



Ministry for Higher Education,
Science and Culture
(MESCC)

FDCH



Human Capital Development Fund
(FDCH)

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



**VIQUEQUE
MUNICIPALITY**

LD RHE

DATA COLLECTION OF EXISTING
HUMAN RESOURCES

LD RHE REPORT 2018

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

Municipality of Viqueque

Fundo do Desenvolvimento do Capital Humano (FDCH)

(Human Capital Development Fund – HCDF)

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ACKNOWLEDGMENT

First of all, it is necessary to point out that, thanks to the political orientation and vision of the Administration Council of the Human Capital Development Fund (AC-HCDF/CA-FDCH-acronym in Portuguese language) to the staff of the Technical Secretariat of the Human Capital Development Fund (TS-HCDF/ST-FDCH-acronym in Portuguese language) this LDRHE documentation (Data Collection for Existing Human Resources in East Timor).

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

- To the VI Constitutional Government in the person of SE the Minister of Planning and Strategic Investment (MPIE-official acronym) for the trust that has been deposited with the FDCH team in the realization of this program and to be able to materialize its publication in this VIII Constitutional Government;
- To the Administrators of the 12 Municipalities, including the President of RAEOA - Oecusse as well as the Municipal Directors and Regional Secretaries of RAEOA for the provision of time and provision of necessary resources in the monitoring of data collection and the active participation in the consultation process on the Municipal Powers and of RAEOA held in the month of March to April 2018;
- To Director of VISES (Victoria Institute for Strategic Economic Studies) of Victoria University in Melbourne – Australia, Professor Bruce Rasmussen and Dr Peter Sheehan and Mr Jim Lang for the contribution to assist FDCH in analysis of the raw datas as well as the National Population 2015 data;
- To Academics of all Universities for the contribution and information as well as General Secondary Schools and Vocational Technical Schools throughout Timor-Leste;
- To the youth group, Organization of Women and the Disabled People, National NGOs, National and Foreign Enterprises including foreign citizens residing in East Timor for the contribution and information relevant to the realization of this report;

- To the Organization of the Chamber of Commerce and Industry (CCI), organizations and companies of the private sector for the contribution of ideas, data and information necessary for the same purpose;
- To all Timorese from East to West for the contribution and information provided through answers to the questions asked in this questionnaire;
- To the Technical Secretariat of FDCH (ST-FDCH) Team for the effort and excellent work, mutual understanding and good coordination from the beginning of the work begun in September 2016 until April 2018, drawing, compiling, analyzing and preparing the written questionnaire for consultation;
- To the General Director of Statistics (DGE- official acronym) of the Ministry of Finance for all the hard work and technical expertise in leading the team for data cleaning and data analysis;
- To the Ministry of State Administration (MAE) for the guidance of working with the communities, local authorities and all stakeholders in the Municipalities;
- Team of the National Program for Village Development (PNDS – official acronym) to carry out the study together with the enumerators recruited in each village of all municipalities in Timor-Leste;
- To all the enumerators, for the collection of data, the correction and the cleaning of the data team to the 546,555 people represented by 82.7% of the population interviewed in this data collection process, that at the end of the process only 522,979 persons could be used, representing a total of 79 % of the population with 662,285 people over the age of 17 according to the result of the Population Census in 2015;
- Dr Afonso Almeida for his compassion, knowledge and skills contributed to the writing of the report together with the team despite of the challenges in time and information gathered;
- Lastly to the team of translators who have contributed the time and wisdom to translate into three (3) languages, from Tetum to Portuguese and English, thus enabling all people in Timor-Leste including development partners to have access and read the Current Human Resources Data Collection document (LDRHE-official project name)

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



Longuinhos dos Santos, M.M.

Minister of Higher Education, Science and Culture (MESCC)

MESSAGE FROM THE EXECUTIVE SECRETARY OF FDCH



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

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

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

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

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

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

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

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

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

Dili, December 2018

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

Isménio Martins da Silva
Secretary of HCDF/ FDCH-MESCC

EXECUTIVE SUMMARY

Justification of the important of the subject

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

The key to the effective development of the Municipality's human resources is not only to identify the natural and economic potential for development and priority areas of training, but also to have prior knowledge of existing human resources and to segment appropriate funds for the needs of Identified ensuring different phases of MSP/PEM to 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 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 the 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 Viqueque with the completion of a questionnaire, carried out from September 5 to 05 of November, 2016 and in the second phase, was done through the "**Focus Group Discussion**" (FGD) held on March 13, 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 Result

The data presented here show that the majority of the population respondents in Viqueque Municipality are young people aged between 17 - 36 years. At the level of knowledge, 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 the Viqueque Municipality. One aspect of this challenge is the balance between those who have completed general secondary education and academic education are predominant compared to those who have completed vocational technical courses, either at the secondary technical school level or at the higher technical level such as polytechnics. The ideal balance between academic and technical education is a key issue in the development process. In addition, the data also indicate a very small number of people who participated in one of the vocational training courses with skilled labor prepared for self-employment or institutional strengthening.

Those who had already taken part in one of the short-term professional courses in most of them are generic professional courses geared more towards administrative work and the public servant such as course 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 Management, Mathematics, Accounting and Education, and are more graduates in other 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 show that Viqueque Municipality has a high number of graduates in several areas, however it is verified that there

are still deficiencies in some specialized areas. In relation to the current human resources, the question is how to take advantage of and employ them. However, it is important to note that there are still serious concerns about quality not only in technical knowledge but also in language skills and this can become a challenge.

Language training activities are intended to provide the beneficiaries with fluency in reference languages and to enable them to be more effective in carrying out their tasks in particular when traveling to work overseas. In this sense, it is important to unite language training with the additional training at postgraduate level directed at the priority technical areas and professional internship programs.

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

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

Equipping workers with certain skills will enable them to continue to take advantage of opportunities for growth expansion in a non agriculture private 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 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, and 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 the need for training and the development of people's skills as a means to provide qualitative and quantitative benefits .

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

With regard to people with disabilities, data show that there are quite a large number of people with disabilities and many of them have stopped in primary and secondary education, due to various difficulties, and this makes it difficult to get a job, to earn a higher salary of than the subsidy 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 to enable them to acquire the knowledge and skills necessary to obtain a vocational

qualification to help overcome the concerns of employers so that they can have more opportunities and their entry into the labor market is easier.

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

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

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

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

Conclusion Summary and Recomendations

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 Viqueque Municipality needs to pay more attention to the development opportunities identified in the Municipality Development Plan (MDP) and to the following five dimensions : 1) **economic** (increase efficiency of the production system), 2) **social** (improvement of the levels of income distribution of the population), 3) **ecological** (preservation of the environment), 4) **spatial** (balance in distribution and occupation of population rural and urban) and 5) **cultural**

(respect to the ways of thinking and acting of society, focusing on the construction of an environmental conscience linked to consumption).

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

- 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 completed formal education.

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

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

The graduates and postgraduates with the higher number of job seekers “unemployment”, are in the fields of Management, Mathematics, Accounting and Education, and more graduates in other areas (table 15).

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

There are quite a large number of people with disabilities of productive age who are looking for work 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 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 in the Viqueque of Municipality.
 - **The construction** with a limited infrastructure inherited from the Indonesian government period and the continuous needs to consolidate the infrastructures namely the roads thus offering the population of the benefited region, better conditions of transport, easy access and allows local farmers to transport their products to the market quickly and efficiently.
 - **Tourism** in Viqueque of Municipality remains a future opportunity, but taking advantage of this opportunity will require the development of a trained workforce, from the entry-level team to senior managers, as well as investment in R & D, development and policy planning and capacity planning.
- 2) **Private sector** - Survey data 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 enterprise.

- 3) **Technical and vocational education and training (TVET).** FDCH's study shows a lower level of TVET qualifications than university qualifications in the municipality, and increased investment in the expansion of TVET should be a high priority. This expansion should cover technical secondary schools, the polytechnic system, and the community-based non-formal vocational training system. In doing so, it is important that the boundary between academic and technical education remains fluid, with easy articulation between the two areas.
- 4) **Adult education** (literacy for all young people, adults and the elderly), especially for women, and the job training in our view, these three areas are of considerable importance for the future. In particular, the increasing role of women, especially in agriculture, and with a higher skill level due to improved training, may contribute to 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-vocational education and demand-driven post secondary technical education area-level provision of secondry and post-secondary education.

PART A: INTRODUCTION, OBJETIVES AND METHODOLOGY

1. Introduction, Objectives and Methodology

1.1. General Introduction

Viqueque Municipality is located on the south coast of the Timor Sea and is the largest municipality in the country.

It shares borders to the West with the Municipality of Manatuto, the East with the Municipality of Lautém, the South is the Sea of Timor, in the North part with the Municipality of Baucau and it has a total surface of 1,880.40 km². Astronomically the Municipality of Viqueque is located in the longitude 80.34 - 80.44 and 125.03 - 126.30.



The population was estimated at 76,033 inhabitants, 38,131 men and 37,902 women, and according to the census of 15,297 households.

The dominant religion in the territory of the municipality of Viqueque is the Catholic religion being the most widely spoken languages in several languages where 42% of the population speak makasae, 25% speak Tetum terik, 18% speak naueti, 6% speak midiki, 4% speak kairui and 4% speak other languages.

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

The Viqueque Municipality is divided into 5 Sub District Administrations, 35 Villages and 234 Sub Villages (hamlets / Aldeia) scattered throughout the territory according to the table below:

Sub District Administrations

Sub District Administration	Surface Km ²	(%)
Lacluta	416.54	22.15
Ossu	427.17	22.72
Watucarbau	131.66	7.00
Uatu-Lari	294.13	15.64
Viqueque	610.90	32.49
Total	1.880,40	100

Sub District Administrations, Villages and number of Sub Villages

Sub District Administration Lacluta number of 7 villages and 20 Number of sub villages.

Sub District Administration Ossu number of 6 villages and 59 Number of sub villages.

Sub District Administrations Uatucarbau number of 6 villages and 30 Number of sub villages.

Sub District Administration Uatu-Lari number of 6 villages and 63 Number of sub villages.

Sub District Administration Viqueque number of 10 villages and 62 Number of sub villages.

Climate, Mountains and Rivers

Geographically the Viqueque of Municipality is composed of a mountainous area and also of low lands. There are three mountains that surround this municipality, the Lost world hill is in the sub district administration of Ossu, the mountain of Bibileo is located in the sub district administration of Viqueque and the mountain of Matebian is located in the sub district administrition of Uatucarbau.

The climatic situation of the Viqueque of Municipality is essentially characterized by two main stations, a dry season and a rainy season. The dry season occurs between July and September with average temperatures between 25o C - 35o C. The rainy season occurs in November to June. Climate change can not be predicted, but its sudden arrival creates great influence in the life of the Viqueque of

Municipality, because if there is a prolonged drought it causes the scarcity of water and in the time of the rains can occur landslides and low temperatures.

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

a) Agriculture

The majority of the population of the Viqueque Municipality is involved in subsistence agriculture and depending on the agricultural sector as the main source of income. For this population, agriculture is a fundamental activity for the subsistence of the families that practice it, to guarantee food and generate income.

The municipality was known as a rice barn but the actual contribution of the agricultural sector to GDP at municipal and national levels is still very low which gives a clear idea of the low productivity with which to work which, of course, highlights the poverty of people who work and are dependent on the sector, and that, therefore, continues to condition the fight against poverty. Hence the Strategic Development Plan defines transforming the agricultural sector as vital in the municipality where the majority of the population depends on this activity for its life, along with a greater effort of diversification of the economy. Agricultural growth reduces poverty directly, through increased income from agricultural activity, and indirectly, through the generation of employment and the reduction of food prices.

The data show that the municipality has enormous potential for the development of the agricultural sector as the rice and maize crops. Rice and maize are two crops of much production and are cultivated by most of the local community in the 5 sub district administrative such as the sub district of Viqueque, Ossu, Lacluta, Uatulari and Uatucarbau. The potential area for agricultural development that the municipality has for rice cultivation is 11,659.35 hectares and for corn cultivation is 16,326.14 hectares.

In the absence of data for all crops considered important, other high-potency modalities such as cassava (ai-farina), vegetables (modo), coffee,

coconut (nu'u) and others are presented as important for feeding the local population.

b) Livestock

The livestock sector in the Viqueque Municipality is one of the complementary areas of agriculture that contributes strongly to the increase of income of the local population, Viqueque being one of the municipalities that has great production of cows, buffaloes, chickens, pigs, goats, horses and others animals. Livestock is a sector with great economic value and almost all families raise animals, starting with those who live in the countryside even in the municipality's headquarters.

The activities carried out are characterized by family exploitation and constitute an important complement to the income of the households.

The activities of animal husbandry are still traditional limiting only to domestic consumption as for ritual and cultural events and production for industrial activity is very reduced.

The municipality has the responsibility to promote livestock and rural development in general and has the specific task of technical assistance and organizational support to farmers. Improve the quality of production, provide training to technicians, promote the breeding of animals using technologies and ensure the continuity of production of the product in this sector. However, their capacity and performance are still quite fragile.

c) Fishing

Fishing is another activity that contributes to food security and to the income generation of populations, especially in areas where rivers provide a greater diversity of fish.

The Viqueque Municipality has a potential source of marine fishing on the south coast and freshwater fishing. Potential areas for marine fishing are at the sub district administrations of Uatulari, Uatucarbau, and Viqueque with about 294 fishermen. Also noteworthy for aquaculture in the sub district

administration of Ossu and fish farms in the sub district Administration of Viqueque.

d) Forest

The municipality has a vast forest area of $\pm 72,529.83$ hectares, including permanent forest $\pm 34,658.37$ hectares and non permanent forest of $\pm 37,871.46$ hectares.

The protected forest areas for conservation areas in the Viqueque of Municipality are scattered in the administrative posts of Ossu, Uatucarbau and Uatulari as in the Lost World, Builo, Laritame, Lacluta likes, Aitana, Bibileo, Bina Bura and Bo'o.

There are several plant species of economic value such as Ai-na'a trees, Nitas trees, gum trees (Ai-bubur), casuarinas trees (Ai-kakeu), Bamboo trees, Ailis trees and others. The government is currently implementing the forest reforestation program that has been overthrown and destroyed by the local community.

e) Tourism

The Municipality of Viqueque has many historical sites that can be developed as tourist destinations to boost the economy of the local population, generating jobs 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 major challenges are the lack of basic infrastructures such as bridges, roads, security and other basic necessities besides accommodation such as hotels, restaurants and professional technical resources in the area of tourism.

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 this 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, the extreme importance of human resource training in the tourism sector is highlighted here.

The potential tourism in the municipality that can be offered to tourists / visitors and bring in the local revenues are for example the mountains and beaches with beautiful landscapes on the south coast and historical cultural heritage as follows:

- Water Fountain and Ira-bere Waterfall;
- Kaoru water fountain - Karau dikur (Uatocarabau);
- Hot water from Be'e mean Lulik (Viqueque);
- Wai-Oilau Lagoon/Lake (Lacluta);
- Water of Lulimanas (Lacluta);
- Wetasi Lagoon/Lake(Lacluta);
- Monument of Massacre Craras;
- Monument of Administrador Oscar Ruas (Caraubalo Village);
- Monument of Dom Jerimeas (Caraubalo Village);
- Grotto of the Heart of Jesus Christ in Didimara;
- Ossu Municipal Market, built in 1963-1964;
- College Father Manuel Luis, male (Special dormitory for boys) built in 1950;
- Former Administrative Post of Ossu, Uatu Carbau, Lacluta and Uatulari;
- School Waida-Ossu College - Female (Special for girls);
- Karau fuik company in Edemumu (Makahiki Village), local warehouse of war material against the invasion of Indonesia in 1975.

f) Natural Resources

The Municipality of Viqueque has natural resources that can be developed as Petroleum - Natural Gas (Aliambata), Oil, Anar Rock, Magnetic Rock and others.

