



### ***Vision Statement for 2030:***

*Timor-Leste with dynamic and innovative manufacturing industries that supply the national market and contribute to increasing exports, attracting private investment, creating jobs, fostering and diversifying the economy, and complying with the Sustainable Development Goals and the Strategic Development Plan 2011-2030.*

### ***Elements of Timor-Leste's National Industry Development Policy Vision to 2030***

*Industrialization, in the short and medium term, of the strategic sectors of agriculture, forestry, fishing, tourism, mineral resources and construction, as industries based on local resources and also processing industries for export, but not exclusively based on local resources;*

*Development of industries that process raw materials and semi-finished products into final consumer goods, mainly for export;*

*Gradual substitution of imports of industrial products that can be produced locally;*

*Gradual reduction of economic dependence on non-renewable sources of oil and gas;*

*Contributing to Timor-Leste joining the ranks of upper-middle-income countries, eradicating extreme poverty and establishing a sustainable and diversified non-oil economy.*

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## I. GENERAL FRAMEWORK AND NATIONAL CONTEXT

### 1. INTRODUCTION

The IX Constitutional Government continues to implement the *Strategic Development Plan 2011 - 2030 (SDP)*, whose economic vision is that, by 2030, *"Timor-Leste will have joined the ranks of upper-middle income countries, extreme poverty will have been eradicated and a sustainable and diversified non-oil economy will have been established"*<sup>1</sup>. Aware that Timor-Leste is still a predominantly agricultural country, *"our political focus must first be on developing the efficiency and productivity of this sector. The development of industries in this sector will be an important first step towards industrialization, to achieve upper-middle income status, which will require both an increase in agricultural production and the development of an industrial sector."*

*of Portuguese-speaking Countries (CPLP)*, as fundamental strategies for building a commercial network, accessing the global market and accelerating international and regional integration, in order to catalyze economic growth and achieve ever higher levels of sustainable and inclusive development.

*Timor-Leste intends to promote the development of existing industries, with a focus on resource-based industrialization and innovation, through the introduction of new industries.* Reducing dependence on imports of essential goods that can potentially be developed in Timor-Leste will be the first step towards industrialization, which will have a positive impact on improving the country's trade balance.

Efforts to achieve the sustainable and inclusive development goals of the 2011-2030 SDP require *the* government to go *beyond focusing on the oil and gas sector*, which are non-renewable resources, to also *adopt and implement public policy measures aimed at fostering other productive sectors of the economy, such as agriculture and its various value chains, forestry, fisheries, tourism, livestock farming, without excluding the tertiary sector, with particular attention to support services for the secondary sector.*

To this end, an *Industrial Policy* document began to be developed in 2014, having gone through a substantial interactive and collaborative process of research, analysis, surveys, stakeholder consultations and drafting. There were also (i) assessments of the level of manufacturing companies operating in Timor-Leste at the enterprise level; (ii) analyses of the trade balance context and opportunities in key sectors; (iii) comprehensive stakeholder consultations and engagement with the private sector, government agencies, development partners and civil society organizations; and (iv) the drafting of this policy document. This whole process received the support of some Development Partners and, as a result, the IX Constitutional Government undertook the finalization, approval and implementation of *the "National Industry Development Policy based on the National Planning Framework, determining production priorities in relation to available resources, including the selection of priority products for domestic consumption and for export."*<sup>5</sup>

## 2. MACROECONOMIC CONTEXT AND TRADE BALANCE

Timor-Leste is a market economy, still small and relatively open, where the economic environment, especially at the macroeconomic level, has been strengthened by oil revenues since the 2004 period until the recent oil price crisis and the impact of the COVID-19 pandemic, which caused a slowdown in the global stock market and imported inflation in the price of essential products.

