



Ministry for Higher Education,  
Science and Culture  
(MESCC)

# FDCH



Human Capital Development Fund  
(FDCH)

## RESULT OF THE DATA SURVEY OF THE EXISTING **HUMAN RESOURCES** AND MAIN KEY AREAS OF TRAINING

**LAUTEM  
MUNICIPALITY**

**LD RHE**

DATA COLLECTION OF EXISTING  
**HUMAN RESOURCES**

LD RHE REPORT 2018



# **Result of Data Collection of Existing Human Resources and The Main Key Areas of Training**

## **Municipality of Lautem**

***Fundo do Desenvolvimento do Capital Humano (FDCH)***  
**(Human Capital Development Fund – HCDF)**

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Through this opportunity we would like to extend our gratitude to:

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**Thank you.**

## MESSAGE FROM THE MINISTER



I am grateful for the honor bestowed on me in this report entitled "Data Collection of Existing Human Resources in Timor-Leste". It is a fundamental work where it provides information pertinent to the formulation of the National Strategic Plan for the Development of Human Resources of the Country. It will contribute to know, understand and strengthen the capacity of the Human Capital Development Fund (FDCH) in terms of identifying the existing human resources and try to bridge the gaps through greater awareness of budgeting based on the country's real needs.

Achieving the goals and targets outlined in the Strategic Plan for National Development 2011-2030 requires a commitment from all. It requires forming partnerships, focusing on areas of greatest need, improving the effectiveness of actions. I am convinced that this report will make a significant contribution to our effort to mobilize resources and engage in partnerships and collaboration with all segments of society in order to achieve the objectives set out efficiently and effectively.

The current social and economic environment characterized by increasing globalization and technological advances requires a society composed of competent and qualified individuals capable of responding to the unpredictability of the market, characteristics of changing contexts and innovation.

The pertinence of this report emerges from the relevance attributed to ongoing training and development in the current context of individual institutions or organizations, societies and individuals. It is in this context that FDCH plays a pivotal role in the development of human resources through training and capacity building to help people to acquire and systematically improve the skills and knowledge needed to carry out their professional functions and, consequently, and institutions or organizations to make the most of their human capital.



In this systematic search to optimize human capacity, training and continuous training of human capital emerge as strategies directly related to the construction of techniques and skilled labor, continuously adjusted to the demands of the surrounding contexts. Human resource development (HRD) is an intentional process necessary for people who are professionally active or who wish to enter the labor market to add value in an increasingly sustainable way to the social fabric of work, contributing to the economic, social and institutional or organizational prosperity of the Parents.

In this sense, it is fundamental that public and private institutions, labor market institutions, and the municipal economic and social system, develop strategies for human resource development so that they can manage their workforce in an organized way and in line with their missions and goals.

The data presented in the report indicate that some specialized training areas of existing human resources remain limited, such as agriculture, construction, hospitality and tourism, the private sector, technical and vocational education and training (TVET) and adult education, especially for women, and workplace training.

The integration of these priority areas into a National Human Development Strategy for Timor-Leste will ensure the development of appropriate government policy responses, civil society desires, educational institution programs, and the needs of business and industry work will be well aligned and work together in a coordinated way to increase the capabilities of all human resources.

It is hoped that this report will become an instrument that should be part of everyone's daily life for those who seek to contribute to the training, education and improvement of the different categories of personnel required, by optimizing opportunities within or outside the country and promoting planning of human resources, namely in relation to the needs of the Municipalities and the Country as a whole.

Finally, to promote equity in attention to human resources training, reduce training inequalities, increase the availability of training actions, guaranteeing universal access to the most affected of social inequalities, gender, race, ethnicity, generation, vulnerable are the challenges posed so that the right ceases to be more declarations and becomes part of the daily life of the Timorese.

Dili, December 2018



**Longinhos dos Santos, M.M.**

Minister of Higher Education, Science and Culture (MESCC)

## MESSAGE FROM THE EXECUTIVE SECRETARY OF FDCH

In order to assist the Government in implementing the Policy Based Evidence, the Council of Administration of Human Capital Development Fund (CA-FDCH: acronym in Portuguese language) directed to the Technical Secretariat of Human Capital Development Fund (ST-FDCH: acronym in Portuguese language) in May 2016 to conduct a study throughout the country to identify the number of human resources existence in Timor-Leste.

After sufficient preparation with adequate budget and trained staff, ST-FDCH immediately coordinated with the General Directorate of Statistics of the Ministry of Finance and with the joint work team of the Ministry of State Administration (MAE - acronym in Portuguese language) and the National Program for Village Development team (PNDS-acronym in Portuguese language) in the training of the team of enumerators for each village with a minimum of 5 people out of 452 Village (*Suco*) in Timor-Leste.

The process of data collection has undergone several challenges due to the geographical area that must be overcome to remote areas throughout Timor-Leste. Residences distanced from each other crossing mountains, rivers and streams from one village to another. As well as the difficulty the team has faced in collecting data, especially in rainy weather and other challenges. Due to the challenges mentioned, the team took a few months to complete and was finally completed in February to March 2017.

In April 2017, the team began the data cleaning process that took 3 to 4 months and ended in the month of August until September 2017, then the data reconciliation was done by the team together with the General Directorate of Statistics of the Ministry of Finance.

Later ST-FDCH Office began to analyze the data and to prepare the report, as a result of this survey, the office saw that it still needed more information, consulting the Municipalities to know better which potentials exist in each Municipality including RAEOA-Oecusse. And what are the aspirations, ideas or suggestions coming from Youth, Women, Disabled People and all stakeholders presented

through discussions in groups running through the country. The Program was held from March to April 2018, due to the budget constraints that was only available at the beginning of the fiscal year of 2018, as well as after coordination between the ST-FDCH and PNDS team and the Municipal Authorities and RAEOA-Oecusse.

In the end, the report was prepared in Tétum as the official language, and translated into Portuguese as well as English.

Finally, let us hope that the data, information and the analysis developed in this report will be useful in common, as this information will be useful to assist the government, the private sector and all parties such as public, private, civil, police and military organizations. The international development partners they can use for appropriate planning and better implementation in Timor-Leste in achieving the National Strategic Development Plan 2011-2030.

My deep appreciation for the attention, collaboration and teamwork with the goal of developing and strengthening human resources in Timor-Leste for the well being of the people and for the contribution of the stability and prosperity of this noble nation.

Dili, December 2018

A blue ink signature of Isménio Martins da Silva, consisting of a stylized 'I' followed by a series of loops and a long horizontal stroke.

**Isménio Martins da Silva**

Secretary of HCDF/ FDCH-MESCC

## EXECUTIVE SUMMARY

### Justification of the importance of the subject

This report has two complementary lines of work, the **first one** based on the data collection of human resources existing in each municipality carried out by the Human Capital Development Fund (HCDF/FDCH) and **the second**, the identification of the natural resources and the economic potential of the Municipality, the priority programs related to their potential - based on the four pillars of the Municipal Strategic Plan (MSP/PEM) and key human resources that need training in the development of priority programs.

The key to the effective development of the Municipality's human resources is not only to identify the natural and economic potential for development and priority areas of training, but also to have prior knowledge of existing human resources and to segment appropriate funds for the needs of identified, ensuring different phases of MSP/PEM to be implemented successfully.

The formulation of a human resource development strategy requires an integrated and multifaceted understanding of a complexity of subjects such as population demographics, especially the current human resources of the municipality, development of the workforce in the public and private sector, vocational education and training system as well as capacity development, current and future labor market issues including the employer and market needs and the tertiary education system (higher education) and their ability to produce skilled human resources at all levels.

The lack of information on policies, plans, information systems and vocational training, availability, composition, distribution, density, sources of funding, labor market forces and many other aspects related to the development of human resources linked to the economic and natural resources available in Lautem Municipality are scarce and are often dispersed through many sources. The integration of these issues into a human resource development strategy for the municipality will ensure the development of appropriate local government (Municipal) policy responses, civil society desires, educational institution



programs, and business and industry needs. well-aligned and work together in a coordinated way to increase the capabilities of all human resources.

The fact that the above-mentioned subjects are not sufficiently integrated into a set of human resources development work programs and that there is no comprehensive study on the subject is one of the reasons for this work.

Thus, this work was carried out with the purpose of 1) identifying and analyzing the current human resources situation and its distribution in the Sub-District Administration , 2) identifying the natural resources and economic potentials and priority programs of the municipality based on the four (4) pillars of the Municipality Strategic Plan (MSP/PEM), 3) identify the key human resources that training need in the development of priority programs; and 4) also try to analyze and compare the existence of the current human resources and the need for training or training required by the municipality based on the programs to allocate funding efficiently and effectively.

### **Methodology**

The methodology is used and applied with the following phases : **in the first phase**, the data were collected from individuals aged 17 years or over by census of the population living in the Municipality of Lautem, with the completion of a questionnaire, carried out between September 5 to 5 of November 2016 and **in the second phase**, was done through the "Focus Group Discussion" (FGD) held on March 20, 2018 to Municipal Administrator, Administrative Officers, Directors and other gauging the accuracy of the information given but also the relevance of the programs identified as necessary for the development of the human resource of the municipality

### **Summary of Results**

The data presented here show that the majority of the respondents population in Lautem Municipality are young peoples aged 17- 44 years. At the knowledge level, there are a large number of people with no education level (illiterate), followed by those with complete secondary education, pre-secondary education and basic education respectively.

This dispersion of educational attainment, coupled with the rapid growth of the population in the relevant age groups, shows the essence of the challenge faced by the Lautem Municipality. One aspect of this challenge is the balance between those who have completed general secondary education and academic education are predominant compared to those completed by professional technicians at both secondary technical school and level or at the higher technical level such as polytechnic. The ideal balance between academic and technical education is a key issue in the development process. In addition, the data also indicate a very small number of people who participated in one of the vocational training courses with skilled labor prepared for self-employment or institutional strengthening.

Those who had already taken part in one of the short-term professional courses in most are generic professional courses geared more towards administrative work and the public servant as a course of Leadership, Administration, Finance, Planning, Management and Languages, which in practical technical terms do not support the creation of their own jobs (self-employment).

It is further aggravated by a large number of job seekers including those who have completed their degree in Mathematics, Management, Civil Engineering, Engineering Architecture, Law, General Medicine, Animal Production (Livestock), Accounting and more graduates in other areas (see table 15), without taking advantage of them in the labor market. The work preference is in the public sector while the non-licensed are in the non-public sector such as Agriculture, Domestic Work, Industrial Activity and Civil Construction.

Analyzing the training preference based on the priority programs (*Table 25*) with the current human resources (*Table 5*), the data show that Lautem Municipality has a large number of graduates in several areas, so there are still deficiencies in some specialized areas. In relation to the current human resources, the question is how to take advantage of and employ them. However, it is important to emphasize that there are still serious concerns about quality not only in technical knowledge but language skills, and this can become one of the challenges. Language training activities are intended to provide the beneficiaries with fluency in reference languages and to enable them to be more effective in carrying out their tasks in

particular when traveling to international work overseas. In this sense, it is important to unite with the additional training at postgraduate level directed to the priority technical areas and **professional internship programs**.

Another challenge demonstrated in the presented work was the greater number of public and private employees including entrepreneurs with very low levels of education. This may possibly imply a lack of productivity and competitiveness in companies or organizations. It is evident that with this very low level of qualification the municipality will not be able to overcome the serious problems that it faces nor the future challenges.

Private sector growth is constrained by skills gaps in the workforce, both employers and workers. The private sector contributes to economic development by generating jobs and income, as well as through investment, new technologies, knowledge transfer and increased productivity. This has been observed in some countries in Asia, where much of the recent success in poverty reduction is due to robust economic growth stimulated by the private sector. In this regard, it is crucial to strengthen the private sector by promoting the development and adequacy of the qualification of workers and employers with a view to improving their employability and increasing the productivity and competitiveness of the business.

Equipping workers with certain skills will enable them to continue to take advantage of opportunities for growth expansion in a non agriculture in the private sector. A high school diploma or higher is increasingly an indicator of employment opportunities in the urban private sector.

The Municipality of Lautem has identified skills shortages in the following sectors: Electronics Engineering, Health, Tourism, Aviation, Manufacturing, Waste Treatment and Financial Services (Banks, Insurance and Securities).

It also identified a lack of skills in the following areas: English, Nursing, Pharmacy, Hospitality, Pilot training, Accounting and Auditing, Machine Operation, Component Manufacturing and Assembly, Engineering (design and development),

Literacy, programming, Software engineering and Management (Decision making, Leadership, Delegation, Motivation). It therefore considers that academic skill and professional technical training should be provided for the most crucial areas in the implementation of its priority program as set out in table 25.

Based on the data presented above it becomes evident the need for training and the development of people's ability as a means to provide qualitative and quantitative benefits.

It is important to note that skills development can not be seen only in formal vocational and technical education and training, which comprises skills acquired through all levels of education and training, taking place in formal, non-formal and vocational training contexts, which enables individuals in all sectors of the economy to engage fully and productively in livelihoods and to be able to further refine and adapt their skills to meet new demands and opportunities in the economy and the labor market. Skills development should not be characterized by the source of education or training itself, but by the skills that are acquired through this process.

With regard to people with disabilities, data show that there are quite a large number of people with disabilities and many of them have stopped in primary and secondary education due to various difficulties, and this makes it difficult to get a job, to earn a higher salary than the benefit of the government. Employers have some concerns about hiring people with disabilities because they feel they may not have adequate professional qualifications. This issue can be minimized if there are some inclusive policies such as developing initial and continuing vocational training for people with disabilities to enable them to acquire the knowledge and skills necessary to attain a vocational qualification to help overcome the concerns of employers so that they can have more opportunities and their entry into the labor market is easier.

The data also point out the need to reduce or combat illiteracy by creating opportunities and mobilizing municipal managers to increase literacy provision for all young people, adults and older people who did not have access or stay in basic

education, especially the small business people and medium-sized enterprises and farmers. Education and training for entrepreneurship is also key to encouraging creativity and the realization of new local economic initiatives.

Intensive training, in service and postgraduate (specialization), should be intensified as key elements for the quality of the human resources currently possessing the Secondary and Bachelor's level of education.

It also reveals the need for a demand-driven secondary-vocational education and demand-driven post secondary technical education area of secondary and post-secondary education.

And finally, in the scope of preparation of Human Resources for the creation of municipalities, it is important to strengthen the training in the areas of Urbanization and Regional Planning, Planning and Territorial Planning.

## Conclusion and Recommendations

Based on the data presented and discussed above, it is concluded that in developing human capital resources and achieving sustainable development in the future, Lautem Municipality needs to pay more attention to the development opportunities identified in the Municipality Development plan, (MDP) and to the following five dimensions : 1) **economic** (increase efficiency of the production system), 2) **social** (improvement of the levels of income distribution of the population), 3) **ecological** (preservation of the environment), 4) **spatial** (balance in distribution and occupation of population rural and urban) and 5) **cultural** (respect to the ways of thinking and acting of society, focusing on the construction of an environmental consciousness linked to consumption).

According to the results obtained, it is considered pertinent to conclude and recommend the following:

- a) The commitment to education should give priority to technical and professional training on academic, focusing more on the opening of



vocational training centers (or Polytechnic institutes) to the detriment of the opening of more universities

- b) Complementary to academic training, the creation of specialization courses can increase the employability and professional capacity of those who finish the formal education.

Based on the data analyzed, we reinforce the need to train other areas where there are notable shortages of qualified human resources and areas of greater importance according to the priority programs found in table 25.

Most respondents wish to work in the non-public (private sector) than in the public sector. The desire for the private sector was slightly higher among young people aged 17-36 and the preference for work is mainly in the area of agriculture, household chores, industry and construction.

The graduates with the highest number of job seekers "unemployment", are in the areas of Mathematics, Management, Civil Engineering, Engineering Architecture, Law, General Medicine, Animal Production (Livestock), Accounting and more in other areas ( *Table 15*).

Intensive training, in service and postgraduate (specialization), should be intensified as key elements for the quality of the human resources currently possessing the Secondary and Bachelor's level of education.

There are quite a large number of people with disability who are job-poor and have inadequate professional qualifications, or very limited practical professional knowledge. The need to develop initial and continuing vocational training actions for people with disability and incapacity, such as gestural training for those with visual and hearing disabilities, is recommended so that they can have more opportunities in the labor market.

To complete this general conclusion, we highlight five main points:

- 1) Education and training opportunities remain limited in some of the major areas highlighted by SDP, such as agriculture, construction and hospitality and tourism. It should focus more on the development of human capital:

- **Agriculture** is the heart of the municipality's economy and critical to the well-being of its people. A sustainable agricultural development path will require greater investment in building innovation and skills on small-scale farms through many routes: training and technology transfer; a strong expansion of the number and skills of extension workers; through better education and training for members of rural families, including women; and increased investment in vocational and tertiary education programs and Research and Development (R & D) centers closely linked to the needs of agriculture in the Lautem Municipality
  - **Construction** with a limited infrastructure inherited from the Indonesian government period and the continuous needs to consolidate the infrastructures namely the roads thus offering the population of the benefited region better conditions transport, easy access and enables local farmers to transport their products to the market quickly and effectively.
  - **Tourism** in Lautem Municipality continues to be a future opportunity, but taking advantage of this opportunity will require the development of a trained workforce, from the entry-level team to senior managers, as well as investment in Research Development (R & D), development and policy planning and planning capabilities
- 2) **Private Sector** - Survey data shows that private sector growth is constrained by skill gaps in the workforce both employers and workers. In this regard, it is crucial to strengthen the private sector by promoting the development and adequacy of the qualification of workers and employers with a view to improving their employability and increasing the productivity and competitiveness of the business.
- 3) **Technical and vocational education and training (TVET)**. FDCH's study shows a lower level of TVET qualifications than university qualifications in Lautem municipality, and increased investment in the expansion of TVET should be a high priority. This expansion should cover technical secondary

schools, the polytechnic system, and the community-based non-formal vocational training system. In doing so, it is important that the boundary between academic and technical education remains fluid, with easy articulation between the two areas

- 4) **Adult education** (literacy for all young people, adults and the elderly), especially for women, and training in the workplace. In our view, these three areas are of considerable importance. In particular, the increasing role of women, perhaps especially in agriculture, and a higher skill level due to improved training, can contribute to household and national income growth, and to more jobs in general.
- 5) In the preparation of Human Resources for the creation of municipalities (decentralization process) it is important to strengthen the training in the areas of Urbanization and Regional Planning, Planning and Territorial Planning.
- 6) It also reveals the need for a supply of study areas at the secondary and post-secondary level that is geared to the needs of the country (*demand-driven secondary vocational education e demand-driven post secondary technical education*).