Anticipating the implementation of the decentralization process and the creation of the municipality, it was identified as the main challenge of the economy: increasing the competitiveness of the economy through diversification of the economy; bets on the poles of development; investment in human capital, in infrastructure and in research and

innovation. The challenge is also the need to develop 4 fundamental pillars, namely:

- 1) Human capital development (market-oriented training, institution and expansion of vocational education and improvement of health and social protection standards);
- 2) Development of production-based infrastructures (infrastructure investment and planning: industrial parks, special economic zone, water park, thermal power plants, roads, ports, definition of housing areas and State reserves);
- 3) Research, innovation and technological development (creation of Special Research and Development centers in the following areas: agriculture, livestock and fisheries, energy, mineral resources, water resources management and Information and Communication Technology (ICT);
- 4) Articulation, and institutional coordination (improvement of public institutions, improvement of coordination and intersectoral coordination, reform of legislation and creation of institutions that serve the industrialization strategy – 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, crucial factors are the creation of a business environment favorable to the municipal private sector and the mobilization of resources for private investment. Developing financial instruments that improve funding conditions and facilitate access to municipal private sector financing is essential.

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

It is imperative to build local capacities of administrative posts as the vanguard of the municipal strategic development agenda. The lack of necessary skills and well-

run public and private institutions for long-term sustainable growth is a priority to be included in all development activities in Viqueque because of their implications for improving governance and development management.

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

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

The fact that there is not yet a census of human resources existing in the Municipality of Viqueque 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 human resources situation of the municipality and each sub district administration;
2. Inform the number of graduates seeking work or unemployed;
3. Promote the planning of human resources, especially with regard to the needs of the municipality;
4. Contribute to the training and improvement of different categories of personnel, through the optimization of opportunities inside and outside the country; and
5. Strengthen cooperation between the public and private sectors and professional associations;

6. Promote efficient FDCH funding allocation for human resource development programs in priority areas in the coming years;
7. Identify strategic occupations and strategic areas for training; and,
8. Identify economic potential, natural resources and related priority programs.

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

1.3. Methodology

The research methodology that supports the theme developed basically from a comprehensive analysis of primary data, and was essentially focused on two vectors of the quantitative and qualitative methodological approach. The first, the data were collected from individuals aged 17 years or over by census of the population living in the Municipality of Viqueque with the completion of a questionnaire, conducted between September 5 and November 5, 2016 and the second was made through the Focus Group Discussion (FGD) held on March 13, 2018.

The population census is the only source of information on the life situation of the population in sub district administration and villages. The census produces information essential for the definition of public policies of the state at the level of administrative posts 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 (NDSP/PEDN 2011-2030) to Municipal Administrator, Administrative Officers, Directors (list of participants in Annex 2), with a view to assessing the accuracy of the information given, but also the relevance of the programs identified as necessary for the development of human resources in the municipality.

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

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 Viqueque of Municipality, continues in four sections.

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

2.1. Presentation and Analysis of data

This section briefly reviews data on the existing human resources of Viqueque Municipality and its distribution in sub district administration, as well as providing a basis for human resource strategy decisions. The main source of information presented here is the result of the FDCH survey and statistical data from the Directorate Geral of Statistics (DGE-official acronym in portuguesa language).

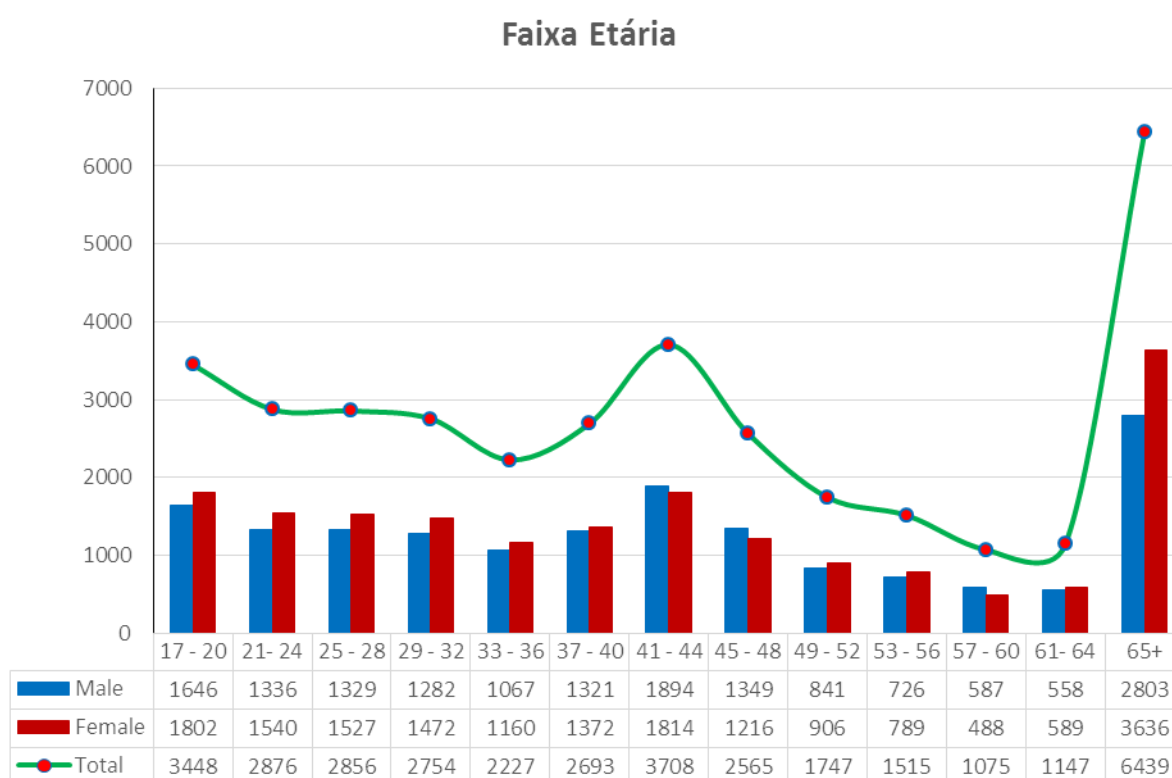
2.2. Profile of Respondents

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 35,050 respondents, whom distribution of 47.8% were for males and 52.2% were for females. The other aspects of the profile are arranged in

the graphs below. Most of them are between 17 and 44 years of age in both sexes, representing 58.7%, followed by the age group from 45 to 64 years old, with 23.0% of those surveyed and 18.4% with more than 65 years. The female sex is the largest number in the age group between 17-40 years old, 49-56 years old and over 61 years old, whereas in the male sex, it is in the individuals aged 41-48 years (Figure 1).

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



2.3. People with Disabilities

Table 1 shows the distribution of the existence of people with disabilities in the Municipality of Viqueque. A total of 630 disabled respondents were registered, corresponding to 1.9% of the total number of respondents distributed by 5 Sub District Administrations (table 1).

Table 1. Distribution Of The Existence Of People With Disability By Sub District Administrations.

Sub District Administrations	Have a Disability?		TOTAL
	YES	NO	
Lacluta	66	3,731	3,797
Ossu	174	7,715	7,889

Sub District Administrations	Have a Disability?		TOTAL
	YES	NO	
Uato-Lari	118	8,422	8,540
Uatucarbau	62	3,475	3,537
Viqueque	210	10,625	10,835
VIQUEQUE	630	33,968	34,598
Percentage (%)	1,9	102,7	104,6

The highest number of people with disability was registered in the Sub District Administrations of Ossu (28%), Sub District Administrations of Viqueque (33%) and Sub District Administrations of Uato-Lari (19%). Other Sub District Administration have people with disabilities less than 10% (Table 2).

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

Sub District Administrations	Frequency	Percentage (%)
Lacluta	66	10
Ossu	174	28
Uato-Lari	118	19
Uatucarbau	62	10
Viqueque	210	33
Total	630	100

Among of the 630 people with disabilities, the main difficulties related to physical mobility (41.3%), vision or eyes (28.1%), hearing loss (11.8%), psychosocial or mental disability(17,6%), and cognitive or intellectual (1,1%).

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

Sub District Administrations	Type of disability					Total
	Physics / Mobility	View	Deaf /mute	Psychosocial / Mental	Cognitive / intellectual	
Lacluta	32	24	4	6	-	66
Ossu	63	47	23	38	4	175
Uato-Lari	56	30	11	20	-	117
Uatucarbau	19	10	12	18	5	64
Viqueque	162	115	45	59	-	381
Total VIQUEQUE	332	226	95	141	9	803
Percentage (%)	41,3	28,1	11,8	17,6	1,1	100,0

2.4. Education Level

As for the level of education of illiterate respondents, adult literacy and incomplete basic education occupy 52.6% of all respondents. Basic (primary) and pre-secondary education represents 24.9% and secondary education accounts 17.1%. Vocational education courses and other levels of education occupy 0.6% and 1.1%, respectively. At the tertiary or higher level, 3.7% of the respondents have the level of higher education (Table 4).

Among of 1,307 (3.7%) of respondents, 66.5% have undergraduate Degrees followed by Diploma III (27.2%) and two years Diploma/Diploma II (2.6%). Other academic levels have a percentage of less than 2% (Table 4).

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

Degree of Education / Level of Education	VIQUEQUE	Lacluta	Ossu	Uato-Lari	Uatucarbau	Viqueque
Can not read / write	16,537	2,147	3,956	3,756	1,784	4,894
Do not read / write (did not finish primary School)	1,903	226	712	404	235	326
Sub Total	18,440	2,373	4,668	4,160	2,019	5,220
Primary	3,850	462	781	1,221	365	1,021
Pre-secondary	4,860	488	1,057	1,294	522	1,499
Secondary	6,003	435	1,240	1,431	595	2,302
Technical Vocational (high)School	215	10	31	56	29	89
Others	183	-	29	80	13	61
Sub Total	15,111	1,395	3,138	4,082	1,524	4,972
1 st Cycle (1 st class - 4 th class)	160	16	42	64	4	34
2 ^o . Cycle (1 st Year, 2 nd Year)	18	2	5	6	-	5
3 ^o . Cycle (3 rd year - 9 / 3 rd year up)	14	2	3	4	-	5
Sub Total	192	20	50	74	4	44
Diploma I	24	3	2	7	1	11
Diploma II	34	0	8	12	3	11
Diploma III	356	24	78	83	28	143
Diploma IV	9	1	-	1	2	5
Bachelor's Degree (S1)/	869	53	146	211	76	383
Master (S2)	15	2	2	6	-	5
PhD (S3)	-	-	-	-	-	-
Sub Total	1,307	83	236	320	110	558
Total	35,050	3,871	8,092	8,636	3,657	10,794

Regarding the distribution of the knowledge of the respondents by study area (study program) and by Sub District Administrations, of the 1,307 who hold the higher degree only 644 (49.3%) answered this question. Details of the data can be seen in table 5, below.

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

Study Program	Education Level							Total	Sex	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master's Degree(S2)	PhD(S3)		Male	Female
Total	16	12	185	3	416	12	-	644	445	199
Education	1	2	19	2	26	1	-	51	33	18
Mathematics	2	1	14	-	22	-	-	39	31	8
Accounting	1	-	10	-	25	-	-	36	16	20
Portuguese language	1	-	28	-	5	1	-	35	27	8
Medical Doctor – Medical Practice (General Practice)	-	-	4	-	29	-	-	33	18	15
Management	2	-	5	-	25	1	-	33	19	14
Public Law	-	-	1	-	26	-	-	27	17	10
Nursing	-	-	12	-	7	-	-	19	12	7
Mathematics teaching	-	-	9	-	10	-	-	19	17	2
Civil Engineering - Civil Construction	-	-	1	-	16	1	-	18	17	1
Agronomy	-	-	2	-	11	-	-	13	8	5
Public health	-	-	2	-	11	-	-	13	8	5
English language	-	-	1	-	11	-	-	12	7	5
Production of livestock	-	-	2	-	9	-	-	11	11	-
Education Biology	-	-	6	-	5	-	-	11	8	3
Teacher training	-	-	9	-	2	-	-	11	7	4
Oil Engineering	-	-	-	-	10	-	-	10	1-	-
Computer Technology Engineering (Computer)	-	-	2	-	8	-	-	10	7	3
Economy	-	1	1	-	7	-	-	9	6	3
Sociology	-	-	1	-	7	1	-	9	9	-
Political science	1	-	-	-	7	-	-	8	5	3
Pharmacy	3	-	1	-	4	-	-	8	2	6
Human resource Management	-	1	1	-	4	2	-	8	4	4
Sociology of Education	-	-	1	-	6	-	-	7	7	-
Catechism	-	3	2	-	2	-	-	7	3	4
Engineering Architecture	-	-	-	-	6	-	-	6	6	-
Electrical engineering	-	-	1	-	5	-	-	6	6	-
Management	-	-	2	-	3	1	-	6	4	2
Midwife	2	-	2	-	2	-	-	6	1	5
Economics of education	-	-	2	-	4	-	-	6	2	4
Economy Finance / financial management - Banking	-	1	2	-	3	-	-	6	6	-

Study Program	Education Level							Total	Sex	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master's Degree(S2)	PhD(S3)		Male	Female
economics										
Public policy	2	-	-	-	4	-	-	6	6	-
Educational Psychology	-	-	1	-	5	-	-	6	5	1
Agro-business	-	-	1	-	4	-	-	5	5	-
Tourism and Hospitality	-	-	3	-	2	-	-	5	1	4
Philosophy of Education	-	-	1	-	4	-	-	5	3	2
Economics of Education / Management of Education	-	-	1	-	4	-	-	5	2	3
Training of primary and pre-secondary teachers	-	-	3	-	2	-	-	5	2	3
Petrology	-	-	1	-	3	-	-	4	3	1
Physics	-	1	2	-	-	-	-	3	3	-
Philosophy	-	-	-	-	2	1	-	3	3	-
Chemical Engineer	-	-	1	-	2	-	-	3	2	1
Mechanical Engineer	-	-	1	-	2	-	-	3	3	-
Dentist	-	-	2	1	-	-	-	3	3	-
Physical Education / Sports Education	-	-	1	-	2	-	-	3	1	2
Aquaculture	-	-	-	-	3	-	-	3	3	-
Public administration	-	-	1	-	2	-	-	3	2	1
Government Planning and Policy	-	-	2	-	1	-	-	3	2	1
Physics of Teaching	-	-	2	-	1	-	-	3	2	1
Teaching chemistry	-	-	-	-	3	-	-	3	1	2
International, bilateral and multilateral relations	-	-	-	-	3	-	-	3	3	-
General / environmental biology	-	-	2	-	-	-	-	2	2	-
Engineering Ore Treatment	-	-	-	-	2	-	-	2	2	-
Psychology	-	1	-	-	1	-	-	2	1	1
Theology	-	-	1	-	-	1	-	2	1	1
Applied Linguistics	-	-	2	-	-	-	-	2	2	-
Indonesian language	-	-	1	-	1	-	-	2	1	1
Computer science	-	-	-	-	1	1	-	2	2	-
Obstetric specialist / gynecologist	-	-	1	-	1	-	-	2	1	1
Agrometeorology	-	-	-	-	2	-	-	2	2	-
Animal Reproduction	-	-	-	-	2	-	-	2	2	-
Food Technology	-	-	1	-	1	-	-	2	2	-
Communication - Journalism and Publishing	-	-	-	-	2	-	-	2	2	-
Social work (including Grave digger)	-	-	1	-	1	-	-	2	2	-

