



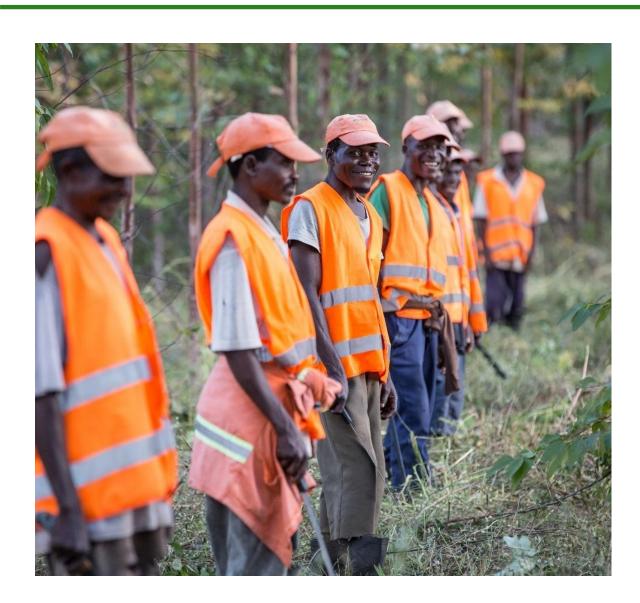
A SUSTAINABLE FORESTRY AND INDUSTRIAL PROJECT

CONTRIBUTING TO THE PROSPERITY OF MOZAMBIQUE

OCTOBER 2024

ABOUT PORTUCEL





Portucel Mozambique is developing a forestry project integrated with a paper pulp production industry in Mozambique, ensuring it shares value that improves a sustainable social and economic development of the **communities** and enhances awareness and respect for the environment.

ABOUT PORTUCEL Big picture





Investment agreement with the Mozambican Government in **2009**, for a project worth **USD 2.5 billion**.

Memorandum of understanding with Mozambican Government in **July 2018**, defining the conditions precedent for implementing the project in two phases.

Land use licenses (DUAT) for **50 parcels** (for the plantation of up to 246,000 ha) in Zambezia and Manica provinces, awarded by the Mozambican Government for 50 years.

Integrated forestry and industrial project:

- **Job** creation More than 2,000 direct and indirect (1st phase) and more than **8,000** in the 2nd phase;
- Export industry More than USD 100 million / year (1st phase) and USD 1 billion / year (2nd phase);
- Support for social and economic development of local communities – USD 40 million;
- Strategic partnership with IFC, a World Bank member, unlocking know-how and capital.
 PART OF

ABOUT PORTUCEL Industrial projects







WHAT **EUCALYPTUS GIVES US**

This is one of the most planted forestry species in the world, because of its ability to adapt to different climate and soil conditions, and because of the many uses for its wood and other biomass. A fast-growing tree (it reaches adulthood at between seven and twelve years, depending on the species), this natural advantage makes it ideal for production forestry, supplying the most varied industries. Eucalyptus provides wood and raw material for renewable and biodegradable products. And it has a significant social and economic impact in Portugal, as well as the role it can play in the climate challenge facing the planet.



Different types of paper: printing and writing paper, notebooks, books, newspapers, magazines, packaging, bags, greaseproof paper, banknote paper, etc.



Paper for home use: tissues, napkins, kitchen roll, toilet paper, disposable nappies, incontinence pads



Nitrocellulose: component in varnish, special paints and inks, enamels cosmetics, and explosives



Viscose & Lyocell or Tencel*: fibre used in industrial etc.), sponges, cellophane film for food packaging filaments for tyres, belts and high-pressure hoses



Ether and MCC*: thickeners for cosmetics, toothpaste and processed foods (milky drinks, sauces, etc.), capsules for medicines (tablets), crystallisation retardants







Civil construction

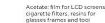


SOCIO-ECO K





thermolaminated panels



handles, linings, carpets

When correctly planted

managed, eucalyptus

ontributes to preservation

of native woodlands, as it

them from the demand

for forestry products.

reduces the pressure on



components, artificial skin for healing wounds and burns, etc.





Portugal enjoys a leading position in **European production** of paper pulp: 3rd largest producer of pulp (7.2% of total), ranked 11th in production of paper and cardboard (2.2% of total) and 2nd in UWF (18.1%).

