



Ministry for Higher Education,
Science and Culture
(MESCC)

FDCH



Human Capital Development Fund
(FDCH)

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



COVALIMA MUNICIPALITY

LDRHE

DATA COLLECTION OF EXISTING
HUMAN RESOURCES

LDRHE REPORT 2018

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

Municipality of Covalima

Fundo do Desenvolvimento do Capital Humano (FDCH)

(Human Capital Development Fund – HCDF)

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

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Thank you.

MESSAGE FROM THE MINISTER



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

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

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

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

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

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

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

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

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

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

Dili, December 2018

A blue ink signature, appearing to be "M.M. Longuinhos dos Santos", is written over a horizontal line.

Longuinhos dos Santos, M.M.

Minister of Higher Education, Science and Culture (MESCC)

MESSAGE FROM THE EXECUTIVE SECRETARY OF FDCH



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

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

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

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

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

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

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

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

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

Dili, December 2018

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

Isménio Martins da Silva

Secretary of HCDF/ FDCH-MESCC

EXECUTIVE SUMMARY

Justification of the Importance of the Subject

This report has two complementary lines of work, the first 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 of human resources that need training in the development of priority programs.

The key of 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 an appropriate funds for the needs of human resources development (HRD), identified, ensuring different phases of MSP/PEM to be implemented successfully.

The formulation of a human resources 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 resources 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 of 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 and applied with following phases: **in the first phase**, the data were collected from individuals aged 17 or over by means of a census of the resident population in the Municipality of Covalima with the completion of a questionnaire, carried out from September 5 to 5 of November 2016 and **in the second phase**, was done through “Focus Group Discussion” (FGD) held on March 14, 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 shows that the majority of the respondent population in Covalima Municipality are young people aged between 17 – 44 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, together with the rapid population growth in the relevant age groups, shows the essence of the challenge faced by Covalima 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 indicates a very small number of people who had taken part in one of the vocational training courses with a skilled workforce prepared for self-employment or institutional strengthening.

Those who had already taken part in one of the short-term professional courses in most 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 term 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 Accounting and Law, and more graduates in others areas (see table 15), 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 25) with the current human resources (Table 5), the data shows that Covalima 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 / organizations. It is evident that with this very low level of qualification the municipality of Covalima will not be able to overcome the serious problems that it faces today 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, programming or software

engineering (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 25.

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 shows that there are quite a large number of people with disabilities and many of them have ceased their studies at primary and secondary level due to various difficulties, and this makes it difficult to get the benefit they receive 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, enabling them to acquire the knowledge and skills necessary to obtain a vocational qualification that helps to overcome the concerns of employers so that they can have more opportunities and they can entry into the labor market easier.

The data also points out the need to reduce or combat illiteracy through the creation of opportunities and mobilization of municipality 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 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.

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 Covalima Municipality needs to pay more attention to the development opportunities identified in the Municipality Development Plan (MDP) and 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:

- a) The commitment to education should give priority to technical and professional training on academic, focusing more on the opening of vocational training centers (or Polytechnic institutes) to the detriment of the opening of more universities.

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

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

Most respondents are interested 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 most unemployed graduates and postgraduates with the highest number of job seekers “unemployment” are in the fields of Accounting and Law and more graduates in other areas (table 15).

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

There are quite a large number of people with disabilities 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.

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

- 1) Education and training opportunities remain limited in some of the major areas highlighted by 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 at the municipality of Covalima.
 - **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 Covalima 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 shows that private sector growth is constrained by skill gaps in the workforce both employers and workers. In this regard, it is crucial to strengthen the private sector by promoting the development and adequacy of the qualification of workers and employers with a view to improving their employability and increasing the productivity and competitiveness of the business.
- 3) **Technical and vocational education and training (TVET)**. FDCH's study 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 and technical education remains fluid, with easy articulation between the two areas.

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

PART A: INTRODUCTION, OBJECTIVES AND METHODOLOGY

1. Introduction, Objectives and Methodology

1.1. General Introduction

The municipality of Covalima located in the southwest of the country, it shares the borders in the northern part with the municipality of Bobonaro and *Kabupaten* Belu of West Timor, Indonesia, to the south it is to the coast of Timor Sea to the east with the municipality of Ainaro and to the west with Belu, West Timor, Indonesia; has a total area of 1,206.66 km².

Astronomically the municipality of Covalima is in latitude 9°5-9°30 and longitude of 125°40 – 125°.

In 2017, the population was estimated at 65,301, with 32,968 men and 32,333 women, according to the census of 12,564 families.

The dominant religion in the territory of Covalima is the Catholic religion with the most spoken languages in several languages where 48% of the population speaks **bunak**, 40% speaks **tétun terik**, 7% **tétun** and 5% **kemak**.

Sub District administration Villages and Sub Villages

The Municipality of Covalima is divided into 7 Sub District Administrations, 30 Villages and 148 Sub Villages scattered throughout the territory as per the table below:

Sub District Administration

Sub District Administrations	Surface Km ²
Fatululik	45.72
Fatumea	132.60
Fohorém	132.80
Maucatar	114.56
Suai	302.60
Zumalai	283.74
Tilomár	194.64
Total	1,206.66

Sub District Administration, Villages and number of Sub Villages

Sub District Administration of Fatululik composed of 2 Villages and 8 Sub Villages.

Sub District Administration of Fatumea composed of 3 Villages and 12 Sub Villages.

Sub District Administration of Fohorém composed of 4 Villages and 15 Sub Villages.

Sub District Administration of Maucatar composed of 4 Villages and 22 Sub Villages.

Sub District Administration Suai composed of 5 Villages and 34 Sub Villages.

Sub District Administration of Zumalai composed of 8 Villages and 34 Sub Villages.

Sub District Administration of Tilomár composed of 4 Villages and 23 Sub Villages.

Climate, Mountain and Rivers

Being a plan zone, the municipality of Covalima also has the mountains scattered in the Sub District Administration with different characteristics and altitudes. The climatic situation of the Covalima Municipality is essentially characterized by two main stations a dry season and a rainy season. The dry season occurs between July and November with temperatures expected between 29°-35°C. In the rainy season temperatures occur between 12°-25°C in December it is usually the temperatures are low. As climate change occurs several times, it is difficult to predict real time. The right thing is great, clear skies and has very beautiful landscapes.

Economic Potentials and Natural Resources for the Development of Covalima Municipality

a). Agriculture – Agribusiness

The activities of the agricultural sector at he Municipality of Covalima is one of the activities practiced by the majority of the population doing it as a daily activity of their livelihood. There are two types of economic activities in the agricultural sector in the Covalima market:

- 1) Total production and sale of livestock products in the market such as; meat, dairy products and chicken eggs.
- 2) Total production and sales of vegetables on the market such as; vegetables, fruits, garlic, corn, rice, taro, cassava, sweet potatoes, yam (*kumbili*), *talina*

tona (traditional food of Timor-Leste in Covalima), mung beans, peanuts, bananas, papayas and coconuts.

The agricultural products mentioned above are essential for the economic development of the municipality and have potential to be developed and then marketed and sold in domestic and international market.

The challenges facing the population of Covalima are the means of transportation and the sale of products to the Indonesian market, such as Malaka and Kupang. Most populations in the county relay their lives dependent on the results of agricultural production such as rice, vegetables, fruit and the production managements system is still traditional. In this sense, there is need for specific training for agricultural workers / professionals with a view to improving the specific skills of agricultural sector assets.

b). Livestock

The Municipality of Covalima has an enormous potential to develop the livestock sector, as the total area of 612.52 Km² stands out with a population of 13,100 families working in the livestock sector. Total of existing area constituted by the Sub District Administration of Suai 300 Km², Tilomár 250 Km², Fohorém 300 Km², Fatumea 450 Km², Fatululik 200 Km², Maucatar 230 Km² and Zumalai 460 Km² are used to raise livestock as well as other species of domestic animals such as buffalo, horses, pigs, sheep and goats.

c). Tourism

The Municipality of Covalima has a vast number of natural resources, history and culture that can be developed to boost the economy of the local population, generating employment and incentives to economic production. However, this sector has not been well managed, such as ecotourism, cultural tourism, nature tourism, rural tourism and other historic and scenic sites. The National Strategic Development Plan has given importance and priority to this sector but there are still huge challenges such as the lack of basic infrastructure such as bridges, roads, security and other basic needs.

In the future, the municipality intends to develop this sector, knowing that tourist activities can constitute an initial investment that generates ramifications of local economic production and extends even regionally. It is with idea that investment in tourism can be a positive alternative for the municipality that seeks an alternative to develop the local economy. In this sense, it emphasizes here the extreme importance of training human resources in the area of tourism.

Tourist powers in Covalima county that can be developed to bring local revenues, such as mountains:

- Mount Taroman at the Sub District Administration of Fatululik;
- Mount Mesak at the Sub District Administration of Fohorém;
- Mount Wamauk at the Sub District Administration of Fatumea;
- Mount Lakirin, Mauhatu, Maulela at the Sub District Administration of Maucatar;
- Mount Supranatural (Foho Lulik) at the Sub District Administration of Tilomár

d). Natural Resources

The natural resources of great potential to be developed in the future are the oil found in Suai, in addition to other natural resources that are still in the process of “feasibility study” by the government.

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

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

- 3) Research, innovation and technological development (creation of specialized R & D centers in the following areas: agriculture, livestock and fisheries, energy, mineral resources, water resources management and information and communication technology (ICT).
- 4) Articulation, and institutional coordination (improvement of public institutions, improvement of coordination and intersectoral coordination, reform of legislation and creation of institutions that serve the industrialization strategy – eg. Development Bank).

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

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

It is imperative to build local capacities of Sub District Administration as the vanguard of the municipality strategic development agenda. The lack of necessary skills and well-managed public and private institutions for long-term sustainable growth is a priority to be included in all development activities in Covalima because of its 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 funds appropriate to the identified HRD needs, ensuring different phases of the strategic development plan to be successfully implemented in the future.

The fact that there is no human resources census in Covalima, 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. describe the current situation of the municipality's human resources and each Sub District Administration;
3. inform the number of graduates seeking employment or the unemployed;
4. promote the planning of human resources, particularly with regard to the needs of the municipality;
5. contribute to the training and improvement of different categories of personnel, through the optimization of opportunities inside and outside the country; and
6. strengthen cooperation between the public and private sector and professional associations.

7. promote an efficient allocation of 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 by census of the population living in Covalima Municipality, with a questionnaire completed between September 5 and November 5, 2016, and the second made through the Focus Group Discussion (FGD) held on March 14, 2018.

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

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

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

PART B: ANALYSIS AND RESULTS FOUND

This part of the report intends to analyze the results of the FDCH survey and other relevant data and elaborate its implications for the development of the human resources strategy of Covalima Municipality, continues in four sections.

Section 1 is mainly based on the FDCH survey to analyze the current human capital situation of Covalima 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. Understanding the human capital of Covalima Municipality

2.1. Presentation and Analysis of Data

This section briefly reviews data on the level of existing human resources in Covalima 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*).

2.2. Profile of Respondents

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

Parallel to the graphical presentation of these results an analysis of the obtained data is made, aiming to reach the objectives already listed initially.

The survey involved 29,651 respondents, of which 48% are male and 52% female. The other aspects of the profile are arranged in the graphs below.

The majority are aged between 17 and 44 years old, representing 62.6%, followed by the age group from 45 to 64 years old, with 22% of those surveyed and 15.3%

more than 65 years old. Females constitute the largest number in all age groups as compared to males (Figure 1). The female sex is the largest number in the age group between 17-40 years and over 64 years of age, while the male sex was predominant among the respondents aged 41-60 years (Figure 1).

