



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

**ERMERA
MUNICIPALITY**

LD**R**HE

DATA COLLECTION OF EXISTING
HUMAN RESOURCES

LD**R**HE REPORT 2018

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

Municipality of Aileu

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

A handwritten signature in blue ink, consisting of stylized, overlapping loops and lines, representing the name Longuinhos dos Santos.

Longuinhos 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 Tetum 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 handwritten signature in blue ink, appearing to read 'Isménio Martins da Silva'.

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 of which is based on the collection of existing human resources data at the Municipal and Sub-District Administration carried out by the Human Capital Development Fund (HCDF/FDCH) and the second the identification of natural resources and economic potential of the municipality with related priority programs, based on the four (4) pillars of the Municipal Strategic Plan (MSP/PEM) and the key human resources needed for training to develop the same priority programs.

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

The formulation of a human resource development strategy requires the integrated and multifaceted understanding of a complexity of subjects such as population demographics mainly the current human resources of the municipality, of the workforce in the public and private sector, the system vocational education and as well as capacity development, current and future labor market issues including 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 the municipality are scarce and are often dispersed through many sources.

It 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 Sub-District Administration, 2) identifying the natural resources and economic powers and priority programs of the municipality based on the 4 pillars of the Municipality Strategic Plan (MSP); 3) identify the key human resources that training need in the development of the same priority programs; and 4) 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 resident population in the Municipality of Ermera with the completion of a questionnaire, conducted between September 5 to 5 of November 2016 and in the **second phase**, was done through the "*Focus Group Discussion*" (FGD) held on March 16, 2018, to Municipal Administrator, Administrative Officers, Directors and other assess the accuracy of the information given but also the relevance of the programs identified as necessary for the development of the human resources in Ermera Municipality

Summary of Results

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

This dispersal of schooling, together with the rapid growth of the population in the relevant age groups, shows the essence of the challenge faced by the Ermera 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 and higher technical school levels or at the higher technical level such as polytechnics. 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 had already taken part in one of the short-term professional courses in most are generic professional courses geared more towards administrative work and public servant as a course of Leadership, Administration, Finance, Planning, Management and Languages, which in practical technical terms do not to create their own jobs (*self-employment*).

It is further aggravated by a large number of job seekers, including those who have completed their degree programs in the areas of Law, Civil Engineering - Civil Construction and Mathematics and more graduates in other areas (*see table 15*), without taking advantage of them in job 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 the Ermera Municipality has a large number of graduates in several areas, so it is verified that there are still shortcomings 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 work overseas. In this sense, it becomes important to unite with the additional formations at the level of post graduate 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 clear that with this very low level of qualification the Municipality of the Ermera will not be able to overcome the serious problems it faces today 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 allow them to continue to seize 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 Ermera 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 or 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. Skill development should not be characterized by the source of education or training itself, but by the capabilities 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 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.

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, the Ermera Municipality needs to pay more attention to the development opportunities identified in the Municipality Development Plan, (MSP) 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 educate obtained results, it is considered pertinent to conclude and recommend the following: focusing more on the opening of vocational training centers (or Polytechnic institutes) to the detriment of the opening of more universities.

- b) Complementary in the opening of centers, it is necessary to conclude and recommend the following: focusing more on the opening of formal vocational training centers.

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, domestic tasks, industry and construction.

The most unemployed graduates and post-graduates are in the areas of Law, Civil Engineering - Civil Construction and Mathematics 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 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 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 related to the needs of agriculture in the Municipality of Ermera.
 - **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 Ermera 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 and Development (R & D), development and planning policies and planning capabilities.
- 2) **Private Sector** - Survey data show that private sector growth is constrained by skills 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 the 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

Ermera Municipality is located in the western center of the country and is located $\pm 45 \text{ km}^2$ west of the capital of Dili, is one of two landlocked municipalities in Timor-Leste, and another Aileu. In Marobo, from the Sub-District Administration of Atsabe, there are still the remains of a bath of thermal waters of the colonial times that is a potential tourist place. It borders the Municipality of Liquiça to the north, the Municipality of Dili to the northeast, the Municipality of Aileu to the east, the Municipality of Ainaro to the southeast and the Municipality of Bobonaro to the west. Astronomically the Municipality of Ermera crosses the longitude $8^\circ.40 - 9^\circ$ and latitude $125^\circ.01 - 125^\circ.35$ and has a total surface of 770.83 km^2 .

In 2017, the population was estimated at 125,702 inhabitants, of which 63,557 are male and 62,145 are female, and according to the 2015 census, the household in the Municipality of Ermera is 20,671.

The dominant religion in the territory of the Municipality of Ermera is the Catholic religion being the languages are spoken in several languages; 64% of the population speak **Mambae**, 20% speak **Tetum**, 16% **Kemak**.

Sub-District Administration, Villages (*Sucos*) and Sub-Village (*Aldeias*)

The Ermera Municipality is divided into 5 Sub-District Administration, 52 villages (*Sucos*) and 276 hamlets (*Aldeias*) scattered throughout the territory as per the table below:

Sub-District Administration of Area

Sub-District Administrations	Superficie Km ²	Percentage(%)
Atsabe	167.90	21.78
Ermera	93.68	12.15
Hatolia	274.42	35.6
Letefoho	129.09	16.75
Railaco	105.73	13.72
Total (km²)	770.83	100

Sub-District Administration, villages (*Sucos*) and number of the hamlet (Sub-village/*Aldeia*)

Sub-District Administration Atsabe consists of 12 villages and 59 Sub-Villages

Sub-District Administration Ermera consists of 10 villages and 62 Sub-Villages

Sub-District Administration Hatolia consists of 13 villages and 59 Sub-Villages

Sub-District Administration Letefoho consists of 8 villages and 67 Sub-Villages

Sub-District Administration Railaco consists of 9 villages and 29 Sub-Villages

Climate, Relief and Hydrography

The climatic situation of the Municipality of Ermera is essentially characterized by two main seasons, a dry season and a rainy season. The dry season occurs between April and September and the rainy season occurs from October to March. Based on the climatic classification of the "Schmidt and Ferguson" precipitation climate it is 114.25 per year and in the Municipality of Ermera it is classified as C and D and the monsoon climate is influenced by continental Australia's climate. Temperatures and climate change in the Municipality of Ermera are not equal depending on the altitude of each region, temperatures can run between 24,5°C to 30,5°C.

Normally in December to January and July to August is the wind of time, and at the time of the long drought usually occurs in Sare region, which affects the reduction of debt of the water. In the rainy season it can happen slip of land or erosion in the area near the river. The weather in the mountains is generally sunny, sometimes in the field of robusta coffee plantations the temperature is hot.

Economic Potentials and Natural Resources for the Development of the Municipality of Ermera

a) Agriculture

The development of the agriculture sector in the Ermera Municipality aims to ensure food security and increase agricultural production, reduce poverty, transform traditional agriculture into a modern system and promote agricultural sustainability for industry.

Data show that 92% of 13,389 households in the Ermera Municipality live as farmers with effective labor 3 (*three*) months per year the remaining months farmers grow vegetables, maize, potatoes and rice. The main agricultural products are coffee, maize and cassava as well as other additional yields of horticultural products such as vegetables and fruits.

The Municipality of Ermera has a potential area for agriculture with approximately 74,600 hectares, and can be intensified and diversified to expand food production in the future by increasing the cultivation area and implementing the sustainable production system that promotes the principle of environmental preservation and promote the culture of organic cultivation.

b) Forest

In 2007, the area planted to coffee reached 27,821 hectares, currently increased to 30,740 hectares, followed by "karet", Caizu 80 hectares, vanilla 73 hectares and coconut 12 hectares.

In 1999, the coffee area reached 30,740, but in 2013 the land area decreased to 30,095. This indicates that Ermera's forestry area has declined. Thus, the production of honey also decreased dratis.

The local government intends to increase forest areas through the policy of establishing a permanent seed breeding center in some areas, such as in Fatukero Village, Railaco Sub-District district in 2011-2017, and thus, the seeds of the permanent editors sent to some other areas in Ermera.

c) Livestock

The Municipality of Ermera has a great potential for development in the creation of several types of animals, characterized by family exploitation and an important complement to the income of the rural households. The animals with the greatest developmental power are roosters, pigs, cows, buffaloes, goats and among others. Pigs and cattle have a greater amount of business in the Ermera market because they are used in traditional local

culture events. Animal husbandry activities are still done in a traditional way, limiting only to domestic consumption and production for industrial activity is very small. In the future, the Municipality of Ermera intends to develop this area by improving the quality of production, providing training to technicians, promoting the rearing of animals using technologies and ensuring the continuity of production of the product in this sector.

d) Fisheries

The Municipality of Ermera is located in the center of the island of East Timor and without land, aquaculture activity must be developed through the creation of freshwater fish, mainly as an occasional or even complementary activity of agriculture and livestock. The administrative posts of Hatolia, Gleno-Maudio, Letefoho and Railaco are potential to develop agriculture.

Agriculture is an activity that can be practiced in a sustainable way, with a relatively low investment cost and high productivity, which has the capacity to increase Municipal and National food production in a significant way, contributing to greater food security in the municipality. As a low-cost implementation and operational activity, as well as accessible technology, agriculture presents itself as an alternative for the generation of jobs and income in a competitive way in the nearest municipalities.

e) Agribusiness

The agribusiness sector has not yet been well developed by the government. Therefore, it is starting to develop agro-industry to promote small and medium-sized enterprises in rural areas. Local government will stimulate the development of this sector through investment in basic infrastructures and training of technicians, taking resources out of inefficiency and investing in efficiency.

The main challenge facing the Municipality of Ermera is the lack of technicians in agribusiness. The technicians in the area of agribusiness is fundamental to increase the efficiency of the market and industrial through techniques of management and commercialization, this professional acts in the execution of procedures to plan and assist in the organization and control of the activities of management of the rural business. In addition, identify the segments of the productive chains of the agricultural sector - fisheries - agricultural and evaluate the production costs and economic aspects for the commercialization of new products and services, as well as idealize market goals applied to agribusiness.

f) Tourism

The Municipality of Ermera has enormous potential for development of the tourism sector as cultural heritage, fresh climates and beautiful tourist landscapes in the Administrative Posts of Atsabe and Letefoho that can contribute to the relaxation and relaxation of the visitors. We can visit coffee and pond plantations, animals and plants that are around the Lih-Mo Lagoon.

The essential modalities of the tourism sector for economic development in the Municipality of Ermera include ecological tourism, tourist area "*Mota Bandeira*", *Debu Lih-Mo*, "*Bee Mutin*" Atsabe, *Be Manas*, *Be mean*, "*mota Mau-Oso*" , *Be Ali*, *Lih-Mo lagoon* and mountains such as *Gurmreatete*, *Kristu Liruai Kailitelau* and beautiful landscapes as it lies in the Sablere Letefoho and Usluli area.

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

In this sense, the Municipality of Ermera has to establish the tourist information center, to make brochures and to map the tourist and historical places for the publicity with the intention of attracting visitors or domestic and foreign tourists.

In addition, train more professional technicians particularly young people in the areas of hotel, tour guide and language courses namely foreign language and historians to later guide tourists.

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 human capital, in infrastructure and in 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 (infrastructure investment and planning: industrial parks, Economic Exclusive Zona (EEZs), aquaparkes, thermal power stations, roads, ports, definition of housing areas and State reserves).
- 3) Research, innovation and technological development (creation of specialized Research and Development, (R & D) centers in the following areas: agriculture, livestock and fisheries, energy, mineral resources, water resources management and Information and Communication Technology (ICT).
- 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 Ermera 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 is not only to identify the priority areas of training but also prior knowledge of existing human resources and the segmentation of adequate funds for identified Human Resource Development (HRD) needs, ensuring different phases of the strategic development plan to be implemented with success in the future.

The fact that there is not yet an existence of Human Resources Census in Ermera Municipality, 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 situation of the municipality's human resources and each Sub-District Administration;
2. Inform the number of graduates seeking work or unemployed;
3. Promote the planning of human resources, especially with regard to the needs of the municipality;
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 HCDF/FDCH funding allocation for human resource 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

resident population in the Municipality of Ermera with the completion of a questionnaire, conducted between September 5 to 5 of November 2016, and the second made through the Focus Group Discussion (FGD) held on March 16, 2018.

The population census is the only source of information on the life situation of the population in Sub-District Administration and villages (*Sucos*). 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 FGD method with discussion questions (Annex 1) based on the 4 development pillars according to the National Development Strategic Plan (PEDN 2011-2030), to Municipal Administrator, 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.

PARTE B: ANALYSIS AND RESULTS 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 Ermera Municipal Human Resources Strategy, goes on in four sections.