Study Program	Education Level							Total	Sex	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master's Degree(S2)	PhD(S3)		Male	Female
Business Administration	-	-	-	-	2	-	-	2	2	-
Tetum Language	-	-	2	-	-	-	-	2	2	-
Special Education	-	-	2	-	-	-	-	2	1	1
Genetics	-	-	-	-	1	-	-	1	1	-
Environmental ecology	-	-	-	-	1	-	-	1	1	-
Biochemistry	-	-	-	-	1	-	-	1	1	-
Immunology	-	-	-	-	1	-	-	1	1	-
Materials Engineering and Metallurgy	-	-	-	-	1	-	-	1	1	-
Clinical Analysis	-	-	-	-	1	-	-	1	-	1
Pathological Anatomy and Clinical Pathology	-	-	-	-	1	-	-	1	-	1
Forest Resources and Forestry Engineering	-	-	-	-	1	-	-	1	1	-
Anthropology	-	-	-	-	1	-	-	1	1	-
Psycholinguistics	-	-	-	-	1	-	-	1	1	-
Religious career	-	-	-	-	-	1	-	1	-	1
Meteorology	-	-	-	-	1	-	-	1	1	-
Marine and oceanic engineering	-	-	-	-	1	-	-	1	-	1
Environmental engineer	-	-	1	-	-	-	-	1	1	-
Pediatric Specialist	1	-	-	-	-	-	-	1	1	-
Legal Medicine and Deontology	-	-	-	-	1	-	-	1	1	-
Nutrition	-	-	-	-	1	-	-	1	-	1
Dentistry	-	-	-	-	1	-	-	1	1	-
Psychiatry	-	-	-	-	1	-	-	1	-	1
Maternal and child health	-	-	-	-	1	-	-	1	1	-
Forestry management	-	-	-	-	1	-	-	1	1	-
Clinical and animal surgery	-	-	1	-	-	-	-	1	1	-
Preventive Veterinary Medicine	-	-	-	-	1	-	-	1	1	-
Fishing engineering	-	-	-	-	1	-	-	1	1	-
Public Rights Public Law	-	-	-	-	1	-	-	1	1	-
Administration of Specific Sectors	-	-	-	-	1	-	-	1	-	1
Domestic economy	-	1	-	-	-	-	-	1	1	-
Governmental sciences	-	-	-	-	1	-	-	1	1	-
Peace study	-	-	-	-	1	-	-	1	1	-
Moral Theology	-	-	1	-	-	-	-	1	-	1
Pastoral theology	-	-	-	-	1	-	-	1	-	1

Study Program	Education Level							Total	Sex	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master's Degree(S2)	PhD(S3)		Male	Female
Educational Planning and Evaluation	-	-	-	-	1	-	-	1	1	-
Specific curriculum for levels and types of education	-	-	1	-	-	-	-	1	1	-
Pre-primary and primary Education	-	-	-	-	1	-	-	1	1	-
Others	-	-	2	-	6	-	-	8	4	4
Lacluta										
Total	3	-	12	1	18	2	-	36	24	12
Sociology of Education	-	-	-	-	4	-	-	4	4	-
Education	-	-	-	1	1	-	-	2	-	2
Nursing	-	-	2	-	-	-	-	2	2	-
Pharmacy	2	-	-	-	-	-	-	2	1	1
Medicine - Medical Practice (General Practice)	-	-	1	-	1	-	-	2	1	1
Midwife	1	-	1	-	-	-	-	2	-	2
Mathematics of Teaching	-	-	1	-	1	-	-	2	2	-
Teaching chemistry	-	-	-	-	2	-	-	2	1	1
Philosophy of Education	-	-	1	-	1	-	-	2	2	-
Civil Engineering - Civil Construction	-	-	-	-	1	-	-	1	1	-
Electrical engineering	-	-	-	-	1	-	-	1	1	-
Philosophy	-	-	-	-	-	1	-	1	1	-
Political science	-	-	-	-	1	-	-	1	1	-
Portuguese language	-	-	1	-	-	-	-	1	1	-
Religious career	-	-	-	-	-	1	-	1	-	1
Public health	-	-	-	-	1	-	-	1	1	-
Aquaculture	-	-	-	-	1	-	-	1	1	-
Accounting	-	-	-	-	1	-	-	1	-	1
Management	-	-	-	-	1	-	-	1	1	-
Economics of education	-	-	1	-	-	-	-	1	1	-
Physics of Teaching	-	-	1	-	-	-	-	1	1	-
Pastoral theology	-	-	-	-	1	-	-	1	-	1
Specific curricula for levels and types of education	-	-	1	-	-	-	-	1	1	-
Teacher training	-	-	1	-	-	-	-	1	-	1
Training of primary and pre-secondary teachers	-	-	1	-	-	-	-	1	-	1
Ossu										
Total	-	3	33	-	67	2	-	105	73	32
Education	-	1	5	-	3	-	-	9	7	2

Study Program	Education Level							Total	Sex	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master's Degree(S2)	PhD(S3)		Male	Female
Mathematics	-	-	1	-	5	-	-	6	4	2
Portuguese language	-	-	3	-	2	1	-	6	5	1
Medicine - Medical Practice (General Practice)	-	-	1	-	5	-	-	6	3	3
Computer Technology Engineering (Computer)	-	-	-	-	5	-	-	5	3	2
Civil Engineering - Civil Construction	-	-	-	-	4	-	-	4	3	1
Economy	-	-	-	-	4	-	-	4	3	1
Education Biology	-	-	2	-	2	-	-	4	3	1
English language	-	-	1	-	2	-	-	3	1	2
Accounting	-	-	1	-	2	-	-	3	2	1
Management	-	-	-	-	3	-	-	3	1	2
General / environmental biology	-	-	2	-	-	-	-	2	2	-
Mining engineering	-	-	-	-	2	-	-	2	2	-
Public Law	-	-	-	-	2	-	-	2	1	1
Sociology	-	-	-	-	1	1	-	2	2	-
Political science	-	-	-	-	2	-	-	2	1	1
Nursing	-	-	1	-	1	-	-	2	-	2
Midwife	-	-	-	-	2	-	-	2	-	2
Production of livestock	-	-	1	-	1	-	-	2	2	-
Food Technology	-	-	1	-	1	-	-	2	2	-
Tourism and Hospitality	-	-	1	-	1	-	-	2	-	2
Mathematics teaching	-	-	1	-	1	-	-	2	2	-
Catechism	-	1	-	-	1	-	-	2	1	1
Teacher training	-	-	2	-	-	-	-	2	2	-
Physics	-	-	1	-	-	-	-	1	1	-
Engineering Architecture	-	-	-	-	1	-	-	1	1	-
Electrical engineering	-	-	-	-	1	-	-	1	1	-
Agronomy	-	-	-	-	1	-	-	1	1	-
Management	-	-	1	-	-	-	-	1	1	-
Computer science	-	-	-	-	1	-	-	1	1	-
Mechanical Engineer	-	-	-	-	1	-	-	1	1	-
Physical Education / Sports Education	-	-	1	-	-	-	-	1	1	-
Obstetric specialist / gynecologist	-	-	1	-	-	-	-	1	1	-
Pharmacy	-	-	1	-	-	-	-	1	1	-
Public health	-	-	-	-	1	-	-	1	-	1

Study Program	Education Level							Total	Sex	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master's Degree(S2)	PhD(S3)		Male	Female
Agro-business	-	-	-	-	1	-	-	1	1	-
Forestry management	-	-	-	-	1	-	-	1	1	-
Preventive Veterinary Medicine	-	-	-	-	1	-	-	1	1	-
Aquaculture	-	-	-	-	1	-	-	1	1	-
Human resource Management	-	-	1	-	-	-	-	1	-	1
Economics of education	-	-	-	-	1	-	-	1	1	-
Domestic economy	-	1	-	-	-	-	-	1	1	-
Economy Finance / financial management - Banking economics	-	-	1	-	-	-	-	1	1	-
International, bilateral and multilateral relations	-	-	-	-	1	-	-	1	1	-
Tetum Language	-	-	1	-	-	-	-	1	1	-
Education (education) Pre-primary and primary	-	-	-	-	1	-	-	1	1	-
Training of primary and pre-secondary teachers	-	-	-	-	1	-	-	1	-	1
Others	-	-	2	-	1	-	-	3	1	2
Uato-Lari										
Total	5	6	42	-	1-Jan	4	-	158	124	34
Portuguese language	1	-	11	-	1	-	-	13	11	2
Medicine - Medical Practice (General Practice)	-	-	1	-	1-	-	-	11	5	6
Management	-	-	2	-	7	1	-	1-	6	4
Mathematics	-	1	4	-	4	-	-	9	7	2
Civil Engineering - Civil Construction	-	-	-	-	6	1	-	7	7	-
Education	-	1	2	-	3	-	-	6	5	1
Accounting	-	-	1	-	5	-	-	6	3	3
Agronomy	-	-	-	-	5	-	-	5	3	2
Public Law	-	-	1	-	4	-	-	5	4	1
Mining engineering	-	-	-	-	4	-	-	4	4	-
Management	-	-	1	-	2	1	-	4	3	1
Public health	-	-	2	-	2	-	-	4	3	1
Economy Finance / financial management - Banking economics	-	-	1	-	3	-	-	4	4	-
Public policy	1	-	-	-	3	-	-	4	4	-
Engineering Architecture	-	-	-	-	3	-	-	3	3	-
Petrology	-	-	1	-	2	-	-	3	2	1
Nursing	-	-	1	-	2	-	-	3	2	1

Study Program	Education Level							Total	Sex	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master's Degree(S2)	PhD(S3)		Male	Female
Production of livestock	-	-	-	-	3	-	-	3	3	-
Mathematics of Teaching	-	-	1	-	2	-	-	3	3	-
Educational Psychology	-	-	-	-	3	-	-	3	3	-
Physics	-	1	1	-	-	-	-	2	2	-
English language	-	-	-	-	2	-	-	2	1	1
Computer Technology Engineering (Computer)	-	-	-	-	2	-	-	2	2	-
Mechanical Engineer	-	-	1	-	1	-	-	2	2	-
Pharmacy	1	-	-	-	1	-	-	2	-	2
Agro-business	-	-	-	-	2	-	-	2	2	-
Animal Reproduction	-	-	-	-	2	-	-	2	2	-
Public administration	-	-	-	-	2	-	-	2	2	-
Business Administration	-	-	-	-	2	-	-	2	2	-
Catechism	-	1	1	-	-	-	-	2	1	1
Special education	-	-	2	-	-	-	-	2	1	1
Teacher training	-	-	2	-	-	-	-	2	2	-
Biochemistry	-	-	-	-	1	-	-	1	1	-
Sociology	-	-	-	-	1	-	-	1	1	-
Anthropology	-	-	-	-	1	-	-	1	1	-
Psychology	-	1	-	-	-	-	-	1	1	-
Theology	-	-	-	-	-	1	-	1	1	-
Chemical engineer	-	-	-	-	1	-	-	1	1	-
Environmental engineer	-	-	1	-	-	-	-	1	1	-
Pediatric Specialist	1	-	-	-	-	-	-	1	1	-
Midwife	1	-	-	-	-	-	-	1	-	1
Maternal and child health	-	-	-	-	1	-	-	1	1	-
Clinical and animal surgery	-	-	1	-	-	-	-	1	1	-
Aquaculture	-	-	-	-	1	-	-	1	1	-
Government Planning and Policy	-	-	1	-	-	-	-	1	1	-
Human resource Management	-	1	-	-	-	-	-	1	1	-
Communication - Journalism and Publishing	-	-	-	-	1	-	-	1	1	-
Social work (including Gravedigger)	-	-	-	-	1	-	-	1	1	-
Pedagogical biology	-	-	1	-	-	-	-	1	1	-
Economics of Education / Management of Education	-	-	-	-	1	-	-	1	-	1
Governmental sciences	-	-	-	-	1	-	-	1	1	-

Study Program	Education Level							Total	Sex	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master's Degree(S2)	PhD(S3)		Male	Female
Moral Theology	-	-	1	-	-	-	-	1	-	1
Tetum language	-	-	1	-	-	-	-	1	1	-
Training of primary and pre-secondary teachers	-	-	-	-	1	-	-	1	1	-
Others	-	-	-	-	2	-	-	2	1	1
Uatucarbau										
Total	1	1	13	-	43	-	-	58	40	18
Mathematics	-	-	2	-	7	-	-	9	8	1
Medical - Clinic	-	-	-	-	7	-	-	7	5	2
Accounting	1	-	-	-	5	-	-	6	3	3
Education	-	-	2	-	3	-	-	5	3	2
Public Law	-	-	-	-	3	-	-	3	2	1
Education Biology	-	-	-	-	3	-	-	3	1	2
Teacher training	-	-	2	-	1	-	-	3	1	2
Sociology	-	-	-	-	2	-	-	2	2	-
Portuguese language	-	-	2	-	-	-	-	2	-	2
Computer Technology Engineering (Computer)	-	-	2	-	-	-	-	2	1	1
Public health	-	-	-	-	2	-	-	2	2	-
Mathematics of Teaching	-	-	1	-	1	-	-	2	2	-
Materials Engineering and Metallurgy	-	-	-	-	1	-	-	1	1	-
Electrical engineering	-	-	-	-	1	-	-	1	1	-
Political science	-	-	-	-	1	-	-	1	-	1
English language	-	-	-	-	1	-	-	1	1	-
Indonesian language	-	-	-	-	1	-	-	1	1	-
Legal Medicine and Deontology	-	-	-	-	1	-	-	1	1	-
Midwife	-	-	1	-	-	-	-	1	1	-
Agro-business	-	-	-	-	1	-	-	1	1	-
Production of livestock	-	-	-	-	1	-	-	1	1	-
Social work (including Gravedigger)	-	-	1	-	-	-	-	1	1	-
Catechism	-	1	-	-	-	-	-	1	-	1
Educational Psychology	-	-	-	-	1	-	-	1	1	-
Viqueque										
Total	7	2	85	2	187	4	-	287	184	3-Jan
Education	1	-	10	1	16	1	-	29	18	11
Accounting	-	-	8	-	12	-	-	20	8	12