## PART A: INTRODUCTION, OBJECTIVES AND METHODOLOGY

### 1. Introduction, Objectives and Methodology

#### 1.1. General Introduction

Lautem Municipality is located in the extreme East of the country and the island of Timor, approximately 248 km East of the capital, Dili. Lautem has beautiful sandy beaches and a pristine wilderness, mountainous and unspoilt. Many of the endemic birds of Timor-Leste live here. Near the town of Lautem there are drawings of caves. Numerous stone sarcophagi and animist shrines are found throughout the county. It shares borders to the West with the Baucau Municipality and Viqueque, the Banda Sea to the North and the Timor Sea to the South, the Timor Sea and the Arafura Sea. Lautem Municipality also includes the Eastern most point of the island, Kap Cutcha, in the Sub-District Administration Tutuala, and the small island of Jaco; and has a total area of 1,813.11 km<sup>2</sup>. Astronomically the Municipality of Lautem is located in the longitude 8°.30 - 8°.45 and 126°.45 - 127°.15.

The population was estimated at 65,240 inhabitants, 32,063 men and 33,177 women, and according to the 12,050 household census. The dominant religion in the territory of Lautem Municipality is the Catholic religion, which is followed by 97% of the population, 3% remaining follow the other religions, and languages are spoken in several languages; 61% of the population speak **Fataluku**, 14% speak **Makasae**, 12% **Makalero**, 8% **Sa'ani** and 4% **Tetum**.

#### **Sub - District Administration, villages (*Sucos*) and Sub Villages (*Aldeia*)**

The Municipality of Lautem is divided into 5 Sub-District Administration, 35 villages (*Sucos*) and 151 Sub-Villages (*hamlets/Aldeia*) dispersed throughout the territory according to the table below:

### Region of the Sub-District Administrations

Sub-District Administrations	Superficie Km <sup>²</sup>	(%)
Lospalos	623.93	34.41
Lautem	448.38	24.73
Iliomar	302.17	16.67
Luro	128.28	7.08
Tutuala	310.36	17.12
<b>Total</b>	<b>1,813.11</b>	<b>100%</b>

### Sub-District Administrations, villages (*Sucos*) and number of Sub Villages (*Sub-villages/Aldeia*)

Sub-District Administration Lospalos consists of 11 villages and 52 Sub-villages

Sub-District Administration Lautem consists 10 villages and 46 Sub-Villages

Sub-District Administration Iliomar consists 6 villages and 25 Sub-Villages

Sub-District Administration Luro consists 6 villages and 21 Sub-Villages

Sub-District Administration Tutuala consists 2 villages and 7 Sub-Villages

### Climate, Relief and Hydrography

The climate situation of Lautem Municipality is essentially characterized by two seasons, a dry season and a rainy season. The long dry season occurs between August to October, rainy season from November to June. High temperatures occur in November at approximately  $\pm 32.50^{\circ}\text{C}$  and the minimum temperature occurs in July at approximately  $\pm 22.40^{\circ}\text{C}$ .

Climate change generally occurs in the long dry season that is in the south affecting dry land and less water. During the rainy season there can be a disaster like landslide, but the climate at the top of the mountains is very bright.



## Economic Potential and Natural Resources for the development of the Lautem Municipality

### a) Agriculture

The National Development Strategic Plan - NDSP has a clear mission of agricultural development. Sub-system agriculture will be progressively transformed into commercial agriculture with a focus on the national and international markets.

Agricultural sector of the products such as; food, fruit, vegetables, including fishery products, livestock and forestry.

Lautem Municipality has a total area of 1,813.11 km<sup>2</sup>, consisting of about 49.60% (%) plain and 50.40% (%) are mountainous areas. Soils are very fertile for agricultural activities. The largest agricultural products in the Lautem Municipality are:

- Agribusiness production includes; teak (*Ai-teka*), Aina, Ai-sarian, Ai-iron, Ai mahoni, sandalwood (*Aikameli*), palm oil (*coconut*);
- Food production included; (*hare skin*), corn, pumpkin, nuts, taro, sweet potatoes, manioc and others;
- Vegetable production is included; *kangkung*, cabbage, carrots, spinach, eggplant, soybeans, green beans, kale and others;
- Production of fruit are; oranges, mandarins, cashews, guavas, bananas, papayas, watermelons and others.

Overwhelming majorities of the Lautem population live in rural areas where subsistence farming practices such as in the agricultural, livestock and horticulture sector to survive and is one of the foundation income of the family economy. Considered as the engine of economic development and diversified in the socio-economic transformation of the population.

For this reason, the Municipality of Lautem intends to create better conditions to facilitate the community or groups of farmers to transform and modernize traditional agriculture to modern agriculture in order to increase production based

on the need of local, national and international market. In the future the municipality intends to produce several quality local agricultural products with greater quantity for internal consumption and the national market.

#### **b) Livestock**

The livestock sector provides an enormous amount of income to increase the incomes of people in the Lautem Municipality. Almost all rural families were engaged in raising animals such as buffalo, cow, dairy cow, horses, sheep, goat, swine (*pig*) and duck. In addition to increasing their yields, animals are also used for ritual and cultural events such as "*Fetosa-Umane*".

#### **c) Fishing**

The fishing sector is particularly important in the maritime area of the North Coast Lautem - Com and on the South Coast "*Tasi Mane*" in the Sub-District Administration of Tutuala and Lautem and includes the fishing "Nila" aquaculture in Baduro Village, Sub-District Administration Lautem. In the future, the Municipality intends to develop existing resources to increase the income of the local population. The government has been investing in fisheries, such as training fishermen, fishing equipment and introducing basic technologies, and promoting private sector participation in fisheries development and accompanying them in their fishing activities. As a result, this sector still does not show its real contribution to the income of the population as one of the economic powers in the Lautem Municipality, namely to increase the income of fishing families.

#### **d) Industry and Commerce**

The potential of natural resources for industry and commerce in Lautem Municipality that can be produced for domestic consumption in the future, increase the income of the local population and possible export is coconut, hazelnut, bamboo, cashew, coffee, chocolate and others in the Sub-District Administration of Lautem. Currently, the data show that the potential areas for industrial coconut plants is 76,835 hectares, coffee of 1,213 hectares and cassava of 5,109 hectares.

### e) Forest

Lautem Municipality has a large forest area for conservation areas located on the cliff of the mountain and this mountain of the Sub-district Administration of Lospalos, Tutuala and Lautem, as well as other protected areas such as the park of Nino Conis Santana that is in the Sub-District Administrative of Lospalos. Although there is still no data on the type of forest trees that exist in the municipality, the municipal government has promoted activity through the program to prepare nurseries (*seeds*) and establish groups to plant industrial trees. The existing nursery center, can already produce more than 180,000 feet per year - wood seeds such as; Sandalwood, wood, *Mahoni* and *Bambo*.

### f) Tourism

The tourism sector in the Lautem Municipality shows a very original environment, beautiful landscapes and attractive to tourists and visitors. It is one of the essential sector for economic development and a solution to social issues.

Lautem Municipality has a great power of tourist resources like the island of Jaco, surrounded by the sea and natural resources (nature). The Nino Conis Santana National Park is surrounded by jungle, and including Ira-Lalaru Lagoon - with natural feature - original and this site is one of the historical sites of resistance where Kay Rala Xanana Gusmão was hidden during the fight. Other essential modalities for such historical tourism development in the Lautem Municipality are Portuguese heritage buildings at the Sub-District Administration of Lospalos and Sub-District Administration Lautem and relics of "*peninggalan Lubang (kuak)*" during the Japanese war that is in the Sub-District Administration of Lautem .

The bet on the tourism sector increased the number of jobs because tourism is composed of several sectors, which allow for absorption of skilled labor, thus contributing to a better income distribution of the local population.

In this sense, the Lautem Municipality has to establish the tourist information center, to make brochures and to map the tourist and historical places for the advertising with the intention of attracting the visitors or domestic and foreign tourists. It is essential to enable young people in the areas of languages, namely

foreign languages and historians, to guide tourists and hospitality courses.

Anticipating the implementation of the decentralization process and the creation of the municipality, it was identified as the main challenge of the economy: increasing the competitiveness of the economy through diversification of the economy; bets on the poles of development; investment in infrastructure, research and innovation. The challenge is also the need to develop 4 fundamental pillars, namely:

- 1) Human capital development (market-oriented training, institution and expansion of vocational education and improvement of health and social protection standards).
- 2) Development of production-based infrastructures (investment and infrastructure planning: industrial parks, Economic Exclusive Zona (ZEE), aquaparkes, thermal power stations, roads, ports, definition of housing areas and State reserves).
- 3) Research, innovation and technological development, creation of specialized research and Research and Development, (R & D) in the following areas: agriculture, livestock and fisheries; energy; mineral resources; management of water resources and Information and Communication Technology (ICTs).
- 4) Articulation, and institutional coordination (improvement of public institutions, improvement of coordination and intersectoral coordination, reform of legislation and creation of institutions that serve the industrialization strategy - eg Development Bank).

In order to materialize the challenges inherent in the priority areas of economic development, we identified two main instruments: (1) private sector development, with an emphasis on mobilizing resources for investment in the development of small and medium-sized enterprises; and (2) mechanisms for financing public investment. For the development of the Private Sector are considered crucial factors to create a business environment favorable to the municipal private sector

and the mobilization of resources for private investment. Developing financial instruments that improve funding conditions and facilitate access to municipal private sector financing is essential.

In this context, the development of human resources in public and private sector institutions is indispensable in increasingly knowledge-based and globalized economies of the world (Analoui, 2007).

It is imperative to build local capacities of sub-district administration as the vanguard of the municipal strategic development agenda. The lack of necessary skills and well-run public and private institutions for long-term sustainable growth is a priority to be included in all development activities in Lautem because of their implications for improving governance and development management.

Given the importance of human resources as an engine of economic development, it is fundamental and strategic to identify priority areas for training and the number of people in the public and private sector. In this sense it is necessary to make a survey of existing human resources data at the municipal level.

The key to the effective development of human resources should not only identify priority areas of training but also prior knowledge of existing human resources and segmentation of funds appropriate to identified Human Resource Development, (HRD) needs, ensuring different phases of the strategic development plan to be successfully implemented in the future. The fact that there is still no human resources census in the municipality of Lautem is one of the reasons for this work.

## 1.2. Objective

The overall objective of this study is to identify and analyze the current human resources situation and its distribution throughout the territory. Some specific objectives were stipulated in order to achieve this.

1. Describe the current human resources situation in Lautem County and each Sub-District Administration;
2. Inform the number of graduates seeking work or unemployed;



3. Promote the planning of human resources, in particular as regards the needs of the Municipality of Lautem;
4. Contribute to the training and improvement of different categories of personnel, through the optimization of opportunities inside and outside the country; and
5. Strengthen cooperation between the public and private sectors and professional associations ;
6. Promote an efficient allocation of HCDF/FDCH funding for human resources development programs in priority areas in the coming years;
7. Identify strategic occupations and strategic areas for training; and
8. Identify economic potential, natural resources and related priority programs.

Thus, through the achievement of the objectives, it is intended to obtain relevant results that will strengthen and clarify the issue under study.

### 1.3. Methodology

The research methodology that supports the theme developed basically from a comprehensive analysis of primary data, and was essentially focused on two vectors of the quantitative and qualitative methodological approach. The first one, the data were collected from individuals aged 17 years or over by census of the population living in the Municipality of Lautem with the completion of a questionnaire, carried out between September of 5 to 5 of November 2016, and the second made through the Focus Group Discussion (FGD) held on March 20, 2018.

The population census is the only source of information on the life situation of the population in Sub-District Administration and villages. The census produces information essential for the definition of public policies of the state at the level of Sub-District Administration and for decision-making in relation to the investment, whether they come from private initiative or any level of government.

The data in the questionnaires collected were complemented with the Focus group Discuss, (FGD) method with discussion questions (*Annex 1*) based on the 4 development pillars according to the National Development Strategic Plan, NDSP (PEDN 2011-2030), to Municipal Administrator, Sub-District Administrative Officers, Directors (*list of participants in Annex 2*), with a view to assessing the accuracy of the information given, but also the relevance of the programs identified as necessary for the development of human resources in the municipality.

To simplify the analysis, we also collected additional secondary data for the study. The documentary source was made through the review of several documents related to the development of human resources and decentralization. The primary data collected based on the instruments answered by the respondents were tabulated and analyzed statistically, as well as the secondary data collected from the documentation analysis. The data were treated with specialized CS-Pro software for this area.

## PART B: ANALYSIS AND RESULTS OF FOUND

This part of the report intends to analyze the results of the FDCH survey and other relevant data and elaborate its implications for the development of the Lautem Municipality Human Resources Strategy, continues in four sections.

**Section 1** is mainly based on the FDCH survey to analyze the current human capital situation in Lautem Municipality in various dimensions as a basis for the development of a human resources strategy.

**Section 2** starts from the four pillars of the Municipality's Strategic Development Plan, (MSDP) outlining the priority programs and the main training areas.

**Section 3** briefly discusses and analyzes the data presented here.

**Section 4** provides conclusions and recommendations.

### 2. Overview the Human Capital of the Municipality of Lautem

#### 2.1. Presentation and Analysis of data

This section briefly reviews data on the existing level of human resources in Lautem Municipality and its distribution to Sub-District Administrations, as well as providing a basis for human resource strategy decisions. The main source of information presented here is the results of the HCDF/FDCH survey and statistical data from the Directorate General of Statistics (DGE- official acronym).

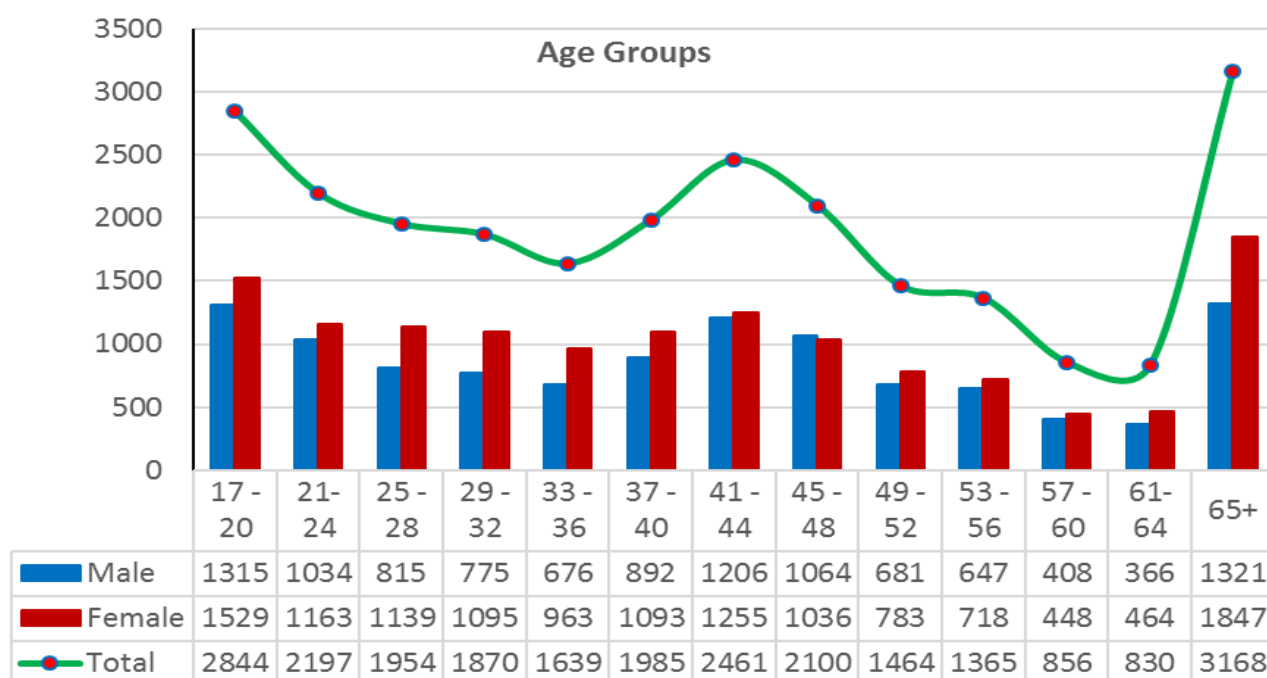
#### 2.2. Profile of Respondents

The first part of the collection tool outlined the profile of the respondents and as shown below, the results were represented in percentage graphs. Parallel to the graphical presentation of these results an analysis of the obtained data is made, aiming to reach the objectives already listed initially.

The survey involved 24,733 respondents, of whom 45.3% are males and 54.7% are females. The other aspects of the profile are arranged in the graphs below. Most of them are aged between 17 and 44 years of age in both sexes, representing 60.4%, followed by the age group from 45 to 64 years, with 26.7% of those surveyed and

12.8% with more than 65 years. The female sex is the largest number in almost all age groups, except in the 45-48 age group (*Figure 1*).