Section 1 is mainly based on the FDCH survey to analyze the current human capital situation in the Ermera 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, 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 Ermera

2.1. Presentation and Analysis of data

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

2.2. Profile of Respondents

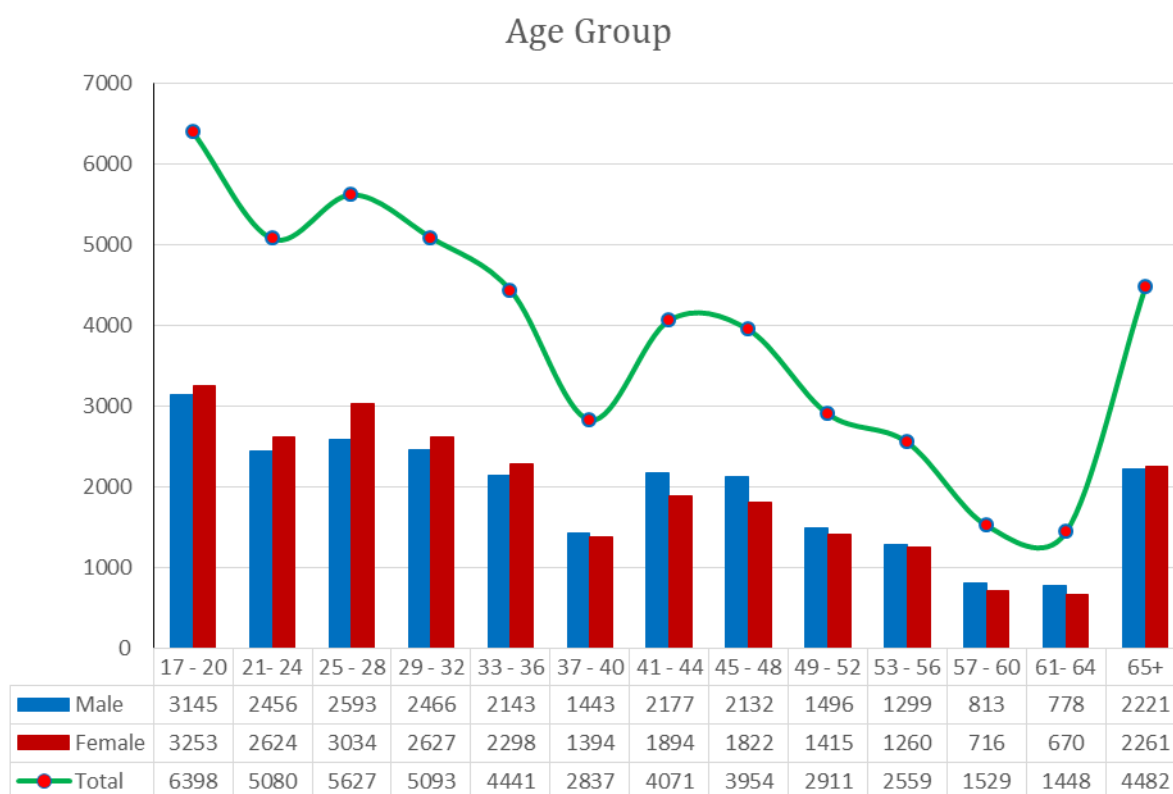
The first part of the collection tool outlined the profile of the respondents and, as shown below, the results were represented in percentage graphs.

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 50,430 respondents, of whom 49.9% are male and 50.1% are female. 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 66.5%, followed by the age group from 45 to 64 years old, with 24.6% of those surveyed and 10.9% with more than 65 years. The female sex is the largest number in

the age range between 17-36 years and the predominance of males is in individuals aged 37-64 years, except in the age over 65 years (*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 Municipality of Ermera. A total of 1,077 people with disability respondents were registered, corresponding to 2.1% of the total number of respondents distributed by 5 Sub-District Administration (*table 1*).

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

Sub-District Administrations	Have disabilities?		TOTAL
	Yes	No	
Atsabe	194	9,429	9,623
Ermera	218	13,204	13,422
Hatulia	448	13,845	14,293
Letefoho	105	7,783	7,888
Railaco	112	5,092	5,204
ERMERA	1,077	49,353	50,430
Percentage (%)	2,1	97,9	100

The highest number of people of disability was registered in the Sub-District Administration of Hatulia and Ermera while in the Sub-District Administration of Atsabe, Letefoho and Railaco they are similar without significant differences (*Table 2*).

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

Sub-District Administrations	Frequency	Percentage (%)
Atsabe	194	18
Ermera	218	20
Hatulia	448	42
Letefoho	105	10
Railaco	112	10
Total	1,077	100

Among the 1,077 people with disability, the main difficulties related to physical mobility (48.5%) and vision / eyes (23.7%), hearing loss (11.9%), psychosocial / mental disability and cognitive (1.7%) (*Table 3*).

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

Sub-District Administrations	Type of People with disability					Total
	Physics / Mobility	View	Deaf mute	Psychosocial / Mental	Cognitive / intellectual	
Atsabe	76	34	26	50	8	194
Ermera	110	68	23	18	1	220
Hatulia	249	94	41	59	6	449
Letefoho	43	22	27	13	1	106
Railaco	47	38	12	14	2	113
Total ERMERA	525	256	129	154	18	1,082
Percentage (%)	48,5	23,7	11,9	14,2	1,7	100

2.4. Education Level

In term of the level of education of illiterate respondents, adult literacy and incomplete primary education occupy 59.3% of all respondents. Basic (*primary*) and pre-secondary education represents 22.8% and secondary education accounts for 15.1%. Vocational technical education and other levels of courses occupy 0.3%

and 0.3%, respectively. At the tertiary / higher level, 2.1% of the respondents have the level of higher education (*Table 4*).

Among the 1083 (2.1%) respondents, 74% had a bachelor's degree (S1) following Diploma III (21.1%) and Diploma II (2.1%). 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	Ermera	Atsabe	Ermera	Hatulia	Letefoho	Railaco
Can not read / write	27,029	6770	5,301	8710	4370	1878
Does not read / write (did not finish primary School)	2,897	388	842	1234	240	193
Sub Total	29,926	7,158	6,143	9,944	4,610	2,071
Primary	4,774	502	1,521	1,443	815	493
Pre-secondary	6,736	715	2,811	1,480	792	938
Secondary	7,621	842	2,838	1,342	1,298	1,301
Vocational Tecnical (High) School	141	47	19	41	19	15
Others	61	10	2	39	1	9
Sub Total	19,333	2,116	7,191	4,345	2,925	2,756
1 st. Cycle (1st class - 4th class)	69	11	8	37	1	12
2º. Cycle (1st Year, 2nd Year)	7	-	3	3	-	1
3º. Cycle (3rd Year - 9th Year / 3rd Year up)	12	2	3	3	3	1
Sub Total	88	13	14	43	4	14
Diploma I (DI)	12	4	8	0	0	0
Diploma II (DII)	23	1	13	2	3	4
Diploma III (DIII)	229	38	106	26	30	29
Diploma IV (DIV)	2	-	2	-	-	-
Bachelor's Degree (S1)	801	65	367	113	120	136
Master Degree(S2)	16	-	9	-	3	4
PhD (S3)	-	-	-	-	-	-
Sub Total	1,083	108	505	141	156	173
Total	50,430	9,395	13,853	14,473	7,695	5,014

Regarding the distribution of the knowledge of the respondents by study area (study program) and by Sub-District Administration, of the 1,083 who hold the higher degree only 509 (47%) 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 Administrations

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
Total	6	6	97	1	390	9	-	509	328	181
Law	-	-	-	-	50	1	-	51	33	18
Education	-	2	5	-	20	1	-	28	16	12
Medicine - Medical doctor Practice (General Practitioner)	-	-	2	1	22	-	-	25	11	14
Management	1	-	7	-	14	2	-	24	18	6
Accounting	-	-	2	-	20	-	-	22	13	9
Civil Engineering - Civil Construction	1	-	2	-	18	-	-	21	16	5
Computer Technology Engineering (Computer)	-	-	2	-	15	-	-	17	10	7
Mathematics	-	-	2	-	14	-	-	16	10	6
Portuguese language	-	1	13	-	1	-	-	15	10	5
Teaching biology	-	-	3	-	12	-	-	15	9	6
Economy	-	-	1	-	10	-	-	11	5	6
Public health	2	-	3	-	6	-	-	11	4	7
Teaching mathematics	-	-	3	-	8	-	-	11	8	3
Oil engineering	-	-	2	-	7	-	-	9	9	-
Agronomy	-	-	2	-	7	-	-	9	6	3
Human resource Management	-	-	-	-	9	-	-	9	5	4
Forest Resources and Forestry	-	-	3	-	5	-	-	8	6	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
Engineering										
Nursing	-	-	4	-	4	-	-	8	4	4
Aquaculture	-	-	1	-	7	-	-	8	8	-
Mechanical Engineering	-	-	-	-	7	-	-	7	4	3
Public administration	-	-	-	-	6	1	-	7	5	2
Midwife	-	-	2	-	4	-	-	6	-	6
Special education	-	-	5	-	1	-	-	6	5	1
Political science	-	-	-	-	5	-	-	5	4	1
Pharmacy	-	-	3	-	2	-	-	5	1	4
Forestry management	-	-	1	-	3	1	-	5	5	-
Livestock production	-	1	-	-	4	-	-	5	4	1
Economics of Finance / Financial Management - Banking Economics	-	-	1	-	4	-	-	5	3	2
Physics of Teaching	-	1	1	-	3	-	-	5	-	5
Teaching chemistry	-	-	-	-	5	-	-	5	4	1
Public policy	-	-	-	-	5	-	-	5	4	1
Agro-business	-	-	-	-	4	-	-	4	4	-
Technology and Use of Forest Products	-	-	2	-	2	-	-	4	3	1
Food Technology	-	-	1	-	3	-	-	4	3	1
Business Administration	-	-	1	-	3	-	-	4	2	2
Sociology of Education	-	-	1	-	3	-	-	4	3	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
Governmental sciences	-	-	-	-	3	1	-	4	3	1
General environmental biology	-	1	1	-	1	-	-	3	2	1
Philosophy	-	-	-	-	3	-	-	3	3	-
Sociology	-	-	-	-	3	-	-	3	3	-
English language	-	-	1	-	2	-	-	3	3	-
Geology	-	-	-	-	3	-	-	3	3	-
Geological Climatology	-	-	-	-	3	-	-	3	1	2
Floriculture, Parks and Gardens and Arborization of Public Roads	-	-	2	-	1	-	-	3	1	2
Public law	-	-	-	-	2	1	-	3	3	-
Government Planning and Policy	-	-	-	-	3	-	-	3	3	-
Communication - Journalism and Publishing	-	-	-	-	3	-	-	3	1	2
Moral Theology	-	-	-	-	3	-	-	3	2	1
Educational Psychology	-	-	-	-	3	-	-	3	-	3
Environmental ecology	-	-	-	-	2	-	-	2	1	1
Clinical Analysis	-	-	2	-	-	-	-	2	1	1
Pathological Anatomy and Clinical Pathology	-	-	-	-	2	-	-	2	1	1
Agricultural social economy	-	-	-	-	2	-	-	2	2	-
Agricultural engineering	-	-	-	-	2	-	-	2	2	-
Management	-	-	-	-	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
Psychology	-	-	1	-	1	-	-	2	1	1
Computer science	-	-	-	-	2	-	-	2	1	1
Forestry Techniques and Operations	-	-	1	-	1	-	-	2	2	-
Agricultural product processing engineering	-	-	-	-	2	-	-	2	1	1
Fishing engineering	-	-	-	-	2	-	-	2	2	-
Philosophy of Education	-	-	-	-	2	-	-	2	1	1
International, bilateral and multilateral relations	-	-	-	-	2	-	-	2	1	1
Pastoral theology	-	-	-	-	2	-	-	2	2	-
Catechism	-	-	1	-	1	-	-	2	2	-
Educational politics	-	-	-	-	1	1	-	2	2	-
Teacher training	-	-	1	-	1	-	-	2	-	2
Training of primary and pre-secondary teachers	-	-	2	-	-	-	-	2	-	2
Architecture engineering	-	-	-	-	1	-	-	1	1	-
Anthropology	-	-	-	-	1	-	-	1	1	-
Archeology	-	-	1	-	-	-	-	1	1	-
Gender study	-	-	-	-	1	-	-	1	-	1
Theology	-	-	1	-	-	-	-	1	1	-
Indonesia language	-	-	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
Religious career	-	-	-	-	1	-	-	1	1	-
Petrology	-	-	-	-	1	-	-	1	-	1
Geodesy	1	-	-	-	-	-	-	1	1	-
Plant biology	-	-	1	-	-	-	-	1	1	-
Sanitary engineering	-	-	-	-	1	-	-	1	1	-
Environmental engineering	-	-	-	-	1	-	-	1	1	-
Nutrition	-	-	1	-	-	-	-	1	1	-
Dentistry	-	-	-	-	1	-	-	1	1	-
Environmental health	-	-	1	-	-	-	-	1	-	1
Agrometeorology	-	-	1	-	-	-	-	1	1	-
Forestry	-	-	1	-	-	-	-	1	1	-
Water and Soil Engineering	-	-	-	-	1	-	-	1	1	-
Genetics and Improvement of Domestic Animals	-	-	-	-	1	-	-	1	1	-
Tourism and Hospitality	-	-	1	-	-	-	-	1	-	1
Economics of education	-	-	-	-	1	-	-	1	-	1
Social work (including Gravedigger)	-	-	-	-	1	-	-	1	-	1
Computer Management	1	-	-	-	-	-	-	1	1	-
Economics of Education or Management of Education	-	-	-	-	1	-	-	1	1	-
Education (education) Pre-primary	-	-	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
and primary										
Others	-	-	-	-	4	-	-	4	2	2
Atsabe										
Total	2	1	20	-	30	-	-	53	34	19
Civil Engineering - Civil Construction	1	-	-	-	3	-	-	4	3	1
Education	-	-	-	-	4	-	-	4	1	3
Special Education	-	-	4	-	-	-	-	4	4	-
Management	-	-	2	-	1	-	-	3	-	3
Teaching biology	-	-	1	-	2	-	-	3	2	1
Mathematics	-	-	1	-	1	-	-	2	1	1
General environmental biology	-	1	1	-	-	-	-	2	2	-
Political science	-	-	-	-	2	-	-	2	2	-
English language	-	-	2	-	-	-	-	2	2	-
Nursing	-	-	2	-	-	-	-	2	2	-
Medicine - Medical doctor Practice (General Practitioner)	-	-	-	-	2	-	-	2	1	1
Business Administration	-	-	1	-	1	-	-	2	1	1
Environmental ecology	-	-	-	-	1	-	-	1	1	-
Oil engineering	-	-	-	-	1	-	-	1	1	-
Law	-	-	-	-	1	-	-	1	1	-
Philosophy	-	-	-	-	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
Geology	-	-	-	-	1	-	-	1	1	-
Pharmacy	-	-	1	-	-	-	-	1	-	1
Public health	-	-	1	-	-	-	-	1	1	-
Midwife	-	-	1	-	-	-	-	1	-	1
Floriculture, Parks and Gardens and Arborization of Public Roads	-	-	-	-	1	-	-	1	-	1
Agriculture	-	-	1	-	-	-	-	1	1	-
Food Technology	-	-	-	-	1	-	-	1	1	-
Government Planning and Policy	-	-	-	-	1	-	-	1	1	-
Accounting	-	-	-	-	1	-	-	1	-	1
Tourism and Hospitality	-	-	1	-	-	-	-	1	-	1
Communication - Journalism and Publishing	-	-	-	-	1	-	-	1	-	1
Computer Management	1	-	-	-	-	-	-	1	1	-
Mathematics teaching	-	-	-	-	1	-	-	1	1	-
International, bilateral and multilateral relations	-	-	-	-	1	-	-	1	1	-
Moral Theology	-	-	-	-	1	-	-	1	1	-
Training of primary and pre-secondary teachers	-	-	1	-	-	-	-	1	-	1
Others	-	-	-	-	1	-	-	1	-	1
Ermera										

