



Ministry for Higher Education,
Science and Culture
(MESCC)

FDCH



Human Capital Development Fund
(FDCH)

RESULTS OF DATA COLLECTION OF EXISTING **HUMAN RESOURCES** AND THE MAIN KEY AREAS OF TRAINING



**DILI
MUNICIPALITY**

LD**RHE**

DATA COLLECTION OF EXISTING
HUMAN RESOURCES

LDRHE** REPORT 2018**

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

Municipality of Dili

Fundo do Desenvolvimento do Capital Humano (FDCH)

(Human Capital Development Fund – HCDF)

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Thank You.

MESSAGE FROM MINISTER



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

Achieving the goals and targets outlined in the National Strategic Development Plan 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 to 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, education and development in the current context of institutions or organizations, societies and individuals. It is in this context that HCDF/*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

professional development, 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 for the prosperity of the nation.

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.

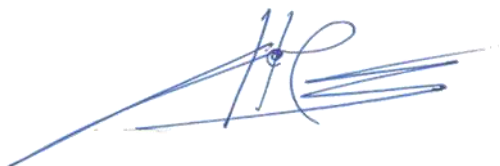
The data presented in the report indicate that some specialized training areas of existing human resources remain limited, such as agriculture, construction, hospitality and tourism, the private sector, technical and vocational education and training (TVET) and adult education, especially for women,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

The integration of these priority areas into a National Human Resource 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.

Longuinhos dos Santos, MM

Minister of Higher Education, Science and Culture (MESCC)

INTRODUCTION 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: official acronym in Portugues language) directed to the Technical Secretariat of Human Capital Development Fund (ST-FDCH: official acronym in Portugues 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 – official acronym in Portugues language) and the National Program for Village Development team (PNDS-official acronym in Portugues 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.

Finally 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 Important of the Subject

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

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

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

The lack of information on policies, plans, information systems and vocational training, availability, composition, distribution, density, sources of funding, labor market forces and many other aspects related to the development of human resources linked to the economic and natural resources available to the municipality are scarce and are often dispersed through many sources.

The integration of these issues into a human resource development strategy for the municipality will ensure the development of appropriate local government (municipal) policy responses, civil society desires, educational institution

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

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

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

Methodology

The methodology is used as follows: **in the first phase**, the data was collected from individuals aged 17 or over by means of a census of the resident population in the Municipality of Dili with the completion of a questionnaire, carried out from September 5 to 5 of November 2016 and **in the second phase**, was done through the "*Focus Group Discussion-FGD*" held on March 23, 2018 to the Municipal Administrators, Administrative Officers, Directors and also with the participation of other entities, in order to assess the accuracy of the information given, but also the pertinence of the programs identified as necessary for the development of the human resources of the municipality.

Summary of Results

The data presented here show that the majority of respondent population in Dili Municipality are young people aged 17-36 years. At the level of knowledge, there are a large number of people with no education level (illiterate), followed by those with complete secondary, pre-secondary and basic education respectively. This dispersion of schooling, together with the rapid growth of the population in

the relevant age groups, shows the essence of the challenge faced by the Dili 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 vocational technical courses, either at the secondary technical school level 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 participated in one of the vocational training courses with skilled labor prepared for self-employment or institutional strengthening.

Those who had already taken part in one of the short-term professional courses in most of them are generic professional courses geared more towards administrative work and the public servant such as courses in leadership, administration, finance, planning, management and languages, which in practical technical terms do not support the creation of their own jobs (self-employment).

It is further aggravated by a large number of job seekers, including those who have completed their degree program in Computer Science, Management, Law, Accounting and Civil Engineering - Civil Construction, and more graduates in other areas (see table 16), without being exploited in the labor market. The work preference of the graduates is in the public sector while the non-graduates have preference 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 26) with the current human resources (Table 9), the data show that Dili Municipality has a high number of graduates in several areas, however it is verified that there are still deficiencies in some specialized areas. In relation to the current human resources, the question is how to take advantage of and employ them. However, it is important to note that there are still serious concerns about quality not only in technical knowledge but also in language skills and this can become a challenge. 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 is

important to unite language training with the additional training at postgraduate level directed at the priority technical areas and professional internship programs.

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

Private sector growth is constrained by skill gaps in the workforce of 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 the adequacy of the qualification of workers and employers, with a view to improving their employability and increasing the productivity and competitiveness of the business. Equipping workers with certain skills will enable them to continue to take advantage of opportunities for growth expansion in a non-agriculture in the private sector. A high school diploma or higher is increasingly an indicator of employment opportunities in the urban private sector.

The municipality 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, programing or software engineering and management (decision making, leadership, delegation, motivation). Thus, it is considered that academic ability and professional technical training should be provided for the most crucial areas in the implementation of its priority program as shown in table 26.

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

It is important to emphasize that skills development can not be seen only as formal technical and vocational education and training. It comprises skills acquired through all levels of education and training, taking place in formal, non-formal and vocational training contexts. It enables individuals in all sectors of the economy to engage fully and productively in livelihoods and to be able to further enhance 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 subsidy received from 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 and disabled people to enable them to acquire the knowledge and skills necessary to obtain 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 elementary education, especially the small business people and medium-sized enterprises and farmers. Education and training for entrepreneurship is also fundamental to encourage creativity and the realization of new local economic initiatives.

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.

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

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

Conclusion and Recommendations

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

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

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

Based on the data analyzed, we reinforce the need to train other areas where there are notable shortages of qualified human resources and areas of greater importance according to the priority programs found in table 26.

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

The graduates and postgraduates with the highest number of job seekers "unemployment", are in the fields of Computer Engineering, Management, Law, Accounting and Civil Engineering - Civil Construction and more in other areas (table 16).

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 of productive age who are looking for work and have inadequate professional qualifications, or very limited practical professional knowledge. It is recommended the need to develop initial and continuing vocational training for people with disabilities and incapacity especially gestural training for those with visual and hearing disabilities, so that they can have more opportunities in the labor market.

- 1) To complete this general conclusion, we highlight five main points: Education and training opportunities remain limited in some of the major areas highlighted by the SDP, such as agriculture, construction and hospitality and tourism. The following areas should be more focused on human capital development:
 - **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 Dili Municipality.

- **The 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 of transport, easy access and allows local farmers to transport their products to the market quickly and effectively.
- **Tourism** in Dili Municipality remains 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 policy planning and capacity planning.

- 2) **Private Sector** - Survey data show that private sector growth is constrained by skill gaps in the workforce of 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 on-the-job training. In our view, these three

areas are of considerable importance for the future. In particular, the increasing role of women, especially in agriculture, and with a higher skill level due to improved training, may contribute to household and national income growth, and to more jobs in general.

- 5) In the preparation of Human Resources for the creation of the municipality (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 demand-driven secondary-vocational education and demand-driven post secondary technical education area-level provision of secondary and post-secondary education.

PART A: INTRODUCTION, OBJETIVES AND METHODOLOGY

1. Introduction, Objectives and Methodology

1.1. General Introduction

Dili Municipality is located along the north coast of the island of Timor, approximately 60 kilometers east of the border with West Timor. Dili is the largest city and capital of East Timor, is the focal point of the municipality, and is the economic and governmental center of the country.

Geographically, the Municipality of Dili is diversified. In addition to its coastal roads and beaches, the municipality extends south into rugged mountainous terrain. The Municipality of Dili extends for about 170 km. Included in the municipality of Dili is the island of Atauro, which is approximately 30 km north of the coast of the city of Dili.



It shares borders to the South with the Municipality of Aileu, the West with the Municipality of Liqueça, the North with the Sea of Savu and the East with Manatuto and has a total area of 368.12 km². Astronomically, Dili Municipality is located and coordinated with the latitudes of 8° 28'51.67 " - 8° 37'35.33 " and east longitude 125° 51'40,30 " - west 125° 29'45,23 ".

The total population of the Municipality of Dili was estimated at 277,297 inhabitants, with 143,677 men and 133,602 women, according to the household census of 42,485 households. The most populated areas of the Municipality of Dili are the Sub District Administration Dom Aleixo, Cristo Rei and Vera Cruz, where the population varies between 30,000 and 40,000 inhabitants. The dominant religion in the territory of the municipality of Dili is the Catholic religion being the languages spoken in several languages, about 84% of the population speak **Tetum**, 4% speak **mambai**, 3% speak **makasae**, 1% speak **resuk**, 1% speak **bunak** and 7% speak other languages.

Sub District Administrations (formerly sub-district), Villages and Sub Villages

The Municipality of Dili is divided into 6 Sub District Administrations, 48 Villages and 243 sub villages (hamlets/ *Aldeia*) scattered throughout the territory according to the table below:

Sub District Administrations	
Post Administrative	Surface (Km ²)
Vera Cruz	32,77
Nain Feto	5,15
Metinaro	91,24
Atauro	140,50
Dom Aleixo	33,12
Cristo Rei	65,33
Total	368,12

Sub District Administrations, Villages and number of Sub Villages

Sub District Administrations	Number of Villages	Number of Sub Villages (hamlets/ <i>Aldeia</i>)
Vera Cruz	7	48
Nain Feto	6	36
Metinaro	2	14
Atauro	5	19
Dom Aleixo	4	71
Cristo Rei	7	51

Climate, Mountains and Rivers

The capital of Dili is surrounded by several mountains, which in the dry season is arid, and in the rainy season grow trees around the mountains. Statistical data for 2015 show that the average annual temperature recorded between 2008-2015 (table below) is between 28 - 30oC.

Year	2008	2009	2010	2011	2012	2013	2014	2015
Average Temperature per Year (° C)	29.3	29.5	29.5	28.9	29.0	29.1	29.0	29.0
Total rainfall per year (mm)	1,024	526	1,716.40	911.8	739.3	244.4	703.3	646.6

The climate in Dili Municipality consists of 2 (two) seasons, namely a long dry season from July to December and a rainy season from November to June. At times, due to climate change, the changes can not be predicted and affect much; lack of water, if the rainfall presents a very great risk of erosion in the capital of Dili.

Economic Potential And Natural Resources For The Development Of The Dili Municipality:

a) Agriculture (Livestock, Fishing, Forest)

Agriculture is a key feature of the way of life of the Dili Municipality. Although technically the urban heart of Timor-Leste, the city of Dili can be described more accurately as semi-urban with some agricultural activities. In the outlying areas of the city and in the rural areas of the municipality, agriculture is the main source of income and subsistence. Although agricultural production varies by area (for example rice in Metinaro, fruit trees in the mountains and vegetable gardens in the city of Dili), it is nevertheless an important area for further development and support. Livestock is also an important feature of agricultural activities in the municipality with buffaloes, pigs and chickens as common household goods.

Most products found in large supermarkets and small retail stores are imported from Australia, Indonesia, Singapore and other neighboring countries such as electronics, home appliances, spare parts, medicines, textiles, foodstuffs, meat products, etc.

Even products that can be produced locally are imported and that competes heavily with local producers. Thus, manufacturing, including food processing, is an

area undergoing rapid expansion. The clothing industry is also a potential area for investment.

Like other modern economies, the construction industry is dominated by non-Timorese. Lack of industry experience coupled with a lack of access to credit and capital makes it extremely difficult for this industry to be developed by locals.

Investment in the construction industry has a high economic return. The industry offers job opportunities and can have a positive effect on small and medium-sized companies that supply building materials, furniture and technical services. Employment is generated through backward and forward connections.

Livestock production in the backyard and at the commercial level is a potential economic enterprise. The development of livestock farming has horizontal and vertical integration with the development of the agricultural industry. The agricultural sector could provide the necessary products for the formulation of feed. On the other hand, the livestock industry could provide breeds of quality working animals.

The island of Atauro and the coastal areas of Cristo Rei and Metinaro are very rich in fish and other marine resources. With the necessary fishing equipment, the volume of fish caught could be increased not only to meet demand in Dili but also in other municipalities.

The potential of agriculture in Dili Municipality presented here to be developed in the future should include four main sub-sectors such as agricultural production, forestry, livestock and fisheries. The objective of each sector is to increase food security and incomes in agriculture, with the aim of increasing farmers' production, reducing poverty and tackling malnutrition.

The priority issues identified are:

Cultivation and Production

Need to develop vegetables in the rural area to increase the supply of local consumption and generate income for the families:

- Lack of access to existing water supply and irrigation systems;
- Improvement and intensification of rice production;
- Integration of rice and agriculture technology;
- Lack of information and education on agricultural extension for communities;
- Lack of vegetable seeds and late distribution affecting planting season;
- Initial support in basic agricultural tools;
- Lack of policies and regulations governing agricultural practices;
- Rural communities do not have access to the market for their products;
- Access roads from the farm to the market / center.

Forest/Forestry

- Uncontrolled cutting of trees for use of firewood;
- Burning and lack of reforestation, creating soil erosion and scarcity in water supply;
- Lack of integrated farming system (agroforestry system);
- Forest protection throughout the area;
- Water shed management.

Livestock – Veterinary

- Lack of support in the vaccination of cattle (bovine, buffaloes, pigs and poultry in all areas);
- Lack of extension workers to work in Sub District Administratives;
- Need to train farmers in the management of diseases of livestock and other animals;
- Need to build slaughter houses;
- Need for cattle breeding and dispersal;
- Need for technical and financial assistance in raising food for livestock and

other animals.

Fishing

Use of the traditional fishing method as the explosive has an adverse effect on the environment:

- Need for support in fishing equipment and tools;
- Need for technical assistance in the cultivation and propagation of seaweed, molluscs, shrimp and others;
- Construction of fish farms for local consumption and income generation;
- Need for processing facilities or landfill (Hera, Atauro);
- Need to secure fish market sites and start building at least 1;
- Need to develop the propagation of marine products such as seaweed, sea cucumber (*holoturia*), mollusc, pearl and shrimp.

In order for the agriculture sector to guarantee food subsistence and increase the income of the local community, the Dili municipality should focus on the development of human resources, provide technical assistance, provide advocacy and create conditions through:

- Improvement of agricultural production (rice and corn), livestock and aquaculture, and the development of agribusiness through an integrated strategy and policy;
- Construction and development of basic infrastructure for agriculture;
- Increase of land area for agriculture;
- Improved job opportunities for farmers and their families;
- Increased skills of human resources, Sub District Administration and community level in the extension of agricultural work;
- Increase in livestock production through dispersal and reproduction (cattle, buffaloes, pigs, poultry) and;
- Increased fish production and aquaculture for both local consumption and generational income.

b) Tourism

The historic city of Dili and the natural conditions of the island of Atauro constitute a great attraction for tourism. The pollution-free environmental values of Atauro, associated with the tranquility of the island, its cultural richness and the historical role of the city of Dili, important historical sites in the struggle for national liberation, are potentialities that begin to be explored development. The environmental resources supporting the development of the sector are white sandy beaches and pleasant weather all year round. There are great potentialities for the practice of nautical sports and marine fauna riches. Conservation International (CI) research on biodiversity in the waters of the island of Atauro has revealed that the island is home to the world's largest fish diversity. The island of Atauro is becoming an increasingly popular tourist destination, given its rich marine life, but few formal studies have been conducted to confirm biodiversity.

In addition, it has a potential area to develop eco-tourism. There are also favorable conditions for the practice of ecotourism, by means of the proper use of the natural resources (natural landscapes, floras and others) as it is in the island of Atauro. Its climate, beaches and coral reefs show that tourism is a potential source of income for the island, as well as the coastal areas of Cristo Rei and Metinaro. The development of weekend and week-day trips will probably be inevitable for Atauro. The establishment of facilities needed to meet the needs of local and foreign visitors would make the island more attractive to visit. Tourism is a sector to be explored in the future. The state of roads and the lack of basic infrastructure and services discourage any kind of initiative in this area. But, the municipality has very interesting places to attract tourists, such as ecotourism, historical sites, etc. Tourism could also be a means to promote the craftsmanship produced in almost the entire region.

The places indicated for promotion of the tourism in the Municipality of Dili are:

- Archive and Museum of Resistance;
- King Christ Statue (*Estátua de Cristo Rei*);
- Cemetery of Santa Cruz

- Timorese Traditional Clothing Market (*Mercado de Tais*);
- *Arte Moris*;
- Akrema Beach – Atauro;
- *Tasi Tolu* (Three Seas Site);
- Cathedral of the Immaculate Conception Church;
- *Dare War* Memorial Museum;
- Xanana Gusmão Reading Room;
- Balide Prison/Jail;
- Garden of Lcidere (*Largo de Lcidere*);
- Lotus Warrior Tomb;
- *Tiris Manumera*.

c) Mineral Resources

The municipality of Dili has important deposits of several natural resources of great economic value to be developed in the future, such as sea water used for the production of salt, stones, sandstone, solar energy and for the production of electricity.

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

- 1) Human capital development (market-oriented training, institution and expansion of vocational education and improvement of health and social protection standards);
- 2) Development of production-based infrastructures (infrastructure investment and planning: industrial parks, EEZs (Special Economic Zone), aquaparkes, thermal power stations, roads, ports, definition of housing areas and State reserves);

- 3) Research, innovation and technological development (creation of specialized Research & Development 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 – for example, 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, which emphasizes the mobilization of 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, crucial factors are the creation of 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 Administrations 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 Dili because of their implications for improving governance and development management.

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

The key to the effective development of human resources should not only identify priority training areas, but also prior knowledge of existing human resources and segmentation of adequate funds for identified HRD needs, ensuring different phases of the strategic development plan for successfully implemented in the future.

The fact that there is ***not yet an existence of Human Resources Census in Dili***, is one of the reasons for this work.

1.2. Objectives

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, particularly 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 allocation of HCDF/FDCH funding for human resources development programs in priority areas in the coming years;
8. Identify strategic occupations and strategic areas for training; and
9. 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, the data were collected from individuals aged 17 years or over through the census of the resident population in the Municipality of Dili with the completion of a questionnaire, conducted between September 5 to November 5, 2016, and the second made through the *Focus Group Discussion (FGD)* held on March 23, 2018. The population census is the only source of information on the life situation of the population in Sub District Administrations and villages. The census produces information essential for the definition of public policies of the state at the level of Sub District Administrations 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 the Municipal Administrator, Administrative Officers, Directors (list of participants in Annex 2), in order to assess the accuracy of the information given, but also the relevance of the programs identified as necessary for the development of the municipality's human resources.

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

PART B: ANALYSIS AND RESULT FOUND

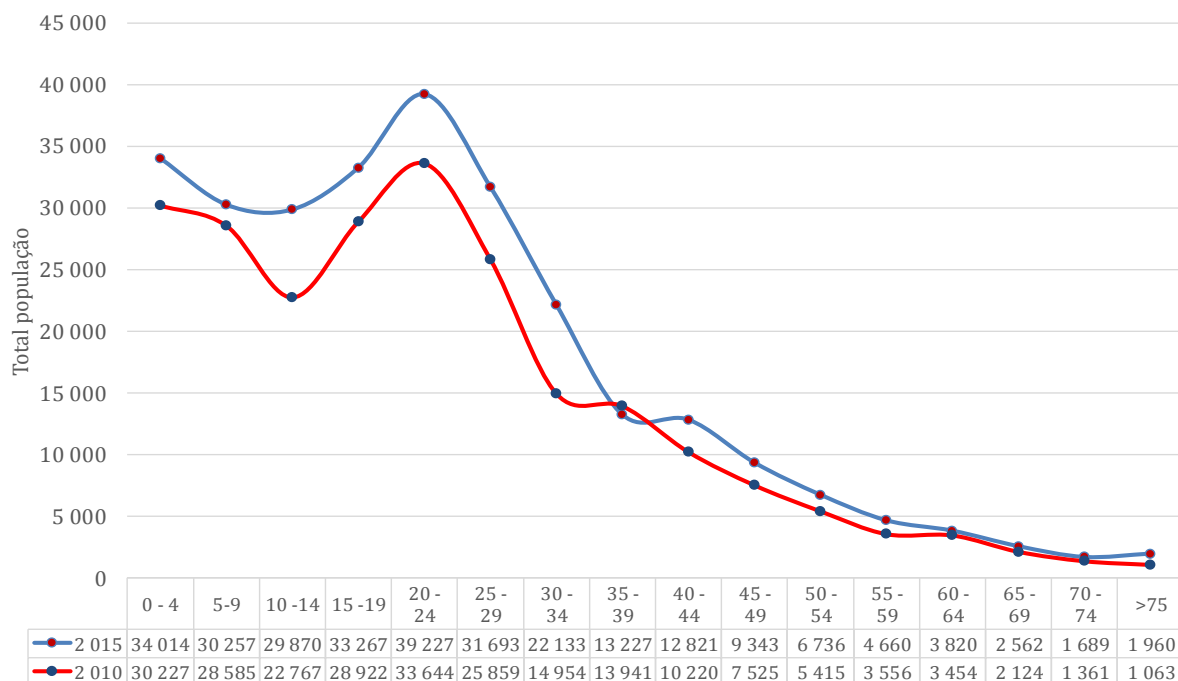
This part of the report intends to analyze the results of the FDCH survey and other relevant data and elaborate its implications for the development of the human resources strategy of the Dili Municipality, continues in four sections. **Section 1** is mainly based on FDCH survey and census statistical data from 2010 and 2015 to analyze the current human capital situation of Dili 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, describing 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. Evaluation of the Human Resources of the Municipality of Dili

2.1. Population Dynamics

The municipality has a very young population, reflecting a high birth rate in the last five years. The 2010 and 2015 census data presented in Figure 1 and the FDCH survey show similar results, although the FDCH survey provides data only for people older than 17 years.

Figure 1. Population by age group of five years, Dili Municipality 2010 - 2015

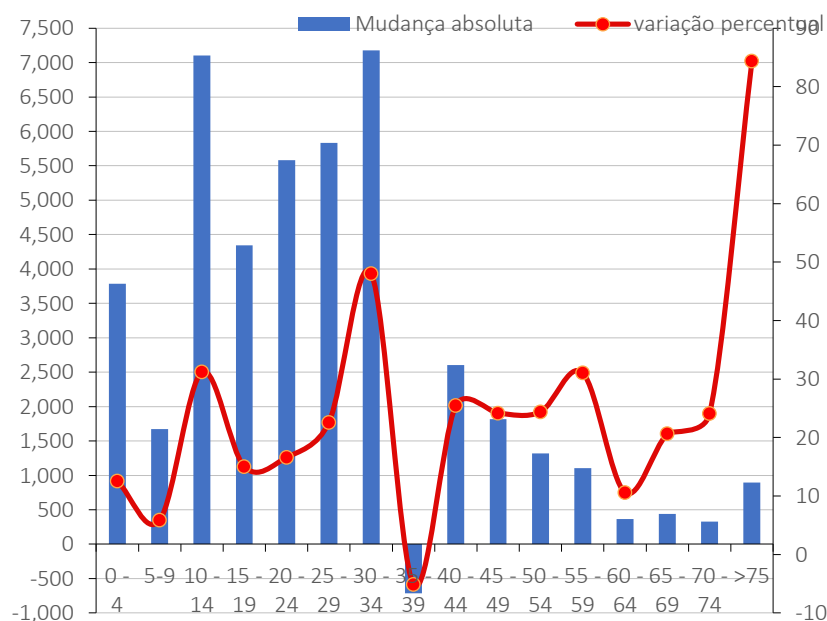


Source: Census of Population and Housing 2010 - 2015.

The age distribution curve has a very steep incline, namely the numbers of the population with the youngest age (20-24 years), are three times more than those in the group of 35 to 39 years.

This means rapid population growth in the 0-34 age group as this group ages. Reflecting a stabilization in birth rates in recent years, there has been a significant increase in the population aged 0-34 years between 2010 and 2015. This suggests that we are observing a stabilization of the population aged 0 - 34 years, but there is a level much higher than previous years. For all age groups of 0-4 years and 30-34 years, there is a strong population increase between the two years of the Census, as well as a larger number in youth cohorts. These increases are shown, in absolute terms and percentage changes, in Figure 2.

Figure 2. Variation of population by five-year age groups, absolute change and percent change, Dili Municipality, 2010 and 2015;



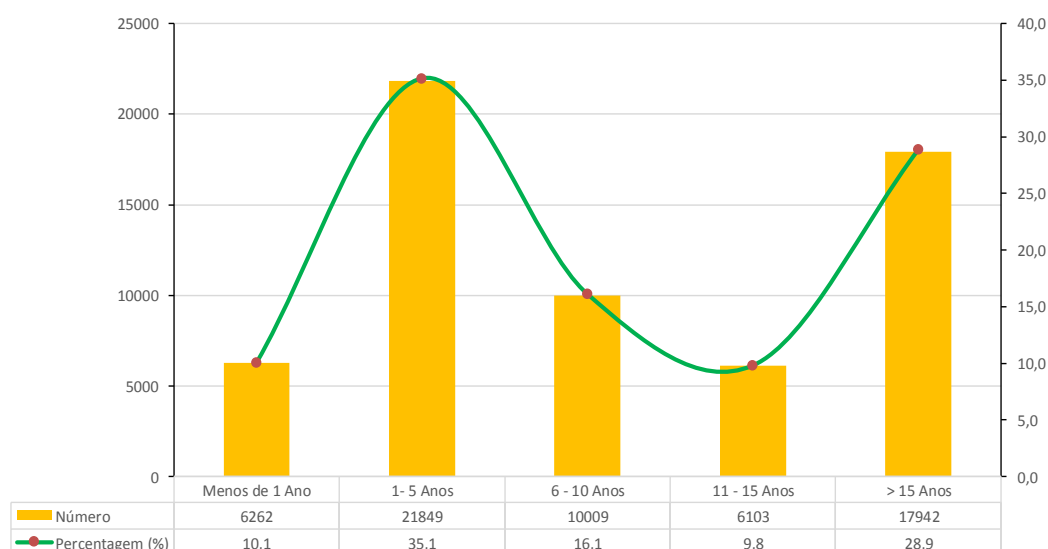
Source: Census of Population and Housing 2010 - 2015.