40% forest-based industries in Portugal**

Fences. foundations,

1.1% of total employment in Portuguese economy (11 290 direct jobs and indirect and induced he tens of thousands)



This is the sector to reducing the trade deficit, as exports far exceed imports.



OTHER USES

Non-wood forestry products: honey, mushrooms, and essential oils (cineol) used in natural medicine, and in production of detergents and cosmetics

Bioenergy (from of black liquor): thermal energy and electricity



Biofuels (from wood and biomass sugars

Eucalyptus trees are highly effective producers of oxygen. One hectare of eucalyptus produces O2 for more than 45 persons/year



Eucalyptus forests

ontribute to air quality, and

are Portugal's largest carbo

sink, accounting for more

than 50% of the removal by

forests of CO2 emissions.

"2018 figures "2017 figures.
Sources: Guie do Eucelipto — Oportunidades pare um desenvolvimento sustentiaval. CIB 2008, As Ancres Plantades e seus Multiplos Utos, IBA 20000, What a Tree Can Dot, CBP 2018, indistres de Base Florestal — Estatolica Vernificares de Carlos Carlos

Source: MyPlanet Magazine, June 2020

turnover (1.5%

of GDP)*

ABOUT PORTUCEL Harvesting & Export





Harvesting started in 2020, from trials of plantations about 8 years old in the province of Manica.

First roundwood export of eucalyptus trees in 2021, sourced from responsibly managed forests and with Controlled wood certification.

The export operation positions the Company and Mozambique in the **international market** of sustainable wood exporters. Exports of **285** m³ of wood from 2021, via 9 vessels shipped from Port of Beira.

Building a **Cluster of a forestry-based industry**, supported by favourable soil and climate conditions and good geographic location for exporting to the main markets.

Consolidates **positive returns along the value chain**:

- Qualified employment and professional development;
- Generating wealth and added value in Mozambique;
- Environmental protection;
- Investment in the Communities;
- Continuous communication with interested parties.



MAIN ACHIEVEMENTS





4,000 land use agreements with families in the licensed areas.

14,000 hectares planted.

Nursery with annual production capacity of 12 million plants.

Permanent dialogue with Communities by:

- 25 advisory committees
- Monthly meetings with communities
- 48 liaison agents
- Grievance mechanism

Social Development Program reaching over 7,000 people and 120 communities.

Independent **Advisory Council**, supporting a Civil Society initiative (under revision).

Main obstacles identified, focus on resolving preconditions for resuming project in 2 phases.

PART OF THE NAVIGATION

STAKEHOLDERS ENGAGEMENT and Community Relations



Stakeholders engagement is a key component of the project, implemented through regular meetings and information, with openness and dialog, grounded on a **dedicated team** and involving all employees. Our stakeholders include **government bodies at central level and at province and district level, communities, traditional leaders, and civil society organizations**

Opportunities to engage with the **Communities**

- Advisory committee
- Monthly village meetings
- Leaders Forum
- One-to-one family meetings
- Evaluating field work-groups
- Grievance mechanism open to all and through several channels

Liaison Agents with the Communities

Members designated by the Community that collaborate with Portucel with the mission of strengthening communication, as well as bridge the gap with the Company in issues and suggestions the families and the community might have regarding the project



PUBLIC CONSULTATION Transparent processes





Four phases of public consultation implemented, to provide local communities and families full disclosure:

- 1. Community consultation by **Government institutions**, as required by Mozambique's Land Law.
- **2. Environmental and Social Impact Assessment** (2013-14): systematic consultation in DUAT areas of over **7,000 citizens** at 71 meetings in **130 communities**, in Manica, Zambezia and Maputo provinces.

3. Land Access Procedure

- Compliance with Mozambican law and assurance of free, prior and informed consent;
- Transparency: agreements are witnessed by family members and local leaders, both administrative and traditional;
- Simplified processes: land boundaries are mapped in a comprehensive way, and a written agreement is signed, shared and archived.
- 4. Regular community consultation.







PROJECT INTEGRATED WITH COMMUNITIES – MOSAIC MODEL

Promotes economic and social development and longterm inclusion, between **communities**, **environmental conservation areas and Forest plantations**.