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
Total	4	2	50	1	171	5	-	233	148	85
Law	-	-	-	-	26	1	-	27	17	10
Education	-	-	3	-	10	1	-	14	6	8
Civil Engineering - Civil Construction	-	-	2	-	11	-	-	13	9	4
Medicine - Medical doctor Practice (General Practitioner)	-	-	2	1	8	-	-	11	4	7
Management	1	-	4	-	5	1	-	11	10	1
Computer Technology Engineering (Computer)	-	-	2	-	8	-	-	10	6	4
Accounting	-	-	1	-	7	-	-	8	4	4
Economy	-	-	1	-	6	-	-	7	5	2
Portuguese language	-	1	6	-	-	-	-	7	4	3
Oil engineering	-	-	2	-	4	-	-	6	6	-
Biology of Education	-	-	1	-	5	-	-	6	2	4
Agronomy	-	-	-	-	5	-	-	5	4	1
Public health	2	-	2	-	1	-	-	5	1	4
Mathematics	-	-	1	-	3	-	-	4	3	1
Mechanical Engineering	-	-	-	-	4	-	-	4	1	3
Nursing	-	-	1	-	3	-	-	4	1	3
Agriculture	-	-	-	-	4	-	-	4	4	-
Human resource Management	-	-	-	-	4	-	-	4	1	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
Public policy	-	-	-	-	4	-	-	4	3	1
Forest Resources and Forestry Engineering	-	-	1	-	2	-	-	3	3	-
Midwife	-	-	1	-	2	-	-	3	-	3
Agro-business	-	-	-	-	3	-	-	3	3	-
Technology and Use of Forest Products	-	-	1	-	2	-	-	3	3	-
Public administration	-	-	-	-	3	-	-	3	2	1
Mathematics teaching	-	-	1	-	2	-	-	3	2	1
Governmental sciences	-	-	-	-	2	1	-	3	3	-
Business Analyst	-	-	2	-	-	-	-	2	1	1
Pathological Anatomy and Clinical Pathology	-	-	-	-	2	-	-	2	1	1
Agricultural social economy	-	-	-	-	2	-	-	2	2	-
Sociology	-	-	-	-	2	-	-	2	2	-
Geology	-	-	-	-	2	-	-	2	2	-
Climatology and Geological	-	-	-	-	2	-	-	2	1	1
Floriculture, Parks and Gardens and Arborization of Public Roads	-	-	2	-	-	-	-	2	1	1
Forestry management	-	-	1	-	1	-	-	2	2	-
agricultural product processing of engineering	-	-	-	-	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
Fishing engineering	-	-	-	-	2	-	-	2	2	-
Food Technology	-	-	1	-	1	-	-	2	1	1
Business Administration	-	-	-	-	2	-	-	2	1	1
Physics of Teaching	-	1	1	-	-	-	-	2	-	2
Philosophy of Education	-	-	-	-	2	-	-	2	1	1
Catechism	-	-	1	-	1	-	-	2	2	-
Educational politics	-	-	-	-	1	1	-	2	2	-
General - environmental biology	-	-	-	-	1	-	-	1	-	1
Engineering Architecture	-	-	-	-	1	-	-	1	1	-
Agricultural engineering	-	-	-	-	1	-	-	1	1	-
Management	-	-	-	-	1	-	-	1	1	-
Archeology	-	-	1	-	-	-	-	1	1	-
Gender study	-	-	-	-	1	-	-	1	-	1
Psychology	-	-	1	-	-	-	-	1	1	-
Theology	-	-	1	-	-	-	-	1	1	-
English language	-	-	-	-	1	-	-	1	1	-
Religious career	-	-	-	-	1	-	-	1	1	-
Geodesy	1	-	-	-	-	-	-	1	1	-
Plant biology	-	-	1	-	-	-	-	1	1	-
Pharmacy	-	-	1	-	-	-	-	1	1	-
Agrometeorology	-	-	1	-	-	-	-	1	1	-
Forestry	-	-	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
Forestry Techniques and Operations	-	-	-	-	1	-	-	1	1	-
Livestock production	-	-	-	-	1	-	-	1	1	-
Government Planning and Policy	-	-	-	-	1	-	-	1	1	-
Economics of education	-	-	-	-	1	-	-	1	-	1
Economics of Finance or Financial Management - Banking Economics	-	-	1	-	-	-	-	1	-	1
Teaching chemistry	-	-	-	-	1	-	-	1	1	-
International, bilateral and multilateral relations	-	-	-	-	1	-	-	1	-	1
special education	-	-	-	-	1	-	-	1	1	-
Education (education) Pre-primary and primary	-	-	1	-	-	-	-	1	1	-
Training of primary and pre-secondary teachers	-	-	1	-	-	-	-	1	-	1
Others	-	-	-	-	1	-	-	1	-	1
Hatulia										
Total	-	-	11	-	50	-	-	61	44	17
Law	-	-	-	-	7	-	-	7	6	1
Education	-	-	1	-	4	-	-	5	5	-
Medicine - Medical doctor Practice (General Practitioner)	-	-	-	-	5	-	-	5	3	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
Accounting	-	-	-	-	5	-	-	5	2	3
Public health	-	-	-	-	3	-	-	3	1	2
Mathematics	-	-	-	-	2	-	-	2	2	-
Forest Resources and Forestry Engineering	-	-	1	-	1	-	-	2	1	1
English language	-	-	2	-	-	-	-	2	2	-
Management	-	-	1	-	1	-	-	2	2	-
Human resource Management	-	-	-	-	2	-	-	2	2	-
Economics of Finance or Financial Management - Banking Economics	-	-	-	-	2	-	-	2	2	-
Education Biology	-	-	-	-	2	-	-	2	1	1
Mathematics of Teaching	-	-	1	-	1	-	-	2	2	-
Sociology of Education	-	-	-	-	2	-	-	2	2	-
Teacher training	-	-	1	-	1	-	-	2	-	2
Agronomy	-	-	1	-	-	-	-	1	1	-
Philosophy	-	-	-	-	1	-	-	1	1	-
Anthropology	-	-	-	-	1	-	-	1	1	-
English language	-	-	-	-	1	-	-	1	1	-
Computer science	-	-	-	-	1	-	-	1	1	-
Mechanical Engineering	-	-	-	-	1	-	-	1	1	-
Nutrition	-	-	1	-	-	-	-	1	1	-
Midwife	-	-	-	-	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
Forestry Techniques and Operations	-	-	1	-	-	-	-	1	1	-
Genetics and Improvement of Domestic Animals	-	-	-	-	1	-	-	1	1	-
Public administration	-	-	-	-	1	-	-	1	-	1
Teaching chemistry	-	-	-	-	1	-	-	1	-	1
Pastoral theology	-	-	-	-	1	-	-	1	1	-
Educational Psychology	-	-	-	-	1	-	-	1	-	1
special education	-	-	1	-	-	-	-	1	-	1
Others	-	-	-	-	1	-	-	1	1	-
Letefoho										
Total	-	1	7	-	62	1	-	71	46	25
Mathematics	-	-	-	-	7	-	-	7	4	3
Law	-	-	-	-	6	-	-	6	2	4
Medicine - Medical doctor Practice (General Practitioner)	-	-	-	-	5	-	-	5	2	3
Public Law	-	-	-	-	2	1	-	3	3	-
Accounting	-	-	-	-	3	-	-	3	3	-
Biology of Education	-	-	1	-	2	-	-	3	3	-
Mathematics of Teaching	-	-	-	-	3	-	-	3	1	2
Civil Engineering - Civil Construction	-	-	-	-	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
Oil engineering	-	-	-	-	2	-	-	2	2	-
Economy	-	-	-	-	2	-	-	2	-	2
Education	-	-	1	-	1	-	-	2	2	-
Computer Technology Engineering (Computer)	-	-	-	-	2	-	-	2	1	1
Nursing	-	-	1	-	1	-	-	2	1	1
Pharmacy	-	-	1	-	1	-	-	2	-	2
Livestock production	-	1	-	-	1	-	-	2	2	-
Agriculture	-	-	-	-	2	-	-	2	2	-
Management	-	-	-	-	2	-	-	2	1	1
Teaching chemistry	-	-	-	-	2	-	-	2	2	-
Sociology of Education	-	-	1	-	1	-	-	2	1	1
Moral Theology	-	-	-	-	2	-	-	2	1	1
Forest Resources and Forestry Engineering	-	-	-	-	1	-	-	1	1	-
Management	-	-	-	-	1	-	-	1	1	-
political science	-	-	-	-	1	-	-	1	1	-
Portuguese language	-	-	1	-	-	-	-	1	1	-
English language	-	-	1	-	-	-	-	1	1	-
Petrology	-	-	-	-	1	-	-	1	-	1
Public health	-	-	-	-	1	-	-	1	-	1
Water and Soil Engineering	-	-	-	-	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
Government Planning and Policy	-	-	-	-	1	-	-	1	1	-
Social work (including Gravedigger)	-	-	-	-	1	-	-	1	-	1
Economics of Finance or Financial Management - Banking Economics	-	-	-	-	1	-	-	1	1	-
Public policy	-	-	-	-	1	-	-	1	1	-
Pastoral theology	-	-	-	-	1	-	-	1	1	-
Educational Psychology	-	-	-	-	1	-	-	1	-	1
Others	-	-	-	-	1	-	-	1	1	-
Railaco										
Total	-	2	9	-	77	3	-	91	56	35
Law	-	-	-	-	10	-	-	10	7	3
Management	-	-	-	-	5	1	-	6	5	1
Computer Technology Engineering	-	-	-	-	5	-	-	5	3	2
Accounting	-	-	1	-	4	-	-	5	4	1
Agronomy	-	-	1	-	2	-	-	3	1	2
Education	-	2	-	-	1	-	-	3	2	1
Portuguese language	-	-	2	-	1	-	-	3	1	2
Forestry management	-	-	-	-	2	1	-	3	3	-
Public administration	-	-	-	-	2	1	-	3	3	-
Human resource Management	-	-	-	-	3	-	-	3	2	1
Physics of Teaching	-	-	-	-	3	-	-	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
Civil Engineering - Civil Construction	-	-	-	-	2	-	-	2	2	-
Forest Resources and Forestry Engineering	-	-	1	-	1	-	-	2	1	1
Economy	-	-	-	-	2	-	-	2	-	2
Political science	-	-	-	-	2	-	-	2	1	1
Mechanical Engineering	-	-	-	-	2	-	-	2	2	-
Medicine - Medical doctor Practice (General Practitioner)	-	-	-	-	2	-	-	2	1	1
Livestock production	-	-	-	-	2	-	-	2	1	1
Communication - Journalism and Publishing	-	-	-	-	2	-	-	2	1	1
Mathematics of Teaching	-	-	1	-	1	-	-	2	2	-
Mathematics	-	-	-	-	1	-	-	1	-	1
Environmental ecology	-	-	-	-	1	-	-	1	-	1
Agricultural engineering	-	-	-	-	1	-	-	1	1	-
Philosophy	-	-	-	-	1	-	-	1	1	-
Sociology	-	-	-	-	1	-	-	1	1	-
Psychology	-	-	-	-	1	-	-	1	-	1
Indonesia language	-	-	1	-	-	-	-	1	1	-
Computer science	-	-	-	-	1	-	-	1	-	1
Climatology and Geological	-	-	-	-	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
Sanitary engineering	-	-	-	-	1	-	-	1	1	-
Environmental engineering	-	-	-	-	1	-	-	1	1	-
Pharmacy	-	-	-	-	1	-	-	1	-	1
Public health	-	-	-	-	1	-	-	1	1	-
Dentistry	-	-	-	-	1	-	-	1	1	-
Midwife	-	-	-	-	1	-	-	1	-	1
Environmental health	-	-	1	-	-	-	-	1	-	1
Agribusiness	-	-	-	-	1	-	-	1	1	-
Technology and Use of Forest Products	-	-	1	-	-	-	-	1	-	1
Agriculture	-	-	-	-	1	-	-	1	1	-
Food Technology	-	-	-	-	1	-	-	1	1	-
Economics of Finance or financial management - Banking economics	-	-	-	-	1	-	-	1	-	1
Biology of Education	-	-	-	-	1	-	-	1	1	-
Teaching chemistry	-	-	-	-	1	-	-	1	1	-
Economics of Education or Management of Education	-	-	-	-	1	-	-	1	1	-
Governmental sciences	-	-	-	-	1	-	-	1	-	1
Educational Psychology	-	-	-	-	1	-	-	1	-	1