**Figure 1. Distribution of respondents by age group and by sex**



### 2.3. People with Disability

Table 1 shows the distribution of the existence of the people with disability in the Lautem Municipality. A total of 344 people with disability respondents were registered, corresponding to 1.4% of the total number of respondents distributed by 5 Sub-District Administrations (*table 1*):

**Table 1. Distribution of existence of people with disability by Sub-District Administration**

Sub-District Administrations	Have disabilities?		TOTAL
	Yes	No	
Iliomar	18	2,718	2,736
Lautem	116	7,097	7,213
Lospalos	117	10,533	10,650
Luro	64	2,972	3,036
Tutuala	29	1,069	1,098
<b>LAUTEM</b>	<b>344</b>	<b>24,389</b>	<b>24,733</b>
<b>Percentage (%)</b>	<b>1,4</b>	<b>98,6</b>	<b>100,0</b>

The highest number of people with disability was registered in the Sub-District Administration of Lautem and Lospalos, while in the Sub-District Administration of Iliomar, Luro and Tutuala there are few, without significant differences (*Table 2*).

**Table 2. Distribution of the people with disability by Sub-District Administration**

Sub-District Administrations	Frequency	Percentage (%)
Iliomar	18	5
Lautem	116	34
Lospalos	117	34
Luro	64	19
Tutuala	29	8
<b>Total</b>	<b>344</b>	<b>100</b>

Among the 344 people with disability, the main difficulties related to physical mobility (44.1%), vision or eyes (21.4%), hearing impairment (16.5%), psychosocial or mental disability (15.9%) and (2.0%) (*Table 3*).

**Table 3. Distribution of the people with disability by type of disability and by Sub-District Administration**

Sub-District Administrations	Type of disability					Total
	Physics or Mobility	View	Deaf-Mute	Psychosocial or Mental	Cognitive / intellectual	
Iliomar	7	1	5	4	1	18
Lautem	55	26	18	17	1	117
Lospalos	53	26	23	13	3	118
Luro	24	20	6	12	1	63
Tutuala	13	1	5	9	1	29
<b>Total LAUTEM</b>	<b>152</b>	<b>74</b>	<b>57</b>	<b>55</b>	<b>7</b>	<b>345</b>
<b>Percentage (%)</b>	<b>44,1</b>	<b>21,4</b>	<b>16,5</b>	<b>15,9</b>	<b>2</b>	<b>100</b>

## 2.4. Education Level

In term of the level of education of illiterate respondents, adult literacy and incomplete primary education occupy 42% of the total respondents. Basic (primary) and pre-secondary education represent 31% and secondary education occupy 22%. Vocational Education Course and other levels of courses occupy 1.1%

and 0.7%, respectively. At the tertiary or higher level, 3.1% of respondents have the level of higher education (*Table 4*).

Among the 776 (3.1%) of the respondents, 65.9% had a bachelor's degree following Diploma III or 25.8% and Diploma II (4.1%). Other academic levels have a percentage lower than 2% (*Table 4*).

**Table 4. Distribution by level of education and by Sub-District Administration**

LEVEL OF EDUCATION	LAUTEM	ILIOMAR	LAUTEM	LOSPALOS	LURO	TUTUALA
Can not read / write	9,304	1,589	2,300	2,700	1,859	856
Do not read / write (did not finish primary school)	1,090	84	419	310	127	150
<b>Sub Total</b>	<b>10,394</b>	<b>1,673</b>	<b>2,719</b>	<b>3,010</b>	<b>1,986</b>	<b>1,006</b>
Primary	3,280	253	824	1,739	236	228
Pre-secondary	4,397	240	1,235	2,487	221	214
Secondary	5,432	406	1,628	2,722	373	303
Vocational Technical School	276	14	66	153	7	36
Others	80	3	55	21	1	-
<b>Sub Total</b>	<b>13,465</b>	<b>916</b>	<b>3,808</b>	<b>7,122</b>	<b>838</b>	<b>781</b>
1 <sup>o</sup> st. Cycle (1st class - 4th class)	84	-	52	16	6	10
2 <sup>o</sup> . Cycle (1st Year, 2nd Year)	7	-	4	2	-	1
3 <sup>o</sup> . Cycle (3rd Year - 9 Year / 3rd Year up)	7	-	4	2	-	1
<b>Sub Total</b>	<b>98</b>	<b>-</b>	<b>60</b>	<b>20</b>	<b>6</b>	<b>12</b>
Diploma (DI)	14	1	4	6	1	2
Diploma (DII)	32	3	10	13	5	1
Diploma (DIII)	200	17	72	77	26	8
Diploma (DIV)	5	-	4	1	-	0
Bachelor's Degree (S1)	511	22	146	265	42	36
Master's Degree (S2)	13	-	-	12	1	0
PhD (S3)	1	-	-	-	1	0
<b>Sub Total</b>	<b>776</b>	<b>43</b>	<b>236</b>	<b>374</b>	<b>76</b>	<b>47</b>
<b>Total</b>	<b>24,733</b>	<b>2,632</b>	<b>6,823</b>	<b>10,526</b>	<b>2,906</b>	<b>1,846</b>

Regarding the distribution of the knowledge of the respondents by study area (study program) and by Sub-District Administration, of the 776 who hold the higher degree only 350 (45.1%) answered this question. The details given can be seen in Table 5, below.

**Table 5. Distribution of education level of respondents by study program and by Sub-District Administration**

Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
<b>Total</b>	<b>11</b>	<b>9</b>	<b>81</b>	<b>2</b>	<b>235</b>	<b>11</b>	<b>1</b>	<b>350</b>	<b>247</b>	<b>103</b>
Mathematics	1	-	6	-	21	-	-	28	24	4
Medicine – Medical doctor Practice (General Practitioner)	-	-	-	-	19	-	-	19	11	8
Education	-	2	8	-	5	-	-	15	14	1
Livestock production	-	-	2	-	13	-	-	15	10	5
Management	-	-	1	-	13	1	-	15	7	8
Civil Engineering - Civil Construction	-	2	-	-	11	-	-	13	13	-
Accounting	-	-	1	-	11	-	-	12	7	5
Portuguese language	1	-	9	-	1	-	-	11	9	2
Engineering Architecture	1	-	-	-	9	-	-	10	6	4
Law	-	1	-	-	8	1	-	10	9	1
Mathematics teaching	-	-	4	-	6	-	-	10	7	3
Computer Technology Engineering (Computer)	1	1	2	-	5	-	-	9	6	3
Education Biology	1	-	1	-	6	1	-	9	5	4
Teacher training	-	1	5	-	3	-	-	9	5	4
Management	-	-	1	-	6	-	-	7	3	4
Nursing	-	-	6	-	1	-	-	7	3	4
Sociology of Education	-	-	1	-	6	-	-	7	5	2
Public health	-	1	4	-	1	-	-	6	5	1



Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
Economics of Financial Finance -Banking Economics	-	-	1	-	5	-	-	6	6	-
Agronomy	-	-	1	-	4	-	-	5	5	-
Sociology	-	-	1	-	4	-	-	5	3	2
English language	-	-	1	-	4	-	-	5	4	1
Agribusiness	-	-	-	-	3	1	-	4	3	1
Public administration	-	-	1	1	2	-	-	4	4	-
Government Planning and Policy	-	-	-	-	4	-	-	4	3	1
Development Studies	-	-	1	-	2	1	-	4	2	2
Public policy	-	-	-	-	4	-	-	4	3	1
International, bilateral and multilateral relations	-	-	-	-	4	-	-	4	2	2
Training of primary and pre-secondary teachers	-	-	2	-	2	-	-	4	4	-
Geotechnical Engineering	-	-	1	-	2	-	-	3	1	2
Electrical Engineering	-	-	1	-	2	-	-	3	1	2
Mechanical Engineering	-	1	-	-	2	-	-	3	2	1
Pharmacy	-	-	2	-	1	-	-	3	-	3
Aquaculture	1	-	1	-	1	-	-	3	1	2
Human Resource Management	-	-	1	1	-	1	-	3	1	2
Physics of Teaching	-	-	2	-	1	-	-	3	3	-

Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
General - Environmental Biology	-	-	1	-	1	-	-	2	2	-
Environmental Ecology	-	-	-	-	2	-	-	2	2	-
Mineral Engineering	-	-	-	-	2	-	-	2	2	-
Clinical Analysis	1	-	-	-	-	-	1	2	-	2
Agricultural social economy	-	-	-	-	2	-	-	2	2	-
Economy	-	-	-	-	2	-	-	2	-	2
Computer Science	-	-	1	-	1	-	-	2	-	2
Physical Education or Sports Education	-	-	-	-	2	-	-	2	1	1
Midwife	1	-	-	-	1	-	-	2	-	2
Environmental Health	-	-	2	-	-	-	-	2	2	-
Forestry Management	-	-	-	-	2	-	-	2	1	1
Preventive Veterinary Medicine	-	-	2	-	-	-	-	2	1	1
Public Law	-	-	-	-	2	-	-	2	2	-
Teaching chemistry	-	-	-	-	2	-	-	2	2	-
Government - Comparative Government Systems	-	-	-	-	1	1	-	2	2	-
Moral Theology	-	-	1	-	1	-	-	2	2	-
Physics	-	-	-	-	1	-	-	1	-	1
Zoology	-	-	-	-	1	-	-	1	-	1
Biophysics	-	-	-	-	1	-	-	1	1	-
Pharmacology	-	-	1	-	-	-	-	1	1	-

Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
Mining Engineering	-	-	-	-	1	-	-	1	1	-
Mechanical Engineering	-	-	-	-	1	-	-	1	1	-
Veterinary Medicine	-	-	-	-	1	-	-	1	1	-
Philosophy	-	-	-	-	1	-	-	1	1	-
Ciência Política	-	-	-	-	1	-	-	1	-	1
Theology	-	-	-	-	-	1	-	1	1	-
Indonesian Language	-	-	-	-	1	-	-	1	-	1
Statistic	-	-	-	-	-	1	-	1	1	-
Geology	-	-	-	-	1	-	-	1	1	-
Petrology	-	-	-	-	1	-	-	1	1	-
Geological Climatology	-	-	-	-	1	-	-	1	-	1
Plant biology	-	-	-	-	1	-	-	1	1	-
Transport Engineering and Telecommunications	-	-	-	-	1	-	-	1	1	-
Psychiatry	1	-	-	-	-	-	-	1	-	1
Soil Science	1	-	-	-	-	-	-	1	1	-
Rural Buildings and the Environment	-	-	-	-	-	1	-	1	1	-
Fishing engineering	-	-	-	-	1	-	-	1	1	-
Tourism and Hospitality	-	-	1	-	-	-	-	1	1	-
Economics of education	-	-	-	-	1	-	-	1	1	-
Business Administration	-	-	-	-	1	-	-	1	1	-
Educational Anthropology	-	-	-	-	1	-	-	1	1	-

Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
Systematic Theology	-	-	-	-	1	-	-	1	1	-
Pastoral theology	-	-	1	-	-	-	-	1	-	1
Skills Education - Fashion, Cosmetics, Cake - Pastry	-	-	-	-	-	1	-	1	1	-
Educational technology	-	-	1	-	-	-	-	1	1	-
Education (education) Pre-primary and primary	-	-	1	-	-	-	-	1	1	-
Others	1	-	2	-	3	-	-	6	6	-
<b>Iliomar</b>										
<b>Total</b>	<b>1</b>	<b>1</b>	<b>1-</b>	<b>-</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>21</b>	<b>11</b>	<b>10</b>
Education	-	-	-	-	3	-	-	3	3	-
Mathematics	-	-	1	-	1	-	-	2	1	1
Nursing	-	-	2	-	-	-	-	2	-	2
Pharmacy	-	-	1	-	1	-	-	2	-	2
Public Health	-	1	-	-	1	-	-	2	2	-
Pharmacology	-	-	1	-	-	-	-	1	1	-
Electrical Engineering	-	-	1	-	-	-	-	1	-	1
Clinical Analyst	1	-	-	-	-	-	-	1	-	1
Sociology	-	-	-	-	1	-	-	1	-	1
Portuguese language	-	-	1	-	-	-	-	1	1	-
Medicine - Medical Practice (General Practitioner)	-	-	-	-	1	-	-	1	-	1

Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
Environmental Health	-	-	1	-	-	-	-	1	1	-
Livestock production										
Public Administration	-	-	1	-	-	-	-	1	1	-
Others	-	-	1	-	-	-	-	1	1	-
<b>Lautem</b>										
<b>Total</b>	<b>3</b>	<b>4</b>	<b>18</b>	<b>1</b>	<b>58</b>	-	-	<b>84</b>	<b>67</b>	<b>17</b>
Mathematics	1	-	-	-	7	-	-	8	7	1
Civil Engineering - Civil Construction	-	1	-	-	7	-	-	8	8	-
Livestock production	-	-	1	-	4	-	-	5	4	1
Teacher Training	-	1	3	-	1	-	-	5	3	2
Education	-	1	3	-	-	-	-	4	3	1
Architecture engineering	1	-	-	-	2	-	-	3	1	2
Law	-	-	-	-	3	-	-	3	3	-
Computer Technology Engineering (Computer)	-	1	1	-	1	-	-	3	2	1
Accounting	-	-	-	-	3	-	-	3	1	2
Agro-business	-	-	-	-	2	-	-	2	2	-
Management	-	-	-	-	2	-	-	2	1	1
Economics of Finance or Financial Management - Banking Economics	-	-	-	-	2	-	-	2	2	-
Physics of Teaching	-	-	1	-	1	-	-	2	2	-
Public policy	-	-	-	-	2	-	-	2	1	1

Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
General - Environmental Biology	-	-	-	-	1	-	-	1	1	-
Geotechnical Engineering	-	-	1	-	-	-	-	1	1	-
Mineral Treatment	-	-	-	-	1	-	-	1	1	-
Electrical Engineering	-	-	-	-	1	-	-	1	1	-
Management	-	-	-	-	1	-	-	1	-	1
Economy	-	-	-	-	1	-	-	1	-	1
Sociology	-	-	1	-	-	-	-	1	1	-
English Language	-	-	-	-	1	-	-	1	1	-
Computer Science	-	-	1	-	-	-	-	1	-	1
Geology	-	-	-	-	1	-	-	1	1	-
Transport Engineering and Telecommunications	-	-	-	-	1	-	-	1	1	-
Physical Education or Sports Education	-	-	-	-	1	-	-	1	1	-
Nursing	-	-	-	-	1	-	-	1	1	-
Public Health	-	-	1	-	-	-	-	1	-	1
Medicine - Medical Practice (General Practitioner)	-	-	-	-	1	-	-	1	1	-
Environmental Health	-	-	1	-	-	-	-	1	1	-
Soil Science	1	-	-	-	-	-	-	1	1	-
Aquaculture	-	-	-	-	1	-	-	1	1	-
Public law	-	-	-	-	1	-	-	1	1	-

Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
Public Administration	-	-	-	-	1	-	-	1	1	-
Government Planning and Policy	-	-	-	-	1	-	-	1	1	-
Development Studies	-	-	1	-	-	-	-	1	-	1
Human Resource Management	-	-	-	1	-	-	-	1	1	-
Business Administration	-	-	-	-	1	-	-	1	1	-
Pedagogical Biology	-	-	1	-	-	-	-	1	1	-
Mathematics Teaching	-	-	1	-	-	-	-	1	1	-
Sociology of Education	-	-	-	-	1	-	-	1	1	-
Educational Anthropology	-	-	-	-	1	-	-	1	1	-
International, Bilateral and Multilateral Relations	-	-	-	-	1	-	-	1	1	-
Moral Theology	-	-	-	-	1	-	-	1	1	-
Systematic Theology	-	-	-	-	1	-	-	1	1	-
Pre-primary and primary Education	-	-	1	-	-	-	-	1	1	-
<b>Lospalos</b>										
<b>Total</b>	<b>5</b>	<b>2</b>	<b>35</b>	<b>1</b>	<b>122</b>	<b>1-</b>	<b>-</b>	<b>175</b>	<b>124</b>	<b>51</b>
Mathematics	-	-	4	-	11	-	-	15	13	2
Management	-	-	1	-	8	1	-	1-	5	5
Education	-	1	5	-	2	-	-	8	8	-
Livestock production	-	-	1	-	7	-	-	8	5	3
Management	-	-	1	-	5	-	-	6	3	3



Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
Portuguese language	1	-	5	-	-	-	-	6	5	1
Medicine - Medical Practice (General Practitioner)	-	-	-	-	6	-	-	6	4	2
Accounting	-	-	-	-	6	-	-	6	4	2
Sociology of Education	-	-	1	-	5	-	-	6	4	2
Law	-	-	-	-	4	1	-	5	4	1
Pedagogical biology	-	-	-	-	4	1	-	5	3	2
Mathematics Teaching	-	-	-	-	5	-	-	5	3	2
Architecture engineering	-	-	-	-	4	-	-	4	2	2
Economics of Finance or Financial Management - Banking Economics	-	-	1	-	3	-	-	4	4	-
Agronomy	-	-	1	-	2	-	-	3	3	-
English Language	-	-	-	-	3	-	-	3	2	1
Mechanical Engineering	-	1	-	-	2	-	-	3	2	1
Development Studies	-	-	-	-	2	1	-	3	2	1
Training of primary and pre-secondary teachers	-	-	2	-	1	-	-	3	3	-
Environmental ecology	-	-	-	-	2	-	-	2	2	-
Civil Engineering - Civil Construction	-	-	-	-	2	-	-	2	2	-
Geotechnical Engineering	-	-	-	-	2	-	-	2	-	2
Mining engineering	-	-	-	-	2	-	-	2	2	-
Agricultural social economy	-	-	-	-	2	-	-	2	2	-

Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
Sociology	-	-	-	-	2	-	-	2	2	-
Computer Technology Engineering (Computer)	-	-	1	-	1	-	-	2	2	-
Public Health	-	-	2	-	-	-	-	2	2	-
Agro-Business	-	-	-	-	1	1	-	2	1	1
Forestry Management	-	-	-	-	2	-	-	2	1	1
Aquaculture	1	-	1	-	-	-	-	2	-	2
Public Administration	-	-	-	1	1	-	-	2	2	-
Human Resource Management	-	-	1	-	-	1	-	2	-	2
Teaching Chemistry	-	-	-	-	2	-	-	2	2	-
Government or Comparative Government Systems	-	-	-	-	1	1	-	2	2	-
Public Policy	-	-	-	-	2	-	-	2	2	-
Teacher Training	-	-	1	-	1	-	-	2	1	1
Physics	-	-	-	-	1	-	-	1	-	1
General - Environmental Biology	-	-	1	-	-	-	-	1	1	-
Zoology	-	-	-	-	1	-	-	1	-	1
Biophysics	-	-	-	-	1	-	-	1	1	-
Electrical engineering	-	-	-	-	1	-	-	1	-	1
Mechanical Engineering	-	-	-	-	1	-	-	1	1	-
Philosophy	-	-	-	-	1	-	-	1	1	-
political Science	-	-	-	-	1	-	-	1	-	1

Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
Indonesian Language	-	-	-	-	1	-	-	1	-	1
Statistic	-	-	-	-	-	1	-	1	1	-
Computer Science	-	-	-	-	1	-	-	1	-	1
Petrology	-	-	-	-	1	-	-	1	1	-
Plant biology	-	-	-	-	1	-	-	1	1	-
Physical Education or Sports Education	-	-	-	-	1	-	-	1	-	1
Nursing	-	-	1	-	-	-	-	1	1	-
Midwife	1	-	-	-	-	-	-	1	-	1
Psychiatry	1	-	-	-	-	-	-	1	-	1
Rural Buildings and the Environment	-	-	-	-	-	1	-	1	1	-
Fishing Engineering	-	-	-	-	1	-	-	1	1	-
Public law	-	-	-	-	1	-	-	1	1	-
Government Planning and Policy	-	-	-	-	1	-	-	1	-	1
Tourism and Hospitality	-	-	1	-	-	-	-	1	1	-
Economics of education	-	-	-	-	1	-	-	1	1	-
Physics of Teaching	-	-	1	-	-	-	-	1	1	-
International, Bilateral and Multilateral Relations	-	-	-	-	1	-	-	1	-	1
Moral Theology	-	-	1	-	-	-	-	1	1	-
Pastoral theology	-	-	1	-	-	-	-	1	-	1
Education Skills - Fashion, Cosmetics,	-	-	-	-	-	1	-	1	1	-

Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
Cake - Pastry										
Educational technology	-	-	1	-	-	-	-	1	1	-
Others	1	-	-	-	2	-	-	3	3	-
<b>Luro</b>										
<b>Total</b>	<b>1</b>	<b>1</b>	<b>13</b>	<b>-</b>	<b>23</b>	<b>1</b>	<b>1</b>	<b>4-</b>	<b>22</b>	<b>18</b>
Medicine - Medical Practice (General Practitioner)	-	-	-	-	8	-	-	8	4	4
Mathematics	-	-	1	-	2	-	-	3	3	-
Computer Technology Engineering	1	-	-	-	2	-	-	3	1	2
Nursing	-	-	3	-	-	-	-	3	1	2
Law	-	1	-	-	1	-	-	2	2	-
Preventive Veterinary Medicine	-	-	2	-	-	-	-	2	1	1
Mathematics Teaching	-	-	2	-	-	-	-	2	1	1
Teacher Training	-	-	1	-	1	-	-	2	1	1
Clinical Analysis	-	-	-	-	-	-	1	1	-	1
Economy	-	-	-	-	1	-	-	1	-	1
Sociology	-	-	-	-	1	-	-	1	-	1
Theology	-	-	-	-	-	1	-	1	1	-
Portuguese Language	-	-	1	-	-	-	-	1	-	1
English Language	-	-	1	-	-	-	-	1	1	-
Geological Climatology	-	-	-	-	1	-	-	1	-	1

Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
Public Health	-	-	1	-	-	-	-	1	1	-
Midwife	-	-	-	-	1	-	-	1	-	1
Government Planning and Policy	-	-	-	-	1	-	-	1	1	-
Accounting	-	-	-	-	1	-	-	1	1	-
Management	-	-	-	-	1	-	-	1	-	1
International, Bilateral and Multilateral Relations	-	-	-	-	1	-	-	1	1	-
Others	-	-	1	-	1	-	-	2	2	-
<b>Tutuala</b>										
<b>Total</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>-</b>	<b>23</b>	<b>-</b>	<b>-</b>	<b>3-</b>	<b>23</b>	<b>7</b>
Civil Engineering - Civil Construction	-	1	-	-	2	-	-	3	3	-
Engineering Architecture	-	-	-	-	3	-	-	3	3	-
Portuguese language	-	-	2	-	1	-	-	3	3	-
Medicine - Medical Practice (General Practitioner)	-	-	-	-	3	-	-	3	2	1
Teaching Biology	1	-	-	-	2	-	-	3	1	2
Agronomy	-	-	-	-	2	-	-	2	2	-
Accounting	-	-	1	-	1	-	-	2	1	1
Management	-	-	-	-	2	-	-	2	1	1
Teaching Mathematics	-	-	1	-	1	-	-	2	2	-
Veterinary Medicine	-	-	-	-	1	-	-	1	1	-

Study of Program	Education Level							Total	Gender	
	Diploma (I)	Diploma (II)	Diploma (III)	Diploma (IV)	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Female
Computer Technology Engineering (Computer)	-	-	-	-	1	-	-	1	1	-
Pharmacy	-	-	1	-	-	-	-	1	-	1
Livestock	-	-	-	-	1	-	-	1	1	-
Government Planning and Policy	-	-	-	-	1	-	-	1	1	-
International, Bilateral and Multilateral Relations	-	-	-	-	1	-	-	1	-	1
Training of Primary and Pre-Secondary Teachers	-	-	-	-	1	-	-	1	1	-

## 2.5. Vocational Training Certificate Level I - Certificate IV

Amount the 24,733 respondents who participated in this research, about 2.4% who had already participated in one of the Certificate I - Certificate IV courses. Of those who completed the certificate courses, 44.4% completed the Certificate I course, 21.7% certificate II, 11.8% certificate III and 22.2% certificate IV (Table 6). The predominant areas of the training of Certificate I – Certificate IV are Computer Course, Portuguese Language, and English Language. Other areas of training represent very little. The data also show the lack even of the lack of qualifications in some areas, which requires more attention and investment (Table 6).

However the investment of training of human resources should be aligned with the local need. The data details of Certificate I training - Certificate IV can be seen in table 6.

Table 6. Number and areas of Certificate I-IV training by Sub-District Administration

Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area that requires more attention
<b>LAUTEM</b>						
<b>Total</b>	<b>586</b>	<b>260</b>	<b>127</b>	<b>69</b>	<b>130</b>	Physiotherapy / Massage
Computer	142	74	34	12	22	Solar production
Portuguese language	126	54	24	24	24	Coffee production
English Language	67	26	18	8	15	Hospitality (Food Production)
Agriculture or horticulture	17	9	2	1	5	Photographer
Information Technology (IT)	16	7	4	1	4	Cooker
Public Administration office	13	3	5	2	3	Hair Stylist / Hairdresser
Improve business	9	4	1	-	4	Piano and music course
Carpentry	7	4	2	1	-	Painter of arts, paintings, tattoos
Financial Services (Micro Finance and	6	2	1	1	2	



Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area that requires more attention
Banking);						
Fishing	6	5	-	-	1	
Electricity	5	3	1	-	1	
Police investigation.	5	1	-	-	4	
Construction (General)	4	3	1	-	-	
Tailor or Seamstress	4	2	-	2	-	
Agriculture	4	2	1	1	-	
Contract training	3	1	2	-	-	
Automotive and Maintenance.	3	3	-	-	-	
Public Administration Office	3	1	1	-	1	
Business Construction (Public )	2	1	1	-	-	
Tourist and Tourist Guide	2	1	-	1	-	
Welding	2	2	-	-	-	
Rural water supply	1	-	-	1	-	
Hospitality (Public )	1	-	-	-	1	
Small machine	1	-	1	-	-	
Social communication to the study of the public sector (SEFTEL);	1	1	-	-	-	
Bricklayer	1	-	1	-	-	
Plumbing	1	-	-	1	-	
Training and evaluation (M&E)	1	1	-	-	-	
Management for Police	1	-	1	-	-	

Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area that requires more attention
Monitoring and Evaluation (M&E)	1	-	-	-	1	
Course of aesthetics (Manicure and Pedicure)	1	1	-	-	-	
Others	130	49	26	13	42	
<b>Iliomar</b>						
<b>Total</b>	<b>53</b>	<b>20</b>	<b>14</b>	<b>9</b>	<b>10</b>	
Computer	12	5	5	1	1	
Portuguese language	5	4	1	-	-	
Public Administration Office	2	-	2	-	-	
Agriculture or horticulture	2	1	-	1	-	
English Language	2	-	1	-	1	
Improve business	1	-	-	-	1	
Business Construction (General)	1	1	-	-	-	
Information Technology (IT)	1	1	-	-	-	
Social communication to the study of the public sector (SEFTEL);	1	1	-	-	-	
Public Administration Office	1	-	1	-	-	
Construction (General)	1	1	-	-	-	
Plumbing	1	-	-	1	-	
Carpentry	1	-	-	1	-	
Others	22	6	4	5	7	

Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area that requires more attention
<b>Lautem</b>						
<b>Total</b>	<b>141</b>	<b>56</b>	<b>26</b>	<b>32</b>	<b>27</b>	
Portuguese language	48	16	8	16	8	
Computer	29	18	3	4	4	
English Language	16	4	4	4	4	
Public Administration Office	4	1	1	1	1	
Contract training	2	-	2	-	-	
Carpentry	2	1	1	-	-	
Tailor or Seamstress	2	-	-	2	-	
Improve business	1	1	-	-	-	
Tecnology Information (IT)	1	-	-	-	1	
Financial Services (Micro Finance and Banking);	1	-	-	1	-	
Construction (General)	1	1	-	-	-	
Welding	1	1	-	-	-	
Electricity	1	-	-	-	1	
Training and Evaluation (Diploma)	1	-	-	-	1	
Agriculture or horticulture	1	1	-	-	-	
Others	3-	12	7	4	7	
<b>Lospalos</b>						
<b>Total</b>	<b>175</b>	<b>94</b>	<b>42</b>	<b>10</b>	<b>29</b>	
Computer	45	25	13	2	5	
Portuguese language	34	18	7	4	5	
English Language	28	13	6	2	7	
Tecnology Information (IT)	6	1	3	1	1	

Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area that requires more attention
Police investigation.	5	1	-	-	4	
Public Administration Office	4	2	2	-	-	
Electricity	4	3	1	-	-	
Automotive and Maintenance.	3	3	-	-	-	
Financial Services (Micro Finance and Banking);	3	2	1	-	-	
Agriculture or horticulture	2	2	-	-	-	
Agriculture	2	2	-	-	-	
Rural water supply	1	-	-	1	-	
Improve business	1	-	1	-	-	
Training for Contractors	1	1	-	-	-	
Hospitality (Public))	1	-	-	-	1	
Small machine	1	-	1	-	-	
Bricklayer	1	-	1	-	-	
Public Administration Office	1	1	-	-	-	
Construction (General)	1	1	-	-	-	
Welding	1	1	-	-	-	
Carpentry	1	1	-	-	-	
Evaluation training	1	1	-	-	-	
Management for Police	1	-	1	-	-	
Tailor or Seamstress	1	1	-	-	-	
Others	26	15	5	-	6	
<b>Luro</b>						
<b>Total</b>	<b>31</b>	<b>12</b>	<b>9</b>	<b>4</b>	<b>6</b>	

Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area that requires more attention
Portuguese language	10	3	5	1	1	
Information Technology (IT)	5	3	-	-	2	
Computer	5	3	-	1	1	
English Language	3	1	1	1	-	
Improve business	1	-	-	-	1	
Others	7	2	3	1	1	
<b>Tutuala</b>						
<b>Total</b>	<b>186</b>	<b>78</b>	<b>36</b>	<b>14</b>	<b>58</b>	
Computer	51	23	13	4	11	
Portuguese language	29	13	3	3	1-	
English Language	18	8	6	1	3	
Agriculture or horticulture	12	5	2	-	5	
Fishing	6	5	-	-	1	
Improve business	5	3	-	-	2	
Public Administration Office	3	-	-	1	2	
Information Technology (IT)	3	2	1	-	-	
Carpentry	3	2	1	-	-	
Tourism and Tourist Guide	2	1	-	1	-	
Financial Services (Micro Finance and Banking);	2	-	-	-	2	
Agricultural Course	2	-	1	1	-	
Business Construction (General)	1	-	1	-	-	
Public Administration Office	1	-	-	-	1	
Construction	1	-	1	-	-	

Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area that requires more attention
(General)						
Tailor or Seamstress	1	1	-	-	-	
Aesthetic Course (Manicure and Pedicure)	1	1	-	-	-	
Others	45	14	7	3	21	

## 2.6. Professional Occupations in the Public Sector

### 2.6.1. Permanent Public Servants

Table 7 shows that public servant and teachers are the main occupations of the public sector and together account for 82.7% of positions. 33.0% of teachers held positions between 6 - 10 years, 35.2% over 15 years, 20.9% between 11 - 15 years and less than 6 years corresponds to 10.8%. As for public servant, the data indicate that most maintained their services between 1-5 years and 6-10 years.

Table 7. Distribution of permanent Public servants occupation and years of service

Occupation	<1 Year	1-5 Years	6 - 10 Years	11-15 Years	>15 Years	Total	Percentage (%)
Teachers	5	43	147	93	157	445	47,14
Public Servants	10	99	107	65	55	336	35,59
Medical or Medical Specialist	1	25	3	6	8	43	4,56
Chief Department	-	4	4	6	10	24	2,54
Director General	-	1	2	-	2	5	0,53
National Director	-	2	2	1	7	12	1,27
Defenders or Judges	-	-	-	2	1	3	0,32
Others	2	20	29	16	9	76	8,05
<b>Total</b>	<b>18</b>	<b>194</b>	<b>294</b>	<b>189</b>	<b>249</b>	<b>944</b>	<b>100,0</b>
<b>Percentage (%)</b>	<b>1,9</b>	<b>20,6</b>	<b>31,1</b>	<b>20</b>	<b>26,4</b>	<b>100</b>	

Regarding the grade or level of respondents, the majorities are in the positions between grade F (level 1, & 2) - grade D / level 5, together corresponds to 96.9%. The servants with level above 6 are quite low, registering about 1.9% and those with special regime 1.2% (Table 8).

Table 8. Grade and Level of permanent public servants of interviewed

Degree / Level	Frequency	Percentage (%)
Grade A / level 7	2	0,21
Grade B / level 6	16	1,69
Grade C / level 5	62	6,55
Grade D / level 4	259	27,38
Grade E / level 3	423	44,71
Grade F / level 1, 2	173	18,29
Special regime	11	1,16
<b>Total</b>	<b>946</b>	<b>100</b>

### 2.6.2. Temporary Public Servants

Table 9 shows temporary public servant by occupation and years of service. The occupational pattern is similar to the permanent public servant with the mastery of teachers and public servant. Teachers and public servant are those who have a large number of temporary public servant. Both represent 88.4% of temporary public servants while hiring the specialized technicians only 1.2%. The standard of working duration is similar to permanent public servants, the highest proportion of whom have maintained public service between 1-5 years and 6-10 years and together represent 81.5% compared to those who have maintained the working over 10 years (5.4%).

Table 9. Distribution of temporary public servants by occupation and years of service

Year of work	Public Servants	Specialized Technical	Teachers	Others	Total	Percentage (%)
<1 Years	16	-	10	6	32	13,2
1-5 Years	58	3	53	11	125	51,7
6 - 10 Years	34	-	30	8	72	29,8
11-15 Years	5	-	2	-	7	2,9
>15 Years	4	-	2	-	6	2,5
<b>Total</b>	<b>117</b>	<b>3</b>	<b>97</b>	<b>25</b>	<b>242</b>	<b>100</b>
<b>Percentage (%)</b>	<b>48,3</b>	<b>1,2</b>	<b>40,1</b>	<b>10,3</b>	<b>100</b>	



## 2.7. Level of Education for the Temporary Public Servants

At the level of education, 60% of temporary public servant have secondary education level, 16% Bachelor's Degree, Pre-secondary 6% and Diploma III (5.4%). Other levels of education have a percentage less than 5% (Table 10).

Table 10. Distribution of temporary public servants for public sector by levels of education.

Education level	Number of Public Servants	Percentage (%)
Elementary	14	5,0
Pre-secondary	19	6,8
Secondary	169	60,6
Vocational Technical High School	10	3,6
Others	2	0,7
Diploma I (DI)	1	0,4
Diploma II (DII)	2	0,7
Diploma III (DIII)	15	5,4
Diploma IV (DIV)	-	0,0
Bachelor's degree (S1)	46	16,5
Master's Degree (S2)	1	0,4
PhD (S3)	-	0,0
<b>Total</b>	<b>279</b>	<b>100</b>

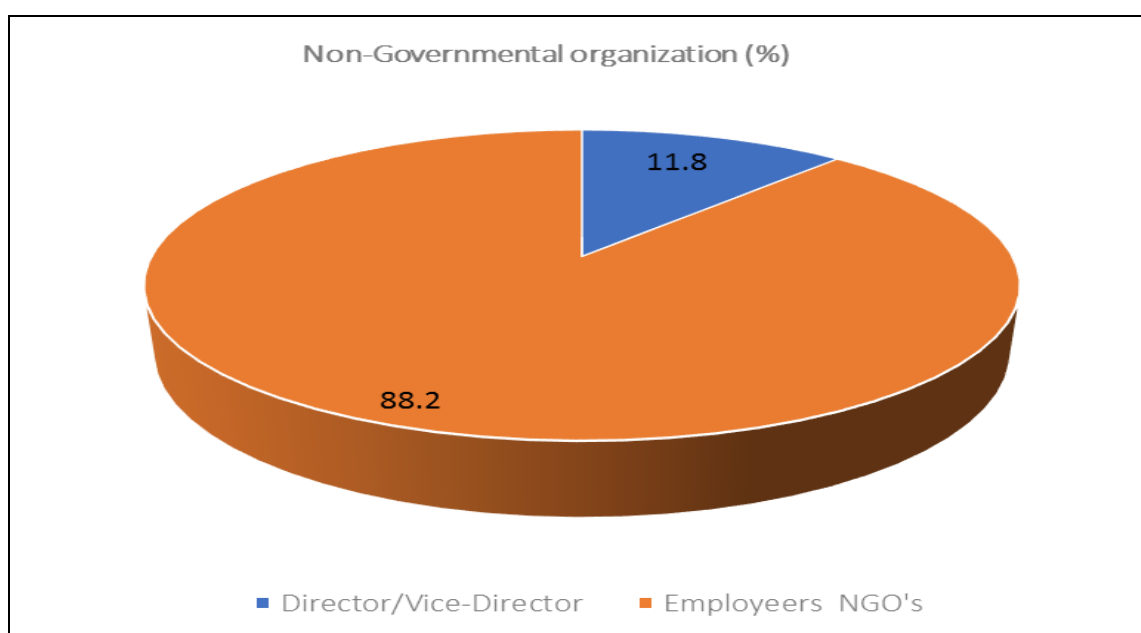
## 2.8. Non-Public Sector (Private Sector)

The non-public sector (private sector) in Lautem Municipality persists small compared to the public sector. This despite the growth of the non-public sector is one of the main objectives of the government and most of those who do not currently work expressed an their interest of working in the non-public sector. However, despite the desire to work in the non-public sector, much of this work requires good educational qualifications. The result of this work provides several relevant evidence.

