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# **LIST OF ABBREVIATIONS**

Déclaration de Stratégie urbaine du Gouvernement
Document de Stratégie de Développement du Secteur Urbain
Document de stratégie pour la Croissance et l'Emploi
Document de Stratégie de Réduction de la Pauvreté
Ministère de l'Habitat et du Développement Urbain
Commune de Buéa
Plan Directeur d'Urbanisme
Plan d'Occupation des sols
Plan de Secteur
Recensement Général de la Population et de l'Habitat
Terme De Reference
Zones de Dénombrements

# PREAMBLE

The city of Buea is one of the cities with anarchic urbanization dated since colonial times due to the absence of a planning document. It is in this context that the Ministry of Housing and Urban Development has undertaken the development of a process to develop a Land Use Plan in the Municipality of Buea. The development of the urban planning document gave short-free to the production of a more specific and focused document to a specific area in this case the Sector Plan (PS) Molyko.

Molyko because of its Position in the city of Buea can be considered as the turntable. Turntable prone to large difficulties and malfunctions, hence the relevance of this study Sector Plan.

Development of the Sector Plan (PS) Molyko goes through several stages including the production of the diagnostic report. It provides urban diagnosis of Molyko based on documentary research, field visits, interviews with resource persons, household surveys etc...

Indeed, in contact with the field realities, especially the thoroughness of data to be collected and analyzed, experts in turn increased their raids on the targeted site where they stayed for weeks.

In any event, it must be remembered, this step augurs other equally important activities above, included in the continuation and completion of the urban planning document. Indeed, after its validation, the Consultant intends to produce the report on development alternatives, and the final report which will include the report justifying the Town Planning Regulations, and finally the graphic documents.

# I- GENERAL INTRODUCTION

#### I.1- DEFINITION OF PLAN SECTOR

This document, limited to part of the town, out in greater detail the organization and the technical modalities of occupation of the ground, facilities and locations reserved for them, as well as the technical and financial characteristics of different works infrastructure to achieve medium term. It is developed in a locality covered by a Land Use Plan (LUP), and must be compatible with this LUP.

## I.2- BACKGROUND AND JUSTIFICATION

Urban growth in Cameroon took place for several decades in often poorly controlled conditions with double consequences:

- (i) Preventing the cities to fully exercise their role in economic development
- (ii) Generate living conditions of great poverty.

In recent years, urban population growth was absorbed by spreading periphery of the construction of cities and densification Popular near by districts of city centers. It would also not be exaggerated to say that this growth was sustained as planned because it is not accompanied by viaires infrastructures and basic adequate social facilities. The use of realistic planning for urban development that animates therefore the Cameroonian authorities took shape through several documents namely: the Declaration of Urban Strategy of the Government, the Urban Sector Development Strategy Document, the Document Poverty Reduction Strategy Paper (DPRSP) and currently the Cameroon Vision 2035 and the Strategic Document for Growth and Employment (SDGE).

The Ministry of Housing and Urban Development (MINHDU) contributes to reducing poverty using participatory strategies at the municipal level through the development of urban planning documents called Land Use Plan. It is from this context that the relative contract to develop a Land Use Plan (LUP) of the Municipality of Buea stepped in. Contract which the Mayor of the Municipality of Bueavouches this contract, ensures it's Project Management Officer, and grouping LE COMPETING BET / BEFA & CONSULTING responsible for its implementation.

It is in the same sense that a Sector Plan Molyko area will be integrated in the development of Land Use Plan, which specifies in detail the organization and land use technical methods (parcel by parcel) equipment and reserved locations, the technical and financial characteristics of infrastructure projects.

# I.3- GENERAL PURPOSE OF THE STUDY

The first objective of a plan Sector (PS) in the Molyko area is to establish an effective tool to control land management and land use susceptible to boost the development of a futuristic living environment, high architectural and urban value.

# I.4- SPECIFIC OBJECTIVES

The specific objectives for the development of a sector plan are:

- **4** Implement a more detailed Land Use Plan;
- **4** A study of applications for allocation of plots;
- **4** Monitor and control the high buildings in the area.

# I.5- METHODOLOGY APPROACH AND STRUCTURE OF THE REPORT

# I.5.1- Methodology approach

The development of this diagnostic report was made through documentary research, direct observations, survey organization and data collection in the field. This methodological approach has allowed us to undertake data collection on the built environment, the land situation, economic activities, public facilities, their location, the state of infrastructure with fundamental objective the identification of key issues and their causes on the development of Molyko.

# I.5.2-<u>Report Structure</u>

The present diagnostic report is organized around the main points presented below, which will be analyzed meticulously as follows;

GENERAL INTRODUCTION;
HOUSEHOLD SURVEYS AND SEGMENTS;
PRESENTATION OF THE STUDY AREA;
URBAN POPULATION AND SOCIAL DEVELOPMENT;
CREATE SITE;
MOLYKO ECONOMIC BASE;
URBAN AREA REGULATION
RECORD BEFORE PROJECT SUMMARY(APS).

# **II- HOUSEHOLD SURVEYS AND SEGMENT**

Household surveys and sector contract have the practical and participatory diagnostics appearance. They take place in the following manner:

# II.1- ORGANIZATION OF SURVEYS AND DATA COLLECTION

The constraint for determining the sample size is mainly linked to the level of details and analysis of the expected time reserved for the collection, use of data and even project funding budget. Three factors primarily determine the sample size for a survey conducted in the population:

## II.2- CALCULATING THE SAMPLE SIZE BASE

- The estimated prevalence of the variable (proper allocation of land areas for industrial, commercial, residential, social housing, educational institutions, hospitals, landfills, parks, sports fields, etc.) in the study area in this case,
- ii. The target level of confidence
- iii. The acceptable margin of error.

In a survey model based on a simple random sample, the sample size required is given by the following formula.

$$n = \frac{t^2 \times p(1-p)}{m^2} o u$$

**n** = sample size required

**t** = confidence level of 95% (typical value1.96)

 $\mathbf{p}$  = estimated proportion of parameters to find out how to determine proper allocation of land areas for industrial, commercial, residential,social housing,educational institutions, hospitals, landfills, parks, sports fields) in the project area including the proportion of households with a land title

 $\mathbf{m}$  = margin of error of 5% (typical value 0.05).

# II.3- EFFECT OF SAMPLING PLAN

The Molyko area which is the subject of the Sector Plan was divided in to enumeration areas (EAs) (see enumerationMap of the study area).

For household characteristics of the study we conducted a sample survey with two degrees. 1st degree almost all of ZD of the study area were selected.

# II.4- RANDOM SAMPLE

The sampling methodology used is the two-stage sampling for households. This choice minimizes sample dispersion and ensures the representativeness of the house holds in the locality.

The survey area Molyko is divided into several enumeration areas (ZD) based household density or population. In each ZD we will proceed to draw a representative sample.In each enumeration area will be affected by the following one or two investigators.

-In the first stage, we performed stratified according to ZD of the study area where all EAs are drawn.

At the second stage, there will be an equal probability systematic circulation by ZD fired.

Thus knowing the total number of households  $N_{\rm i}$  and the number of sample households  $n_{\rm i}$  or to shoot in the area i, it precedes the definition of step:

 $P_i$  = Total household ZD, i/number of households to be surveyeding the neighborhoodi( $p_i$  =  $N_i/n_i$ ). Thus, in a ZD, after investigating the first randomly selected household, we apply the sampling interval to find the next household to be interviewed.

# II.5- RECRUITMENT AND TRAINING OF INVESTIGATOR

Interviewer training is focused not only on controlling the questionnaire, but also the technique of choice of the sample of households in each ZD. The general principle was at first the delimitation of the ZD, then the selection of the first household, and finally the choice of the remaining households by jumping a set number of households (no sampling) to cover the entire ZD.

The training took place on 26 and 27 March 2014 in the meeting room of the Town Hall of Buea. This session was led by statistician, supported in its work by the Head of Mission and supervisors. At the end of the pre-test, 10 investigators were selected in the Molyko area. The selection of the investigators were based on

-Their enthusiasm during training;

-The quality of the sheets provided in the pre-test outcome;

-The distribution in the different regions (that is freely made to reflect their choice)

# II.5.2- Data collection

Data collection took place from March 28 to April 5, 2014 in households, businesses and governments.

# II.6- ENCOUNTERED DIFFICULTIES

Heads of households have over whelmingly involved in the operation despite some reservations noted in some neighborhoods. To overcome this reluctance, we firstly asked the investigators to explain to householders the merits of the transaction and in case of failure of the negotiations to replace that by the following household in geographical terms. Further more, a note of a wareness of the Mayor of Buea addressed to all heads of private and public administrations has been given to each investigator.

# II.7- TREATMENT AND ANALYSIS OF RESULTS

To ease entry collection sheets and reduce entry errors, we codified the questionnaire and designed an input mask as specialized statistical software for data entry CSPRO. The clearance and data processing were performed using SPSS statistical software.

# **III- PRESENTATION OF THE STUDY AREA**

#### III.1- IDENTIFICATION OF THE STUDY AREA

Buea, the capital of the South West Region of Cameroon was established in June 29, 1977 by a Presidential Decree No. 77/203. Buea has an area of 870 km<sup>2</sup>. It is one of the cities with the fastest growth in Cameroon today with a cosmopolitan mix and a constellation of about 67 neighborhoods and villages. Among these areas, we have the Molyko neighborhood that is the subject of our study in the context of developing an Area Plan.

In view satellite images, Molyko is centrally located in the city of Buea with an area of about 594 ha. This position it occupies does not give it a central place on a geographical plan, but also in many important and necessary sectors in the harmonious development of the city. This is for example:

- Economically, Molyko is considered the economic heart of the city of Buea. Because it has within it, businesses or the business center avenue that stretches from the entrance of the University to the Bueaomisports staduim. Where we can find banks, microfinances and restaurant shops. It houses the largest market in the city despite the fact that it is still in a deplorable state and only works in a periodic manner;
- On the educational level, Molyko can be considered as the educational center of the city of Buea and of the South West region. Given that it has many academic institutions that have a regional influence, national and even international. This is for example the University of Buea, the Pan-African Development Institute and the Catholic University etc ...
- In sporting terms, Molyko is considered the temple of sports throughout the city of Buea. For it has within it the sport stadium that radiates throughout the town.

#### III.2- LOCATION OFSTUDY AREA

Molykolocated in the cityof Bueais locatedasfollows:

- In the north, it borders with Bokwae;
- To the west it borders with Bokoko;
- In the South-west, it borders with Wokoko;
- In the South East, it borders with Mile16;
- To the east with Mile17;
- In the North-east with Muea.