2.5. Vocational Training Certificate Level I - Certificate IV

Among the 50,430 respondents who participated in this research, about 1.6% who had already participated in one of the Certificate I - Certificate IV courses. Of those who completed the certificate courses, 44.8% completed the Cert I course, 27.6% cert II, 11.6% cert III and 16.1% cert IV (*Table 6*). The predominant areas of the formation of Cert I - Cert IV are Portuguese Language Course, English Language and Computer. 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 must 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 requiring more attention
ERMERA						
Total	820	367	226	95	132	Physiotherapy or Massage
English Language	150	62	52	19	17	Solar production
Portuguese language	147	45	42	23	37	Coffee production
Computer	142	74	40	6	22	Social communication to the study of the public sector;
Agriculture or horticulture course	25	11	7	4	3	Plumbing
Information Technology (IT)	21	12	3	2	4	Management for Police
Public Administration Office	20	8	5	5	2	(Diploma) in Training and Evaluation
Carpentry	15	9	6	-	-	Hair Stylist or Hairdresser
Hospitality Management (General)	17	7	6	2	2	Aesthetic Course (Manicure and Pedicure)
Public Administration Office	9	4	1	2	2	Piano and music course

Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
Financial Services (Micro Finance and Banking);	7	3	1	-	3	
Tailor or Seamstress	6	3	2	1	-	
Improve business	5	5	-	-	-	
Welding	5	2	2	1	-	
Construction (General)	4	-	2	-	2	
Business Construction (General)	3	2	-	1	-	
Tourist and Tourist Guide	3	2	-	-	1	
Photographer	3	3	-	-	-	
Training and evaluation (M&E)	3	2	-	-	1	
Hospitality (food production)	2	2	-	-	-	
Bricklayer	2	1	-	1	-	
Electricity	2	-	2	-	-	
Automotive and Maintenance.	3	2	-	1	-	
Painter of arts, paintings, tattoos	2	2	-	-	-	
Agricultural Course	2	1	1	-	-	
Rural water supply	1	1	-	-	-	
Training for Contractors	1	1	-	-	-	
Small machine	1	1	-	-	-	
Police investigation.	1	1	-	-	-	
Cooker or Culinary	1	-	1	-	-	

Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
Fishing course	1	1	-	-	-	
Others	216	100	53	27	36	
Atsabe						
Total	57	19	19	11	8	
Computer	14	3	5	1	5	
Portuguese language	14	5	3	6	-	
English Language	10	4	4	1	1	
Agriculture or horticulture course	3	1	1	1	-	
Public Administration Office	2	-	-	1	1	
Hospitality Management (General)	1	-	1	-	-	
Public Administration Office	1	-	-	-	1	
Training and evaluation	1	1	-	-	-	
Others	11	5	5	1	-	
Ermera						
Total	146	67	41	13	25	
Portuguese language	25	6	7	5	7	
English Language	20	11	4	2	3	
Computer	18	10	7	-	1	
Public Administration Office	6	5	-	-	1	
Information Technology (IT)	4	4	-	-	-	
Financial Services (Micro Finance and	3	-	1	-	2	

Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
Banking);						
Carpentry	3	3	-	-	-	
Hospitality Management (General)	2	1	-	-	1	
Construction (General)	2	-	1	-	1	
Tailor or Seamstress	2	1	-	1	-	
Agriculture or horticulture course	2	1	1	-	-	
Improve business	1	1	-	-	-	
Small machine	1	1	-	-	-	
Tourist and Tourist Guide	1	1	-	-	-	
Public Administration Office	1	1	-	-	-	
Welding	1	-	-	1	-	
Electricity	1	-	1	-	-	
Fishing course	1	1	-	-	-	
Others	52	20	19	4	9	
Hatulia						
Total	78	49	16	3	10	
Portuguese language	16	8	2	1	5	
English Language	12	8	3	1	-	
Computer	11	7	2	-	2	
Agriculture or horticulture course	3	3	-	-	-	
Public Administration Office	1	-	1	-	-	
Business Construction	1	1	-	-	-	

Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
(General)						
Information Technology (IT)	1	-	1	-	-	
Financial Services (Micro Finance and Banking);	1	1	-	-	-	
Welding	1	1	-	-	-	
Photographer	1	1	-	-	-	
Others	30	19	7	1	3	
Letefoho						
Total	141	41	40	22	38	
Portuguese language	34	4	12	6	12	
English Language	27	8	11	5	3	
Computer	23	8	8	-	7	
Agriculture or horticulture course	5	1	3	-	1	
Hospitality Management (General)	3	-	1	2	-	
Evaluation training	2	1	-	-	1	
Information Technology (IT)	1	-	-	1	-	
Bricklayer	1	-	-	1	-	
Tourism and Tourist Guide	1	-	-	-	1	
Public Administration Office	1	-	-	1	-	
Financial Services (Micro Finance and Banking);	1	1	-	-	-	

Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
Welding	1	-	1	-	-	
Painter of arts, paintings, tattoos	1	1	-	-	-	
Others	40	17	4	6	13	
Railaco						
Total	398	191	110	46	51	
English Language	81	31	30	10	10	
Computer	76	46	18	5	7	
Portuguese language	58	22	18	5	13	
Information Technology (IT)	15	8	2	1	4	
Carpentry	12	6	6	-	-	
Agriculture or horticulture course	12	5	2	3	2	
Public Administration Office	11	3	4	4	-	
Hospitality Management (General)	11	6	4	-	1	
General Administration Office	6	3	1	1	1	
Improve business	4	4	-	-	-	
Tailor or Seamstress	4	2	2	-	-	
Automotive and Maintenance.	3	1	-	1	-	
Business Construction (General)	2	1	-	1	-	
Hospitality (food production)	2	2	-	-	-	

Municipality and Sub-District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
Financial Services (Micro Finance and Banking);	2	1	-	-	1	
Construction (General)	2	-	1	-	1	
Welding	2	1	1	-	-	
Photographer	2	2	-	-	-	
Agricultural Course	2	1	1	-	-	
Rural water supply	1	1	-	-	-	
Training for Contractors	1	1	-	-	-	
Bricklayer	1	1	-	-	-	
Tourist and Tourist Guide	1	1	-	-	-	
Electricity	1	-	1	-	-	
Police investigation.	1	1	-	-	-	
Cooker or culinary	1	-	1	-	-	
Painter of arts, paintings, tattoos	1	1	-	-	-	
Others	83	39	18	15	11	

2.6. Professional Occupation 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 85% of the positions. 33.0% of teachers held positions between 6 - 10 years, 33.6% more than 15 years, 14.8% between 11 - 15 years and less than 6 years corresponds to 18.6%. As for staff in general, the data indicate that most maintained their services between 1-5 years and 6-10 years.

Table 7. Distribution of public servant by occupation and years of service

Occupation	<1 Year	1-5 Years	6 - 10 Years	11-15 Years	> 15 Years	Total	Percentage (%)
Teachers	18	77	169	76	172	512	53,50
Public servants	12	108	79	58	44	301	31,45
Medical or Medical Specialist	3	34	4	5	9	55	5,75
Chief Department	1	5	2	10	9	27	2,82
Director General	2	3	2	3	8	18	1,88
National Directors	2	1	1	3	1	8	0,84
Judges	1	1	1	-	1	4	0,42
Others	2	15	6	3	6	32	3,34
Total	41	244	264	158	250	957	100%
Percentage (%)	4,3	25,5	27,6	16,5	26,1	100	

Regarding the grade or level of respondents, the majority are in the positions between grade F (level 1, & 2) - grade D / level 5, together corresponds to 95%. The servants with level above 6 are quite low, registering about 1.98% and those with special regime 3.12% (Table 8).

Table 8. Grade and Level of permanent public servant respondents

Grau / Nível	Frequency	Percentage (%)
Grade A / level 7	4	0,42
Grade B / level 6	15	1,56
Grade C / level 5	97	10,07
Grade D / level 4	187	19,42
Grade E / level 3	446	46,31
Grade F / level 1, 2	184	19,11
Special regime	30	3,12
Total	963	100%

2.6.2. Temporary Public Servants

Table 9 shows temporary public servants for public sector by occupation and years of service. The occupational pattern is similar to the permanent public servant with the mastery of teachers and public servants. Teachers and public servants are those who have a large number temporary public servant. Both

represent 82.4% of temporary public servant while hiring the specialized technicians only 0.5%. The standard of length of service is similar to that of permanent public servant, the highest proportion of whom have maintained the public service between 1-5 years and 6-10 years and together represent 86.4% compared to those who have maintained the service more than 10 years (6.1%).

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

Year of work	Public Servants	Specialized Technical	Teachers	Others	Total	Percentage (%)
1-5 Years	12	-	15	3	30	7,6
6 - 10 Years	59	1	100	19	179	45,2
11-15 Years	42	1	97	23	163	41,2
> 15 Years	12	-	6	2	20	5,1
1-5 Years	2	-	1	1	4	1,0
Total	127	2	219	48	396	100%
Percentage (%)	32,1	0,5	55,3	12,1	100	

2.7. Level of Education of Temporary Public Servants

At the level of education, 70% of temporary public servant have a secondary education level, a bachelor's degree with a percentage of 14.3% and Pre-secondary 5.7%. Other levels of education have a percentage less than 4% (*Table 10*).

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

Education level	Number of Public Servants	Percentage (%)
Primary School	20	3,9
Pre-secondary School	29	5,7
Secondary School	357	70,1
Vocational Technical High School	5	1,0
Others	-	0,0
Diploma I (DI)	2	0,4
Diploma II (DII)	1	0,2
Diploma III (DIII)	20	3,9
Diploma IV (DIV)	-	0,0
Bachelor's Degree (S1)	73	14,3
Master Degree (S2)	2	0,4
PhD (S3)	-	0,0
Total	509	100%

2.8. Non-Public Sector (Private Sector)

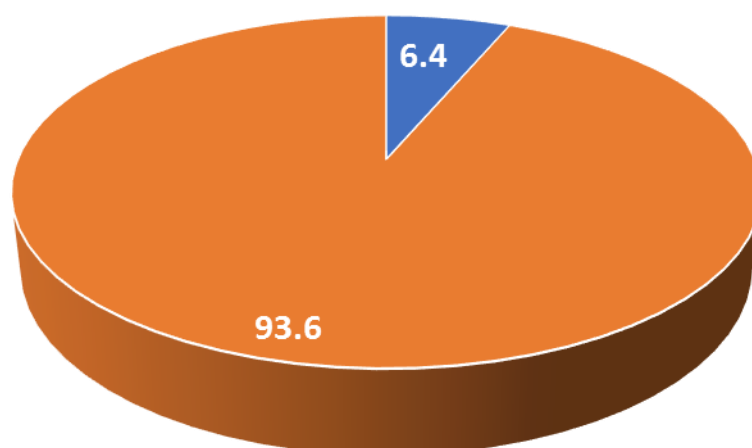
The non-public sector in the Municipality of Ermera persists small compared to the public sector. This despite the growth of the non-public sector is one of the main objectives of the government and most of those who do not currently work expressed an their interest of working in the non-public sector. 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.