The increases range between the age groups being the strongest growth in the age groups of 10-14 and 30-34 years. In contrast to the younger age groups, there was an absolute decrease in the population in 2010-2015 in age groups of 35-39 years, reflecting low cohorts from the beginning to the end of the 1940s and the first half in the 1980s. It is noteworthy that, although the numbers are small, the Dili Municipality is beginning to see strong growth in older people - the number of people aged 65 or over.

Thus, the Dili Municipality faces very substantial increases in the number of people entering post-secondary education and training and in the workforce in the coming decades. These are the cohorts that in the last decade have led to a massive increase in school enrollment and will increasingly be looking for training and job opportunities.

The Municipality of Dili is also the capital city, the population over 17 years old coming from other municipalities has increased significantly in the last 15 years corresponding to 71% (Figure 3). This increase is due to the fact that economic activities, education, availability of employment and public administration services are concentrated in the capital of the country.

Figure 3. Populations coming from other municipalities and years of residence.



Source: Result Survey of existing HR data in East Timor - FDCH, 2016

2.2. Employment, unemployment and outside the workforce

In recent years, Dili Municipality has been successful in providing employment for a rapidly growing population of 15 years and over, although this success has varied in different segments of the workforce. Table 1 provides a summary of the key workforce aggregates extracted from the 2010 and 2015 Census. The population over 15 years old grew at 5% per year during this period, the number of people employed grew by 4% and registered unemployment has declined substantially, with the number of economically inactive people rising at a rate of 7% than the population as a whole (For example, the aggregate participation rate has increased).

Table 1. Summary of data on the workforce, Dili Municipality, 2010 and 2015

Total Population		Employee	Unemployed	Economically inactive
People over 15				
2 010	147 529	60 474	12 671	74 384
2 015	181 745	73 752	8 655	99 338
Change (%pa)	5	4	-6	7
Men over 15 Years				
2 010	78 678	42 109	8 688	27 881
2 015	94 182	46 644	5 414	42 124
Change (%pa)	4	2	-6	10
Women over 15 Years				
2 010	68 851	18 365	3 983	46 503
2 015	87 563	27 108	3 241	57 214
Change (%pa)	5	10	-6	5

Source: Population and Housing Census 2015 (East Timor Statistics 2016).

It is particularly noteworthy that the population growth rate for those over 15 years for women was higher than for men, women's employment grew much faster (10% per year) than for men (2.0 % per annum). Unemployment fell by 6% for both groups, so the sharp difference in employment growth was reflected in the corresponding changes in those outside the labor force. Despite rapid population growth, the number of women out of the workforce remained unchanged between 2010 and 2015. Participation rates in economic activities declined for both 20-29 age groups in both sexes. This shows a remarkable entry of young men and women of adolescent age into the workforce over a short period of time without finding employment, the nature of this employment remains a problem. The economically inactive population increased by about 34% and most of the increase was in young people (men and women) under the age of 30. This may reflect the increased involvement in education, but also the rapid population growth in these younger age groups. Substantially disguised unemployment is likely among young people whose inability to find a job that is reflected in the withdrawal of the workforce rather than actively seeking work.

Most of the increase in female employment was in rural areas, where female employees rose substantially more than 100% over the five years. This entry of aged teenage girls in the labor market is an important feature of the development of the Dili Municipality, which needs to be carefully considered in terms of human resources strategy.

2.3. The structure of employment

This section shows information on the employment structure in Dili, detailed in three aspects: occupation, industry and employment sector. Data are only extracted from the Census for 2010 and 2015.

Table 2 shows a summary of employment by occupation and highlights three points in particular. First, in 2015, the Dili Municipality had a high share of employment (25%) in the categories of legislator, senior officials, managers, professionals and technicians, and this group increased by 5% per year over the five year period. Secondly, the vast majority of employment is in the category of service and sales workers in stores and markets, which accounted for 28.5% of total employment in 2015. This fact shows that most shops and businesses are concentrated in Dili, which of course offer more sales service workers in shops and markets.

Third, workers specializing in agriculture and fisheries. Most of these agricultural workers are skilled through learning while doing and not through formal qualifications. By 2015, 12.9% of workers were working in this profession, where employment grew rapidly by 7.8% per year compared to 2010-15. Excluding rapid growth in the armed forces, others not classified and lacking sufficient information, employment in all other occupations fell by almost 1.84% per year. These data show an image of a highly fragmented workforce by occupation, with four major segments. About 28.5% of the job occupies occupations of sales services in stores and markets and grows quite strongly; about 25% of employment occupies occupations, managers and techniques, where it grows very strongly; employment in agriculture and fisheries (around 12.9% of employment in 2015) is increasing sharply, while employment in all other occupations is falling. Thus, out of service in

the stores and sales, the main occupations that show a strong growth are skilled occupations professionals and managers and less skilled occupations of skilled workers in agriculture.

Table 2. Employed population of ten years or more by occupation, 2010 and 2015

Occupation	Total employment 2015	Total employment 2010	Change (%pa)
Total	74 077	60 801	4,4
Legislator Senior Officials and Managers	6 658	4 021	13,1
Professional	6 245	4 848	5,8
Associate Technicians and Professionals	5 571	2 916	18,2
Clerk	7 523	8 201	-1,7
Service and sales workers in stores and markets	21 126	16 029	6,4
Workers specialized in agriculture and fishing	9 614	6 912	7,8
Handicraft and Related Workers	4 263	5 438	-4,3
Machinery Plants and Operators and Assemblers	3 704	3 957	-1,3
Machinery Plants and Operators and Assemblers	4 836	5 766	-3,2
Armed forces	3 847	1 948	19,5
You do not have enough information	4	681	-19,9
Other (not elsewhere classified)	686	84	143,3

Source: Population and Housing Census 2010 and 2015.

The data in Table 3 provide another reading on the structure and growth of employment in the Dili Municipality, which is that of the industry classification. The dominant feature is employment in public administration and defense occupations, which account for 24.5% of employment in 2015, after growth of 10.8% per year. Most employment growth was in male employment, which grew by 11.2% per year, in contrast to the small increase in female employment (10,%) in industry.

Employment growth in the secondary industry was less than 3.6%, as industrial employment declined by 5% per year. Surprisingly, employment in construction also declined to 2.5% per year.

As might be expected, the main growth areas were in the tertiary or service industries, with global growth of 6% per year (3.5% for men and 11% for women). Three main branches stand out; Firstly, wholesale and retail trade, where its definition includes repair of (motorized) vehicles, which provided 11% of employment in 2015 after a fall of 2.8% over 2010-2015, with most of the growth for women (1%). Second, public administration and defense (24.5% of the total in 2015) after a growth of 10.8% compared to 2010-2015. The third is employment with a private domestic job, which is 90% of women and has increased almost 2 times since 2010, with a compounded growth rate of 23.2%.

Table 3. Employee population of 10 years and over by industry, 2010 and 2015

Industry	Total		Change (%) pa)	Male		Change (%pa)	Female		Change (%pa)
	2015	2010		2015	2010		2015	2010	
Total	74,077	60,801	4,4	46,804	42,330	2,1	27,273	18,471	9,5
PRIMARY	9,892	8,874	2,3	6,279	6 074	0,7	3,613	2,800	5,8
Agriculture, Forestry and Fisheries	9 788	8 170	4,0	6 191	5 452	2,7	3 597	2 718	6,5
Mines and quarries	104	704	-17,0	88	622	-17,2	16	82	-16,1
SECONDARY	5 553	6 775	-3,6	4 769	5 858	-3,7	784	917	-2,9
Construction & Real Estate	1 730	2 302	-5,0	1 430	1 717	-3,3	300	585	-9,7

Industry	Total		Change (% pa)	Male		Change (%pa)	Female		Change (%pa)
	2015	2010		2015	2010		2015	2010	
Electricity Gas Steam and air conditioning support	177	125	8,3	161	114	8,2	16	11	9,1
Water supply	0	192	-20,0	0	163	-20,0	0	29	-20,0
Construction	3 646	4 156	-2,5	3 178	3 864	-3,6	468	292	12,1
TERTIARY	58 632	45 152	6,0	35 756	30 398	3,5	22 876	14 754	11,0
Wholesale and retail trade and repair of motor vehicles	8 378	9 765	-2,8	4 483	6 050	-5,2	3 895	3 715	1,0
Accommodation and food service activities	1 218	1 537	-4,2	367	480	-4,7	851	1 057	-3,9
Storage and Communications Transport	3 931	3 849	0,4	3 724	3 638	0,5	207	211	-0,4
Financial Mediation	475	314	10,3	273	180	10,3	202	134	10,1
Real Estate Activities	7	20	-13,0	7	17	-11,8	0	3	-20,0
Professional Services (IT research and other business activities)	2 583	158	307,0	1 934	118	307,8	649	40	304,5
Public Administration and Defense	18 179	11 804	10,8	12 855	8 252	11,2	5 324	3 552	10,0
Education	3 839	2 749	7,9	2 132	1 491	8,6	1 707	1 258	7,1
Health and social services	1 063	1 956	-9,1	507	1 128	-11,0	556	828	-6,6
Membership activities of organizations	8 335	1 381	100,7	5 232	959	89,1	3 103	422	127,1
Culture and sports activities	94	160	-8,3	70	133	-9,5	24	27	-2,2
Other Services (Personal, Domestic and Vehicle)	1 610	3 528	-10,9	668	2 325	-14,3	942	1 203	-4,3
Private house with employed person All other services	2 920	1 351	23,2	1 962	221	157,6	958	1 130	-3,0
Private house with employed person All other services	22	678	-19,4	14	459	-19,4	8	219	-19,3
Not defined	568	99	94,7	383	63	101,6	185	36	82,8

Source: Population and Housing Census 2010 and 2015.

The final dimension is employment by sector. In some respects, the national census data for 2010 and 2015 are difficult to interpret, mainly due to an apparent change in the classification of private companies and farmers between the two years. Data are summarized in Table 4. The 2015 census indicates four main employment sectors: the public sector, private enterprises, self-employed farmers and non-self-employed farmers. Of these, the dominant sector is the government and the state enterprise, which accounted for 39.2% of total employment in 2015. The private enterprise or farm and self-employed farmer was then the largest employer in 2015 with 35% of the total after a drop in growth of 2.3%. Employment in private enterprises remains low, with less than 2.3% of total employment. Finally, the data indicate a strong increase in the number of self-employed outside the agricultural sector, with growth of almost 18% a year to 14.5% of employment by 2015. This category generally covers a wide range of employment situations, innovative companies to desperate attempts to earn a living income.

Table 4. Employed population of ten years or more by employment sector, 2010 and 2015.

	2015	2010	Change (% pa)
Total employees	74 077	60 801	4,4
Government	22 354	18 658	4,0
State-owned company (eg. TVTL, EDTL)	6 713	639	1 90,1
Private company or farm	10 352	19 679	-9,5
Self-employed farmer	15 591	9 676	12,2
Self employed non-agricultural	10 720	5 652	17,9
Non-governmental/non-profit organizations	2 938	3 081	-0,9
Embassies and bilateral institutions	401	871	-10,8
United Nations and specialized international organizations	260	932	-14,4
Others	4 748	1 613	38,9
Government and State Enterprise	29 067	19 297	10,1
Private company / farm and self-employed farmer	25 943	29 355	-2,3
Non-farm self-employed worker	10 720	5 652	17,9
Others	8347	6 497	5,7
Total employees	74 077	60 801	4,4

Source: Population and Housing Census 2010 and 2015.

3. Understanding the human capital of the Dili Municipality

3.1. Presentation and Analysis of data

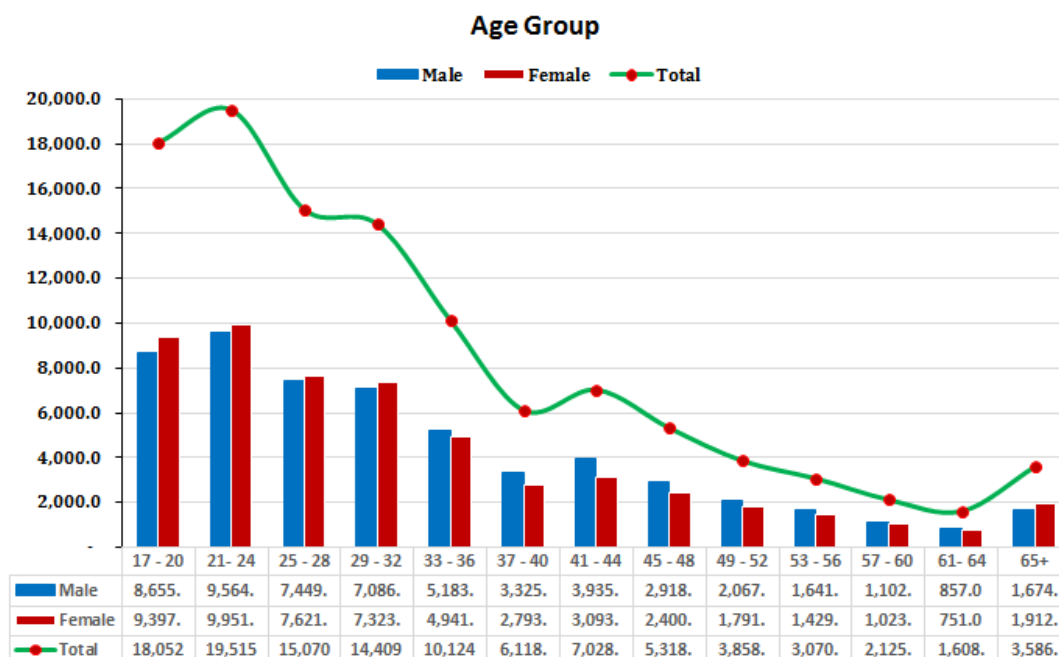
This section briefly reviews data on the level of existing human resources in Dili Municipality and its distribution in Sub District Administrations, as well as providing a basis for human resource strategy decisions. The main source of information presented here is the results of the FDCH survey and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

3.2. 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 109,881 respondents, of which 50.5% are male and 49.5% are female. The other aspects of the profile are arranged in the graphs below. The majority are between 17 and 44 years of age in both sexes, representing 82.2%, followed by the age group from 45 to 64 years old, with 14.5% of those surveyed and 3.3% with more than 65 years. The female sex is the largest number in the age group between 17 - 32 years and the predominance of males is in individuals between 37 and 64 years of age, except in the age over 65 years (Figure 4).

Figure 4. Distribution of respondents by age group and by sex



3.3. People with Disability

Table 5 shows the distribution of the existence of the disabled in the Municipality of Dili. A total of 1,178 disabled respondents were registered corresponding to 1.1% of the total of respondents distributed by 6 Sub District Administrations (table 5):

Table 5. Distribution of existence of people disability by Sub District Administration

Sub District Administrations	Have a Disability?		TOTAL
	YES	NO	
Atauro	96	4,796	4,892
Cristo Rei	246	26,434	26,680
Dom Aleixo	284	43,286	43,570
Metinaro	208	2,478	2,686
Nain Feto	163	12,377	12,540
Vera Cruz	181	19,332	19,513
DILI	1,178	108,703	109,881
Percentage (%)	1,1	98,9	100,0

The highest number of people with disability was registered in the Sub District Administrations of Dom Aleixo, Cristo Rei and Metinaro, but the differences are not significant in relation to the other Sub District Administration (Table 6).

Table 6. Distribution of the people with disability by Sub District Administration

Sub District Administrations	Frequency	Percentage (%)
Atauro	96	8
Cristo Rei	246	21
Dom Aleixo	284	24
Metinaro	208	18
Nain Feto	163	14
Vera Cruz	181	15
Total	1,178	100

Among of the 1,178 People with Disability, the main difficulties related to physical mobility (37.5%) and vision or eyes (33.32%), hearing impairment (14.8%), psychosocial or mental disability (13.2%) and cognitive (1.3%) (Table 7).

Table 7. Distribution of the people with disability by type of disability and by Sub District Administration

Sub District Administrations	Type of disability					Total
	Physics / Mobility	View	Deaf mute	Psychosocial / Mental	Cognitive / intellectual	
Atauro	37	9	28	22	0	96
Cristo Rei	95	64	39	41	6	245
Dom Aleixo	117	95	38	38	4	292
Metinaro	54	120	28	3	3	208
Nain Feto	87	57	12	14	1	171
Vera Cruz	55	49	31	39	2	176
Total DILI	445	394	176	157	16	1,188
Percentage (%)	37,5	33,2	14,8	13,2	1,3	100,0

3.4. Education Level

As for the level of education of illiterate respondents, adult literacy and incomplete basic education occupy 14.9% of all respondents. Basic (primary) and pre-secondary education represent 23.4% and secondary education accounts for 48%. Vocational Education Courses and other levels of education occupy 0.8% and 1.9%, respectively. At the tertiary or higher level, 11% of the respondents have the level of higher education (Table 8).

Of these 12,065 (11%) of respondents, 45.4% have undergraduate degrees followed by Diploma III 9.9%, Master Degree (4.1%) and other academic levels have a percentage of less than 1% (Table 8).

Table 8. Distribution by level of education and by Sub District Administrations

Degree of Education / Level of Education	DILI	Atauro	Cristo Rei	Dom Aleixo	Metinaro	Nain Feto	Vera Cruz
Can not read /write	10,832	1,389	3,390	3,138	703	862	1,350
Do not read / write (did not finish primary School)	5,566	465	1,796	1,704	127	583	891
Sub Total	16,398	1,854	5,186	4,842	830	1,445	2,241
Primary	8,502	852	2,410	2,528	382	888	1,442
Pre-secondary	17,191	713	4,269	7,319	413	1,767	2,710
Secondary	52,746	964	11,633	22,684	802	6,399	10,264
Technical Vocational (high) School	877	19	237	275	26	79	241
Others	821	22	165	258	42	219	115
Sub Total	80,137	2,570	18,714	33,064	1,665	9,352	14,772
1 st . Cycle (1 st . class – 4 th class)	1,069	21	334	312	35	191	176
2 nd . Cycle (1 st Year, 2 nd Year)	102	1	25	47	2	13	14
3 rd . Cycle (3 rd year – Year 9/ 3 rd year up)	110	5	25	47	6	13	14
Sub Total	1,281	27	384	406	43	217	204
Diploma I	137	-	25	49	1	33	29
Diploma II	121	4	2-	55	1	17	24
Diploma III	1,192	23	226	556	10	155	222

Degree of Education / Level of Education	DILI	Atauro	Cristo Rei	Dom Aleixo	Metinaro	Nain Feto	Vera Cruz
Diploma IV	43	-	5	20	-	8	10
Bachelor's Degree (S1)	10,025	67	1,927	4,657	76	14-6	1,892
Master (S2)	493	-	72	307	-	46	68
PhD (S3)	54	-	7	29	-	11	7
Sub Total	12,065	94	2,282	5,673	88	1,676	2,252
Total	109,881	4,545	26,566	43,985	2,626	12,690	19,469

Regarding the distribution of the knowledge of the respondents by study area (study program) and by Sub-District Administration, of the 12,065 who hold the higher degree only 6,513 (54%) answered this question. Details of the data can be seen in table 9, below.

Table 9. Distribution of the level of education of the respondents by study program and by Sub District Administration

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Total	96	66	626	30	5234	415	46	6513	3890	2623
Management	5	-	45	3	7-Apr	62	5	527	298	229
Computer Engineering (Computer)	10	7	63	4	408	14	1	507	354	153
Law	2	1	2	-	411	18	1	435	290	145
Accounting	1	2	23	-	316	11	-	353	168	185
Civil Engineering - Civil Construction	2	6	18	2	295	7	2	332	280	52
Economics / Finance / financial management - Banking economics	-	1	28	-	158	13	1	201	81	120
Medical Doctor - Medical Practice (General Practitioner)	1	-	10	1	178	2	2	194	77	117
Mining Engineering	-	2	1	3	179	7	-	192	123	69
International, bilateral and multilateral relations	-	-	5	-	143	8	-	156	90	66
Human Resource Management	1	3	8	-	119	10	1	142	78	64
Nursing	3	1	66	1	65	5	-	141	62	79
Public administration	1	1	9	1	81	31	-	124	80	44
English language	3	2	9	-	94	5	-	113	46	67
Economy	-	-	5	-	100	6	-	111	50	61
Public health	1	2	17	-	72	16	2	110	55	55
Tourism and Hospitality	7	3	16	2	74	4	1	107	48	59
Mathematics	-	1	10	-	93	2	-	106	62	44
Production of Livestock	-	-	5	-	95	5	-	105	62	43
Electrical Engineering	2	4	8	-	8-	9	1	104	93	11

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Public policy	1	-	-	-	97	2	-	100	79	21
Architecture Engineering	3	-	2	3	88	2	-	98	79	19
Public Law	-	-	2	-	68	12	-	82	61	21
Mechanical Engineering	1	-	10	-	65	5	-	81	59	22
Education Biology	-	-	6	-	63	1	-	70	26	44
Agronomy	-	-	5	-	55	9	-	69	47	22
Agro-business	-	-	1	-	65	2	1	69	32	37
Pharmacy	8	1	20	-	37	2	-	68	25	43
Management	1	2	3	-	54	4	-	64	26	38
Aquaculture	1	-	1	-	57	3	-	62	45	17
Education	2	3	10	-	33	8	2	58	26	32
Mechanical Engineering	-	2	6	1	38	5	1	53	51	2
Development Studies	-	-	1	-	4-	7	3	51	32	19
Communication - Journalism and Publishing	1	-	3	-	42	2	1	49	29	20
Business Administration	-	1	8	-	35	3	-	47	25	22
Governmental Sciences	-	-	2	-	27	13	2	44	36	8
Philosophy	-	1	3	-	34	4	-	42	38	4
Computer Science	1	-	3	-	33	2	-	39	28	11
Teacher Training	-	-	16	-	18	5	-	39	16	23
Geology	-	-	3	-	33	2	-	38	32	6
Mathematics of Teaching	-	-	4	-	34	-	-	38	17	21
Midwife	9	-	12	-	16	-	-	37	3	34

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Political Science	-	1	1	-	26	4	1	33	20	13
Physics of Teaching	-	-	4	-	28	-	-	32	17	15
Portuguese language	1	3	8	-	15	3	1	31	11	20
Government Planning and Policy	-	-	1	-	27	2	1	31	22	9
General / Environmental Biology	1	1	-	-	24	-	1	27	10	17
Clinical Analysis	1	-	5	2	17	2	-	27	9	18
Theology	5	-	4	-	15	3	-	27	17	10
Environmental Engineering	-	2	3	-	14	7	1	27	19	8
Food Technology	1	-	1	1	21	-	-	24	15	9
Chemistry	-	-	2	-	2-	1	-	23	9	14
Teaching Chemistry	-	1	5	-	16	1	-	23	11	12
Forestry Management	-	-	3	-	19	-	-	22	18	4
Education Sociology	-	-	1	-	21	-	-	22	11	11
Economy - Cooperative - Marketing	1	-	4	-	12	2	-	19	13	6
Psychology	-	-	2	-	15	-	-	17	8	9
Applied Linguistics	1	1	1	-	12	1	1	17	10	7
Training of primary and pre-secondary teachers	-	2	5	-	10	-	-	17	5	12
Petroleum	-	-	-	1	14	-	-	15	6	9
Environmental Health	-	-	4	-	10	1	-	15	11	4
Catechism	-	-	5	-	1-	-	-	15	7	8
Pre-primary and primary Education	-	-	8	-	7	-	-	15	4	11
Agricultural Engineering	-	-	1	-	12	1	-	14	10	4