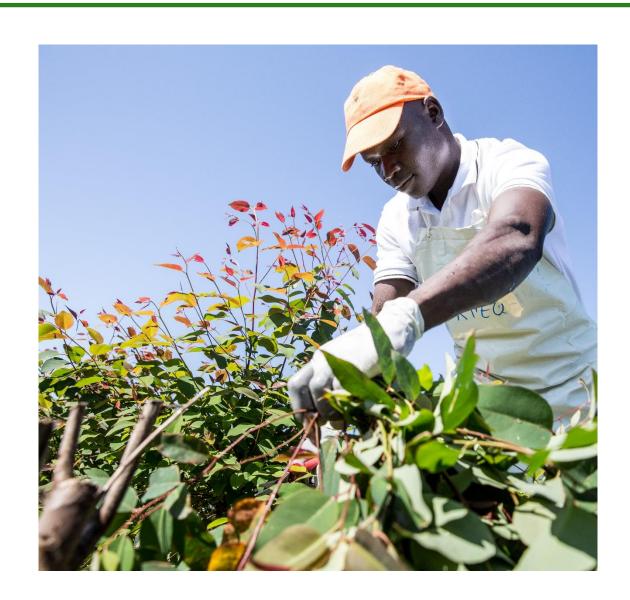
Portucel's investment in **eucalyptus Forest plantations** uses the Mosaic Model, where blocs of
Forest are interspersed with houses, agricultural land,
high value conservation areas and other protected
uses, of religious interest or special value for
communities.

Thus, within the licensed areas, families and their areas for agriculture remain in the same site, avoiding resettlements.



FOREST MANAGEMENT Nursery





The **Eucalyptus clones nursery** has a production capacity for 12 million plants per year.

Located in Luá, lle district, Zambezia province.

60 Mozambican employees, most of whom are skilled and **50% are women**.

Production of other species, **fruit trees** and **native trees**, for the community and to restore conservation areas.

Benchmark for **good employment practices** in the region: provides a **library**, vegetable garden for the staff, **adult literacy** classes and medical centre. Schooling provided since 2015 in three shifts, from first to fifth grade, having reached **over 200 employees**.

ECONOMIC IMPACT





- Employment generated at communities' level with occasional work
 - 5.3 million workdays hired to local workers since 2015
 - Over 1,000 jobs (FTE) per year
 - 780 million Meticais (USD 16.1 million) paid to local workers since 2015
- 250 permanent jobs 95% Mozambicans and 30% women
- 600 national suppliers that have been paid over 3.3 mil
 million Meticais (USD 75 million) since 2010
- Taxes, fees and social security contributions paid to Mozambican State: 370 million Meticais (USD 6.4 million)
- Investment to date: 6,8 billion Meticais (USD 155 million)



FAMILIES in the project area





_	Zambezia	Manica
Number of families in licensed area (est.)	12 754	11 401
Food insecurity	32%	32%
No-income families	22%	13%
Families with annual income below 57 USD	62%	34%
Stable production of cassava / corn	93% / 76%	68% / 99%
Families owning livestock	22%	42%
Adult illiteracy	52%	32%
Schools with access to drinking water	23%	55%
Cases of malaria per child (0-4 years) per year	2.2	2.7

Source: EIAS, 2011-2014

PRIORITIES Community Development Programme





PRIORITIES

- Food security
- Opportunities for economic growth and income generation
- Support for household wellbeing

REACH (to date)

More than 7,000 families (out of an estimated total of 25,000 in the project areas) and 120 communities in Manica and Zambezia provinces.

Programme started to be implemented in 2015.

Investment over project lifetime: USD 40 million.

FARMING SCHEMES From 2015





Capacity building of 7,000 households for adopting more efficient agricultural techniques through conservation farming/smart agriculture practices.

182 demonstration plots.

2,800 families have benefited from **horticulture** capacity building



1,145,000 kilos of improved seeds – corn, beans, soya and sesame.

989,000 cassava cuttings and seedlings.

111,000 kilos of sweet potato cuttings.

15,000 fruit trees.





HONEY PRODUCTION

Distribution of **1,740** beehives

Honey production **improves income generation** and promotes the **protection of the forest**, as some beehives are located close to the plantations, leading communities to protect this source of income.

LIVESTOCK FARMING SCHEMES

754 families received **3 goatlings each** (**2,262** animals), in order to **breed and share** the first two offsprings.