Figure 1 shows data for staff working in Non-Governmental Organizations (NGOs). Amont the 47 respondents, 6.4% occupy positions as Director or Vice-directors of the organizations and the highest 93.6% employees.

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

Non-governmental organization -Percentage (%)



■ Director/Vice-Director ■ NGO's Employees

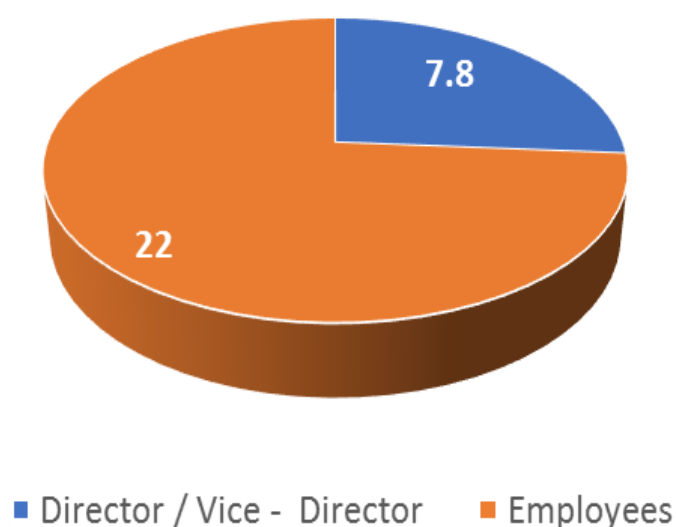
2.8.2. Entrepreneurs or Businessman

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 fundamental to understand the human resources involved in this process and try to train 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. 78% of the respondents are employed as director or vices directors and 22% assume a simultaneous role as an employee of the same business.

Figure 3. Distribution of entrepreneurs by position

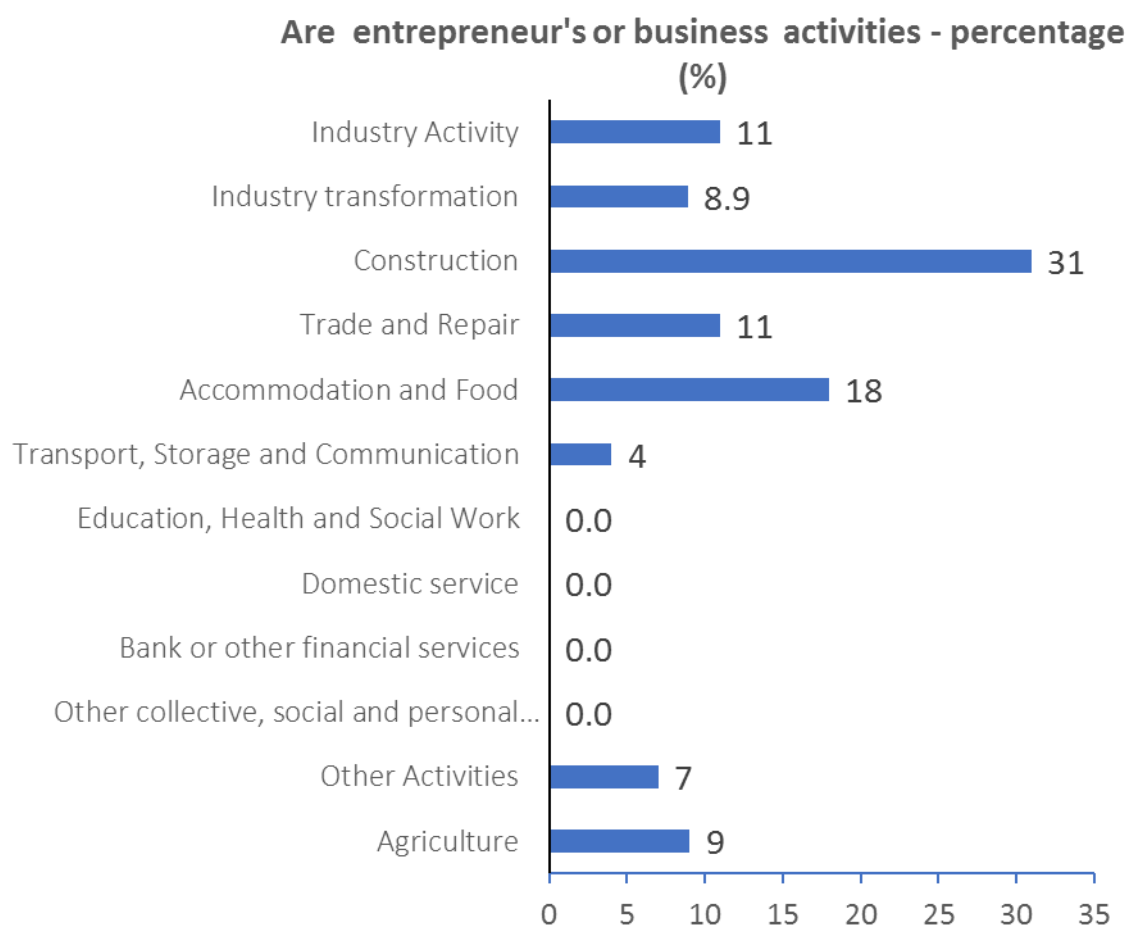
Position in Entrepreneur's or Business - Percentage (%)



2.8.3. Activity Sectors

The largest proportion of the companies' areas of activity are related to construction, food accommodation, industrial activity and trade and repair. 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 show that most of the people involved have no level of education (66.4%), secondary education (10.4%), pre-secondary (9.2%), basic education (6.8%), and does not read or write (did not finish primary). Other levels of education have a percentage less than 5% (*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	Numbers of entrepreneur's or businessman	Percentage (%)
Can not read / write	8,748	66,4
Secondary	1,367	10,4
Pre-secondary	1,210	9,2
Primary	898	6,8
Do not read / write (did not finish primary)	805	6,1
Bachelor's Degree (S1)	88	0,7
Diploma III (DIII)	22	0,2
1 st. Cycle (1st class up to 4th Grade)	11	0,1
Secondary School	7	0,1
Secondary Technical School	6	0,0
Others	3	0,0
Secondary School of Agriculture	2	0,0
Diploma II (DII)	2	0,0
2º. Cycle (1st Year, 2nd Year)	1	0,0
3º. Cycle (3rd year up to 9th Grade / 3rd Grade)	1	0,0
Secondary School of Nursing	1	0,0
Secondary School of Sports	1	0,0
Secondary School of Social Assistance	1	0,0
Diploma IV (DIV)	1	0,0
Master's Degree (S2)	1	0,0
Diploma I (DI)	0	0,0
PhD (S3)	0	0,0
Total	13,176	100%

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 most opted for the non-public sector (private sector) with 80% compared to the public sector 20%. The Sub-District Administration of Hatulia and Atsabe has 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 Letefoho and Ermera (Table 12).

Table 12. Total number of respondents in Ermera Municipality in search of employment and intends to work in the public or private sector

Sub-District Administrations	Public Sectors	Percentage (%)	Non-Public Sectors	Percentage (%)	Total	Percentage (%)
Atsabe	559	15,7	4,114	28,9	4,673	26,3
Ermera	1,146	32,1	2,425	17,1	3,571	20,1
Hatulia	167	4,7	4,175	29,4	4,342	24,4
Letefoho	1,236	34,7	1,513	10,6	2,749	15,5
Railaco	457	12,8	1,985	14,0	2,442	13,7
Total	3,565	100%	14,212	100%	17,777	100%

2.10. Business sector you would like to work in

Table 13 shows that in the private sector the preference is mainly for agriculture (67.2%), domestic tasks (11%), industrial activity (7.5%), Education, Health and Social Work (4%), construction (5%), and housing and food (2.1%). Other sectors of activity have a share of less than 2%.

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

Activity Sectors	Sub-District Administration					Total	Percentage (%)
	Atsabe	Ermera	Hatulia	Letefoho	Railaco		
Agriculture	4052	3816	4260	1242	1806	15176	67,2
Industry Activity	298	972	237	96	98	1701	7,5
Transformation industry	50	45	59	110	52	316	1,4
Construction	69	112	177	62	138	558	2,5
Trade and repair	88	112	43	23	36	302	1,3
Accommodation and Food	36	50	81	30	276	473	2,1
Transport, Storage and Communication	37	64	34	9	89	233	1,0
Education, Health and Social Work	42	444	177	46	189	898	4,0
Domestic Service	206	940	1152	52	144	2494	11,0
Banking or other financial services	14	15	41	9	57	136	0,6
Other collective, social and personal services	31	32	66	13	70	212	0,9
Other activities	2	37	25	9	5	78	0,3
Total	4,925	6,639	6,352	1,701	2,960	22,577	100%
Percentage (%)	21,8%	29,4%	28,1%	7,5%	13,1%	100	

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

In relation to the age group, the largest number of respondents seeking employment are young people aged between 17 and 36 years, representing around 53.9% (Table 14).

Table 14. Age groups of respondents who are looking for a job looking for a job

Age Groups	Non-Public Sector	Percentage (%)
17 - 20	1346	9,5
21- 24	1536	10,8
25 - 28	1786	12,6
29 - 32	1622	11,4
33 - 36	1367	9,6
37 - 40	841	5,9
41 - 44	1180	8,3
45 - 48	1142	8,0
49 - 52	835	5,9
53 - 56	705	5,0
57 - 60	397	2,8
61- 64	347	2,4
65+	1108	7,8
Total	14,212	100%

2.12. Graduates in job search "Unemployment"

The data also provide information on the number and qualifications of people with higher education in job search (Table 15). The figures shows that, amont the 124 graduates respondents, 53.2% intend to work in the public sector and 46.8% 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 graduates seeking employment "unemployment" are in the areas of Law, Civil Engineering - Civil Engineering and Mathematics. Graduates in other areas are less than 5%, so these data are key for municipal government, employers 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.

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 Sectors	Non-Public Sectors		
1	Law	9	4	13	10,5
2	Civil Engineering - Civil Construction	3	6	9	7,3
3	Mathematics	7	1	8	6,5
4	Mining engineering	2	3	5	4,0
5	Education	3	2	5	4,0
6	Computer technology engineering	2	3	5	4,0
7	Accounting	2	3	5	4,0
8	Agronomy	3	1	4	3,2
9	Agro-business	3	1	4	3,2
10	Agriculture	2	2	4	3,2
11	Management	2	2	4	3,2
12	Teaching Physics	2	2	4	3,2
13	Special education	0	4	4	3,2
14	Forest Resources and Forestry Engineering	1	2	3	2,4
15	Private law	2	1	3	2,4
16	Technology and Use of Forest Products	2	1	3	2,4
17	Pathological Anatomy and Clinical Pathology	2	0	2	1,6
18	Sociology	0	2	2	1,6
19	Political science	2	0	2	1,6
20	Portuguese language	1	1	2	1,6
21	English language	1	1	2	1,6
22	Public health	1	1	2	1,6
23	Medicine - Medical Clinic (General Practice)	0	2	2	1,6
24	Public Administration	2	0	2	1,6
25	Teaching mathematics	1	1	2	1,6
26	Government Science	2	0	2	1,6
27	Catechism	1	1	2	1,6

No.	Study Program or Area of Specialization	Do not work and want to work?		Total	Percentage (%)
		Public Sectors	Non-Public Sectors		
28	Environmental Ecology	0	1	1	0,8
29	Public law	1	0	1	0,8
30	Sanitary engineering	0	1	1	0,8
31	Nursing	1	0	1	0,8
32	Forestry Management	1	0	1	0,8
33	Water and Soil Engineering	1	0	1	0,8
34	Agricultural Product Processing Engineering	0	1	1	0,8
35	Livestock Production	0	1	1	0,8
36	Government Planning and Policy	1	0	1	0,8
37	Communication - Journalism and Publishing	0	1	1	0,8
38	Economics of Finance or Financial Management - Banking Economics	0	1	1	0,8
39	Teaching biology	0	1	1	0,8
40	Public policy	1	0	1	0,8
41	Moral Theology	0	1	1	0,8
42	Pastoral Theology	0	1	1	0,8
43	Training of primary school teachers and pre-secondary education	1	0	1	0,8
44	Others	1	2	3	2,4
	Total	66	58	124	100%

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

Table 16 shows the number of students surveyed in the Municipality of Ermera 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	Management	63	8,4
2	Public health	48	6,4
3	Public Administration	45	6,0
4	Education	43	5,7
5	Agronomy	39	5,2
6	Civil Engineering - Civil Construction	33	4,4
7	Law	25	3,3
8	Forestry Management	25	3,3
9	Computer technology engineering	23	3,1
10	Teaching biology	23	3,1
11	Accounting	22	2,9
12	General - Environmental Biology	19	2,5
13	Oil engineering	18	2,4
14	Portuguese language	18	2,4
15	Tourism and Hospitality	17	2,3
16	Economics of education	17	2,3
17	Mathematics	15	2,0
18	Public policy	15	2,0
19	Sociology	12	1,6
20	Political science	10	1,3
21	English language	10	1,3
22	Livestock Production	10	1,3
23	Economy of Finance - management of finances - Banking Economics	10	1,3
24	International, Bilateral and Multilateral Relations	9	1,2
25	Forest Resources and Forestry Engineering	8	1,1
26	Agro-business	8	1,1
27	Food Technology	8	1,1
28	Development Studies	8	1,1
29	Engineering Architecture	7	0,9
30	Agriculture	7	0,9