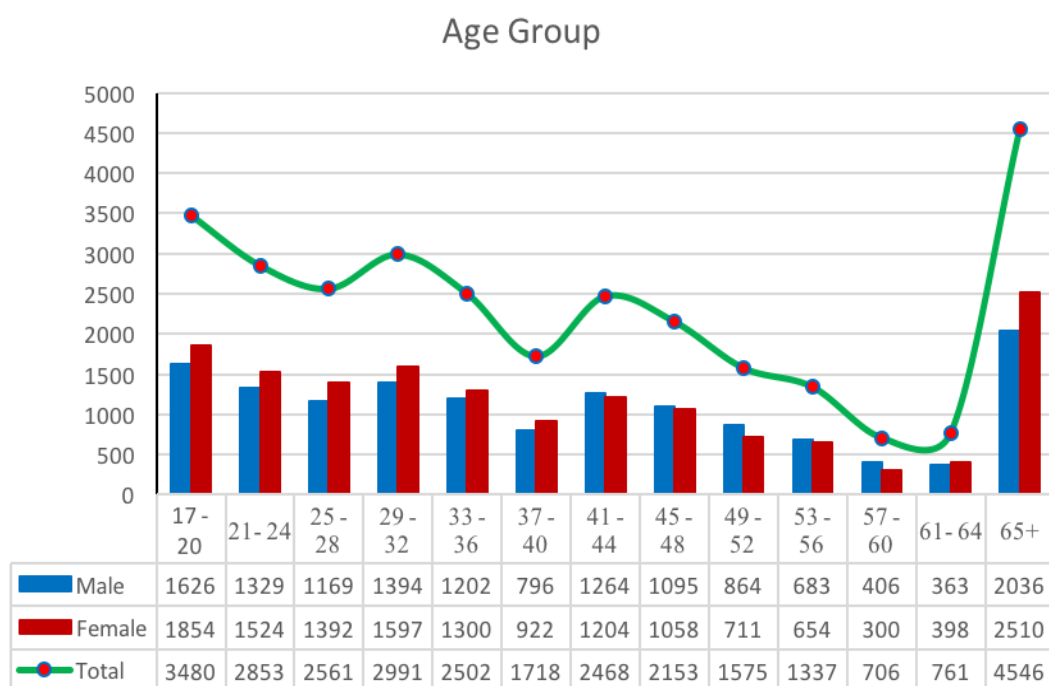


Figure 1. Distribution of respondents by age group and by gender

2.3. People with Disability

Table 1 shows the distribution of the existence of the disabled in the Municipality of Covalima. A total of 619 disabled respondents were registered corresponding to 2.1% of the total of the respondents distributed by 7 Sub District Administrations (table 1):

Table 1. Distribution of the existence of people disability by Sub District Administrations

Sub District Administrations	Have a disability?		TOTAL
	YES	NO	
Fatululik	12	1,018	1,030
Fatumea	2	1,591	1,593
Fohorém	78	2,049	2,127
Maucatar	37	4,066	4,103
Suai	330	10,933	11,263
Tilomar	48	3,613	3,661

Sub District Administrations	Have a disability?		TOTAL
	YES	NO	
Zumalai	112	5,762	5,874
COVALIMA	619	29,032	29,651
Percentage (%)	2,1	97,9	100,0

The highest number of people with disability was registered in the Sub District Administrations of Suai (53%) and Zumalai (18%). The Sub District Administrations of Fohorém and Tilomar have a very similar number of people with disabilities, while in the Sub District Administrations of Fatululik, Maucatar and Tilomar have a small number were found (Table 2).

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

Sub District Administrations	Frequency	Percentage (%)
Fatululik	12	2
Fatumea	2	-
Fohorém	78	13
Maucatar	37	6
Suai	330	53
Tilomar	48	8
Zumalai	112	18
Total	619	100

Among of the 619 people with disability, the main difficulties were physical mobility (34.3%) and vision or eyes (31.3%), hearing Impairment (14.7%), psychosocial or mental disability (%) and cognitive (1.4%) (Table 3).

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

Sub District Administrations	Type of disability					Total
	Physics / Mobility	View	Deaf/Mute	Psychosocial / Mental	Cognitive / intellectual	
Fatululik	3	5	4	-	-	12
Fatumea	-	-	1	1	-	2
Fohorém	25	18	12	22	3	80
Maucatar	13	5	9	10	-	37

Sub District Administrations	Type of disability					Total
	Physics / Mobility	View	Deaf/Mute	Psychosocial / Mental	Cognitive / intellectual	
Suai	108	131	31	57	5	332
Tilomar	16	6	17	10	-	49
Zumalai	50	31	18	14	1	114
Total COVALIMA	215	196	92	114	9	626
Percentage (%)	34,3	31,3	14,7	18,2	1,4	100,0

2.4. Education Level

As for the level of education of illiterate respondents, adult literacy and incomplete basic education occupy 46.9% of the total respondents. Basic (primary) and pre-secondary education represent 27.9% and secondary education accounts for 20.8%. Vocational Education Courses and other levels of education occupy 1.03% and 0.24%, respectively. At the tertiary / higher level, 3.2% of respondents have the level of higher education (Table 4).

Among of the 938 (3.2%) of respondents, 71.5% had a bachelor's degree followed by Diploma III 23.3%, Diploma I (2.2%) and Diploma II (1.6%) and Other academic levels have a percentage less than 1% (Table 4).

Table 4. Distribution by level of education and Sub District Administrations

Degree of Education/Level of Education	Covalima	Fatululik	Fatumea	Fohorém	Maucatar	Suai	Tilomar	Zumalai
Can not read/write	12,690	549	895	1,062	1,635	3,988	1,438	3,123
Not read/can write (did not finish primary School)	1202	84	61	144	130	348	206	229
Sub Total	13,892	633	956	1,206	1,765	4,336	1,644	3,352
Primary	3,169	177	109	191	541	1217	379	555
Pre-secondary	5,092	175	146	289	765	2360	614	743
Secondary	6,182	205	299	350	821	2,606	805	1,096

Degree of Education/Level of Education	Covalima	Fatululik	Fatumea	Fohorém	Maucatar	Suai	Tilomar	Zumalai
Technical Vocational (High) School	307	10	1	19	27	181	46	23
Others	33	5	-	1	16	1	7	3
Sub Total	14,783	572	555	850	2,170	6,365	1,851	2,420
1 st . Cycle (1 st class – 4 th class)	36	2	1	-	14	8	2	9
2 nd . Cycle (1 st year, 2 nd Year)	1	-	-	-	-	-	-	1
3 rd . Cycle (3 rd year – Year 9 /3 rd Year up)	1	-	-	-	-	-	-	1
Sub Total	38	2	1	-	14	8	2	11
DI	21	3	3	2	2	8	-	3
DII	15	1	1	2	-	9	-	2
DIII	219	6	23	9	42	113	15	11
DIV	5	1	1	-	-	2	-	1
Bachelor's Degree (S1)	671	14	20	23	92	371	85	66
Master Degree (S2)	7	-	-	-	-	7	-	-
PhD (S3)	-	-	-	-	-	-	-	-
Sub Total	938	25	48	36	136	510	100	83
Total	29,651	1,232	1,560	2,092	4,085	11,219	3,597	5866

Regarding to the distribution of the knowledge of the respondents by study area (study program) and by Sub District Administration, of the 938 who hold the higher degree, only 480 (51.2%) answered this question. Details of the data can be seen in table 5, below.

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

Administration

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
Total	14	8	107	-	344	7	-	480	298	182
Law	-	-	1	-	36	1	-	38	30	8
Accounting	-	-	5	-	26	-	-	31	12	19
Civil Engineering - Civil Construction	-	-	10	-	17	-	-	27	26	1
Medical Doctor - Medical Practice (General Practitioner)	-	-	2	-	22	1	-	25	10	15
Mathematics	-	1	8	-	12	-	-	21	13	8
Economy	-	-	4	-	16	-	-	20	11	9
Public health	-	-	9	-	11	-	-	20	9	11
Education	1	2	5	-	8	-	-	16	13	3
Nursing	1	-	8	-	4	-	-	13	5	8
Portuguese Language	1	-	11	-	-	-	-	12	10	2
English Language	-	-	3	-	7	1	-	11	5	6
Human resource Management	-	-	1	-	9	-	-	10	4	6
Computer Technology Engineering (Computer)	1	-	2	-	6	-	-	9	6	3
Midwife	1	-	5	-	3	-	-	9	-	9
Livestock Production	-	-	2	-	6	1	-	9	8	1
Management	-	-	-	-	8	1	-	9	7	2
Pedagogical biology	-	-	4	-	5	-	-	9	4	5
Mining engineering	-	-	-	-	8	-	-	8	5	3
Food Technology	-	-	1	-	7	-	-	8	7	1
Agro-Bussiness	-	-	-	-	7	-	-	7	3	4
Public policy	-	-	1	-	6	-	-	7	4	3
Agronomy	-	-	1	-	5	-	-	6	4	2
Sociology of Education	-	-	-	-	6	-	-	6	5	1
General / environmental biology	-	-	1	-	4	-	-	5	2	3
Pharmacy	4	-	-	-	1	-	-	5	2	3
Aquiculture	1	-	1	-	3	-	-	5	4	1

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
Public rights Law	-	-	-	-	5	-	-	5	4	1
Training of primary and pre-secondary teachers	-	-	2	-	3	-	-	5	-	5
Engineering Architecture	-	-	-	-	4	-	-	4	3	1
Philosophy	-	-	-	-	4	-	-	4	3	1
Public Administration	-	-	-	-	3	1	-	4	3	1
Tourism and Hospitality	-	-	-	-	4	-	-	4	2	2
Economics of Finance / Financial Management - Banking Economics	-	-	-	-	3	1	-	4	3	1
Mathematics of Teaching	-	-	-	-	4	-	-	4	3	1
Chemistry of Teaching	-	-	2	-	2	-	-	4	4	-
Zoology	-	-	-	-	3	-	-	3	2	1
Immunology	-	-	2	-	1	-	-	3	2	1
Communication - Journalism and Publishing	1	-	-	-	2	-	-	3	2	1
Physics of Teaching	-	-	2	-	1	-	-	3	2	1
Governmental Sciences	-	-	-	-	3	-	-	3	1	2
Mechanical Engineering	-	1	-	-	1	-	-	2	2	-
Clinical Analysis	-	-	1	-	1	-	-	2	1	1
Anesthetist	-	-	1	-	1	-	-	2	1	1
Agricultural engineering	1	-	-	-	1	-	-	2	-	2
Management	-	-	-	-	2	-	-	2	1	1
Theology	-	-	1	-	1	-	-	2	2	-
Religious Career	-	-	1	-	1	-	-	2	1	1
Petrology	1	-	-	-	1	-	-	2	1	1
Transport Engineering and Telecommunications	-	2	-	-	-	-	-	2	2	-

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
Physical Education / Sports Education	-	1	-	-	1	-	-	2	2	-
Environmental health	-	-	1	-	1	-	-	2	1	1
Forestry management	-	-	-	-	2	-	-	2	2	-
Technology and Use of Forest product	-	-	-	-	2	-	-	2	2	-
Animal Reproduction	-	-	-	-	2	-	-	2	-	2
Private Law	-	-	-	-	2	-	-	2	2	-
Development Studies	-	-	-	-	2	-	-	2	1	1
Catechism	-	-	1	-	1	-	-	2	2	-
Pre-primary and primary Education	-	-	1	-	1	-	-	2	1	1
Training for Teachers	-	1	1	-	-	-	-	2	1	1
Physics	-	-	-	-	1	-	-	1	1	-
Environmental ecology	-	-	-	-	1	-	-	1	1	-
Electrical engineering	-	-	-	-	1	-	-	1	-	1
Agricultural social economy	-	-	-	-	1	-	-	1	1	-
Forest Resources and Forestry Engineering	-	-	-	-	1	-	-	1	1	-
Psychology	-	-	-	-	1	-	-	1	1	-
Political science	-	-	-	-	1	-	-	1	1	-
Applied linguistics	-	-	-	-	1	-	-	1	-	1
Computer science	-	-	-	-	1	-	-	1	1	-
Geology	-	-	1	-	-	-	-	1	1	-
Biological oceanography	-	-	-	-	1	-	-	1	-	1
Chemical engineer	-	-	-	-	1	-	-	1	-	1
Sanitary engineering	-	-	-	-	1	-	-	1	1	-
Production	-	-	-	-	1	-	-	1	1	-

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
engineering										
Aerospace engineering	-	-	-	-	1	-	-	1	1	-
Mechanical engineering	-	-	-	-	1	-	-	1	1	-
Environmental engineering	-	-	-	-	1	-	-	1	-	1
Dentist	-	-	-	-	1	-	-	1	1	-
Maternal and child health	-	-	-	-	1	-	-	1	1	-
Agrometeorology	-	-	1	-	-	-	-	1	1	-
Engineering of agricultural product processing	-	-	1	-	-	-	-	1	1	-
Rural buildings and the environment	-	-	-	-	1	-	-	1	1	-
Animal pathology	-	-	-	-	1	-	-	1	-	1
Marine fisheries resources	-	-	-	-	1	-	-	1	-	1
Inland water resources	-	-	-	-	1	-	-	1	1	-
Fishing engineering	-	-	-	-	1	-	-	1	1	-
Economics of education	-	-	-	-	1	-	-	1	1	-
Museology	-	-	-	-	1	-	-	1	1	-
Social work (including grave digger)	-	-	-	-	1	-	-	1	1	-
Bussiness administration	-	-	-	-	1	-	-	1	1	-
Computer management	-	-	1	-	-	-	-	1	-	1
International, bilateral and multilateral relations	-	-	-	-	1	-	-	1	-	1
Peace studies	-	-	1	-	-	-	-	1	-	1
Moral Theology	-	-	1	-	-	-	-	1	-	1
Pastoral theology	-	-	-	-	1	-	-	1	1	-
Artistic Education	-	-	-	-	1	-	-	1	-	1
Skills Education – fashion,	-	-	-	-	1	-	-	1	1	-