Study Program	Education Level							Total	Sex	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master's Degree(S2)	PhD(S3)		Male	Female
Management	2	-	3	-	14	-	-	19	11	8
Public Law	-	-	-	-	17	-	-	17	10	7
Mathematics	2	-	7	-	6	-	-	15	12	3
Portuguese language	-	-	11	-	2	-	-	13	10	3
Nursing	-	-	8	-	4	-	-	12	8	4
Mathematics of Teaching	-	-	5	-	5	-	-	10	8	2
Agronomy	-	-	2	-	5	-	-	7	4	3
Medicine - Medical Practice (General Practice)	-	-	1	-	6	-	-	7	4	3
Civil Engineering - Civil Construction	-	-	1	-	5	-	-	6	6	-
English language	-	-	-	-	6	-	-	6	4	2
Human resource Management	-	-	-	-	4	2	-	6	3	3
Economy	-	1	1	-	3	-	-	5	3	2
Public health	-	-	-	-	5	-	-	5	2	3
Production of livestock	-	-	1	-	4	-	-	5	5	-
Mining engineering	-	-	-	-	4	-	-	4	4	-
Sociology	-	-	1	-	3	-	-	4	4	-
Political science	1	-	-	-	3	-	-	4	3	1
Economics of education	-	-	1	-	3	-	-	4	-	4
Economics of Education / Management of Education	-	-	1	-	3	-	-	4	2	2
Electrical engineering	-	-	1	-	2	-	-	3	3	-
Dentist	-	-	2	1	-	-	-	3	3	-
Pharmacy	-	-	-	-	3	-	-	3	-	3
Tourism and Hospitality	-	-	2	-	1	-	-	3	1	2
Education Biology	-	-	3	-	-	-	-	3	3	-
Philosophy of Education	-	-	-	-	3	-	-	3	1	2
Sociology of Education	-	-	1	-	2	-	-	3	3	-
Teacher Training	-	-	2	-	1	-	-	3	2	1
Engineering Architecture	-	-	-	-	2	-	-	2	2	-
Engineering Ore Treatment	-	-	-	-	2	-	-	2	2	-
Philosophy	-	-	-	-	2	-	-	2	2	-
Applied Linguistics	-	-	2	-	-	-	-	2	2	-
Chemical engineer	-	-	1	-	1	-	-	2	1	1
Physical Education / Sports Education	-	-	-	-	2	-	-	2	-	2
Agrometeorology	-	-	-	-	2	-	-	2	2	-

Study Program	Education Level							Total	Sex	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master's Degree(S2)	PhD(S3)		Male	Female
Government Planning and Policy	-	-	1	-	1	-	-	2	1	1
Physics of Teaching	-	-	1	-	1	-	-	2	1	1
Public policy	1	-	-	-	1	-	-	2	2	-
International, bilateral and multilateral relations	-	-	-	-	2	-	-	2	2	-
Catechism	-	-	1	-	1	-	-	2	1	1
Educational Psychology	-	-	1	-	1	-	-	2	1	1
Training of primary and pre-secondary teachers	-	-	2	-	-	-	-	2	1	1
Genetics	-	-	-	-	1	-	-	1	1	-
Environmental ecology	-	-	-	-	1	-	-	1	1	-
Immunology	-	-	-	-	1	-	-	1	1	-
Clinical Analysis	-	-	-	-	1	-	-	1	-	1
Pathological Anatomy and Clinical Pathology	-	-	-	-	1	-	-	1	-	1
Forest Resources and Forestry Engineering	-	-	-	-	1	-	-	1	1	-
Management	-	-	-	-	1	-	-	1	-	1
Psychology	-	-	-	-	1	-	-	1	-	1
Theology	-	-	1	-	-	-	-	1	-	1
Psycholinguistics	-	-	-	-	1	-	-	1	1	-
Indonesian language	-	-	1	-	-	-	-	1	-	1
Computer science	-	-	-	-	-	1	-	1	1	-
Petrology	-	-	-	-	1	-	-	1	1	-
Meteorology	-	-	-	-	1	-	-	1	1	-
Marine and oceanic engineering	-	-	-	-	1	-	-	1	-	1
Computer Technology Engineering (Computer)	-	-	-	-	1	-	-	1	1	-
Obstetric specialist / gynecologist	-	-	-	-	1	-	-	1	-	1
Nutrition	-	-	-	-	1	-	-	1	-	1
Dentistry	-	-	-	-	1	-	-	1	1	-
Psychiatry	-	-	-	-	1	-	-	1	-	1
Agro-business	-	-	1	-	-	-	-	1	1	-
Fishing engineering	-	-	-	-	1	-	-	1	1	-
Public Public Law	-	-	-	-	1	-	-	1	1	-
Public administration	-	-	1	-	-	-	-	1	-	1
Administration of Specific Sectors	-	-	-	-	1	-	-	1	-	1
Communication - Journalism and Publishing	-	-	-	-	1	-	-	1	1	-
Economy Finance / financial management - Banking	-	1	-	-	-	-	-	1	1	-

Study Program	Education Level							Total	Sex	
	Diploma I	Diploma II	Diploma III	Diploma IV	Bachelor's Degree (S1)	Master's Degree(S2)	PhD(S3)		Male	Female
economics										
Teaching chemistry	-	-	-	-	1	-	-	1	-	1
Peace study	-	-	-	-	1	-	-	1	1	-
Educational Planning and Evaluation	-	-	-	-	1	-	-	1	1	-
Others	-	-	-	-	3	-	-	3	2	1

2.5. Vocational Training Certificate Level I - Certificate IV

Among the 35,050 respondents who participated in this research, about 1.8% who had already participated in one of the Certificate I - Certificate IV courses. For those who completed the certificate courses, 42.3% completed the Certificate I course, 21.5% certificate II, 14% certificate III and 22.2% certificate IV (Table 6). The predominant areas of Certificate I - Certificate IV training are Portuguese, Computer and English Language Courses. Other areas of training represent very little. The data also show the lack of qualifications in some areas, which requires more attention and investment (Table 6). However, the investment in human resources training must align with the local need. The details of Certificate I training - Certificate IV can be seen in table 6.

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

Municipality/Sub District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
VIQUEQUE						
Total	634	268	136	89	141	Physiotherapy / Massage
Portuguese language course	123	54	21	17	31	Solar production
Computer	110	63	24	12	11	Small machine
English Language Course	84	28	30	10	16	Hospitality (food production)
Agriculture / horticulture course	23	11	5	2	5	Welding
Technological information	16	5	5	3	3	Photographer
Public Office Administration	15	4	4	3	4	Aesthetic Course (Manicure and Pedicure)
Financial Services (Micro Finance and Banking);	14	8	2	1	3	Piano and music course
Electricity	8	5	2	-	1	
Agricultural Course	4	3	-	-	1	
Improve business	3	1	-	1	1	
Hospitality Management (General)	3	1	-	1	1	
Tourist and Tourist Guide	3	2	-	-	1	
Public Office Administration	3	1	-	2	-	
Plumbing	3	1	1	1	-	
Training and evaluation	3	-	-	2	1	
Police investigation	3	1	-	-	2	
Monitoring and Evaluation	3	-	-	-	3	
Training for Contractors	2	2	-	-	-	
Automotive and Maintenance	2	-	1	1	-	
Hospitality Management (General)	2	1	-	-	1	
Carpentry	2	-	1	1	-	
Automotive and Maintenance	2	1	-	1	-	

Municipality/Sub District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
Hair stylist	2	1	1	-	-	
Fishing course	2	2	-	-	-	
Rural water supply	1	1	-	-	-	
Coffee production	1	-	1	-	-	
Business Construction (General)	1	1	-	-	-	
Public Communication to the Study of the Public Sector (PCSPS/SEFTEK-acronym in Portugues language);	1	1	-	-	-	
Bricklayer	1	-	-	-	1	
Construction (General)	1	-	-	-	1	
Management for Police	1	-	-	-	1	
Tailor / Seam stress	1	-	-	-	1	
Cooker	1	-	-	-	1	
Painter of arts, paintings, tattoos	1	1	-	-	-	
Others	189	69	38	31	51	
Lacluta						
Total	53	14	6	8	25	
Portuguese language course	13	2	2	1	8	
Computer	9	3	1	1	4	
English Language Course	8	2	1	2	3	
Hospitality Management (General)	1	-	-	-	1	
Electricity	1	1	-	-	-	
Evaluation Training	1	-	-	-	1	
Management for Police	1	-	-	-	1	
Others	19	6	2	4	7	
Ossu						
Total	98	57	13	19	9	
Portuguese language course	26	15	2	7	2	
Computer	16	14	-	2	-	
English Language Course	12	7	3	-	2	
Agriculture / horticulture course	7	5	1	-	1	
Technological information	4	2	1	1	-	
Improve business	1	1	-	-	-	
Training for Contractors	1	1	-	-	-	
General Administration for the Office	1	-	-	1	-	
Public Communication to the Study of the Public Sector (PCSP/SEFTEK-acronym in Portugues language);	1	1	-	-	-	
Hospitality Management (General)	1	1	-	-	-	
Plumbing	1	1	-	-	-	
Electricity	1	1	-	-	-	
Painter of arts, paintings, tattoos	1	1	-	-	-	
Agricultural Course	1	1	-	-	-	
Others	24	6	6	8	4	

Municipality/Sub District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
Uato-Lari						
Total	74	32	12	12	18	
Portuguese language course	21	9	1	2	9	
Computer	12	5	3	2	2	
English Language Course	6	4	-	1	1	
General Administration for the Office	3	2	1	-	-	
Agriculture / horticulture course	2	-	-	1	1	
Technological information	1	1	-	-	-	
Plumbing	1	-	-	1	-	
Agricultural Course	1	1	-	-	-	
Others	27	1-	7	5	5	
Uatu-carbau						
Total	52	10	19	7	16	
Computer	6	3	2	1	-	
English Language Course	4	1	2	1	-	
General Administration for the Office	3	1	1	1	-	
Portuguese language course	3	1	1	-	1	
Financial Services (Micro Finance and Banking);	2	-	1	1	-	
Electricity	2	-	2	-	-	
Hospitality Management (General)	1	-	-	-	1	
Carpentry	1	-	1	-	-	
Automotive and Maintenance.	1	1	-	-	-	
(Diploma) in Training and Evaluation	1	-	-	-	1	
Others	28	3	9	3	13	
Viqueque						
Total	357	155	86	43	73	
Computer	67	38	18	6	5	
Portuguese language	60	27	15	7	11	
English Language	54	14	24	6	10	
Agriculture / horticulture	14	6	4	1	3	
Financial Services (Micro Finance and Banking);	12	8	1	-	3	
Technological information	11	2	4	2	3	
General Administration for the Office	8	1	2	1	4	
Electricity	4	3	-	-	1	
Tourist and Tourist Guide	3	2	-	-	1	
General Administration of the Office	3	1	-	2	-	
Police investigation.	3	1	-	-	2	
Improve business	2	-	-	1	1	
Hospitality Management (General)	2	1	-	1	-	
Automotive and Maintenance.	2	-	1	1	-	
Training and evaluation	2	-	-	2	-	
Monitoring and Training Evaluation	2	-	-	-	2	

Municipality/Sub District Administration	Total	Cert. I	Cert. II	Cert. III	Cert. IV	Training area requiring more attention
Hair stylist	2	1	1	-	-	
Agricultural	2	1	-	-	1	
Fishing	2	2	-	-	-	
Rural water supply	1	1	-	-	-	
Coffee production	1	-	1	-	-	
Training for Contractors	1	1	-	-	-	
Business Construction (General)	1	1	-	-	-	
Bricklayer	1	-	-	-	1	
Construction (General)	1	-	-	-	1	
Plumbing	1	-	1	-	-	
Carpentry	1	-	-	1	-	
Automotive and Maintenance.	1	-	-	1	-	
Tailor / Seamstress	1	-	-	-	1	
Culinary	1	-	-	-	1	
Others	91	44	14	11	22	

2.6. Professional Occupation in the Public Sector

2.6.1. Permanent Public Servants

Table 7 shows that the public servant and teachers are the main occupations of the public sector and together account for 87.2% of the positions. 35.1% of the professor maintained their positions between a period of 6 - 10 years, 27.1% and 15 with more than years, 18.1% between 11 - 15 years and less than 6 years corresponds to 18.9%. As for staff in general, the data indicate that most maintained their services between 6-10 years.

Table 7. Distribution of permanent employees' occupation and years of service

Occupation	<1 Year	1-5 Years	6 - 10 Years	11-15 Years	>15 Years	Total	Percentage (%)
Teachers	7	40	258	109	228	642	52,84
Offices	11	113	151	77	65	417	34,32
Medical / Medical Specialist	2	36	5	17	15	75	6,17
Chief Department	-	1	6	7	8	22	1,81
General Director	-	-	2	1	3	6	0,49
National Director	1	2	1	1	5	10	0,82
Defender Defenders / Judges	-	1	-	-	-	1	0,08
Others	2	14	13	8	5	42	3,46
Total	23	207	436	220	329	1,215	100,00
Percentage (%)	1,9	17,0	35,9	18,1	27,1	100,0	

Regarding the grade / level of respondents, the majority are in the positions between the F /level 1, & 2) - grade C / level 5, together corresponds to 93%. The servers with level above 6 are very few, registering about 1.9% and those with special regime 5.1% (Table 8).

Table 8. Degree and Level of permanent officials interviewed

Degree / Level	Frequency	Percentage (%)
Grade A / level 7	3	0,25
Degree B / level 6	21	1,72
Grade C / level 5	100	8,18
Level D / level 4	379	30,99
Level E / level 3	467	38,18
Degree F / level 1, 2	191	15,62
Special Regime	62	5,1
Total	1,223	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 have a high number temporary public servants. Both account for 84.8% of temporary public servants while hiring specialized technicians only 2.2%. 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 85.1% compared to those who have maintained the service more than 10 years (7.7%).

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	15	-	9	2	26	7,2
1-5 Years	77	1	78	25	181	50,0
6 - 10 Years	52	5	53	17	127	35,1
11-15 Years	16	1	2	2	21	5,8
>15 Years	3	1	2	1	7	1,9
Total	163	8	144	47	362	100,0
Percentage (%)	45,0	2,2	39,8	13,0	100,0	

2.7. Level of Education of Temporary Public Servants

At the level of education 53.8% of temporary public servants have a secondary level of education, a Bachelor's Degree with 21%, Pre-secondary (7.7%), a three years Diploma/Diploma III (7.4%) and a primary 6.6%). Other levels of education have a percentage less than 2% (Table 10).