Increases availability of **protein** and boosts income, based on principle of **sharing value** with neighbours.





FISH FARMS

Construction of **65** fish farms and training for families.

Important to improve intake of protein and for additional income generation.





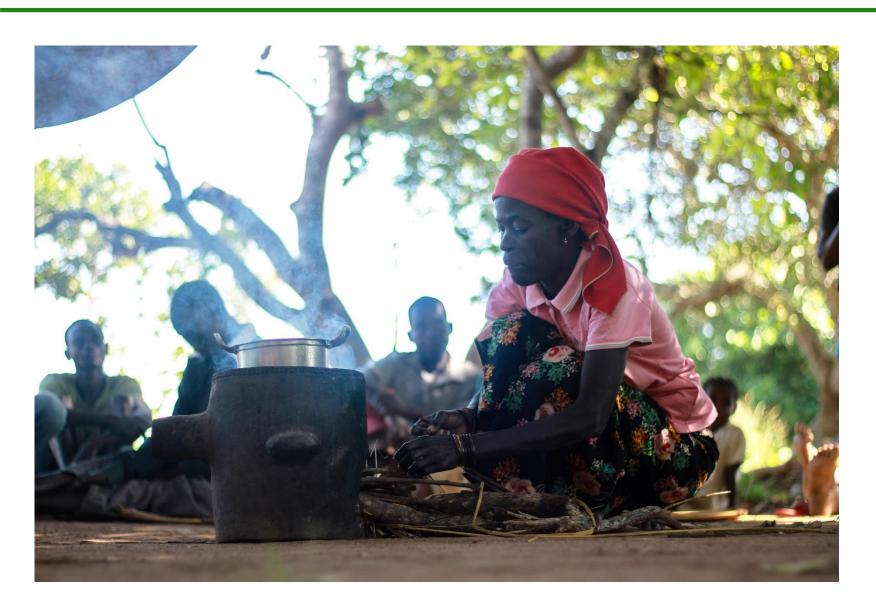
POULTRY VACCINATION

Vaccination of poultry against Newcastle disease in collaboration with public veterinary services.

850,669 doses administered since 2015.

WOOD SAVING STOVES





Wood saving stoves allows energy efficiency up to 30%, according to field experience and in comparison

Pilot experience to understand the community needs and rotines

to traditional bricks system.

Work in progress with the communities to adopt the new model

Capacity building to **produce** the stoves locally



DRINKING WATER

38 boreholes built + 63 non-operational boreholes **repaired**.

Some 10,000 families (50,000 people) benefited

Independent laboratory analyses confirm that the water is good for human consumption.





ENERGY

4,203 families have received solar lamps since 2015.

Solar lamps bring light to communities without electricity, allowing people to charge devices such as telephones and children no longer depend on daylight to study.





HEALTH

Supporting with **USD 150,000** the construction of the Surgical Block at the hospital in Ile, Zambezia province.

The new infrastructure will benefit several tens of thousands of people in the district and surrounding areas.





ACCESS ROADS, BRIDGES

Rehabilitation and building of roads and rural paths of over **5,300 kilometres**. Rehabilitation of more than **20 small rural bridges** and other road infrastructures.

Better roads and rural paths facilitate **access to public transports**, **healthcare** and to **selling**products

PART OF THE NAVIGATOR



What MOZAMBIQUE means to Portucel





Navigator's largest capital project outside Portugal.

An attractive geographical location, close to **Asian** markets.

Historical and cultural affinities with Portugal which strengthen the **reciprocal commitment**.

Significant investment already made in the country:

- Research and development of better adapted eucalyptus species, trial and scale plantations;
- Development of processes that respond to the real needs of the project and of the local communities;
- Wide-ranging Community Development Plan.

What **PORTUCEL** can offer Mozambique





1. ECONOMIC DEVELOPMENT AND A STRONGER VALUE CHAIN

- More than 70% of The Navigator Company's exports is value added in the country.
- A large proportion of the export earnings will stay in Mozambique, to stimulate the local economy and encourage new businesses in the value chain.