The economy is highly dependent on oil revenues, while non-oil economic activity remains sluggish. *A development model based on public spending and financed by oil resources is unsustainable and the government is committed to reversing the current model of a publicly financed economy to one in which the*

Timor-Leste's growth has historically been more inward-oriented than export-oriented, but the domestic market is small and Timor-Leste needs to seek opportunities in larger global markets in order to grow and generate employment and income for the Timorese people. Improving domestic production

confirming the country's relatively weak competitiveness. Compared to other Asian developing countries, Timor-Leste is less competitive in terms of infrastructure, micro-environment, higher education and training, workforce skills, agricultural production, goods market efficiency, financial market development, technological readiness, business sophistication, innovation and management skills. In addition, the absence of a conducive, effective and efficient business environment, combined with the small size of the market and the lack of comprehensive and clear strategic development objectives contribute to the country's low level of industrial development.

related to agriculture and introduce curricular content in Secondary Technical-Vocational Education with a view to agro-industrial production.

***Some immediate products*** can be identified ***that could be raw materials for the processing industry, with a view to gradually replacing imports of*** selected products for domestic consumption and export:



fish catches and the production of fish in aquaculture, which contribute to increasing this *per capita* consumption.

Worldwide, there is a growing export market. According to the *Food and Agriculture Organization of the United Nations (FAO)*,



*In order to reduce imports, the government encourages the production of construction inputs such as cement, concrete, wood and bricks in the country.*

The construction sector also generates complementary synergies for the country's agriculture, mining and quarrying and tourism sectors. The development of other productive sectors must therefore be synchronized with the construction sector, with ample opportunities for public-private partnerships.

#### **4.5. MANUFACTURING INDUSTRY**

*Timor-Leste's manufacturing sector is still in its infancy and has a small domestic market, but the country has the conditions to aim for large-scale industrialization in the long term. With the exception of coffee processing, brewing and the processing of small niches of other agricultural products, companies produce mainly for the domestic market, where growth in coffee production, which contributes to industry, reached 7.0% in 2022, representing \$26.1 million<sup>17</sup> or the equivalent of 1.16% of real GDP (constant, adjusted for inflation).*

*Efforts to stimulate the manufacturing sector and its complementary activities, including the strategic sectors identified in the Strategic Development Plan 2011 - 2030, remain desirable and feasible, since this sector is essential for supporting engineering and light consumer goods: downstream oil and gas, agriculture, fisheries, tourism and highly qualified and specialized services.* The industry must focus on absorbing *know-how*, innovation and cutting-edge technology by adopting best practices in foreign direct investment and transferring knowledge to domestic companies. Learning from foreign technology should be the main channel for developing highly skilled and specialized manufacturing and service capabilities in Timor-Leste.

Due to the small size of the economy and the rural orientation of Timor-Leste, achieving value addition will require the implementation of strategies to stimulate upgrading to higher value-added

as a consequence of the lack of competitiveness of most Timorese products, can be overcome with the introduction, initially, of an effective resource-based industrialization policy and, in the long term, a broader industrialization policy and, subsequently, a solid implementation of the policy with a clear roadmap of action plans and indicators.

#### 4.6. EXTRACTIVE INDUSTRIES

*Timor-Leste's complex geology suggests the presence of a wide variety of minerals as well as hydrocarbons, including expensive metal ores.* Thus, an important sub-sector is quarrying, due to the huge demand for construction in the country. There are more than 200 minerals distributed throughout the country. Some important deposits of metallic minerals known in Timor-Leste are gold, copper, *manganese, silver and chromite*. The main potential for metallic minerals in Timor-Leste is found in ultramafic rocks. *The important non-metallic minerals in Timor-Leste are sand and clay, gravel and limestone, which are important inputs for the production of cement and bricks.* The country's important foreign direct investment (FDI) envelopes are for the construction of a cement factory in Baucau T/Fo aipe



acquire knowledge through learning-by-doing methods or a hands-on approach. *Companies participate in incremental engineering activities*, adopting strategies to adapt existing technologies to improve their efficiency and production quality, which shows that technological updating is taking place in the country, albeit at a still incipient level.