NO	CUDE	PRINCIPAUX SOMMETS			
N	SILE	X	Y		
1	Point on the road	9.275566°	4.154363°		
2	Point on the road after the University of Buea	9.283497°	4.142925°		
3	Floating Point	9.299492°	4.145054°		
4	Floating Point	9.296207°	4.16033°		
5	Point on the road after the big market of Buea about 700m after Carrefour Muea	9.293944°	4.164109°		
6	Point on the road before the big market of Buea (Main Market) to Muea	9.280542°	4.171983°		
7	Point on the road after the big market of Buea to Bokwae	9.275954°	4.171286°		
8	Point on the road behind the bilingual high school Molyko	9.277082°	4.166242°		
9	Point on the road outside the bilingual high school Molyko	9.272887°	4.165269°		

# Table 1 : Table of reference points limits the scope of study



Graphic 2 : Location and description of the boundaries of Molyko

# IV- URBAN POPULATION AND SOCIAL DEVELOPMENT

# IV.1- POPULATION CHARACTERISTICS

According to the General Census of Population and Housing conducted in 2005 (GCPH 2005) the town of Buea has 131 325 inhabitants of which 13 864 inhabitants in the area Molyko, representing 10.56% of the total population of the Commune.

 Table 2 : Distribution of the total population of Molyko by sex in 2005

Cities	Male	Female	Population 2005	sex ratio in 2005	Populationin2014
BUEA	65714	65611	131325	100,2	168378
MOLYKO	6806	7058	13 864	96,4	17 776
%	10,36%	10,76%	10,56%		10,56%

Source: RGPH 2005/ Estimates of the study

# Population distribution according to age groups

The population of the study area of 13,864 in habitants to17, 776 in habitants between 2005and 2014, while the district of Buea went131325-168378 in habitants during the same period.

Table 3 : Distribution of the population	n of the area Molyko age tranches in 2005
--	---

Age bracket		[3-										60 et	
_	0-2	4[[	[6-4[[	15-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	plus	Total
Population													
Molykoin													
2005	709	544	1675	7030	1622	692	475	323	258	176	107	253	13864
Pourcentage	5,1%	3,9%	12,1%	50,7%	11,7%	5,0%	3,4%	2,3%	1,9%	1,3%	0,8%	1,8%	100,0%
% cumulé	5,1%	9,0%	21,1%	71,8%	83,5%	88,5%	91,9%	94,3%	96,1%	97,4%	98,2%	100,0%	

The following histogram shows that over half (50.7%) of the populationin 2005 Molyko consisted mainly of young people aged15-20years and72.4% are aged between15 and29 years. This is for the most part students and students from all regions of Cameroon to continue their education in existing courses at the University of Buea.





#### Source: investigation of Le COMPETING BET /BEFA

The structure of the population by broad age groups obtained from the RGPH2005 reveals that in 2005, more than half (83.5%) of the population was under 30 years. By contrast, only 8.1% of the population of Molyko over 40years. The proportion of older (over 55years) is 2.6%.

#### IV.2- URBANSOCIAL DEVELOPMENT

#### IV.2.1-Marital status

Overall 28.9% of heads of households living in the locality of Molyko were born in the locality of Molyko and71.1% come from else where. The population from else where moved between 1990 and2014. However half of household heads arrived in the City until 1997 and before 2007<sup>3</sup>/<sub>4</sub>.

Note that55.7% of household heads is married at the registry office. Of these94.4% opted for monogamous and 5.6% of households have chosen the polygamous regime. The greater part of these household heads live individual homes(56.4%), bands constructions(19.5%, the semi detached houses (10.7%) and multi-storey buildings. In addition, therate of celibacy36.9% is very high, but normal in an area that is home to the University of Buea, populated mostly by students. Households are relatively stable, with a divorce rate of 0.7%.

Marital status	Traditional House	Villas	Semi- detached houses	Construction tape	Floorbuildings	Total
Single	0,7%	17,4%	2,0%	12,1%	4,7%	36,9%
Married	1,3%	35,6%	7,4%	7,4%	4,0%	55,7%
Divorced	0	0,7%	0	0	0	0,7%
Widow/Widower	0,7%	2,7%	1,3%	0	1,3%	6,0%
other	0	0	0	0	0,7%	0,7%
Total	2,7%	56,4%	10,7%	19,5%	10,7%	100,0%

#### Table 4 : Marital status of head of household depending on the nature of the main habitat

Source: investigation of Le COMPETING-BET/BEFA CONSULTING 2014



## Graphic 4 : Marital statusof head of household

Source: investigation of Le COMPETING-BET/BEFA CONSULTING 2014

## IV.2.2-Réligion of heads of households

The dominant religion of the heads of households of Molyko is the Catholic religion over41.6% followed by the Protestant religion (30.9%) also other Christian religion, Adventists and Islam are practiced respectively15, 4%, 7.4% and 2% of the population. Traditional religions, animistsand households without religion carry out their activities but are very poorly represented. Most of these leaders of Catholic households live in detached houses (26.2%) and tape constructions (6%).

Religionof household head	Traditional House	Villas	Semi- detache d houses	Constructiontape	Floorbuildings	Total
Catholic	0,7%	26,2%	2,7%	6,0%	6,0%	41,6%
Protestant	1,3%	18,8%	2,7%	6,7%	1,3%	30,9%
Adventist		2,7%	3,4%	1,3%		7,4%
Other Christian	0,7%	6,0%	1,3%	4,0%	3,4%	15,4%
Muslim	0	0,7%	0,7%	0,7%	0	2,0%
Without religion	0	1,3%	0	0,7%	0	2,0%
Other	0	0,7%	0	0	0	,07%
Total	2,7%	56,4%	10,7%	19,5%	10,7%	100,0%

Table 5 : Distribution of household heads according to their religion and the nature	of the
main habitat	

Source: investigation of LECOMPETING-BET/BEFA CONSULTING 2014



Graphic 5 : Distribution of household heads according to their religion

Source: investigation of LECOMPETING-BET/BEFA CONSULTING 2014

# IV.2.3-Household size

The average size is around 5 people per household in the Molyko area. The dispersion of this size around the average is 3 persons as households with a maximum of 15persons per household in some localities. Note, however, that meeting the one hand, less than 2 in 25% of households, less than 6 people in 75% of households, and the other half of the households consists of more than 4 people. Only 5.4% of households have more than 10 people.

Table 6 : Household size depending on the nature of the main habitat

HOUSEHOLDS IZE	Traditional House	Villas	Semi- detached houses	Constructiont ape	Floorbuildi ngs	Total
[1 - 5 [	1,3%	29,5%	3,4%	14,8%	6,0%	55,0%
[5 - 10 [	1,3%	23,5%	6,7%	4,7%	3,4%	39,6%
[10 - 15 [	0	3,4%	0	0	1,3%	4,7%
Most of 15	0	0	0,7%	0	0	0,7%
Total	2,7%	56,4%	10,7%	19,5%	10,7%	100,0%

Source: investigation of COMPETING-BET/BEFA CONSULTING 2014



Graphic 6 : Household size (in %) by the slices

Source: investigation of COMPETING-BET/BEFA CONSULTING 2014

## IV.2.4-Educational attainment of household heads

The level of education of household heads is good enoug, because more than half (53.7%) of them have a higher education level. More over, the percentage of household heads who received no formal education is 2.7%. Nearly 96.6% of heads of households have at least the level of primary school and 36.2% the level of secondary education (technical or general).

The household head are males in most households only 62.4% against 37.6% for women. Statistical analysis following contingency table shows that the level of education of household heads is strongly linked to sex. Ie from the sex of a head of household of Molyko City, one can guess his education with a 5% risk of being wrong and the mere fact of being female may predispose to a level of Training lower compared to men. Indeed, the higher the education level, the lower the heads of households headed by women are represented. Thus at the secondary and higher education are not met respectively 12.8% and 21.54% women against 23.5% and 32.8% men.

Education level	SEXHOUSI		
Education level	male	Female	Total
withoutlevel	1,3%	1,3%	2,7%
Primary school	4,7%	2,0%	6,7%
General secondary education	13,4%	10,1%	23,5%
Technical secondary education	10,1%	2,7%	12,8%
Higher Education	32,2%	21,5%	53,7%
Other	0,7%	0	0,7%
Total	62,4%	37,6%	100,0%

Source: investigation of COMPETING BET/BEFA 2014



#### Source: investigation of Le COMPETING BET/BEFA 2014

20,0%

30,0%

40,0%

50,0%

60,0%

10,0%

,0%

#### IV.2.5-<u>Industry sector</u>

Heads of families that are employees of private / semi-public sector dominate with a share of 26.8%, followed respectively of students / pupils (21.5%), shopping (12.1%), agents State (12.1%), farmers (6.7%), and other technician jobs / housekeeper (2%). The unemployment rate is 14.1% among household heads from the town of Molyko.

Analysis following contingency table between gender of household head and industry for the proposition at 5% risk that these two variables are significantly related. In other words, depending on whether the household head is a man or a woman in the Town of Molyko, we can guess it industry. Crafts, livestock and fishing are practiced primarily by men. In addition farmers are mostly men.

SEXHOU			
male	Male	TOTAL	
9,4%	2,7%	12,1%	
19,5%	7,4%	26,8%	
4,0%	2,7%	6,7%	
4,0%		4,0%	
8,1%	4,0%	12,1%	
0,7%	0	0,7%	
10,7%	10,7%	21,5%	
4,0%	10,1%	14,1%	
2,0%	0	2,0%	
62,4%	37,6%	100,0%	
	SEXHOU           male           9,4%           19,5%           4,0%           4,0%           0,7%           10,7%           4,0%           2,0%           62,4%	SEXHOUSEHOLDHEADmaleMale9,4%2,7%19,5%7,4%4,0%2,7%4,0%2,7%0%00,7%010,7%10,7%4,0%10,1%2,0%062,4%37,6%	

Table 8	:	Industryof	household	headsex
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Source investigation of Le COMPETING BET/BEFA CONSULTING 2014



Graphic 8 : The head of householdIndustry

#### Source: investigation of Le COMPETING BET/BEFA CONSULTING 2014

# IV.2.6-Monthly household income

Despite the economic potentialities that abound the area Molyko, the economic fabric is characterized by the development of informal activities, the proliferation of small jobs with the main corollary distribution of low-income inhabitants. Indeed, 65.1% of heads of households earning less than 100,000 CFA francs per month and about 38.9% of heads of households earning less than 50,000 CFA francs. Only 12.1% of heads of households have a monthly income 150 000FCFA without exceeding 200,000 CFA francs

This denotes a very low standard of living and thus exposes the people of the locality at room Molyko poverty. Therefore governments must adopt an effective strategy to fight against this social evil to improve the welfare of the population

Furthermore, the analysis of the following contingency table between gender of household head and income for the proLUPition at 5% risk that these two variables are significantly related. In other words, depending on whether the household head is a man or a woman in the Molyko area, we can predict the level of his salary (low or high). On 12.1% of household heads with more than 150,000 FCFA monthly income, only 2.7% are women, while men account for 9.4%. No head of household has an income above 200,000 CFA francs.