### 2.8.1. Non-Governmental Organizations (NGOs) and Private Universities Privadas.

Figure 2 shows data for staff working in Non-Governmental Organizations (NGOs). Among of the 34 respondents, 11.8% hold positions as Director or Deputy Directors of the organizations and the highest 88.2% employees.

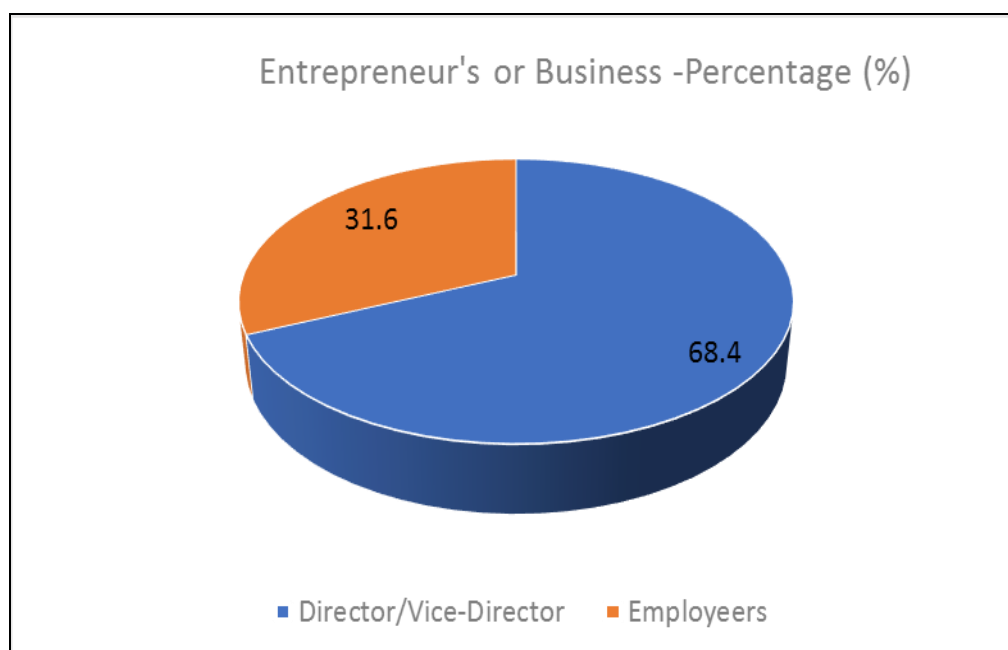
Figure 2 . Staff from Non-Governmental Organizations (NGOs) by position



### 2.8.2. Entrepreneurs or Businessman

Entrepreneurs play an important role through their investments, increasing the prosperity of the population in the municipality. Thus, citizens have the opportunity to take a job through investment, services and increased trade, in addition to the municipality grow economically. In this sense, it is essential to understand the human resources involved in this process and try to empower them efficiently and effectively. Figure 3 shows the distribution of the personnel involved in the company by level of education and by position in which it currently assumes. 68.4% of the respondents are employed as Directors or Vice-directors and 31.6% assume a simultaneous role as a director of the same business.

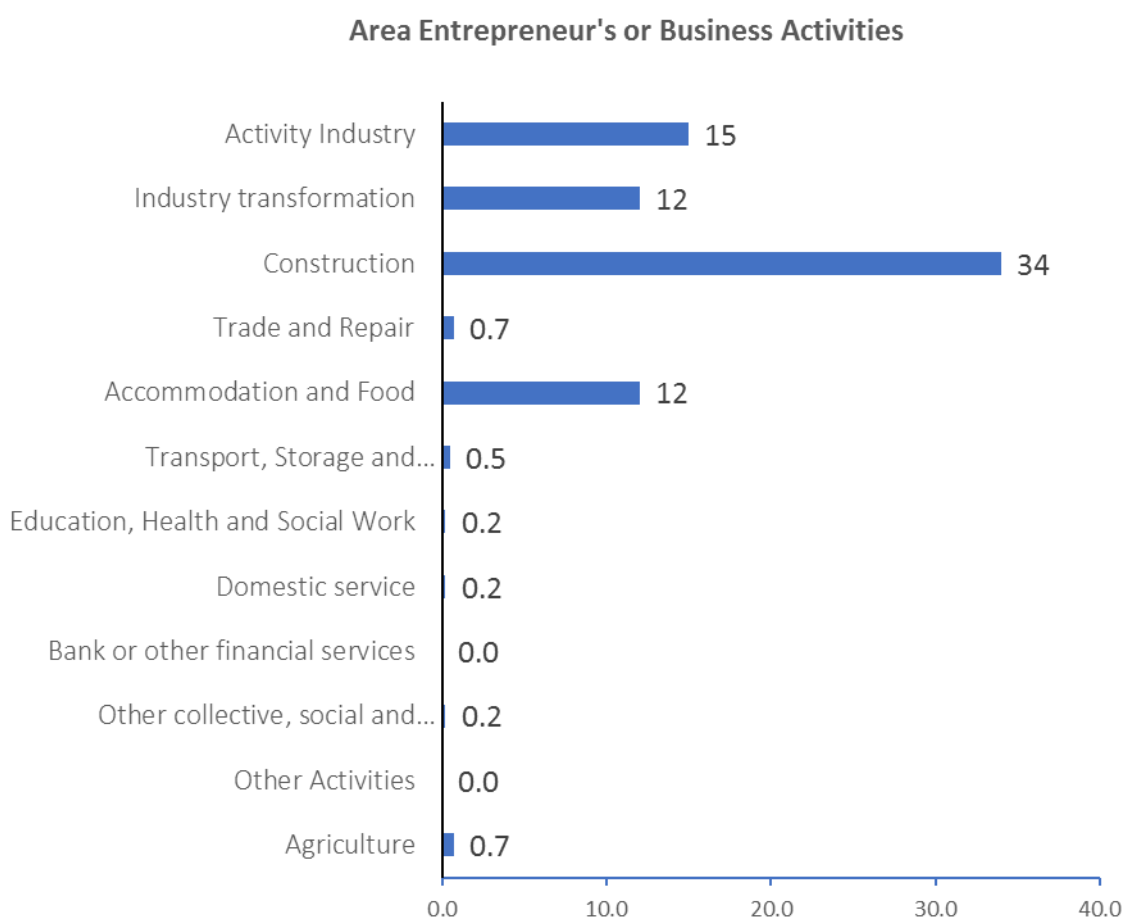
Figure 3. Distribution of entrepreneurs or business by position



### 2.8.3. Activity Sectors

The largest proportion of business activities areas are related to construction, industry activity, manufacturing industry and accommodation and food. Other sectors of activity are less than 10% (*Figure 4*).

Figure 4. Distribution of the areas of entrepreneurs' activities



#### 2.8.4. Education level of Entrepreneurs or businessman

The data also shows that most of the people involved have no level of education (45.7%), secondary education (16.1%), pre-secondary (14%) and basic education (12.6%). Other levels of education have a percentage less than 10% (*Table 11*).

When analyzing the presence of entrepreneurs and their qualifications is essential for the growth of the municipality. Increasing the level of education, the municipality inserts its citizens into a productive economy, giving them the opportunity to be entrepreneurs or innovators, through a good education. Thus, the presence of entrepreneurs and the trained of qualified employees are crucial for the municipality.

Table 11 . Distribution of entrepreneurs and level of education

Education Level	Number of Entrepreneurs or businessman	Percentage (%)
Can not read / write	2,884	45,7
Secondary	1,016	16,1
Pre-secondary	887	14,0
Primary	798	12,6
Do not read / write (did not finish primary)	567	9,0
Bachelor's Degree (S1)	77	1,2
Secondary School of Agriculture)	25	0,4
1 st. Cycle (1st Grade - 4th Grade)	20	0,3
Secondary Technical School	11	0,2
Diploma III (DIII)	10	0,2
Secondary School of the Social Assistance	5	0,1
Secondary School	4	0,1
Diploma I (DI)	3	0,0
Secondary School of Nursing	2	0,0
Others	2	0,0
2º. Cycle (1st Year, 2nd Year)	1	0,0
3º. Cycle (3rd Grade - 9th year / 3rd Grade)	1	0,0
Diploma II ( DII)	1	0,0
Diploma IV (DIV)	1	0,0
Secondary School of Sports	-	0,0
Master's Degree (S2)	-	0,0
PhD (S3)	-	0,0
<b>Total</b>	<b>6,315</b>	<b>100</b>

## 2.9. Preferred Working Area

This data collection process also asked people 17 years of age or older who never worked in which sector they would like to work and where they would like to work if they could get a job. The responses in table 12 show that the majority opted for the non-public sector (private sector) with 58% compared to the public sector 42%. The Sub-District Administration of Lospalos and Lautem have a higher percentage of individuals seeking employment in the non-public sector while in

the public sector it was in the Sub-District Administration of Lospalos and Tutuala. (Table 12).

**Table 12. Number of respondents in Lautem Municipality in search of employment and intends to work in the public or private sector**

Su-District Administrations	Public Sectors	Percentage (%)	Non-Public Sectors	Percentage (%)	Total	Percentage (%)
Iliomar	12	0,3	546	9,7	558	5,8
Lautem	96	2,4	1,725	30,8	1,821	18,8
Lospalos	3687	90,8	2,061	36,7	5,748	59,4
Luro	37	0,9	583	10,4	620	6,4
Tutuala	229	5,6	694	12,4	923	9,5
<b>Total</b>	<b>4,061</b>	<b>100%</b>	<b>5,609</b>	<b>100%</b>	<b>9,670</b>	<b>100%</b>

## 2.10. Business Sector you would like to work in

Table 13 indicates that, in the private sector, the preference is mainly for agriculture (61.7%), domestic tasks (9.2%), industrial activity (7.7%) and construction (5.8%). Other sectors of activity have a percentage less than 5%.

**Table 13. Distribution of areas of activities that respondents wish to work**

Activity Sectors	Sub-District Administrations					Total	Percentage (%)
	Iliomar	Lautem	Lospalos	Luro	Tutuala		
Agriculture	874	2,001	2,146	496	448	5,965	61,7
Industry Activity	90	362	203	73	17	745	7,7
Transformation industry	24	43	105	30	9	211	2,2
Construction	82	69	307	30	74	562	5,8
Trade and repair	24	33	185	35	23	300	3,1
Accommodation and Food	35	87	101	28	57	308	3,2
Transport, Storage and Communication	6	23	53	13	9	104	1,1
Education, Health and Social Work	19	26	163	19	13	240	2,5
Domestic Service	42	233	316	167	133	891	9,2
Banking or other financial services	17	32	46	34	3	132	1,4
Other collective, social and personal	68	14	83	15	6	186	1,9

Activity Sectors	Sub-District Administrations					Total	Percentage (%)
	Iliomar	Lautem	Lospalos	Luro	Tutuala		
services							
Other activities	7	1	8	1	3	20	0,2
<b>Total</b>	1288	2924	3716	941	795	9664	<b>100%</b>
<b>Percentage (%)</b>	<b>13,3%</b>	<b>30,3%</b>	<b>38,5%</b>	<b>9,7%</b>	<b>8,2%</b>	<b>100</b>	

### 2.11. Age group (age) of respondents who are search for a job

Regarding the age group, the largest number of respondents seeking employment are young people aged between 17 and 36 years, representing around 61.6% (Table 14).

Table 14. Age Group of respondents search for a job

Age Groups	Non-Public Sector	Percentage (%)
17 - 20	429	10,1
21- 24	589	13,9
25 - 28	574	13,5
29 - 32	542	12,8
33 - 36	478	11,3
37 - 40	527	12,4
41 - 44	635	15,0
45 - 48	470	11,1
<b>Total</b>	<b>4,244</b>	<b>100%</b>

### 2.12. Graduated in job search "Unemployment"

The data also provide information on the number and qualifications of people with higher education in look for job (Table 15). The figures shows that, amont the 173 graduates responding, 79.2% intend to work in the public sector and 20.8% intend to work in the non-public sector. Graduates want more work in the public sector rather than the private sector.

The areas of higher education courses with the highest number of look for job graduates "unemployment" are in the areas of Mathematics and Management.

Graduates in other areas are less than 5%, so these data are key to municipal government, enterprise and other employers' partners how to take advantage and employ them.

**Table 15. Number and areas of knowledge of higher education courses in job search and wish to work**

No.	Study Program or Area of Specialization	Do not work and want to work?		Total	Percentage (%)
		Public Sector	Non-Public Sector		
1	Mathematics	19	2	21	12,1
2	Management	10	3	13	7,5
3	Civil Engineering - Civil Construction	3	3	6	3,5
4	Architecture Engineering	5	1	6	3,5
5	Public law	4	2	6	3,5
6	Medicine - Medical Practice (General Practice)	6	-	6	3,5
7	Animal Production (Livestock)	5	1	6	3,5
8	Accounting	4	2	6	3,5
9	Law	4	1	5	2,9
10	Teaching biology	5	-	5	2,9
11	Sociology of Education	4	1	5	2,9
12	Agronomy	3	1	4	2,3
13	Education	4	-	4	2,3
14	Computer technology engineering	1	3	4	2,3
15	Public policy	2	2	4	2,3
16	Geotechnical Engineering	2	1	3	1,7
17	Electrical engineering	2	1	3	1,7
18	Government Planning and Policy	1	2	3	1,7
19	Development Studies	2	1	3	1,7
20	Economy of Finance - management of finances - Banking Economics	3	-	3	1,7
21	Teaching mathematics	1	2	3	1,7
22	Environmental Ecology	1	1	2	1,2
23	Oil engineering	2	-	2	1,2
24	English language	2	-	2	1,2
25	Industry engineering	2	-	2	1,2



No.	Study Program or Area of Specialization	Do not work and want to work?		Total	Percentage (%)
		Public Sector	Non-Public Sector		
26	Others	1	1	2	1,2
27	Nursing	1	1	2	1,2
28	Agribusiness	2	-	2	1,2
29	Forestry Management	1	1	2	1,2
30	Aquaculture	2	-	2	1,2
31	Public law	1	1	2	1,2
32	Public Administration	2	-	2	1,2
33	Teaching Physics	2	-	2	1,2
34	Teaching chemistry	2	-	2	1,2
35	Government Science	2	-	2	1,2
36	Others	2	-	2	1,2
37	Training of primary school teachers and pre-secondary education	2	-	2	1,2
38	Physics	1	-	1	0,6
39	General - Environmental Biology	1	-	1	0,6
40	Biophysics	1	-	1	0,6
41	Mechanical Engineering	1	-	1	0,6
42	Social Economy Agricultural	1	-	1	0,6
43	Philosophy	1	-	1	0,6
44	Political science	1	-	1	0,6
45	Portuguese language	1	-	1	0,6
46	Indonesian Language	1	-	1	0,6
47	Computer science	1	-	1	0,6
48	Petrology	1	-	1	0,6
49	Plant Biology	1	-	1	0,6
50	Transportation Engineering and Telecommunication	-	1	1	0,6
51	Soil Science	-	1	1	0,6
52	Rural Constructions and Environment	1	-	1	0,6
53	Fishing engineering	1	-	1	0,6
54	Human Resource Economics	1	-	1	0,6

No.	Study Program or Area of Specialization	Do not work and want to work?		Total	Percentage (%)
		Public Sector	Non-Public Sector		
55	International, Bilateral and Multilateral Relations	1	-	1	0,6
56	Pastoral Theology	1	-	1	0,6
57	Skills Education - Fashion, Cosmetics, Cake - Pastry	1	-	1	0,6
58	Educational technology	1	-	1	0,6
59	Teacher training	1	-	1	0,6
<b>Total</b>		<b>137</b>	<b>36</b>	<b>173</b>	<b>100%</b>

### 2.13. Number and areas of study of students who are currently attending courses

Table 16 shows the number of students respondents in the Lautem Municipality who are currently attending higher education in different study programs. The numbers show that some areas of study, where their graduates have more "unemployment" (Table 15), still remain areas with higher numbers of students (Table 16). It is hoped that decentralization of local power will be implemented by the government and the development of the private sector in the municipality there will be opportunities to absorb the graduates in the labor market. If this does not happen, it may possibly increase the number of job seekers in particular in the areas identified above in table 15.