No.	Areas of Study	Frequency	Percentage (%)
31	Government Science	7	0,9
32	Physics	6	0,8
33	Medicine - Medical Clinic (General Practice)	6	0,8
34	Business Administration	6	0,8
35	Agricultural engineering	5	0,7
36	Public law	5	0,7
37	Nursing	5	0,7
38	Teaching mathematics	5	0,7
39	Chemistry	4	0,5
40	Physical Education or Sports Education	4	0,5
41	Technology and Use of Forest Products	4	0,5
42	Human Resource Economics	4	0,5
43	Special education	4	0,5
44	Zoology	3	0,4
45	Social Economy Agricultural	3	0,4
46	Geology	3	0,4
47	Midwife	3	0,4
48	Studies of Peace	3	0,4
49	Mining Engineering	2	0,3
50	Anesthetist	2	0,3
51	Gastroenterology Surgery Specialist	2	0,3
52	Philosophy	2	0,3
53	Psychology	2	0,3
54	Theology	2	0,3
55	Industry engineering	2	0,3
56	Forestry Techniques and Operations	2	0,3
57	Conservation of Nature	2	0,3
58	Agricultural Product Processing Engineering	2	0,3
59	Communication - Journalism and Publishing	2	0,3
60	Moral Theology	2	0,3
61	Skills Education - Fashion, Cosmetics, Cake -Pastry	2	0,3
62	Teacher training	2	0,3
63	Geosciences	1	0,1
64	Genetics	1	0,1
65	Botany	1	0,1

No.	Areas of Study	Frequency	Percentage (%)
66	Immunology	1	0,1
67	Electrical engineering	1	0,1
68	Mechanical Engineering	1	0,1
69	Analyst, Medical Assistant	1	0,1
70	Pathological Anatomy and Clinical Pathology	1	0,1
71	Fishing Resources and Fisheries Engineering	1	0,1
72	Food Science and Technology	1	0,1
73	Computer science	1	0,1
74	Petrology	1	0,1
75	Dentist	1	0,1
76	Pharmacy	1	0,1
77	Business Administration	1	0,1
78	Government Planning and Policy	1	0,1
79	Information Science	1	0,1
80	Social worker	1	0,1
81	Economy - Cooperative - Marketing	1	0,1
82	Computer Management	1	0,1
83	Teaching Physics	1	0,1
84	Teaching chemistry	1	0,1
85	Sociology of Education	1	0,1
86	Economics of Education - Management of Education	1	0,1
87	Tetum language	1	0,1
88	Others	3	0,4
	Total	751	100%

2.14. Year the course ends

Regarding to the estimation of the numbers of students who of higher education who will graduate or finish their courses in the next 6 years, the data in table 17 show that the areas of Management, Public Administration, Public Health, Education, Civil Engineering - Construction Civil Engineering, Agronomy, Computer Technology Engineering and Forest Management are the ones with the most 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 courses and prediction of the year in which the course will end

Area of Study	Year in which the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Management	17	19	3	5	1	1	0	46
Public administration	13	11	3	10	4	0	0	41
Public health	17	9	5	4	1	0	0	36
Education	8	8	10	3	4	0	0	33
Civil Engineering - Civil Construction	13	5	5	3	3	0	0	29
Agronomy	15	8	2	4	0	0	0	29
Computer technology engineering	5	5	3	4	3	0	0	20
Forestry Management	8	6	3	3	0	0	0	20
Law	7	3	4	2	2	1	0	19
Teaching biology	5	4	3	5	2	0	0	19
Accounting	5	4	4	3	0	0	0	16
Tourism and Hospitality	4	5	2	2	3	0	0	16
General - Environmental Biology	2	6	5	2	0	0	0	15
Mining engineering	3	0	5	5	2	0	0	15
Public Policy	5	5	3	0	0	0	0	13
Economics of education	3	3	3	3	0	0	0	12
Portuguese language	1	5	2	3	0	0	0	11
Mathematics	3	5	0	0	1	1	0	10
Sociology	3	3	2	1	0	0	0	9
Political science	6	1	1	0	0	0	0	8
English language	1	1	0	4	2	0	0	8
International, Bilateral and Multilateral Relations	3	3	1	1	0	0	0	8
Forest Resources and Forestry Engineering	2	3	1	1	0	0	0	7
Livestock Production	2	3	0	2	0	0	0	7
Food Technology	3	2	1	1	0	0	0	7
Development Studies	1	2	1	3	0	0	0	7
Economy of Finance or management of finances - Banking Economics	1	2	2	2	0	0	0	7
Physics	3	2	0	1	0	0	0	6
Architecture engineering	2	1	1	2	0	0	0	6
Business Administration	2	2	1	1	0	0	0	6
Government Science	4	0	1	1	0	0	0	6
Nursing	0	3	1	1	0	0	0	5

Area of Study	Year in which the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Agro-business	4	0	0	1	0	0	0	5
Medicine - Medical Clinic (General Practitioner)	1	2	1	0	0	0	0	4
Aquaculture	0	1	3	0	0	0	0	4
Teaching mathematics	1	1	0	1	1	0	0	4
Special education	1	1	2	0	0	0	0	4
Chemistry	2	1	0	0	0	0	0	3
Zoology	2	0	0	1	0	0	0	3
Social Economy Agricultural	0	2	1	0	0	0	0	3
Agricultural engineering	2	0	0	1	0	0	0	3
Public law	2	0	0	1	0	0	0	3
Geology	0	1	1	1	0	0	0	3
Physical Education or Sports Education	0	0	2	0	0	1	0	3
Midwife	1	1	1	0	0	0	0	3
Technology and Use of Forest Products	1	1	1	0	0	0	0	3
Human Resource Economics	0	1	2	0	0	0	0	3
Mining Engineering	1	0	1	0	0	0	0	2
Philosophy	0	0	2	0	0	0	0	2
Psychology	2	0	0	0	0	0	0	2
Theology	0	2	0	0	0	0	0	2
Industry Engineering	1	1	0	0	0	0	0	2
Forestry Techniques and Operations	2	0	0	0	0	0	0	2
Agricultural Product Processing Engineering	0	2	0	0	0	0	0	2
Peace studies	0	0	2	0	0	0	0	2
Moral Theology	0	1	0	1	0	0	0	2
Skills Education - Fashion, Cosmetics, Cake - Pastry	0	2	0	0	0	0	0	2
Geosciences	0	0	0	1	0	0	0	1
Genetics	0	1	0	0	0	0	0	1
Botany	0	0	0	1	0	0	0	1
Immunology	0	0	0	0	1	0	0	1
Electrical engineering	1	0	0	0	0	0	0	1
Analyst, Medical Assistant	0	1	0	0	0	0	0	1
Gastroenterology Surgery Specialist	1	0	0	0	0	0	0	1

Area of Study	Year in which the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Computer science	0	0	0	1	0	0	0	1
Petrology	0	0	0	0	1	0	0	1
Government Policies and Planning	0	1	0	0	0	0	0	1
Information Science	1	0	0	0	0	0	0	1
Communication - Journalism and Publishing	0	1	0	0	0	0	0	1
Social worker	0	0	0	1	0	0	0	1
Economy - Cooperative - Marketing	0	0	1	0	0	0	0	1
Computer Management	0	1	0	0	0	0	0	1
Teaching Physics	0	0	1	0	0	0	0	1
Teaching chemistry	0	1	0	0	0	0	0	1
Sociology of Education	1	0	0	0	0	0	0	1
Tetum language	1	0	0	0	0	0	0	1
Teacher training	0	0	0	1	0	0	0	1
Others	3	0	0	0	0	0	0	3
Total	198	165	99	94	31	4	0	591

2.15. The demand of 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 the Municipality of Ermera. 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.

Among the 2,900 respondents represent a substantial level of training activity, as 47.2% is for 1 - 6 months, 37.4% for less than one month and 15.3% for more than 6 months. It is also notable that the main courses were in the areas of Leadership, Finance, and Human Resources.

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	309	338	86	63	796	27,4
Finances	197	190	23	16	426	14,7
Planning	155	164	38	28	385	13,3
Management	96	109	27	14	246	8,5
Human Resources	95	153	42	6	296	10,2
Information Technology (IT)	42	137	21	6	206	7,1
Procurement and Logistics	30	25	4	1	60	2,1
Administration	99	136	24	14	273	9,4
Information System and Business Management	46	53	10	4	113	3,9
Media and Public Relations	2	7	0	1	10	0,3
Specialized Technician	3	18	5	0	26	0,9
Others	11	40	5	7	63	2,2
Total	1,085	1,370	285	160	2,900	100%
Percentage (%)	37,4%	47,2%	9,8%	5,5%	100	

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 (56.3%) following the English language with 27.2%. The Tetum language has a participation of 12.2% of the respondents and other languages with a participation of less than 4%. 71.5% of the courses have duration between 1 - 6 months, 7% less than one month and another 21.5% are longer than 7 months. The Portuguese language and English

language courses are the main courses conducted by the respondents in the Municipality of Ermera.

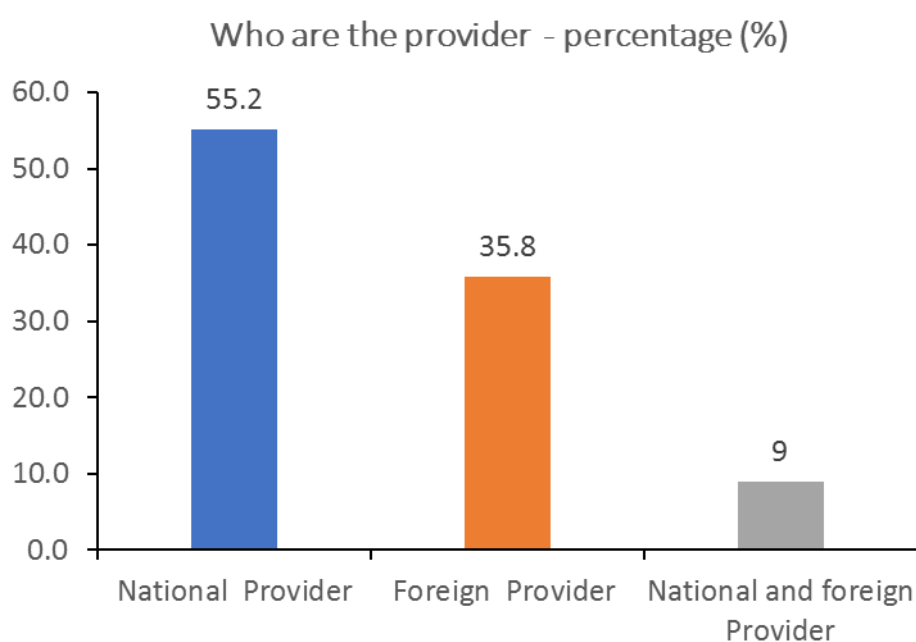
Table 19. Language training and duration of the course

Type of training	Duration				Total	Percentage (%)
	Less than 1 month	1 - 6 months	7 months - 1 year	More than 1 year		
Portuguese	115	1559	316	170	2160	56,3
English	83	789	126	47	1045	27,2
Tetum	62	277	80	51	470	12,2
Indonésia	8	89	17	16	130	3,4
Korea	1	14	3	0	18	0,5
Others	0	16	0	1	17	0,4
Total	269	2,744	542	285	3,840	100%
Percentage (%)	7%	71,5%	14,1%	7,4%	100	

2.16. Institution Providers and Financing

As for institutions provider language training, 55.2% of training provider are national institutions, 35.8% provided by foreign institutions and 9% promoted by national and foreign institutions (*Figure 5*).

Figure 5. Institution Providers of language training



2.17. Training Finance

Amount of the total number of respondents who have already done language training, 63.6% was financed by the trainee himself, by the government 24.1% and the education supported by the private sector 7%. Training with government support in cooperation with international partners and only by international partners corresponds to 4.2% and 1.1%, respectively (*Table 20*).

Table 20. Funders of language training

Sub-district Administrations	Government	Private sector	Pay for yourself	Government and international partners	International Partners	Total
Atsabe	86	25	153	13	3	280
Ermera	352	85	997	50	14	1498
Hatulia	178	53	313	35	11	590
Letefoho	65	7	224	9	0	305
Railaco	129	65	456	35	9	694
Total	810	235	2,143	142	37	3,367
Percentage (%)	24,1	7	63,6	4,2	1,1	100

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 of identifying Ermera's needs, since it allows one to understand whether training is the answer to problems and, on the other hand, to identify the type training 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 jobs 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 most of the respondents wish to raise their knowledge in the specific areas (Varieties), Teachers and Professionals of education, Languages (English, Portuguese), Information Technology, Database, Web, Software and Electronic filing (registration) - computer and Management, Administration and Leadership.