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
cosmetics, cake/pastry										
Cultural studies	-	-	-	-	1	-	-	1	1	-
Others	1	-	-	-	4	-	-	5	4	1
Fatululik										
Total	-	1	4	-	8	-	-	13	11	2
Economy	-	-	-	-	4	-	-	4	2	2
Portuguese language	-	-	2	-	-	-	-	2	2	-
Law	-	-	-	-	1	-	-	1	1	-
English language	-	-	1	-	-	-	-	1	1	-
Physical Education/Sports Education	-	1	-	-	-	-	-	1	1	-
Environmental health	-	-	-	-	1	-	-	1	1	-
Food Technology	-	-	-	-	1	-	-	1	1	-
Biology Education	-	-	1	-	-	-	-	1	1	-
Governmental Sciences	-	-	-	-	1	-	-	1	1	-
Fatumea										
Total	2	-	10	-	13	-	-	25	18	7
Mathematics	-	-	1	-	2	-	-	3	1	2
Human Resource Management	-	-	-	-	3	-	-	3	2	1
Production of Livestock	-	-	-	-	2	-	-	2	2	-
Environmental ecology	-	-	-	-	1	-	-	1	1	-
Immunology	-	-	1	-	-	-	-	1	1	-
Anesthetist	-	-	1	-	-	-	-	1	1	-
Agricultural engineering	-	-	-	-	1	-	-	1	-	1
Economy	-	-	1	-	-	-	-	1	1	-
Education	-	-	1	-	-	-	-	1	1	-
Nursing	1	-	-	-	-	-	-	1	-	1
Public health	-	-	1	-	-	-	-	1	1	-
Medical Doctor - Medical Practice (General Practitioner)	-	-	-	-	1	-	-	1	1	-
Agrometeorology	-	-	1	-	-	-	-	1	1	-

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
Engineering of agricultural product processing	-	-	1	-	-	-	-	1	1	-
Management	-	-	-	-	1	-	-	1	-	1
Communication – journalism and publishing	1	-	-	-	-	-	-	1	1	-
Biology Education	-	-	1	-	-	-	-	1	-	1
Cultural studies	-	-	-	-	1	-	-	1	1	-
Pre-primary and primary Education	-	-	1	-	-	-	-	1	1	-
Others	-	-	-	-	1	-	-	1	1	-
Fohorém										
Total	2	2	3	-	10	-	-	17	8	9
Law	-	-	-	-	2	-	-	2	1	1
Portuguese language	-	-	2	-	-	-	-	2	2	-
Mathematics	-	1	-	-	-	-	-	1	-	1
Economy	-	-	-	-	1	-	-	1	-	1
English language	-	-	-	-	1	-	-	1	-	1
Computer sciences	-	-	-	-	1	-	-	1	1	-
Dentist	-	-	-	-	1	-	-	1	1	-
Nursing	-	-	1	-	-	-	-	1	-	1
Pharmacy	1	-	-	-	-	-	-	1	-	1
Public health	-	-	-	-	1	-	-	1	-	1
Medical Doctor - Medical Practice (General Practitioner)	-	-	-	-	1	-	-	1	1	-
Midwife	1	-	-	-	-	-	-	1	-	1
Production of Livestock	-	-	-	-	1	-	-	1	1	-
Accounting	-	-	-	-	1	-	-	1	1	-
Teacher Training	-	1	-	-	-	-	-	1	-	1
Maucatar										
Total	1	-	20	-	40	-	-	61	37	24
Law	-	-	-	-	11	-	-	11	8	3
Mathematics	-	-	4	-	2	-	-	6	5	1
Portuguese language	-	-	5	-	-	-	-	5	3	2

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
Economy	-	-	-	-	4	-	-	4	4	-
Accounting	-	-	-	-	3	-	-	3	1	2
English language	-	-	1	-	1	-	-	2	1	1
Nursing	-	-	1	-	1	-	-	2	-	2
Midwife	-	-	1	-	1	-	-	2	-	2
Agro-bussiness	-	-	-	-	2	-	-	2	2	-
Public administration	-	-	-	-	2	-	-	2	2	-
Teaching chemistry	-	-	2	-	-	-	-	2	2	-
Training of primary and pre-secondary teachers	-	-	1	-	1	-	-	2	-	2
General / environmental biology	-	-	1	-	-	-	-	1	-	1
Mining engineering	-	-	-	-	1	-	-	1	1	-
Mechanical engineering	-	-	-	-	1	-	-	1	1	-
Clinical analysis	-	-	1	-	-	-	-	1	-	1
Agronomy	-	-	-	-	1	-	-	1	-	1
Management	-	-	-	-	1	-	-	1	-	1
Psychology	-	-	-	-	1	-	-	1	1	-
Education	-	-	-	-	1	-	-	1	1	-
Religious career	-	-	1	-	-	-	-	1	1	-
Biological oceanography	-	-	-	-	1	-	-	1	-	1
Computer Technology engineering (computer)	-	-	1	-	-	-	-	1	1	-
Pharmacy	1	-	-	-	-	-	-	1	1	-
Medical Doctor - Medical Practice (General Practitioner)	-	-	-	-	1	-	-	1	-	1
Forestry management	-	-	-	-	1	-	-	1	1	-
Management	-	-	-	-	1	-	-	1	-	1
Economics of finance/financial management-	-	-	-	-	1	-	-	1	1	-

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
banking economics										
International, bilateral and multilateral realations	-	-	-	-	1	-	-	1	-	1
Peace studies	-	-	1	-	-	-	-	1	-	1
Suai										
Total	6	5	55	-	201	7	-	274	166	108
Civil engineering – Civil Construction	-	-	9	-	14	-	-	23	22	1
Law	-	-	1	-	18	1	-	20	16	4
Medical Doctor - Medical Practice (General Practitioner)	-	-	2	-	17	1	-	20	6	14
Accounting	-	-	4	-	13	-	-	17	5	12
Public health	-	-	5	-	5	-	-	10	4	6
Education	-	2	2	-	5	-	-	9	6	3
Nursing	-	-	6	-	3	-	-	9	5	4
Economy	-	-	3	-	4	-	-	7	4	3
Computer technology engineering (computer)	1	-	1	-	5	-	-	7	4	3
Food technology	-	-	1	-	6	-	-	7	6	1
Management	-	-	-	-	6	1	-	7	7	-
Biology Education	-	-	2	-	5	-	-	7	3	4
Mathematics	-	-	2	-	4	-	-	6	4	2
English language	-	-	1	-	4	1	-	6	2	4
Agronomy	-	-	1	-	4	-	-	5	4	1
Production of Livestock	-	-	2	-	2	1	-	5	4	1
Public policy	-	-	1	-	4	-	-	5	3	2
Oil engineering	-	-	-	-	4	-	-	4	2	2
Midwife	-	-	3	-	1	-	-	4	-	4
Aquaculture	1	-	1	-	2	-	-	4	3	1
Tourism and hospitality	-	-	-	-	4	-	-	4	2	2
Teaching Mathematics	-	-	-	-	4	-	-	4	3	1
Engineering	-	-	-	-	3	-	-	3	3	-

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
architecture										
Potuguese language	1	-	2	-	-	-	-	3	3	-
Agro-business	-	-	-	-	3	-	-	3	-	3
Public Law	-	-	-	-	3	-	-	3	3	-
Human resource management	-	-	1	-	2	-	-	3	-	3
Economics of Finance/financial management – Banking Economics	-	-	-	-	2	1	-	3	2	1
Training of primary and Pre-secondary teachers	-	-	1	-	2	-	-	3	-	3
Philosophy	-	-	-	-	2	-	-	2	1	1
Transport Engineering and Telecommunications	-	2	-	-	-	-	-	2	2	-
Pharmacy	2	-	-	-	-	-	-	2	-	2
Technology and use of forest product	-	-	-	-	2	-	-	2	2	-
Animal reproduction	-	-	-	-	2	-	-	2	-	2
Public adinistration	-	-	-	-	1	1	-	2	1	1
Development studies	-	-	-	-	2	-	-	2	1	1
Communication – journalism and publishing	-	-	-	-	2	-	-	2	1	1
Physics of Training	-	-	1	-	1	-	-	2	2	-
Teaching Chemistry	-	-	-	-	2	-	-	2	2	-
Physics	-	-	-	-	1	-	-	1	1	-
General/enviromental biology	-	-	-	-	1	-	-	1	1	-
Immunology	-	-	-	-	1	-	-	1	1	-
Electrical engineering	-	-	-	-	1	-	-	1	-	1
Mechanical	-	1	-	-	-	-	-	1	1	-

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
engineering										
Clinical analysis	-	-	-	-	1	-	-	1	1	-
Anesthetist	-	-	-	-	1	-	-	1	-	1
Agricultural social economy	-	-	-	-	1	-	-	1	1	-
Agricultural engineering	1	-	-	-	-	-	-	1	-	1
Management	-	-	-	-	1	-	-	1	1	-
Applied Linguistics	-	-	-	-	1	-	-	1	-	1
Religious career	-	-	-	-	1	-	-	1	-	1
Geology	-	-	1	-	-	-	-	1	1	-
Petrology	-	-	-	-	1	-	-	1	-	1
Chemical engineering	-	-	-	-	1	-	-	1	-	1
Sanitary engineering	-	-	-	-	1	-	-	1	1	-
production engineering	-	-	-	-	1	-	-	1	1	-
Aerospace engineering	-	-	-	-	1	-	-	1	1	-
Mechanical Engineer	-	-	-	-	1	-	-	1	1	-
Environmental engineer	-	-	-	-	1	-	-	1	-	1
Physical Education / Sports Education	-	-	-	-	1	-	-	1	1	-
Environmental health	-	-	1	-	-	-	-	1	-	1
Forestry management Resources	-	-	-	-	1	-	-	1	1	-
Maternal and child health	-	-	-	-	1	-	-	1	1	-
Rural Buildings and the Environment	-	-	-	-	1	-	-	1	1	-
Animal Pathology	-	-	-	-	1	-	-	1	-	1
Marine fisheries	-	-	-	-	1	-	-	1	-	1
Inland water resources	-	-	-	-	1	-	-	1	1	-
Fishing engineering	-	-	-	-	1	-	-	1	1	-

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
Private Law	-	-	-	-	1	-	-	1	1	-
Economics of education	-	-	-	-	1	-	-	1	1	-
Museology	-	-	-	-	1	-	-	1	1	-
Social work (including Grave digger)	-	-	-	-	1	-	-	1	1	-
Computer Management	-	-	1	-	-	-	-	1	-	1
Sociology of Education	-	-	-	-	1	-	-	1	1	-
Governmental sciences	-	-	-	-	1	-	-	1	-	1
Pastoral theology	-	-	-	-	1	-	-	1	1	-
Catechism	-	-	-	-	1	-	-	1	1	-
Artistic education	-	-	-	-	1	-	-	1	-	1
Skills Education - Fashion, Cosmetics, Cake / Pastry	-	-	-	-	1	-	-	1	1	-
Pre-primary and primary Education	-	-	-	-	1	-	-	1	-	1
Others	-	-	-	-	2	-	-	2	2	-
Tilomar										
Total	-	-	10	-	43	-	-	53	32	21
Accounting	-	-	1	-	5	-	-	6	3	3
Mathematics	-	-	1	-	4	-	-	5	3	2
Civil Engineering - Civil Construction	-	-	-	-	3	-	-	3	3	-
Law	-	-	-	-	3	-	-	3	3	-
Economy	-	-	-	-	3	-	-	3	-	3
Public health	-	-	2	-	1	-	-	3	1	2
Human resource Management	-	-	-	-	3	-	-	3	2	1
Philosophy	-	-	-	-	2	-	-	2	2	-
Midwife	-	-	1	-	1	-	-	2	-	2
Agro-business	-	-	-	-	2	-	-	2	1	1
Sociology of Education	-	-	-	-	2	-	-	2	1	1
General / environmental biology	-	-	-	-	1	-	-	1	-	1