**Table 16. Distribution of the number of students who are currently attending courses in higher education**

No.	Areas of study	Frequency	Percentage (%)
1	Computer technology engineering	46	10,1
2	Management	46	10,1
3	Civil Engineering - Civil Construction	31	6,8
4	Public health	25	5,5
5	Law	18	4,0
6	Public Administration	16	3,5
7	Accounting	15	3,3
8	Agronomy	14	3,1

No.	Areas of study	Frequency	Percentage (%)
9	Medicine - Medical Practice (General Practice)	13	2,9
10	International, Bilateral and Multilateral Relations	12	2,6
11	Mining engineering	11	2,4
12	Livestock Production	11	2,4
13	Aquaculture	11	2,4
14	Tourism and Hospitality	10	2,2
15	Economy of Finance - management of finances - Banking Economics	10	2,2
16	Preventive Veterinary Medicine	9	2,0
17	Development Studies	8	1,8
18	Mathematics	7	1,5
19	Electrical engineering	7	1,5
20	Mechanical Engineering	7	1,5
21	Political science	7	1,5
22	English language	7	1,5
23	Public Law	6	1,3
24	Physics	5	1,1
25	Chemistry	5	1,1
26	Education	5	1,1
27	Portuguese language	5	1,1
28	Computer science	5	1,1
29	Human Resource Economics	5	1,1
30	Architecture engineering	4	0,9
31	Sociology	4	0,9
32	Public policy	4	0,9
33	Social Economy Agricultural	3	0,7
34	Forest Resources and Forestry Engineering	3	0,7
35	Philosophy	3	0,7
36	Agribusiness	3	0,7
37	Forestry Management	3	0,7
38	Teaching Physics	3	0,7
39	Teacher training	3	0,7
40	General - Environmental Biology	2	0,4

No.	Areas of study	Frequency	Percentage (%)
41	Specialist Gastroenterology Surgery	2	0,4
42	Fishing Resources and Fisheries Engineering	2	0,4
43	Geology	2	0,4
44	Petrology	2	0,4
45	Industry Engineering	2	0,4
46	Nursing	2	0,4
47	Environmental health	2	0,4
48	Marine Fishing Resources	2	0,4
49	Food Technology	2	0,4
50	Teaching mathematics	2	0,4
51	Government Science	2	0,4
52	Zoology	1	0,2
53	Geotechnical Engineering	1	0,2
54	Business Analyst	1	0,2
55	Chemical engineering	1	0,2
56	Others	1	0,2
57	Environmental engineering	1	0,2
58	Physical Education - Sports Education	1	0,2
59	Fitos sanidade	1	0,2
60	Forestry Techniques and Operations	1	0,2
61	Water and Soil Engineering	1	0,2
62	Management and Conservation of Pastures	1	0,2
63	Clinical and Animal Surgery	1	0,2
64	Government Planning and Policy	1	0,2
65	Economics of education	1	0,2
66	Economy - Cooperative – Marketing	1	0,2
67	Business Administration	1	0,2
68	Computer Management	1	0,2
69	Sociology of Education	1	0,2
70	Economics of Education or Management of Education	1	0,2
71	Others	1	0,2
72	Training of primary school teachers and pre-secondary education	1	0,2
<b>Total</b>		<b>455</b>	<b>100%</b>

## 2.14. Year the Course Ends

Regarding to the estimation of the numbers of higher education students who will graduate or finish their courses in the next 6 years, the data in table 17 show that the areas of Computer Technology Engineering, Management, Civil Engineering - Civil Construction, Public Health and Law are the ones that have more graduation numbers. Other areas have few graduation numbers per year so it is important to highlight the need to anticipate not to contribute more to the number of unemployed graduates.

**Table 17. Distribution of the number of students who are currently attending the courses and prediction of the year in which the course will end**

Areas of Study	Year the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Computer technology engineering	19	7	3	7	5	1	-	42
Management	17	7	8	1	2	-	-	35
Civil Engineering - Civil Construction	8	8	4	2	2	-	-	24
Public health	5	8	3	6	1	-	-	23
Law	6	3	3	1	1	-	-	14
Public administration	4	3	3	2	1	-	-	13
Agronomy	8	2	-	2	-	-	-	12
Medicine - Medical Practice (General Practice)	1	4	2	2	2	-	-	11
Accounting	5	3	1	1	1	-	-	11
Mining engineering	3	4	-	2	1	-	-	10
Animal Production (Livestock)	7	-	1	2	-	-	-	10
Agriculture	9	1	-	-	-	-	-	10
International, Bilateral and Multilateral Relations	3	1	4	-	2	-	-	10
Preventive Veterinary Medicine	8	1	-	-	-	-	-	9
Tourism and Hospitality	5	2	-	-	1	-	-	8

Areas of Study	Year the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Economy of Finance or management of finances - Banking Economics	3	-	1	2	2	-	-	8
Mechanical Engineering	2	3	1	1	-	-	-	7
Electrical engineering	2	3	-	-	1	-	-	6
Political science	5	-	1	-	-	-	-	6
English language	2	-	-	1	3	-	-	6
Physics	1	1	1	2	-	-	-	5
Development Studies	3	1	-	1	-	-	-	5
Mathematics	1	-	2	1	-	-	-	4
Architecture Engineering	3	1	-	-	-	-	-	4
Public law	2	2	-	-	-	-	-	4
Sociology	-	-	3	1	-	-	-	4
Portuguese language	2	-	1	1	-	-	-	4
Public policy	4	-	-	-	-	-	-	4
Chemistry	1	2	-	-	-	-	-	3
Philosophy	1	1	-	-	1	-	-	3
Computer science	2	-	-	1	-	-	-	3
Forestry Management	3	-	-	-	-	-	-	3
Human Resource Economics	1	-	1	1	-	-	-	3
Specialist Gastroenterology Surgery	1	1	-	-	-	-	-	2
Fishing Resources and Fisheries Engineering	1	-	-	-	1	-	-	2
Geology	-	2	-	-	-	-	-	2
Industry Engineering	2	-	-	-	-	-	-	2
Environmental health	2	-	-	-	-	-	-	2
Agribusiness	1	1	-	-	-	-	-	2
Marine Fishing Resources	-	-	-	-	2	-	-	2
Food Technology	1	1	-	-	-	-	-	2
Teaching mathematics	1	1	-	-	-	-	-	2
Teaching Physics	2	-	-	-	-	-	-	2

Areas of Study	Year the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Government Science	2	-	-	-	-	-	-	2
General - Environmental Biology	-	-	-	1	-	-	-	1
Zoology	1	-	-	-	-	-	-	1
Geotechnical Engineering	-	-	1	-	-	-	-	1
Social Economy Agricultural	-	1	-	-	-	-	-	1
Forest Resources and Forestry Engineering	1	-	-	-	-	-	-	1
Petrology	-	-	-	1	-	-	-	1
Chemical engineering	-	-	-	-	1	-	-	1
Environmental Engineering	-	-	1	-	-	-	-	1
Physical Education - Sports Education	-	-	-	-	1	-	-	1
Nursing	1	-	-	-	-	-	-	1
Phytosanitary	1	-	-	-	-	-	-	1
Forestry Techniques and Operations	1	-	-	-	-	-	-	1
Water and Soil Engineering	-	1	-	-	-	-	-	1
Management and Conservation of Pastures	1	-	-	-	-	-	-	1
Clinical and Animal Surgery	1	-	-	-	-	-	-	1
Government Planning and Policy	1	-	-	-	-	-	-	1
Economics of Education	-	-	-	1	-	-	-	1
Economy - Cooperativa - Marketing	1	-	-	-	-	-	-	1
Business Administration	1	-	-	-	-	-	-	1
Computer Management	-	1	-	-	-	-	-	1
Sociology of Education	-	-	-	-	1	-	-	1

Areas of Study	Year the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Economics of Education - Management of Education	-	1	-	-	-	-	-	1
Teacher training	1	-	-	-	-	-	-	1
Training of primary school teachers and pre-secondary education	-	-	1	-	-	-	-	1
Others	-	-	-	-	1	-	-	1
<b>Total</b>	<b>170</b>	<b>78</b>	<b>46</b>	<b>43</b>	<b>33</b>	<b>1</b>	<b>-</b>	<b>371</b>

## 2.15. The demand for training for personal and institutional

### 2.15.1. Training in areas of general and specialized competences

One of the fundamental results of this work is that the data show a considerable level of professional development activity in several training areas in Lautem Municipality. Table 18 below indicates the size of the professional development training performed by training area and the duration of the course. In response to this question, respondents were asked to select up to three options for the courses taken, so the table refers to the number of courses taken and not to trainees.

The 2,382 respondents represent a substantial level of training activity, since 51.8% have a duration of 1 - 6 months, 26.6% less than a month and 21.7% have been for more than 6 months. It is also notable that the main courses were in the areas of Information Technology, Leadership, Administration, Finance, Planning, Human Resources and Management (HRM). There are few indications of training in areas considered as priority areas for the municipality, such as agriculture, construction and hospitality and tourism.



Table 18. Professional development courses carried out by training area and duration of the course.

Areas of training	Duration				Total	Percentage (%)
	Less than 1 month	1 - 6 months	7 months - 1 year	More than 1 year		
Leadership	150	191	70	49	460	19,3
Finance	86	124	28	10	248	10,4
Planning	82	113	18	10	223	9,4
Management	46	82	20	14	162	6,8
Human Resource	69	103	18	12	202	8,5
Information Technology (IT)	36	301	128	8	473	19,9
Procurement and Logistics	15	25	12	4	56	2,4
Administration	77	139	62	15	293	12,3
Information System and Business Management	28	44	7	3	82	3,4
Media and Public Relations	4	6	2	-	12	0,5
Specialized Technician	20	30	8	3	61	2,6
Others	20	75	10	5	110	4,6
<b>Total</b>	<b>633</b>	<b>1233</b>	<b>383</b>	<b>133</b>	<b>2,382</b>	<b>100%</b>
<b>Percentage (%)</b>	<b>26,6%</b>	<b>51,8%</b>	<b>16,1%</b>	<b>5,6%</b>	<b>100</b>	

### 2.15.2. Languages Training

Table 19 shows the proportion of vocational training in language areas and the duration of the course. There are a remarkable number of people who have already taken part in a language course. As expected, the Portuguese language as the official language has participated with the highest percentage (59.9%) following the English language with 28.9%. The Tetum language has a participation of 7.5% of the respondents and other languages with a participation of less than 3%. 67.9% of the courses have duration between 1 - 6 months, 2.3% less than one month and another 29.8% are more than 7 months. The Portuguese language and English language courses are the main courses conducted by respondents in the Municipality of Lautem.

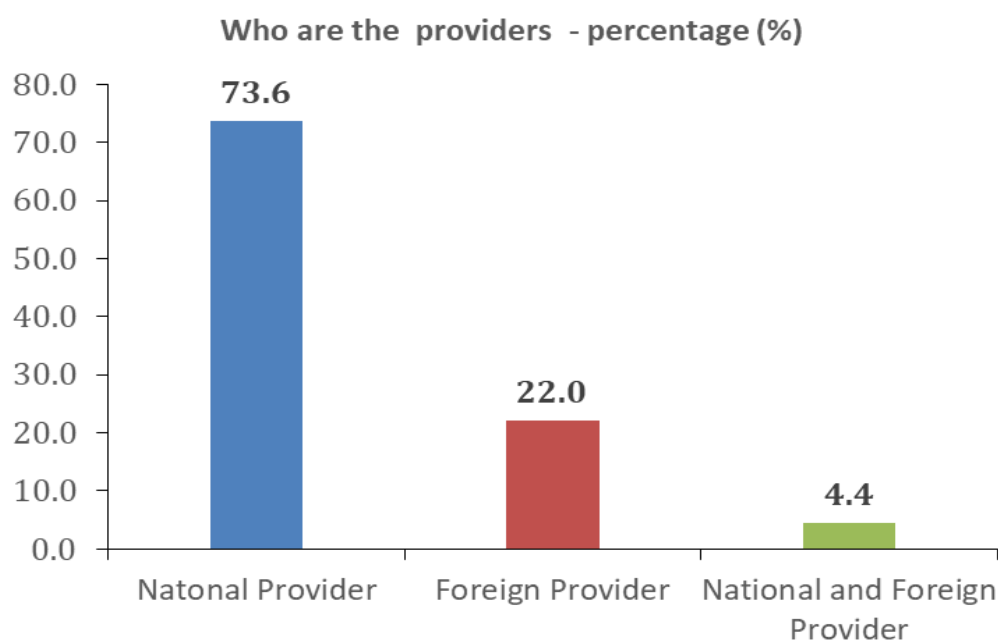
Table 19. Language training and the duration of the course

Type of training	Duration				Total	Percentage (%)
	Less than 1 month	1 - 6 months	7 months - 1 year	More than 1 year		
Portuguese	37	1,223	387	192	1,839	59,9
English	19	632	177	58	886	28,9
Tetum	10	140	29	52	231	7,5
Indonésia	3	61	9	7	80	2,6
Korea	1	22	2	1	26	0,8
Others	-	7	-	1	8	0,3
<b>Total</b>	<b>70</b>	<b>2,085</b>	<b>604</b>	<b>311</b>	<b>3,070</b>	<b>100%</b>

## 2.16. Institution Providers and Financing

As for language training institutions, 73.6% of training providers are national institutions, 22% provided by foreign institutions and 4.4% promoted by national and foreign institutions (*Figure 5*).

Figure 5 . Institutions Suppliers of language training



## 2.17. Training Finance

Among the total number of respondents who have already done the language training, 53.4% was financed by the trainee himself, by the government 27.9% and the training supported by the private sector 8.9%. Training with government support in cooperation with international partners and only by international partners corresponds to 7.4% and 2.4%, respectively (*Table 20*).

**Table 20. Funders of language training**

Sub-District Administration	Government	Private sector	Pay for yourself	Government and international partners	International Partners	Total
Iliomar	51	5	26	13	13	108
Lautem	192	48	362	48	8	658
Lospalos	169	59	390	57	20	695
Luro	82	15	112	23	6	238
Tutuala	58	49	165	5	-	277
<b>Total</b>	<b>552</b>	<b>176</b>	<b>1,055</b>	<b>146</b>	<b>47</b>	<b>1,976</b>
<b>Percentage (%)</b>	<b>27,9%</b>	<b>8,9%</b>	<b>53,4%</b>	<b>7,4%</b>	<b>2,4%</b>	<b>100</b>

## 2.18. Future Training Plan

### 2.18.1. Personal Development Training

The training plan for the future desired by the respondents was also the subject of an investigation in this work. In order for the training to generate capital gains, it is necessary to respond to the needs of the municipality and, consequently, the needs of the trainees themselves. For this it is important to make a study of the training needs, before starting the investment.

The study of training needs is one of the most common ways to identify the needs of the municipality, since it allows, on the one hand, to see if the training is the answer to the problems and, on the other hand, to identify which type of training which serves to fill them. In addition, it allows identifying the individual training needs, particularly those that do not yet have and are seeking employment.

In the context of the desire for training for the future, two questions were asked for those who are not yet employed or looking for work and those who are already employed in the public or non-public sector. In relation to the first, you were asked what kind of training you want to do so you can increase your personal skills, get a greater job opportunity and make it easier for you to find a job. The data in table 21, shows that the majority of respondents wish to raise their knowledge in Management, Administration and Leadership, specific areas (Varieties), Teachers and Professionals of education and Languages (English, Portuguese).

The longing for training in specific areas such as agriculture, tourism, fisheries, livestock, in industries was found in few respondents compared to generic training areas. This is due, of course, to the lower number of employees in this area and a lack of knowledge on the part of respondents about the importance of training for self-employment. Check out training to broaden general knowledge are more preferred compared to specialized areas.

**Table 21. Desired training areas by non-employed respondents**

No.	Training Areas	Frequency	Percentage (%)
1	Management, Administration and Leadership	51	17,6
2	Varieties *	50	17,2
3	Teachers and Education Professionals	42	14,5
4	Languages (English, Portuguese, etc.)	28	9,7
5	Human resource Management	22	7,6
6	Information Technology, Database, Web, Software and Electronic Filing (registration) - computer	21	7,2
7	Finance, Budget, Accounting and Planning	18	6,2
8	Agriculture	16	5,5
9	Medicine and Health Professionals	14	4,8
10	Police, Defense, Security (Public service training)	11	3,8
11	Procurement, Logistics and Patrimony Management	4	1,4
12	Livestock	3	1,0
13	Marketing, Communication, Journalism and Media	2	0,7
14	Mediation Technique, Conflict Analysis, Conciliation and Sensitive Cases	2	0,7
15	Professional, Research and Development Knowledge (based on the operating sector)	2	0,7

No.	Training Areas	Frequency	Percentage (%)
16	Law and Justice	1	0,3
17	Customer Service (customer service and standard development)	1	0,3
18	Fisheries	1	0,3
19	Hospitality in Tourism	1	0,3
<b>Total</b>		<b>290</b>	<b>100%</b>

\*) Areas that by their nature could not be classified in a category of their own. This category includes all data that could not be integrated into any of the training categories, as well as very specific training.

### 2.18.2. Training Development and institutional strengthening

As regards the second question - the personal development training and the institutional or organizational strengthening applied to the employed respondents, the data in Table 22 show that training areas such as specific training (Varieties), teacher training and education, and languages (English, Portuguese), continues to be areas of higher preference desired by respondents.

Table 22. Areas of training by non – employed respondents

No.	Training Area	Frequency	Percentage (%)
1	Varieties *	52	21,9
2	Teachers and Education Professionals	44	18,6
3	Languages (English, Portuguese, etc.)	41	17,3
4	Medicine and Health Professionals	24	10,1
5	Management, Administration and Leadership	24	10,1
6	Police, Defense, Security (public service training)	18	7,6
7	Information Technology, Database, Web, Software and Electronic Filing (registration) - computer	13	5,5
8	Finance, Budget, Accounting and Planning	6	2,5
9	Agriculture	5	2,1
10	Information System & Business Management;	3	1,3
11	Livestock	2	0,8
12	Training of trainers (ToT)	1	0,4
13	Human resource Management (HRM)	1	0,4
14	Project management	1	0,4
15	Procurement, Logistics and patrimony Management	1	0,4
16	Mediation Technique, Conflict Analysis, Conciliation and Sensitive Cases	1	0,4
<b>Total</b>		<b>237</b>	<b>100%</b>

\*) Areas that by their nature could not be classified in a category of their own. This category includes all data that could not be integrated into any of the training categories, as well as very specific training.