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

Level of Education	Number of Employees	Percentage (%)
Primary	25	6,6
Pre-secondary	29	7,7
Secondary	203	53,8
Professional Technical High School	4	1,1
Others	4	1,1
One Year Diploma	2	0,5
Two Years Diploma	0	0,0
Three Years Diploma	28	7,4
Four Years Diploma	2	0,5
Bachelor Degree/Undergraduate Degree	79	21,0
Master	1	0,3
PhD	-	0,0
Total	377	100

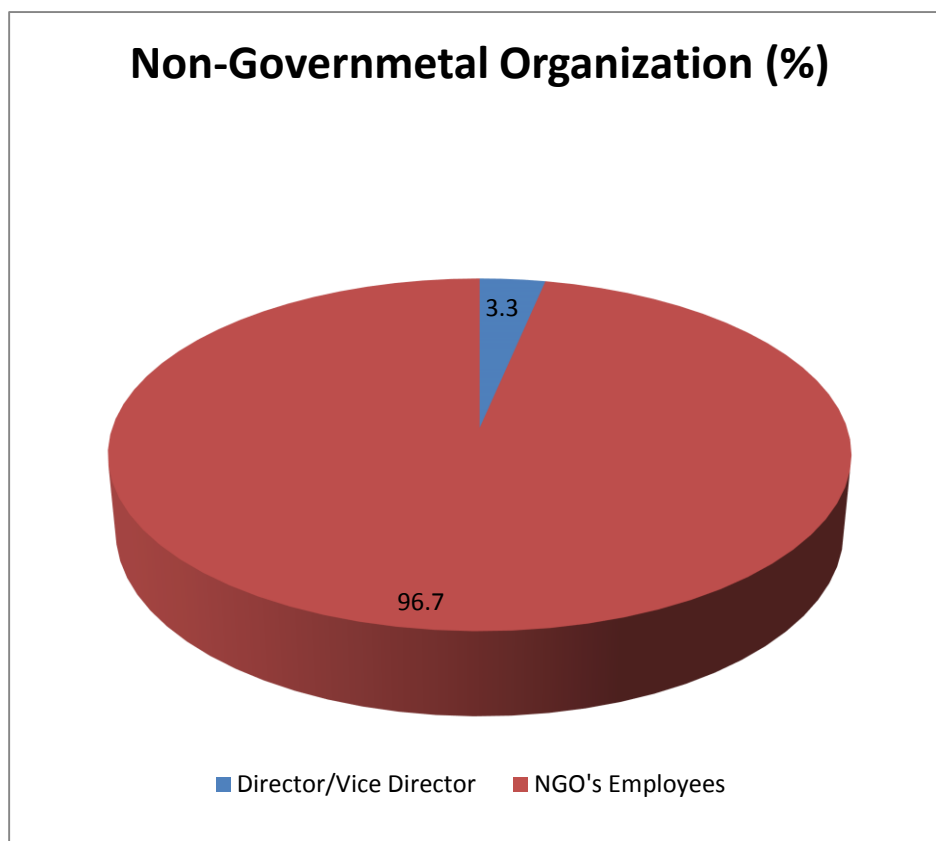
2.8. Non-Public Sector (Private Sector)

The non-public sector(Private sector) in the Viqueque of Municipality persists small compared to the public sector. This despite the growth of the non-public sector being one of the the government main goals and the majority of those who do not currently work have expressed their interest in of working in the non-public sector. However, despite the desire to work in the non-public sector, much of this work requires good educational qualifications. The result of this work provides several relevant evidence.

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

Figure 1 shows data for staff working in Non-Governmental Organizations (NGOs). Among of the 30 respondents, 3.3% hold positions as Director or Deputy Director of the organizations and highest 96.7% are employees.

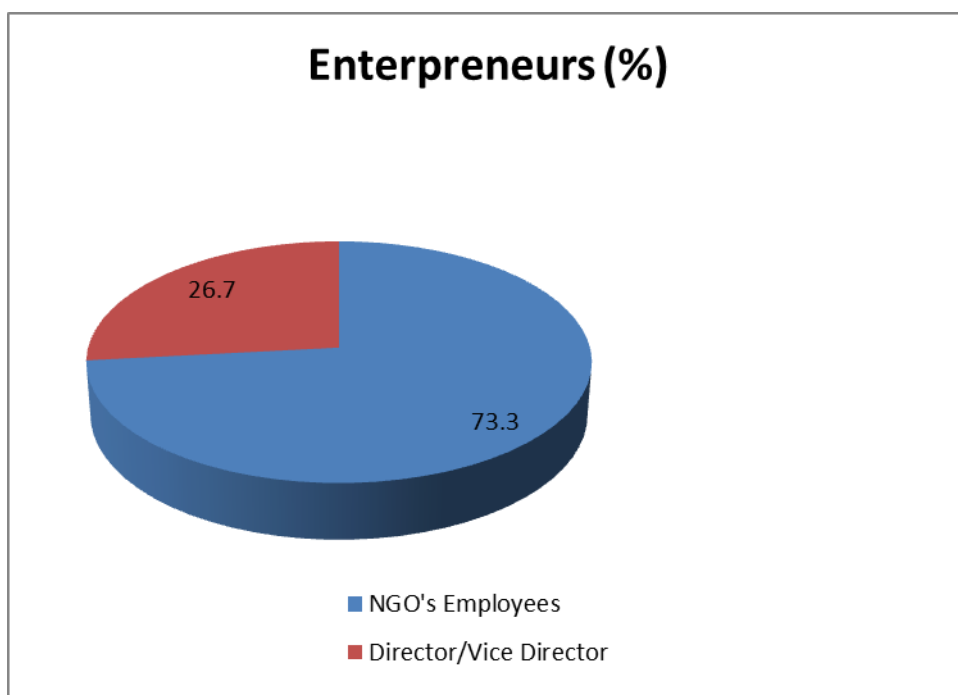
Figure 2. staff of Non-Governmental Organizations (NGOs) by position



2.8.2. Entrepreneurs or Businessman

Entrepreneurs play an important role through their investments, increasing the prosperity of the population in the municipality. Thus, citizens have the opportunity to take a job through investment, services and increased trade, in addition to the municipality grow economically. In this sense, it is essential to understand the human resources involved in this process and try to empower them efficiently and effectively. Figure 3 shows the distribution of the personnel involved in the company by level of education and by position in which it currently assumes. 73.3% of the respondents are employed as directors or deputy directors and 26.7% assume a simultaneous role as a director of the same company.

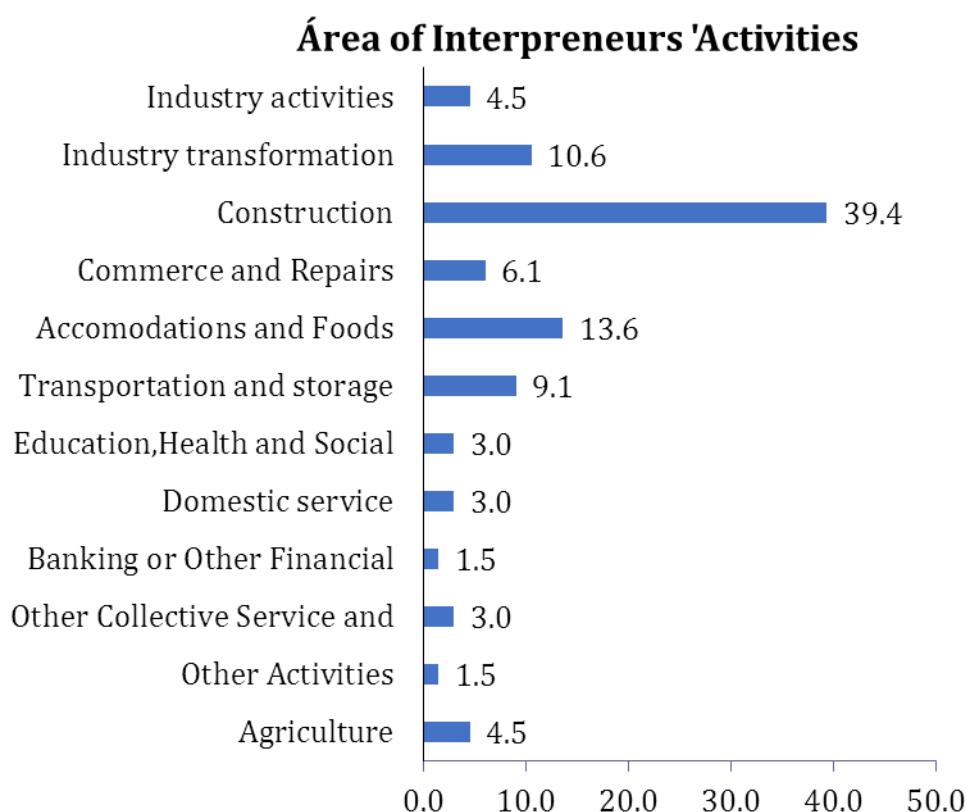
Figure 3. Distribution of entrepreneurs by position



2.8.3. Activity Sectors

The largest proportion of the companies' areas of activity are related to Construction, trade and repair, food accommodation and other underfined activities. Other sectors of activity are less than 5% (Figure 4).

Figure 4. Distribution of the areas of entrepreneurs' activities



2.8.4. Education Level of Entrepreneurs

The data also show that most of the people involved have no level of education (67.9%), secondary education (8.7%) and pre-secondary education (8.7%). Other levels of education have a percentage less than 8% (Table 11).

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

Table 11. Distribution of entrepreneurs and level of education

Education Level	Number of Entrepreneurs	Percentage (%)
Can not read / write	7,082	67,9
Secondary	926	8,9
Pre-secondary	906	8,7
Primary	770	7,4
Do not read / write (did not finish primary)	591	5,7
Bachelor's Degree (S1)	74	0,7
1 st . Cycle (1 st class up to 4 th Grade)	25	0,2
Secondary School	14	0,1
Diploma III	12	0,1
Others	8	0,1
Secondary Technical School	6	0,1
Secondary School of Agriculture	3	0,0
2 ^o . Cycle (1 st Year, 2 nd Year)	2	0,0
3 ^o . Cycle (3 rd Grade up to 9 th Grade / 3 rd year)	2	0,0
Diploma IV	2	0,0
Master's Degree (S2)	2	0,0
Secondary School of Sports	1	0,0
Diploma I	1	0,0
Diploma II	1	0,0
Secondary School of Nursing	-	0,0
Secondary School of Social Assistance	-	0,0
PhD (S3)	-	0,0
Total	10,428	100,0

2.9. Preferred Working Area

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 could 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 72.1% compared to the public sector 27.9%. The sub district administration of Uato-Lari has a higher percentage of individuals seeking employment in the non-public sector as well as in the public sector (Table 12).

Table 12. Number of respondents in Viqueque Municipality in search of employment and intends to work, in the public sector.

Sub-District Administration	Public Sector	Percentage (%)	Non-Public Sector	Percentage (%)	Total	Percentage (%)
Lacluta	49	1,3	1,799	18,5	1,848	13,7
Ossu	861	22,9	1,253	12,9	2,114	15,7
Uato-Lari	1,452	38,6	3,108	31,9	4,560	33,8
Uatucarbau	17	0,5	799	8,2	816	6,0
Viqueque	1,386	36,8	2,773	28,5	4,159	30,8
Total	3,765	100,0	9,732	100,0	13,497	100,0

2.10. Business Sector which is intended to work

Table 13 indicates that in the private sector the preference is mainly for agriculture (67.2%), domestic tasks (10.4%), Industrial Activity (6.7%), construction (2.8%), Other collective, social and personal services (2.5%) and Education, Health and Social Work (2,2). Other sectors of activity have a share of less than 2%.

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

Activity sectors	Sub-District Administration					Total	Percentage (%)
	Lacluta	Ossu	Uato-Lari	Uatucarbau	Viqueque		
Agriculture	1,982	1,913	2,855	796	2,715	10,261	67,2
Industry Activity	43	195	430	11	337	1,016	6,7
Transformation industry	16	178	56	3	60	313	2,0
Construction	54	101	144	5	118	422	2,8
commerce and repair	77	84	27	2	102	292	1,9
Accommodation and Food	52	18	52	6	50	178	1,2
Transport, Storage and Communication	9	34	31	4	50	128	0,8
Education, Health and Social Work	33	187	40	3	70	333	2,2
Domestic Service	552	199	259	26	559	1,595	10,4
Bank or other financial services	15	19	27	2	229	292	1,9
Other collective, social and personal services	79	46	230	2	29	386	2,5
Other activities	31	11	5	2	10	59	0,4
Total	2,943	2,985	4,156	862	4,329	1,5275	100
Percentage (%)	19,3	19,5	27,2	5,6	28,3	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 17-44 years, representing about 62.8% (Table 14).

Table 14. Age range of respondents looking for a job

Age Group	Non-Public Sector	Percentage (%)
17 - 20	604	6,2
21 - 24	937	9,6
25 - 28	1,016	10,4
29 - 32	894	9,2
33 - 36	712	7,3
37 - 40	839	8,6
41 - 44	1,117	11,5
45 - 48	710	7,3
49 - 52	451	4,6
53 - 56	401	4,1
57 - 60	274	2,8
61 - 64	246	2,5
65+	1531	15,7
Total	9,732	100

2.12. Graduates in job search "Unemployment"

The data also provide information on the number and qualifications of people with higher education in job search (Table 15). The figures show that among the 312 respondents graduates, 78.8% intend to work in the public sector and 20.2% intend in the non-public sector. Graduates intend to work more in the public sector than in the private sector.

The areas of higher education courses with the highest number of graduates looking for employment "Unemployment" are in the areas of Management, Mathematics, Accounting and Education. Graduates in other areas are very little less than 5%, thus these data are fundamental for the municipal government, employers and other employers partners in order to know how to take advantage and employ them.

Table 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	Management	19	6	25	8,0
2	Mathematics	17	3	20	6,4
3	Accounting	14	5	19	6,1
4	Education	15	2	17	5,4
5	Public Law	8	7	15	4,8
6	Portuguese language	14	-	14	4,5
7	General Medicine - (General Practice)	10	1	11	3,5
8	Civil Engineering - Civil Construction	8	1	9	2,9
9	Mining engineering	4	3	7	2,2
10	Private Public Law	4	3	7	2,2
11	Agronomy	6	-	6	1,9
12	English language	4	2	6	1,9
13	Nursing	6	-	6	1,9
14	Public health	6	-	6	1,9
15	Livestock Production	5	1	6	1,9
16	Human Resource Economics	4	2	6	1,9
17	Teaching mathematics	5	1	6	1,9
18	Political science	4	1	5	1,6
19	Public policy	3	2	5	1,6
20	Sociology	3	1	4	1,3
21	Tourism and Hospitality	2	2	4	1,3
22	Teaching Biology	3	1	4	1,3
23	Educational Psychology	4	-	4	1,3
24	Public Public Law	3	-	3	1,0
25	Petrology	2	1	3	1,0
26	Computer Technology Engineering	2	1	3	1,0
27	Others	2	1	3	1,0
28	Pharmacy	2	1	3	1,0
29	Agro-business	3	-	3	1,0
30	Public administration	3	-	3	1,0
31	Economics of education	3	-	3	1,0
32	Economy Finance / finance management - Banking Economy	2	1	3	1,0
33	Catechism	3	-	3	1,0
34	Training of teachers of basic education and pre-secondary education	2	1	3	1,0
35	Physics	2	-	2	0,6
36	Architecture Engineering	1	1	2	0,6
37	Engineering Ore Treatment	2	-	2	0,6
38	Electrical engineering	-	2	2	0,6
39	Theology	1	1	2	0,6
40	Applied Linguistics	2	-	2	0,6
41	Chemical engineering	2	-	2	0,6
42	Industry Engineering	1	1	2	0,6
43	Dentist	2	-	2	0,6
44	Government Planning and Policy	2	-	2	0,6
45	Communication - Journalism and Publishing	1	1	2	0,6
46	Social service	2	-	2	0,6
47	Business Administration	2	-	2	0,6

No.	Study Program / Area of Specialization	Do not work and want to work?		Total	Percentage (%)
		Public sector	Non-Public Sector		
48	Philosophy of Education	2	-	2	0,6
49	Sociology of Education	2	-	2	0,6
50	International, Bilateral and Multilateral Relations	2	-	2	0,6
51	Special education	2	-	2	0,6
52	Teacher training	1	1	2	0,6
53	Genetics	1	-	1	0,3
54	Ecology Environmental	1	-	1	0,3
55	Biochemistry	1	-	1	0,3
56	Business Analyst	-	1	1	0,3
57	Pathological Anatomy and Clinical Pathology	1	-	1	0,3
58	Forest Resources and Forestry Engineering	1	-	1	0,3
59	Psycholinguistics	1	-	1	0,3
60	Indonesian Language	1	-	1	0,3
61	Computer science	1	-	1	0,3
62	Meteorology	1	-	1	0,3
63	Naval and Oceanic Engineering	-	1	1	0,3
64	Environmental Engineering	1	-	1	0,3
65	Obstetric Specialist / Gynecologist	1	-	1	0,3
66	Pediatric Specialist	1	-	1	0,3
67	Nutrition	-	1	1	0,3
68	Dentistry	1	-	1	0,3
69	Midwife	1	-	1	0,3
70	Psychiatry	1	-	1	0,3
71	Maternal and Child Health	1	-	1	0,3
72	Others	1	-	1	0,3
73	Aquaculture	-	1	1	0,3
74	Fishing Engineering	1	-	1	0,3
75	Public Law	1	-	1	0,3
76	Administration of Specific Sectors	1	-	1	0,3
77	Development Study	-	1	1	0,3
78	Teaching Physics	1	-	1	0,3
79	Teaching chemistry	1	-	1	0,3
80	Economics of Education / Management of Education	1	-	1	0,3
81	Government Science	-	1	1	0,3
82	Educational Planning and Evaluation	1	-	1	0,3
83	Specific Curriculum for Levels and Types of Education	1	-	1	0,3
Total		249	63	312	100

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

Table 16. shows the number of students surveyed in the Municipality of Viqueque 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 the decentralization of local power that will be implemented by the government and the development of the private sector in the Municipality are opportunities to absorb the graduates in the labor market. Failure to do so may increase the number of job seekers in particular in the areas identified above in table 15.