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
Immunology	-	-	1	-	-	-	-	1	-	1
Mining engineering	-	-	-	-	1	-	-	1	1	-
Education	-	-	-	-	1	-	-	1	1	-
Political science	-	-	-	-	1	-	-	1	1	-
Theology	-	-	-	-	1	-	-	1	1	-
English language	-	-	-	-	1	-	-	1	1	-
Computer Technology Engineering (Computer)	-	-	-	-	1	-	-	1	1	-
Medical Doctor - Medical Practice (General Practitioner)	-	-	-	-	1	-	-	1	1	-
Production of Livestock	-	-	-	-	1	-	-	1	1	-
Aquaculture	-	-	-	-	1	-	-	1	1	-
Business Administration	-	-	-	-	1	-	-	1	1	-
Physics of Teaching	-	-	1	-	-	-	-	1	-	1
Governmental sciences	-	-	-	-	1	-	-	1	-	1
Public Policy	-	-	-	-	1	-	-	1	1	-
Moral Theology	-	-	1	-	-	-	-	1	-	1
Catechism	-	-	1	-	-	-	-	1	1	-
Teacher Training	-	-	1	-	-	-	-	1	1	-
Others	-	-	-	-	1	-	-	1	-	1
Zumalai										
Total	3	-	5	-	29	-	-	37	26	11
Public health	-	-	1	-	4	-	-	5	3	2
Education	1	-	2	-	1	-	-	4	4	-
Accounting	-	-	-	-	4	-	-	4	2	2
Zoology	-	-	-	-	3	-	-	3	2	1
Sociology of Education	-	-	-	-	3	-	-	3	3	-
General / environmental biology	-	-	-	-	2	-	-	2	1	1
Mining engineering	-	-	-	-	2	-	-	2	1	1
Public Law	-	-	-	-	2	-	-	2	1	1
Civil Engineering -	-	-	1	-	-	-	-	1	1	-

Study Program	Education Level							Total	Gender	
	Dip. I	Dip. II	Dipl. III	Dip. IV	Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)		Male	Famale
Civil Construction										
Engineering Architecture	-	-	-	-	1	-	-	1	-	1
Forest Resources and Forestry Engineering	-	-	-	-	1	-	-	1	1	-
Law	-	-	-	-	1	-	-	1	1	-
Theology	-	-	1	-	-	-	-	1	1	-
Petrology	1	-	-	-	-	-	-	1	1	-
Drugstore	-	-	-	-	1	-	-	1	1	-
Medical Doctor - Medical Practice (General Practitioner)	-	-	-	-	1	-	-	1	1	-
Private Law	-	-	-	-	1	-	-	1	1	-
Human resource Management	-	-	-	-	1	-	-	1	-	1
Public policy	-	-	-	-	1	-	-	1	-	1
Others	1	-	-	-	-	-	-	1	1	-

2.5. Vocational Training Certificate Level I - Certificate IV

Among of the 29,651 respondents who participated in this research, about 1.6% who had already participated in one of the Certificate I - Certificate IV courses. 45% completed the Cert I course, 18.2% cert II, 16% cert III and 20.7% cert IV (Table 6). The predominant areas of the Cert I - Cert IV training are Portuguese Language Course, Computer, English Language Course and General Administration for the office (generic courses). Other areas of training are very few. The data also shows the lack even of qualifications in some areas, which requires more attention and investment (Table 6). However the investment of training of human resources must be aligned with the local need. The details data of Certificate I training - Certificate IV can be seen in table 6.

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

Municipality/ Sub District Administration	Total	Certificate (Cert. I)	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
COVALIMA						
Total	484	218	88	78	10-	Solar production
Portuguese language Course	101	47	19	14	21	Coffee production
Computer	97	52	13	14	18	Small machine
English language Course	55	22	17	7	9	Bricklayer
Public Office Administration	21	10	1	5	5	Tourist and tourist guide
Information Technology	9	4	-	4	1	Welding / welding
Public Office Administration	6	4	-	1	1	Plumbing
Construction (General)	6	1	2	2	1	(Certificate) in training and evaluation
Carpentry	6	1	1	3	1	Cooker
Agriculture or Horticulture course	4	2	-	1	1	Aesthetics course (Manicure and Pedicure)
Hospitality Management(General)	3	2	-	-	1	Piano and music course
Hospitality (food production)	3	1	1	-	1	Painter of arts, paintings, tattoos
Financial service Micro Finance and Banking)	3	-	-	1	2	
Electricity	3	-	-	2	1	
Automotive and Maintenance	4	1	1	2	-	
Tailor / seamstress	3	1	-	-	2	
Improve bussiness	2	1	-	-	1	
Training for contractors	2	-	1	1	-	
Bussiness construction (General)	2	-	-	2	-	
Public Communication to the study of the public sector (SEFTEC);	2	-	1	1	-	
Police investigation	2	1	-	-	1	
Agricultural course	2	1	-	1	-	
Physiotherapy/Massage	1	1	-	-	-	
Rural water supply	1	1	-	-	-	
Photographer	1	-	1	-	-	
Training end evaluation	1	1	-	-	-	

Municipality/ Sub District Administration	Total	Certificate (Cert. I)	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
Management for police	1	1	-	-	-	
Hair stylist	1	-	1	-	-	
Fishing course	1	-	-	-	1	
Others	141	63	29	17	32	
Fatululik						
Total	3	2	1	-	-	
Computer	2	1	1	-	-	
Information technology	1	1	-	-	-	
Fatumea						
Total	140	68	18	16	38	
Portuguese language course	42	23	3	4	12	
English language course	23	7	8	4	4	
Computer	18	8	2	2	6	
Improve bussiness	2	1	-	-	1	
Hospitaliy (food production)	2	-	1	-	1	
Rural water supply	1	1	-	-	-	
Training for contractors	1	-	-	1	-	
Public Office Administration	1	1	-	-	-	
Public communication to the study of the public sector (SEFTEC);	1	-	-	1	-	
Public Office Administration	1	1	-	-	-	
Automotive and Maintenance	1	-	-	1	-	
Police investigation	1	1	-	-	-	
Tailor / Seamstress	1	-	-	-	1	
Fishing course	1	-	-	-	1	
Others	44	25	4	3	12	
Fohorém						
Total	41	23	8	4	6	
Portuguese language course	20	11	4	2	3	
Computer	6	5	1	-	-	
Information technology	3	1	-	1	1	
Public Office Administration	1	-	1	-	-	
Evaluation Training	1	1	-	-	-	
English language course	1	1	-	-	-	

Municipality/ Sub District Administration	Total	Certificate (Cert. I)	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
Others	9	4	2	1	2	
Maucatar						
Total	13	6	4	2	1	
Computer	2	1	-	-	1	
English language course	2	1	1	-	-	
Public Office Administration	1	-	-	1	-	
Portuguese language course	1	1	-	-	-	
Others	7	3	3	1	-	
Suai						
Total	210	95	38	37	40	
Computer	51	28	7	7	9	
English language course	21	12	4	1	4	
Portuguese language course	19	7	7	2	3	
Public Office Administration	17	8	-	4	5	
Information Technology	5	2	-	3	-	
Public Office Administration	5	3	-	1	1	
Construction (General)	4	-	1	2	1	
Electricity	3	-	-	2	1	
Agriculture	3	2	-	1	-	
Automotive and Maintenance.	3	1	1	1	-	
Bussiness construction (General)	2	-	-	2	-	
Hospitality (General)	2	1	-	-	1	
Carpentry	2	1	-	-	1	
Tailor / Seamstress	2	1	-	-	1	
Agriculture Course	2	1	-	1	-	
Physiotherapy / Massage	1	1	-	-	-	
Public communication to the study of the public sector (SEFTEC);	1	-	1	-	-	
Financial Services (Micro Finance and Banking);	1	-	-	-	1	
Photographer	1	-	1	-	-	
Police investigation	1	-	-	-	1	
Management for police	1	1	-	-	-	

Municipality/ Sub District Administration	Total	Certificate (Cert. I)	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
Hair stylist	1	-	1	-	-	
Others	62	26	15	10	11	
Tilomár						
Total	23	13	2	6	2	
Computer	10	9	-	1	-	
Carpentry	4	-	1	3	-	
Portuguese language Course	2	2	-	-	-	
Training for contractors	1	-	1	-	-	
Public Office Administration	1	1	-	-	-	
Financial Services (Micro Finance and Banking);	1	-	-	1	-	
Construction (General)	1	1	-	-	-	
English language Course	1	-	-	1	-	
Others	2	-	-	-	2	
Zumalai						
Total	54	11	17	13	13	
Portuguese language Course	17	3	5	6	3	
Computer	8	-	2	4	2	
English language Course	7	1	4	1	1	
Hospitality (General)	1	1	-	-	-	
Hospitality (food production)	1	1	-	-	-	
Financial Services (Micro Finance and Banking);	1	-	-	-	1	
Construction (General)	1	-	1	-	-	
Agriculture Course	1	-	-	-	1	
Others	17	5	5	2	5	

2.6. Professional Occupations in the Public Sector

2.6.1. Permanent Public Servants

Table 7 shows that general public servants and teachers are the main occupations of the public sector and together account for 85.25% of the positions. 36.4% of the professors maintained their positions between a period of 6 - 10 years, 34.3% more than 15 years, 19.7% between 11 - 15 years and less than 6 years

corresponds to 9.7%. As for employees in general, the data indicates that most maintained their services between 1-5 years and 6-10 years.

Table 7. Distribution of permanent public servants by occupation and years of service

Occupation	<1 Year	1-5 Years	6 - 10 Years	11-15 Years	>15 Years	Total	Percentage (%)
Teachers	6	45	192	104	181	528	48,98
Offices	13	114	141	75	48	391	36,27
Medical / Medical Specialist	1	29	12	10	7	59	5,47
Chief Department	2	7	11	8	4	32	2,97
General Director	-	3	-	5	3	11	1,02
National Director	-	-	-	1	1	2	0,19
Public Defenders/ Judge	-	-	1	-	-	1	0,09
Others	2	17	17	14	4	54	5,01
Total	24	215	374	217	248	1078	100,00
Percentage (%)	2,2	19,9	34,7	20,1	23,0	100,0	

Regarding to the grade or level of respondents, the majority are in the positions between grade F (level 1, & 2) - grade C / level 5, together corresponds to 94.4%. Servers with a level above 6 are very few, registering about 1.7% and those with special regime 3.9% (Table 8).

Table 8. Degree and level of permanent officials interviewed

Degree / Level	Frequency	Percentage (%)
Grade A / level 7	3	0,28
Grade B / level 6	16	1,48
Grade C / level 5	88	8,12
Grade D / level 4	201	18,54
Grade E / level 3	529	48,80
Grade F / level 1, 2	205	18,91
Special regime	42	3,87
Total	1084	100,00

2.6.2. Temporary Public Servants

Table 9 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 occupying a have a high number of temporary public servants. Both represent 81.5% of temporary public servants while hiring the skilled technicians only 0.8%. 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 83.2% compared to those who have maintained the service more than 10 years (6.1%).

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

Year of service	Public Servants	Specialized technical	Teachers	Others	Total	Percentage (%)
<1 Year	16	-	19	3	38	10,6
1-5 Years	52	3	86	22	163	45,5
6 - 10 Years	46	-	57	32	135	37,7
11-15 Years	10	-	5	4	19	5,3
>15 Years	1	-	-	2	3	0,8
Total	125	3	167	63	358	100,0
Percentage (%)	34,9	0,8	46,6	17,6	100,0	

2.7. Level of Education of Temporary Public Servants

At the level of education, 61.3% of temporary public servants have a secondary education level, Bachelor's Degree with 19% and Pre secondary 8.9%. Other levels of education have a share of less than 3% (Table 10).

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

Education level	Numbers of Employee	Percentage(%)
Elementary	17	4,1
Pre-secondary	37	8,9
Secondary	255	61,3
Professional Technical High School	18	4,3
Others	1	0,2
Diploma I	-	0,0
Diploma II	-	0,0
Diploma III/ Bachelor	9	2,2
Diploma IV	-	0,0
Graduation	79	19,0
Master	-	0,0
PhD	-	0,0
Total	416	100,0

2.8. Non-Public Sector (Private Sector)

The non-public sector (Private sector) in the Covalima municipality persists 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.

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

Figure 2 shows data for staff working in Non-Governmental Organizations (NGOs). Among the 41 respondents, 9.8% hold a positions as Director or Deputy Directors of the organizations and the highest 90,2% are employees.