*The government should invest in developing high-quality basic infrastructure in the country.* Good roads will make it easier to collect products from processing factories, which will help reduce processing costs and thus help amortize the investment in these factories; coconut oil, rice mills, peanut sorting and packaging are some of the industries that will benefit from this expansion;



the sector's main driving force. Until then, any expansion in services will only slow down the other sectors, since they tend to specialize in non-productive subsectors<sup>18</sup>.

Evidence has not only shown that *industrialization is linked to economic growth*, but also that *manufacturing can play a catalytic role in transforming the economic structure of agrarian societies. There is a close relationship between per capita income and industrial structure. Agriculture and mining dominate GDP in the poorest economies, while manufacturing becomes important in middle- and upper-middle-income countries*. Services take over in the more developed economies.

*The manufacturing sector is less exposed to external shocks, price fluctuations, weather conditions and unfair competition practices*, even during the COVID-19 pandemic, having recovered quickly from the initial slump. As of the third quarter of 2021, global industrial production growth reached 5.7% compared to the same quarter of the previous year. The price of manufactured goods tends to be more stable than that of commodities. The main reason for this is that manufacturing companies, unlike commodities, are exposed to rapid product maturity and have shorter gestation periods<sup>19</sup>.

*The manufacturing industry generates stronger technical externalities (including cross-sectoral ones), skills creation and learning that are crucial for competitiveness*. For example, manufacturing is the main vehicle for technological development and innovation, representing the center of technological progress in many countries. Industry and services use technology in many forms and at different levels to increase the return on investment, moving from low-productivity to high-productivity activities. Manufacturing also offers great potential for informal innovation activities, such as *ad hoc* incremental improvements in products and processes.

*Manufacturing has a "knock-on effect" on other sectors of the economy. The development of the manufacturing sector stimulates demand for more and better services: banking, insurance, communications and transport*. Digitalization and information technology systems are shaping the way companies in the service sector operate and must operate. Finally, the internationalization of production has extended the benefits of the manufacturing industry to many parts of the world. The geographical distribution of multinational companies' activities, as well as the global outsourcing of production, has benefited manufacturing in the developing world more than other sectors of the economy. *The trend towards vertical dispersion of production activities in industrialized countries means that developing countries have a better chance of integrating into global value chains*.<sup>20</sup>

## 2. INDUSTRIALIZATION AND JOB OPPORTUNITIES

*Industrialization is a tool for creating job opportunities and achieving the Sustainable Development Goals (SDGs)*. Job creation is a key objective of the Government of Timor-Leste. The recent 2021 census estimates Timor-Leste's population at 1,340,434

<sup>18</sup> Rowthorn and Wells (1987).

<sup>19</sup> Rasiah, Osman and Rokiah (2000).

<sup>20</sup> Rasiah, McFarlane and Kuruvilla (2015); Rasiah, Kimura and Oum (2015).



inhabitants, with an annual growth rate of 1.8%. Timor-Leste's population is expected to double in less than 25 years if this growth rate continues. The youth population is expected to increase sharply, with between 15,000 and 16,000 people entering the job market each year. Recent figures indicate that around 74% of the country's population is under 35 years of age and that the majority are neither employed nor studying. The 4th National Report on Human Development (RNDH) reveals that 80% do not have a formal job and 25% do not look for a job because they feel discouraged by the difficulty in finding work. However, the working-age population has been increasing steadily, at an annual growth rate of 2.4%. In addition, one of the main conclusions highlights that 45% have basic education as their highest level of schooling and 60% aspire to further education/training, but only 1/3 have received any training.

It is essential to outline the appropriate workforce/skills gaps before exploring the role of industrialization in providing opportunities for young people to participate in economic activities. This can also serve as an avenue for them to continue learning and improving their skills, while contributing to national development. In addition, the government must create the right environment to encourage young entrepreneurs to become more innovative and high-tech oriented for the development of highly qualified and specialized services. However, the current private sector involved in the productive sector is small and can absorb only a limited part of the available national workforce.