Monthly incomeof the household head	male	female	Total
lessthan 50 000	21,5%	17,4%	38,9%
50000 - 100000	16,1%	10,1%	26,2%
100000 - 150000	15,4%	7,4%	22,8%
150000 - 200000	9,4%	2,7%	12,1%
Total	62,4%	37,6%	100,0%

Source: investigation of LE COMPETING-BET/BEFA CONSULTING 2014



Graphic 9 : Monthly income of household heads by sex

Source:investigation of LE COMPETING-BET/BEFA CONSULTING 2014

#### IV.2.7-Prioritization of expenditure

The income of households beings very limited, they must prioritize theirmonthly expenses or order to adjust them to income. The first priority in spending varies households and is summarized in the following table, where 65.1% of households feel that it is is nutrition, 10.7% monthly rent, 6.7% children's education, while 3.4% think first of water, electricity 3.4% and 2% for transport. Expenses related to the repayment of dept, leisure and holidays, to improve habitat occupy only remaining place in the first prioritization of the structure of household expenditure.

Furthermore, the results of our survey shows the area Molyko, spending on nutrition occupy the first position, second position the health, transport 3rd poition, electricity 4th position and helps family 5th position.

Priority order	Source of householdexpenditure	male	female	Total
1	Nutrition	37,6%	27,5%	65,1%
2	Health	15,4%	13,4%	28,9%
3	Transport	10,1%	9,4%	19,5%
4	Electricity	10,1%	8,7%	18,8%
5	family assistance	6,7%	4,0%	10,7%

#### Table 10 : Five main sources of the most common household expenditure by sex

Source:investigation of LE COMPETING-BET/BEFA CONSULTING 2014

Furthermore, analysis contingency table between priority monthly expenses of the household head and sex for the proposition at5% risk that these two variables are independent. In other words, the prioritization of expenditures listed above is independent of sex and therefore valid for both women household heads as the heads of households men.

The largesthousehold expenditure	male	female	Total
Food	37,6%	27,5%	65,1%
Health	0,7%	1,3%	2,0%
Transport	1,3%	0,7%	2,0%
Education of children	3,4%	3,4%	6,7%
Family assistance	2,7%		2,7%
Rent payment	8,7%	2,0%	10,7%
Repayment of debts	0,7%		0,7%
leisureandparts		0,7%	0,7%
Drinking water	3,4%		3,4%
electricity	2,0%	1,3%	3,4%
householdmaterial	1,3%		1,3%
Home improvement	0,7%	0,7%	1,3%
Total	62,4%	37,6%	100,0%

#### Table 11 : The largest expenditure of households by sex

Source:investigation of LE COMPETING-BET/BEFA CONSULTING 2014



Graphic 10 : Dépense la plus importante selon les ménages

Source:investigation of LE COMPETING-BET/BEFA CONSULTING 2014

## IV.2.8-Prioritization of public facilities

Regarding public facilities nearby a cross the Molyko area, the first public equipment near desired by households is presented in the following table where71.8% prefer the hydrant, the 6.7% clinic, primary school6%, 5.4% the market, 2.7% mosque or other place of worship and 2% for the sports field.

On the one hand about 85.9% of households are willing to help the government to achieve these infrastructures either by a financial contribution (23%) or their own work (77%).

The results of our survey shows for Molyko area, public facilities near by such as fountains occupy the first position, clinics  $2^{nd}$  position, markets the  $3^{rd}$  position, the cultural centers in 4th Position, and toilets public 5th position.

Priority order	Prioritynearbypublicfacilitieshousehold	male	female	Total
1	fountainterminals	47,0%	24,8%	71,8%
2	Health Center	16,8%	12,8%	29,5%
3	market	11,4%	10,1%	21,5%
4	cultural centers	11,4%	6,7%	18,1%
5	Public toilets	8,7%	5,4%	14,1%

#### Table 12 : Five major public facilities near by gender of household head

Source: investigation of LE COMPETING-BET/BEFA CONSULTING 2014

Furthermore, the analysis of the following contingency table between the prioritization of five major public facilities and gender of household head for the proposition at 5% risk that these two variables are independent. In other words, the prioritization of five major public facilities listed above (standpipe, clinic, market, sports field) is independent of sex, and therefore valid for both women household heads as the head of house holds men.

 Table 13 : Initial public equipment near desired by gender of household head

Priority near by public facilities household	MALE	FEMALE	Total
Borne fontaine	47,0%	24,8%	71,8%
Elementary School	2,0%	4,0%	6,0%
Health Center	4,7%	2,0%	6,7%
Market	2,0%	3,4%	5,4%
Sport field	0,7%	1,3%	2,0%
cultural centers	0,7%		0,7%
Public toilets	2,0%	0,7%	2,7%
Other	1,4%	0,7%	1,3%
mosque/worship centre	2,0%	0,7%	2,7%
Total	62,4%	37,6%	100,0%

Source: investigation of LE COMPETING-BET/BEFA CONSULTING 2014



Graphic 11 : Initial public equipment near desired by the household

Source:investigation, of LE COMPETING-BET/BEFA CONSULTING 2014

#### IV.3- PROJECTIONS OF THE POPULATION

According to the third general census of population and housing conducted in November 2005 the annual growth rate at the national level is 2.8%. Therefore, our studies are based on projections of the population by three cases (2.8%, 4.5% and 6%):

By applying these growth rates to the estimated population of Molyko according RGPH 2005 (13 864 inhabitants), we deduce a population of 17,776 inhabitants. in 2014, in the low hypothesis.

However, if the estimate of the total population based on 2.8% growth rate is normally accepted, the systematic application of the same rate to estimate populations Molyko 2014, 2019, 2024 and 2029 may not translate a real situation to date, given that the factors which gave only the rate of increase of yesterday are not necessarily those of today and certainly will not be those of tomorrow which will probably be situated around the national average cities in Cameroon, 2.8% to 6%. Thus estimates of 2014-2029, took into account the three cases studied. Applying the formula Pn = P0 (1 + t) <sup>n</sup>, where P<sub>0</sub> is the base year, the population Pn current year, n is the number of years between the year (2005) and year current and it is the growth rate of the population.
Year	2005	2014	2019	2024	2029
Low					
hypothesis(2,8%)					
	13 864	17 776	20 408	23 429	26 898
Medium					
variant(4.5%)					
	13 864	20 603	25 675	31 996	39 873
High case(6%)					
	13 864	23 423	31 345	41 947	56 134

Table 14 : Estimated	l population	of Molyko under	• the assumptions of	of study
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Source: RGPH2005/estimation of LE COMPETING BET /BEFA

Under the assumption of a growthrate of 6%, the population of Molyko will evaluate to 31,345 in 5 years and 56,134 in 15 years. It is therefore necessary to plan adequate socioeconomic infrastructure for this population.

# **V-THE CREATE SITE**

## V.1- <u>LAND</u>

## V.1.1- Legal status of land

Our field investigations and the relevant administrative services namely services of MINDCAF, it appears that Molyko covers an area of about 594 hectares distributed between the private property of the state, the municipal area, the public domain, private property individual and the national domain.

## V.1.1.1- <u>Private domain of the State</u>

a) Field parcel out

These plots of private property of the State which is the subject of a subdivision plan. They are as follows:

<b>Table 15 :</b>	Private do	omain of the	e State	having a	subdivision	plan:
						T

Subdivision Designation	Location	Approximate Area (ha)	Observation
University of Buéa	Molyko	120	Graphic area
Biomedicale Faculty	Molyko		Graphic area

Source : investigation Of LE COMPETING/BEFA 2014.

## b) Undeveloped domain of the State

These are the sites hosting certain administrative and ancillary services, public primary and nursery schools, colleges and general high schools. Details are given in the table below.

 Table 16 : Undeveloped property of the State

Designation	Location	Observation
Nursery and Primary School Molyko	Molyko	Occupied
Bilingual High School	Molyko	Occupied
Integrated health center	Molyko	Occupied

Source : Based on our field observations

### c) private estate of the Commune

it includes cemeteries, markets, slaughter houses, the tribune, play grounds, and libraries. Details are given in the tablebelow:

Table 17 : <u>Private property of the Commune</u>.

Designation	location	Statut	Observation
			Located roadside,
Main market	Molyko	-	built in temporary
			materials
			Includeding the
Stade Omnisports	Molyko	-	subdivision of the
			Town Hall
Fruits market	Moluko	Whithout plan and	Located roadside,
	мотуко	TF	unbuilt

Source : Investigation of Le Competing2014

## **Public Domain**

These are the foot prints of rivers, lakes, roads.

## Private domain of individuals

These are fields which have a title deed (official certification of property) in favor of natural or legal persons.

### V.1.2- The land practices

At Buea in Cameroon as else where, there are two types of law on land. The civil law that it is only the competent administrative authority to grant land titles, and customary law that allows indigenous to grant the soil and become legitimate owners. Therefore, it is clear the different trends of land acquisition which prevail in the city of Buea. This trend also applies in other words in Molyko. Part of the population bends the laws to ensure a certain reliability and legality of their property following the standards for obtaining 'land and its registration. But this procedure is often filled with obstacles due to administrative delays, corruption and sometimes the lack of sufficient financial means. It is for these reasons that many people are turning to customary or private owners who in turn exert the law at will by practicing bidding in the sale of more land as much as Molyko area is an attractive area both educationally with the presence of many institutions including the University of Buea and commercial still in the process of making land acquisition difficult especially for an individual .This out buildding phenomen on does not stop only owners who benefit from the customary law but also to a fringe of the wealthy population acquiring large areas of land (in terms of hectares) retain them without any form of investment to sell to the highest bidder at the price they themselves have defined. This situation means that much of the population is forced to turn the legal framework, and is found to be built in risk areas such as the banks of rivers and allowances public roads.