Non-Governmental Organizations (%)

■ Director/Vice of Directors ■ NGOs Employees

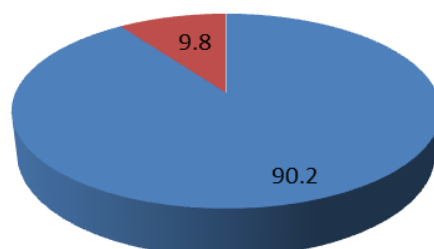


Figure 2. Employees of Non-Governmental Organizations (NGOs) by position

2.8.2. Entrepreneurs (Businessman)

Entrepreneurs play an important role through their investments, increasing the prosperity of the population in the municipality. Thus, citizens have the opportunity to take a job through investment, services and increased trade, in addition to the municipality grow economically. In this sense, it is essential to understand the human resources involved in this process and try to empower them efficiently and effectively. Figure 3 shows the distribution of the personnel involved in the company by level of education and by position in which it currently assumes. 37.8% of the respondents are employed as Director / Vice Directors and 62.2% assume a function as a Director simultaneously as an employee of the same company.

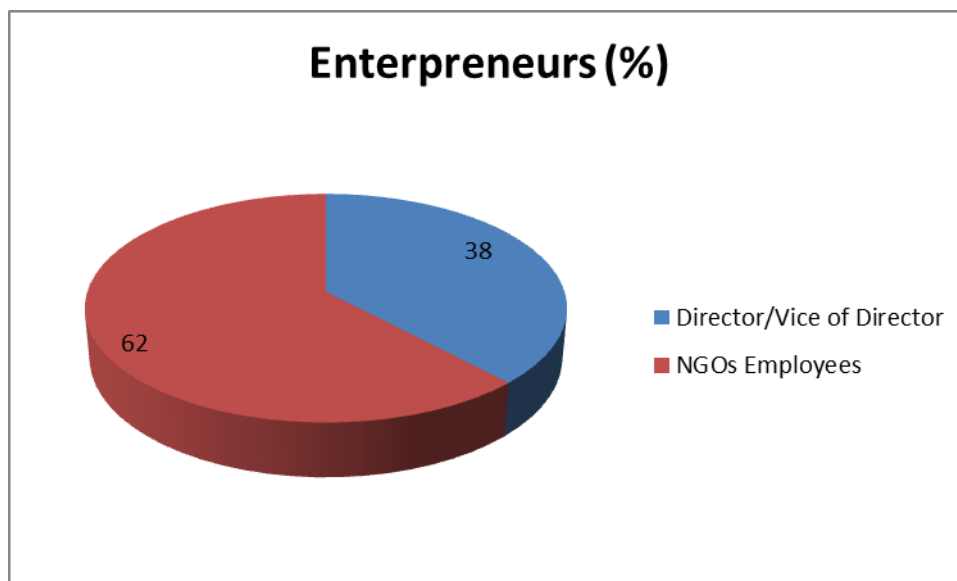


Figure 3. Distribution of entrepreneurs by position

2.8.3. Activity Sectors

The largest proportion of the companies' areas of activity are related to construction, accommodation and transportation, storage and communication. Other sectors of activities are less than 10% (Figure 4).

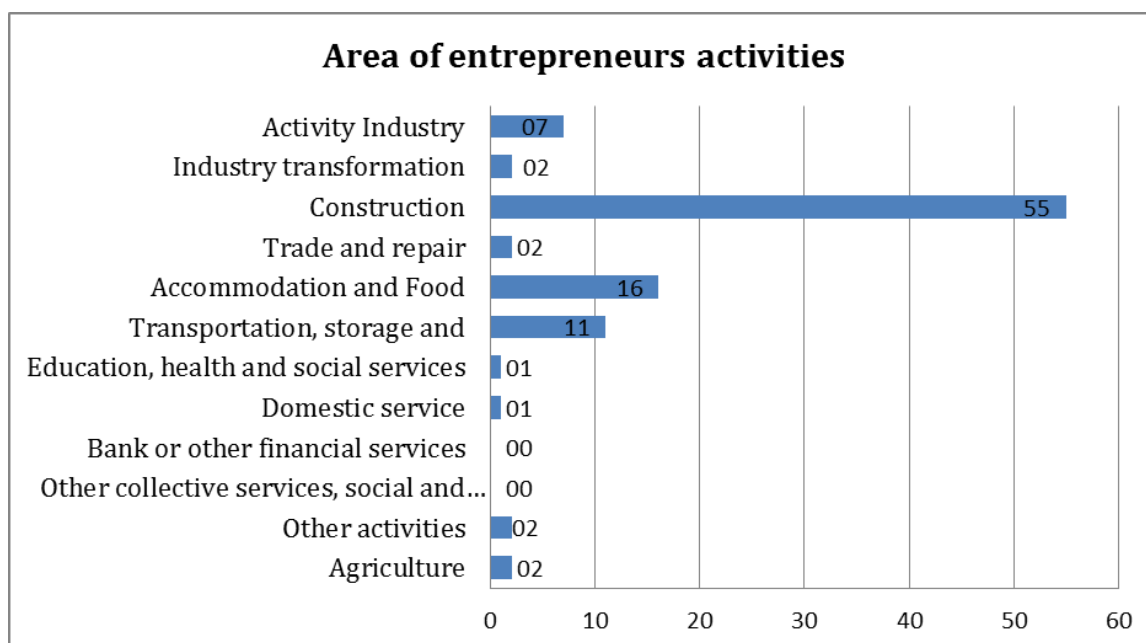


Figure 4. Distribution of the area of entrepreneurs activities

2.8.4. Education Level of Entrepreneurs

The data also shows that most of the people involved have no level of education (69.5%), secondary education (10.9%), pre-secondary education (7.8%) and basic education (5.2%). Other levels of education have a percentage less than 5% (Table 11). Analyzing the presence of entrepreneurs and their qualifications is essential for the growth of the municipality. Increasing the level of education, will ensure the municipality includes its citizens into a productive economy, and giving them the opportunity to be entrepreneurs or innovators, through a good education. Thus, the presence of entrepreneurs and the trained of qualified employees are crucial for the municipality.

Table 11. Distribution of entrepreneurs and level of education

Education Level	Number of entrepreneurs	Percentage (%)
Can not read / write	6068	69,5
Secondary	948	10,9
Pre-secondary	680	7,8
Primary	453	5,2
Do not read / write (did not finish primary)	417	4,8
Bachelor's Degree (S1)	106	1,2
Secondary School Agriculture	26	0,3
D III	8	0,1
Secondary School	6	0,1
Secondary Technical School	5	0,1
Secondary School Nursing	4	0,0
1 st . Cycle (1 st Grade up to 4 th Grade)	3	0,0
Others	3	0,0
Diploma I	3	0,0
Secondary School of Sports	1	0,0
Secondary School of Social Assistance	1	0,0
Diploma IV	1	0,0
Master Degree (S2)	1	0,0
2 ^o . Cycle (1 st Year, 2 nd Year)	0	0,0
3 ^o . Cycle (3 rd Grade up to 9 th Grade/ 3 rd year)	0	0,0
Diploma II	0	0,0
PhD (S3)	0	0,0
Total	8734	100,0

2.9. 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 12 show that the majority opted for the non-public sector (private sector) with 83.9% compared to the public sector 16.1%. The Sub District Administration of Suai has a higher percentage of individuals seeking employment in the non-public sector as well as for the public sector (Table 12).

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

Sub District Administration	Public Sector	Percentage (%)	Non Public Sector	Percentage (%)	Total	Percentage (%)
Fatululik	10	0,8	258	4,0	268	3,5
Fatumea	23	1,9	1069	16,8	1092	14,4
Fohorém	75	6,1	656	10,3	731	9,6
Maucatar	45	3,7	645	10,1	690	9,1
Suai	263	21,5	2267	35,6	2530	33,3
Tilomar	98	8,0	685	10,7	783	10,3
Zumalai	711	58,0	795	12,5	1506	19,8
Total	1225	100,0	6375	100,0	7600	100,0

2.10. Business Sector which is preferred to work in

Table 13 indicates that in the private sector the preference is mainly for agriculture (54.9%), household tasks (17%), construction (5.6%), industrial activity (3.8%) and housing and food (5.3%). Other sectors of activities have a percentage of less than 5%.

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

Activiy Sector	Sub District Administrations							Total	(%)
	Fatululik	Fatumea	Fohorém	Maucatar	Suai	Tilomar	Zumalai		
Agriculture	192	255	492	1333	1720	819	884	5695	54,9
Industry Activity	1	8	5	20	152	93	114	393	3,8
Transformation industry	0	8	2	16	75	21	23	145	1,4
Construction	2	57	11	87	203	67	158	585	5,6
Commerce and repair	0	17	2	19	63	102	37	240	2,3
Accommodation and Food	3	34	50	70	229	90	69	545	5,3
Transport, Storage and Communication	0	3	33	18	74	40	32	200	1,9
Education, Health and Social Work	2	11	8	39	94	137	62	353	3,4

Activiy Sector	Sub District Administrations							Total	(%)
	Fatululik	Fatumea	Fohorém	Maucatar	Suai	Tilomar	Zumalai		
Domestic Service	73	194	58	131	937	200	172	1765	17,0
Bank or other financial services	0	9	3	10	35	20	18	95	0,9
Other collective, social and personal services	0	7	1	34	56	146	37	281	2,7
Other activities	0	0	0	5	47	4	11	67	0,6
Total	273	603	665	1782	3685	1739	1617	10364	100
Percentage (%)	2,6	5,8	6,4	17,2	35,6	16,8	15,6	100,0	

2.11. 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 36 years, representing about 61.3% (Table 14).

Table 14. Age group of respondents who are looking of a job

Age Group	Non Public Sector	Percentage (%)
17 - 20	649	10,2
21- 24	949	14,9
25 - 28	780	12,2
29 - 32	836	13,1
33 - 36	694	10,9
37 - 40	456	7,2
41 - 44	516	8,1
45 - 48	417	6,5
49 - 52	228	3,6
53 - 56	208	3,3
57 - 60	63	1,0
61- 64	96	1,5
65+	483	7,6
Total	6375	100

2.12. Graduates in job search "Unemployment"

The data also provides an information on the number and qualifications of people with higher education in job search (Table 15). The figure shows that of the 106 graduates responding, 47.2% intend to work in the public sector and 52.8% intend to work in the non-public sector. Graduates intend to work more in the private sector than in the public sector.

The areas of higher education courses with the highest number of graduates looking for employment, "unemployment" are in the areas of Accounting and Law. Graduates in other areas are very few, so this data is essential for the municipality's government, companies and other employers partners to know how to take advantage and employ them.

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

No.	Study Program / Area of Specialization	Do not work and want to work?		Total	Percentage (%)
		Public Sector	Non Public Sector		
1	Accounting	4	10	14	4,4
2	Private law	3	3	6	1,9
3	Law	3	2	5	1,6
4	Philosophy	2	2	4	1,3
5	Computer technology engineering	4	0	4	1,3
6	Nursing	2	2	4	1,3
7	Food Technology	3	1	4	1,3
8	Mathematics	1	2	3	0,9
9	Civil Engineering - Civil Construction	2	1	3	0,9
10	Mining engineering	2	1	3	0,9
11	Agronomy	1	2	3	0,9
12	English language	2	1	3	0,9
13	Midwife	2	1	3	0,9
14	Animal Production (Livestock)	0	3	3	0,9
15	Human Resource Economics	3	0	3	0,9
16	Immunology	0	2	2	0,6
17	Architecture Engineering	2	0	2	0,6
18	Education	1	1	2	0,6
19	Public health	0	2	2	0,6
20	Aquaculture	2	0	2	0,6
21	Tourism and Hospitality	2	0	2	0,6
22	Communication - Journalism and Publishing	1	1	2	0,6

No.	Study Program / Area of Specialization	Do not work and want to work?		Total	Percentage (%)
		Public Sector	Non Public Sector		
23	General / Environmental Biology	0	1	1	0,3
24	Environmental Ecology	0	1	1	0,3
25	Anesthetist	0	1	1	0,3
26	Forest Resources and Forestry Engineering	1	0	1	0,3
27	Agricultural engineering	0	1	1	0,3
28	Computer science	0	1	1	0,3
29	Geology	0	1	1	0,3
30	Petrology	1	0	1	0,3
31	Others	0	1	1	0,3
32	Dentist	0	1	1	0,3
33	Physical Education / Sports Education	1	0	1	0,3
34	Medicine - Medical Clinic (General Medicine)	1	0	1	0,3
35	Agrometeorology	0	1	1	0,3
36	Agro-business	1	0	1	0,3
37	Technology and Use of Forest Products	0	1	1	0,3
38	Agricultural Product Processing Engineering	0	1	1	0,3
39	Public law	1	0	1	0,3
40	Public administration	1	0	1	0,3
41	Management	0	1	1	0,3
42	Teaching biology	0	1	1	0,3
43	Teaching mathematics	0	1	1	0,3
44	Sociology of Education	0	1	1	0,3
45	Public policy	0	1	1	0,3
46	Skills Education - Fashion, Cosmetics, Cake / Pastry	0	1	1	0,3
47	Cultural studies	0	1	1	0,3
48	Others	1	0	1	0,3
49	Training of primary school teachers and pre-secondary education	0	1	1	0,3
Total		50	56	106	33,5

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

Table 16 shows the number of Covalima Municipality students surveyed who are currently attending higher education in different study programs. The numbers show that some areas of study, where their graduates have more "unemployment" (Table 15), still remain areas with higher numbers of students (Table 16). It is hoped that 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. If this does not happen, it may possibly increase the number of job seekers in particular in the areas identified above in table 15.