***To generate employment, it is necessary to diversify industries and develop new ones.*** However, it is difficult to diversify industries by leaving industrialization solely in the hands of market forces, since the Timor-Leste market is small due to the small population, as well as the oil sector which can exclude real sectors, since it is relatively large. Thus, ***the industry development policy aims to shift from the non-renewable petroleum sector to the sectors of the real economy.***

***The focus of Timor-***





It is also necessary to adopt a strategy to promote increased private investment, economic diversification and sustainable job creation, along the lines of the *Economic Development and*

In addition to cultural affinity and solidarity with ASEAN, regional and global economic integration will (i) facilitate more business and investment opportunities and (ii) solidify Timor-Leste's access to regional and global supply chains. Timor-Leste can also take advantage of ASEAN's specific focus by taking a myriad of measures to stimulate growth, sustain and create employment opportunities, strengthen supply chains, improve transport and logistics efficiency and accelerate digital transformation.

In addition, accession to the WTO offers a huge opportunity for national institutional and regulatory reforms, as well as for the predictability and transparency of internal trade, which guarantees the stability of legislation and reduces investment risks, thus providing a business environment conducive to foreign direct investment and boosting national production. Similarly, accession to the Economic Partnership Agreement with the EU-

Gradual reduction of economic dependence on non-renewable sources of oil and gas.

Contributing to Timor-Leste joining the ranks of upper-middle-income countries, eradicating extreme poverty and establishing a sustainable and diversified non-oil economy.

Timor-Leste now has the advantage of "*learning from the mistakes of others*", defining more appropriate strategies to accelerate the growth and diversification of the economy, creating conditions that allow it to avoid pitfalls that other countries faced during their industrialization process.

From this perspective, *the country is pursuing industrialization by incorporating strategies to protect and preserve the*



Promoting the supply of **wood-based products** (including teak) and bamboo, particularly in the manufacture of furniture and in construction;

**Enhancing the value** of handicrafts through modern processing and assembly technologies, including the protection of Tais;

Transformation of oil (from crude oil exports) and oil waste (into carbon fiber) and development of downstream petrochemical industries.

**The policy targets two markets in the short and medium term:**

**Increasing supply on the domestic market by existing economic activities** - diversifying the economy through activities aimed at the domestic market (growth of existing activities). Although domestic companies can play a dominant role in meeting the needs of the local economy, foreign direct investment seeking the market can also be an important player; and

**Competitive import substitution** - encouraging the emergence of new activities. Foreign direct investment seeking the market will also be an important player.

The policy contains measures to improve the business environment so that it is conducive and more attractive, as well as Timor-Leste's competitive position. A more competitive environment can validate the long-term aspiration to develop an export-oriented, non-natural resource-based manufacturing industry.

### 3. POLICY AREAS

The Government's approach to the National Industry Development Policy focuses on the following **four (4) areas of policy intervention and governance actions**:

First: Policy guidelines, coordination and effectiveness;

Second: Complementary industrialization;

Third: Industrial human resources; and

Fourth: Development of the private sector and cooperatives

The areas of intervention are detailed below under policy measures and classified under governance actions:

#### 3.1. FIRST AREA: Policy Guidelines, Coordination and Effectiveness

The measures within these areas aim to increase the systemic coordination of the national industry development policy with other policies; focus the overall orientation on resource-based industrialization and innovation industrialization; and ensure the effectiveness of implementation through periodic review and evaluation.

##### 3.1.1. ENCOURAGING INDUSTRIALIZATION BASED ON NATURAL RESOURCES AND INNOVATION

***In the short and medium term, the government will focus on encouraging industrialization based on natural resources and innovation, geared towards the domestic market and competitive import substitution.***









The government department responsible for trade and industry will promote small-scale, labour-intensive domestic industries with farmers' groups, community organizations, farmers' organizations and cooperatives.

### **3.2.3. PROMOTING THE AGRO-INDUSTRIAL SECTOR**

*The promotion and encouragement of agri-business is essential to stimulate entrepreneurship in agriculture.*

The government department responsible for trade and industry will work closely with the government department responsible for agriculture and agri-business, the youth business center and the agency responsible for investment and export to promote private sector participation in agriculture. Specific actions include strengthening business management, market linkage, supply chain management and the economic activity of private entrepreneurs, such as farmers' groups/women's groups, youth groups, cooperatives, processing industries and traders. The government department responsible for trade and industry will work together with the agency responsible for investment and export to promote opportunities in the agribusiness sector in order to encourage and mobilize private sector participation.