Statistical analysis following contingency table between acquisition processes and areas of the parcels shows that 5% risk of the two variables are independent. In other words, the importance of the area of household plots is independent methods for acquiring assets in the locality. Indeed, the acquisition by gifts / inheritances, direct purchase or through relatives / friends concern almost all categories of land (less than 500 m2, more than 1500 m2).

<b>D</b> rocossof occurringo					
parcel	Lessthan500	500 - 1000	1000 - 1500	Plus de 1500	Total
heritage	2,4%	9,5%		2,4%	14,3%
Parents /relationship /friends	2,4%	2,4%	2,4%	2,4%	9,5%
Directsale	26,2%	38,1%	11,9%		76,2%
Total	31,0%	50,0%	14,3%	4,8%	100,0%

Table 18 : Acquisition processes and plot size

Source : investigation of Le Competing/BEFA2014

Direct purchase is usually from private owners (76.2%) of the gift/inheritance (14.3%), kinships/relationships/friends (9.5%).

Direct purchase is usually made from private owners (55.6%), the head of district /owner/State (29.6%) It is clear from this analysis that the State should play a regulatory role in the distribution plot is almost non existing, indirectly intervening directly in less than 30% sold plots. Thus the majority of sold plots is made by private owners.

### Area and land uses

The majority of households (89.3%) in the area Molyko have plots reserved exclusively for housing for their families. Apart from the 4% of households engaged inrelated activities on their land, the predominant activities on plots are agriculture or live stock (2.7%), trade (1.3%) and handicrafts (2.7%). The majority of households (64.4%) have small plots of less than500 m2 to devotepriority habitating thesmall garden andsmall livestockand trade.

HousingSizo	PLOTAREA					
Main	Less than 500	500 - 1000	1000 - 1500	More than 1500	Total	
1	13.4%	8.7%	1.3%	0	23.5%	
2	26,2%	6,0%	2,7%	1,3%	36,2%	
3	10,7%	3,4%	0	0	14,1%	
4	4,0%	2,7%	0,7%	0	7,4%	
5	3,4%	2,0%	0	0,7%	6,0%	
6	2,7%	2,7%	0	0	5,4%	
7	1,3%	1,3%	0	0	2,7%	
8	0,7%	0	0	0	0,7%	
9	0,7%	0,7%	0	0	1,3%	
More than 10	1,3%	0	1,3%	0	2,7%	
Total	64,4%	27,5%	6,0%	2,0%	100,0%	

#### Table 19 : Size and housing and landplots

Source : investigation of Le Competing/BEFA2014



#### Graphic 12 : Distribution of plots in area

Source : investigations of Le Competing/BEFA2014

MINHUD JANUARY 2016 Statistical analysis following contingency table between the use of land by the heads of households and Area plots shows that5% risk of both variables were significantly related. In other words, the importance of the area of parcels household depends on what they will do.The small parcels (less than 500m2) is generally intended for housing or commerce, and large plots (over 1500 m2) for housing and agriculture / live stock

				Agriculture	Combination	
PrincipalHousingSize				/ Animal	of all these	
	house only	crafts	Trade	Husbandry	uses	Total
1	18,8%	0,7%	0	1,3%	2,7%	23,5%
2	32,2%	1,3%	1,3%	0	1,3%	36,2%
3	13,4%	0,7%	0	0	0	14,1%
4	6,7%	0	0	0,7%	0	7,4%
5	5,4%	0	0	0,7%	0	6,0%
6	5,4%	0	0	0	0	5,4%
7	2,7%	0	0	0	0	2,7%
8	0,7%	0	0	0	0	0,7%
9	1,3%	0	0	0	0	1,3%
More than 10	2,7%	0	0	0	0	2,7%
Total	89,3%	2,7%	1,3%	2,7%	4,0%	100,0%

Table 20	Size	of housing	and	nlot	utilization
1 abic 20		or nousing	anu	pior	utilization

Source : investigation of Le Competing/BEFA2014

Nearly28.2% of heads of house holds in the area Molyko own their housing.Of these19.5% were owners of their land title while 8.7% do not. The majority of household heads are operating leases (67.1%), while 3.4% are housed by relatives /friends and 0.7% housed by their employers.The rental system sale is not widely used in this area

Table 21 : Size of housing and o	occupancy statut of the plot
----------------------------------	------------------------------

Principal Housing Size	Owners without land title	Owners with land title	Tenant	Housed by their employer	Housed by relatives	other	Total
1	1,3%	2,7%	17,4%	0,7%	1,3%	0	23,5%
2	4,0%	4,7%	26,8%	0	0,7%	0	36,2%
3	0	0	13,4%	0	0,7%	0	14,1%
4	0,7%	3,4%	2,7%	0	0,7%	0	7,4%
5	1,3%	1,3%	3,4%	0	0	0	6,0%
6	0,7%	2,7%	2,0%	0	0	0	5,4%
7	0	2,7%	0	0	0	0	2,7%
8	0	0,7%	0	0	0	0	0,7%
9	0,7%	0	0,7%	0	0	0	1,3%
More than 10	0	1,3%	0,7%	0	0	0,7%	2,7%
Total	8,7%	19,5%	67,1%	0,7%	3,4%	0,7%	100,0%

Source : enquêtes Le Competing/BEFA2014

## V.2- CHARACTERISTICS OF HOUSING

The habitatin general is aliving space that includes homes, public facilities (markets, health centers, schools, public services, public buildings etc ...), infrastructure (roads, public fountains, public gardens, recreation areas, play grounds, public squares and monuments etc ...) and networks (sanitation, water electricity, etc ...).

## V.2.1- Organization of space Molyko

Analysis of satellite images and various field trips have helped to highlight the spatial organization prevailing in Molyko. It is:

- The university area;
- The residential area;
- ✤ The activity area;
- Risk areas;
- The agricultural zone;
- ✤ Urban voids;
- The influence of the road.

## V.2.1.1-<u>The university area</u>

In view satellite images, much of Molyko sector is occupied by the University of Buea.University that welcomes students from all backgrounds through out the national triangle and the Central African subregion.

## V.2.1.2-<u>The residential area</u>

The presence of the University in the area Molyko contributes greatly to making this area a residential area; with the resurgence of cities minisover the whole of this space to accommodate students who are more and more numerous

## V.2.1.3- <u>Area activities</u>

One of the particularities of this area is that the activities are much more along the road from the fruit market, through Malingo Street to the stadium hall.There are shops, banks, vendors etc ...The activities will range from formal sector activities and informel.Certaines pockets of activity are feltin neighborhoods and serve local markets for environants inhabitants (see Photo1).

#### V.2.1.4- <u>Risk areas</u>

Arisk area is an area where the construction and installation of populations is a potential source of danger and nuisances. It is:

- The surrounding water ways;
- The area around the drains.

## V.2.1.5- <u>The agricultural zone</u>

In the study area, there is no real agricultural area.Forall cultivated plots that are visible to all actually are private properties that are not highlighted by a frame

(cf.Photo2).

## V.2.1.6- <u>Urbanvoids</u>

Urban voids are spaces left free without any form of investment in urban space and form what we call urbanization breaks where urban holes.Regarding Molyko, it has within it many break suburbanization which vary in shapeand size. In order to represent this phenomen on that comes as an oil job in an environment that wants to fully urban,we counted some representative urban voids.It is:

- The urban void located just behind the small market share of fruits and sides of the road down to Mile17;
- **4** The urban void located near the Biomedical School;
- **4** The urban void behind the SEMIL;
- **4** The urban void located near the Main market.

## V.2.1.7-<u>The right of way of roads</u>

In the area of Molyko, the roads are existing and noticeable. They varying size and shape depending on the area. There are primary roads, secondary and tertiary. The roads will have a gripranging from 30 to5 m. Tertiary roads are conspicuous by their lack of maintenance and ndeteriorated appearance and are some times encroached upon by buildings and activities.

#### V.2.2- Evolutionary trend of our study area

Regarding the evolutionary trend of the area Molyko, we must now count on the fact that with the presence of the university in this area, it attracts many students. This student flows leads the construction of mini cities that will be used for housing for newcomers. Faced with this situation, we are witnessing what could judge the gold rush that is nothing more than a plot. These plots are more accessible to all segments of the population saw the exorbitant price it would cost for the average Cameroonian. This trend comes with its good and bad sides. Because it allows that all areas are serviced quickly acquired and invested; this will allow the urbanization of this area follow a fairly logical pattern. The negative effects are not left behind. Because this trend brings a lot of problems. The less fortunate people who are looking to acquire land are spaces in risk zones and non-building areas at risk to their lives and their health. Some even manage to buy land in areas where they are by no delivary road worthy of the name. Hence the problem of garish pathways that prevails in much of the study area. Faced with all this, if measures are not taken by authorities to control this development, things will risk going from bad to worse in this area and add a red dot on a city that already suffers enough effects promiscuity.

#### V.2.3- The urban fabric

We can be hear by the urban fabric, all the urban settingofelements that make upa homogeneous whole. In other words, it is the physical expression of urban form, the face that presents an agglomeration in terms of occupation of urban land. The urban fabriccan also be seen as the visual form characteristic of a city that allows establishing differences by type of occupation and organization of space. The approachis to observe the aerial photographsallowed a definition of urban patternsinour study areadepending on the density and form of land use. As indicated in the approach taken for the implementation of our investigations, the study area was divided into enumeration area. Each enumeration area is an urban fabric (hybridfabric, loose).

## *V.2.3.1- <u>Hybrid Fabric</u>* <u>« A » enumeration area</u>

This fabric is the enumeration area "A" which starts near the "hardware Nguépi" to "Malingo junction" on the left, then the road to "A1 Hotel Complex" still on the left, crosses a small culvert and still runs along the left side of the university. Along the main axis, we have a succession of shops of all kinds, and along the road that leads to "A1 Hotel Complex". Behind these shops, we find homes that have a depth of about 450 m to the river that separates the university. This area includes three types of tissue from which its hybrid nature. The first fabric is precarious and is the residential area behind the shops. This residential area is divided into two blocks from the presence of the main entrance of the University. From the entrance to the University the right through "Malingo junction" to "A1 Hotel Complex" is an area occupied mostly by students dwellings including variations between thick and feet R + 1, R + 2 and R + 3 that sometimes dominate (see Photo 4), the access roads are winding and sometimes are occupied by small shops and even the buildings (see Photo 3). The houses are glued to each other without any respect for standards of easements. Inadequate access roads does not allow emergency teams (firemen, ambulances) to access it easily; likewise, it faces many problems in supply of drinking water and garbage collection.