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

No.	Area of Study	Frequency	Percentage (%)
1	Management	101	16,9
2	Public health	40	6,7
3	Computer Technology Engineering	35	5,8
4	Education	33	5,5
5	Portuguese language	31	5,2
6	Public Law	26	4,3
7	English language	25	4,2
8	Civil Engineering - Civil Construction	21	3,5
9	Economy Finance / finance management - Banking Economy	19	3,2
10	Mining Engineering	18	3,0
11	Agronomy	18	3,0
12	Economics of education	16	2,7
13	International, Bilateral and Multilateral Relations	14	2,3
14	Accounting	13	2,2
15	Public Public Law	12	2,0
16	Nursing	10	1,7
17	Physics	8	1,3
18	Development Study	8	1,3
19	Tourism and Hospitality	8	1,3
20	Mathematics	7	1,2
21	Engineering Architecture	6	1,0
22	Political science	6	1,0
23	Engineering Industry	6	1,0
24	Public administration	6	1,0
25	Government Science	6	1,0
26	General / Environmental Biology	5	0,8
27	Electrical engineering	5	0,8
28	Sociology	5	0,8
29	Petrology	5	0,8
30	Medicine - Medical Clinic (General Practice)	5	0,8
31	Aquaculture	5	0,8
32	Teaching mathematics	5	0,8
33	Philosophy	4	0,7
34	Transportation Engineering and Telecommunication	4	0,7
35	Communication - Journalism and Publishing	4	0,7
36	Agricultural engineering	3	0,5
37	Psychology	3	0,5
38	Human Resource Economics	3	0,5
39	Teaching biology	3	0,5
40	Public policy	3	0,5

No.	Area of Study	Frequency	Percentage (%)
41	Engineering Ore Treatment	2	0,3
42	Gastroenterology Surgery Specialist	2	0,3
43	Others	2	0,3
44	Midwife	2	0,3
45	Others	2	0,3
46	Agricultural Product Processing Engineering	2	0,3
47	Ecology of Domestic Animals and Ethology	2	0,3
48	Livestock Production	2	0,3
49	Teaching Physics	2	0,3
50	Sociology of Education	2	0,3
51	Others	2	0,3
52	Tetum language	2	0,3
53	Special education	2	0,3
54	Zoology	1	0,2
55	Biochemistry	1	0,2
56	Social Economy Agricultural	1	0,2
57	Food Science and Technology	1	0,2
58	Private Public Law	1	0,2
59	Decoration	1	0,2
60	Computer science	1	0,2
61	Mineralogy	1	0,2
62	Physical Education / Sports Education	1	0,2
63	Nutrition	1	0,2
64	Environmental health	1	0,2
65	Maternal and Child Health	1	0,2
66	Forestry Management	1	0,2
67	Food Technology	1	0,2
68	Government Planning and Policy	1	0,2
69	Industrial Economics	1	0,2
70	Study of Peace	1	0,2
71	Theater	1	0,2
Total		599	100,0

2.14. Year the course ends

Regarding to the estimation of the numbers of students of higher education that will graduate / finish their courses in the next 6 years, the data in Table 17 show that the areas of Management, Public Health, Informatics Technology Engineering, Portuguese Language, Education , English Language, Public Law and Civil Engineering - Civil Construction and internacinal, Bilateral, and multilateral. Relations are those with the highest numbers degree Other areas have a few graduation 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 they will finish the course.

Areas Of Study	Year the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Management	30	47	8	6	-	-	-	91
Public health	12	14	5	4	1	-	-	36
Computer Technology Engineering	13	10	5	3	1	-	-	32
Portuguese language	7	8	6	4	2	-	-	27
Education	7	3	7	6	-	-	-	23
English language	8	2	8	1	3	-	-	22
Public Law	16	3	1	-	1	-	-	21
Civil Engineering - Civil Construction	4	1	9	4	2	-	-	2-
Economy Finance / Finance Management - Banking Economy	5	1	9	2	1	-	-	18
Agronomy	8	5	2	2	-	-	-	17
Economics of education	9	3	2	1	1	-	-	16
Mining Engineering	4	5	5	-	-	-	-	14
Accounting	4	3	2	3	-	-	-	12
International, Bilateral and Multilateral Relations	5	2	1	2	1	-	-	11
Nursing	-	1	4	3	1	1	-	10
Public Law	1	2	3	2	1	-	-	9
Physics	3	3	-	1	1	-	-	8
Development Studies	4	-	-	2	1	1	-	8
Engineering Architecture	2	1	2	1	-	-	-	6
Industrial Engineering	-	2	2	2	-	-	-	6
Public administration	1	1	2	2	-	-	-	6
Tourism and Hospitality	3	2	1	-	-	-	-	6
Mathematics	2	2	1	-	-	-	-	5
General / Environmental Biology	1	1	1	2	-	-	-	5
Sociology	1	1	1	2	-	-	-	5
political science	-	2	1	2	-	-	-	5
Petrology	2	1	-	2	-	-	-	5
Aquaculture	1	1	1	2	-	-	-	5
Electrical engineering	2	-	1	1	-	-	-	4
Medicine - Medical Clinic (General Practitioner)	-	2	1	1	-	-	-	4
Communication - Journalism and Publishing	2	1	-	-	1	-	-	4
Government Science	-	2	-	2	-	-	-	4
Agricultural engineering	1	-	-	2	-	-	-	3
Teaching mathematics	-	1	-	-	2	-	-	3
Public policy	1	1	1	-	-	-	-	3

Areas Of Study	Year the course ends							Total
	2017	2018	2019	2020	2021	2022	2023	
Gastroenterology Surgery Specialist	1	1	-	-	-	-	-	2
Philosophy	-	2	-	-	-	-	-	2
Psychology	2	-	-	-	-	-	-	2
Others	-	-	-	1	1	-	-	2
Midwife	-	1	-	-	1	-	-	2
Others	-	-	1	1	-	-	-	2
Agricultural Product Processing Engineering	1	-	1	-	-	-	-	2
Ecology of Domestic Animals and Ethology	2	-	-	-	-	-	-	2
Livestock Production	1	-	1	-	-	-	-	2
Human Resource Economics	-	-	-	1	1	-	-	2
Teaching biology	-	2	-	-	-	-	-	2
Others	2	-	-	-	-	-	-	2
Tetum language	-	1	-	1	-	-	-	2
Special education	1	-	1	-	-	-	-	2
Zoology	1	-	-	-	-	-	-	1
Biochemistry	-	-	-	1	-	-	-	1
Engineering Ore Treatment	-	-	1	-	-	-	-	1
Social Economy Agricultural	-	1	-	-	-	-	-	1
Private Public	-	-	1	-	-	-	-	1
Computer science	-	-	1	-	-	-	-	1
Mineralogy	1	-	-	-	-	-	-	1
Transportation Engineering and Telecommunication	1	-	-	-	-	-	-	1
Physical Education / Sports Education	1	-	-	-	-	-	-	1
Nutrition	-	1	-	-	-	-	-	1
Environmental health	-	-	-	-	1	-	-	1
Maternal and Child Health	-	-	1	-	-	-	-	1
Forestry Management	-	-	1	-	-	-	-	1
Food Technology	-	1	-	-	-	-	-	1
Industrial Economics	-	1	-	-	-	-	-	1
Teaching Physics	1	-	-	-	-	-	-	1
Sociology of Education	-	-	-	1	-	-	-	1
Study of Peace	-	-	-	1	-	-	-	1
Theater	-	-	-	-	1	-	-	1
Total	174	145	101	74	25	2	-	521

2.15. The Demand Of Training For Personal And Institutional

2.15.1. Training In Areas Of General And Specialized Competences

One of the fundamental results of this work is that the data show a considerable level of professional development activity in several training areas in the Municipality of Viqueque. 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 undertaken, so the table refers to the number of courses taken and not to trainees.

The 2,412 respondents represent a substantial level of training activity, since 49.9% lasts 1 - 6 months, 32.8% less than one month and 17.3% have been for more than 6 months. It is also notable that the main courses were in the areas of Leadership, Finance, Planning, Human Resources and Administration. There are few indication of training have a percentage of less than 10%. There are no indications of training in areas considered as priority areas for the municipality, such as agriculture, construction and hospitality and tourism.

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

Area of Training	Duration				Total	Percentage (%)
	Less than 1 Month	1 - 6 Months	7 Months - 1 Year	More than 1 Year		
Leadership	218	230	46	57	551	22,8
Business	106	148	26	18	298	12,3
Planning	103	137	30	19	289	12,0
Management	64	78	17	11	170	7,0
Human Resources	80	121	18	24	243	10,1
Information Technology	34	173	17	12	236	9,8
Procurement and Logistics	21	36	10	6	73	3,0
Administration	84	151	32	34	301	12,5
Information System and Business Management	39	57	16	6	118	4,9
Media and Public Relations	6	10	1	3	20	0,8
Specialized technical	9	14	6	3	32	1,3
Others	28	51	5	1	85	3,5
Total	792	1,206	224	194	2,416	100,0
Percentage (%)	32,8	49,9	9,3	8,0	100,0	

2.15.2. Languages Training

Table 19 shows the proportion of vocational training in the language areas and the duration of the course. There are a remarkable number of people who have already taken part in a language course. As expected, the Portuguese language as the official language has a participation with the highest percentage (58.1%) followed by the English language with 28.6%. The Tetum language has a participation of 8.8% of respondents and other languages with a participation of less than 4%. 70.5% of the courses are between 1 - 6 months, 2.6% less than one month and 27.1% more than 7 months. The Portuguese Language and English Language courses are the main courses conducted by the respondents in the Municipality of Viqueque.

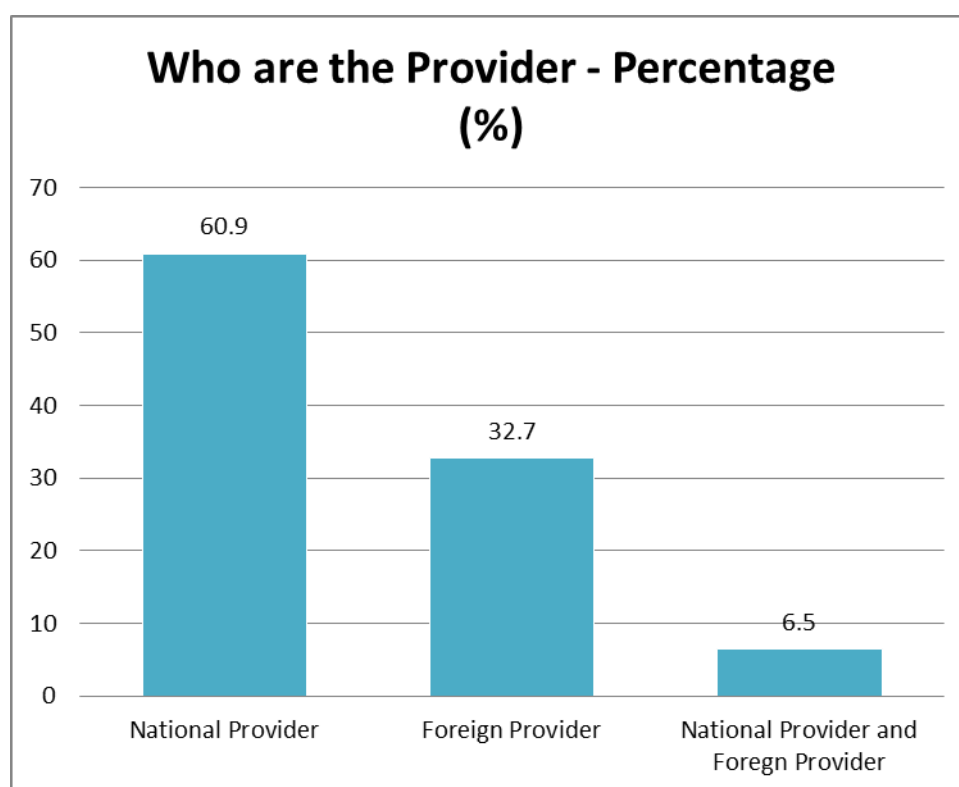
Table 19. Language training and duration of the course

Type of Training	Duration				Total	Percentage (%)
	Less than 1 month	1 - 6 months	7 months - 1 year	More than 1 year		
Portugues language	38	1,270	262	266	1,836	58,1
English language	24	712	89	80	905	28,6
Tetum language	12	155	35	76	278	8,8
Indonesia language	1	69	20	24	114	3,6
Korean language	-	22	1	1	24	0,8
Others	8	-	5	-	3	0,1
Total	83	2,228	412	447	3,160	100,0
Percentage (%)	2,6	70,5	13,0	14,1	100,0	

2.16. Institution Providers and Financing

As for institutions providing language training, 60.9% of training providers are national institutions, 32.7% are provided by foreign institutions and 6.5% are promoted by national and foreign institutions (Figure 5).

Figure 5. Institution Provider of language training



2.17. Financing Training

Among the total number of respondents who have already done language training, 47.2% was financed by the trainee himself, 34.9% by the government and 7.6% by the private sector. Training with government support in cooperation with international partners and only by international partners corresponds to 8.3% and 2%, respectively (Table 20).

Table 20. Funders of language training

Sub District Administration	Government	Private	Own account	Government and international partners	International Partners	Total
Lacluta	51	11	48	17	5	132
Ossu	170	18	230	51	4	473
Uato-Lari	154	41	177	21	1	394
Uatu-carbau	49	8	29	15	9	110
Viqueque	329	85	534	74	24	1,046
Total	753	163	1,018	178	43	2,155
Percentage (%)	34,9	7,6	47,2	8,3	2,0	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. 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 understand if the training is the answer to the problems and, on the other, 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.

As part of the desire for training for the future, two questions were asked for those who are not yet employed or looking for a job and those who are 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 teacher training and education professionals, languages (English, Portuguese) and other specific areas (Varieties).