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Sociology	-	-	-	-	12	2	-	14	8	6
Chemical Engineering	-	-	-	-	13	1	-	14	9	5
Fishing Engineering	-	-	1	1	12	-	-	14	13	1
Business Administration	1	-	2	-	9	2	-	14	6	8
Management of Education (School Management)	-	-	-	-	14	-	-	14	8	6
Social work (including Grave-digger)	-	-	7	-	7	-	-	14	6	8
Mineral Engineering	-	-	1	-	10	2	-	13	5	8
Industrial Economics	-	-	-	-	13	-	-	13	10	3
Management of Education (School Management) / Management of Education	2	-	2	-	5	4	-	13	8	5
Moral Theology	1	-	1	-	8	3	-	13	10	3
Pastoral Theology	-	1	2	-	10	-	-	13	5	8
Clinical and animal surgery	-	-	6	-	5	-	-	11	3	8
Gastronomic Science	-	-	-	-	11	-	-	11	7	4
Computer Management	1	-	5	-	5	-	-	11	8	3
Peace Study	-	-	-	-	9	2	-	11	7	4
Pharmacology	-	-	2	1	7	-	-	10	6	4
Geotechnical Engineering	-	-	-	-	6	3	-	9	3	6
Religious Career	-	2	2	-	5	-	-	9	7	2
Dentist	-	-	5	-	3	1	-	9	7	2
Nutrition	-	-	5	-	4	-	-	9	6	3
Marine and Oceanic Engineering	-	-	2	-	6	-	-	8	7	1

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Aerospace Engineering	-	-	-	-	8	-	-	8	8	-
Radia gnóstic, Radiology Medic	-	-	2	-	5	1	-	8	6	2
Special Education	-	-	-	-	7	-	1	8	4	4
Zoology	-	-	-	-	4	3	-	7	5	2
Hydraulic Engineering	-	-	1	-	6	-	-	7	5	2
Forest Resources and Forestry Engineering	1	-	-	-	6	-	-	7	6	1
Statistic	-	-	-	-	6	1	-	7	3	4
Transport Engineering and Telecommunications	-	-	1	1	5	-	-	7	5	2
Physical Education / Sports Education	-	-	-	-	7	-	-	7	4	3
Physiotherapy and Occupational Therapy	3	-	1	-	3	-	-	7	3	4
Engineering of Agricultural Product Processing	1	-	-	-	6	-	-	7	4	3
Physics	-	-	1	-	4	1	-	6	3	3
Pathological Anatomy and Clinical Pathology	-	-	1	-	5	-	-	6	1	5
Agricultural Social Economy	-	-	-	-	5	1	-	6	4	2
Anthropology	-	-	-	-	4	-	2	6	5	1
History and Geography	-	-	-	-	6	-	-	6	3	3
Psycholinguistics	-	-	-	-	6	-	-	6	3	3
Administration of Specific Sectors	-	-	-	-	4	2	-	6	2	4
Urban and regional planning	-	-	-	-	3	3	-	6	5	1
Ore Treatment Engearing	-	-	-	-	5	-	-	5	2	3
Indonesian Language	-	-	1	-	4	-	-	5	1	4
Production Engineering	-	1	-	-	4	-	-	5	5	-

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Technology and Use of Forest Products	-	-	1	-	4	-	-	5	2	3
Conservation of Nature	-	-	1	-	-	4	-	5	3	2
Preventive Veterinary Medicine	-	-	2	-	3	-	-	5	4	1
Information Science	-	-	2	-	3	-	-	5	5	-
History of Education	-	-	-	-	5	-	-	5	3	2
Professional Qualification	-	1	2	-	2	-	-	5	2	3
Environmental Ecology	-	-	-	-	2	2	-	4	4	-
Biochemistry	-	-	-	-	4	-	-	4	1	3
Biophysics	1	-	-	-	3	-	-	4	4	-
Immunology	-	-	1	-	1	2	-	4	4	-
Heavy Resources and Fisheries Engineering	-	-	1	-	3	-	-	4	3	1
Food Science and Technology	-	-	-	-	3	1	-	4	4	-
Animal Reproduction	-	-	-	-	4	-	-	4	3	1
Public Right	-	-	-	-	3	1	-	4	3	1
International Economy	-	-	-	-	3	-	1	4	4	-
Philosophy of Education	-	-	-	-	4	-	-	4	3	1
Public Relations	1	-	-	-	3	-	-	4	1	3
Educational Psychology	-	-	-	-	4	-	-	4	1	3
Educational Politics	-	-	-	-	4	-	-	4	4	-
Library	-	-	2	-	2	-	-	4	-	4
Materials Engineering and Metallurgy	-	-	1	-	2	-	-	3	3	-
Archeology	-	-	-	-	2	-	1	3	2	1

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Sociolinguistics and Dialectology	-	-	-	-	3	-	-	3	1	2
Geodesy	2	-	-	-	1	-	-	3	1	2
Climatology and Geological	-	-	-	-	3	-	-	3	1	2
Pediatric Specialist	-	-	-	-	3	-	-	3	3	-
Legal Medicine and Deontology	-	-	-	-	3	-	-	3	1	2
Maternal and child health	-	-	-	-	1	2	-	3	-	3
Soil Science	-	-	-	-	3	-	-	3	3	-
Phytosanitary	-	3	-	-	-	-	-	3	3	-
Fitotecnia	1	-	-	-	2	-	-	3	1	2
Nutrition and animal feed	-	-	-	-	3	-	-	3	2	1
Inland water resources										
Nutrition and animal feed	-	-	-	-	1	2	-	3	2	1
Inland water resources										
Regional and Urban Economics	-	-	1	-	2	-	-	3	1	2
Music	-	-	2	-	1	-	-	3	3	-
Video arts	-	-	1	-	2	-	-	3	2	1
Artistic Education	-	-	-	-	3	-	-	3	3	-
Skills Education - Fashion, Cosmetics, Cake / Pastry	-	-	-	-	3	-	-	3	3	-
Mechatronics Engineering	-	-	-	-	3	-	-	3	3	-
Genetics	-	-	-	-	2	-	-	2	1	1
Botany	-	-	-	-	2	-	-	2	-	2
Anesthetist	1	-	-	-	1	-	-	2	2	-
Specialist in Orthopedic Surgery	-	-	-	-	2	-	-	2	1	1

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Specialist in Plastic and Restorative Surgery	-	-	-	-	2	-	-	2	1	1
Veterinary Medicine	-	-	2	-	-	-	-	2	2	-
Spanish language	-	-	-	-	2	-	-	2	1	1
Biomedicine	-	-	-	-	-	-	2	2	2	-
Biotechnology	-	-	-	-	2	-	-	2	-	2
Fashion design (model dan design)	1	-	1	-	-	-	-	2	2	-
Internal specialist	-	-	-	-	1	1	-	2	2	-
Forestry	-	-	-	-	2	-	-	2	2	-
Forestry Techniques and Operations	-	-	-	-	2	-	-	2	2	-
Water and Soil Engineering	-	-	-	-	2	-	-	2	1	1
Rural Buildings and the Environment	-	-	2	-	-	-	-	2	2	-
Inspection of products of animal origin	-	-	-	-	2	-	-	2	2	-
Marine fisheries resources	-	-	-	-	2	-	-	2	2	-
Food Engineering	-	-	-	-	2	-	-	2	1	1
Museology	-	-	-	-	2	-	-	2	-	2
Educational Anthropology	-	-	1	-	1	-	-	2	1	1
Systematic Theology	-	-	-	-	2	-	-	2	2	-
Theater	-	-	1	-	1	-	-	2	2	-
Movie theater	-	-	-	-	2	-	-	2	2	-
Cultural Studies	-	-	-	-	2	-	-	2	1	1
Diplomacy	-	-	1	-	-	1	-	2	2	-
Specialist in Cardiovascular Surgery	-	-	1	-	-	-	-	1	1	-

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Specialist in Gastroenterology Surgery	-	-	-	-	1	-	-	1	1	-
Specialized surgery Ophthalmology	-	-	-	-	-	1	-	1	-	1
Specialist in Pediatric Surgery	-	-	1	-	-	-	-	1	-	1
Gender study	-	-	-	-	1	-	-	1	1	-
Hospital Administration	-	-	-	-	1	-	-	1	1	-
Military Career	-	-	-	-	1	-	-	1	1	-
Actuarial Sciences	-	-	-	-	-	-	1	1	1	-
Biological Oceanography	-	-	-	-	-	1	-	1	1	-
Parasitology	-	-	-	-	1	-	-	1	1	-
Plant Biology	-	-	-	-	1	-	-	1	-	1
Biomedical Engineering	-	-	1	-	-	-	-	1	-	1
Optometry	-	-	1	-	-	-	-	1	-	1
Floriculture, Parks and Gardens and Arborization of Public Roads	-	-	-	-	1	-	-	1	1	-
Fodder and forage crops	-	-	-	-	1	-	-	1	1	-
Animal Pathology	-	-	-	-	-	1	-	1	-	1
Architecture and urbanism	-	-	-	-	1	-	-	1	1	-
Demography	-	-	-	-	1	-	-	1	-	1
Visual Arts	-	-	-	-	1	-	-	1	1	-
Photographer	-	-	1	-	-	-	-	1	1	-
Educational Planning and Evaluation	-	-	-	-	1	-	-	1	-	1
Educational technology	-	-	-	-	-	-	1	1	1	-

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Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Others	1	1	8	2	33	8	4	57	36	21
Atauro										
Total	-	2	12	-	27	-	-	41	35	6
Education Sociology	-	-	-	-	5	-	-	5	3	2
Education	-	-	3	-	1	-	-	4	4	-
Mining Engineering	-	-	-	-	3	-	-	3	3	-
Veterinary Medicine	-	-	2	-	-	-	-	2	2	-
Accounting	-	-	-	-	2	-	-	2	2	-
Management	-	-	-	-	2	-	-	2	2	-
Human Resource Management	-	-	-	-	2	-	-	2	2	-
Management of Education (School Management)	-	-	-	-	2	-	-	2	2	-
Special Education	-	-	-	-	2	-	-	2	2	-
Education (education) Pre-primary and primary	-	-	2	-	-	-	-	2	2	-
Agronomy	-	-	-	-	1	-	-	1	1	-
Law	-	-	-	-	1	-	-	1	1	-
Management	-	1	-	-	-	-	-	1	1	-
English Language	-	-	1	-	-	-	-	1	-	1
Religious Career	-	1	-	-	-	-	-	1	1	-
Petrology	-	-	-	-	1	-	-	1	1	-
Religious career	-	-	-	-	-	-	-	-	-	-
Petrology	-	-	-	-	-	-	-	-	-	-
Computer Science and Technology (Computer)	-	-	1	-	-	-	-	1	1	-
Nursing	-	-	1	-	-	-	-	1	1	-

FUNDO DE DESENVOLVIMENTO DO CAPITAL HUMANO (FDCH)

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Pharmacy	-	-	1	-	-	-	-	1	-	1
Agro-business	-	-	-	-	1	-	-	1	1	-
Technology and Use of Forest Products	-	-	-	-	1	-	-	1	-	1
Public Administration	-	-	-	-	1	-	-	1	1	-
Management of Education (School Management) / Management of Education	-	-	-	-	1	-	-	1	1	-
Peace study	-	-	-	-	1	-	-	1	-	1
Teacher Training	-	-	1	-	-	-	-	1	1	-
Cristo Rei										
Total	15	13	1-Jan	2	1035	55	6	1227	746	481
Computer Science and Technology (Computer)	2	-	12	2	75	3	-	94	67	27
Management	-	-	5	-	62	3	1	71	45	26
Law	-	-	-	-	66	3	-	69	53	16
Accounting	-	-	3	-	59	4	-	66	34	32
Medical	-	-	3	-	61	1	-	65	28	37
Civil Engineering - Civil Construction	-	2	-	-	61	-	-	63	5-	13
Economics of Finance / Financial Management - Banking Economics	-	1	11	-	46	1	-	59	20	39
Mining Engineering	-	-	-	-	38	1	-	39	21	18
International, bilateral and multilateral relations	-	-	1	-	31	1	-	33	21	12
Electrical Engineering	1	-	1	-	25	4	-	31	26	5
Public Policy	-	-	-	-	28	-	-	28	19	9
Nursing	-	1	11	-	13	1	-	26	9	17

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Economy	-	-	-	-	24	1	-	25	13	12
Public Health	-	1	3	-	19	1	-	24	10	14
Biology of Education	-	-	2	-	22	-	-	24	9	15
Production of Livestock	-	-	3	-	16	-	-	19	13	6
Engineering Architecture	-	-	-	-	18	-	-	18	13	5
Mathematics of Teaching	-	-	3	-	15	-	-	18	8	10
Public Administration	-	-	1	-	10	5	-	16	14	2
Tourism and Hospitality	2	-	3	-	11	-	-	16	6	10
Mechanical Engineer										
Tourism and Hospitality	-	-	3	-	12	-	-	15	9	6
Mechanical Engineer										
Mathematics	-	-	3	-	12	-	-	15	9	6
Human Resources management	-	-	-	-	15	-	-	15	7	8
Management	1	-	1	-	12	-	-	14	7	7
Development Study	-	-	-	-	12	1	1	14	7	7
Education	1	-	2	-	8	1	1	13	7	6
English Language	-	-	-	-	12	1	-	13	6	7
Public Law	-	-	-	-	8	5	-	13	11	2
Mechanical Engineering	-	-	1	-	11	-	-	12	12	-
Agro-business	-	-	-	-	12	-	-	12	8	4
Business Administration	-	1	2	-	8	-	-	11	6	5
Physics of Teaching	-	-	2	-	8	-	-	10	7	3
Agronomy	-	-	-	-	8	1	-	9	8	1

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Philosophy	-	-	-	-	8	1	-	9	9	-
Pharmacy	1	-	2	-	6	-	-	9	3	6
Education Sociology	-	-	1	-	8	-	-	9	4	5
Teacher Training	-	-	5	-	4	-	-	9	4	5
Computer science	-	-	-	-	8	-	-	8	6	2
Geology	-	-	-	-	8	-	-	8	7	1
Teaching Chemistry	-	1	1	-	6	-	-	8	4	4
Clinical Analysis	-	-	1	-	5	1	-	7	3	4
Midwife	1	-	4	-	2	-	-	7	-	7
Aquaculture	-	-	-	-	6	1	-	7	6	1
Aquaculture	1	-	1	-	4	-	-	6	4	2
Environmental Engineering	-	2	-	-	3	-	1	6	5	1
Communication - Journalism and Publishing	-	-	-	-	6	-	-	6	5	1
Governmental Sciences	-	-	-	-	5	1	-	6	6	-
Psychology	-	-	-	-	5	-	-	5	2	3
Physiotherapy and Occupational Therapy	2	-	1	-	2	-	-	5	2	3
Gastronomic Science	-	-	-	-	5	-	-	5	4	1
Training of primary and pre-secondary teachers	-	-	1	-	4	-	-	5	3	2
Zoology	-	-	-	-	2	2	-	4	4	-
Chemical engineer	-	-	-	-	3	1	-	4	3	1
Forestry management	-	-	1	-	3	-	-	4	4	-
Fishing Engineering	-	-	-	-	4	-	-	4	4	-

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Government Planning and Policy	-	-	-	-	4	-	-	4	2	2
General / environmental biology	1	-	-	-	2	-	-	3	2	1
Sociology	-	-	-	-	3	-	-	3	1	2
Portuguese language	-	1	-	-	2	-	-	3	1	2
Mineralogy	-	-	1	-	-	2	-	3	-	3
Petrology	-	-	-	-	3	-	-	3	1	2
Production Engineering	-	1	-	-	2	-	-	3	3	-
Industrial Economics	-	-	-	-	3	-	-	3	2	1
Social work (including Gravedigger)	-	-	2	-	1	-	-	3	2	1
Management of Education (School Management) / Management of Education	-	-	-	-	2	1	-	3	3	-
Moral Theology	-	-	-	-	1	2	-	3	3	-
Pastoral theology	-	1	-	-	2	-	-	3	2	1
Physics	-	-	-	-	2	-	-	2	-	2
Botany	-	-	-	-	2	-	-	2	-	2
Biochemistry	-	-	-	-	2	-	-	2	-	2
Geotechnical Engineering	-	-	-	-	2	-	-	2	-	2
Forest Resources and Forestry Engineering	1	-	-	-	1	-	-	2	2	-
Political Science	-	-	-	-	2	-	-	2	1	1
Theology	-	-	-	-	2	-	-	2	1	1
Radia gnóstic, Radiology Medic	-	-	-	-	2	-	-	2	2	-
Environmental health	-	-	-	-	2	-	-	2	2	-

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Animal Reproduction	-	-	-	-	2	-	-	2	2	-
Food Technology	-	-	-	-	2	-	-	2	1	1
Public Law	-	-	-	-	1	1	-	2	1	1
Business Administration	-	-	-	-	2	-	-	2	1	1
Urban and regional planning	-	-	-	-	2	-	-	2	2	-
History of Education	-	-	-	-	2	-	-	2	2	-
Catechism	-	-	-	-	2	-	-	2	1	1
Public relations	-	-	-	-	2	-	-	2	-	2
Chemistry	-	-	-	-	1	-	-	1	1	-
Environmental Ecology	-	-	-	-	-	1	-	1	1	-
Hydraulic Engineering	-	-	-	-	1	-	-	1	1	-
Materials Engineering and Metallurgy	-	-	-	-	1	-	-	1	1	-
Pathological Anatomy and Clinical Pathology	-	-	-	-	1	-	-	1	-	1
Anesthetist	1	-	-	-	-	-	-	1	1	-
Specialized surgery Ophthalmology	-	-	-	-	-	1	-	1	-	1
Specialist in Plastic and Restorative Surgery	-	-	-	-	1	-	-	1	-	1
Agricultural social economy	-	-	-	-	1	-	-	1	1	-
Heavy Resources and Fisheries Engineering	-	-	-	-	1	-	-	1	-	1
Anthropology	-	-	-	-	-	-	1	1	1	-
Archeology	-	-	-	-	1	-	-	1	1	-
Psycholinguistics	-	-	-	-	1	-	-	1	1	-
Religious career	-	-	-	-	1	-	-	1	1	-

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Statistic	-	-	-	-	1	-	-	1	-	1
Biological Oceanography	-	-	-	-	-	1	-	1	1	-
Marine and oceanic Engineering	-	-	-	-	1	-	-	1	1	-
Aerospace Engineering	-	-	-	-	1	-	-	1	1	-
Dentist	-	-	1	-	-	-	-	1	1	-
Nutrition	-	-	-	-	1	-	-	1	1	-
Soil Science	-	-	-	-	1	-	-	1	1	-
Conservation of Nature	-	-	-	-	-	1	-	1	1	-
Water and Soil Engineering	-	-	-	-	1	-	-	1	1	-
Engineering of agricultural product processing	-	-	-	-	1	-	-	1	1	-
Clinical and animal surgery	-	-	-	-	1	-	-	1	-	1
Medicina Veterinária Preventiva	-	-	-	-	1	-	-	1	-	1
Inspection of products of animal origin	-	-	-	-	1	-	-	1	1	-
Administration of Specific Sectors	-	-	-	-	1	-	-	1	-	1
International economy	-	-	-	-	-	-	1	1	1	-
Architecture and urbanism	-	-	-	-	1	-	-	1	1	-
information Science	-	-	-	-	1	-	-	1	1	-
Economy - Cooperativa - Mercado	-	-	-	-	1	-	-	1	-	1
Computer Management	-	-	-	-	1	-	-	1	-	1
Peace study	-	-	-	-	1	-	-	1	-	1
Systematic Theology	-	-	-	-	1	-	-	1	1	-
theater	-	-	1	-	-	-	-	1	1	-

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Artistic education	-	-	-	-	1	-	-	1	1	-
Skills Education - Fashion, Cosmetics, Cake / Pastry	-	-	-	-	1	-	-	1	1	-
Educational Planning and Evaluation	-	-	-	-	1	-	-	1	-	1
Professional qualification	-	1	-	-	-	-	-	1	1	-
Library	-	-	-	-	1	-	-	1	-	1
Others	-	-	2	-	2	-	-	4	3	1
Dom Aleixo										
Total	38	30	306	15	2379	269	26	3063	1833	1230
Management	3	-	19	3	172	49	3	249	139	110
Law	2	-	-	-	5-Feb	15	1	223	15-	73
Computer Engineering Technology (Computer)	2	5	31	-	173	6	-	217	151	66
Accounting	-	1	12	-	164	6	-	183	87	96
Civil Engineering - Civil Construction	-	2	11	2	146	7	2	17-	15-	2-
Mining engineering	-	1	1	-	9-	3	-	95	59	36
Economics of Finance / Financial Management - Banking Economics	-	-	8	-	63	1-	-	81	36	45
Medicine - Medical Practice (General Practice)	1	-	4	-	72	1	2	8-	28	52
Human resource Management	1	1	7	-	62	8	1	8-	45	35
Nursing	2	-	38	1	28	4	-	73	37	36
Production of Livestock	-	-	2	-	59	5	-	66	37	29
Public administration	-	1	7	1	36	2-	-	65	39	26
International, bilateral and multilateral relations	-	-	2	-	52	3	-	57	29	28

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Mathematics	-	-	3	-	51	-	-	54	31	23
English language	-	1	5	-	38	1	-	45	21	24
Agronomy	-	-	4	-	32	8	-	44	29	15
Public health	-	-	1-	-	27	7	-	44	23	21
Mechanical Engineer	-	-	6	-	34	3	-	43	32	11
Agro-business	-	-	1	-	4-	1	1	43	18	25
Aquaculture	-	-	1	-	39	2	-	42	28	14
economy	-	-	1	-	35	5	-	41	19	22
Tourism and Hospitality	2	2	7	1	24	4	1	41	21	2-
Public policy	1	-	-	-	37	1	-	39	31	8
Electrical engineering	-	3	3	-	28	4	-	38	34	4
Architecture Engineering	1	-	-	1	33	2	-	37	28	9
Public right	-	-	1	-	32	3	-	36	28	8
Pharmacy	5	1	9	-	16	2	-	33	1-	23
Biology of Education	-	-	2	-	26	1	-	29	11	18
mechanical Engineering	-	1	5	-	16	5	1	28	26	2
Governmental sciences	-	-	2	-	15	8	2	27	2-	7
Philosophy	-	1	2	-	22	1	-	26	23	3
Development Studies	-	-	1	-	17	5	1	24	15	9
Midwife	5	-	6	-	12	-	-	23	3	2-
Business Administration	-	-	4	-	16	3	-	23	13	1-
Management	-	1	-	-	19	1	-	21	11	1-

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Education	-	3	3	-	11	4	-	21	1-	11
Government Planning and Policy	-	-	-	-	17	2	1	2-	14	6
Communication - Journalism and Publishing	1	-	1	-	16	1	1	2-	1-	1-
Geology	-	-	3	-	13	1	-	17	13	4
Food Technology	1	-	1	1	14	-	-	17	12	5
Environmental Engineering	-	-	2	-	7	7	-	16	11	5
Mathematics of Teaching	-	-	-	-	15	-	-	15	5	1-
Teacher training	-	-	5	-	5	5	-	15	5	1-
Chemistry	-	-	1	-	12	-	-	13	6	7
General / environmental biology	-	1	-	-	11	-	-	12	3	9
political science	-	-	-	-	8	4	-	12	7	5
Theology	-	-	3	-	7	2	-	12	8	4
Physics of Teaching	-	-	-	-	12	-	-	12	6	6
Computer science	-	-	3	-	6	2	-	11	8	3
Forestry management	-	-	-	-	11	-	-	11	9	2
Portuguese language	-	-	4	-	3	3	-	1-	2	8
Economy - Cooperativa - Mercado	-	-	1	-	7	2	-	1-	8	2
Catechism	-	-	3	-	7	-	-	1-	4	6
Training of primary and pre-secondary teachers	-	2	3	-	5	-	-	1-	2	8
Environmental health	-	-	3	-	5	1	-	9	6	3
Teaching chemistry	-	-	1	-	7	1	-	9	4	5
Management of Education (School Management)	2	-	2	-	2	3	-	9	4	5

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
/ Management of Education										
Dentist	-	-	4	-	3	1	-	8	6	2
Business Administration	-	-	1	-	6	1	-	8	3	5
Management of education (School Management)	-	-	-	-	8	-	-	8	3	5
Pharmacology	-	-	2	1	4	-	-	7	4	3
Sociology	-	-	-	-	6	1	-	7	5	2
Fishing engineering	-	-	1	1	5	-	-	7	6	1
Peace study	-	-	-	-	5	2	-	7	5	2
Moral Theology	1	-	1	-	4	1	-	7	5	2
Clinical Analysis	1	-	2	1	2	-	-	6	2	4
Agricultural engineering	-	-	-	-	6	-	-	6	4	2
Applied Linguistics	-	1	-	-	4	-	1	6	3	3
Chemical engineer	-	-	-	-	6	-	-	6	3	3
Clinical and animal surgery	-	-	5	-	1	-	-	6	2	4
Social work (including Gravedigger)	-	-	3	-	3	-	-	6	2	4
Education Sociology	-	-	-	-	6	-	-	6	3	3
Psychology	-	-	-	-	5	-	-	5	3	2
Statistic	-	-	-	-	4	1	-	5	3	2
Radia gnóstica, Radiologia Medica	-	-	2	-	2	1	-	5	3	2
gastronomic science	-	-	-	-	5	-	-	5	3	2
Industrial economics	-	-	-	-	5	-	-	5	4	1
Pastoral theology	-	-	1	-	4	-	-	5	2	3