On the left side of the main entrance of the University to the "fruit market", the situation is similar to the other block shown above. Densities are very high; we see even a mix between modern and precarious frames that vary between thick feet and R + 1; R + 2; R + 3 (see Photo 5). Access roads are inadequate, and those that exist are impassable because of their poor condition (Cf.Photo 6).

The second fabric prevailing in that zone A is a structured fabric represented here by the University of Buea, a subdivided area with large paved access routes.

The third fabric in this area is a loose fabric that matches the area from the "Mission Sisters of the Holy Cross" to the limit North from our study area. The frames arranged therein a dispersed manner; can still find plenty of space and a vast untapped swamp area which according to our observations is inconstructible area for its purely natural. The existing access roads are in poor condition but due to lack of maintenance.

## "B" Enumeration area

The enumeration area "B" is the area from the laundry which is the rise of the main axis that runs from Mile 17 on the right side through "Malingo Junction" and right on the road on national . This area is limited to the opposite side to SEMIL. Along the axis that surrounds the area B, the borders are occupied by businesses as in the counting zone A to the entrance of the school primary and nursery. After this first line, there is a first layer of dwellings considered precarious fabric, arranged in disorder and bushy in small spaces or it there's no dessert routes. In this area the access roads are represented by small paths that serve several houses (see photos 7).

This type of precarious fabric extends to a depth of about 200m; just after this layer we find ourselves in an area where the fabric is loose. This is the area that includes the biomedical school and the area in front of SEMIL behind "the hotel Chariot". In the latter, the frame is not dense, can still find plenty of untapped areas in the frame or are practiced agriculture (see Photo 8). The frame is represented mostly by real estate R + 1 to R + 4 (see Photo 9), there are very few houses in ground floor, and serves routes are very few existing well maintained.

#### "C" Enumeration Area

The enumeration area C extends the "SEMIL" through "Malingo Junction" always on the right side at the crossroads of Omnisports stadium even the right to "Buea Main Market". This area includes two tissues in it. As the other areas, most of the edges of the roads around them are occupied by the shops. It's behind those shops that can be found on the first tissue that is precarious and extends to a depth of about 600m. The separation between the area of precarious fabric and the area loosely structured tissue (can still find plenty of green spaces and homes are certainly separated from each other but aligned along the road see photo 10) is made by a main road behind the SEMIL RALIE at the crossroads of StadeOmnisports.

#### "E" enumeration area

The enumeration area is the "E"Malingo junction area on the left side of the main axis passing through the intersection of sports stage to the entrance of Achas University. In this area two fabrics cotoient; it is structured tissue that runs from the Catholic University at the entrance to Achas University with a depth of about 300 m. In this area the window frames are aligned and comply with planning rules in terms of easements. Access roads are existing, pratiquables and serve all the homes that are in the area. Just after this area covers a large area with a fragile tissue that runs from the "Baptist church" to "St Peter and Paul Church." This is the most vulnerable area of our entire study area, there are many houses made of temporary materials (Photos 11 and 12) populations are built on the edge of the stream that runs through the area; dessert lanes are insufficient and poorly maintaint.

#### V.2.3.2- <u>The loosefabric</u>

The loose fabricis represented in the enumeration area"D." Inthis zone, which includes the regional delegation of MINRESI the Omnisports stadium, nursery and primary school Molyko and the Lycée Bilingue, commercial activities are performed out side the Omnisports stadium with vendors. The stadium, the DR /MINRESIBilingu alHigh School and occupy very large spaces in this area. The frame dispersed on either side of this zone, the pathways are still preliminary; the people of this area suffer from supply problems with drinking water and electrification.

#### V.2.4- Typology of buildings

Approximately 2% of households in the dwellings of Molyko area are built on areas at risk (in are standing habitats (62.4%), followed evolutionaryhabitats(19.5%) and seniorstandings(8.1%). Precarioushabitat and high standing inhabitats representing 5.4% and 4.7%.

	S06Q3housingClassification					Total
	Very High standard	High standard	luxurymeans	Grow Home	houseprec arious	
OwnerUntitled	0,7%	1,3%	6,0%	0,7%	0	8,7%
Ownerwith title	1,3%	3,4%	12,1%	2,7%	0	19,5%
Singletenant	2,0%	2,7%	42,3%	15,4%	4,7%	67,1%
Accommodated by the employer	0	0	0,7%	0	0	0,7%
Housedby relatives/friends	0,7%	0	1,3%	0,7%	0,7%	3,4%
Other	0	0,7%	0	0	0	0,7%
Total	4,7%	8,1%	62,4%	19,5%	5,4%	100,0%

Table 22 : Construction area and housing constr	ruction material in the concession
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Source : Enquête du COMPETING-BET/BEFA CONSULTING 2014

Graphic 13 : Habitat classification



Source: investigation of LE COMPETING-BET/BEFA CONSULTING 2014

## V.2.4.1- <u>Access to housingsector</u>

More than half (40.2%) of heads of households in the area Molyko own their housing. However the acquisition mode varies among households: 31.9% of owners have received their land by inheritance or by gift, 58.6% through direct purchase, and 8.9% through friends, relations and kinships.

	Lot area					
Access to housingsector	Less than 500	500 - 1000	1000 - 1500	TOTAL		
Neighborhood chief	0	3,7%	0	3,7%		
Otherprivateowner	14,8%	29,6%	11,1%	55,6%		
Districtchief andstate	0	7,4%	3,7%	11,1%		
Districtmanager, owner and status	7,4%	18,5%	3,7%	29,6%		
TOTAL	22,2%	59,3%	18,5%	100,0%		

#### Table 23 : Access to housing sector

Source:Investigation of Le COMPETING BET/BEFA CONSULTING 2014





#### Source: Investigation of Le COMPETING BET/BEFA CONSULTING 2014

#### V.2.4.2- Status Tenure

The results of the field survey shows that over half (67.1%) of households in the City of Molyko simple tenants.Bycons, 28.2% of heads of households, own their housing.Of these, only19.5% of heads of households have a land title while8.7% are home owners with outland title. The rental system sales, household hosting a parent/friend is still embryonic, representing only 4.1% of wellings occupied by households.

#### Table 24 : Status Tenure

STATUT TENURE	MALE	FEMALE	TOTAL
Owner Untitled	6,0%	2,7%	8,7%
Owner With Title	12,1%	7,4%	19,5%
Single Tenant	41,6%	25,5%	67,1%
Stay By The Employer	0,7%		0,7%
Stay By AParent/ Friend	1,3%	2,0%	3,4%
Others	0,7%	0	0,7%
Total	62,4%	37,6%	100,0%

Source : Investigation Le COMPETING BET/BEFA CONSULTING 2014



Graphic 15 : Occupancy statuts by sex housing

Source : Investigation Le COMPETING BET/BEFA CONSULTING 2014

## V.2.4.3- Housing construction materials

### \* Materials of construction of the walls

The walls of 82.6% of dwellings inhabited by households are made of concrete blocks cement / stone. Local materials are used by more than 16.8% of the population of Molyko. In fact 1.3% of walls are stabilized earth bricks, clay 1.3% and 12.8% wood / plank. The recovered material is not too popular in the City of Molyko to build ripe.

However, it should raise awareness that still it uses the temporary material like boards and the material recovered very sensitive to the weather, to converge towards sustainable and modern materials.

Detached houses predominate in the main habitat in the Town of Molyko, as they are encountered in nearly 56.4% of households. They are followed by constructions bands, semi-detached houses and multi buildings with 19.5% respectively; 10.7% and 10.7%. Traditional boxes are not very common in Molyko and represent only 2.7% of homes.

	Nature of the main habitat					
Naturewalls	traditional House	Individual house	Twin house	Constructiontape	Storeybuilding	Total
Concrete blocks	2,0%	49,7%	8,7%	12,1%	10,1%	82,6%
Stabilizedmud bricks	0	1,3%	0	0	0	1,3%
Clay		0,7%	0	0	0,7%	1,3%
board	0,7%	3,4%	1,3%	7,4%	0	12,8%
straw/tchatch	0	0,7%	0,7%	0	0	1,3%
sheet metal	0	0,7%	0	0	0	0,7%
Total	2,7%	56,4%	10,7%	19,5%	10,7%	100,0%

Table 25 : Construction materialof walls and nature of the main habitat

Source:Investigation of LE COMPETING-BET/BEFA CONSULTING 2014

#### \* Nature of soil

The soil of 56.4% of dwellings inhabited by households is made of graycement, followed respectively natural floors/sand (20.8%), tiles (20.1%).). Materials suchas Gerflex/ carpet, marble are used only very marginally by some households.

On the otherhand, the analysisfollowing contingency table between the nature of the main habitatands oil type of housing for the position at 5% risk that these two variables are independent. In other words, the soil building material does not affect the nature of the main habitat. Indeed, the graycements creedis the dominant material used for the floor and this independently of the nature of the main habitat.

Nature of soil	traditional House	Individual house	Twin house	Construction tape	Store building	Total
bare soil	0,7%	18,8%	0	0,7%	0,7%	20,8%
floor	0	2,0%	0,7%	0	0	2,7%
cement	1,3%	26,2%	8,1%	16,8%	4,0%	56,4%
Checked	0,7%	9,4%	2,0%	2,0%	6,0%	20,1%
Total	2,7%	56,4%	10,7%	19,5%	10,7%	100,0%

#### Table 26 : <u>Nature of soil</u>

Source : Investigation of Le Competing/BEFA2014

#### \* Roof material

Analysis following contingency table between the roof material and the characteristics of toilet enables the risk of 5% to say that these two variables are independent. In other words, depending on the roof of the mainhouse, one can not expect that the toilet has particular characteristics. Indeed, the aluminum sheet is the dominant material used for the roof of the toilet independently of this type.