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

No.	Area of Studies	Frequency	Percentage (%)
1	Public health	31	11,2
2	Management	20	7,2
3	Public administration	15	5,4
4	Economy of Finance / management of finances - Banking Economics	13	4,7
5	Civil Engineering - Civil Construction	12	4,3
6	Computer technology engineering	12	4,3
7	Mining engineering	11	4,0
8	Public law	11	4,0
9	Development Studies	11	4,0
10	Agronomy	9	3,3
11	Law	9	3,3
12	Portuguese language	7	2,5
13	Tourism and Hospitality	7	2,5
14	International, Bilateral and Multilateral Relations	7	2,5
15	Engineering Architecture	5	1,8
16	Sociology	5	1,8
17	English language	5	1,8
18	Animal Production (Livestock)	5	1,8
19	Accounting	5	1,8
20	Education	4	1,4
21	Geology	4	1,4
22	Petrology	4	1,4
23	Government Science	4	1,4
24	Mathematics	3	1,1
25	Agricultural engineering	3	1,1

No.	Area of Studies	Frequency	Percentage (%)
26	Political science	3	1,1
27	Economics of education	3	1,1
28	Communication - Journalism and Publishing	3	1,1
29	Public policy	3	1,1
30	Chemistry	2	0,7
31	Engineering Industry	2	0,7
32	Nursing	2	0,7
33	Forestry Management	2	0,7
34	Aquaculture	2	0,7
35	Food Technology	2	0,7
36	Human Resource Economics	2	0,7
37	Teaching biology	2	0,7
38	Teaching chemistry	2	0,7
39	Teacher training	2	0,7
40	General / Environmental Biology	1	0,4
41	Biochemistry	1	0,4
42	Mining Engineering	1	0,4
43	Electrical engineering	1	0,4
44	mechanical Engineering	1	0,4
45	Forest Resources and Forestry Engineering	1	0,4
46	Religious Career	1	0,4
47	Actuarial Sciences	1	0,4
48	Dentist	1	0,4
49	Medicine - Medical Clinic (General Practice)	1	0,4
50	Midwife	1	0,4
51	Environmental health	1	0,4
52	Others	1	0,4
53	Floriculture, Parks and Gardens and Arborization of Highways	1	0,4
54	Agro-business	1	0,4
55	Marine Fishing Resources	1	0,4
56	fishing engineering	1	0,4
57	Economy - Cooperativa - Market	1	0,4
58	Sociology of Education	1	0,4
59	Economics of Education / Management of Education	1	0,4
60	Pastoral Theology	1	0,4
61	Others	1	0,4
Total		276	100,0

2.14. Year the course ends

Regarding to the estimation of the numbers of higher education students who will graduate / finish their courses in the next 6 years, the data in Table 17 shows that the areas of Public Health, Management, Public Administration, Mining

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

Areas of Study	Year the Course Ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Public health	8	11	6	2	0	0	0	27
Management	7	3	3	2	1	0	0	16
Public administration	3	7	3	0	0	0	0	13
Mining engineering	1	1	5	1	3	0	0	11
Development Studies	4	1	1	2	2	0	0	10
Civil Engineering - Civil Construction	1	6	1	1	0	0	0	9
Public Law	3	2	3	1	0	0	0	9
Computer technology engineering	3	2	1	3	0	0	0	9
Economy of Finance / management of finances - Banking Economics	3	3	1	0	1	1	0	9
Law	1	2	1	2	0	1	0	7
Tourism and Hospitality	1	1	3	0	2	0	0	7
Agronomy	2	4	0	0	0	0	0	6
English language	0	2	2	1	0	0	0	5
Engineering Architecture	2	0	1	1	0	0	0	4
Sociology	2	0	0	2	0	0	0	4
Portuguese language	3	1	0	0	0	0	0	4
Geology	2	2	0	0	0	0	0	4
Animal Production (Livestock)	1	3	0	0	0	0	0	4
International, Bilateral and Multilateral Relations	2	0	1	0	1	0	0	4
Mathematics	2	1	0	0	0	0	0	3
Political science	0	2	0	1	0	0	0	3
Petrology	1	1	0	1	0	0	0	3
Accounting	1	0	2	0	0	0	0	3
Economics of education	1	1	0	1	0	0	0	3
Communication - Journalism and Publishing	0	1	1	1	0	0	0	3
Government Science	2	1	0	0	0	0	0	3
Public policy	1	1	1	0	0	0	0	3
Chemistry	0	2	0	0	0	0	0	2
Agricultural engineering	2	0	0	0	0	0	0	2
Engineering Industry	1	1	0	0	0	0	0	2

Areas of Study	Year the Course Ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Forestry Management	2	0	0	0	0	0	0	2
Food Technology	0	1	0	1	0	0	0	2
Human Resource Economics	2	0	0	0	0	0	0	2
Teaching chemistry	2	0	0	0	0	0	0	2
General / Environmental Biology	1	0	0	0	0	0	0	1
Biochemistry	0	1	0	0	0	0	0	1
Mining Engineering	1	0	0	0	0	0	0	1
Electrical engineering	1	0	0	0	0	0	0	1
mechanical Engineering	1	0	0	0	0	0	0	1
Forest Resources and Forestry Engineering	1	0	0	0	0	0	0	1
Education	0	0	1	0	0	0	0	1
Actuarial Sciences	1	0	0	0	0	0	0	1
Nursing	1	0	0	0	0	0	0	1
Medicine - Medical Clinic (General Practitioner)	0	1	0	0	0	0	0	1
Midwife	0	0	1	0	0	0	0	1
Others	0	0	1	0	0	0	0	1
Floriculture, Parks and Gardens and Arborization of Highways	0	0	0	1	0	0	0	1
Agro-business	0	1	0	0	0	0	0	1
Aquaculture	0	1	0	0	0	0	0	1
Economy – Cooperative marketing	0	1	0	0	0	0	0	1
Teaching biology	1	0	0	0	0	0	0	1
Education Sociology	0	1	0	0	0	0	0	1
Pastoral Theology	0	0	0	1	0	0	0	1
Others	0	0	0	0	1	0	0	1
Total	74	69	39	25	11	2	0	220

2.15. The demand of training for personal and institutional

2.15.1. Training in areas of general and specialized competences

One of the fundamental results of this work is that the data shows a considerable level of professional development activity in various training areas in the Municipality of Covalima. Table 18 below indicates the size of the professional development training performed by training area and the duration of the course. In response to this question, respondents were asked to select up to three options for

the courses taken, so the table refers to the number of courses taken and not to trainees.

The 1,871 respondents represent a substantial level of training activity, since 49.5% have a duration of 1 - 6 months, 41.6% less than one month and 8.8% 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 of Covalima, such as agriculture, construction and hospitality and tourism.

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

Area of Trainig	Duration				Total	Percentage (%)
	Less than 1 month	1 - 6 month	7 months - 1 year	more than 1 year		
Leadership	214	179	16	19	428	22,9
Business	117	121	10	8	256	13,7
Planning	105	117	16	14	252	13,5
Management	79	51	9	6	145	7,7
Human Resources	72	73	13	10	168	9,0
Information Technology	32	188	10	5	235	12,6
Procurement and Logistics	24	20	1	1	46	2,5
Administration	77	95	15	4	191	10,2
Information System and Business Management	28	20	2	0	50	2,7
Media and Public Relations	5	9	1	0	15	0,8
Specialized Technician	7	14	0	1	22	1,2
Others	19	39	3	2	63	3,4
Total	779	926	96	70	1,871	100,0
Percentage (%)	41,6	49,5	5,1	3,7	100,0	

2.15.2. Language Training

Table 19 shows the proportion of vocational training in language areas and the duration of the course. There are a remarkable number of people who have already taken part in a language course. As expected, the Portuguese language as the official language has the participation with highest percentage (58%) followed by the English language with 27.8%. The Tetum language has a participation of 10.5% of the respondents and other languages with a participation of less than 3%. 70.4% of the courses have duration between 1 - 6 months, 2.5% less than one month and

another 27.1% are longer than 7 months. The Portuguese language and English language courses are the main courses conducted by the respondents in the municipality of Covalima.

Table 19. Language training and duration of the course

Type of Training	Duration				Total	Percentage (%)
	Less than 1 month	1 – 6 months	7 months – 1 year	More than 1 year		
Portuguese	27	846	175	158	1,206	58,0
English	15	447	64	53	579	27,8
Tetum	8	115	47	48	218	10,5
Indonesian	1	36	8	6	51	2,5
Korea	0	13	1	0	14	0,7
Others	1	6	2	2	11	0,5
Total	52	1463	297	267	2,079	100,0
Percentage (%)	2,5	70,4	14,3	12,8	100,0	

2.16. Institution Providers and Financing

As for the Institutions that provide the languages of training 82.7% of the training providers are national institutions, 35.4% provided by foreign institutions and 8% promoted by national and foreign institutions (Figure 5).

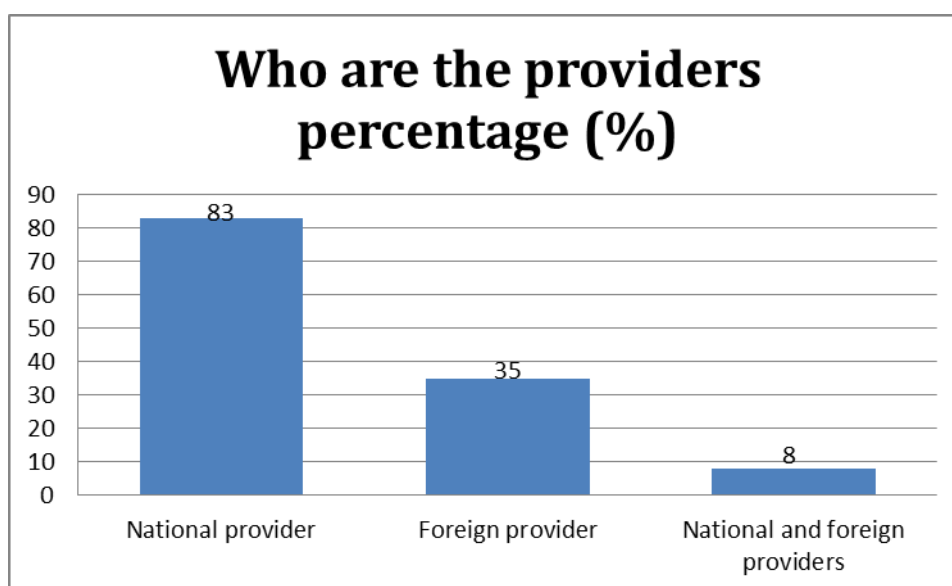


Figure 5. Institution provider of language training

2.17. Training Financing

Among of the total number of respondents who have already done language training, 46.8% was financed by the trainee himself, 38.9% by the government and the education supported by the private sector 7.3%. Training with government support in cooperation with international partners and only by international partners corresponds to 6% and 1.1%, respectively (Table 20).