## 2.19. Category and Academic Degree of Training

### 2.19.1. Vocational and Academic Training

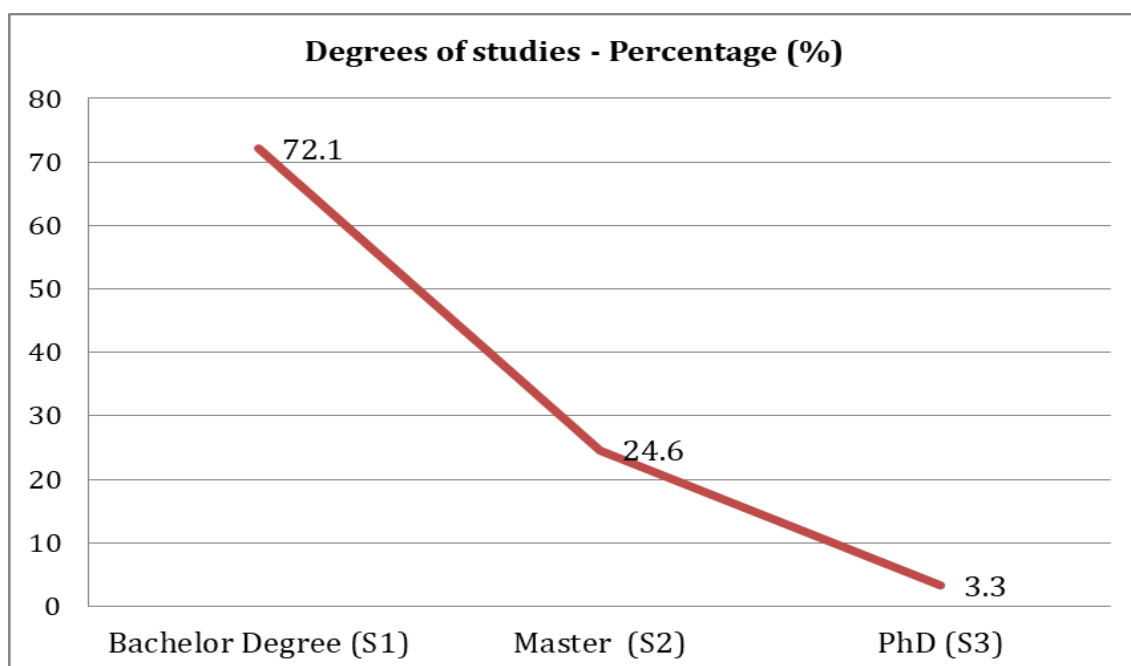
When asked about the training category, of the 7,378 respondents, 87.7% of the respondents intend to develop their knowledge through the vocational or professional training course and 12.3% in the academic - higher education course (Table 23). The Sub-District Administration of Lautem and Lospalos have a greater number of those who wish to have vocational or professional training as well as to obtain an academic level.

Table 23. Category of Training and Academic or Vocational Training

Sub-District Administration	Academic or Universities	Vocational or Vocational training	Total
Iliomar	66	396	462
Lautem	315	2520	2835
Lospalos	316	2145	2461
Luro	142	545	687
Tutuala	67	866	933
<b>Total</b>	<b>906</b>	<b>6,472</b>	<b>7,378</b>
<b>Percentage (%)</b>	<b>12,3%</b>	<b>87,7%</b>	<b>100</b>

Among the 906 (12.3%) respondents who wish to take the course in higher education, 72.1% plan to increase their knowledge in Bachelor's Degree (S1), 24.6% in Master's Degree (S2) and 3.3% in PhD (S3) (Figure 6).

Figure 6 . Degrees of studies that wish to continue



The details of the training areas and the academic degrees wish can be seen in table 24.

Table 24 . Academic degrees and areas of study that you wish to pursue

No.	Areas of study	Academic level courses (Universities)			Total
		Bachelor's Degree (S1)	Master (S2)	PhD (S3)	
1	Teachers and Education Professionals	12	2	0	14
2	Varieties	9	3	1	13
3	Languages (English, Portuguese, etc.)	7	4	0	11
4	Medicine and Health Professionals	6	3	0	9
5	Management, Administration and Leadership	4	2	1	7
6	Information Technology, Database, Web, Software and Electronic Filing (registration) - computer	2	-	-	2
7	Police, Defense, Security (public service training)	2	-	-	2
8	Finance, Budget, Accounting and Planning	1	-	-	1
9	Agriculture	1	-	-	1
10	Livestock	0	1	-	1
<b>Total</b>		<b>44</b>	<b>15</b>	<b>2</b>	<b>61</b>
<b>Percentage (%)</b>		<b>72,1%</b>	<b>24,6%</b>	<b>3,3%</b>	<b>100</b>

\*) Areas that by their nature could not be classified in a category of their own. This category includes all data that could not be integrated into any of the training categories, as well as very specific training.

### 3. Development of Human Resources within the Strategic Development Plan of the Municipality

#### 3.1. The four (4) pillars of the Municipal Strategic Plan (MSP)

The Lautem Municipal Strategic Plan (MSP) in line with the Government Development Plan of Timor-Leste (PEDN) for 2011-2030, aims to promote the progress and sustainable development of the territory, defining strategies and guidelines, creating conditions of competitiveness, innovation and modernity, ensuring the public interest through an efficient, transparent and rigorous management and allocation of resources. Like the PEDN, the MSP is built around four (4) pillars:

1. **Social capital:** health, education and social protection
2. **Infrastructure:** transport, telecommunications, energy and water supply and sanitation.
3. **Economic fundamentals:** targeting three sectors for development - agriculture, tourism and petrochemicals - to generate growth, jobs and new sources of public revenue in addition to oil.
4. **Institutional framework:** focus on macro-economic management and improvement of the capacity and effectiveness of government institutions.

The development of human resources in the Lautem Municipality should take into account these four pillars and also the current situation of the economy and society as a whole. In addressing key human resource developments, this section is based on the four pillars and begins with a summary of the structure of the municipality's economy and the recent growth in various sectors.

The Lautem Municipality has identified the following needs for generic training areas in order to develop the capacity and competence of its human resources for the implementation of its strategic priority programs and municipal development, in line with the strategic development objectives.



Social Capital (Health, Education and Social Protection)	
Education and training	<ol style="list-style-type: none"> <li>1). To construct, equip and maintain pre-school education establishments, primary and secondary schools, guaranteeing the development and requalification of the school park in the municipality and the conditions for the quality training of Lautem youth.</li> <li>2). Ensure that children entering elementary school have basic skills, knowledge and character development effectively.</li> <li>3). Ensure that children 3 to 5 years of age enrolled and enrolled in kindergarten (preschool) quality.</li> <li>4). Support the development of complementary activities of educational action in pre-school education and in primary to secondary education promoting and integrating initiatives in the area of culture, art and sports, others.</li> <li>5). Also guaranteeing the conditions for the teaching of students with special needs with the introduction of sign language among other supports.</li> <li>6). To manage the temporary public service of pre-school and primary education by training them for their support and follow-up functions.</li> <li>7). Ensure the creation and management of canteens of pre-school and basic education establishments under a direct or concession regime, guaranteeing a quality service and a careful diet for young students attending municipal schools.</li> <li>8). To approve and execute the municipal plan of recurrent education guaranteeing the literacy of the population.</li> <li>9). Ensure that students left vocational technical school to have the job as soon as they finish the course.</li> <li>10). Ensure that people leaving higher education have the knowledge of science and theory to benefit the communities of interest.</li> </ol>

Health sector	<p>In the health sector, the Municipality of Lautem has identified the following priority programs:</p> <ol style="list-style-type: none"> <li>1). Ensure access to quality health care for all citizens</li> <li>2). Establish health center in rural areas</li> <li>3). Build the Health Center in the city of Lospalos and the Sub-district Administration of Lautem;</li> <li>4). ) Ensure that all private clinics providing health care to the community regularly report quarterly to local government;</li> <li>5). Ensure quality services and consultations and immunization for pregnant women in the Municipality of Lautem;</li> <li>6). ) Ensure that children will be immunized against tuberculosis, polio, measles, diphtheria and hepatitis B;</li> <li>7). Provide special services for children who are hospitalized;</li> <li>8). Increase VTC rates and reduce the number of cases of tuberculosis and hepatic malaria;</li> <li>9). Training program in the development of knowledge in the area of the Promotion of Mother and Child Health and Family Planning and Public Health;</li> <li>10). Continue to develop the SISCA program</li> <li>11). Training in hospital nursing management.</li> </ol>
Social Protection (Inclusion)	<ol style="list-style-type: none"> <li>1). Increase people's capacity through peacebuilding and social cohesion, improve technical assistance, and increase people's capacity to support domestic violence centers by providing effective and available support to participate in various related areas (Training in resolution (Forum theater), Training in monitoring and evaluation, Training in dialogue and mediation and among others) and lastly, gender equality training.</li> <li>2). Reduce the number of poverty through inclusion and provide opportunities for vulnerable groups to participate in development.</li> <li>3). Ensure social justice and equality.</li> </ol>

Environment sector	<p>4). Ensure access to free health care and provide special services to veterans, the elderly and the people with disability</p> <p>5). Prepare, prevent and mitigate in the event of natural disasters.</p>
Culture and Heritage	<p>1). Sensitize and provide awareness in environmental protection through government regulation campaigns for local communities, youth, students and civil society and churches at village, juice, administrative and municipal levels.</p> <p>2). Socialization and dissemination of natural protection and animal species through the distribution of leaflets, leaflets, posters, information boards in all places considered harmful to the environment;</p> <p>3). To promote people's knowledge in the areas of climate change and biodiversity, pollution control, environmental impact analysis, waste recycling and improve service centers in the area of climate change at municipal level and Sub-District Administration</p> <p>4). Disseminate information about the environment through the media;</p> <p>5). Training of environmental extension techniques at each Sub-District Administration on environmental impacts, environmental regulations and education;</p>
	<p>1). Support and protect traditional culture such as traditional songs and dances for tourism purposes and welcome ceremony to visitors in the Municipality of Lautem</p> <p>2). Provide knowledge in the area of cultural arts and creative industries, museum development and libraries, identification and rehabilitation of cultural heritage.</p>

	<p>3). Provide accommodation in rural areas, for the promotion of tourism culture inherited by our ancestors, such as; sacred house (<i>Uma lulik</i>) sacred water (<i>Be'e lulik</i>) and other relics that can be developed as a tourist destination;</p> <p>4). Technical training in decoration, curator and museum preservation, cultural heritage and threats in the architectural and archaeological heritage.</p>
<p><b>Infrastructure (transport, telecommunications, energy and water supply and sanitation).</b></p> <p>In the area of Infrastructure, the Municipality of Lautem has identified the following priority training programs:</p>	
Roads and Bridges	<p>1). Rural and Urban Roads Development Program</p> <p>2). Roads Maintenance Program</p> <p>3). Housing and Buildings Development Program</p> <p>4). Rehabilitate and build roads and bridges at the villages connecting places to the Sub-District Administration and the Sub-District Administration to the municipality, according to priority scale.</p>
Water and sanitation	<p>1). Potable Water Development Program in Rural in Urban</p> <p>2). Potable Water Maintenance and Facility Program (Urban and Rural)</p> <p>3). Basic Sanitation Program and ensure that in each village, the population has access to sanitation.</p> <p>4). Program System Drinking water supply</p> <p>5). Drinking water plan program</p> <p>6). Ensure that each household household has access to potable water supply.</p>

Electricity	<ol style="list-style-type: none"> <li>1). Program Installing electricity in rural and urban areas</li> <li>2). Electricity Maintenance Program (Protection and Maintenance of Power Distribution Lines)</li> <li>3). Prepaid system program</li> <li>4). City Street Lighting Program</li> <li>5). 1) Build new EDTL office building at each Sub-district administration</li> </ol>
Telecommunication	<ol style="list-style-type: none"> <li>1). Ensure the Telecommunications network for all populations in rural areas in urban areas</li> </ol>
<p><b>Economic fundamentals - targeting three sectors for development - Agriculture, Tourism, Rural Development and the private sector.</b></p>	
Rural development sector	<ol style="list-style-type: none"> <li>1) Building rural roads</li> <li>2) Establish drinking water in rural areas</li> <li>3) Building the Rural Market</li> <li>4) Building Rural Electricity</li> <li>5) Build Rural Health center</li> <li>6) Small Industries Development Program</li> </ol>
Agriculture sector	<ol style="list-style-type: none"> <li>1) Provide funding for agricultural groups in each sub-villages (<i>Aledias</i>)</li> <li>2) Increase the agricultural seed production group.</li> <li>3) Increase rice and corn production effectively in each village.</li> <li>4) Increase the production of variety product through farmers of traditional systems.</li> <li>5) Increase the production of cocoa seeds and other seeds for farmers;</li> <li>6) Provide training and training for technicians;</li> <li>7) Increase coconut production;</li> <li>8) Fisheries - increase fishing production; provide fishing equipment; fisheries training; and socialize the fisheries regulation and fishing groups</li> <li>9) Livestock - Poultry breeding program, milk and</li> </ol>

	<p>goat cow production; prevention of animal disease.</p> <p>10) Forest Plants and Industry</p> <p>11) Food Production (Agriculture)</p>
Tourism sector	<p>1) Program of Survey of Data to the tourist places;</p> <p>2) Tourism protection and development program</p> <p>3) Tourism Promotion Program</p>
Private sector	<p>1) Development of the cooperative sector</p> <p>2) Increase knowledge and train employees in the following areas:</p> <p>3) ) Strategies to develop the cooperative sector;</p> <p>4) Training of trainers in the area of cooperatives;</p> <p style="padding-left: 40px;">a. The. Training in management of cooperatives;</p> <p style="padding-left: 40px;">b. Audit training of cooperatives;</p> <p style="padding-left: 40px;">c. raining in decrees and statute of the cooperative society.</p> <p style="padding-left: 40px;">d. Development of micro and small enterprises</p> <p>5) Increase knowledge in micro and small businesses to support entrepreneurs in running their business in the future:</p> <p style="padding-left: 40px;">a. Training of SME trainers;</p> <p style="padding-left: 40px;">b. Training in accounting and business administration;</p> <p style="padding-left: 40px;">c. Training in family business plan;</p> <p style="padding-left: 40px;"><b>d.</b> Training in business software (IT).</p>

**Institutional framework - focus on macroeconomic management and improvement of the capacity and effectiveness of government institutions.**

Public Sector Governance and Good Governance	<ol style="list-style-type: none"> <li>1) Establish the necessary legal framework for the development of the municipality</li> <li>2) Accelerate the implementation of local power by empowering the municipality, bringing public service closer to citizens and promoting public service professionalism in the municipality;</li> <li>3) Ensure implementation of the land and property</li> </ol>
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Justice sector	<p>law</p> <ol style="list-style-type: none"> <li>4) To reinforce the performance and the attendance services of the sucos authorities</li> <li>5) Promote the favorable business environment to attract investment within the municipality;</li> <li>6) Strengthen the presence of community policing in the villages</li> <li>7) Promote continuous dialogue for conflict prevention</li> <li>8) Ensure public order, environmental health, rights and freedom of expression of all people.</li> <li>9) Strengthen the implementation of the PNDS &amp; PDIM program</li> <li>10) Strengthen Local Government Administration- Public Administration through training:                         <ul style="list-style-type: none"> <li>○ Procurement of the Management management</li> <li>○ Accounting Management</li> <li>○ Human Resource Management</li> <li>○ Planning Territory</li> </ul> </li> </ol> <ol style="list-style-type: none"> <li>1) Training for private lawyers, Notaries, Registration and layer</li> <li>2) Training for magistrates and defense lawyers Specific training for magistrates and public defense lawyers</li> <li>3) Management of public administration for employees involved in social or community development.</li> <li>4) Digital archive training in the area of logistics</li> <li>5) Training for Civil Justice Officers</li> <li>6) Language training</li> </ol>
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### 3.2. Main areas of the key training

The Lautem Municipality has presented the following distribution of training needs per training area required for each pillar and development sector for the immediate period 2019-2022 and then for the period 2023-2025 and in the long term to end of 2030. Training needs were subdivided into two categories: the first refers to scholarships for vocational and technical education, bachelor's degree , master's degree and doctorate degrees, and the second refers to professional development through participation in workshops , seminars and development in a work context. Data from the main training areas are presented only in the form of the following table taking into account the short, medium and long term priorities.