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

Nu.	Areas of the training	Frequency	Percentage (%)
1	Varieties *	34	24,6
2	Teachers and Education Professionals	25	18,1
3	Languages (English, Portuguese, etc.)	22	15,9
4	Information Technology, Database, Web, Software and Electronic Filing (registration) - computer	11	8,0
5	Management, Administration and Leadership	9	6,5
6	Medicine and Health Professionals	6	4,3
7	Finance, Budget, Accounting and Planning	5	3,6
8	General Skills Development- Induction	4	2,9
9	Agriculture	4	2,9
10	Police, Defense, Security (employee training)	4	2,9
11	Human resource Management	3	2,2
12	Project management	2	1,4
13	Procurement, Logistics and Estate Management	2	1,4
14	Professional, Research and Development Knowledge (based on the operating sector)	2	1,4

Nu.	Areas of the training	Frequency	Percentage (%)
15	Information System & Business Management;	1	0,7
16	Customer Service (customer service and standard development)	1	0,7
17	Mediation Technique, Conflict Analysis, Conciliation and Sensitive Cases	1	0,7
18	Fisheries	1	0,7
19	Hospitality and Tourism	1	0,7
Total		138	100%

*) 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. Development training and institutional strengthening

As regards the second question - the training of personal development and the institutional or organizational strengthening applied to the employed respondents, the data in Table 22 show that the areas of training such as training of Teachers and Education Professionals, Languages (English, Portuguese), varieties and Management - Administration and Leadership continues to be areas of higher preference desired by the respondents.

Table 22. Areas of training desired by respondents not employed

Nu.	Areas of training	Frequency	Percentage (%)
1	Teachers and Education Professionals	78	24,7
2	Languages (English, Portuguese, etc.)	52	16,5
3	Varieties *	52	16,5
4	Management, Administration and Leadership	32	10,1
5	Human resource Management	28	8,9
6	Information Technology, Database, Web, Software and Electronic Filing (registration) - computer	14	4,4
7	Medicine and Health Professionals	13	4,1
8	Finance, Budget, Accounting and Planning	13	4,1
9	Police, Defense, Security (employee training)	10	3,2
10	Agriculture	7	2,2
11	Law and Justice	4	1,3
12	General Skills Development- Induction	3	0,9
13	Information System & Business Management;	3	0,9

Nu.	Areas of training	Frequency	Percentage (%)
14	Audit and Inspection	2	0,6
15	Mediation Technique, Conflict Analysis, Conciliation and Sensitive Cases	2	0,6
16	Procurement, Logistics and Estate Management	1	0,3
17	Monitoring and Evaluation (M&E)	1	0,3
18	Professional, Research and Development Knowledge (based on the operating sector)	1	0,3
Total		316	100%

*) 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 Training

2.19.1. Vocational or Academic Training

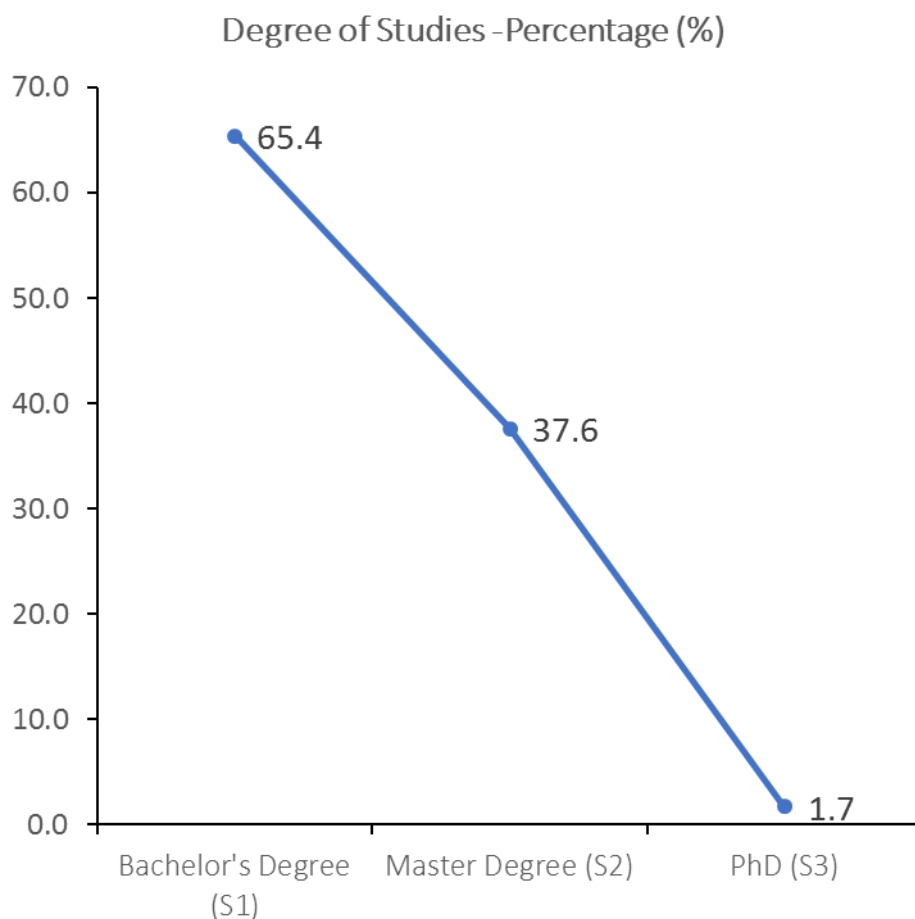
When asked about the category of training, of the 6349 respondents, 75.4% of the respondents intend to develop their knowledge through the vocational or professional training course and 24.6% in the Academic - higher education course (Figure 23). Sub-District Administration of Atsabe and Ermera has a larger number of those who wish vocational or professional training while the preference for training for the academic level the highest number was registered at the Ermera and Railaco Sub-District Administration

Table 23. Category of training - Academic or Vocational Training

Sub-District Administrations	Academic or Universities	Vocational or Vocational training	Total
Atsabe	154	2279	2433
Ermera	721	1645	2366
Hatulia	183	180	363
Letefoho	44	82	126
Railaco	435	526	961
Total	1,537	4,712	6,249
Percentage (%)	24,6	75,4	100

Among the 1,537 (24.6%) surveyed who wish to take the course in higher education, 65.4% plan to increase their knowledge in Bachelor's degree (S1) , 37.6% Master's degree (S2) and 1.7% PhD (S3) (Figure 6).

Figure 6 . Degrees of studies that wish to continue



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

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

Nu.	Areas of study	Academic level or Universities			Total
		Bachelor's degree (S1)	Master degree (S2)	PhD (S3)	
1	Varieties *	13	2	0	15
2	Management, Administration and Leadership	2	7	0	9
3	Professional, Research and Development Knowledge (based on the operating sector)	6	2	0	8
4	Fisheries	3	2	0	5
5	Medicine and Health Professionals	2	0	0	2
6	Information Technology, Database, Web, Software and Electronic Filing (registration) - computer	2	0	0	2
7	Law and Justice	0	2	0	2
8	Livestock	1	1	0	2
9	Languages (English, Portuguese, etc.)	1	0	0	1
10	Teachers and Education Professionals	0	1	0	1
11	Agriculture	1	0	0	1
12	Training of Trainers (TOT)	1	0	0	1
13	Audit and Inspection	0	0	1	1
14	Market, Communication, Journalism and Media	1	0	0	1
15	Customer Service (customer service and standard development)	1	0	0	1
Total		34	17	1	52
Percentage (%)		65,4	32,7	1,9	100

*) 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 pillars of the Municipal Strategic Plan (MSP)

The Ermera Municipal Strategic Plan (MSP), aligned with the Timor-Leste Government's Strategic Development Plan for 2011-2030, aims to promote the progress and sustainable development of the territory by 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 pillars:

1. Social capital: health, education and social protection;
2. Infrastructure: transport, telecommunications, energy and water supply and sanitation ;
3. Economic fundamentals: aiming at 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 macroeconomic management and improvement of the capacity and effectiveness of government institutions.

The development of the municipality's human resources must 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 builds on the four pillars and begins with a summary of the county's economic structure and the recent growth in various sectors.

The Municipality of Ermera 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"> 1) Ensure that all children between the ages of 3-5 years will be enrolled in quality school - kindergarten (preschool). 2) Establish 20 kindergarten (pre-school) schools in rural areas with well-equipped facilities; 3) To train the new pre-school teachers; 4) Guarantee the access of all the children in the Basic Education of quality in the Municipality of Ermera with Female and Male balance; 5) Build and rehabilitate 54 elementary school building with 162 rooms; 6) To construct the dormitories of teachers of primary education of the 1st, 2nd and 3rd cycle; 7) To improve the quality of education from pre-school to secondary level and ensure the training of teachers at all levels; 8) Establish and train vocational technical school in the Municipality of Ermera; 9) Manage school meals well to promote nutrition;
Health sector	<ol style="list-style-type: none"> 1) Increase and broaden access to quality health service from municipal level to villages 2) Promote public health for disease prevention; 3) To reduce the number of maternal, newborn and contagious diseases; 4) Establish a new health center of 5 units with a building according to national standards; 5) Ensure that all pregnant women will receive good services or pre-delivery health consultation \pm 4 times; 6) Build referral Hospital in Leboto, Hatolia complete with maternity equipment, doctor's home, nurse and midwife; 7) Build 11 houses for health posts in all Sub-District Administration in Ermera with 1 doctor, 1 midwife, 1 nurse and 1 pharmacist in each health post;

<p>Social Protection (Inclusion)</p>	<ol style="list-style-type: none"> 8) Ensure community health centers, health centers, clinics and health homes in each sub-district must have access to electricity, clean water and sanitation; 1) Promote and develop social protection for vulnerable families, such as; elderly, disabled, widow, victim of domestic violence; 2) Build housing (MDGs) at each Sub-District Administration for vulnerable groups of economic and social communities; 3) Establish the Council of Veterans in the Municipality of Ermera; 4) Establish a "database" center for vulnerable groups; 5) Establish operational centers for natural disasters and build social protection networks up to the villages level; 6) Provide social training; 7) Establish a garden from the grave (cemetery) to the villages level; 8) Strengthen the participation of rural women in development;
<p>Environment sector</p>	<ol style="list-style-type: none"> 1) Increase general awareness to protect the environment through socialization, campaigns, involving village communities, learning, women's groups and young people; 2) Establish 10 frames of information in the risk or protected space in the Municipality of Ermera; and produces 5,000 pamphlet or brochure, poster for dissemination to protect forest, " <i>balada fuik</i>", sea, etc .; 3) Establish notice boards in place of the risks of environmental danger; 4) Dissemination, socialization to the community through; pamphlet, posters, leaflets, on the protection of the environment and the animals

Culture and Heritage	<p>that inhabit it;</p> <ol style="list-style-type: none"> 1) Language training program - English and Portuguese ; 2) Provide knowledge in the area of cultural arts and creative industries, museum development and libraries, identification and rehabilitation of cultural heritage ; 3) Technical training in decoration, curator and museum preservation, cultural heritage and threats in the architectural and archaeological heritage ; 4) Training in digitization and development of cultural heritage collection (photographic production etc). 5) SGP Socialization Program
<p>Infrastructure (transport, telecommunications, energy and water supply and sanitation). Training in digitization and development of cultural heritage collection (photographic production etc).</p>	
Roads and Bridges	<ol style="list-style-type: none"> 1) Rural and Urban Roads Development Program 2) Roads Maintenance Program (97% reconstruction and rehabilitation of roads with national standards) 3) Construction of the bridges in the villages in the Municipality of Ermera 4) Rehabilitate roads between Gleno - Lete Foho - Atsabe - Bobonaro, Gleno - Hatulia, Gleno - Ermera Tuan - Fatu Besi – Loes 5) Build and rehabilitate roads in the villages and hamlet
Water and sanitation	<ol style="list-style-type: none"> 1) Potable Water Development Program in Rural in Urban 2) Potable Water Maintenance and Facility Program (Urban and Rural) 3) Basic Sanitation Program

<p>Electricity</p> <p>Telecommunication</p>	<ol style="list-style-type: none"> 4) Program System Drinking water supply 5) Potable Water Plan Program (each family has access to clean water) 6) Human Resources Management Program 7) Reforestation Program <ol style="list-style-type: none"> 1) Program Installation of electricity in rural and urban areas (each household will have access to electricity for 24 hours) 2) Electricity Maintenance Program (Protection and Maintenance of power distribution lines) 3) Prepaid system program 4) City Street Lighting Program <ol style="list-style-type: none"> 1) 65% of the population in the Municipality of Ermera will have access to a cheap and guaranteed mobile phone
<p>Economic fundamentals - targeting three sectors for development - agriculture, tourism, rural development and the private sector.</p>	
<p>Rural development</p> <p>Agriculture (Livestock and Forest)</p>	<ol style="list-style-type: none"> 1) Construct rural extracts 2) Establish drinking water in rural areas 3) Building the Rural Market 4) Building Rural Electricity 5) Build Rural Health Post 6) Small Industries Development Program in the priority areas like (Coffee and horticulture). <ol style="list-style-type: none"> 1) Rural Education Program with learning and training center in the area of agriculture 2) Recruitment of agricultural extension agents 3) Establish irrigation channels for agriculture 4) Program for poultry production and dairy cow production 5) Plants and Industry, namely coffee plantation 6) Food Production (Agriculture) such as rice, corn and vegetables 7) Increase the production of organic coffee through rehabilitation and planting, and manage the coffee