Table 20. Funders of language training

Sub District Administration	Government	Private Sector	Own account	Government and international partners	International Partners	Total
Fatululik	45	7	50	7	0	109
Fatumea	62	6	44	0	0	112
Fohorém	53	2	20	16	1	92
Maucatar	147	23	223	24	13	430
Suai	469	94	583	80	9	1235
Tilomar	81	26	75	9	0	191
Zumalai	64	14	111	5	2	196
Total	921	172	1106	141	25	2365
Percentage (%)	38,9	7,3	46,8	6,0	1,1	100,0

2.18. Future Training Plan

2.18.1 Personal Development Training

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

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

In the context of the desire for training for the future, two questions were asked for those who are not yet employed or looking for 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 21 shows that the majority of respondents wish to raise their knowledge in the areas of Languages (English and Portuguese), Teachers and Education Professionals, Medicine and Healthcare Professionals and Finance, Budget, Accounting and Planning.

The longing for training in specific areas such as agriculture, tourism, fisheries, livestock, in industries was not found in any of the respondents compared to generic training areas. This is due, of course, to the lower number of employees in this area and a lack of knowledge on the part of respondents about the importance of training for self-employment. Check out training to broaden general knowledge are more preferred compared to specialized areas.

Table 21. Areas of training desired by non-employed respondents

No.	Training area	Frequency	Percentage (%)
1	Language (English, Portuguese etc.)	39	65,0
2	Teachers and Education Professionals	9	15,0
3	Varieties *	4	6,7
4	Medicine and Health Professionals	2	3,3
5	Finance, Budget, Accounting and Planning	2	3,3
6	Information Technology, Database, Web, Software and Electronic Filing (registration) – computer	1	1,7
7	Management, Administration and Leadership	1	1,7
8	Human Resource Management	1	1,7
9	Project Management	1	1,7
Total		60	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.

2.18.2. 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 22 shows that the areas of training such as Languages (English, Portuguese, etc.), Teachers and Professionals of education, varieties, Information Technology, Database, Web, Software and Electronic Archiving (registration) - Computer and Management - Administration and Leadership continues to be areas of higher preference desired by the respondents.

Table 22. Areas of training desired by non-employed respondents

No.	Area of Training	Frequency	Percentage (%)
1	Language (English, Portuguese etc.)	85	36,6
2	Teachers and Education Professionals	55	23,7
3	Varieties *	15	6,5
4	Information Technology, Database, Web, Software and Electronic Filing (registration) – computer	14	6,0
5	Management, Administration and Leadership	14	6,0
6	Medicine and Health Professionals	12	5,2
7	Police, Defense, Security (employee training)	11	4,7
8	Finance, Budget, Accounting and Planning	8	3,4
9	Agriculture	4	1,7
10	Fisheries	4	1,7
11	Human resource Management	3	1,3
12	Project management	2	0,9
13	General Skills Development- Induction Level	1	0,4
14	Marketing, Communication, Journalism and Media	1	0,4
15	Monitoring and Evaluation	1	0,4
16	Production of livestock	1	0,4
17	Hospitality and Tourism	1	0,4
Total		232	100,0

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

2.19. Category and Academic Degree of Training

2.19.1. Vocational / Academic Training

When asked about the category of training, of the total of 2,133 respondents, 57.6% of the respondents intend to develop their knowledge through the vocational or professional training course and 42.4% in the academic - higher education course (Table 23). The Sub District Administration of Suai has a higher number of those who wish to have vocational / professional training, as well as academic / university training compared to other Sub District Administrations.

Table 23. Category of training - Academic or Vocational Training

Sub District Administration	Academic/University	Vocational / Professional Training	Total
Fatululik	30	101	131
Fatumea	16	16	32
Fohorém	25	39	64
Maucatar	215	209	424
Suai	315	672	987
Tilomar	256	153	409
Zumalai	47	39	86
Total	904	1229	2133
Percentage (%)	42,4	57,6	100

Among of the 904 (42.4%) respondents who wish to take the course in higher education, 61.1% plan to increase their knowledge in undergraduate and 38.9% in master's degree programs (Figure 6).

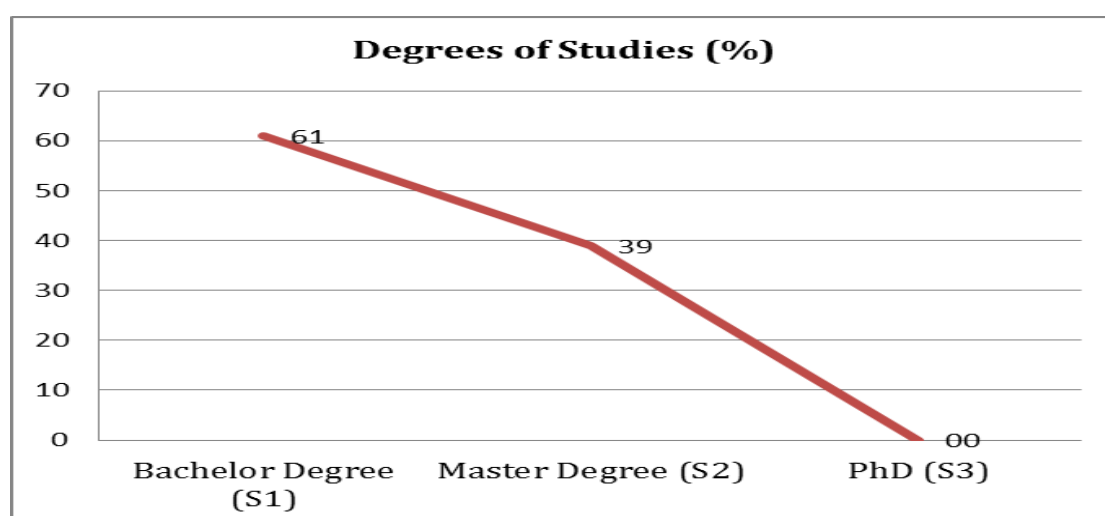


Figure 6. Degrees of studies wishing to continue

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

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

No.	Area of Study	Academic level courses (University)			Total
		Bachelor's Degree (S1)	Master's Degree (S2)	PhD (S3)	
1	Language (English, Portuguese etc.)	15	6	0	21
2	Information Technology, Database, Web, Software and Electronic Filing (registration) – computer	3	4	0	7
3	Teachers and Education Professionals	5	2	0	7
4	Medicine and Health Professionals	1	4	0	5
5	Finance, Budget, Accounting and Planning	2	2	0	4
6	Management, Administration and Leadership	1	1	0	2
7	Fisheries	2	0	0	2
8	Police, Defense, Security (employee training)	1	1	0	2
9	Marketing, Communication, Journalism and Media	1	0	0	1
10	Agriculture	1	0	0	1
11	Varieties *	1	0	0	1
12	Hospitality and Tourism	0	1	0	1
Total		33	21	0	54
Percentage (%)		61,1	38,9	0,0	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. Development of Human Resources within the Strategic Development Plan of the Municipality

3.1. The four pillars of the Municipality Strategic Plan (PEM)

The Covalima Municipality 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, 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:

- i. Social capital: health, education and social protection.
- ii. Infrastructure: transport, telecommunications, energy and water supply and sanitation.
- iii. Economic fundamentals: targeting three sectors for the development of agriculture, tourism and petrochemicals - to generate growth, jobs and new sources of public revenue beyond oil.
- iv. 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 Covalima 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) Increase the capacity of primary schools to accommodate large numbers of students in rural and regional areas; 2) Construction and maintenance of equipment, pre-school education (Kindergarten) 3) Develop a new curriculum for primary schools, technical vocational schools with skills based on the needs of the labor market (eg guidance for agriculture, fisheries, industry, mechanics and electronics) 4) Develop a new curriculum for primary schools, technical vocational schools with skills based on the needs of the labor market (eg. guidance for agriculture, fisheries, industry, mechanics and electronics) 5) Improve the quality of primary, secondary and vocational education teachers with the requirements for special training; 6) To establish more the technical - vocational school in the area of hotel and agriculture in the Municipality of Covalima;
Health Sector	<ol style="list-style-type: none"> 1) Ensure the quality of health services for all people; 2) Prioritize the needs of children and vulnerable groups; 3) Develop health services to respond to secondary care and special services; 4) Guarantee SCSA programs for all villages; 5) Implementation of family planning programs; 6) There are health professionals in the villages; 7) Training or training of technicians and professionals for health professionals; 8) Strengthen monitoring supervision and evaluation of health care techniques; 9) Increase health facilities to ensure quiet service activities; 10) Ensure that any rural population of 1,500-2,000 in rural areas

	<p>receives services from health posts;</p> <p>11) Development of human resources infrastructure, logistic support, medical and other necessary equipment;</p> <p>12) Each rural area of 2,000 residents may have a health clinic with a nurse, two midwives, a doctor, two pharmacies and a technical laboratory person;</p> <p>13) Each village receives a SISCA program;</p>
Youth and Sport	<p>1) Participation of young people in specific training in their respective areas;</p> <p>2) Youth participation in various sports activities at national and international level;</p> <p>3) Support to the infrastructure for young people in the strengthening of creativity and the advancement of sports fields in their respective fields;</p> <p>4) To establish a sports association directed by young people at administrative and municipality level;</p> <p>5) The construction of sports infrastructure such as stadiums and gymnasiums for volleyball, soccer, basketball and others;</p> <p>6) Construction of youth training centers at municipality level;</p> <p>7) Support finances in youth sports activities in the community and promote quality talents;</p>
Social Inclusion	<p>1) Strengthen the encouragement of solidarity and subsidies to the families of veterans;</p> <p>2) Provide social protection to orphans, persons with disabilities, widows and other vulnerable groups;</p> <p>3) Provide subsidies to vulnerable groups, the disabled, widows, the elderly and others;</p> <p>4) Protect children and women against sexual violence and domestic violence;</p> <p>5) Development and implementation of disaster risk management</p>

	<p>through education, prevention and mitigation systems;</p> <p>6) Priority of infrastructure and human resources needed to participate in special training courses;</p> <p>7) Establish veterans fund to stimulate productive activities for the sustainability of veterans in their daily lives.</p>
Environment	<p>1) Create good waste management and maintain a clean and healthy environment;</p> <p>2) Formulate recycling policies for the benefit of the community;</p> <p>3) Provide infrastructure to prevent and support forest fires;</p> <p>4) Local administration should guarantee quality drinking water to the public;</p>
Culture and heritage	<p>1) Promote and preserve cultures through cultural activities;</p> <p>2) Organizing and updating investors in cultural heritage, setting places and promoting other aspects;</p> <p>3) Identify cultural sites and heritage and preserve their uniqueness for the economic benefit of local communities;</p>
Development of the economy	
Agriculture (Forestry, Livestock and Fisheries)	<p>1) To develop high-quality livestock production to export abroad for the country's economic progress;</p> <p>2) Increase the capacity of extension techniques following special training;</p> <p>3) Support the facilities and use of medicines and pesticides for agricultural farmers;</p> <p>4) Need extension of corn and rice seedlings to develop production and establish the Development Center in the community of potential areas in the field;</p> <p>5) Establish agricultural research and development sites and</p>

	<p>centers;</p> <ol style="list-style-type: none"> 6) Rehabilitate and build new irrigation for the benefit of farming communities; 7) Socialization of breeding rules for the community (livestock); 8) Development of ration and maintenance of good and healthy breeders according to health standardization; 9) Improve irrigation systems; 10) Establish and consolidate the economic system - commerce and industry; 11) Promotion and development of the agricultural sector to increase incomes and create jobs; 12) Establish and support agricultural centers, fisheries at each Sub District Administration; 13) Promote agroindustrial, agribusiness and cooperatives for rural development; 14) Establish processing center for local products such as tomatoes, peanuts, corn, etc.; 15) The implementation of reforestation activities with an agroforestry system involves all components of the community; 16) Establish environmental and sanitary conditions with sanitary and livestock supervision; 17) Establishment of livestock infrastructure with diversification system (quality of production);
Tourism	<ol style="list-style-type: none"> 1) Identification of tourist sites at the Municipality of Covalima; 2) To construct the tourist places at the Municipality of Covalima for the benefit of local and foreign tourists; 3) Establishment of libraries at the Municipality of Covalima for the promotion of Covalima tourism; 4) Trainings for tourist service techniques at the Municipality of