#### Table 27 : Roof material and nature of the main habitat

Noture of roof	traditional	Individual	Twin	Constructiont	Storeyb	
Nature of 1001	House	house	house	ape	uilding	Total
concrete slabs	0	1,3%	2,0%	0,7%	4,0%	8,1%
sheet metal	2,7%	54,4%	7,4%	18,8%	6,7%	89,9%
straw	0	0	0,7%	0	0	0,7%
Tile	0	0,7%	0,7%	0	0	1,3%
Total	2,7%	56,4%	10,7%	19,5%	10,7%	100,0
Total						%

Source : investigations Le Competing/BEFA2014

#### Table 28 : Roof material and characteristic of WC

Characteristics	concrete	sheet			
ofWC	slabs	metal	Straw	Tile	Total
Inthe house	7,4%	53,7%	0,7%	1,3%	63,1%
withwater					
Out of the housewith	0,7%	8,7%	0	0	9,4%
water			0	0	
Out of the	0	27,5%	0	0	27,5%
housewithout water	0		0	0	
Total	8,1%	89,9%	0,7%	1,3%	100,0%
Source:Investigations of LE COM	IPETING-BET/BEF	FA CONSULTIN	G 2014		

The majority of roof material (89.9%) of the main dwelling inhabited by households remains the aluminum sheet in most homes, followed by the slab (8.1%). Other materials such as tile, vegetables traw are used in households, butinvery small proportions.

Furthermore, 63.1% of toilets are fitted flush inside the main housing and 9.4% have flush toilets outside the main housing, while 27.5% of toilets are outside hunting without water.



Graphic 16 : Roof material.

Source: investigations of LE COMPETING BET/BEFA CONSULTING 2014

## Taille de l'habitat principal

## \* main habitat Size

The size of distribution of housing in the Molyko zone varies between 1 and 25 rooms with an average of about 3 parts per household and a standard deviation of 2 pieces. Half dwelling household 3 rooms. Accommodation in 2 parts are frequently encountered in over 30% of households, followed by housing with 4 rooms in 14.1% of households. Housing less than 2 parts are found only in 25% of households. 75% of the main habitat of housing have less than 4 parts. This is explained by the fact

that household size varies between 1 and 15 people with an average of about 3 people and that 25% of households with more than 6 people.

Note that the one-piece housing that represent more than 12% are usually occupied rooms especially by students of the University of Buea.

HOUSING		NATURE C	OF MAIN H	IABITAT		
SIZE	traditional	Individual	Twin	Constructiont	Storeybu	Total
MAIN	House	house	house	ape	ilding	
1	1,6%	7,5%	0,7%	2,4%	0	12,2%
2	3,0%	16,9%	4,6%	4,4%	1,3%	30,1%
3	0,8%	7,2%	1,4%	1,6%	0,7%	11,7%
4	0,8%	9,6%	2,0%	1,5%	0,2%	14,1%
5	0,2%	7,0%	1,7%	0,9%	0,6%	10,4%
6	1,0%	7,2%	0,5%	0,2%	0,5%	9,4%
7	0	2,2%	0,3%	0,2%	0,3%	3,1%
8	0,1%	1,6%	0,7%	0,1%	0,2%	2,8%
9	0,1%	1,6%	0,1%	0	0,1%	2,0%
More than 10	0,6%	2,9%	0,6%	0,1%	0,1%	4,2%
Total	8,3%	63,7%	12,5%	11,5%	4,0%	100,0%

 Table 29 : Taille du logement principal

Source: investigation of LECOMPETING-BET/BEFA CONSULTING 2014



#### Graphic 17 : Size of the main habitat

Source : investigation of Le Competing/BEFA2014

MINHUD JANUARY 2016

#### \* Supply sources of drinking water

The drinking water supply source varies households: 6.7% draw water standpipes located outside of the plot,89.3% network CDE /CAMWATER within it plot. Bycons, other less affluent households are supplied either in undeveloped sources / wellscovered (0.7%) either inorjustinivers orcreeks (3.4%) and evening the other unmanaged sources (waterofrains). This substantial part of the population is constantly exposed to disease from dirty water. It would be desirable that the government with the support of development partners and the fight against poverty deployadequate means to supply the entire community with drinking water.

	Treatment of wate		
Drinkingwater supplysource	Treats the waterbefore consumption	Donot treatwaterbefore consumption	Total
Rivers orcreeks(3.4%)	2,0%	1,3%	3,4%
standpipeslocated outsidethe plot	2,7%	4,0%	6,7%
undevelopedsources/wellscovered	0	0,7%	0,7%
NetworkCDE /CAMWATER	13,4%	75,8%	89,3%
TOTAL	18,1%	81,9%	100,0%

Table 30 : Sources of drinking water.

Source: investigation of LE COMPETING-BET/BEFA CONSULTING 2014

To mitigate the possible diseases related to the consumption of unsafe drinking water, 17.1% of households shall process water before drinking. Statistical analysis shows that the appearance of water-related diseases (cholera, amoebiasis, malaria, diarrhea, typhoid fever) in households is significantly dependent on treatment or not water before consumption. In other words, households that do not treat water before consumption are more susceptible to these waterborne diseases. In fact 39.7% of households reported that waterborne diseases are fairly common in the locality. Of these, 6.5% said to have already had cases of cholera, amebiasis 8%, 77.6% malaria, 19.2% for diarrhea, typhoid 66.4%.

For households dealing with water and sourcing in unmanaged sources, frequency of treatment is once a month (84.6%) or once every three months to 15.4%.

	Treatment of water p		
Water-related disease	Treats the waterbefore consumption	Treats the waterbefore consumption	Treatment of water prior to consumption
Disease associated withfrequentwater	9,6%	30,1%	39,7%
Related diseaseinfrequentwater	7,5%	52,7%	60,3%
Total	17,1%	82,9%	100,0%

Source :investigation COMPETING-BET/BEFA CONSULTING 2014



#### Graphic 18 : supplydrinking watersource

Source:investigation of LE COMPETING-BET/BEFA CONSULTING 2014

## \* Access to electricity and soil type

Almost all (95.3%) of households have access to electricity and used as the main light source power from ENEO. As against 4.7% of households have no access to electricity and use other energy sources like the generator, the fire, the hurricane lamp, torches or candles.

It is therefore appropriate to praise the efforts and resources that have been deployed by the government and ENEO to achieve this rate of coverage at the same time they should try to achieve a 100% coverage rate in the locality of Molyko. Through branching campaigns at modest prices and thus enable every household to have an individual meter ENEO.

Statistical analysis of the contingency table below between access to electricity and the soil shows that shows that 5% risk of the two variables are independent. Indeed electricity exists in households whatever the nature of the flooring material. Over 56.4% of households floor is made with gray cement, and 20.8% have a bare soil.

Table 32 : Access to electricity in households depending on the nature of the soil

Access to Electricity	Flooring								
	bare soil	wood	cement	Checked	Total				
ElectricityPresence	19,5%	1,3%	54,4%	20,1%	95,3%				
Lackofelectricity	1,3%	1,3%	2,0%	0	4,7%				
Total	20,8%	2,7%	56,4%	20,1%	100,0%				

Source: Investigation of LE COMPETING-BET/BEFA CONSULTING 2014

The statistical analysis of contingency table below between access to electricity and the nature of the roof shows that 5% risk of the two variables are independent. In other words, roof nature of knowledge in households provides no information on the presence or not of electricity. Indeed, electricity exists in the housing households, regard less of the type of roof.

			-	
Tahla 33 • Access to al	lactricity in hous	ahalds dananding	on the nature	of the roof
Table 33 . Access to ci	iccuricity in nous	choius acpending	on the nature	

Access to	NA	Total			
Electricity	slab	sheet metal	straw	tile	
ElectricityPresenc e	7,4%	85,9%	0,7%	1,3%	95,3%
Lackofelectricity	0,7%	4,0%	0	0	4,7%
Total	8,1%	89,9%	0,7%	1,3%	100,0%

Source: Investigation of LE COMPETING-BET/BEFA CONSULTING 2014

In the town of Molyko, electricity exists in the housing households, what ever the nature of their wall.However we note that among the82.6% of households with middle is made of blocks4.7% have no electricity.

Table 34 : Access to electricity in households by type of wall covering

Access to Electricity		Wall coverings					
	concrete block	Stabilized mud bricks	Board/wood	Checked	Clay	materialr ecovered	Total
ElectricityPrese nce	77,9%	1,3%	1,3%	12,8%	1,3%	0,7%	95,3%
Lackofelectricit y	4,7%	0	0	0	0	0	4,7%
Total	82,6%	1,3%	1,3%	12,8%	1,3%	0,7%	100,0%

Source:Investigation of LE COMPETING-BET/BEFA CONSULTING 2014

The statistical analysis of contingency table below between access to electricity and luxury housing shows that 5% risks of the two variables are independent. Indeed, electricity is present in the household regard less of their level of standing. We may however notethe absence ofélectrictéisgreater for4% of middle standing housing against less than 1% in other categories of luxury.

Table 35 : Access to electricity in households by standard housing

Access to						
Electricity	VeryHigh standard	High standard	Middlestanding	Grow Home	housepre carious	Total
ElectricityPresen ce	4,7%	7,4%	58,4%	19,5%	5,4%	95,3%
Lackofelectricity	0	0,7%	4,0%	0	0	4,7%
Total	4,7%	8,1%	62,4%	19,5%	5,4%	100,0%

Source: Investigation of LE COMPETING-BET/BEFA CONSULTING 2014

### \* Energy sources for cooking

The main source of energy for cooking in households gas is used by 73.2%; followed by the wood used in 22.1% of households and 2.7% of oil for households.

The use of other energy sources for cooking like electricity, coal, oil, sawdust or wood chip is less common in households. Using wood as an energy source for cooking at the expense of the gas should be discouraged by the government by conducting awareness campaigns to fight against deforestation and the protection of nature, by making the price drop gas to make it accessible to poor households.

Statistical analysis following contingency table between the sources of energy used for cooking and the soil shows that 5% risk of both variables were significantly related. In other words, ground of the knowledge in the household may predispose to the use of a particular energy source. Indeed, households with tiles and rudimentary coating rarely use oil and electricity as an energy source for cooking.

	Nature of floor							
Source ofenergy for cookingin households	nu /earth/sandsoil	floorcoating(wood planks / palmleaves/bambo o)	cement	Checked	gerflex			
wood	6,0%	1,3%	12,8%	2,0%	22,1%			
gas	12,1%	1,3%	41,6%	18,1%	73,2%			
electricity	1,3%	0	0,7%	0	2,0%			
kerosene	1,3%	0	1,3%	0	2,7%			
Total	20,8%	2,7%	56,4%	20,1%	100,0%			

Table 36 : Source of energy for cooking according to the nature of the soil

Source:Investigation of LE COMPETING-BET/BEFA CONSULTING 2014

#### **4** DomesticsanitationFashion

Households in Molyko zone to their waste waterin the catch men over 41.6% in the field to 4%, in the sump to 25.5% in the septic tank to28.2%. These different modes of domestic waste water LUPe a serious problem for the environment and pollution as only53.7% of households pay sewage in septic tanksor pits.