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
special education	-	-	-	-	4	-	1	5	2	3
Education (education) Pre-primary and primary	-	-	1	-	4	-	-	5	2	3
Immunology	-	-	1	-	1	2	-	4	4	-
Hydraulic Engineering	-	-	1	-	3	-	-	4	2	2
Ore Treatment	-	-	-	-	4	-	-	4	2	2
Forest Resources and Forestry Engineering	-	-	-	-	4	-	-	4	3	1
History and geography	-	-	-	-	4	-	-	4	3	1
Religious career	-	1	1	-	2	-	-	4	3	1
Aerospace Engineering	-	-	-	-	4	-	-	4	4	-
Administration of Specific Sectors	-	-	-	-	3	1	-	4	1	3
information Science	-	-	2	-	2	-	-	4	4	-
Computer Management	1	-	2	-	1	-	-	4	2	2
Physics	-	-	1	-	2	-	-	3	2	1
Geotechnical Engineering	-	-	-	-	3	-	-	3	1	2
Agricultural social economy	-	-	-	-	2	1	-	3	3	-
Heavy Resources and Fisheries Engineering	-	-	1	-	2	-	-	3	3	-
Food Science and Technology	-	-	-	-	2	1	-	3	3	-
Mineralogy	-	-	-	-	3	-	-	3	-	3
Petrology	-	-	-	-	3	-	-	3	1	2
Transport Engineering and Telecommunications	-	-	-	1	2	-	-	3	3	-
Marine and oceanic engineering	-	-	2	-	1	-	-	3	2	1
Legal Medicine and Deontology	-	-	-	-	3	-	-	3	1	2

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Nutrition	-	-	1	-	2	-	-	3	2	1
Technology and Use of Forest Products	-	-	1	-	2	-	-	3	2	1
Conservation of Nature	-	-	-	-	-	3	-	3	2	1
Engineering of agricultural product processing	1	-	-	-	2	-	-	3	2	1
Preventive Veterinary Medicine	-	-	1	-	2	-	-	3	3	-
Inland water resources	-	-	-	-	1	2	-	3	2	1
International economy	-	-	-	-	3	-	-	3	3	-
Regional and Urban Economics	-	-	1	-	2	-	-	3	1	2
Philosophy of Education	-	-	-	-	3	-	-	3	2	1
Educational Psychology	-	-	-	-	3	-	-	3	1	2
Biochemistry	-	-	-	-	2	-	-	2	1	1
Pathological Anatomy and Clinical Pathology	-	-	-	-	2	-	-	2	1	1
Anthropology	-	-	-	-	1	-	1	2	1	1
Archeology	-	-	-	-	1	-	1	2	1	1
Sociolinguistics and Dialectology	-	-	-	-	2	-	-	2	1	1
Indonesian language	-	-	-	-	2	-	-	2	-	2
biomedicine	-	-	-	-	-	-	2	2	2	-
Climatology and Geological	-	-	-	-	2	-	-	2	-	2
production engineering	-	-	-	-	2	-	-	2	2	-
Physical Education / Sports Education	-	-	-	-	2	-	-	2	2	-
Physiotherapy and Occupational Therapy	1	-	-	-	1	-	-	2	1	1
Maternal and child health	-	-	-	-	1	1	-	2	-	2

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Rural Buildings and the Environment	-	-	2	-	-	-	-	2	2	-
Nutrition and animal feed	-	-	-	-	2	-	-	2	1	1
Public right	-	-	-	-	2	-	-	2	2	-
Museology	-	-	-	-	2	-	-	2	-	2
History of Education	-	-	-	-	2	-	-	2	-	2
Educational Anthropology	-	-	1	-	1	-	-	2	1	1
Video arts	-	-	-	-	2	-	-	2	1	1
Artistic education	-	-	-	-	2	-	-	2	2	-
Skills Education - Fashion, Cosmetics, Cake / Pastry	-	-	-	-	2	-	-	2	2	-
Diplomacy	-	-	1	-	-	1	-	2	2	-
Public relations	1	-	-	-	1	-	-	2	1	1
Library	-	-	1	-	1	-	-	2	-	2
Genetics	-	-	-	-	1	-	-	1	-	1
Zoology	-	-	-	-	1	-	-	1	-	1
Environmental ecology	-	-	-	-	-	1	-	1	1	-
Biophysics	-	-	-	-	1	-	-	1	1	-
Materials Engineering and Metallurgy	-	-	1	-	-	-	-	1	1	-
Anesthetist	-	-	-	-	1	-	-	1	1	-
Specialist in Cardiovascular Surgery	-	-	1	-	-	-	-	1	1	-
Specialist in Orthopedic Surgery	-	-	-	-	1	-	-	1	1	-
Specialist in Pediatric Surgery	-	-	1	-	-	-	-	1	-	1

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Specialist in Plastic and Restorative Surgery	-	-	-	-	1	-	-	1	1	-
Gender study	-	-	-	-	1	-	-	1	1	-
Psycholinguistics	-	-	-	-	1	-	-	1	-	1
Spanish language	-	-	-	-	1	-	-	1	1	-
Hospital administration	-	-	-	-	1	-	-	1	1	-
Military career	-	-	-	-	1	-	-	1	1	-
Biotechnology	-	-	-	-	1	-	-	1	-	1
Actuarial Sciences	-	-	-	-	-	-	1	1	1	-
Fashion design (model & design)	1	-	-	-	-	-	-	1	1	-
Geodesy	1	-	-	-	-	-	-	1	1	-
Parasitology	-	-	-	-	1	-	-	1	1	-
Biomedical engineering	-	-	1	-	-	-	-	1	-	1
Internal specialist	-	-	-	-	-	1	-	1	1	-
Optometry	-	-	1	-	-	-	-	1	-	1
Fitotecnia	1	-	-	-	-	-	-	1	-	1
Floriculture, Parks and Gardens and Arborization of Public Roads	-	-	-	-	1	-	-	1	1	-
Forestry	-	-	-	-	1	-	-	1	1	-
Forestry Techniques and Operations	-	-	-	-	1	-	-	1	1	-
Water and Soil Engineering	-	-	-	-	1	-	-	1	-	1
Fodder and forage crops	-	-	-	-	1	-	-	1	1	-
Animal Pathology	-	-	-	-	-	1	-	1	-	1

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Animal Reproduction	-	-	-	-	1	-	-	1	-	1
Inspection of products of animal origin	-	-	-	-	1	-	-	1	1	-
Marine fisheries resources	-	-	-	-	1	-	-	1	1	-
Urban and regional planning	-	-	-	-	-	1	-	1	1	-
Music	-	-	-	-	1	-	-	1	1	-
Movie theater	-	-	-	-	1	-	-	1	1	-
Mechatronics Engineering	-	-	-	-	1	-	-	1	1	-
Educational politics	-	-	-	-	1	-	-	1	1	-
Others	-	1	4	1	14	3	2	25	16	9
Metinaro										
Total	-	-	7	-	47	-	-	54	37	17
Mathematics	-	-	-	-	7	-	-	7	3	4
Civil Engineering - Civil Construction	-	-	-	-	6	-	-	6	6	-
Management	-	-	1	-	4	-	-	5	3	2
Law	-	-	-	-	4	-	-	4	4	-
Management	-	-	-	-	3	-	-	3	-	3
Architecture Engineering	-	-	-	-	2	-	-	2	2	-
Mining engineering	-	-	-	-	2	-	-	2	2	-
Electrical engineering	-	-	-	-	2	-	-	2	2	-
Theology	-	-	1	-	1	-	-	2	1	1
Pharmacy	-	-	-	-	2	-	-	2	-	2
Public health	-	-	-	-	2	-	-	2	2	-

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Professional qualification	-	-	2	-	-	-	-	2	-	2
mechanical Engineering	-	-	-	-	1	-	-	1	1	-
Psychology	-	-	1	-	-	-	-	1	-	1
Education	-	-	-	-	1	-	-	1	1	-
English language	-	-	-	-	1	-	-	1	1	-
Religious career	-	-	1	-	-	-	-	1	1	-
Medicine - Medical Practice (General Practice)	-	-	-	-	1	-	-	1	1	-
Production of Livestock	-	-	-	-	1	-	-	1	1	-
Preventive Veterinary Medicine	-	-	1	-	-	-	-	1	1	-
Business Administration	-	-	-	-	1	-	-	1	-	1
Public administration	-	-	-	-	1	-	-	1	-	1
Accounting	-	-	-	-	1	-	-	1	1	-
Economics of Finance / Financial Management - Banking Economics	-	-	-	-	1	-	-	1	1	-
Philosophy of Education	-	-	-	-	1	-	-	1	1	-
Public policy	-	-	-	-	1	-	-	1	1	-
International, bilateral and multilateral relations	-	-	-	-	1	-	-	1	1	-
Nain Feto										
Total	28	6	92	6	825	34	9	1---	567	433
Management	2	-	11	-	81	4	-	98	53	45
Computer Technology Engineering	2	-	11	2	65	2	1	83	59	24
Law	-	-	2	-	6-	-	-	62	31	31

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Civil Engineering - Civil Construction	2	1	3	-	52	-	-	58	48	1-
Accounting	1	-	5	-	42	-	-	48	2-	28
International, bilateral and multilateral relations	-	-	2	-	35	2	-	39	24	15
Economy	-	-	4	-	3-	-	-	34	14	2-
Tourism and Hospitality	3	1	4	1	21	-	-	3-	13	17
Medicine - Medical Practice (General Practice)	-	-	1	-	26	-	-	27	8	19
Economics of Finance / Financial Management - Banking Economics	-	-	2	-	21	1	1	25	1-	15
Human resource Management	-	2	1	-	21	-	-	24	12	12
Engineering Architecture	2	-	-	2	17	-	-	21	18	3
Public Law	-	-	-	-	18	3	-	21	14	7
Oil Engineering	-	-	-	-	2-	-	-	2-	12	8
English language	2	-	2	-	13	-	-	17	5	12
Public administration	-	-	-	-	17	-	-	17	1-	7
Computer science	1	-	-	-	15	-	-	16	1-	6
Mathematics	-	-	1	-	13	-	-	14	1-	4
Nursing	1	-	4	-	9	-	-	14	5	9
Public health	1	1	2	-	8	2	-	14	5	9
Electrical engineering	-	-	1	-	1-	1	1	13	13	-
Public policy	-	-	-	-	13	-	-	13	1-	3
Management	-	-	1	-	8	3	-	12	4	8
political science	-	1	1	-	7	-	1	1-	7	3

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Mechanical Engineer	-	-	1	-	7	2	-	1-	7	3
Pharmacy	2	-	3	-	5	-	-	1-	3	7
Agro-business	-	-	-	-	9	-	-	9	3	6
Development Studies	-	-	-	-	8	-	1	9	7	2
Biology of Education	-	-	1	-	8	-	-	9	4	5
Education	-	-	-	-	6	1	1	8	-	8
Chemistry	-	-	-	-	6	1	-	7	1	6
Geology	-	-	-	-	7	-	-	7	6	1
Others	-	-	-	-	5	1	1	7	3	4
Communication - Journalism and Publishing	-	-	1	-	6	-	-	7	4	3
Business Administration	-	-	1	-	6	-	-	7	4	3
mechanical Engineering	-	-	-	-	6	-	-	6	6	-
Business Analyst	-	-	1	-	4	1	-	6	2	4
Agronomy	-	-	-	-	6	-	-	6	3	3
Agricultural engineering	-	-	1	-	5	-	-	6	5	1
Governmental sciences	-	-	-	-	5	1	-	6	5	1
Philosophy	-	-	1	-	2	2	-	5	4	1
Theology	3	-	-	-	2	-	-	5	5	-
Aquaculture	-	-	-	-	5	-	-	5	3	2
Social work (including Gravedigger)	-	-	2	-	3	-	-	5	2	3
Teacher training	-	-	1	-	4	-	-	5	2	3
Psychology	-	-	1	-	3	-	-	4	2	2

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Applied Linguistics	-	-	-	-	3	1	-	4	2	2
Petrology	-	-	-	1	3	-	-	4	1	3
Environmental Engineering	-	-	1	-	3	-	-	4	3	1
Economy - Cooperativa - Mercado	1	-	1	-	2	-	-	4	3	1
General / environmental biology	-	-	-	-	3	-	-	3	1	2
Biophysics	1	-	-	-	2	-	-	3	3	-
Physical Education / Sports Education	-	-	-	-	3	-	-	3	-	3
Midwife	-	-	2	-	1	-	-	3	-	3
Business Administration	1	-	1	-	-	1	-	3	2	1
Government Planning and Policy	-	-	1	-	2	-	-	3	3	-
Teaching chemistry	-	-	1	-	2	-	-	3	1	2
Education (education) Pre-primary and primary	-	-	1	-	2	-	-	3	-	3
Zoology	-	-	-	-	1	1	-	2	1	1
Sociology	-	-	-	-	1	1	-	2	-	2
Anthropology	-	-	-	-	2	-	-	2	2	-
History and geography	-	-	-	-	2	-	-	2	-	2
Portuguese language	1	-	-	-	1	-	-	2	1	1
Indonesian language	-	-	1	-	1	-	-	2	1	1
Mineralogy	-	-	-	-	2	-	-	2	2	-
Geodesy	1	-	-	-	1	-	-	2	-	2
Aerospace / Aerospace Engineering	-	-	-	-	2	-	-	2	2	-
Forestry management	-	-	-	-	2	-	-	2	1	1

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Production of Livestock	-	-	-	-	2	-	-	2	-	2
Management of education (School Management)	-	-	-	-	2	-	-	2	1	1
Mathematics of Teaching	-	-	-	-	2	-	-	2	2	-
Education Sociology	-	-	-	-	2	-	-	2	1	1
Peace study	-	-	-	-	2	-	-	2	2	-
Moral Theology	-	-	-	-	2	-	-	2	1	1
Pastoral theology	-	-	1	-	1	-	-	2	1	1
Mechatronics Engineering	-	-	-	-	2	-	-	2	2	-
Genetics	-	-	-	-	1	-	-	1	1	-
Pharmacology	-	-	-	-	1	-	-	1	-	1
Geotechnical Engineering	-	-	-	-	-	1	-	1	1	-
Engineering Ore Treatment	-	-	-	-	1	-	-	1	-	1
Materials Engineering and Metallurgy	-	-	-	-	1	-	-	1	1	-
Pathological Anatomy and Clinical Pathology	-	-	1	-	-	-	-	1	-	1
Forest Resources and Forestry Engineering	-	-	-	-	1	-	-	1	1	-
Religious career	-	-	-	-	1	-	-	1	1	-
Biotechnology	-	-	-	-	1	-	-	1	-	1
Fashion design (model and design)	-	-	1	-	-	-	-	1	1	-
Statistic	-	-	-	-	1	-	-	1	-	1
Geological Climatology	-	-	-	-	1	-	-	1	1	-
Transport Engineering and Telecommunications	-	-	-	-	1	-	-	1	1	-
Internal specialist	-	-	-	-	1	-	-	1	1	-

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Nutrition	-	-	-	-	1	-	-	1	-	1
Environmental health	-	-	1	-	-	-	-	1	1	-
Soil Science	-	-	-	-	1	-	-	1	1	-
Conservation of Nature	-	-	1	-	-	-	-	1	-	1
Clinical and animal surgery	-	-	1	-	-	-	-	1	1	-
Food Technology	-	-	-	-	1	-	-	1	-	1
Administration of Specific Sectors	-	-	-	-	-	1	-	1	1	-
Industrial economics	-	-	-	-	1	-	-	1	1	-
Demography	-	-	-	-	1	-	-	1	-	1
Computer Management	-	-	-	-	1	-	-	1	1	-
Physics of Teaching	-	-	-	-	1	-	-	1	1	-
Catechism	-	-	-	-	1	-	-	1	-	1
Visual arts	-	-	-	-	1	-	-	1	1	-
Music	-	-	1	-	-	-	-	1	1	-
Theater	-	-	-	-	1	-	-	1	1	-
Photographer	-	-	1	-	-	-	-	1	1	-
Movie theater	-	-	-	-	1	-	-	1	1	-
Educational Psychology	-	-	-	-	1	-	-	1	-	1
Educational technology	-	-	-	-	-	-	1	1	1	-
Professional qualification	-	-	-	-	1	-	-	1	1	-
Training of primary and pre-secondary teachers	-	-	1	-	-	-	-	1	-	1
Library	-	-	1	-	-	-	-	1	-	1

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Others	1	-	1	-	5	1	1	9	9	-
Vera Cruz										
Total	15	15	8-Jan	7	921	57	5	1128	672	456
Computer Technology Engineering (Computer)	4	2	8	-	95	3	-	112	76	36
Management	-	-	9	-	86	6	1	2-Jan	56	46
Law	-	1	-	-	75	-	-	76	51	25
Accounting	-	1	3	-	48	1	-	53	24	29
English language	1	1	2	-	3-	3	-	37	13	24
Civil Engineering - Civil Construction	-	1	4	-	3-	-	-	35	26	9
Economics of Finance / Financial Management - Banking Economics	-	-	7	-	27	1	-	35	14	21
Mining engineering	-	1	-	3	26	3	-	33	26	7
Nursing	-	-	12	-	15	-	-	27	1-	17
Public health	-	-	2	-	16	6	2	26	15	11
International, bilateral and multilateral relations	-	-	-	-	24	2	-	26	15	11
Public administration	1	-	1	-	16	6	-	24	16	8
Medicine - Medical Practice (General Practice)	-	-	2	1	18	-	-	21	12	9
Human resource Management	-	-	-	-	19	2	-	21	12	9
Architecture Engineering	-	-	2	-	18	-	-	2-	18	2
Electrical engineering	1	1	3	-	15	-	-	2-	18	2
Tourism and Hospitality	-	-	2	-	18	-	-	2-	8	12
Public policy	-	-	-	-	18	1	-	19	18	1

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Production of Livestock	-	-	-	-	17	-	-	17	11	6
Mathematics	-	1	3	-	1-	2	-	16	9	7
Communication - Journalism and Publishing	-	-	1	-	14	1	-	16	1-	6
Portuguese language	-	2	3	-	9	-	1	15	7	8
Management	-	-	1	-	12	-	-	13	3	1-
Mechanical Engineer	1	-	-	-	12	-	-	13	11	2
Pharmacy	-	-	5	-	8	-	-	13	9	4
Public right	-	-	1	-	1-	1	-	12	8	4
Economy	-	-	-	-	11	-	-	11	4	7
Education	1	-	2	-	6	2	-	11	4	7
General / environmental biology	-	-	-	-	8	-	1	9	4	5
Agronomy	-	-	1	-	8	-	-	9	6	3
political science	-	-	-	-	9	-	-	9	5	4
Physics of Teaching	-	-	2	-	7	-	-	9	3	6
Teacher training	-	-	4	-	5	-	-	9	4	5
Clinical Analysis	-	-	1	1	6	-	-	8	2	6
Aquaculture	1	-	-	-	7	-	-	8	8	-
Biology of Education	-	-	1	-	7	-	-	8	2	6
mechanical Engineering	-	1	-	1	4	-	-	6	6	-
Theology	2	-	-	-	3	1	-	6	2	4
Geology	-	-	-	-	5	1	-	6	6	-
Business Administration	-	-	1	-	5	-	-	6	2	4

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Mineralogy	-	-	-	-	5	-	-	5	3	2
Forestry management	-	-	2	-	3	-	-	5	4	1
Computer Management	-	-	3	-	2	-	-	5	5	-
Governmental sciences	-	-	-	-	2	3	-	5	5	-
Education (education) Pre-primary and primary	-	-	4	-	1	-	-	5	-	5
Psycholinguistics	-	-	-	-	4	-	-	4	2	2
Computer science	-	-	-	-	4	-	-	4	4	-
Petrology	-	-	-	-	4	-	-	4	2	2
Chemical engineer	-	-	-	-	4	-	-	4	3	1
Marine and oceanic engineering	-	-	-	-	4	-	-	4	4	-
Nutrition	-	-	4	-	-	-	-	4	3	1
Midwife	3	-	-	-	1	-	-	4	-	4
Agro-business	-	-	-	-	3	1	-	4	2	2
Food Technology	-	-	-	-	4	-	-	4	2	2
Government Planning and Policy	-	-	-	-	4	-	-	4	3	1
Development Studies	-	-	-	-	3	1	-	4	3	1
Industrial economics	-	-	-	-	4	-	-	4	3	1
Economy - Cooperativa - Mercado	-	-	2	-	2	-	-	4	2	2
Geotechnical Engineering	-	-	-	-	1	2	-	3	1	2
Transport Engineering and Telecommunications	-	-	1	-	2	-	-	3	1	2
Pediatric Specialist	-	-	-	-	3	-	-	3	3	-
Environmental health	-	-	-	-	3	-	-	3	2	1

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Phytosanitary	-	3	-	-	-	-	-	3	3	-
Engineering of agricultural product processing	-	-	-	-	3	-	-	3	1	2
Clinical and animal surgery	-	-	-	-	3	-	-	3	-	3
Fishing engineering	-	-	-	-	3	-	-	3	3	-
Urban and regional planning	-	-	-	-	1	2	-	3	2	1
Mathematics teaching	-	-	1	-	2	-	-	3	2	1
Teaching chemistry	-	-	2	-	1	-	-	3	2	1
Pastoral theology	-	-	-	-	3	-	-	3	-	3
Educational politics	-	-	-	-	3	-	-	3	3	-
Chemistry	-	-	1	-	1	-	-	2	1	1
Environmental ecology	-	-	-	-	2	-	-	2	2	-
Pharmacology	-	-	-	-	2	-	-	2	2	-
Hydraulic Engineering	-	-	-	-	2	-	-	2	2	-
Pathological Anatomy and Clinical Pathology	-	-	-	-	2	-	-	2	-	2
Agricultural social economy	-	-	-	-	2	-	-	2	-	2
Agricultural engineering	-	-	-	-	1	1	-	2	1	1
Philosophy	-	-	-	-	2	-	-	2	2	-
Sociology	-	-	-	-	2	-	-	2	2	-
Psychology	-	-	-	-	2	-	-	2	1	1
Physical Education / Sports Education	-	-	-	-	2	-	-	2	2	-
Fitotecnia	-	-	-	-	2	-	-	2	1	1
Food Engineering	-	-	-	-	2	-	-	2	1	1

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Management of education (School Management)	-	-	-	-	2	-	-	2	2	-
Catechism	-	-	2	-	-	-	-	2	2	-
Cultural Studies	-	-	-	-	2	-	-	2	1	1
Physics	-	-	-	-	-	1	-	1	1	-
Specialist in Gastroenterology Surgery	-	-	-	-	1	-	-	1	1	-
Specialist in Orthopedic Surgery	-	-	-	-	1	-	-	1	-	1
Food Science and Technology	-	-	-	-	1	-	-	1	1	-
Anthropology	-	-	-	-	1	-	-	1	1	-
Sociolinguistics and Dialectology	-	-	-	-	1	-	-	1	-	1
Applied Linguistics	-	-	-	-	1	-	-	1	1	-
Indonesian language	-	-	-	-	1	-	-	1	-	1
Spanish language	-	-	-	-	1	-	-	1	-	1
Religious career	-	-	-	-	1	-	-	1	-	1
Plant biology	-	-	-	-	1	-	-	1	-	1
Aerospace Engineering	-	-	-	-	1	-	-	1	1	-
Environmental Engineering	-	-	-	-	1	-	-	1	-	1
Radia gnóstica, Radiologia Medica	-	-	-	-	1	-	-	1	1	-
Maternal and child health	-	-	-	-	-	1	-	1	-	1
Soil Science	-	-	-	-	1	-	-	1	1	-
Forestry	-	-	-	-	1	-	-	1	1	-
Forestry Techniques and Operations	-	-	-	-	1	-	-	1	1	-
Technology and Use of Forest Products	-	-	-	-	1	-	-	1	-	1

Study Program	Education Level							Total	Gender	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master' Degree (S2)	PhD (S3)		Male	Female
Nutrition and animal feed	-	-	-	-	1	-	-	1	1	-
Animal Reproduction	-	-	-	-	1	-	-	1	1	-
Marine fisheries resources	-	-	-	-	1	-	-	1	1	-
gastronomic science	-	-	-	-	1	-	-	1	-	1
History of Education	-	-	-	-	1	-	-	1	1	-
Moral Theology	-	-	-	-	1	-	-	1	1	-
Systematic Theology	-	-	-	-	1	-	-	1	1	-
Music	-	-	1	-	-	-	-	1	1	-
Video arts	-	-	1	-	-	-	-	1	1	-
special education	-	-	-	-	1	-	-	1	-	1
Professional qualification	-	-	-	-	1	-	-	1	-	1
Training of primary and pre-secondary teachers	-	-	-	-	1	-	-	1	-	1
Others	-	-	1	1	7	3	-	12	5	7

3.5. Vocational Training Certificate Level I - Certificate IV

In the vocational or technical vocational education and training (VET) course, about 2.8% (3,122/109,881) of the total number of the Dili Municipality who participated in the Certificate I - Certificate IV courses. Of those who completed the certificate courses, 58.6% completed the Certificate I course, 19.8% certificate II, 10.6% certificate III and 11% certificate IV (Table 10). The predominant areas of Certificate I - Certificate IV training are Computer, Portuguese Language Course, English Language and General Administration for the office (generic courses). Other areas of training represent very little. The data also show the lack of qualifications in some areas, which requires more attention and investment (Table 10). However the investment of human resources should be adjusted with the local need.