	<p>Covalima;</p> <p>5) Activity Promotes "Soru Taís" availability as an art tourism that should be protected by the community of Covalima and in obtaining regional revenues;</p> <p>6) Establish and promote tourist sites and centers for access to information;</p>
Infrastructure Development	
Roads and Bridges	<p>1) Requires priority construction and rehabilitation of bridges at the Municipality of Covalima in rural, regional and national liaison areas;</p> <p>2) Ensure access to drinking water and sanitation to all citizens</p> <p>3) Ensure regular transportation for the movement of communities between urban and rural areas;</p> <p>4) Build Municipality Convention Centers for multipurpose activities.</p> <p>5) Prepare a Master Plan for the municipality as a development guide;</p>
Drinking water and sanitation	<p>1) Requires priorities for drinking water and sanitation in the Municipality of Covalima; such as water distribution rehabilitation, water management system, consumer water bill and others;</p> <p>2) Requires attention to human resources and how to manage ongoing training for the benefit of community service and well-being;</p> <p>3) Ensure that a clean water distribution system is used by the communities of Covalima Municipality;</p>
Electricity	<p>1) Identify and distribute electrical energy to all urban and rural communities to access good quality electricity for 24 hours;</p> <p>2) Central energy investment and management of alternative</p>

Port and Airport	<p>energy distribution networks (solar panels);</p> <p>1) Prepare the technicians and managers of air to the airport of Covalima.</p>
Transportation	<p>1) Installation of traffic signs at places of risk of accident at the Municipality of Covalima;</p> <p>2) Socialization of regulations for the public and apprentices on the use of traffic signs and the process of ownership of vehicles and motorcycles;</p> <p>3) Construction and rehabilitation of terminal-terminal with equipped with its facilities or facilities;</p> <p>4) Special training in transportation;</p>
Telecommunication	<p>1) The Municipality of Covalima has access to communications for people at cheap and affordable prices;</p> <p>2) Students and the general public can access the Internet in a fast, cheap and sustainable way;</p> <p>3) Training or training in telecommunications</p> <p>4) Effective telecommunications networks for the benefit of inter-rural, regional and cross-border network communities;</p>
Institutional framework - focus on macroeconomic management and improvement of the capacity and effectiveness of government institutions.	
Management of good governance of the public sector	<p>1) Establish the necessary legal framework for the development of the municipality</p> <p>2) Accelerate the implementation of local power by empowering the municipality, bringing public service closer to citizens and promoting public service professionalism at the municipality;</p> <p>3) Ensure implementation of the land and property law</p> <p>4) To reinforce the performance and the attendance services of</p>

Justice	<p>the sucos authorities</p> <ol style="list-style-type: none"> 5) Promote the favorable business environment to attract investment within the municipality; 6) Strengthen the presence of community police in village 7) Promote continuous dialogue for conflict prevention 8) Ensure public order, environmental health, law and freedom of expression of all people. 9) Strengthen the implementation of the PNDS & MDP program 10) Strengthen the Administration of Local Government-Public Administration through increasing the knowledge of employees in the generic areas such as the: <ul style="list-style-type: none"> ○ Public Administration ○ Supply management ○ File Management ○ Accounting, Finance and Audit Management ○ Human Resource Management ○ The Spatial Planning ○ Assets and logistics 1) Training for private lawyers, Notaries, Registration and lawyers 2) Specific training for magisters and public defense lawyers 3) Management of public administration for employees involved in social / community development. 4) Languages mainly portuguese language.
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3.2. Main Areas of Training

The Covalima Municipality presented the following distribution of training needs per training area required for each pillar and development sector in relation to the immediate period 2019-2022, and then in relation to the period 2023-2025 and in the long term to end of 2030. Training needs were subdivided into two categories:

the first refers to scholarships for vocational and technical education, bachelor's, master's and doctorate degrees, and the second refers to professional development through participation in workshops , seminars and development in a work context. The data of the main training areas are presented only in the form of the following table taking into account the short, medium and long term priorities.

Table 25. Distribution of training needs in the short, medium and long term

Main areas of Training	Category of training you wish to pursue (Academic / Professional)		Training priorities		
	Academic	Professional Technician	Short term (2019-2022)	Mid term (2023-2025)	Long term (Until 2030)
Geology Engineer	√	√	√	√	√
Mining engineering	√	√	√	√	√
Hotel, Tourism and Cooking Art	√	√	√	√	√
Cultural Tourism	√	√	√	√	
Sociologist Area	√	√		√	
Anthropology Area	√	√		√	
Engineer Agronomy	√	√	√	√	√
Engineer Irrigation	√	√	√	√	√
Production of Livestock	√	√	√	√	√
Forests	√	√	√	√	√
Laboratory	√	√	√	√	√
Industrial engineering	√	√	√	√	√
Fishery and Aquaculture Engineer	√	√	√	√	√
Veterinary Medicine	√	√	√	√	√
Training for public servants on Management					
Training in Administration and Informatics	√	√	√		
Teacher Training	√	√	√	√	√
Capacity Building in the Library and Archive area		√	√	√	√
Qualification of Laboratory Technicians (Physics, Chemistry, Biology) and Geology) and	√	√	√	√	√

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 (Until 2030)
administrative management in Basic Education, ES in ETP					
Specialized Training for Braille		√	√	√	√
Sign language		√	√	√	√
Professional Technical Training		√	√	√	
Training in the area of social welfare	√	√	√	√	√
Training for trainers in the area of Social Assistance and Social Security		√	√	√	√
Computer Training for Employee		√	√	√	√
Leadership Training		√	√	√	√
Continuous Training for Employee in the Specialized Area	√	√	√	√	√
Training for Grupo GMF (Grupo Maneja Facilidade)		√	√	√	√
Increases capacity for extencionistas		√	√		
Increases ability for Forest Guard	√			√	
Increases Capacity for Technical Fisheries	√	√		√	
Employee Training Administration & Finance		√	√		
Eco Tourism (Tourism Engineer)	√				√
Publicity		√			√
Language Training (Tetun, English and Portuguese)		√	√		√
Training through IAD		√	√	√	√
Architecture/Architect	1	√		√	√
Topography	1	√		√	
Paleology	1				
Civil Construction Engineer	1	√		√	√
Engineer Planning urbanization and planning	1	√		√	

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 (Until 2030)
Territory					
Law	1	√		√	√
Architecture Engineer	1	√		√	√
Topography	1	√		√	√
Mechanical Engineers of Electricity	√		√		√
Navigation engineers	√			√	√
Freelance technician		√		√	√
Technical Highlight		√		√	√
Captain Marinha (Crew)	√			√	√
Safety		√		√	√
Meteorology	√			√	√
Management Administration	2	7	√		
Financial Management	2	3	√		
Technical / IT Management		2	√		
Logistics management		1	√		
Supply Management		3	√		
Human Resource Management		9	√		
Audit		√	√		
Public Service Management		2	√	√	

4. Discussion and Analysis

This study has two complementary lines of work, the first being the identification of the distribution of existed human resources at the Municipality level and Sub District Administration. All 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 programs of the Municipality of Covalima based on the four pillars of the Municipality Strategic Plan (MSP/PEM) and the key human resources needed for training in the development of the same priority programs. Make an effort to analyze and compare the existence of the current human resources and training need required by the municipality based on its priority programs to allocate funding efficiently and effectively.

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

This dispersion of education level, together with the rapid population growth of the population in the relevant age groups, shows the essence of the challenge faced by Covalima 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 indicates 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).

It is further aggravated by a large number of job seekers, including those who have completed their degree program in the areas of Accounting and Law, and are more graduates in other areas in a smaller number (see table 15), without being job. The work preference of the graduates is in the public sector while the non-licensed 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 25) with the current human resources (Table 5), the data shows that the municipality of Covalima 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 stress that there are still serious concerns about quality not only in technical knowledge but also 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 is important to unite with the additional training at the level of postgraduations 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 of Covalima 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 Asian countries, where much of the recent success in poverty reduction is due to robust economic growth stimulated by the private sector. In this regard, it is crucial to strengthen the private sector by promoting the development and 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 Covalima municipality has identified skills shortage 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 25.

Based on the data presented above, it becomes evident that 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, which enable 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 shows 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 points out the need to reduce or combat illiteracy through the creation of opportunities and mobilization of municipality managers to increase literacy provision for all young people, adults and elderly who did not have access to or stay in basic education, especially small and medium-sized businesses 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 RECOMMENDATIONS

5. 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 Covalima Municipality needs to pay more attention to the development opportunities identified in the Municipality Development Plan (MDP) and 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:

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

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

Most respondents are interested 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 most unemployed graduates and postgraduates with the highest number of job seekers “unemployment” are in the fields of Accounting and Law and more graduates in other areas (table 15).

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

There are quite a large number of people with disabilities 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.

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

- 1) Education and training opportunities remain limited in some of the major areas highlighted by 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 at the municipality of Covalima.
 - **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 Covalima 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 shows that private sector growth is constrained by skill gaps in the workforce both employers and workers. In this regard, it is crucial to strengthen the private sector by promoting the development and adequacy of the qualification of workers and employers with a view to improving their employability and increasing the productivity and competitiveness of the business.
 - 3) **Technical and vocational education and training (TVET)**. FDCH 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 and technical education remains fluid, with easy articulation between the two areas.
 - 4) **Adult education** (literacy for all young people, adults and the elderly), especially for women, and training in the workplace. In our view, these three areas are of considerable important. In particular, the increasing role of women, especially in agriculture, and with a higher skill level due to improved training, may contribute to the growth of household and national income, and to more jobs in general.

- 5) In the preparation of Human Resources for the creation of municipalities (decentralization process) it is important to strengthen the training in the areas of Urbanization and Regional Planning, Planning and Territorial Planning.
- 6) It also reveals the need for a demand –driven secondary-vocation education and demand-driven post secondary technical education area of secondary technical education.

6. Bibliographic References

- Data collection of Existed Human Resources in Timor-Leste, 2016-Human Capital Development Fund (FDCH), 2016.
- General Directorate of Statistics - Ministry of Finance, Population and Housing Census, 2010.
- General Directorate of Statistics - Ministry of Finance, Population and Housing Census, 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 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)	Medium Term (2022-2025)	Long Term (2026 - 2030)
Tourism						
Agriculture						
Identify other powers						

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 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 Technician	Short Term (2019-2021)	Medium Term (2022-2025)	Long Term (2026 - 2030)
EDUCATION AND TRAINING							
HEALTH							
SOCIAL INCLUSION							
ENVIRONMENT							
CULTURE AND HERITAGE							

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 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)	Medium Term (2022-2025)	Long Term (2026 - 2030)
Rural Development							
AGRICULTURE							
PRIVATE SECTOR							

QUESTIONS FOR GROUP DISCUSSION – GROUP IV – INFRASTRUCTURE DEVELOPMENT

INFRASTRUCTURE DEVELOPMENT	What are the priority programs related to the sectors below that the Municipality / RAEOA-Oecusse has to develop? Describe according to each 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)	Medium Term(2022-2025)	Long Term (2026 - 2030)
ROADS AND BRIDGES							
WATER AND SANITATION							
ELECTRICITY							
MARITIME PORTS (If Applicable))							
AIRPORT AND TELECOMUNICATIONS							

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 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)	Medium 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 Covalima

Municipality

No.	Name	Position	Institution
1	Afonso N. Nobre	Administrator of Municipality	MAE
2	Zelia F. da Conceição	Director PNDS of Covalima	PNDS-MAE
3	Alarico de Nascimento	Director of Procurement	MAE
4	Pedro Tilman	Land and Property Officer	DTPC
5	Zeferino A. Guterres	Director	SMA
6	Agostinho Gusmão	Chef Dept of PDIM	MAE
7	Alberto Cardoso	Public Work Manager	MOPT
8	Domingas Corte-Real	Chef Aldeia	
9	Gaspar F. Vicente	Publication Officer	Centru Juventude Covas
10	Augusto Henrique	Pros. Ass. CCI-Coordinator	CCI – ME
11	Maria de Jesus Pereira	Dept of Adm of Maucatar Post	MAE
12	Filomeno Cardoso	APA Fatumea	MAE
13	Laurentino de Jesus	APA Suai	MAE
14	Elias da Cruz	APA Fatululik	MAE
15	Manuel C. Ximenes	Local Government Officer	MAE
16	Vitorino do Carmo	Finance Officer	MAE
17	Jacinto dos Santos	Chef Dept.	MAE
18	Vitor Gomes	ODE Zumalai	MAE
19	Fransisco M. da Costa	Director of SLAIM	MAE
20	Edmundo Ferreira	Director of Education	MAE
21	Nazaria de Jesus	FSPA	PNDS-MAE
22	Norberto Amaral	Assistant	MAE
23	Ruben do Rego Alves	FSPA Fohorém	PNDS-MAE
24	Amandio Amaral F	Director	MSS
25	Rogério Ribeiro	Logistic Officer	MAE
26	Rui Amaral Suri S.	Chef Dept of Culture	ME
27	Natércia T. Barros	FSPA	PNDS-MAE
28	Bernadete de J. Inácia	FSPA	PNDS-MAE