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

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

No.	Area of Training	Frequency	Percentage (%)
1	Teachers and Education Professionals	81	22,1
2	Languages (English, Portuguese)	78	21,3
3	Varieties *	56	15,3
4	Management, Administration and Leadership	26	7,1
5	Medicine and Health Professionals	20	5,5
6	Agriculture	19	5,2
7	Police, Defense, Security (employee training)	19	5,2
8	Information System & Business Management;	17	4,6
9	Information Technology, Data Buzz, Web, Software and Electronic Filing (registration) - computer	15	4,1
10	Finance, Budget, Accounting and Planning	9	2,5
11	Human resource Management	8	2,2
12	Marketing, Communication, Non-Media Journalism	3	0,8
13	Training for Trainers (ToT)	2	0,5
14	Public Law and Justice	2	0,5
15	Project / Case Management	2	0,5
16	Production of livestock	2	0,5
17	Technical Mediation, Conflict Analysis, Conciliation and Sensitive Cases	2	0,5
18	General Skills Development- Induction Level	1	0,3
19	Audit and Inspection	1	0,3
20	Production of livestock	1	0,3
21	Fisheries	1	0,3
22	Professional, Research and Development Knowledge	1	0,3
Total		366	100

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

2.18.2. Development training and institutional strengthening

As regards the second question - the training of personal development and the institutional / organizational strengthening applied to the employed respondents, the data in Table 22, show that the training areas of Teachers and Education Professionals and Languages (English, Portuguese) and other specific areas (Varieties) are more preferred areas desired by the respondents while in other areas the desire was less than 10% (Table 22).

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

No.	Area of Training	Frequency	Percentage(%)
1	Teachers and Education Professionals	90	26,4
2	Languages (English, Portuguese, etc.)	57	16,7
3	Varieties *	37	10,9
4	Management, Administration and Leadership	27	7,9
5	Information Technology, Database, Web, Software and Electronic Filing (registration) - computer	25	7,3
6	Information System & Business Management;	24	7,0
7	Medicine and Health Professionals	15	4,4
8	Finance, Budget, Accounting and Planning	13	3,8
9	Human resource Management	13	3,8
10	Agriculture	12	3,5
11	Police, Defense, Security (employee training)	9	2,6
12	Public Law and Justice	3	0,9
13	Marketing, Communication, Journalism and Media	3	0,9
14	Professional, Research and Development Knowledge (based on the operating sector)	3	0,9
15	Development of General Abilities - induction	2	0,6
16	Technical Mediation, Conflict Analysis, Conciliation and Sensitive Cases	2	0,6
17	Fisheries	2	0,6
18	Hospitality and Tourism	2	0,6
19	Audit and Inspection	1	0,3
20	Production of livestock	1	0,3
Total		341	100,0

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

2.19. Category and Academic Degree of training

2.19.1. Vocational or Academic Training

Regarding the training category question, of the 2,562 respondents, 68.5% of the respondents intend to develop their knowledge through the vocational or professional training course and 31.5% in the Academic - higher education course (Figure 23). The Sub District Administration of Ossu have a greater number of those

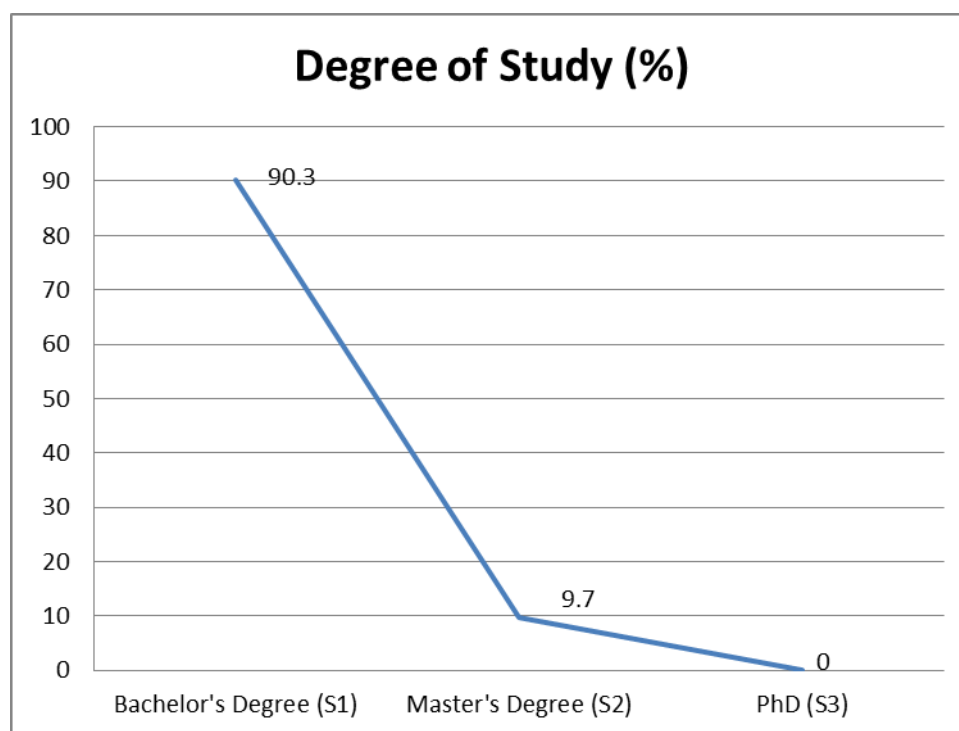
who wish to have vocational or professional training while the preference for academic or university training.

Table 23. Category of training - Academic or Vocational Training

Sub-District Administration	Academic or University	Vocational or Vocational training	Total
Lacluta	31	301	332
Ossu	324	927	1,251
Uato-Lari	59	99	158
Uatucarbau	109	75	184
Viqueque	285	352	637
Total	808	1,754	2,562
Percentage (%)	31,5	68,5	100

Among the 808 (31.5%) respondes who wish to take the course in higher education, 90.3% plan to increase their knowledge in Bachelor's degree and 9.7% master's degrees (Figure 6).

Figure 6. Degrees of studies they wish to pursue



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

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

No.	Area of Study	Academic level courses (University)			Total
		Bachelor Degree(S1)	Master (S2)	PhD (S3)	
1	Teachers and Education Professionals	35	3	-	38
2	Languages (English, Portuguese)	23	1	-	24
3	Varieties *	12	1	-	13
4	Medicine and Health Professionals	8	2	-	10
5	Management, Administration and Leadership	8	1	-	9
6	Information Technology, Data Buzz, Web, Software and Electronic Filing (registration) - computer	4	3	-	7
7	Finance, Budget, Accounting and Planning	6	1	-	7
8	Human resource Management	4	-	-	4
9	Marketing, Communication, Journalism and Media	3	-	-	3
10	Information System & Business Management;	3	-	-	3
11	Professional, Research and Development Knowledge	3	-	-	3
12	Police, Defense, Security (employee training)	3	-	-	3
13	General Skills Development- Induction	2	-	-	2
14	Public Law and Justice	2	-	-	2
15	Agriculture	2	-	-	2
16	Mediation Technique, Conflict Analysis, Conciliation and Sensitive Cases	1	-	-	1
17	Production of livestock	1	-	-	1
18	Fisheries	1	-	-	1
19	Hospitality and Tourism	-	1	-	1
Total		121	13	-	134
Percentagem (%)		90,3	9,7	-,-	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 Municipal Strategic Plan-PEM

The Viqueque of 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 in order to defining strategies and guidelines, creating conditions of competitiveness, innovation and modernity, ensuring the public interest through an efficient, transparent and

rigorous management and allocation of resources. Like the SDP/PEDN, the MSP/PEM is built around four pillars:

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

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

The Municipality of Viqueque 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.

Social Capital (health, education and social protection)	
Education and training	<ol style="list-style-type: none"> 1) Ensure that children aged 3 to 5 years are enrolled in quality kindergarten (pre-school). 2) Ensure that all elementary schools in rural areas have complete facilities. 3) To construct, rehabilitate and maintain pre-school education establishments, primary and secondary schools, ensuring the development and requalification of school facilities in the municipality and the conditions for the quality training of Viqueque youth. 4) Guarantee the conditions for students with special needs in order to introduce sign language among other supports in the education system. 5) Recruit and train new teachers according to the specialty of the material taught. 6) Improve the quality of learning education from the municipal level to the juice; 7) To manage non-teaching staff in pre-school and primary education by training them for their support and follow-up functions. 8) Establish vocational technical school according to the potentiality of the municipality; 9) Ensure the creation and management of cafeterias of pre-school and basic education establishments under a direct or concession regime, guaranteeing a quality service and a careful diet for young students attending the schools of the municipality. 10) To approve and execute the municipal plan of recurrent education in order to guarantee the literacy of the population.
Health	In the Health sector, the Municipality of Viqueque identified the priority programs. The

<p>Social (Inclusion)</p> <p>Protection</p>	<p>programs are listed below:</p> <ul style="list-style-type: none"> • Ensure access to quality health for all citizens, meaning that in each village they must have an adequate health facility. • Ensure that pregnant women have regular consultation during pregnancy and good birth attendance. • Ensure that all children receive a vaccine such as BCG, polio, diphtheria, measles, hepatitis B and others. • Ensure that epidemic disease such as malaria is well controlled. • Promote public health to prevent disease; • Improve the quality of primary and secondary health services in the cities and towns; • Training program in the development of knowledge in the area of the Promotion of Mother and Child Health and Family Planning. <ol style="list-style-type: none"> 1) Ensure that people affected by natural disasters receive assistance consistently in accordance with the standards and planning procedures established by the relevant ministry. 2) Ensure and provide appropriate transportation and equipment for emergencies in the event of a natural disaster. 3) Consider and assist the disabled in the municipality of Viqueque according to an adequate standard of living. 4) Guarantee the rights of needy children victims of sexual violence, victims of human trafficking, abandoned and victims of physical aggression. 5) Establish or build homes for vulnerable people. 6) Promote the participation of women in the integrated development process. <ol style="list-style-type: none"> 1) Socialize environmental Public Law s and
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<p>Environment</p>	<p>regulations so that all residents respect and implement them;</p> <ol style="list-style-type: none"> 2) Establish and implement "Tara Bandu" in all the villages of the municipality of Viqueque, so as not to harm the environment; 3) Monitor all economic activities, such as tents, workshops, factories, so as not to damage the environment; 4) Recruit employees at each administrative post to monitor the environment; 5) Promote people's knowledge in the areas of climate change and biodiversity, pollution control, environmental impact analysis, waste recycling and improve service centers in the area of climate change at municipal level and administrative posts. <ol style="list-style-type: none"> 1) Provide knowledge in the area of art, culture and creative cultural industries, museum development and libraries, identification and rehabilitation of cultural heritage; 2) Promote culture and heritage, such as traditional music, dance, sacred houses (a lulik), sacred sites, places of resistance to the interest of local and foreign tourists;
<p>Infrastructure (transport, telecommunications, energy and water supply and sanitation)</p> <p>The term infrastructure has broad meaning, but is usually associated with the basic structure of society, such as communications media, transportation (roads, vehicles, traffic, etc.), electricity, fuels (production, distribution, network maintenance , etc.), basic sanitation (drinking water supply, sewage network, etc.), among others, which guarantee the functioning of a municipality or region.</p> <p>Infrastructure is the necessary basis for promoting development. Without it, economic growth is compromised by the difficulty of generating goods and services, since production depends on the supply of energy, communication, means and transport routes, among others, as well as compromises the quality of life of the population, especially health, when it is lacking in basic sanitation and drinking water, and urban mobility. Therefore, from the infrastructure axis, the public power must pay close attention, since the inadequacy of this compromises the development of the Municipality. In the area of Infrastructure, the Municipality of Viqueque identified the</p>	

following priority training programs:	
Roads and Bridges	<ol style="list-style-type: none"> 1) To construct and rehabilitate the roads in 5 administrative posts of the municipality of Viqueque, linking national, regional and rural roads. 2) Rehabilitate the roads of Baucau - Viqueque - Uato-Lari - Watocarbau.
Water and sanitation	<ol style="list-style-type: none"> 1) Ensure that all households in the rural area of the municipality of Viqueque have access to drinking water supplies and ensure sustainable use; 2) Recruiting public water and sanitation workers and a training program specifically dedicated to their subscribers.
Electricity	<ol style="list-style-type: none"> 1) Ensure that all households have access to electricity and ensure sustainability; 2) Installation program for electricity in rural and urban areas; 3) Electricity Maintenance Program (Protection and Maintenance of Power Distribution Lines).
Telecommunications	<ol style="list-style-type: none"> 1) Establish Network Telecommunications in rural and urban areas 2) Guarantee the population in the municipality of Viqueque has access to telecommunications networks properly, without problems and ensure affordable prices;
Economic fundamentals - targeting three sectors for development - agriculture, tourism, rural development and the private sector.	
Rural development	<ol style="list-style-type: none"> 1) Building rural roads; 2) Establish drinking water in rural areas; 3) Building Rural Electricity; 4) Build Rural Health Post; 5) Small Industries Development Program; 6) Rehabilitate the appropriate Municipal and Terminal market in the administrative posts and municipality;

<p>Agriculture</p>	<p>7) Ensure the inclusive development of the "Tasi Mane" project.</p> <p>1) Establish and rehabilitate agricultural offices in the municipality of Viqueque;</p> <p>2) Carry out training programs and training of people whose lives depend on agriculture;</p> <p>3) Open new agricultural land and agricultural extensification;</p> <p>4) Increase the productivity of agricultural products, such as rice and corn;</p> <p>5) Fisheries: increase fishing production;</p> <p>6) Livestock - Program for poultry raising and dairy cow production and increase livestock production;</p> <p>7) Provide training to the community on the care of animals in a manner qualified and suitable for the commercial purpose;</p> <p>8) Recruit forestry officials to safeguard and protect forest destruction.</p>
<p>Tourism</p>	<p>1) Identify tourist sitesDesenvolvimento turismo no município de Viqueque</p> <p>2) Promote community tourism, historical tourism and cultural and eco-cultural tourism of the municipality of Viqueque.</p>
<p>Private Sector</p>	<p>1) Develop the cooperative sector;</p> <p>2) Develop micro and small enterprises;</p> <p>3) Increase knowledge in micro and small businesses to support entrepreneurs in running their business in the future:</p> <p>a. Training of SME trainers;</p> <p>b. Training in accounting and business administration;</p>

	<ul style="list-style-type: none"> c. Training in family business plan; d. Training in business software (IT).
Institutional framework - focus on macroeconomic management and improvement of the capacity and effectiveness of government institutions.	
Management and Good governance of Public Sector	<ol style="list-style-type: none"> 1. Establish a legal framework necessary for the development of the municipality; 2. Improve human resource capacity and improve the quality of public service; 3. Accelerate the implementation of local power by empowering the municipality, bringing the public service closer to citizens and promoting public service professionalism in the municipality; 4. Ensure implementation of land and property Public Law ; 5. Strengthen the performance and customer service 6. Promote the favorable business environment to attract investment within the municipality; 7. Strengthen the presence of community police in juices; 8. Promote continuous dialogue for conflict prevention 9. Ensure public order, environmental health, Public Law and freedom of expression of all persons. 10. Strengthen implementation of the PNDS & MDP program; 11. Strengthen the Local Government Administration-Public Administration through the training of: <ul style="list-style-type: none"> ○ Supply management; ○ File Management; ○ Accounting Management; ○ Human Resource Management; ○ The Spatial Planning.
	<ol style="list-style-type: none"> 1. Training for private Public Lawyers,

Justice	<p>Notaries, Registration and Public Lawyers;</p> <ol style="list-style-type: none"> 2. Training for magistrates and defense Public Lawyers and specific training for magistrates and public defense Public Lawyers; 3. Management of public administration for employees involved in social / community development; 4. Training in digital archiving in the area of logistics; 5. Training for civil justice officials; 6. Language training.
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3.2. Main Areas of Training

The Viqueque of Municipality presented the following distribution of training needs per training area required for each pillar and development sector in relation to the immediate period of 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 the main training areas are presented only in the form of the following table taking into account the short, medium and long term priorities.