Table 10. Number And Areas Of Certificate I - IV Training By Sub District Administration

Municipality/Sub District Administration	Total	Cert. I	Cert . II	Cert . III	Cert . IV	Training area requiring more attention
DILI						
Total	3122	1831	617	331	343	Physiotherapy / Massage
Computer	995	651	194	89	61	Solar production
English Language	418	227	102	47	42	Coffee production
Portuguese language	158	67	39	29	23	Aesthetic Course (Manicure and Pedicure)
Public Office Administration	136	80	31	11	14	
Information Technology	125	82	17	13	13	
Hospitality Management (General)	72	32	28	10	2	
Electricity	70	41	14	8	7	
Automotive and Maintenance	54	33	11	6	4	
Financial Services (Micro Finance and Banking)	45	19	10	6	10	
Construction (General)	42	26	11	3	2	
Carpentry	38	28	9	1	-	
Public Office Administration	29	13	7	5	4	
Welding	27	19	5	1	2	

Municipality/Sub District Administration	Total	Cert. I	Cert . II	Cert . III	Cert . IV	Training area requiring more attention
Agriculture / horticulture course	25	16	4	1	4	
Plumbing	22	15	5	-	2	
Tailor / Seamstress	19	14	3	1	1	
Public communication to the study of the public sector (SEFTEC);	15	6	2	4	3	
Business Construction (General)	14	8	2	2	2	
Tourist and Tourist Guide	14	6	4	1	3	
Bricklayer	12	7	3	2	-	
Hospitality (food production)	10	5	4	-	1	
Photographer	10	5	1	3	1	
Training and evaluation	9	3	-	1	5	
Painter of arts, paintings, tattoos	9	5	2	2	-	
Small machine	7	4	2	-	1	
Improve business	6	2	-	4	-	
Management for Police	6	1	3	-	2	
Fishing	6	1	2	-	3	
Rural water supply	5	5	-	-	-	
Hair stylist	5	3	2	-	-	
Agriculture	5	4	-	-	1	
(Diploma) in Training and Evaluation	4	3	-	-	1	
Culinary	4	3	1	-	-	
Piano and music	4	1	1	-	2	
Police investigation	3	1	-	-	2	
Training for Contractors	2	2	-	-	-	
Physiotherapy / Massage	1	-	1	-	-	
Solar production	1	-	-	1	-	
Others	695	393	97	80	125	
Atauro						
Total	27	17	4	5	1	
Computer	5	5	-	-	-	
Information Technology (IT)	4	4	-	-	-	
Public Office Administration	2	2	-	-	-	
Portuguese language	2	1	1	-	-	
Tourism and Tourist Guide	1	-	1	-	-	
Public Office Administration	1	-	-	-	1	

Municipality/Sub District Administration	Total	Cert. I	Cert . II	Cert . III	Cert . IV	Training area requiring more attention
Tailor / Seamstress	1	-	1	-	-	
Agriculture	1	1	-	-	-	
Fishing	1	-	1	-	-	
Others	9	4	-	5	-	
Cristo Rei						
Total	795	479	151	86	79	
Computer	201	136	35	22	8	
English Language	142	72	36	18	16	
Portuguese language	57	21	15	10	11	
Information Technology (IT) Information Technological	45	27	6	6	6	
Public Office Administration	41	29	4	4	4	
Electricity	29	18	6	3	2	
Hospitality Management (General)	22	13	7	-	2	
Financial Services (Micro Finance and Banking);	9	6	2	1	-	
Construction (General)	9	6	2	-	1	
Tailor / Seamstress	9	7	-	1	1	
Agriculture / horticulture	9	7	-	1	1	
Welding	8	6	2	-	-	
Plumbing	7	6	-	-	1	
Bricklayer	6	4	1	1	-	
Tourism and Tourist Guide	6	5	-	-	1	
Carpentry	6	5	1	-	-	
Public Office Administration	4	4	-	-	-	
Public communication to the study of the public sector (SEFTEC);	3	2	-	1	-	
Culinary	3	2	1	-	-	
Improve business	2	-	-	2	-	
Business Construction (General)	2	-	-	2	-	
Hospitality (food production)	2	2	-	-	-	
Photographer	2	1	-	1	-	
Police investigation	2	1	-	-	1	
Management for Police	2	1	1	-	-	
Fishing	2	-	-	-	2	
Rural water supply	1	1	-	-	-	
Small machine	1	-	1	-	-	

Municipality/Sub District Administration	Total	Cert. I	Cert . II	Cert . III	Cert . IV	Training area requiring more attention
Training and evaluation	1	1	-	-	-	
Monitoring and Evaluation	1	1	-	-	-	
Hair stylist	1	1	-	-	-	
Agriculture	1	1	-	-	-	
Others	146	84	29	12	21	
Dom Aleixo						
Total	827	442	205	101	79	
Computer	260	152	68	29	11	
English Language	96	50	30	11	5	
Portuguese language	41	13	13	11	4	
Public Office Administration	36	21	11	2	2	
Hospitality Management (General)	32	14	11	6	1	
Information Technology (IT)	24	15	3	4	2	
Automotive and Maintenance	21	14	5	1	1	
Electricity	20	8	4	4	4	
Carpentry	14	9	5	-	-	
Financial Services (Micro Finance and Banking);	13	6	1	1	5	
Construction (General)	11	6	3	2	-	
Welding	8	5	2	1	-	
Plumbing	7	3	3	-	1	
Agriculture / horticulture course	7	3	2	-	2	
Business Construction (General)	6	5	1	-	-	
Hospitality (food production)	6	2	3	-	1	
Bricklayer	6	3	2	1	-	
Public Office Administration	6	-	3	2	1	
Small machine	3	2	1	-	-	
Public communication to the study of the public sector (SEFTEC);	3	-	1	1	1	
Photographer	3	2	1	-	-	
Tourist Guide (tourism)	2	1	-	1	-	
Training and evaluation	2	1	-	-	1	
Management for Police	2	-	1	-	1	
Rural water supply	1	1	-	-	-	
Training for Contractors	1	1	-	-	-	
Monitoring and Evaluation	1	1	-	-	-	

Municipality/Sub District Administration	Total	Cert. I	Cert . II	Cert . III	Cert . IV	Training area requiring more attention
Tailor / Seamstress	1	1	-	-	-	
Painter of arts, paintings, tattoos	1	1	-	-	-	
Agricultural Course	1	1	-	-	-	
Fishing course	1	-	1	-	-	
Solar production	-	-	-	-	-	
Coffee production	-	-	-	-	-	
Improve business	-	-	-	-	-	
Police investigation.	-	-	-	-	-	
cooker	-	-	-	-	-	
Hair stylist	-	-	-	-	-	
Aesthetic Course (Manicure and Pedicure)	-	-	-	-	-	
Piano and music course	-	-	-	-	-	
Others	191	101	30	24	36	
Metinaro						
Total	7	7	-	-	-	
Painter of arts, paintings, tattoos	2	2	-	-	-	
Construction (General)	1	1	-	-	-	
Electricity	1	1	-	-	-	
Computer	1	1	-	-	-	
Portuguese language course	1	1	-	-	-	
English Language Course	1	1	-	-	-	
Nain Feto						
Total	538	343	87	46	62	
Computer	159	118	24	11	6	
English Language Course	83	47	18	9	9	
Portuguese language course	28	21	1	5	1	
Public Office Administration	20	8	6	3	3	
Information Technology (IT)Information Technological	17	11	3	-	3	
Financial Services (Micro Finance and Banking);	13	2	5	3	3	
Construction (General)	13	1-	2	-	1	
Public Office Administration	8	4	3	1	-	
Public communication to the study of the public sector (SEFTEK);	7	3	1	1	2	
Electricity	6	5	1	-	-	

Municipality/Sub District Administration	Total	Cert. I	Cert . II	Cert . III	Cert . IV	Training area requiring more attention
Carpentry	5	3	1	1	-	
Agriculture / horticulture course	5	4	1	-	-	
Training and evaluation	4	1	-	1	2	
Hospitality Management (General)	3	-	3	-	-	
Business Construction (General)	3	2	-	-	1	
Welding / Welding	3	2	-	-	1	
Photographer	3	1	-	1	1	
Automotive and Maintenance.	4	3	-	1	-	
Tailor / Seamstress	3	2	1	-	-	
Hair Stylist / Hairdresser	3	1	2	-	-	
Rural water supply	2	2	-	-	-	
Hospitality (food production)	2	1	1	-	-	
Plumbing	2	2	-	-	-	
Solar production	1	-	-	1	-	
Improve business	1	1	-	-	-	
Small machine	1	-	-	-	1	
Tourist and Tourist Guide	1	-	1	-	-	
Police investigation.	1	-	-	-	1	
Management for Police	1	-	1	-	-	
Piano and music course	1	-	1	-	-	
Others	135	89	11	8	27	
Vera Cruz						
Total	928	543	170	93	122	
Computer	369	239	67	27	36	
English Language Course	96	57	18	9	12	
Public Office Administration	37	20	10	2	5	
Information Technology (IT)Information Technological	35	25	5	3	2	
Portuguese language course	29	10	9	3	7	
Hospitality Management (General)	18	7	7	4	-	
Electricity	14	9	3	1	1	
Carpentry	13	11	2	-	-	
Public Office Administration	10	5	1	2	2	
Financial Services (Micro Finance and Banking);	1-	5	2	1	2	
Construction (General)	8	3	4	1	-	

Municipality/Sub District Administration	Total	Cert. I	Cert . II	Cert . III	Cert . IV	Training area requiring more attention
Welding	8	6	1	-	1	
Plumbing	6	4	2	-	-	
Painter of arts, paintings, tattoos	6	2	2	2	-	
Tailor / Seamstress	5	4	1	-	-	
Tourist and Tourist Guide	4	-	2	-	2	
Agriculture / horticulture	4	2	1	-	1	
Automotive and Maintenance.	3	2	1	-	-	
Improve business	3	1	-	2	-	
Business Construction (General)	3	1	1	-	1	
Piano and music	3	1	-	-	2	
Small machine	2	2	-	-	-	
Public communication to the study of the public sector	2	1	-	1	-	
Photographer	2	1	-	1	-	
evaluation Training	2	-	-	-	2	
Monitoring and Evaluation	2	1	-	-	1	
Agriculture	2	1	-	-	1	
Fishing	2	1	-	-	1	
Rural water supply	1	1	-	-	-	
Training for Contractors	1	1	-	-	-	
Management for Police	1	-	-	-	1	
Culinary	1	1	-	-	-	
Hair stylist	1	1	-	-	-	
Physiotherapy / Massage	1	-	1	-	-	
Others	214	115	27	31	41	

3.6. Professional Occupations in the Public Sector

3.6.1. Permanent Public Servants

Table 11 shows that the public servants and teachers are the main occupations of the public sector and together account for 82.04% of the positions. 29.6% of the professors maintained their positions between a period of 6 - 10 years and 32.3% with more than 15 years. As for employees in general, the highest proportion are those who have maintained the public servants between 1-5 years and 6-10 years.

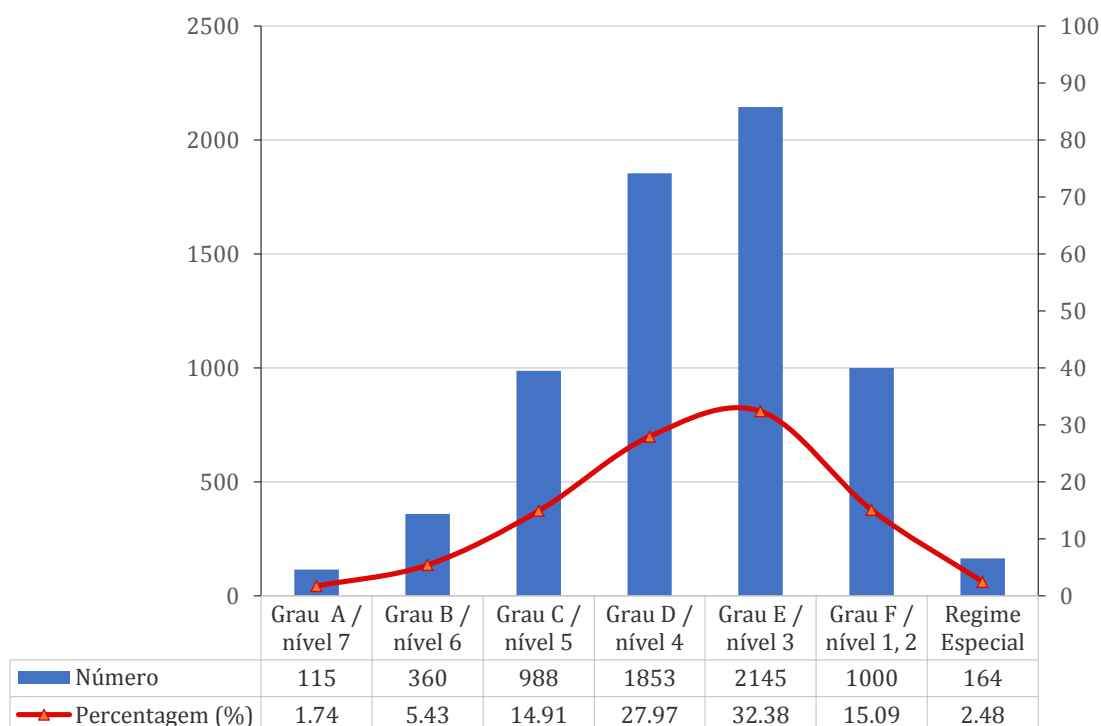
As expected, the number of public servants has increased dramatically over the past 10 years.

Table 11. Distribution of permanent public servants by occupation and years of service

Occupation	<1 Year	1-5 Year	6 - 10 Year	11-15 Year	>15 Year	Total	Percentage (%)
Teachers	20	163	289	192	312	976	15,03
Public Servants	131	1692	1301	822	406	4352	67,01
Doctor / Medical Specialist	4	130	22	28	21	205	3,16
Chief Department	10	105	159	146	75	495	7,62
General Director	6	17	23	36	23	105	1,62
National Director	8	21	37	32	19	117	1,80
Public Defenders / Judges	4	9	3	4	4	24	0,37
Others	3	73	60	51	34	221	3,40
Total	186	2210	1894	1311	894	6495	100,00
Percentage (%)	2,9	34,0	29,2	20,2	13,8	100,0	

Regarding the grade/level of the respondents, 90.4% of the positions are between the F/level 1 and the D/level 4 levels. The servants with a level above 6 are very few, registering about 7.17% and those with special regim 2.48% (Figure 5).

Figure 5. Grade and Level of permanent Public Servants interviewed



3.6.2. Temporary Public Servants

Table 12 shows temporary public servants by occupation and years of service. The occupational pattern is similar to the permanent public servants with the mastery of teachers and staff. Teachers and staff are those who have a high number of temporary public servants. Both account for 87.6% of temporary public servants while hiring the specialized technicians only 5.5%. The standard of service duration is similar to permanent public servants, the highest proportion of whom have maintained the public service between 1-5 years and 6-10 years and together represent 76.6% compared to those who have maintained the service more than 10 years (4.6%).

Table 12. Distribution of temporary public servants by occupation and years of service

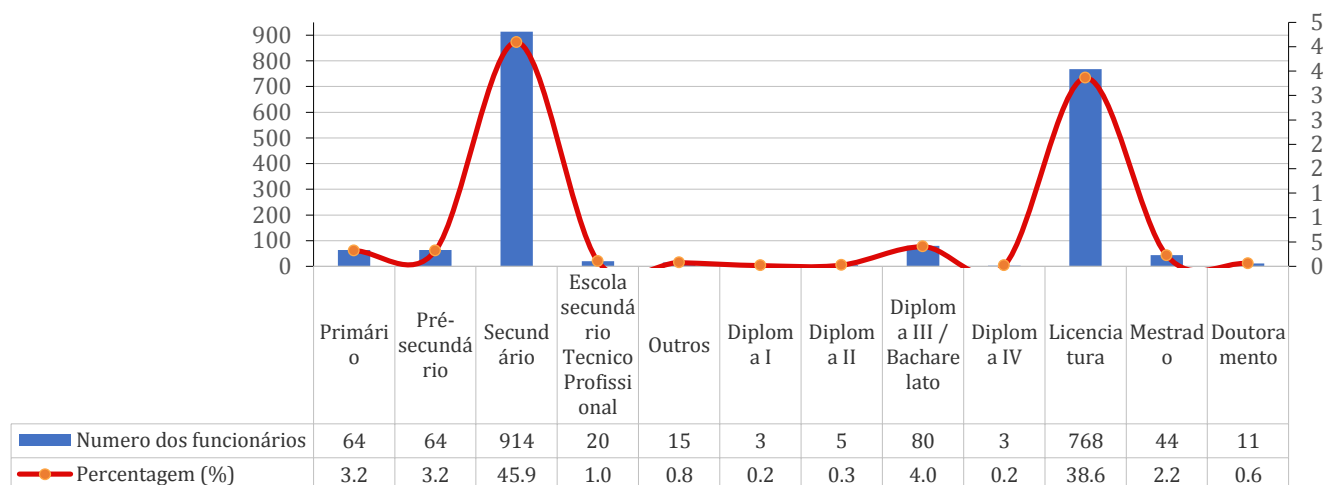
Year of service	Public Servants	Specialized technical	Teachers	Others	Total	Percentage (%)
<1 Year	218	17	33	28	296	18,8
1-5 Year	676	60	164	59	959	61,0
6 - 10 Year	160	7	60	18	245	15,6

Year of service	Public Servants	Specialized technical	Teachers	Others	Total	Percentage (%)
11-15 Year	39	2	10	3	54	3,4
>15 Year	14	0	4	1	19	1,2
Total	1,107	86	271	109	1,573	100
Percentage (%)	70,4	5,5	17,2	6,9	100	

3.7. Level of Education of Temporary Public Servants

At the level of education, 45.9% of temporary public servants have a secondary level of education, Bachelor's Degree with 38.6% and Diploma III 4%. Other levels of education have a share of less than 4% (Figure 6).

Figure 6. Distribution of temporary public servants by levels of education



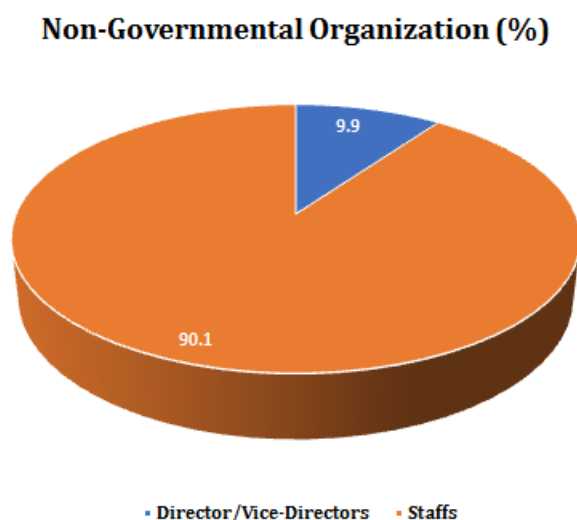
3.8. Non-Public Sector (Private Sector)

The non-public sector (private sector) in Dili municipality still remains small compared to the public sector. This despite the growth of the non-public sector being one of the government's main goals and the majority of those who do not currently work have expressed 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.

3.8.1. Non-Governmental Organizations (NGOs) and Private Universities.

Figure 7 shows data for staff working in Non-Governmental Organizations (NGOs). Among the 744 respondents, 9.9% hold positions as Director or Deputy Directors of the organizations and highest 90.1% are employees.

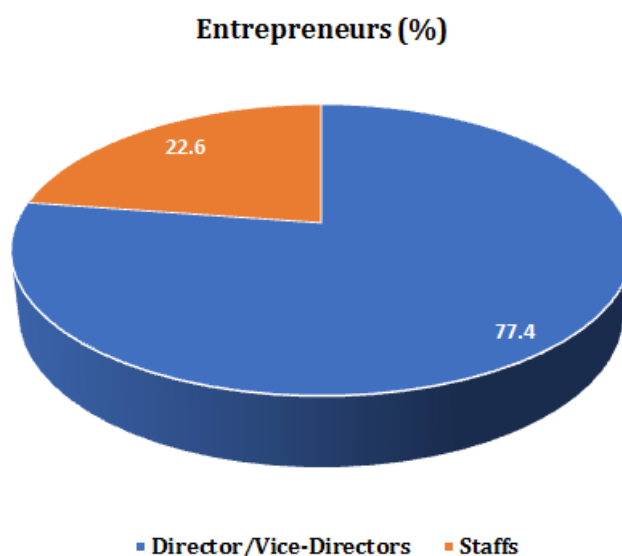
Figure 7 . Staff of non-governmental organizations (NGOs) by position (Favor muda naran iha kaik ba lian Inglez)



3.8.2. Entrepreneurs (Businessmen)

Entrepreneurs play an important role through their investments, increasing the prosperity of the population in the municipality. Thus, citizens have the opportunity to take a job through investment, services and increased trade, in addition to the municipality grow economically. In this sense, it is essential to understand the human resources involved in this process and try to empower them efficiently and effectively. Figure 8 shows the distribution of the personnel involved in the company by level of education and by position in which it currently assumes. 77.4% of the respondents are employed as Director/Vice Directors and 22.2% assume a function as a Director simultaneously as an employee of the same company.

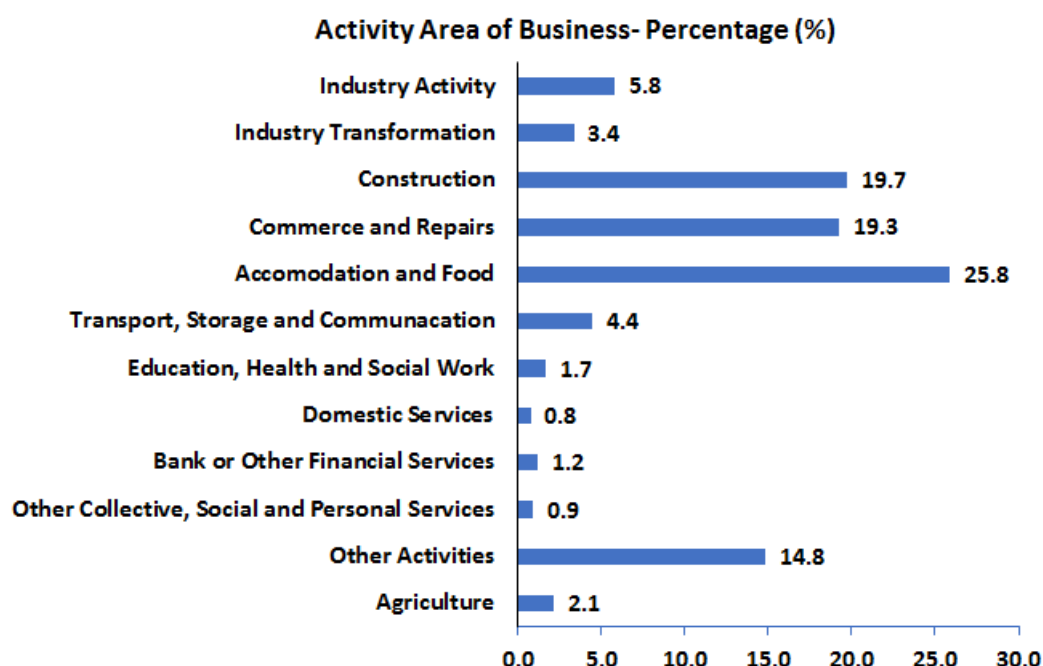
Figure 8. Distribution of entrepreneurs by position



3.8.3. Activity Sectors

The largest proportion of the companies' areas of activity are related to construction, trade and repair, food accommodation and other undefined activities. Other sectors of activity are very few with a percentage less than 10% (Figure 9).