### **3.2.4. COMPETITIVE IMPORT SUBSTITUTION**

*The government promotes the competitive and gradual substitution of imports of products from agro-processing industries.* Timor-Leste currently imports a substantial number of products that could be produced domestically. The government department responsible for trade and industry has already





Clustering effects can be substantial in construction-related industries. Investments in this sector and its subsequent development can help reduce imports of raw materials and ready-to-use building materials.

## E. INVESTMENT STRATEGY FOR THE BUILDING MATERIALS SECTOR

*The government will work towards developing an investment strategy for the building materials sector.*

The government departments and agencies responsible for trade and industry, investment and exports, infrastructure and public works will jointly develop a strategy to promote investment in the building materials sector.

### 3.3. THIRD AREA OF INTERVENTION: Industrial Human Resources

The development of human resources is fundamental to industrial development. *The need for skills development is even more pressing given the increasing pace of global technological change, the spread of information technologies and the intensification of global competition.* Recent data from the World Bank highlights that Timor-Leste's human capital index is 0.45 in 2020, lower than the average for the East Asia and Pacific region, which is 0.59. In addition, the quality of higher education also needs to improve significantly, both in private and public universities. This would increase the country's productivity and efficiency. It is also necessary to provide viable training mechanisms for workers and line managers. Training schemes would also help workers develop local design skills and more sustainable production and marketing practices.

Technical assistance and other training actions, such as Kaizen methods, optimized management, *just in time*, *Six Sigma*, technology and innovation, would also be beneficial. If these strategies were adopted throughout the sector, it would improve productivity and promote the use of capital-intensive production instead of labor-intensive production. Timor-Leste could thus lower production costs and become more competitive.

#### 3.3.1. SKILLS AUDIT FOR THE IMPLEMENTATION OF THE POLICY

*Carry out an immediate audit of public sector competencies to implement the National Industry Development Policy. Following the skills audit, develop a capacity building program.* The aim of this measure is to ensure that the government has the capacity to successfully implement the National Industry Development Policy. Conducting a skills audit can help the government department responsible for trade and industry to design a long-term capacity building program. The assistance of Development Partners should be sought to carry out the skills audit and develop a capacity building program.

#### 3.3.2. VOCATIONAL EDUCATION AND TRAINING FOR INDUSTRIAL DEVELOPMENT

*Coordination between the government departments responsible for trade, industry and vocational training to strengthen the orientation of vocational education and training towards industrial development.*

The coordination mechanisms to be established between these government departments could ensure that training and skills development support industrial development.





**Strengthening service** capacities: strengthening the capacities of selected public and private institutions to provide effective market-oriented business development services in the fields of technological information, consultancy and advice, technical training, promotion of subcontracting and business planning.

**Access to finance:** creating an enabling environment that allows financial institutions to grant loans to micro, small and medium-sized enterprises, including micro-credits to rural communities and family businesses. This can be made possible by setting *up an appropriate credit guarantee system or by creating an appropriate legal environment* through the adoption of a certain set of laws that are essential for the effective and efficient functioning of financial institutions, such as the *enforcement law, the law on guarantees and the law on insolvency and business recovery*.

#### 3.4.2. TECHNICAL ADVICE MECHANISM FOR COMPANIES

*Consider creating a technical consultancy mechanism aimed at advising companies.* Many companies in Timor-Leste suffers from low productivity and inexperienced management. A technical consultancy could advise and solve day-to-day technical problems and also help improve and update products and processes.

The government will carry out the necessary studies and establish a technical consultancy mechanism to advise companies, based on the relevant experience of existing government institutions, especially through the government department and agency responsible f37w62.47 422(1)-4(o)1uo.-7(o 3(e5( )-331(a)-1

