transportation, [Ricardo d'Abreu](#). He can provide an excellent brief on Angola's road, rail, air and maritime infrastructure. (See the [attached](#) summary of Angola's existing and planned rail system.) Minister d'Abreu [signed an Open Skies agreement with the Secretary of Transportation](#) in April 2023. He also is well positioned to talk about Angola's Special Economic (Free) Zones which are critical to attracting foreign investment.
- e. Angolan Ambassador [Agostinho Van Dunem](#) (if he's in Luanda at the same time)
- f. US Ambassador [Tulinabo Mushingi](#) while he is in Washington for the Department of State's annual Chiefs of Mission conference the first week in June.

2. US and Other Businesses

- a. [Africell](#): US DFC-backed. Alternative to Huawei. Involved in Lobito Corridor project. You'll see their branding the moment you come out of the airport. Located just down the hill from Embassy Luanda. Tour their Control Center if you can.
- b. [Acrow Bridge](#): Based in Parsippany, NJ. Just closed a [\\$363M deal with EXIM](#) to export pre-fab steel bridges and related materials to Angola.
- c. [Sun Africa](#): Based in Miami, FL. Just closed a [\\$900M deal with EXIM](#) to develop a large renewable energy project in Angola. A second \$1.2B deal is close behind. Their project is too far away to visit, but you might try to visit with their rep on the ground. (See also, [this link](#) to the three deals EXIM and Angola just signed in Dallas last week.)
- d. [CTB, Inc.](#) Berkshire Hathaway company based in Milford, IN. Has a \$1.1B letter of interest from EXIM to construct, export and install 40+ industrial grain silos across the country. Located in Rep. Yakym's district. But we discussed the company and Angola's broader ag potential when we accompanied Amb. Van Dunem to brief Rep. Baird. For

background, [attached](#) are two documents on Angola's agriculture master plan, "PlanAgrao". One is an unofficial English translation.

- e. [Omatapalo](#). Angolan EPC. Affiliated with the Sun Africa project and others in Angola. Just opened an office in Washington. Looking to expand with a US partner/shareholder.
- f. [Grupo Carrinho](#). Major domestic agribusiness company based in Lobito. Very impressive operations. Demonstrates the massive potential of Angola's agricultural sector.
- g. The Deputy Secretary of Agriculture led a [US agriculture delegation to Angola](#) in February.
- h. You likely won't have time but the Embassy could take you to see the new airport and/or a China hydro project.
- i. [Luanda Science Center](#). [Opened](#) in December 2023. You might ask Embassy Luanda if it's worth visiting. Secretary Blinken visited when he was there in January. Recall Angola recently signed the [Artemis Accords](#) and hosted the [NewSpace Africa Conference](#) in early April. I believe NASA's Administrator or Deputy Administrator spoke. US companies MAXAR Technologies and Starlink were among many others that attended.
- j. [National Museum of Slavery](#). See it if you have time. The first slaves from Africa to what would become the United States were from Angola and landed in 1619 in Hampton, VA. The Tucker family from VA has traced their genealogy to those slaves. We arranged for them to meet President Lourenço during his [tour of the National Museum of African American History and Culture](#) in September 2021. The Tuckers have traveled to Angola several times and are emblematic of how history has evolved between our two countries.
- k. President Lourenço has prioritized partnering with an American pharmaceutical company to try to mitigate the high costs of importing medicine.
- l. The Angolans have also constructed a university campus south of Luanda and are interested in finding an American university (or several) to establish satellite campuses or programs there. Engineering is a priority, but developing domestic knowledge, skills and capacity in agribusiness, healthcare and computer science/tech are critical.
- m. You should connect with Citibank about its view of Angola.
- n. See the [attached](#) summary of the Angolan market from the [Agency for Private Investment and Promotion of Exports of Angola](#) (AIPEX).

3. **Three (unsolicited) restaurant recommendations**

- a. [Café del Mar](#). Sits on the beach near the end of "Luanda Island," the long peninsula that extends around Luanda Bay. Excellent food. Go for lunch so you can enjoy the view of the Atlantic.

- b. [Pimm's](#). Outstanding traditional Portuguese food. One of the nicest restaurants in the city.
- c. [Vitruvio](#). Italian food. Located in the Epic Sana hotel.

More here than you'll have time to do, but it's only a snapshot of what's going on there. Happy to discuss more after you digest. I'm headed to Luanda the first week in June so happy to catch up if you want after I'm back and before you depart.

Best,

Robert



Robert S. Kapla

Partner and Co-Chair for Global Public Policy

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