Figure 9. Distribution of the areas of entrepreneurs' activities (Favor muda iha kraik ne'e ba lian inglez)



3.8.4. Education Level of Entrepreneurs

The data also show that most of the people involved have no secondary level of education (46.7%), with no Education (15.3%) and pre-secondary education (14%). Other levels of education have a percentage less than 10% (Table 13). 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 13. Distribution of entrepreneurs and level of education

Education Level	Number of Entrepreneurs	Percentage (%)
Secondary	11,591	46,7
Can not read / write	3,798	15,3
Pre-secondary	3,479	14,0
Primary	1926	7,8

Education Level	Number of Entrepreneurs	Percentage (%)
Bachelor's Degree (S1)	1,673	6,7
Do not read / write (did not finish primary)	1,663	6,7
1 st Cycle (1st Grade up to 4 th Grade)	251	1,0
Diploma III	143	0,6
Secondary Technical School	71	0,3
Others	54	0,2
Master's Degree (S2)	33	0,1
Secondary School	32	0,1
Diploma I	24	0,1
2. ^o Cycle (1 st Year, 2 nd Year)	18	0,1
3. ^o Cycle (3 rd Grade up to 9 th Grade/ 3 rd year)	18	0,1
Diploma II	17	0,1
Secondary School of Agriculture	9	0,0
Secondary School of Social Assistance	9	0,0
Diploma IV	8	0,0
Secondary School of Nursing	2	0,0
Secondary School of Sports	2	0,0
PhD (S3)	2	0,0
Total	24,823	100,0

3.9. Preferred Working Areas

This data collection process also asked people aged 17 or over who had never worked, in which sector they wanted to work and where they would like to work if they could get a job. The responses in table 14 show that the majority opted for the non-public sector (private sector) with 63.1% compared to the public sector 38.9%. The Sub-District Administration of Dom Aleixo has a higher percentage of individuals seeking employment in the public sector while the preference for work for the non-public sector was higher in the Sub-District Administration of Cristo Rei following the Sub-District Administration of Dom Aleixo. (Table 14).

Table 14. Number of respondents in Dili Municipality in search of employment and intends to work in the public or private sector

Sub-District Administrations	Public Sector	Percentage (%)	Non-Public Sector	Percentage (%)	Total	Percentage (%)
Atauro	861	5,2	1415	5,0	2276	5,1
Cristo Rei	3086	18,7	8731	31,0	11817	26,5
Dom Aleixo	7930	48,2	8539	30,3	16469	36,9
Metinaro	639	3,9	1070	3,8	1709	3,8
Nain Feto	1494	9,1	3442	12,2	4936	11,1
Vera Cruz	2451	14,9	4982	17,7	7433	16,7
Total	16461	100,0	28179	100,0	44640	100,0

3.10. Business Sector Preferred to Work

In Table 15 indicates that in the private sector the preference is mainly for agriculture (33.1%), household tasks (12.2%), construction (8.9%), housing and food (8.6%), education, health and social work (7.7%) and industrial activity (7%). Other sectors of activity have a percentage less than 5%.

Table 15. Distribution of areas of activities that respondents wish to work

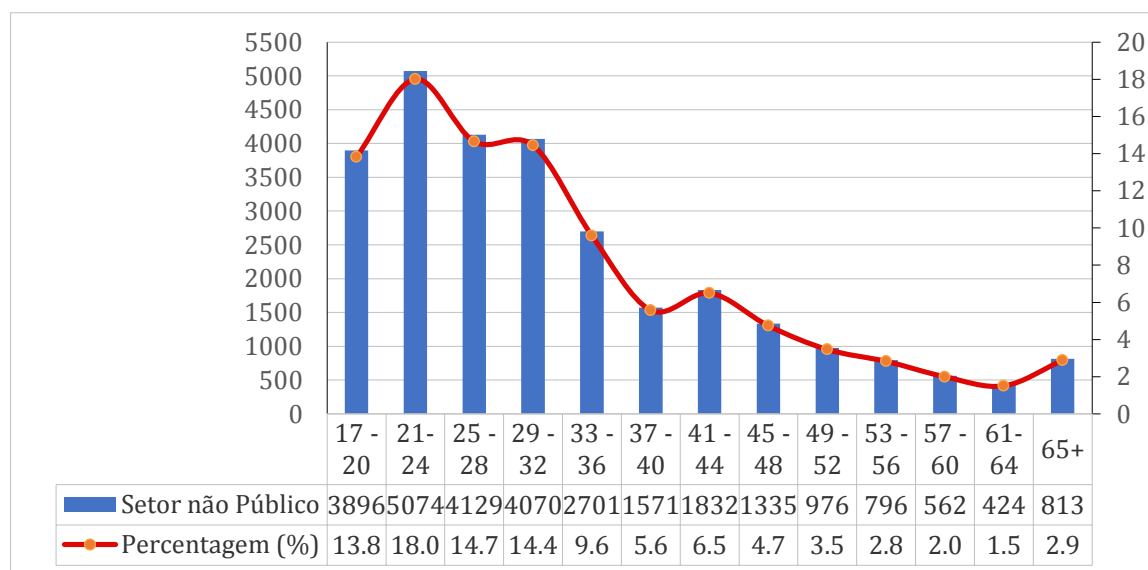
Activity Sectors	Sub District Administrations						Total	Percentage (%)
	Atauro	Cristo Rei	Dom Aleixo	Metinaro	Nain Feto	Vera Cruz		
Agriculture	984	4,109	1,823	645	682	1,626	9,869	33,1
Industry	45	697	559	92	332	359	2,084	7,0
Transformation industry	44	411	319	16	124	152	1,066	3,6
Construction	142	783	794	166	286	474	2,645	8,9
Commerce and repair	48	416	654	99	226	189	1,632	5,5
Accommodation and Food	9	712	625	72	545	606	2,569	8,6
Transport, Warehouse /Storage and Communication	14	303	362	41	143	165	1,028	3,5
Education, Health and Social Work	19	456	904	192	215	522	2,308	7,7
Domestic Service	204	1,327	668	440	306	691	3,636	12,2
Bank or other	15	416	406	8	93	195	1,133	3,8

Activity Sectors	Sub District Administrations						Total	Percentage (%)
	Atauro	Cristo Rei	Dom Aleixo	Metinaro	Nain Feto	Vera Cruz		
financial services								
Other collective, social and personal services	160	376	203	81	140	161	1,121	3,8
Other Activities	40	82	91	281	54	147	695	2,3
Total	1,724	10,088	7,408	2,133	3,146	5,287	29,786	100
Percentage% (%)	5,8	33,9	24,9	7,2	10,6	17,7	100	

3.11. Age Group (Age) Of Respondents Who Are Looking For A Job

Regarding the age group, the largest number of respondents seeking employment are young people aged between 17 and 32 years, representing about 60.9% (Figure 10).

Figure 10. Age group of respondents who are looking for a job



3.12. Graduates in job search "Unemployment"

The data also provide information on the number and qualifications of people with higher education in job search (Table 16). The figure shows that, among the 2,040 respondents graduates, 63.3% intend to work in the public sector and 36.7% intend to work in the non-public sector. Graduates intend to work more in the public sector than in the private sector.

The areas of higher education courses with the highest number of graduates looking for employment "*unemployment*" are in the areas of Computer Engineering, Management, Law, Accounting and Civil Engineering - Civil Construction. Graduates in other areas are less than 5%. Thus, these data are fundamental for the municipal government, employers and other employers' partners in order to know how to take advantage and employ them.

Table 16. Number and areas of knowledge of higher education courses in job search and wish to work

Nu.	Study Program/Area of Specialization	Do not work and want to work?		Total	Percentage (%)
		Public Sector	Non-Public Sector		
1	Computer Technology Engineering	108	64	172	8,4
2	Management	108	57	165	8,1
3	Law	92	42	134	6,6
4	Accounting	83	51	134	6,6
5	Civil Engineering - Civil Construction	64	54	118	5,8
6	Mining engineering	54	42	96	4,7
7	Human Resource Economics	40	23	63	3,1
8	Economy of Finance / management of finances - Banking Economics	32	20	52	2,5
9	International, Bilateral and Multilateral Relations	27	23	50	2,5
10	General Medicine (General Practice)	30	12	42	2,1
11	Animal Production (Livestock)	18	20	38	1,9
12	Nursing	29	7	36	1,8
13	Tourism and Hospitality	19	17	36	1,8
14	Industry Engineering	18	14	32	1,6
15	Architecture Engineering	17	14	31	1,5
16	Agronomy	21	10	31	1,5
17	Public policy	19	12	31	1,5
18	Private Law	17	13	30	1,5
19	Electrical engineering	19	10	29	1,4
20	Agro-business	15	14	29	1,4
21	Mathematics	22	5	27	1,3
22	English language	15	10	25	1,2
23	Public administration	16	9	25	1,2
24	Teaching biology	14	9	23	1,1
25	Geology	16	3	19	0,9
26	Public health	13	6	19	0,9
27	Pharmacy	16	2	18	0,9
28	Aquaculture	8	9	17	0,8
29	Public Law	10	7	17	0,8
30	Development Studies	11	6	17	0,8
31	mechanical Engineering	12	4	16	0,8
32	Philosophy	12	4	16	0,8
33	Public Law	13	2	15	0,7
34	Computer science	11	2	13	0,6
35	Business Administration	9	4	13	0,6
36	Communication - Journalism and Publishing	6	6	12	0,6

Nu.	Study Program/Area of Specialization	Do not work and want to work?		Total	Percentage (%)
37	GeneralEnvironmental Biology	8	3	11	0,5
38	Business Analyst	8	3	11	0,5
39	political science	4	7	11	0,5
40	Pharmacology	10	-	10	0,5
41	Education	9	1	10	0,5
42	Midwife	8	2	10	0,5
43	Food Technology	6	3	9	0,4
44	Government Planning and Policy	4	5	9	0,4
45	Teaching Physics	8	1	9	0,4
46	Theology	3	5	8	0,4
47	Forestry Management	4	4	8	0,4
48	Education Sociology	5	3	8	0,4
49	Chemical engineering	3	4	7	0,3
50	Others	6	1	7	0,3
51	Environmental Engineeringing	5	2	7	0,3
52	Industrial Economics	6	1	7	0,3
53	Teaching mathematics	6	1	7	0,3
54	Chemistry	3	3	6	0,3
55	Applied Linguistics	2	4	6	0,3
56	Portuguese language	5	1	6	0,3
57	Petrology	4	2	6	0,3
58	Economics of education	3	3	6	0,3
59	Social service	3	3	6	0,3
60	Others	4	2	6	0,3
61	Teacher training	4	2	6	0,3
62	Mineralogy	2	3	5	0,2
63	Naval and Oceanic Engineering	1	4	5	0,2
64	Dentist	2	3	5	0,2
65	Food Science	3	2	5	0,2
66	Business Administration	5	-	5	0,2
67	Teaching chemistry	2	3	5	0,2
68	Government Science	4	1	5	0,2
69	Education (teaching) Pre-primary and primary	4	1	5	0,2
70	Training of primary school teachers and pre-secondary education	4	1	5	0,2
71	Geotechnical Engineering	2	2	4	0,2
72	Transportation Engineering and Telecommunication	3	1	4	0,2
73	Agricultural Product Processing Engineering	2	2	4	0,2
74	Economics of Education / Management of Education	3	1	4	0,2
75	Study of Peace	4	-	4	0,2
76	Special education	3	1	4	0,2
77	Zoology	2	1	3	0,1
78	Biochemistry	2	1	3	0,1
79	Biophysics	1	2	3	0,1
80	Immunology	1	2	3	0,1
81	Agricultural engineering	2	1	3	0,1
82	Food Science and Technology	3	-	3	0,1
83	Anthropology	3	-	3	0,1
84	Psychology	2	1	3	0,1
85	Indonesian Language	2	1	3	0,1
86	production engineering	1	2	3	0,1
87	Physical Education / Sports Education	2	1	3	0,1

Nu.	Study Program/Area of Specialization	Do not work and want to work?		Total	Percentage (%)
88	Medical Radiology	2	1	3	0,1
89	Others	1	2	3	0,1
90	Phytosanitary	-	3	3	0,1
91	Technology and Use of Forest Products	2	1	3	0,1
92	Clinical and Animal Surgery	-	3	3	0,1
93	Regional and Urban Economics	3	-	3	0,1
94	Computer Management	1	2	3	0,1
95	Moral Theology	-	3	3	0,1
96	Pastoral Theology	-	3	3	0,1
97	Public relations	3	-	3	0,1
98	Botany	2	-	2	0,1
99	Mining Engineering	1	1	2	0,1
100	Materials and Metallurgical Engineering	1	1	2	0,1
101	Pathological Anatomy and Clinical Pathology	1	1	2	0,1
102	Forest Resources and Forestry Engineering	2	-	2	0,1
103	veterinary Medicine	1	1	2	0,1
104	History and geography	2	-	2	0,1
105	Psycholinguistics	2	-	2	0,1
106	Religious Career	2	-	2	0,1
107	Aerospace Engineering	1	1	2	0,1
108	Nutrition	2	-	2	0,1
109	Environmental health	1	1	2	0,1
110	Private Law	2	-	2	0,1
111	Philosophy of Education	1	1	2	0,1
112	Catechism	2	-	2	0,1
113	Skills Education - Fashion, Cosmetics, Cake / Pastry	2	-	2	0,1
114	Physics	1	-	1	-
115	Genetics	-	1	1	-
116	Hydraulic Engineering	-	1	1	-
117	Anesthetist	1	-	1	-
118	Cardiovascular Surgery Specialist	1	-	1	-
119	Specialist Orthopedic Surgery	-	1	1	-
120	Specialist Plastic and Restorative Surgery	1	-	1	-
121	Sociology	-	1	1	-
122	Archeology	1	-	1	-
123	Gender Study	1	-	1	-
124	Sociolinguistics and Dialectology	1	-	1	-
125	Spanish Language	1	-	1	-
126	Hospital administration	-	1	1	-
127	biomedicine	1	-	1	-
128	Fashion design	-	1	1	-
129	Parasitology	1	-	1	-
130	Internal Specialist	1	-	1	-
131	Physiotherapy and Occupational Therapy	1	-	1	-
132	Legal Medicine and Deontology	1	-	1	-
133	Forestry Techniques and Operations	-	1	1	-
134	Water and Soil Engineering	-	1	1	-
135	Rural Constructions and Environment	1	-	1	-
136	Preventive Veterinary Medicine	1	-	1	-
137	Animal Reproduction	-	1	1	-
138	Inland Water Fishing Resources	-	1	1	-
139	fishing engineering	1	-	1	-
140	Architecture and urbanism	1	-	1	-

Nu.	Study Program/Area of Specialization	Do not work and want to work?		Total	Percentage (%)
141	Urban and Regional Planning	1	-	1	-
142	Demography	1	-	1	-
143	information Science	-	1	1	-
144	Museology	-	1	1	-
145	Economy - Cooperativa - Mercado	1	-	1	-
146	Visual arts	1	-	1	-
147	theater	1	-	1	-
148	Movie theater	1	-	1	-
149	Video Arts	1	-	1	-
150	Mechatronics Engineering	1	-	1	-
151	Educational Psychology	-	1	1	-
Total		1292	748	2040	100,0

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

Table 17 shows the number of students surveyed in the Municipality of Dili 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 16), still remain areas with higher numbers of students (Table 17). It is hoped that with the decentralization of local power that 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. Failure to do so may increase the number of job seekers in particular in the areas identified above in table 16.

Table 17. Distribution of the number of students who are currently attending courses in higher education

Nu.	Area of Study	Frequency	Percentage (%)
1	Management	1232	8,3
2	Public health	968	6,5
3	Computer technology engineering	937	6,3
4	International, Bilateral and Multilateral Relations	734	4,9
5	Civil Engineering - Civil Construction	689	4,6
6	Accounting	632	4,2
7	Economy of Finance / management of finances - Banking Economics	624	4,2
8	Tourism and Hospitality	606	4,1
9	mining engineering	594	4,0
10	Law	561	3,8
11	English language	469	3,2
12	Nursing	465	3,1
13	Portuguese language	421	2,8
14	Public administration	280	1,9
15	Public Law	271	1,8
16	Engineering Architecture	210	1,4
17	Education	189	1,3
18	Physics	188	1,3
19	Communication - Journalism and Publishing	181	1,2
20	Agronomy	179	1,2
21	Development Studies	166	1,1
22	Chemistry	163	1,1
23	General / Environmental Biology	151	1,0
24	Mathematics	146	1,0
25	Teacher training	145	1,0
26	Philosophy	144	1,0
27	Medicine - Medical Practice (General Practice)	143	1,0
28	Electrical engineering	139	0,9
29	mechanical Engineering	139	0,9
30	Geology	137	0,9
31	Teaching biology	123	0,8
32	Public policy	120	0,8

Nu.	Area of Study	Frequency	Percentage (%)
33	political science	118	0,8
34	Computer Management	118	0,8
35	Engineering Industry	117	0,8
36	Livestock Production	112	0,8
37	Midwife	109	0,7
38	Human Resource Economics	103	0,7
39	Pharmacy	92	0,6
40	Sociology	89	0,6
41	Agro-business	88	0,6
42	Petrology	87	0,6
43	Teaching chemistry	87	0,6
44	Teaching Physics	81	0,5
45	Government Science	80	0,5
46	Physical Education / Sports Education	74	0,5
47	Aquaculture	71	0,5
48	Teaching mathematics	66	0,4
49	Computer science	61	0,4
50	Study of Peace	58	0,4
51	Dentist	53	0,4
52	Nutrition	45	0,3
53	Tetum language	41	0,3
54	Economics of education	36	0,2
55	Forestry Management	33	0,2
56	Social Economy Agricultural	30	0,2
57	Business Administration	27	0,2
58	Mining Engineering	26	0,2
59	Others	26	0,2
60	Preventive Veterinary Medicine	25	0,2
61	Moral Theology	24	0,2
62	Economics of Education / Management of Education	23	0,2
63	Applied Linguistics	22	0,1
64	Clinical and Animal Surgery	22	0,1
65	Zoology	20	0,1
66	Business Analyst	20	0,1
67	Others	20	0,1
68	Mineralogy	19	0,1
69	Philosophy of Education	19	0,1
70	veterinary Medicine	18	0,1
71	Government Planning and Policy	17	0,1
72	information Science	17	0,1
73	Forest Resources and Forestry Engineering	16	0,1
74	environmental engineering	16	0,1
75	Environmental health	16	0,1
76	Anesthetist	15	0,1
77	Agricultural engineering	15	0,1
78	Others	14	0,1
79	fishing engineering	14	0,1
80	Psychology	13	0,1
81	Agricultural Product Processing Engineering	13	0,1
82	Social service	13	0,1
83	Anthropology	12	0,1
84	Psycholinguistics	12	0,1
85	Food Technology	12	0,1
86	Chemical engineering	11	0,1
87	Theology	10	0,1

Nu.	Area of Study	Frequency	Percentage (%)
88	Industrial Economics	10	0,1
89	Economy - Cooperativa - Mercado	10	0,1
90	Special education	10	0,1
91	Education (teaching) Pre-primary and primary	10	0,1
92	Pathological Anatomy and Clinical Pathology	9	0,1
93	Gastroenterology Surgery Specialist	9	0,1
94	Private Law	9	0,1
95	History and geography	9	0,1
96	Education Sociology	9	0,1
97	Pediatric Specialist	8	0,1
98	Pharmacology	7	0,0
99	Food Science and Technology	7	0,0
100	Statistic	7	0,0
101	Forestry Techniques and Operations	7	0,0
102	Artistic education	7	0,0
103	Materials and Metallurgical Engineering	6	0,0
104	Medical Radiology	6	0,0
105	Genetics	5	0,0
106	Religious Career	5	0,0
107	Aerospace Engineering	5	0,0
108	Legal Medicine and Deontology	5	0,0
109	Educational politics	5	0,0
110	Training of primary school teachers and pre-secondary education	5	0,0
111	Indonesian Language	4	0,0
112	Geodesy	4	0,0
113	Plant Biology	4	0,0
114	Transportation Engineering and Telecommunication	4	0,0
115	Physiotherapy and Occupational Therapy	4	0,0
116	Psychiatry	4	0,0
117	Maternal and Child Health	4	0,0
118	Floriculture, Parks and Gardens and Arborization of Highways	4	0,0
119	Forestry	4	0,0
120	Conservation of Nature	4	0,0
121	Food Science	4	0,0
122	History of Education	4	0,0
123	Pastoral Theology	4	0,0
124	Skills Education - Fashion, Cosmetics, Cake / Pastry	4	0,0
125	Cultural studies	4	0,0
126	Geosciences	3	0,0
127	Environmental Ecology	3	0,0
128	Hydraulic Engineering	3	0,0
129	Cardiovascular Surgery Specialist	3	0,0
130	Pediatric Surgery Specialist	3	0,0
131	Obstetric Specialist / Gynecologist	3	0,0
132	Optometry	3	0,0
133	Administration of Specific Sectors	3	0,0
134	Museology	3	0,0
135	Music	3	0,0
136	Educational Psychology	3	0,0
137	Specialist Plastic and Restorative Surgery	2	0,0
138	Fishing Resources and Fisheries Engineering	2	0,0
139	Gender Study	2	0,0
140	Sociolinguistics and Dialectology	2	0,0

Nu.	Area of Study	Frequency	Percentage (%)
141	Hospital administration	2	0,0
142	Naval and Oceanic Engineering	2	0,0
143	Gerontology	2	0,0
144	Phytopsanitary	2	0,0
145	Fitotecnia	2	0,0
146	Agrometeorology	2	0,0
147	Technology and Use of Forest Products	2	0,0
148	Rural Constructions and Environment	2	0,0
149	Nutrition and Animal Feed	2	0,0
150	Animal Pathology	2	0,0
151	Animal Reproduction	2	0,0
152	Food Engineering	2	0,0
153	Business Administration	2	0,0
154	International economy	2	0,0
155	Biochemistry	1	0,0
156	Geotechnical Engineering	1	0,0
157	Specialist Orthopedic Surgery	1	0,0
158	Business Consulting	1	0,0
159	Actuarial Sciences	1	0,0
160	Fashion design	1	0,0
161	Meteorology	1	0,0
162	Biological Oceanography	1	0,0
163	Physical Oceanography	1	0,0
164	production engineering	1	0,0
165	Nuclear Engineering	1	0,0
166	Internal Specialist	1	0,0
167	Dentistry	1	0,0
168	Soil Science	1	0,0
169	Water and Soil Engineering	1	0,0
170	Ecology of Domestic Animals and Ethology	1	0,0
171	Inspection of Products of Animal Origin	1	0,0
172	Inland Water Fishing Resources	1	0,0
173	Architecture and urbanism	1	0,0
174	Domestic economy	1	0,0
175	Educational Anthropology	1	0,0
176	Catechism	1	0,0
177	Visual arts	1	0,0
178	Theater	1	0,0
179	Video Arts	1	0,0
180	Mechatronics Engineering	1	0,0
181	Industrial chemistry	1	0,0
182	Public relations	1	0,0
183	Specific Curricula for Levels and Types of Education	1	0,0
184	Professional Training	1	0,0
Total		14,871	100,0

3.14. Year the course ends

Regarding to the estimation of the numbers of higher education students who will graduate or finish their courses in the next 6 years, the data in table 18 shows that the areas of Management, Public Health, Computer Engineering, Civil Engineering -

Civil Construction and International, Bilateral and Multilateral Relations are those with the highest number of degrees. Other areas have a few number of graduations per year, so it is important to highlight the need to anticipate not to contribute more to the number of unemployed graduates.