Table 25. Distribution of training needs in the Short, Medium and Long Term

Main areas of training	Category of training you wish to pursue (Academic or Professional)		Training Priorities		
	Academic	Technical Professional	Short Term (2019-2022)	Medium Term (2023-2025)	Long Term (Until 2030)
Hotel Technician	√	√	√	√	
Cooking or culinary Technician	√	√	√	√	
Reception Technician	√	√	√		√
Finance & Accounting	√	√	√		√
Management and Planning	√	√	√		√
Education and Degree in History	√	√	√		√
English and Portuguese training	√	√	√		√
Training in the area of Culture	√	√	√		√
Agribusiness	√	√		√	
Agribusiness Management	√	√		√	
Animal Science	√	√		√	
Management Training for Harvesting of Agricultural Production	√	√		√	√
Marketing Training	√	√		√	
Training for Agricultural Extension	√	√		√	
Aquaculture Engineering	√				√
Mini Draw Network Operation Training	√	√		√	√
Training on Long Line Network Operation	√	√		√	√
Environmental Engineering	√	√		√	
Eng. Forest	√	√		√	
Zootechnical Engineering	√	√		√	
Eng. Forest Biology	√	√		√	
Civil Technician	√	√		√	√
Engineering Electricity	√	√		√	√

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Civil Technician	√	√		√	
Veterinary	√	√		√	√
Agribusiness Management	√	√		√	√
Animal Science	√	√		√	√
Agro-Livestock	√	√		√	√
Management Training Harvesting of Agricultural Production	√	√		√	√
Agricultural Economics	√	√		√	√
Mechanical Engineer	√	√		√	√
Agriculture	√	√		√	√
Meteorology	√	√		√	√
Fishing boat engine	√	√		√	√
Technique Coastal Environment	√	√		√	√
Marine biology	√	√		√	√
Environmental engineering	√	√		√	√
Forest Engineering	√	√		√	√
Zootechnical Engineering	√	√		√	√
Forest Biology Engineering	√	√		√	√
Management and Administration	√	√		√	√
Marketing	√	√		√	√
Monitoring & Evaluation (M&E)	√	√		√	√
Community Tourism Specialist	√	√		√	√
Local Cooking Training	√	√		√	√
Esp. Tourism Planning Management	√	√		√	√
Science and Research	√	√		√	√
Industry (Bachelor Degree)	√			√	√
Training in the Business area	√	√		√	√
Business & Economics Law	√			√	√
Training in the Management and Administration Area		√	√	√	
Information Tecnology (IT)		√	√	√	
Pedagogy		√	√	√	

Applied Mathematical Science		√	√		
Applied Physics		√	√		
Pharmacy	√	√	√	√	√
General medicine	√	√	√	√	
Pediatric Specialist	√	√	√	√	
Dentist Specialist	√	√	√	√	
Midwife	√	√	√	√	
Nursing Specialist	√	√	√	√	
Technical Laboratory	√	√	√	√	
Esp. THT	√	√	√	√	
Management Training Management	√	√		√	√
Training for Cleaning and Safety Food Hospitality	√	√		√	√
Science Geology	√	√		√	
Economy	√	√		√	
Monitoring & Evaluation (M&E)	√	√		√	
Science Psychology	√	√		√	
Researcher	√	√		√	
Science Social Assistance	√	√	√	√	√
Social Science "Welfare"	√	√	√	√	√
Environmental Technician	√		√	√	√
Applied Biology	√		√	√	√
Science Law	√		√	√	√
Science Anthropology	√		√	√	√
Civil Engineering	√	√	√	√	√
Engineering Architecture	√	√	√		√
Monitoring & Evaluation (M&E)		√	√		
Engineering Materials	√		√		
Architecture Engineering	√				√
Hydraulic Engineering	√	√	√	√	√
Professional technician, electricity		√			√
Science and Technology		√	√		
Technical Information Technology (IT)		√	√		

**FUNDO DE DESENVOLVIMENTO DO CAPITAL HUMANO (FDCH)**

Leadership Management	√	√		√	√
Management Administration	√	√		√	
Professional technical registration		√			√
Training for MJ Personnel on Land Law		√	√	√	√
Study on conflict resolution		√	√		
Judicial (Law)		√	√	√	
Training for DMIS) Base Date)		√	√		√
Specialty on notary	√				√

#### 4. Discussion and Analysis

This study has two complementary lines of work, being the first identification of the distribution of existing human resources at the Municipal level and Sub-District Administration. All data collected, in which the levels of education and areas of study were analyzed, the occupations and their intentions of training and or employment in the desired areas. The second is to identify the priority programs of the municipality based on the four pillars of the Municipal Strategic Plan (MSP /PEM) and the key human resources needed for training in the development of the same priority programs. Try to analyze and compare the existence of the current human resources and training or training need required by the municipality based on its priority programs to allocate funding efficiently and effectively.

The data presented here show that the majority of the respondent population in Lautem of Municipality are young people aged 17-44 years. At the knowledge level, there are a large number of people with no education level (illiterate), followed by those with complete secondary education, pre-secondary education and basic education respectively.

This dispersion of educational attainment, coupled with the rapid growth of the population in the relevant age groups, shows the essence of the challenge faced by the Lautem Municipality. One aspect of this challenge is the balance between those who have completed general secondary education and academic education are predominant compared to those who have completed professional technical courses at both secondary technical and higher technical - polytechnic levels. The ideal balance between academic and technical education is a key issue in the development process. In addition, the data also indicate a very small number of people who had taken part in one of the vocational training courses with a skilled workforce prepared for self-employment or institutional strengthening.

Those who have already taken part in one of the short-term professional courses in most are generic professional courses geared more towards administrative work and the civil service as a course of Leadership, Administration, Finance, Planning,

Management and Languages, which in practical technical terms do not support the creation of their own jobs (self-employment).

There are still a large number of job seekers including those who have completed their degree in Mathematics, Management, Civil Engineering, Engineering Architecture, Law, General Medicine, Animal Production (Livestock), Accounting and more graduates in other areas (*see table 15*), without taking advantage of them in the labor market. The work preference is in the public sector while the non-licensed are in the non-public sector such as agriculture, domestic work, industrial activity and civil construction.

Analyzing the training preference based on the priority programs (*Table 25*) with the current human resources (*Table 5*), the data show that Lautem Municipality has a large number of graduates in several areas, so there are still deficiencies in some specialized areas. In relation to the current human resources, the question is how to take advantage of and employ them. However, it is important to emphasize that there are still serious concerns about quality not only in technical knowledge but knowledge of languages and this can become one of the challenges. Language training activities are intended to provide the beneficiaries with fluency in reference languages and to enable them to be more effective in carrying out their tasks in particular when traveling to international work. In this sense, it becomes important to unite with the additional formations at the level of post graduations directed to the priority technical areas and **professional internship programs**.

Another challenge demonstrated in the presented work was the greater number of public and private employees including entrepreneurs with very low levels of schooling. This may possibly imply a lack of productivity and competitiveness in companies or organizations. It is evident that with this very low level of education the municipality will not be able to overcome the serious problems which are faces right now even the future challenges.

Private sector growth is constrained by skills gaps in the workforce, both employers and workers. The private sector contributes to economic development by generating jobs and income, as well as through investment, new technologies,

knowledge transfer and increased productivity. This has been observed in some countries in Asia where much of the recent success in poverty reduction is due to robust economic growth stimulated by the private sector. In this sense, it is crucial to strengthen the private sector by promoting the development and adequacy of the qualification of workers and employers with a view to improving their employability and increasing the productivity and competitiveness of the business

Equipping workers with certain skills will enable them to continue to take advantage of opportunities for growth expansion in a non-farm private sector. A high school diploma or higher is increasingly an indicator of employment opportunities in the urban private sector.

The Lautem Municipality has identified skills shortages in the following sectors: Electronics engineering, Health, Tourism, Aviation, Manufacturing, Waste Treatment and Financial Services (banks, insurance and securities). It also identified a lack of skills in the following areas: English, Nursing, Pharmacy, Hospitality, Pilot Training, Accounting and Auditing, Machine Operation, component manufacturing and assembly, engineering (design and development), literacy and software programming and management (Decision Making, Leadership, Delegation, Motivation). It therefore considers that academic skill and professional technical training should be provided for the most crucial areas in the implementation of its priority program as set out in table 25.

Based on the data presented above, it becomes evident the need for training and the development of people's ability as a means to provide qualitative and quantitative benefits.

It is important to note that skills development can not be seen only in formal vocational and technical education and training, which comprises skills acquired through all levels of education and training, taking place in formal, non-formal and vocational training contexts, which enables individuals in all sectors of the economy to engage fully and productively in livelihoods and to be able to further refine and adapt their skills to meet new demands and opportunities in the economy and the labor market. Skills development should not be characterized by

the source of education or training itself, but by the skills that are acquired through this process.

With regarding to people with disabilities, data show that there are quite a large number of people with disabilities and many of them have stopped in primary and secondary education due to various difficulties, and this makes it difficult to get a job, to earn a higher salary than the benefit of the government. Employers have some concerns about hiring people with disabilities because they feel they may not have adequate professional qualifications. This issue can be minimized if there are some inclusive policies such as developing initial and continuing vocational training for people with disabilities to enable them to acquire the knowledge and skills necessary to attain a vocational qualification to help overcome the concerns of employers so that they can have more opportunities and their entry into the labor market is easier.

The data also point out the need to reduce or combat illiteracy by creating opportunities and mobilizing municipal managers to increase literacy provision for all young people, adults and older people who did not have access or stay in basic education, especially the merchants small and medium-sized enterprises and farmers. Education and training for entrepreneurship is also key to encouraging creativity and the realization of new local economic initiatives.

Intensive training, in service or postgraduate (specialization), should be intensified as key elements for the quality of the human resources currently possessing the Secondary and Bachelor's level of education.

It also reveals the need for a supply of study areas at the secondary and post-secondary level that is geared to the needs of the country (*demand-driven secondary vocational education e demand-driven post secondary technical education*).

And finally, in the scope of preparation of Human Resources for the creation of municipalities, it is important to strengthen the training in the areas of Urbanization and Regional Planning, Planning and Territorial Planning.



## PART C: CONCLUSION AND RECOMMENDATIONS

### 5. Conclusions and Recommendations

Based on the data presented and discussed above, it is concluded that in developing human capital resources and achieving sustainable development in the future, Lautem Municipality needs to pay more attention to the development opportunities identified in the Municipality Development Plan, (MDP/PEM) and to the following five dimensions : 1) **economic** (increase efficiency of the production system), 2) **social** (improvement of the levels of income distribution of the population), 3) **ecological** (preservation of the environment), 4) **spatial** (balance in distribution and occupation of population rural and urban) and 5) **cultural** (respect to the ways of thinking and acting of society, focusing on the construction of an environmental consciousness linked to consumption).

According to the results obtained, it is considered pertinent to conclude and recommend the following:

- The commitment to education should give priority to technical and professional training on academic, focusing more on the opening of vocational training centers ( Polytechnic institutes) to the detriment of the opening of more universities
- Complementary to academic training, the creation of specialization courses can increase the employability and professional capacity of those who finish the formal education.

Based on the data analyzed, we reinforce the need to train other areas where there are notable shortages of qualified human resources and areas of greater importance according to the priority programs found in table 25.

Most respondents wish to work in the non-public (private sector ) sector than in the public sector. The desire for the private sector was slightly higher among young people aged 17-36 and the preference for work is mainly in the area of agriculture, household chores, industry and construction.

The graduates with the highest number of job seekers, "unemployment", are in the areas of Mathematics, Management, Civil Engineering, Engineering Architecture, Law, General Medicine, Animal Production (Livestock), Accounting and more in other areas ( *Table 15*).

Intensive training, in service and or postgraduate (specialization), should be intensified as key elements for the quality of the human resources currently possessing the Secondary and Bachelor's level of education.

There are quite a large number of people with disability who are job-poor and have inadequate professional qualifications, or very limited practical professional knowledge. The need to develop initial and continuing vocational training actions for people with disability and disabilities, such as gestural training for those with visual and hearing people with disability, is recommended so that they can have more opportunities in the labor market.

To complete this general conclusion, we highlight five main points:

1). Education and training opportunities remain limited in some of the major areas highlighted by Strategy Development plan, (SDP), such as agriculture, construction and hospitality and tourism. It should focus more on the development of human capital:

- **Agriculture** is the heart of the municipality's economy and critical to the well-being of its people. A sustainable agricultural development path will require greater investment in building innovation and skills on small-scale farms through many routes: training and technology transfer; a strong expansion of the number and skills of extension workers; through better education and training for members of rural families, including women; and increased investment in vocational and tertiary education programs and Research and Development ( R & D) centers closely linked to the needs of agriculture in the Lautem Municipality.
- **Construction** with a limited infrastructure inherited from the Indonesian government period and the continuous needs to consolidate the

infrastructures namely the roads thus offering the population of the benefited region better conditions transport, easy access and enables local farmers to transport their products to the market quickly and effectively.

- **Tourism** in Lautem Municipality continues to be a future opportunity, but taking advantage of this opportunity will require the development of a trained workforce, from the entry-level team to senior managers, as well as investment in Research Development ( R & D), development and policy planning and planning capabilities

**2). Private Sector** - Survey data shows that private sector growth is constrained by skill gaps in the workforce both employers and workers. In this regard, it is crucial to strengthen the private sector by promoting the development and adequacy of the qualification of workers and employers with a view to improving their employability and increasing the productivity and competitiveness of the business

**3). Technical and vocational education and training (TVET).** FDCH's study shows a lower level of TVET qualifications than university qualifications in Lautem Municipality , and increased investment in the expansion of TVET should be a high priority. This expansion should cover technical secondary schools, the polytechnic system, and the community-based non-formal vocational training system. In doing so, it is important that the boundary between academic and technical education remains fluid, with easy articulation between the two areas

**4). Adult education (literacy for all young people, adults and the elderly),** especially for women, and training in the workplace. In our view, these three areas are of considerable importance. In particular, the increasing role of women, perhaps especially in agriculture, and a higher skill level due to improved training, can contribute to household and national income growth, and to more jobs in general.

**5). In the preparation of Human Resources for the creation of municipalities** (decentralization process) it is important to strengthen the training in the areas of Urbanization and Regional Planning, Planning and Territorial Planning.

**6). It also reveals the need for a supply of study areas at the secondary and post-secondary level that is geared to the needs of the country** (*demand-driven secondary vocational education e demand-driven post secondary technical education*).

## 6. Bibliographic references

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## Annex 1. Questions for discussion of groups

QUESTIONS FOR GROUP DISCUSSION - GROUP I - GENERAL QUESTIONS						
Identify Potential (Natural Resources) that the Municipality / RAEOA Oecusse has as priorities to develop!	Related to the potential (natural resources) there is, What kind of human resource do you want to training to develop the existing potential?	What level of Human Resources do you want to training?		Training priority for (Short, Medium and Long Term)		
		Academic	Technical Professional	Short Term (2019-2021)	Medium Term (2022-2025)	Long Term (2026 - 2030)
Tourism						
Agriculture						
Identify other potential						

**QUESTIONS FOR GROUP DISCUSSION - GROUP II - SOCIAL CAPITAL**

Social Capital	Identify Potential (Natural Resources) that the Municipality / RAEOA - Oecusse has as priorities to develop!	Related to the potential (natural resources) there is, What kind of human resource do you want to training to develop the existing potential?	What level of Human Resources do you want to training?		Training priority for (Short, Medium and Long Term)		
			Academic	Technical Professional	Short Term (2019-2021)	Medium Term (2022-2025)	Long Term (2026 - 2030)
Education and training							
Health							
Social Inclusion							
Environment							
Culture and heritage							

**PERGUNTAS PARA A DISCUSSÃO DE GRUPO - GRUPO III - DESENVOLVIMENTO ECONÓMICO**

Economic Development	What are the priority programs related to the sectors below that the Municipality / RAEOA-Oecusse has to develop? Describe according to each sector!	Related to the potential (natural resources) there is, What kind of human resource do want to training to develop the existing potentialities?	What level of Human Resources do you want to training?		Training priority for (Short, Medium and Long Term)		
			Academic	Technical Professional	Short Term (2019-2021)	Medium Term (2022-2025)	Long Term (2026 - 2030)
Rural Development							
Agriculture							
Private Sector							



**QUESTIONS FOR GROUP DISCUSSION - GROUP IV - INFRASTRUCTURE DEVELOPMENT**

Infrastructure Development	What are the priority programs related to the sectors below that the Municipality / RAEOA-Oecusse has to develop? Describe according to each sector!	Related to the potential (natural resources) there is, What kind of human resource do want to training to develop the existing potentialities?	What level of Human Resources do you want to training?		Training priority for (Short, Medium and Long Term)		
			Academic	Technical Professional	Short Term (2019-2021)	Medium Term (2022-2025)	Long Term (2026 - 2030)
Roads and Bridges							
Water and sanitation							
Eletricity							
Maritime Portos (if applicable)							
Airport and Telecomunications							

**PERGUNTAS PARA A DISCUSSÃO DE GRUPO - GRUPO V - QUADRO INSTITUCIONAL**

Institution Framework	What are the priority programs related to the sectors below that the Municipality / RAEOA-Oecusse has to develop? Describe according to each sector!	Related to the potential (natural resources) there is, What kind of human resource do want to training to develop the existing potentialities?	What level of Human Resources do you want to training?		Training priority for (Short, Medium and Long Term)		
			Academic	Technical Professional	Short Term (2019-2021)	Medium Term (2022-2025)	Long Term (2026 - 2030)
Management and Food Governance of the Public sector							
Justice							

## Annex 2. List attendance of the participants in the discussion of groups

List attendance of participants in the discussion of groups on identification of natural resources and economic potencies, related priority programs and key areas of training in the Municipality of Lautem

No.	List of Name	Position	Institutions
1	Zeferino Dos Santos.S	Administrador Lautem	MAE
2	Francisco dos Santos	Adm.Posto Lautem	DNAL-MAE
3	Hermenegildo da Silva	Xefe Departementu Peskiza - FDCH	FDCH-MESCC
4	Tadiu Lopes	Adm. Lospalos	DNAL-MAE
5	Joaozito Tolentino	Koordenador programa	
6	Alvredo Ximenes	Rep.Adm.Luro	MAE
7	Sergio Nascimento	Rep.DNRC	MCI
8	Chequito dos Santos	Xefe Diresaun Nasional	EDTL
9	Sergio Belmonte	Diretor	STAE
10	Martino Pereira	Xefe	DGE
11	Silvestre da Silva	Rep. DNI	MCI
12	Joao Baptista Roas	Adm.Iliomar	MAE
13	Delfin de Jesus	Diretor	PNDS
14	Anacleto Lopes	Rep.	CNE
15	Paulo da Silva Pinto	Diretor	MSS
16	Sergio da Silva	Xefe Departamento	MAP
17	Apolinario SerpRosa	Diretor	Educasaun
18	Edmundo da Costa	Diretor	MAP
19	Serafim m.Menezes	Staf	IADDE
20	Doroteia Maris	Rep.RH	M.Saude
21	Agostinho dos S.Ramos	Rep.	MSS
22	Nixon dias da G.X.	Diretor	CRN Lautem
23	Antonino Caetano V.A.	Coord.	Meio Ambiente
24	Carlito Pereira	Adm. Tutuala	MAE
25	Bernardo a lopes	Diretor	SAIS
26	Elidio Castro	Reporter	RTTL
27	Deolindo da C.	RH	Adm. M. Lautem
28	Olivio Pereira da C.	Supervisiona	SMOP Lautem
29	Regina de J.Ribeiro	Diretor	MJ
30	Delasena	Jornalista	Media
31	Julio Xeixas	Jornalista	RTTL
31	Maria Gusmao	Oficial M&E	PNDS Nasional