Statistical analysis following contingency table between mode of sewage and place of garbage the LUP it's showing that 5% risk of the two variables are independent. Indeed, house holds applicant house hold garbage in land fillsor in the course evacuate their sewage in septic tanks as / sumpin the fields.





Source:Investigation of LE COMPETING-BET/BEFA CONSULTING 2014

Households in Molyko zone to their garbage by throwing themin fields orby burning 90%, or by depositing themin municipal waste (10%). Most households who deposit household garbage in the streets or in the fields evoke as the main reasons, the remoteness of the trash bucket compared to home.

Table 37 : Mode of house hold sanitation (garbage) and garbaged eLUPit of reasons in the street

PLACE OF DELUPIT OF	DELUPIT OF REASONS MENAGERE GARBAGE IN THE STREET			
HOUSEHOLD WASTE	Remoteness of the binoratrashdump	Total		
Left inthe plot andeventuallyburnedon site	90,0%	90,0%		
Abductedat home bya municipal service	10,0%	10,0%		
Total	100,0%	100,0%		

Source: Investigation of LE COMPETING-BET/BEFA CONSULTING 2014

Statistical analysis contingency table following between the existence of a plastic waste problem and location of deposits Garbage shows that 5% risk of both variables are independent. In other words, knowledge of the existence of a plastic waste problem by house holds that suggests the place of deposit garbage. Indeed, households that discharge their garbage in the streets, the rivers, in the field or by Municipal service have problems of plastic waste in their locality.

PLACE OF DELUPIT OF HOUSEHOLD WASTE	PLASTIC WASTE PROBLEMS IN THE LOCALITY		Total
	Yes	No	
Left in the plot and eventually burned on site	1,3%	5,4%	6,7%
DeLUPited in an out door garbage dumporin a tray	55,0%	9,4%	64,4%
Abducted at home by a municipal service	20,8%	8,1%	28,9%
Total	77,2%	22,8%	100,0%

Table 38	• Mode of	household	sanitation	(garhage)	and	nlastic	nrohlems
Table 30	. Moue of	nousenoiu	Samtation	(gai bage)	anu	plastic	problems

Source: Investigation of LE COMPETING-BET/BEFA CONSULTING 2014

The statistical study following contingency table between school education level and place deposits Garbage shows that 5% risk of the two variables are dependent. Indeed the vast majority of heads of households who deposit their garbage in a public discharge or who remove their garbage by the municipal service essentially consists of the heads of households with at least primary education.

 Table 39 : 1Mode of household sanitation garbage level of school education

PLACE OF	Education level							
DELUPIT OF HOUSEHOLD WASTE	without level	Eleme ntary School	General Secondary Education	Technical secondary education	Higher Education	others	Total	
Left in the plot and		0,7%	2,0%		4,0%		6,7%	
eventually burned on				0		0		
site								
DeLUPited in an	2,0%	6,0%	15,4%	9,4%	30,9%	0,7%	64,4%	
outdoor garbage								
dumporin a tray								
Abducted at home by	0,7%	0	6,0%	3,4%	18,8%	0	28,9%	
a municipal service		0				0		
Autres	2,7%	6,7%	23,5%	12,8%	53,7%	0,7%	100,0%	
Source:investigation o	f LE COMPET	ING-BET/BE	FA CONSULTING 20	)14				



Graphic 20 : Mode of household sanitation garbage

Source:investigation COMPETING-BET/BEFA CONSULTING 2014

## V.3- MOLYKO DIAGNOSIS INTERMS AND ROAD NETWORKS OTHER

Molyko is an area crossed by several roads divided into three groups: primary road, secondary road, and tertiary.

### AXE MILE 17- Towards the governor's (Primary Route)

Commercial Trunk High way on which branch the secondary and tertiary roads Molyko neighborhood.

On a grip of about 15m, and a  $2 \times 2$  floor paved land separated by a central reserve with road markings. The lateral regions of the floor are bordered by a shoulder. The flow of water is through gutters and drain rubble ditches that run along the shoulder. We also note the presence of street lights on this important axis of Buea.

### **Observations:**

- ✓ Wearing proper condition;
- ✓ Ground body in good condition;
- ✓ Through the normal profile;
- ✓ Height profile answering standards;
- ✓ Gutters and tanks in good condition;
- ✓ Route lit;
- ✓ Marking emerged not ground;
- ✓ Lack of signage in place;
- ✓ No parking along this path.

## Axe Malingojunction – Carrefour Doubai center (Voie secondaire)

- 4 Axis Malingo junction Carrefour Dubai Center (secondary road)
- This road where some shops open was requested by many users. We observe rush hour traffic jams. This does not allow smooth movement of motorists and pedestrians.

## 4 Observations:

- ✓ Grasptrack 8 m;
- ✓ Wearing proper condition;
- ✓ Ground Layer in good condition;
- ✓ Through the normal profile;
- ✓ Drains and ditches in good condition;
- ✓ Street lights spaced too;
- ✓ Lack of horizontal and vertical signals;
- ✓ Lack of side walks
- ✓ No parking.
- **4** Carrefour Market stade- central axis (secondary road)
- 🖊 This axis is less crowded ordinary days
- 4 Observations:
- ✓ Grasp 8m road;
- ✓ Coated floor;
- ✓ Deterioration of the road surface;
- ✓ Unstable Ground Corps;
- ✓ Improper tarvers in profile;
- ✓ Drains and ditches in poor condition;
- ✓ Lack of public lighting;
- ✓ Lack of road signs;
- ✓ Lack sidewalk.

4

## **4** Axis Malingo- junction- Bulu Native (High Way)

This axis is not maintained less traveled by motorists

4 Observations:

- ✓ Grasp the road 8 m;
- ✓ Coated floor;
- ✓ Deterioration of the road surface;
- ✓ Unstable Ground Corps;
- ✓ Cross section improper;
- ✓ Normal long profile;
- ✓ Drains and ditches in poor condition;
- ✓ Lack of public lighting;
- ✓ Lack of road signs;
- ✓ Lack sidewalk.

## 4 <u>Tertiary Routes</u>

In place of the tertiary channels, there are rather improved tracks which allow the passage of a car. Their influence ranges from 2 to 4 m.

The bearing layer consists of slagresting on uncompacted ground. There is a lack of sanitation elements, street light in gand traffic signs.

Table 40 : Récapitulatif du	diagnostic des	voiries et	réseaux	divers
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SECTOR	ISSUES			
primaryHighways	• Signalisation Insufficient vertical and horizontal;			
	• Profiles acrossin sufficient;			
secondaryHighways	• Absence of the vertical and horizontal signaling;			
	• Total Absence of sidewalks;			
	• Traffic jamsat the intersection Malingo Junction			
	• Width inadequate channels;			
	• Existing unusual routes;			
	• Total absence of sanitation facilities;			
Tertiaryroads	• Road ways highly degraded (corrugated iron, mud pits,			
	gullies)			
	o Travel Difficulties;			
	Difficulties of access to domestic gas:			
	Insufficient Energy Supply:			
Energy	Older existing electrical network:			
	Unbalanced electricity distribution:			
	Inadvortant nower shutdown:			
	bad quality of drinking water,			
Network and drinking	Very inadequate drinking water Offer			
water infrastructure	Too unbalanced water distribution;			
	Frequently Cuts of drinking water;			

SECTOR	ISSUES
	Network and aging drinking water infrastructure; Insufficient drilling and fountain terminals; No Water Tower.
Public lighting	Insufficient public lighting network in the area;
Telecommunications networks and NICT	lack of access to Internet; Absence of the optical fiber
Sanitation, drainage and crossings	difficulties Link between blocks; Difficulties to cross rivers; Insufficient sanitation works; Insufficient crossings; Lack of waste water collection network.

Source:investigation of COMPETING-BET/BEFA CONSULTING 2014

#### V.4- PHOTO ILLUSTRATIONS





<u>Photo 1 : Pocket spontaneous activities in the</u> <u>Photo 2 : unbuilt Private property</u>





<u>Photo 3 :</u> Route of obstructed access by small <u>Photo 4 :</u> Built-dominated levelshouses businesses





<u>Photo 5</u>: Mixture between final and frame <u>Photo 6</u>: Way existing access failing

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<u>*Photo 7 : Route represented by a track*</u>



<u>Photo 9 : Route represented by buildings</u>





<u>Photo 8 : untapped area by the frame</u>



<u>Photo 10:</u> Zone to loose and structured fabric



<u>Photos 11 et 12 : Precarious Habitation made temporary materials</u>

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Photo 14 : standing means Habitation



photos 16 : garbage made near homes



Photo 15 : luxury Habitation



# **VI- ECONOMIC BASE MOLYKO**

The analysis of the economic base of Molyko is made through the contribution of sectors to economic and social development. Thus it succinctly addresses the four sub-production sectors including:

- The primary sector, which includes agriculture, fishing and breeding occupies about 22.8% of household heads;
- The secondary sector dominated by handicrafts and small trades such as joinery;
- The service sector consists of the administrative service, private and trade;
- The quaternary or informal sector which represent nationally 90.5% of jobs according to the results of the second survey on employment and the informal sector in Cameroon (EESI2; 2010).



Graphic 21 : Main activity of household heads in Molyko

Source: investigation of COMPETING-BET/BEFA CONSULTING 2014

#### VI.1- THE PRIMARY SECTOR

The primary sector does not occupya prominent place in Molyko of the economy, because it is located in the city of Buea national reality how everthings is not

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confirmed in the locality of Molyko since the activities of this sector absorb only 22.8% of household heads according to the survey of the study.

### VI.1.1-Agriculture

Supplies of food products market in the town of Molyko is done largely by in-house production department of Fako. Agriculture remains a secondary economic activity in the locality of Molyko because it occupies only 6.7% of household heads. Note the presence of the CDC in Molyko with over 200 hectares of plantains.

Food crops products such as plantain, roots and tubers (yam, cocoyam), greatly contribute to improving incomes of the population is faced with transport problems due to the remoteness of most areas supplies. In the peri-urban area in the town of Molyko encountered some GIC that highlight the low marshy.

# VI.1.2-<u>Fishing</u>

### 4

An artisanal fishing is not very developed Molyko. The fish products are generally intended for local consumption of households.

### VI.1.3-<u>BREEDING</u>

Breeding is only slightly practiced by 0.7% of household heads and some GIC in the surrounding communities. This is usually the vollaille with the production of broilers, eggs, cane rats, etc.