Table 18. Distribution of the number of students who are currently attending courses and prediction of the year in which the course will end

Areas of Study	Year the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Management	311	250	179	228	53	8	1	1030
Public health	146	255	175	190	56	6	1	829
Computer technology engineering	226	196	146	161	73	7	-	9-Aug
Civil Engineering - Civil Construction	155	164	126	136	36	6	-	623
International, Bilateral and Multilateral Relations	167	135	116	153	38	2	-	611
Tourism and Hospitality	129	126	86	146	48	10	-	545
mining engineering	127	138	95	114	55	3	-	532
Accounting	134	118	119	115	42	2	-	530
Economy of Finance / management of finances - Banking Economics	132	134	95	113	39	6	-	519
Law	124	116	105	97	36	4	1	483
Nursing	95	101	78	105	50	6	-	435
English language	90	88	81	118	38	4	-	419
Portuguese language	96	88	70	87	27	5	-	373
Public administration	58	75	46	52	14	2	-	247
Public right	54	61	37	61	18	2	1	234
Engineering Architecture	46	54	40	27	12	1	-	180
Physics	28	33	36	57	18	2	-	174
Education	33	28	37	46	17	3	-	164
Communication - Journalism and Publishing	46	30	28	36	23	-	-	163
Agronomy	39	34	27	30	14	1	-	145
Chemistry	23	18	33	48	16	3	-	141
General / Environmental Biology	28	24	18	51	16	3	-	140
Development Studies	54	31	17	26	1-	1	-	139
Philosophy	18	26	51	30	7	1	-	133
Medicine - Medical Practice (General Practitioner)	20	25	18	44	15	1-	1	133
Teacher training	26	27	27	43	10	-	-	133
Mathematics	23	21	23	48	15	2	-	132
mechanical Engineering	35	31	2-	35	8	1	-	130
Geology	27	44	25	23	4	4	-	127
Electrical engineering	44	26	12	35	5	1	-	123
Teaching biology	25	13	18	47	6	3	-	112

Areas of Study	Year the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Engineering Industry	31	18	36	17	6	-	-	108
Midwife	21	40	13	19	9	2	-	104
Public policy	24	30	18	24	4	-	-	100
political science	20	13	28	30	4	1	-	96
Computer Management	22	36	14	17	5	1	-	95
Animal Production (Livestock)	19	22	27	21	3	1	-	93
Pharmacy	17	18	12	29	12	1	-	89
Human Resource Economics	21	25	14	16	9	-	-	85
Agro-business	13	15	13	30	10	1	-	82
Sociology	13	18	16	24	10	-	-	81
Teaching chemistry	6	12	14	36	11	2	-	81
Teaching Physics	7	13	14	38	5	-	-	77
Petrology	17	21	17	11	6	1	-	73
Physical Education / Sports Education	17	15	13	20	4	-	-	69
Government Science	29	16	6	12	2	1	-	66
Teaching mathematics	9	19	14	20	2	-	-	64
Aquaculture	15	14	11	9	5	3	-	57
Computer science	9	15	15	8	7	-	-	54
Study of Peace	22	9	12	5	3	-	-	51
Dentist	11	10	9	15	2	1	-	48
Nutrition	4	11	8	12	7	-	-	42
Tetum language	-	12	8	16	2	3	-	41
Economics of education	7	12	4	6	-	-	-	29
Forestry Management	5	6	6	8	3	-	-	28
Preventive Veterinary Medicine	4	11	4	3	2	-	-	24
Economics of Education / Management of Education	2	10	6	2	1	2	-	23
Mining Engineering	6	5	2	8	1	-	-	22
Social Economy Agricultural	2	7	4	6	3	-	-	22
Others	4	9	3	4	1	-	-	21
Moral Theology	10	4	1	3	1	-	2	21
Business Administration	4	3	3	5	5	-	-	20
Mineralogy	1	4	4	9	1	-	-	19
Business Analyst	2	-	3	11	2	-	-	18
Applied Linguistics	1	6	4	3	2	-	2	18
Zoology	4	4	5	2	1	1	-	17
Clinical and Animal Surgery	7	3	4	1	1	1	-	17
Philosophy of Education	1	6	4	5	-	-	1	17
environmental engineering	2	4	4	3	2	-	-	15
Environmental health	3	2	7	3	-	-	-	15
Others	5	1	-	7	1	1	-	15
veterinary Medicine	4	3	2	4	1	-	-	14
fishing engineering	5	1	4	3	1	-	-	14
information Science	2	2	3	6	1	-	-	14

Areas of Study	Year the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Agriculture engineering	2	4	3	3	1	-	-	13
Government Planning and Policy	3	1	2	5	2	-	-	13
Forest Resources and Forestry Engineering	2	4	5	-	-	-	-	11
Anthropology	-	-	2	7	2	-	-	11
Others	7	4	-	-	-	-	-	11
Agriculture Product Processing Engineering	2	2	7	-	-	-	-	11
Psycholinguistics	1	3	1	4	-	1	-	10
Chemical engineering	2	-	6	2	-	-	-	10
Special education	2	1	2	2	2	-	-	9
Private Law	4	1	1	2	-	-	-	8
History and geography	1	1	4	2	-	-	-	8
Psychology	4	3	1	-	-	-	-	8
Industrial Economics	3	2	2	1	-	-	-	8
Education Sociology	3	-	1	3	1	-	-	8
Education (teaching) Pre-primary and primary	2	-	3	2	-	1	-	8
Gastroenterology Surgery Specialist	1	1	1	3	1	-	-	7
Theology	2	-	1	3	-	-	1	7
Food Technology	-	4	3	-	-	-	-	7
Social service	2	1	3	1	-	-	-	7
Economy - - Cooperative-marketing	1	2	-	4	-	-	-	7
Artistic education	2	1	-	2	2	-	-	7
Pharmacology	1	2	1	1	1	-	-	6
Materials and Metallurgical Engineering	-	1	-	5	-	-	-	6
Pathological Anatomy and Clinical Pathology	1	4	-	-	1	-	-	6
Statistic	-	4	-	2	-	-	-	6
Genetics	2	-	1	2	-	-	-	5
Medical Radiology	1	-	3	1	-	-	-	5
Educational politics	3	2	-	-	-	-	-	5
Training of primary school teachers and pre-secondary education	1	3	1	-	-	-	-	5
Religious Career	2	-	-	1	1	-	-	4
Geodesy	1	1	1	1	-	-	-	4
Transportation Engineering and Telecommunication	1	2	1	-	-	-	-	4
Aerospace Engineering	1	1	-	2	-	-	-	4
Pediatric Specialist	1	1	2	-	-	-	-	4
Physiotherapy and Occupational Therapy	2	2	-	-	-	-	-	4
Legal Medicine and Deontology	-	-	-	4	-	-	-	4
Psychiatry	-	2	-	2	-	-	-	4

Areas of Study	Year the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Floriculture, Parks and Gardens and Arborization of Highways	-	2	1	1	-	-	-	4
Education History	-	-	3	1	-	-	-	4
Education Skills - Fashion, Cosmetics, Cake / Pastry	-	1	-	3	-	-	-	4
Cultural studies	-	2	1	1	-	-	-	4
Hydraulic Engineering	-	-	-	2	1	-	-	3
Food Science and Technology	1	-	1	-	1	-	-	3
Plant Biology	1	-	2	-	-	-	-	3
Obstetric Specialist / Gynecologist	1	1	-	-	1	-	-	3
Optometry	-	-	-	3	-	-	-	3
Maternal and Child Health	1	-	-	1	-	1	-	3
Administration of Specific Sectors	1	-	2	-	-	-	-	3
Educational Psychology	1	1	-	1	-	-	-	3
Geosciences	1	-	-	-	1	-	-	2
Environmental Ecology	-	-	-	2	-	-	-	2
Anesthetist	-	2	-	-	-	-	-	2
Cardiovascular Surgery Specialist	-	-	-	2	-	-	-	2
Pediatric Surgery Specialist	-	2	-	-	-	-	-	2
Specialist Plastic and Restorative Surgery	-	1	-	1	-	-	-	2
Fishing Resources and Fisheries Engineering	-	-	2	-	-	-	-	2
Sociolinguistics and Dialectology	-	1	1	-	-	-	-	2
Indonesian Language	-	1	-	1	-	-	-	2
Hospital administration	-	-	-	2	-	-	-	2
Gerontology	-	-	-	1	1	-	-	2
Phytosanitary	-	2	-	-	-	-	-	2
Agrometeorology	-	2	-	-	-	-	-	2
Forestry	1	-	-	1	-	-	-	2
Forestry Techniques and Operations	-	-	-	2	-	-	-	2
Technology and Use of Forest Products	2	-	-	-	-	-	-	2
Conservation of Nature	-	-	1	1	-	-	-	2
Nutrition and Animal Feed	-	-	1	1	-	-	-	2
Animal Pathology	-	-	-	2	-	-	-	2
Animal Reproduction	-	-	2	-	-	-	-	2
Food Science	1	1	-	-	-	-	-	2
Food Engineering	-	1	1	-	-	-	-	2
Business Administration	2	-	-	-	-	-	-	2
Museology	2	-	-	-	-	-	-	2

Areas of Study	Year the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Pastoral Theology	1	-	1	-	-	-	-	2
Biochemistry	-	-	-	1	-	-	-	1
Geotechnical Engineering	1	-	-	-	-	-	-	1
Specialist Orthopedic Surgery	-	1	-	-	-	-	-	1
Gender Study	-	-	-	1	-	-	-	1
Business Consulting	1	-	-	-	-	-	-	1
actuarial Sciences	-	1	-	-	-	-	-	1
Fashion design	-	-	1	-	-	-	-	1
Meteorology	-	-	-	1	-	-	-	1
Biological Oceanography	1	-	-	-	-	-	-	1
Physical Oceanography	-	1	-	-	-	-	-	1
production engineering	1	-	-	-	-	-	-	1
Nuclear Engineering	-	-	1	-	-	-	-	1
Naval and Oceanic Engineering	-	-	1	-	-	-	-	1
Internal Specialist	-	-	1	-	-	-	-	1
Dentistry	-	-	-	1	-	-	-	1
Fitotecnia	-	1	-	-	-	-	-	1
Water and Soil Engineering	-	1	-	-	-	-	-	1
Rural Constructions and Environment	-	-	1	-	-	-	-	1
Ecology of Domestic Animals and Ethology	-	1	-	-	-	-	-	1
International economy	-	-	-	1	-	-	-	1
Educational Anthropology	-	-	-	-	1	-	-	1
Catechism	1	-	-	-	-	-	-	1
Visual arts	-	-	1	-	-	-	-	1
Music	-	-	-	1	-	-	-	1
Industrial chemistry	-	-	1	-	-	-	-	1
Public relations	-	-	1	-	-	-	-	1
Specific Curricula for Levels and Types of Education	-	1	-	-	-	-	-	1
Professional Training	-	-	-	-	1	-	-	1
Total Dili	3,071	3,102	2,478	3,135	998	135	11	12,930

3.15. The demand of training for personal and institutional

3.15.1. 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 various training areas in Dili municipality. Table 19 below indicates the size of the professional development training performed by training area and the duration of the course. In response to

this question, respondents were asked to select up to three options for the courses taken, so the table refers to the number of courses taken and not to trainees.

The 28,290 respondents represent a substantial level of training activity, since 68.2% have a duration of 1 - 6 months, 22.1% less than one month and 9.8% have been for more than 6 months. It is also notable that the main courses were in the areas of Leadership, Finance, Planning and Information Technology. There are few indications of training in areas considered as priority areas for the municipality, such as agriculture, construction and hospitality and tourism.

Table 19. Professional development courses carried out by training area and duration of the course.

Area of Training	Duration				Total	Percentage (%)
	Less than 1 Month	1 - 6 Months	7 Months - 1 Year	More than 1 Year		
Leadership	1,852	2,641	371	168	5,032	17,8
Business	706	2,477	234	74	3,491	12,3
Planning	638	1,110	134	43	1,925	6,8
Management	459	1,021	132	51	1,663	5,9
Human Resources	528	909	106	40	1,583	5,6
Information Technology	438	4,294	309	134	5,175	18,3
Procurement and Logistics	202	442	56	17	717	2,5
Administration	613	2,698	266	96	3,673	13,0
Information System and Business Management	256	529	63	16	864	3,1
Media and Public Relations	57	179	19	14	269	1,0
Specialized Technician	112	684	85	41	922	3,3
Others	377	2,298	207	94	2,976	10,5
Total	6,238	19,282	1,982	788	28,290	100,0
Percentage (%)	22,1	68,2	7,0	2,8	100,0	

3.15.2. Languages Training

Table 20 shows the proportion of vocational training in the 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 the participation with highest percentage (55%) followed by the English language with 37.8%. The Tetum language has a participation of 2.9%

of the respondents and other languages with a participation of less than 3%. 82.5% of the courses are between 1 - 6 months, 3.7% less than one month and 13.8% more than 7 months. The Portuguese language and English language courses are the main courses conducted by the respondents in the Municipality of Dili.

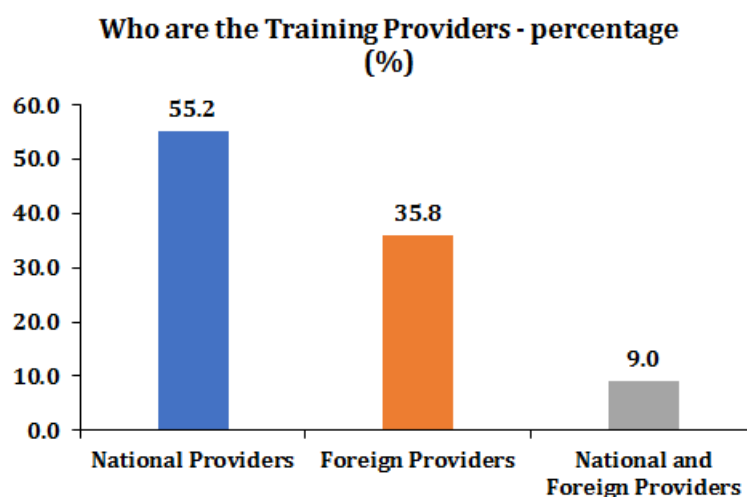
Table 20. Language training and the duration of the course

Type of Training	Duration				Total	Percentage (%)
	Less than 1 Month	1 - 6 Months	7 Month - 1 Year	More than 1 Year		
Portuguese	612	13,993	1,619	710	16,934	55,0
English	396	9,709	1,101	445	11,651	37,8
Tetum	52	672	111	67	902	2,9
Indonesia	27	599	84	47	757	2,5
Korean	27	302	30	10	369	1,2
Others	12	138	15	14	179	0,6
Total	1,126	25,413	2,960	1,293	30,792	100,0
Percentage (%)	3,7	82,5	9,6	4,2	100,0	

3.16. Institution Providers and Financing

As for the institutions that provide language training, 55.2% of the training providers are national institutions, 35.8% are provided by foreign institutions and 9% are promoted by national and foreign institutions (Figure 11).

Figure 11. Institution Provider of language training



3.17. Training Financing

Among the total number of respondents who have already done language training, 67.6% was financed by the trainee himself, 15.9% by the government and 11.4% by the private sector. Training with government support in cooperation with international partners and only by international partners corresponds to 3.3% and 1.7%, respectively (Table 21).

Table 21. Funders of language training

Sub-District Administration	Government	Private sector	Own account	Government and international partners	International Partners	Total
Atauro	79	171	247	30	6	533
Cristo Rei	1,298	834	4,664	243	133	7,172
Dom Aleixo	2,178	1,637	10,866	501	169	15,351
Metinaro	97	10	196	0	49	352
Nain Feto	727	436	2,662	175	107	4,107
Vera Cruz	1,057	825	4,497	174	130	6,683
Total	5,436	3,913	23,132	1,123	594	34,198
Percentage (%)	15,9	11,4	67,6	3,3	1,7	100,0

3.18. Future training plan

3.18.1. 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 training to generate capital gains, it is necessary to respond to the needs of the organization or institution and, consequently, the needs of the trainees themselves. For this, it is important to make a study of the training needs, before starting the investment.

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

In the context of the desire for training for the future, two questions were asked for those who are not yet employed or looking for jobs and those already employed in

the public or non-public sector. In relation to the first, they asked what type of training they want to do in order to increase their personal skills, to obtain a greater job opportunity and to facilitate their job search. The data in table 22 shows that the majority of respondents wish raise their knowledge in the specific areas (Varieties), Languages (English, Portuguese), Finance, Budget, Accounting and Planning, Teachers and Professionals of Education, Management, Administration and Leadership, Medicine and Health Professionals and Information Systems and Business Management.

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 22. Areas of Training Desired by non-employed respondents

Nu.	Area of Training	Frequency	Percentage(%)
1	Varieties *	301	20,8
2	Languages (English, Portuguese, etc.)	258	17,8
3	Finance, Budget, Accounting and Planning	125	8,6
4	Teachers and Education Professionals	123	8,5
5	Management, Administration and Leadership	102	7,0
6	Medicine and Health Professionals	86	5,9
7	System Information & Management Business;	79	5,5
8	Police, Defense, Security (employee training)	68	4,7
9	Information Technology, Database, Web, Software and Electronic Filing (registration) - computer	62	4,3
10	Human resource Management	52	3,6
11	Agriculture	50	3,5
12	Technical Mediation, Conflict Analysis, Conciliation and Sensitive Cases	26	1,8
13	Professional, Research and Development Knowledge (based on	18	1,2

Nu.	Area of Training	Frequency	Percentage(%)
	the operating sector)		
14	Marketing, Communication, Journalism and Media	17	1,2
15	Law and Justice	15	1,0
16	Procurement, Logistics and Asset Management	15	1,0
17	Hospitality in Tourism	12	0,8
18	General Skills Development- Induction Level	11	0,8
19	Fisheries	10	0,7
20	Customer Service (customer service and standard development)	6	0,4
21	Project management	5	0,3
22	Audit and Inspection	3	0,2
23	Training of trainers	2	0,1
24	Production of Livestock	2	0,1
Total		1,448	100,0

*) 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.

3.18.2. Development training and institutional strengthening

As regards the second question - the personal development training and institutional or organizational strengthening applied to the employed respondents, the data in Table 23 shows that the areas of training such as Languages (English, Portuguese), specific areas (varieties) and Computer Technology, Database, Web, Software and Electronic Archiving (registration) - computer continues to be areas of higher preference desired by the respondents.

Table 23. Areas of Training Desired by non-employed respondents

No.	Area of Study	Frequency	Percentage (%)
1	Languages (English, Portuguese, etc.)	221	16,0
2	Varieties *	194	14,1
3	Management, Administration and Leadership	169	12,3
4	Information Technology, Database, Web, Software and Electronic Filing (registration) - computer	146	10,6
5	Finance, Budget, Accounting and Planning	108	7,8
6	Teachers and Education Professionals	85	6,2

No.	Area of Study	Frequency	Percentage (%)
7	Information System & Business Management;	69	5,0
8	Medicine and Health Professionals	65	4,7
9	Human resource Management	60	4,4
10	Police, Defense, Security (employee training)	54	3,9
11	Procurement, Logistics and Estate Management	36	2,6
12	Hospitality and Tourism	26	1,9
13	Law and Justice	21	1,5
14	Agriculture	19	1,4
15	Mediation Technique, Conflict Analysis, Conciliation and Sensitive Cases	18	1,3
16	Professional, Research and Development Knowledge (based on the operating sector)	18	1,3
17	Project Management	13	0,9
18	Marketing, Communication, Journalism and Media	13	0,9
19	Production of Livestock	10	0,7
20	General Skills Development- Induction	8	0,6
21	Training of trainers	7	0,5
22	Monitoring and Evaluation	5	0,4
23	Customer Service (customer service and standard development)	5	0,4
24	Fisheries	5	0,4
25	Audit and Inspection	2	0,1
Total		1377	100,0

*) Items 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.

3.19. Category and Academic Degree of Training

3.19.1. Vocational/Academic Training

When asked about the category of training, of the total of 59,012 respondents, 62.8% of the respondents intend to develop their knowledge through the vocational or professional training course and 37.2% in the academic - higher education course (Table 24).

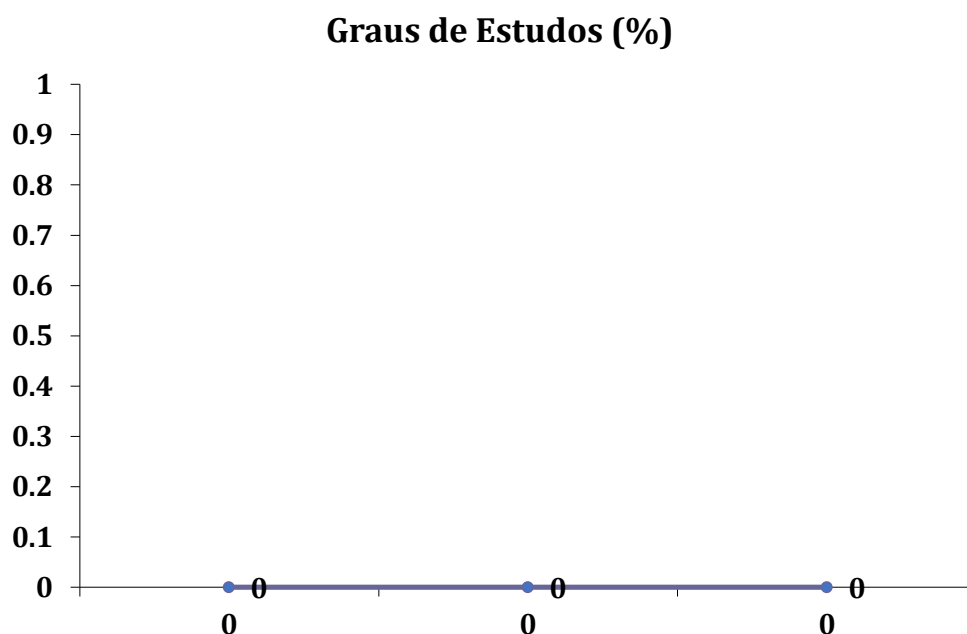
The Sub-District Administration of Cristo Rei and Dom Aleixo have a greater number of those who wish to have vocational or professional training, while the preference for academic training was greater in Dom Aleixo, Vera Cruz and Cristo Rei Sub District Administrations.

Table 24. Category of training - Academic or Vocational Training

Sub-District Administrations	Academic / University	Vocational / Professional training	Total
Atauro	534	1633	2167
Cristo Rei	4,469	14,220	18,689
Dom Aleixo	9,199	14,445	23,644
Metinaro	211	587	798
Nain Feto	2,638	1,595	4,233
Vera Cruz	4,877	4,604	9,481
Total	21,928	37,084	59,012
Percentage (%)	37,2	62,8	100

Among the 21,928 (37.2%) respondents who wish to take the course in higher education, 59.7% plan to increase their knowledge in the Bachelor's degree, 35% MSc and 5.4 PhD (Figure 12).

Figure 12. Degree of Studies wishing to continue



The details of the training areas and the academic degrees desired can be seen in table 25.

Table 25. Academic degrees and areas of study that wish to pursue

Nu.	Area of Study	Academic level courses (University)			Total
		Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)	
1	Management, Administration and Leadership	37	41	8	86
2	Languages (English, Portuguese, etc.)	49	26	3	78
3	Varieties *	47	26	3	76
4	Information Technology, Database, Web, Software and Electronic Filing (registration) - computer	49	17	2	68
5	Teachers and Education Professionals	35	17	1	53
6	Finance, Budget, Accounting and Planning	25	22	4	51
7	Medicine and Health Professionals	29	12	1	42
8	Human resource Management	12	18	3	33
9	Information System & Business Management;	18	7	1	26
10	Police, Defense, Security (employee training)	13	4	1	18
11	Professional, Research and Development Knowledge (based on the operating sector)	8	7	-	15
12	Law and Justice	5	6	2	13
13	Procurement, Logistics and Estate Management	7	6	-	13
14	Hospitality and Tourism	10	2	1	13
15	Agriculture	8	1	1	10
16	Project Management	5	2	2	9

Nu.	Area of Study	Academic level courses (University)			Total
		Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)	
17	General Skills Development- Induction Level	4	1	-	5
18	Training of trainers	1	3	-	4
19	Mediation Technique, Conflict Analysis, Conciliation and Sensitive Cases	4	-	-	4
20	Marketing, Communication, Journalism and Media	3	-	-	3
21	Monitoring and Evaluation	1	2	-	3
22	Customer Service (customer service and standard development)	3	-	-	3
23	Audit and Inspection	1	-	1	2
24	Production of Livestock	1	1	-	2
25	Fisheries	2	-	-	2
Total		377	221	34	632
Percentage (%)		59,7	35,0	5,4	100,0

*) 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.

4. Development of Human Resources within the Strategic Development Plan of the Municipality

4.1. The four pillars of the Municipal Strategic Plan (PEM)

The Dili Municipality's Strategic Plan (MSP/PEM), 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 SDP/PEDN, the MSP/PEM 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: targeting three sectors for development - agriculture, tourism and petrochemicals - to generate growth, jobs and new sources of public revenue beyond 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 municipality's economic structure and the recent growth in various sectors.