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

Main Areas Of Training	Category Of Training You Wish To Pursue (Academic or Professional)		Training Priorities		
	Academic	Professional Technician	Short Term (2019-2022)	Medium Term(2023-2025)	Long Term (Até 2030)
Planning	✓	✓	✓	✓	✓
Research Specialist	✓	✓	✓	✓	✓
English and Portuguese language	✓	✓	✓	✓	✓
Information Technology (Database)	✓	✓	✓	✓	✓
Mines	✓	✓	✓	✓	✓
Average	✓	✓	✓	✓	✓
Community tourism	✓	✓	✓	✓	✓
Culture tourism	✓	✓	✓	✓	✓
Historic tourism	✓	✓	✓	✓	✓
Domestic tourism	✓	✓	✓	✓	✓
Specialist in Agronomy	✓	✓	✓	✓	✓
Horticulture Specialist	✓	✓	✓	✓	✓
Specialist in Agroindustry	✓	✓	✓	✓	✓
Livestock Specialist	✓	✓	✓	✓	✓
Agricultural Production Specialist	✓	✓	✓	✓	✓
Specialist in Fisheries	✓	✓	✓	✓	✓
Specialists in mines and gas	✓	✓	✓	✓	✓
Geophysics	✓	✓	✓	✓	✓
General sciences (experts)	✓	✓	✓	✓	✓
Language and Science Training	✓	✓	✓	✓	✓
Internist, Pediatrics, Surgery, Nurse, Midwife	✓	✓	✓	✓	✓
Pharmacy, Analyst, Nutrition, Dentist,	✓				

Main Areas Of Training	Category Of Training You Wish To Pursue (Academic or Professional)		Training Priorities		
	Academic	Professional Technician	Short Term (2019-2022)	Medium Term(2023-2025)	Long Term (Até 2030)
Ophthalmologist, Radiology, Anesthesia,					
Engineering / Medical electro	✓	✓	✓	✓	✓
Leadership Management (Director, Senior Management), Administration and Finance, Planning, Logistics		✓	✓	✓	✓
Specialist in medicine in several areas	✓	✓	✓	✓	✓
Management, Accounting		✓	✓	✓	✓
Waste Management Specialist	✓	✓	✓	✓	✓
Specialist in culture	✓	✓	✓	✓	✓
Scientist in the area of education	✓				✓
Nutritionist	✓		✓	✓	✓
Specialist (Banking)	✓				✓
Specialist in statistical data analysis	✓			✓	✓
Cooperative Specialist	✓	✓	✓	✓	✓
Economist	✓				✓
Agronomy	✓		✓	✓	✓
Business	✓	✓			
Plant Specialist	✓				✓
Industrialization	✓			✓	✓
Architecture (Civil Engineering)	✓				✓
Veterinary and Plant Specialist	✓			✓	✓
Specialist trainer (ToT)	✓	✓	✓	✓	✓
Public Law	✓				✓
Bachelor's or Master's degree in Environment	✓	✓	✓	✓	✓
Related searches	✓	✓	✓	✓	✓
Knowledge of culture	✓	✓	✓	✓	✓
Library	✓	✓	✓	✓	✓
Archiving	✓	✓	✓	✓	✓
Archeology	✓				✓
Bridge and Road Engineer	✓	✓	✓	✓	✓
Specialist laboratory	✓	✓	✓	✓	✓
Geology specialist	✓		✓	✓	✓
Soil mechanics	✓		✓	✓	✓
Drainage	✓		✓	✓	✓
Civil Engineer (Technical)	✓		✓	✓	✓
Architecture	✓		✓	✓	✓

Main Areas Of Training	Category Of Training You Wish To Pursue (Academic or Professional)		Training Priorities		
	Academic	Professional Technician	Short Term (2019-2022)	Medium Term(2023-2025)	Long Term (Até 2030)
Specialist in Tar	✓		✓	✓	✓
Environmental engineer	✓	✓	✓	✓	✓
Specialist hydrology (water)	✓		✓	✓	✓
Mechanical Engineer	✓		✓	✓	✓
Laboratory engineer	✓	✓	✓	✓	✓
Natural Resources Engineer	✓				
Architect	✓				
Chemical Engineer	✓		✓	✓	✓
Engineer geology	✓		✓	✓	✓
Electrical Engineer	✓	✓	✓	✓	✓
Mechanical Engineer	✓		✓	✓	✓
Electromagnetic Engineer	✓		✓	✓	✓
Telecommunication Engineer	✓		✓	✓	✓
Computer engineer	✓		✓	✓	✓
Electrical Engineer	✓	✓	✓	✓	✓
Mining engineer	✓		✓		✓
Mechanical Engineer	✓		✓		✓
Civil Engineer	✓	✓	✓	✓	✓
Urban Planning Engineer	✓		✓	✓	✓
Degree in management	✓		✓	✓	✓
Bachelor of Accounting	✓		✓	✓	✓
Bachelor in Marketing	✓		✓	✓	✓
Degree in Communication	✓	✓	✓	✓	✓
Procurement Specialist	✓	✓	✓	✓	✓
Planning Specialist	✓	✓	✓	✓	✓
Specialist in finance, accounting	✓	✓	✓	✓	✓
Bachelor of Business Administration	✓	✓	✓	✓	✓
Public Law , Criminology, Cadastral	✓	✓	✓	✓	✓
Criminology	✓	✓	✓	✓	✓
Register (Cadastro)	✓	✓	✓	✓	✓

4. Discussion and Analysis

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

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

This dispersion of education level, together with the rapid population growth in the relevant age groups, shows the essence of the challenge faced by the Viqueque of 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 and the higher technical level - polytechnics. The ideal balance between academic and technical education is a key issue in the development process. In addition, the data also indicate a very small number of people who had taken part in one of the vocational training courses with skilled labor prepared for self-employment or institutional strengthening.

Those who have already taken part in one of the short-term professional courses in most are generic professional courses geared more towards administrative work and the public function as a course of leadership, administration, finance, planning,

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

There are also a large number of job seekers, including those who have completed their degree program in Management, Mathematics, Accounting and Education, and more graduates in other areas (see table 15), without being exploited in the labor market. The work preference of the public sector while the non-graduate prefer the non-public sector such as agriculture, domestic work, industrial activity and civil construction.

Analyzing the training preference based on the priority programs (Table 25) with the current human resources (Table 5), the data show that the Viqueque Municipality has a high number of graduates in several areas, however it is verified that there is still needs in some specialized areas. In relation to the current human resources, the question is how to take advantage of and employ them. However, it is important to stress that there are still serious concerns about quality not only in technical knowledge but in language skills and this can become 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 international work. In this sense,

it becomes important to unite with the additional training at the level of post graduatins directed to the priority technical areas and professional stages.

Another challenge demonstrated in the work presented was the greater number of public and private employees including entrepreneurs with very low levels of education. This may possibly imply a lack of productivity and competitiveness in companies or organizations. It is evident that with this very low level of education of the municipality will not be able to overcome the serious problems which are 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 sense, it is crucial to strengthen the private sector by promoting the development and the adequacy of the qualification of workers and employers with a view to improving their employability and increasing the productivity and competitiveness of the enterprise.

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

Municipality of dili has identified a shortage of skills in the following sectors: electronics engineering, health, tourism, aviation, manufacturing, waste treatment and financial services (banks, insurance and securities). it also identified a lack of skills in the following areas: english, nursing, pharmacy, hospitality, pilot training, accounting and auditing, machine operation, component manufacturing and assembly, engineering (design and development), literacy, and software programming or 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, the need for training and the development of people's ability as a means to provide qualitative and quantitative benefits.

It is important to emphasize that skills development can not be seen only in formal technical and vocational education and training. It comprises skills acquired through all levels of education and training, taking place in formal, non-formal and vocational training contexts. It enables individuals in all sectors of the economy to

engage fully and productively in livelihoods and to be able to further enhance and adapt their skills to meet new demands and opportunities in the economy and the labor market. Skills development should not be characterized by the source of education or training itself, but by the skills that are acquired through this process.

With regard to people with disabilities, data show that there are 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, to and the higher salary of 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 and disabled people 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 their entry easier to entry into the labor market.

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

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

It also reveals the need for a supply of study areas at the secondary and post-secondary level that is geared to the needs of the country (demand-driven secondary vocational education 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 Viqueque Municipality needs to pay more attention to the development opportunities identified in the Municipality Development Plan (MDP) and to the following five dimensions : 1) **economic** (increase efficiency of the production system), 2) **social** (improvement of the levels of income distribution of the population), 3) **ecological** (preservation of the environment), 4) **spatial** (balance in distribution and occupation of population rural and urban) and 5) **cultural** (respect to the ways of thinking and acting of society, focusing on the construction of an environmental conscience linked to consumption).

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

- 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 completed formal education.

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

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

The graduates and postgraduates with the higher number of job seekers “unemployment “, are in the fields of Management, Mathematics, Accounting and Education, and more graduates in other areas (table 15).

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

There are quite a large number of people with disabilities of productive age who are looking for work 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 in the Viqueque Municipality.
 - **The construction** with a limited infrastructure inherited from the Indonesian government period and the continuous needs to

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

- **Tourism** in Viqueque Municipality remains a future opportunity, but taking advantage of this opportunity will require the development of a trained workforce, from the entry-level team to senior managers, as well as investment in R & D, development and policy planning and capacity planning.

- 2) **Private sector** - Survey data 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 enterprise.
- 3) **Technical and vocational education and training (TVET).** FDCH's study shows a lower level of TVET qualifications than university qualifications in the municipality, and increased investment in the expansion of TVET should be a high priority. This expansion should cover technical secondary schools, the polytechnic system, and the community-based non-formal vocational training system. In doing so, it is important that the boundary between academic and technical education remains fluid, with easy articulation between the two areas.
- 4) **Adult education** (literacy for all young people, adults and the elderly), especially for women, and the job training in our view, these three areas are of considerable importance for the future. In particular, the increasing role of women, especially in agriculture, and with a higher skill level due to improved training, may contribute to 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-vocational education and demand-driven post secondary technical education area-level provision of secondary and post-secondary education.

6. Bibliographic references

- Data collection of Existing Human Resources in Timor Leste in 2016 - Human Capital Development Fund (FDCH), 2016.
- General Directorate of Statistics - Ministry of Finance, Population and Housing Census in 2010;
- General Directorate of Statistics - Ministry of Finance, Population and Housing Census in 2015;
- Strategic Plan for National Development from the year of 2011-2030;
- Strategic Plan for Municipal Development.

Annex 1. Questions at the groups discussion

QUESTIONS FOR GROUP DISCUSSION - GROUP I - GENERAL QUESTIONS

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

QUESTIONS FOR GROUP DISCUSSION - GROUP II - SOCIAL CAPITAL

Social Capital	What are the priority programs related to the sectors below that the Municipality and RAEOA-Oequisse 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 train?		Training priority for (Short, Medium/Midterm and Long Term)		
			Academic	Professional Technician	Short term (2019-2021)	Mid-term (2022-2025)	Long Term (2026 - 2030)
EDUCATION AND TRAINING							
HEALTH							
SOCIAL INCLUSION							
ENVIRONMENT							
CULTURE AND PATRIMONY							

QUESTIONS FOR GROUP DISCUSSION - GROUP III - ECONOMIC DEVELOPMENT

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

QUESTIONS FOR GROUP DISCUSSION - GROUP V - INSTITUTIONAL FRAMEWORK

INSTITUTIONAL FRAMEWORK	What are the priority programs related to the sectors below that the Municipality and RAE OA –Oequisse 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 develop the existing potentialities?	What level of Human Resources do you want to training?		Training priority for (Short, Medium and Long Term)		
			Academic	Professional Technical	Short Term (2019-2021)	Mid Term(2022-2025)	Long Term (2026 - 2030)
MANAGEMENT AND GOOD GOVERNANCE OF THE PUBLIC SECTOR							
Justice							

Annex 2. Attendance List of the participants in the groups discussion

natural resources and economic potencies, related priority programs and key areas of training in the Viqueque of Municipality

No.	Name	Position	Institutions
1	Gregorio Hengrique	Viqueque Administrator	MAE
2	Natalino Hercio	ICT Officer	PNDS
3	Castelo de Carvalho	Cheif Gabinete	MAE
4	Isménio Martins da Silva	Secretário Executivo do FDCH	FDCH-MDRI
5	Carlos Pinto	Director	MAP-SAM
6	Cerilio Soares Gomes	Coordinator	Protection
7	Mateus Ramos Pereira	Director	DJPCS/MJ
8	Antonio R.de Menezes	Technical Civil Engineering	MAE
9	Anibal do R.Amaral	ODL	MAE
10	Martinho Soares	Accounting	BNCTL
11	Lino da Silva	Security	DNSPP-M.Viqueque
12	Cleto Soares Amaral	Focal point	MPRM
13	Abilio Fereira	Staf	SEJT
14	Antonio Xavier Pinto	Staf	MCI
15	Erminio Amaral	Director	Education
16	Francisco de C.	Director	SSM Viqueque
17	Carlos de A.Zeronimo	Supertendente	Education
18	Paulino Pinto	Dir, Procurement	MAE
19	Pedro Braga		MAE
20	Joaquin F. Soares	Staf	MAE
21	Carlos A. da Silva	Staf finanças	MAE
22	Julio Soares	Rept. RH	M.Saude
23	Alfredo dos Santos	Cheif Planing Dept	M,Educasaun Viqueque
24	Silvino Soares	Cheif Dep,GAE	MAE
25	Julião Menezes	Oficial RH	MAE
26	Paulo Menezes		MSS
27	Domingos da C.Soares	Oficial RH	M,Educasaun Viqueque
28	Marito da Costa	Director	SAS
29	Honorio C.da Silva	Staf	CNE
30	Jose de Sousa	Staf	DNTT
31	A.Mau Luta	Comandante Policia	M.Viqueque
32	Jose da Costa de S	Secretario	MAE-Viqueque

33	Antonio Gregorio		MAE
34	Vasco Nunes	Financas	MAE
35	Salvador Ximenes	Ponto Fokal	SEIGIS
36	Augusto Soares	Adm.Posto Ossu	MAE
37	Mirandolina F.da.c.G	Administrasaun	MAE
38	Maria P.F.Campos	Staf	Statistika
39	Duarte Soares	Staf	SEDAC
40	Olimpio da Silva	Oficial de Registo	SMRNSC
41	Apolinario Soares	Official Administration	Health Instituition
42	Telvinio T.Santos		MJ
43	Estevao de Carvalho	Diretor PNDS	MAE
44	Agostinho S.Pinto	Oficial	SEDPAC
45	Severina Marques	Koordenador	CVTL
46	Anacleto Doutel	Staf	MAE
47	Cipriano T.Soures	Responsavel	BNU
48	Prudencio A.D.Riberio	Staf	FDCH-MDRI
49	Costantino M.Isais	Motorista	FDCH-MDRI