	<p>harvest well</p> <ol style="list-style-type: none"> 8) Increase the production of vegetables 9) Increase corn production 10) Planting of 125,000 tree seeds in areas with erosion risks at the Railaco and Letefoho of Sub-District Administration
<p>Tourism sector</p>	<ol style="list-style-type: none"> 1) Data collection program to identify tourist sites in the Municipality of Ermera 2) Protection and development program Tourism 3) Promoting Tourism Program
<p>Private sector</p>	<ol style="list-style-type: none"> 1) Development of the cooperative sector 2) Increase knowledge and train employees in the following areas: <ul style="list-style-type: none"> ○ Strategies for developing the cooperative sector; ○ Training of trainers in the area of cooperatives; ○ Training in management of cooperatives; ○ Training in audit of cooperatives; ○ Formation in decrees-law and statute of the cooperative society. 3) Development of micro and small enterprises 4) Increase knowledge in micro and small businesses to support entrepreneurs in running their business in the future: <ul style="list-style-type: none"> ○ Training of trainers of small and medium-sized enterprises (SMEs); ○ Training in accounting and business administration; ○ Training in family business plan; ○ Training in business software (IT). 5) Build a complete traditional market with facilities at all Sub-District Administration in the Ermera Municipality

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"> 1) Establish the necessary legal framework for the development of the Municipality 2) Accelerate the implementation of local power by empowering the Municipality, bringing the public service closer to citizens and promoting public service professionalism in the municipality; 3) Ensure implementation of the land and property law 4) To reinforce the performance and the attendance services of the sucos authorities 5) Promote the favorable business environment to attract investment within the municipality; 6) Strengthen the presence of community policing in villages 7) Promote continuous dialogue for conflict prevention 8) Ensure public order, environmental health, rights and freedom of expression of all people. 9) Strengthen the implementation of the PNDS & MDP program 10) Strengthen Local Government Administration- Public Administration through training: <ul style="list-style-type: none"> ○ Supply management ○ File Management ○ Accounting Management ○ Human Resource Management ○ The Spatial Planning (<i>Ordenamento do Territorio</i>)
Justice sector	<ol style="list-style-type: none"> 1) Training for private lawyers, Notaries, Registration and lawyers 2) Training for magistrates and defense lawyers Specific training for magistrates and public defense lawyers 3) Management of public administration for employees involved in social or community development.

	4) Digital archive training in the area of logistics 5) Training for Civil Justice Officers 6) Linguistic training
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3.2. Main Areas of Training

The Municipality of Ermera presented the following distribution of training needs per training area required for each pillar and development sector in relation to the immediate period 2019-2022, and then in relation to 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, master's 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 / Professional)		Training priorities		
	Academic	Professional Technical	Short Term (2019-2022)	Medium Term (2023-2025)	Long Term (Until 2030)
Hospitality (Hospitality)	D1 -S1	√	√	√	√
Tourist Guide	D1 -S1	√	√	√	√
Historian	D1 -S1	√	√	√	√
Protocol	D1 -S1	√	√	√	√
Traditional Dance (specialist)	D1 -S1	√	√	√	√
Coffee (Coffee Processing Specialist)	D1 -S1	√	√	√	√
Livestock	D1 -S1	√	√	√	√
Horticulture	D1 -S1	√	√	√	√
Forest	D1 -S1	√	√	√	√
Agribusiness	D1 -S1	√	√	√	√
Industry	D1 -S1	√	√	√	√
Veterinary (Animal Doctor)	D1 -S1	√	√	√	√
Geology - Biology	D1 -S1	√	√	√	√

Main areas of training	Category of training you wish to pursue (Academic / Professional)		Training priorities		
	Academic	Professional Technical	Short Term (2019-2022)	Medium Term (2023-2025)	Long Term (Until 2030)
Red and white soil	D1 -S1	√	√	√	√
Gas (specialist)	D1 -S1	√	√	√	√
Oil Engineering (Oil)	D1 -S1	√	√	√	√
Gas (specialist)	D1 -S1	√	√	√	√
Forest engineering	D1 -S1	√	√	√	√
Teaching Methodology	D2 - S1	√	√	√	√
School Lunch Coordinator	D2 - S2	√	√	√	√
Finance	D2 - S3	√	√	√	√
Planning	D2 - S3	√	√	√	√
Nutrition	D2 - S3	√	√	√	√
Recruitment according to the area of education	D2 - S3	√	√	√	√
General doctor	D3 - S1	√ (65)	√ (100)	√ (150)	√
Midwives	D3 - S1	√ (30)	√ (100)	√ (120)	√
Nursing	D3 - S1	√ (47)	√ (100)	√ (150)	√
Technical Allied	S2	√ (23)	√ (150)	√ (200)	√
Administrative	S1 - S2	√ (60)	√ (80)	√ (100)	√
Help (First Aid)	D1 - D3	√	√	√	√
Criminology - Human Trafficking	S1	√	√	√	√
Psychology	D1 - D3	√	√	√	√
Disaster prevention	D1 - D3	√	√	√	√
Waste	D1 - D3	√	√	√	√
Technical Forest	D1 - D3	√	√	√	√
Laboratory Technique	D1 - D3	√	√	√	√
Analyze Environmental Impact	D1 - D3	√	√	√	√
Energy Systems and Climate Change	D1 - D3	√	√	√	√
Natural Resource Management	D1 - D3	√	√	√	√
Specialist in the area of Natural Resources Management	D1 - D3	√	√	√	√
Visual Arts	S1 - S3	√	√	√	√
Conservation of cultural heritage	S1 - S3	√	√	√	√

Main areas of training	Category of training you wish to pursue (Academic / Professional)		Training priorities		
	Academic	Professional Technical	Short Term (2019-2022)	Medium Term (2023-2025)	Long Term (Until 2030)
Dance	S1 - S3	✓	✓	✓	✓
Music	S1 - S3	✓	✓	✓	✓
Archaeological Research	S1 - S3	✓	✓	✓	✓
Protection and heritage of cultural and ethnic diversity	S1 - S3	✓	✓	✓	✓
Technical School of Archeology	S1 - S3	✓	✓	✓	✓
Civil Engineering	S1 - S2	✓	✓	✓	✓
Management	S1 - S3	✓	✓	✓	✓
Agronomy	D3 - S1	✓	✓	✓	✓
Technical Rehabilitation of Coffee (Agronomy Engineering)	D3 - S1	✓	✓	✓	✓
Technical Fisheries (ikan)	D3 - S1	✓	✓	✓	✓
Horticulture Technique	D3 - S1	✓	✓	✓	✓
Technical Professional flowers	D3 - S1	✓	✓	✓	✓
Tour Guide	D3 - S1	✓	✓	✓	✓
Historian	D3 - S1	✓	✓	✓	✓
English language	D3 - S1	✓	✓	✓	✓
Portuguese language	D3 - S1	✓	✓	✓	✓
Stretching for Tourist	D3 - S1	✓	✓	✓	✓
Cooker or culinary	D3 - S1	✓	✓	✓	✓
Manager	D3 - S1	✓	✓	✓	✓
Economist	D3 - S1 - S3	✓	✓	✓	✓
Survey - design training	D3 - S1	✓	✓	✓	✓
Training in Procurement Management	D3 - S1	✓	✓	✓	✓
Civil Engineering or Architecture	D3 - S1	✓	✓	✓	✓
Medium and superior technician in laboratory analysis	D3 - S1	✓	✓	✓	✓
Urban planning	D3 - S1	✓	✓	✓	✓
Specific training in the academic training	D3 - S1	✓	✓	✓	✓
Hakbit (GMF) ne'ebe estabesele in a		✓	✓	✓	✓

Main areas of training	Category of training you wish to pursue (Academic / Professional)		Training priorities		
	Academic	Professional Technical	Short Term (2019-2022)	Medium Term (2023-2025)	Long Term (Until 2030)
rural area					
Specialized technicians		√	√	√	√
Supervisor technicians and specialists		√	√	√	√
Academic training and qualification	D3 - S1	√	√	√	√
Specialist in electrical engineering		√	√	√	√
Degree in Law	S2	√	√	√	√
IT, Audit, Finance, Land	S1	√	√	√	√
Land Commission	S2	√	√	√	√
Degree in Law	S3	√	√	√	√

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 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) 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 population respondents in the Municipality of Ermera are young people aged between 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 dispersal of schooling, together with the rapid growth of the population in the relevant age groups, shows the essence of the challenge faced by the Ermera 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 skilled labor 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 public function 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 programs in the areas of Law, Civil Engineering - Civil Construction and Mathematics and more graduates in other areas (*see table 15*), without taking advantage of them in job 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 preference for training based on the priority programs (*Table 25*) with the current human resources (*Table 5*), the data show that Ermera Municipality has a large number of graduates in several areas, so it is verified that there are still shortcomings 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 of Ermera 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 allow them to continue to seize 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 Ermera 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 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 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 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 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, the Ermera Municipality needs to pay more attention to the development opportunities identified in the MSP 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 educate obtained results, it is considered pertinent to conclude and recommend the following: focusing more on the opening of vocational training centers (or Polytechnic institutes) to the detriment of the opening of more universities.

b). Complementary in the opening of centers, it is necessary to conclude and recommend the following: focusing more on the opening of formal vocational training centers.

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, domestic tasks, industry and construction.

The most unemployed graduates and post-graduates are in the areas of Law, Civil Engineering - Civil Construction and Mathematics and more licensed 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 disabilities 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 disabilities and disabilities, 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 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 related to the needs of agriculture in the Municipality of Ermera.

- **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 Ermera 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 R & D, development and planning policies and planning capabilities.
- 2) **Private Sector** - Survey data show that private sector growth is constrained by skills 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 enterprise.
 - 3) **Technical and vocational education and training (TVET)**. FDCH's study shows a lower level of TVET qualifications than university qualifications in the 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) 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 and 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 and 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 and 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 and 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 Telecommunications							

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 and 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 Ermera

No.	List of Name	Position	Institutions
1	Jose M. S. Soares	Prezidente Autoridade Munisipiu	Munisipiu Ermera
2	Joao Bosco Soares	Diretor PNDS	Munisipiu Ermera
3	Juliaon M. de Deus	Adm. Posto Letefoho	MAE
4	Joao Mestre Madeira	Chefe Gabinete	MAE
5	Thomas da Silva	Diretor SAS	SAS
6	Afonso Salsinha	Diretor DTPSC	Ministerio Justica
7	Judith Salsinha	Xefe Dep. RH	MAE
8	Carlos A. M. Babo	Xefe Sub. Ad. Atsabe	SAS
9	Bendito Salsinha	Supervisor	MOPTC
10	Edelmino Jose de Deus	Diretor	J. M. Turismo
11	Mario M. Exposto	Sosial Economia	MAE
12	Osorio Babo	Chefe Sub	SAS
13	Virginia Fernandes Gomes	Supervisor	Mercy - Corps
14	Teresa dos Santos da Silva	Admin e Financas	MSS
15	Jose de Deus	Diretor	MAP
16	Maria Santinha Tilman	Diretor R. C	Ministerio Justica
17	Jose da Costa Gomes	Rep. Administrador Posto Atsabe	MAE
18	Fernando Soares	Administrador Posto Ermera	MAE
19	Jaime S. dos Santos	Ofisial MIS	PNDS
20	Rui Octaviano Martins	CDO, Posto Ermera	MAE
21	Alfredo S. Borges	MDS / Ponto Fokal	MDS/ DNPC
22	Raul Mateus Soares de Sousa	Program Manager	SJME
23	Graciano da C. Cruz	Diretor Saude	DSMS
24	Cristiano Maia	Off PSE	DSMS Ermera
25	Elit Lemos	Planiamentu	DSMS Ermera
26	Fernando Soares	APA Hatulia	MAE
27	Alorno de Deus	Manager CJME	Sentru Joventude
28	Constantino Exposto	Chefe Dep. Planiamento	MAE
29	Joana Monteiro Soares	Jornalista	RTTL, EP
30	Valente dos Santos	Chefe Dep. P/F	MAD Ermera

No.	List of Name	Position	Institutions
31	Carlos Salsinha	Coord. Merenda Escolar	Educacao
32	Silvino Salsinha	Diretor	Educacao
33	Leo Soare	Executivo Diretor	ONG IMI
34	Carlos de J. Soares	Chefe Dep.	Educacao
35	Ernesta I. da Silva	Staff Delega	EDTL
36	Arlindo dos Santos	APA Railako	MAE
37	Joao Bosco de J. M	Diretor	MSS
38	Lucrecia D. P. dos Santos	Staff GAPPEFIV-FDCH	FDCH
39	Filomeno R. dos S. Lay	Coord. GAPPEFIV-FDCH	FDCH