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

Development of social capital:	
Education Sector	<ol style="list-style-type: none"> 1) Prepare qualified teachers and the number of teachers available to respond to the number of students; 2) To construct new school buildings for the kindergartens or Preschool in each Sub-District Administration; 3) Ensure the well-being of teachers and make specific regulations for teachers; 4) Raising awareness and monitoring of children of school age, must register to obtain an adequate education; 5) Improve the management of school lunches (school lunches) in public and private primary schools; 6) Ensure that children aged 3 to 5 are enrolled in a kindergarten (pre-school); 7) Provide physical infrastructure, including facilities, sports equipment,

	<p>libraries in all schools;</p> <p>8) Ensure that children between the ages of 6-12 years and 13-15 years are enrolled in basic education;</p>
Health Sector	<p>1) Reduce illiteracy, increase health infrastructure and human resources such as facilities and health facilities, professional technicians, in each Sub-District Administration, define work program including: primary, secondary, general services, periodic maintenance of health infrastructures, such as health post, SISKa post, to perform good health and quality services;</p> <p>2) Prepare human resources such as: doctors, nurses, midwives, laboratory analysis, with the aim of providing good health services, quality and efficiency;</p> <p>3) Establish a specialized hospital in the Municipality of Dili to address specific diseases, such as cancer and other diseases, in order to reduce the sending of sick persons abroad / abroad;</p> <p>4) To reduce the number of children under 3 years of age should be less than 20 out of 1,000 children born;</p> <p>5) Reduce the number of maternal mortality, proportion must be less than 200 people among 100,000 people giving birth or childbirth;</p> <p>6) To prevent HIV / AIDS through</p>

	<p>awareness of environmental capacity and promotion of communication through changes in character and behavior in the coexistence;</p> <p>7) Ensure the consumption of clean water for the whole household;</p> <p>8) To make the family aware of hygiene and cleanliness;</p> <p>9) Promote and awareness campaigns on family planning;</p> <p>10) Improve nutrition through the hygiene of mothers and children through information and awareness about food nutrition;</p> <p>11) Reduce dengue and malaria disease affecting children;</p> <p>12) Reduce HIV / AIDS disease and drug trafficking;</p> <p>13) Reduce and eliminate malnutrition in the municipality of Dili. Establish the center of the youth organization of the Dili municipality to gather the interests of young people.</p>
Youth and Sport	<p>1) Ensure the participation of young people in training, activities and other sporting competitions in each villages and sub villages;</p> <p>2) Disseminate the rules on youth and sport;</p> <p>3) To sensitize young people to participate in social, political and moral activities in</p>

	<p>order to change the character and mentality of young people;</p> <ol style="list-style-type: none"> 4) Empower and train young people intellectually and creatively; 5) Establish and develop a cultural center equipped with art, sports and public library facilities; 6) To sensitize young people to become involved in youth sports organizations in competitive leagues; 7) Provide training in technical and vocational training for young people;
Social inclusion	<ol style="list-style-type: none"> 1) Raise awareness among vulnerable groups and support social institutions that host orphans, homeless children and people with disabilities; 2) Raise awareness of the laws and regulations on domestic violence, human trafficking and illegal drugs; 3) Provide financial support to vulnerable groups in order to improve the economy and independent living; 4) Establish a rehabilitation center for people who use and who are drug addicts;
Environment	<ol style="list-style-type: none"> 1) Socialize and sensitize the importance of environmental protection, nature conservation and prevention of natural disasters for the entire population; 2) Prevent forest fires and deforestation;

	<p>3) Cooperate and coordinate with relevant ministries to prevent the risk of natural disasters and the conservation of the environment and natural resources so that forests, natural resources and water sources are preserved for the survival of the community;</p>
Culture and Patrimony	<p>1) Rehabilitate monuments and historical sites, for purposes of cultural and patrimonial objects of the State;</p> <p>2) To support the development of cultural arts as scenic arts in cinematographic production;</p> <p>Promote the art of music, dance and ensure the creativity of the community dynamically to participate in competitions / national and international competitions as a promotion of the identity of the State.</p>
Development of the Economy	
Agriculture Sector	<p>1) Promote agricultural potential, forests and fisheries and attract investment;</p> <p>2) Identify place to establish an agricultural laboratory;</p> <p>3) Cooperate with producers to establish cooperatives and small businesses;</p> <p>4) Coordinate with related ministries to establish basic agricultural infrastructure;</p> <p>5) Provide loans to small businesses and cooperatives;</p>

<p>Tourism Sector</p>	<ol style="list-style-type: none"> 6) Establish a standard center for quality agricultural products; 7) Develop farmers' skills; 8) Develop skills of extension workers; 9) Institutional Development.
<p>Natural Resources</p>	<ol style="list-style-type: none"> 1) Identify, conserve and rehabilitate the powers of Cultural Patrimony, History and promote historical sites for purposes of foreign tourist destinations; 2) Establish regulations on licensing of tourist sites; 3) Sensitize the community about maintenance and hygiene and seedlings of plants such as: mangrove trees near the coast; 4) To develop community tourism and / or ecotourism with the objective of increasing the economic income of the community; 5) Establishment of tourist assistance center (Hotel, Guide, Agency Tour, Restaurant, Traditional Souvenir, Promotion local food, Culture and Service) <ol style="list-style-type: none"> 1) It requires special attention to natural resources, reforesting the environment for the sustainability of natural resources; 2) Cooperate and coordinate with related

Commercial and Industrial Sectors	<p>ministries for the exploitation of natural resources such as pebbles, sand and water sources; Coordinate and cooperate with the central government to provide youth training on good and successful business practices; Issue regulations related to trade investment and banking;</p> <p>3) Cooperate with the central government to provide financial support to small traders (street vendors).</p>
Infrastructure Development	
Roads and Bridges	<p>1) Identify bridge conditions and roads in administrative and rural areas as a priority for construction and rehabilitation;</p> <p>2) Cooperate and collaborate with relevant ministries to prepare for urbanization planning, building alternative roads;</p> <p>3) Carry out feasibility studies (research) on the conditions of the highways with the proposal of elaboration of planning, maintenance of public roads in a sustainable way; Sensitize the community about electric use procedures.</p>
Electricity Sector	<p>1) Cooperate with relevant ministries and all components of society to monitor the use of electricity by consumers;</p> <p>2) Raise public awareness of electricity payments and illegal use of power lines;</p>

<p>Water and Sanitation Sector</p>	<p>3) Cooperate with related ministries to organize community groups on waste recycling.</p> <p>1) Rebuild water supply network in Dili;</p> <p>2) Rehabilitate cubic records (cubic meters) for the channeling of clean water;</p> <p>3) Raise community awareness about the payment of taxes on water;</p> <p>4) Raise community awareness about cleanup and garbage awareness at sites that were provided by the district administration government;</p> <p>5) Work with the community to establish latrines in each household;</p> <p>6) Manage waste, to prevent the occurrence of natural disasters in the city.</p>
<p>Port and Airport</p>	<p>1) Identify locations for fishing ports;</p> <p>2) Disseminate the community about the government's plan to build the Economic Zone of Atauro Sub-District Administration;</p>
<p>Telecommunications</p>	<p>3) Build the maritime port of Dili;</p> <p>4) Socialize the community about the construction of international aviation airport.</p>
<p>Institutional framework - focus on macroeconomic management and improvement of the capacity and effectiveness of government institutions.</p>	

<p>Public Sector Good Governance Management</p>	<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 juices authorities; 5) Promote the favorable business environment to attract investment within the municipality; 6) Strengthen the presence of community police in juices; 7) Promote ongoing dialogue for conflict prevention; 8) Ensure public order, environmental health, the right and freedom of expression of all persons; 9) Strengthen the implementation of the PNDS & PDIM program; 10) Increase employee knowledge in generic areas such as: <ul style="list-style-type: none"> • Supply management; • File management; • Accounting, finance and audit management;
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Justice	<ul style="list-style-type: none"> • Human Resource Management; • Territory planning; • Asset management and logistics. <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/community development; 4) Languages mainly Portuguese.
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4.2. Main Areas of Training

The Dili Municipality presented the following distribution of training needs per training area required for each pillar and development sector for the immediate period 2019-2022, and then for the period 2023-2025 and in the long term to end of 2030. Training needs were subdivided into two categories: the first refers to scholarships for vocational and technical education, bachelor's, master's and doctorate degrees, and the second refers to professional development through participation in workshops, seminars and development in a work context. The data of the main training areas are presented in table 26 below, taking into account the short, medium or midterm and long term priorities.

Table 26. 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 Technician	Short Term(2019-2022)	Mid Term(2023-2025)	Long Term(To2030)
Specialist in Management and Planning	x	x	x	x	x
Technical and Licentiate/Undergraduate in Crafts	x	x	x	x	x
Computer Engineer (IT)	x	x	x	x	x
Tourism and Culinary Arts Hospitality Course	x	x	x	x	x
Bachelor's Degree in Media	x	x	x	x	x
Plan and Development of community tourism	x	x	x	x	x
Environmental Engineering (Specialist)	x	x	x	x	x
Training in the area of conservation of cultural heritage	x	x	x	x	x
Training in the area of Cultural Management	x	x	x	x	x
Engineer in the Forest area	x	x	x	x	x
Food & Beverage Outlets	x	x	x	x	x
Mechanical Engineer		x	x	x	x
Teacher Training Tutorial	x	x	x	x	x
Technician in the area of library and laboratory	x	x	x	x	x
Training in Hospitality	x	x	x	x	x
Teacher training	x	x	x	x	x
Training and qualification of health professionals	x	x			
Training of managers	x	x	x	x	x
Training of health specialists	x	x	x	x	x
Degree in Psychology	x	x	x	x	x
Nursing Care Professionals	x	x	x	x	x
Life Skill Based Education	x	x	x	x	x
Bachelor of Science in Meteorology and Geophysics	x	x	x	x	x
Training in Environmental Education	x	x	x	x	x
Recycling Training	x	x	x	x	x
Story	x	x	x	x	x
Anthropology	x	x	x	x	x
Sociology	x	x	x	x	x
Training of Aquivo technicians	x	x	x	x	x
Training in the areas of arts and dance	x	x	x	x	x
Training in music areas	x	x	x	x	x
Formation in culture and development of such	x	x	x	x	x
Community Health	x	x	x	x	x
Electronic Engineer	x	x	x	x	x
Architecture	x	x	x	x	x

Main areas of training	Category of training you wish to pursue (Academic / Professional)		Training priorities		
	Academic	Professional Technician	Short Term(2019-2022)	Mid Term(2023-2025)	Long Term(To2030)
Civil Construction Engineering	x	x	x	x	x
Eng. Forest and Environment	x	x	x	x	x
Garbage Manager	x	x	x	x	x
Professional / Technical Mechanical	x	x	x	x	x
Engineer / Technicians relevant to each sector	x	x	x	x	x
Veterinarians Professional	x	x	x	x	x
Extensionists	x	x	x	x	x
Professional / Animal Health Technician	x	x	x	x	x
Professional Forest Guard	x	x	x	x	x
Leadership management	x	x	x	x	x
Bachelor in Tourism in Culture and Hospitality	x	x	x	x	x
Anthropologist	x	x	x	x	x
Engineer Forestry, Fisheries, Environment, Maritime Police, Land, Civil Security, Municipal Guard	x	x	x	x	x
Engineer in Fine Arts	x	x	x	x	x
Economists	x	x	x	x	x
Accountant	x	x	x	x	x
Computer Technology Engineer	x	x	x	x	x
Civil engineer	x	x		x	x
Architecture Engineer	x	x		x	x
Soil analysis (Geodesy)	x	x		x	x
HR Specialist	x	x	x	x	x
Specialist Monitoring & evaluation	x	x	x	x	x
Maintenance and operation of the GMF group		x		x	
Accounting technician	x	x		x	
Technical Analysis of Hydraulics	x	x		x	
Network operating system	x	x		x	
Technical Civil & Language	x	x		x	x
Electrical Technician	x	x		x	x
Mechanical Technician					
Computer Technology (IT)	x	x		x	x
Crew (Nahkoda)	x			x	x
English Portuguese		x	x		
Technical Air Control	x	x		x	x
Airplane pilot	x			x	x
Specialist in Administration and Local Government	x	x	x	x	x
Training in the Procurement Area	x	x	x	x	x
Training in the area of Project Management		x	x	x	x
Accounting and financial management	x	x	x	x	x
Planning management	x	x	x	x	x
Report management		x	x	x	x

Main areas of training	Category of training you wish to pursue (Academic / Professional)		Training priorities		
	Academic	Professional Technician	Short Term(2019-2022)	Mid Term(2023-2025)	Long Term(To2030)
File management		X	X	X	X
Engineer / IT Specialist	X	X	X	X	X
Management Course Protocol		X			
Training in Tax and Tax Contribution area	X	X	X	X	X
Law Training	X	X	X	X	X
Judge Training	X	X	X	X	X
Researcher Training	X	X	X	X	X
Training in Information Technology	X	X	X	X	X
Audit	X	X	X	X	X
Training for the Public Defender	X	X	X	X	X

5. Discussion and Analysis

This study has two complementary lines of work, the first being the identification of the distribution of existing human resources at the Municipal level and Sub District Administrations. With the data collected, the levels of education and areas of study, occupations and their intentions of training and employment in the desired areas were subsequently analyzed.

The second is the identification of priority municipal programs based on the four pillars of the Municipal Strategic Plan (MSP/PEM) and key human resources that needed for training to develop the same priority programs. Attempts have been made to analyze and compare the existence of current human resources and the need for training or training required by the municipality based on its priority programs to allocate funding efficiently and effectively.

The data presented here show that the majority of respondent population in Dili municipality are young people aged 17-36 years. At the level of knowledge, there are a large number of people with no education level (illiterate), followed by those with complete secondary, pre-secondary and basic education respectively.

This dispersion of education level, together with the rapid growth of the population in the relevant age groups, shows the essence of the challenge faced by the Dili 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 vocational technical courses, either at the secondary technical level or at the higher technical level - 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 skilled labor prepared for self-employment or institutional strengthening. Those who have already taken part in one of the short-term professional courses are mostly generic professional courses geared more towards administrative work and the civil service such as courses in 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 also a large number of job seekers, including those who have completed their degree programs in Computer Engineering, Management, Law, Accounting and Civil Engineering - Civil Construction, and more graduates in other areas (see table 19) , without being exploited in the labor market. The work preference is in the public sector while the non-graduates prefer the non-public sector such as agriculture, domestic work, industrial activity and civil construction. Analyzing the training preference based on the priority programs (Table 26) with the current human resources (Table 9), the data show that the Dili Municipality has a high number of graduates in several areas, however, it is verified that there is still needs 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 stress that there are still serious concerns about quality not only in technical knowledge but in language skills and this can become one of the challenges. Language training activities are intended to provide the beneficiaries with fluency in reference languages and to enable them to be more effective in carrying out their tasks in particular when traveling to international work. In this sense, it becomes important to unite with the additional training at the level of post graduations directed to the priority technical areas and professional stages.

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

Private sector growth is constrained by skill gaps in the workforce of 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

the robust economic growth stimulated by the private sector. In this sense, it is crucial to strengthen the private sector by promoting the development and the adequacy of the qualification of workers and employers, with a view to improving their employability and increasing the productivity and competitiveness of the enterprise.

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

The Municipality of Dili 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, software Programming and management (decision making, leadership, delegation, motivation). Thus, it is considered that academic ability and professional technical training should be provided for the most crucial areas in the implementation of its priority program as shown in table 26.

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 emphasize that skills development can not be seen only in formal technical and vocational education and training. It comprises skills acquired through all levels of education and training, taking place in formal, non-formal and vocational training contexts. It enables individuals in all sectors of the economy to engage fully and productively in livelihoods and to be able to further enhance 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 at primary and secondary level due to various difficulties and this makes it difficult to get a job and the higher salary than the benefit from 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 obtain a vocational qualification which help to overcome the concerns of employers, so that they can have more opportunities and easier to entry into the labor market.

The data also point out the need to reduce or combat illiteracy through the creation of opportunities and mobilization of municipal managers to increase literacy provision for all young people, adults and the elderly who did not have access to or stay in basic education, especially small and medium-sized business and farmers. Education and training for entrepreneurship is also principal key to encourage 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 and 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 RECOMMENDATION

6. Conclusion and Recommendations

Based on the data presented and discussed above, it is concluded that, in order to develop human capital resources and achieve sustainable development in the future, the Dili municipality needs to pay more attention to the development opportunities identified in the Municipal Development Plan and the 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 the society, with focus in the construction of an environmental conscience linked to the consumption).

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

- The majority of the respondent population in Dili municipality are young, aged between 17 and 44 years of age in both sexes, and the female population is the largest number in the age group between 17 and 32 years old;
- The number of people disability was 1.1% of the total number of respondents, the largest type of disability being physical mobility (37.5%), vision (33.2%) and deaf and dumb (14.8%);
- At the level of education, 48% have the secondary level, 23.4% basic and pre-secondary, 14.9% illiterate, tertiary education 11%, technical professionals 0.8% and other levels 0.8%;
- Certificate IV vocational training was attended by 2.8% of the total respondents with the highest prevalence in the area of computer, information technology, English and Portuguese languages;
- The main occupations of the public sector are administrative employees (67.01%) and teachers (15.03%) with years of work between 1-5 years and most have grade 1-5 and level C - level F;

- In relation to temporary public servant, the occupational pattern is similar to permanent public servant with teachers and staff, both representing 87.6% where 61% have years of work between 1-5 years and the majority have a corresponding secondary level of education? ??????;
- Most people involved in business as entrepreneurs have the knowledge of secondary level (46.7%), without education (15.35%) and pre-secondary (14%) and only 6.7% with a bachelor's degree. Most play the role as owner of the company (businessman) but also as an employee. The largest area of activities are accommodation - food, commerce and repair and construction;
- 60.9% of the individuals aged 17-32 years who are looking for a job and work preference are registered in agriculture (33.1%), domestic tasks (12.2%) and construction (8.9%).
- Graduates intend to work more in the public sector (63.3%) than in the non-public sector (36.7%). The areas with the highest number of job search graduates, "unemployment" are Computer Engineering, Management, Law, Accounting and Engineering - Civil Construction. These areas continue to be areas with greater numbers of current students studying at universities which may further increase graduates in these areas in the future;
- The main courses conducted by the respondents are in the generic areas such as Leadership, Finance, Planning and Information Technology and few in the areas considered priority for the municipality, such as Agriculture, Construction and Hospitality and Tourism;
- Participation of respondents in language training was recorded in the Portuguese language (55%), English language (37.8%) and others with a lower percentage of training was self-funded.
- For personal development and institutional strengthening, most respondents wish to increase their knowledge through training in the areas of languages (Portuguese and English) and other areas;
- Regarding the category of training, 62.8% intend to develop their knowledge through vocational or professional training courses and 37.2% wish to continue their study in higher education;

- The commitment to education should give priority to a technical and professional training on academic, focusing more on the opening of vocational training centers (or Polytechnic Institutes) to the detriment of the opening of more universities;
- Complement to the academic formation, the creation of courses of specialization to increase the employability and professional capacity of those who finish the formal education;
- Based on the data analyzed, we reinforce the need to train other areas where there are notable shortages of qualified human resources and areas of greater importance according to the priority programs found in table 26;
- Most respondents want to work in the non-public (private sector) than in the public sector. The desire for the private sector was slightly higher among young people aged 17-36 and the preference for work is mainly in the area of agriculture, household chores, industry and construction;
- Graduates and postgraduates with the greatest number of job seekers, "unemployed", are in the areas of Computer Engineering, Management, Law, Accounting and Civil Engineering - Civil Construction and more licensed in other areas (table 16).
- 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 looking for work and have inadequate professional qualifications or have very limited practical professional background. It is recommended the need to develop initial and continuing vocational training for people with disabilities and incapacity, in particular the gestural training for those with visual and hearing disabilities, so that they may have more opportunities to enter 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 in the ENDP/PEDN, such as agriculture, construction and hospitality and tourism. It should focus more on the development of human capital:
 - a) **The 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 R & D centers, closely related to the needs of agriculture in the Dili municipality;
 - b) **The 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 of transport, easy access and allows local farmers to transport their products to the market quickly and effectively;
 - c) **Tourism** in Dili Municipality continues to be a future opportunity, but taking advantage of this opportunity will require the development of a trained workforce, from the entry-level team to senior managers, as well as investment in R & D, development and planning policies and planning capabilities;
- 2) **Private Sector** - Survey data show that private sector growth is constrained by skill gaps in the workforce of 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 research

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 education and technique remain fluid, with easy articulation between the two areas;

- 4) **Adult education** (literacy for all young people, adults and the elderly), especially for women, and on-the-job training. In our view, these three areas are of considerable importance in the future. In particular, the increasing role of women, perhaps especially in agriculture, and with 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 demand-driven secondary-vocational education and demand-driven post secondary technical education area of secondary and post-secondary education.

7. Bibliographic references

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- General Directorate of Statistics - Ministry of Finance, Population and Housing Census in 2010;
- General Directorate of Statistics - Ministry of Finance, Population and Housing Census in 2015;
- Strategic Plan for National Development from the year of 2011-2030;
- Strategic Plan for Municipal Development 2016.

Annex 1. Questions for Group discussion

QUESTIONS FOR GROUP DISCUSSION - GROUP I - GENERAL QUESTIONS

Identify the Natural Resources that the Municipality / RAEOA-Oecusse has as priorities to develop!	Related to the powers (Natural Resources) that exists, What kind of Human Resources do you want to training to develop the existing potentialities?	What level of Human Resources do you want to training?		Training priority for (Short, Medium, Midterm and Long Term)		
		Academic	Professional Technical	Short term (2019-2021)	Mid-term (2022-2025)	Long Term (2026 - 2030)
Tourism						
Agriculture						
Identify other potentials						

QUESTIONS FOR GROUP DISCUSSION - GROUP II - SOCIAL CAPITAL

Social Capital	What are the priority programs related to the sectors below that the Municipality / RAEOA-Oecusse has to develop? Describe according to each industry!	Related to the Natural Resources that exists, What kind of Human Resources do you want to training to develop the existing potentialities?	What level of Human Resources do you want to training?		Training priority for (Short, Medium/Midterm and Long Term)		
			Academic	Professional Technical	Short term (2019-2021)	Mid-term (2022-2025)	Long Term (2026 - 2030)
EDUCATION AND TRAINING							
HEALTH							
SOCIAL INCLUSION							
ENVIRONMENT							
CULTURE AND PATRIMONY							

QUESTIONS FOR GROUP DISCUSSION - GROUP III - ECONOMIC DEVELOPMENT

Economic development	What are the priority programs related to the sectors below that the Municipality / RAEOA-Oecusse has to develop? Describe according to each industry!	Related to the Natural Resources that exists, What kind of Human Resources do you 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	Professional Technical	Short Term (2019-2021)	Mid Term (2022-2025)	Long Term(2026 - 2030)
Rural development							
AGRICULTURE							
PRIVATE SECTOR							

QUESTIONS FOR GROUP DISCUSSION - GROUP IV - INFRASTRUCTURE DEVELOPMENT

INFRASTRUCTURE DEVELOPMENT	What are the priority programs related to the sectors below that the Municipality / RAEOA-Oecusse has to develop? Describe according to each industry!	Related to the Natural Resources that exists, What kind of Human Resources do you 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	Profesional Technical	Short Term (2019-2021)	Mid Term (2022-2025)	Long Term (2026 - 2030)
ROADS AND BRIDGES							
WATER AND SANITATION							
ELECTRICITY							
MARITIME PORTS (if applicable)							
AIRPORT AND TELECOMMUNICATIONS							

QUESTIONS FOR GROUP DISCUSSION - GROUP V - INSTITUTIONAL FRAMEWORK

INSTITUTIONAL FRAMEWORK	What are the priority programs related to the sectors below that the Municipality / RAEOA- Oecusse has to develop? Describe according to each industry!	Related to Natural Resources that exists, What kind of Human Resources do you 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	Professional Technical	Short Term (2019- 2021)	Mid Term(2022- 2025)	Long Term (2026 - 2030)
MANAGEMENT AND GOOD GOVERNANCE OF THE PUBLIC SECTOR							
Justice							

Annex 2. Attendance List 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 Dili

No.	Name	Position	Institutions
1	Duarte Braganca	Director of Education Dept	MT. M. Dili
2	Agustinho da C. S. Segurado	Director of Health Department	M - Dili
3	Natalia M. M. Dias Ximenes	Director of Agriculture Dept	M - Dili
4	Florindo de Jesus	Director of SMASA High School	M - Dili
5	Tomas da Costa Filipe	Coord. See. AM - Dili	M - Dili
6	Antonio M. Calau	Department of Human Resources	A. M. Dili
7	Siu Peng Lay	Representative of Chinese Timorese Entrepreneurs Community in Timor-Leste	ACCCTO
8	Manecas Lobo dos Santos	President of Youth National Council	CNJPL
9	Paulo da Silva Neves	Representative of Disability Association	RHTO/DPO
10	Fidelis M. Araujo	Coordinator of Natural Disaster Department of Dili	MSS - ASDN
11	Joaquina Zita M da Cruz	Representative of Resp. Geral Pessoal SSM - Dili	Saude Munisipiu Dili
12	Armandina de Jesus Moniz	Estagiado, ADM. M. Dili	Administrasaun Munisipiu Dili
13	Aurelia da Conceicao Oliveira	Estagiado, ADM. M. Dili	Administrasaun Munisipiu Dili
14	Carla do Rego Smith	Staff Mun. Dili	Secretariado Mun. Dili
15	Felicidade da Costa	Jornalista	RTTL
16	Januario Fernandes	DEPLO	FDCH
17	Xisto Cabral da Costa	Media	FDCH
18	Natanael E. M. Belo	Tekniko DESTI	FDCH
19	Estefania Correia da Silva	Jurista	FDCH
20	Rui Silva	Staff	FDCH
21	Virgilio Ramos da Costa	Chefe de DERHI-GAFRHI	FDCH
22	Ligia Alves	Staff	FDCH
23	Prudencio A. Dias Ribeiro	Staff	FDCH
24	Maria Rosa S. Pinto	Chefe Dept. DEPPEFIV	FDCH
25	Maria S. P. Gusmao	Ofisial MAE	PNDS - MAE
26	Lino Pereira	Driver	FDCH
27	Afonso de Almeida	Research Consultant of FDCH/ HCDF	FDCH