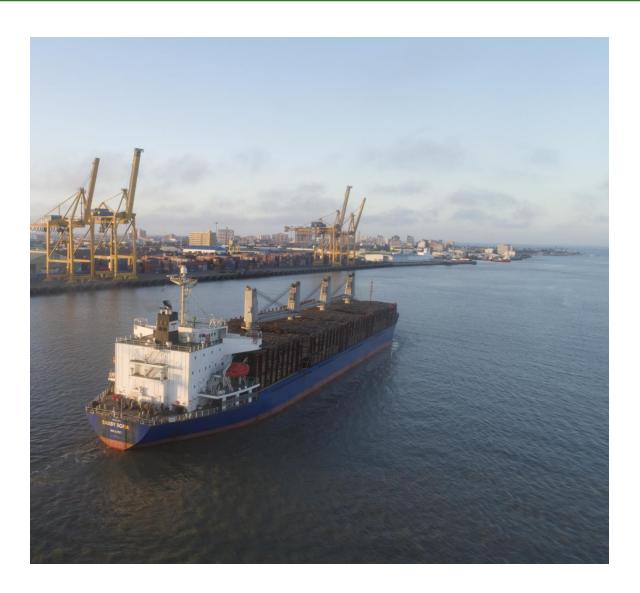
- **2. JOBS, TRAINING**, vocational qualifications and know-how transfer to Mozambican workers.
 - 2,000 new jobs* predicted in phase one and 8,000 new jobs* in phase two;
 - Research conducted by KPMG concludes that each direct job in The Navigator Company in Portugal generates 15 indirect jobs.

*In line with the international consensus that each 20 ha of plantations results in the creation of one job. Cf. <u>World Bank</u>



What **PORTUCEL** can offer Mozambique



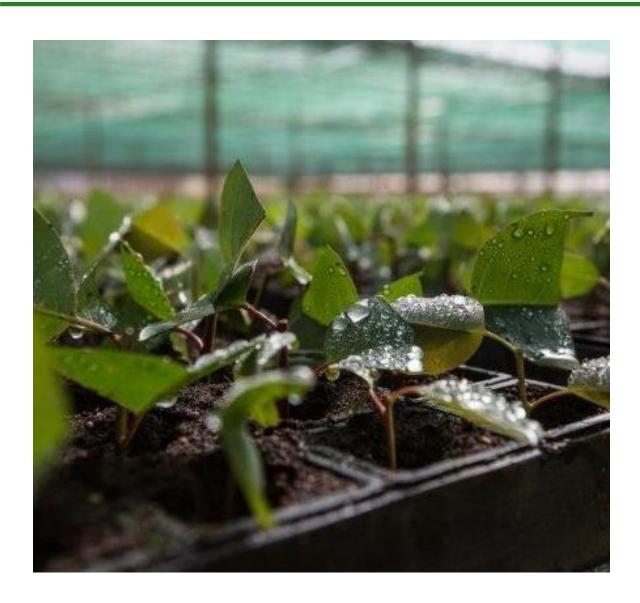


3. INCREASING EXPORTS AND FOREIGN CURRENCY INCOMING

- Portucel Moçambique's output is intended primarily for export:
 - With the woodchip mill (2025-2026): More than
 USD 100 million / year;
 - With the paper pulp mill (2032-2034): More than
 USD 1 billion / year.
 - Export starts in 2020 from the Port of Beira
- **4. INCREASING TAX REVENUES,** direct and indirect, thanks to project value chain.
- 5. ANCHOR PROJECT FOR TRANSPORT, COMMUNICATIONS AND LOGISTICAL INFRASTRUCTURES, for the main investors funding development.

What **PORTUCEL** can offer Mozambique





6. DEVELOPMENT OF FORESTRY AND AGRICULTURE

- Forestry Schemes Incentives for independent planting of eucalyptus forests, in line with company standards and securing the wood aquisition: up to 10 thousand ha in Phase I and up to 40 thousand ha in Phase II.
- Agricultural and livestock farming schemes.

7. PRESERVATION OF BIODIVERSITY

- Planted and well-managed forests are a source of biodiversity, good management of resources such as water, natural protection against phenomena like erosion/desertification and fire prevention.
- Water resources protocol for monitoring of water quality in micro basins.
- **8. SOCIAL DEVELOPMENT PROGRAMME** with large number of outreach activities.
 - Partnership with IFC, harnessing its experience in projects involving land access and community rights;
 - Investment of 40 million USD.







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