### VI.2- SECONDARY SECTOR

This sector is represented in the Molyko zone by a few companies, the main ones

- **4** CDE / Camwater, located Molyko and specializes in the production and distribution of drinking water and employing more than 8 people;
- **4** Somecarpenters and welders
- \rm Etc.

# \* Artisanal activity

Artisanal activity is present in Molyko through artisanal transformation of palm, confections of art objects, rattanlounges, some kitchen items such as mortar, spatula, pestles, ladles, and glasses, decorative objects. These objects are in most time Molyko and sold in various markets of the town of Buea

The home made brakes and other rubber items, screen printing, painting, drawing, craft making some clothes, music and design of advertising banners are also practiced in Molyko.

### Summary in terms of jobs and prospects of development of the sector

4 In terms of the work force in the locality this sector provides about 50 jobs.

- Etc.

### Table 41 : The secondary sector jobs

Activity /company	Executives and workers	Foreman	Total
CDE /Camwater	3	8	11
craft	2	18	20
Other industries (carpentry, welding, etc.)	5	54	59
Total jobs	10	80	90

Source: Investigation of Competing-Bet / Befa

# VI.3- THE TERTIARY SECTOR

The tertiary sector is comprised mainly of administrative tertiary, private services and trade.

# \* The administrative tertiary

The tertiary sector in Molyko comprises services of Rector of the University of Buea, the decentralized services of some ministries.

Public services not only employer staff, but a large number of contractual agents and decision makers on the local labor market.

### Education

### ✤ Basic Education

There are in the area of Molyko 03 public primary schools, 02 public kindergartens, 5 private schools, religious schools 2Furthermore most schools do not have land titles, norfence,norplay grounds and vandalism of local resident common place on infrastructure.

### Secondary Education

There are few Molyko in public and private secondary schools.

### **♦** HigherTeachings

There Molyko in the area several higher education institutions including the University of Buea, PanAfricanWest Africa Institute for Development (PAID-WA), etc.

# ✤ Health

### Table 42 : List of healthcenters in theareaaccordingMolykothe health areas

N°	<sup>°</sup> Category Status Healthfacilities		Healthfacilities
1	CSI	parastatal	Molyko CDC
2	CSI	Public	Molyko
3	CSI	Public	Uiniversity

Source: health card / investigation Le COMPETING BET /BEFA

### ✤ Telecommunications

Any locality Molyko is covered by the mobile phone network of the two private operators such as Orange, MTN, Nexttel and the public operator CAMTEL through the fixed telephone and mobile phone (phone CT).

# \* The SPORT

There at the University of Buea and in some private schools in Molyko few football fields basketball or other sports. In other hands most of these sports facilities such as the sports stadium are in poor condition because undeveloped and not regulatory.

### \* Transportation

Road transport is assured by Molyko city of taxis and motorcycle taxis. Some illegal vehicles also contribute to facilitating Molykopopulation of transportation and its surroundings.

### Tourism and leisure

The tourism and hospitality are developed enough to Molyko. There are more than 10 hotels, more than 5 restaurants and several inns. Those hotels have approximately 496 rooms and employs approximately 123 personnes.On are found in some restaurants and even snack bars.

Hotels Names / inn ETA PALACE HOTEL	numberofrooms49	Number of jobs 10	Air conditioned / ventilated Oui
PARAMOUNT HOTEL	23	5	Oui
BA.7	33	8	Oui
HARLGLENA HOTEL	25	5	Oui
Other break fast and hotels	30	12	
Total	160	40	

Table 43 : Distribution of major hotels / restaurants in Molyko

Source : PDC/investigation Le COMPETING BET /BEFA

Also note that some touristiques sites exist in Molyko, but are not equipped including banana plantations Molyko, etc.

# VI.4- QUATERNARY SECTOR

# ✤ Small businesses

In the area of Molyko, we meet small growing businesses that offer many opportunities in terms of informal employment. These small businesses have an important place in the economy and are essentially based on the small business that integrates all stake holders' resourcefulness and precarious jobs. Although it is difficult to establish the exact number of jobs created by this sector in the municipality of BUEA, people who exercise are usually installed on their own account and develop small income-generating activities. However, they do not enjoy any organization or legal and social protection. The credit access difficulties and the absence of a structuring strategy of these actors are there, some evils to which the Commune must address to create a new economic environment with true professionals. These small businesses occupy an average of 500 people. These small businesses are: vehicle cleaners, the call-box, the motorcycle taxis, photocopiers, cyber café, pushers, etc.

### \* Summary of informal jobs

### Table 44 : summary of informal job in Molyko

N°	Corpstrades	Effectifs	Number of jobs	Problems /constraints	opportunities
1	Hairdresser	15	30	Lack of financial resources for spatial planning and improvement of equipment, regular electrical poweroutage	Large young population
2	Wood Joinery	5	20	Inadequate funding for improving the working environment	The improvement of existing equipmen is a favorable factor for its development
3	Sewing workshop	10	30	Regular interruption of electric power, abuse of clients, lack of financial resources for improving equipment	LUPsibility to expand the business with the presence of a sizeable student population and numerous women's associations of ten renewing their uniform
4	Braiseusefish, pork, etc.	15	30	Difficulties space planning cost products pupils unhealthy environment	LUPsibility to expand the business to satisfy customers more and more numerous the acil services do not have restaurant
5	Cafeteria	5	15	Environment unhealthy, Inadequate financial resources for spatial planning	LUPsibility to expand the business to meet existing demand
6	Garage	5	10	Lack of financial resources for development of space and equipment	Sanitation neighborhoods can result in the development of this sector
7	Hangarfordonu ts	5	10	Unhealthyenvironment doubtful framework	The increase in population and development of the area

$\mathbf{N}^{\circ}$	Corpstrades	Effectifs	Number of jobs	Problems /constraints	opportunities
					can facilitate the
					emergence of this sector
9	Soy Sellers	3	10	Unhealthy environment undeveloped space	LUPsibility of cleaning up the space to improve the sector's development
10	Callboxers	50	50	Abuse of customers disturbance mobile network regular interruption of the electrical energy	Development opportunity with the development of urban roads
11	Photocopier	15	30	Low professional organization	The development of the urban center will result in the development of this sector
12	Washer vehicles	5	15	Low professional organization	
14	Motorcycle taxis	70	70	Lowprofessional organization	
15	Pousseurs	10	10	Lowprofessional organization	
Total					

Source: investigation of LE COMPETING-BET / BEFA

# **Ongoing projects in Molyko**

For 2014, the government provided about 13 projects in the Molyko area for a total cost of one billion two hundred twenty eight million eight hundred seventy-six Frans CFA. (1 228 000 876). The main building owners of these projects are still the ministry of higher education through the University of Buea with 9 projects and the Ministry of Scientific Research and Innovation with 4 projects.

N°	<b>OPERATIONS BY CHAPTER</b>	DISTRICT	LOCATION	COST IN THOUSANDS OF CFA
	CHAPTER 18: MINISTRYOF HIGHER EDUCATION	Buea	Buea	
1	Ubuea: Laboratory Equipment and workshops	Buea	Buea	595476
2	UbueaConstruction of anamphitheater	Buea	Buea	150000
3	UbueaConstruction of anadministrative and educationalblock for thefaculty ofengineeringand technologyandcollegeof technology	Buea	Buea	150000
4	Ubuea: Master contractor forthe constructiondelafacultyof Engineering andTechnology	Buea	Buea	15000
5	Ubuea: Equipment forfaculty of agriculture and medicine Vetenary	Buea	Buea	50000
6	FSMS-Ubuea: Feasibility study forconstruction ofblockI	Buea	Buea	50000
7	Ubuea: Rehabilitation of some buildings	Buea	Buea	20000
8	Ubuea: Master contractorbuildingtheFSUbuea	Buea	Buea	15000
9	Ubuea: Construction of classroomsforFS	Buea	Buea	150000
	CHAPTER 19: MINISTRY OF SCIENTIIQUE RESEARCH AND INNOVATION	Buea	Buea	
10	CRRISW:Rehabilitation of the fence	Buea	Buea	4300
11	CRRISW: field and laboratory work in order to standardize the production process for better marketing of garry (tapioca)	Buea	Buea	10800
12	CRRISW: Field work and laboratory to the inventory of the outbreak of taro leaf	Buea	Buea	8300
13	CRRI-SW Organization of days of research excellence and innovation Regionales	Buea	Buea	10000
	Total			1 228 876

Ta	able	45	: Jou	rnal o	f 2014	projects	in the	locality	of Moly	vko
ΙC	inic	ч	• <b>J</b> UU	i nai v		projects	, m une	locality	or mior	yno

Source:MINEPAT/ Journalof the projectsin 2014

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# VII-SETTLEMENT PLANNING AREA

Based on the fact that planning regulations of the Municipality of Buea was produced as part of the development of the Land Use Plan of the said Commune, and given the fact that the area which is the subject of the development of the sector is an integral part of this Plan Commune, it seems clear that the urban settlement of this area in theMolyko occurrence can only logically from the general planning regulations of the Commune.In the rules of art, the Sector Plan prescriptions direct result of the Land Use Plan.

Therefore the land use plan of the city of Buea has multiple zones. Among them we have: The urban area (U), the rural area (R), the natural area (N). Ourstudy area Molyko integrates the urban area (U) and the natural area (N).

The urban area includes the existing Habitat areas and projected areas.

a) The existing habitat areas or urban area (U) are represented by the following codes:

- ✓ U1 = structured or screened housing, social housing;
- ✓ U2 = spontaneous housing, built-in or as structured;
- ✓ U 3 = Sector restructure
- ✓ A = Administrative Centre;
- ✓ A1 = Commercial Centre

b) Habitat areas or planned development area (AU) are represented by the following codes:

- ✓ UA1 = high density habitat;
- ✓ UA2 = averagehousingdensity;
- ✓ AU 3 = lowdensity habitat;
- ✓ E = University area
- ✓ A 2 =Sub-Centre

Natural areas (N) include:

- > The green spaces: Park area, Neighborhood Park landscaped park (N1);
- > All thedeep valley of funds or depressions, water bodies (N2) and flood zones;
- > Protected areas, classified sites (N3) and all non edificandis areas.

In view of the above it is clear that the planning regulations of our study area (Molyko) can arise as prescriptions for urban (U) and natural area(N).

### VII.1- RULES APPLICABLE TO ZONES, U2, UA1

The UA1 areas, U2, correspond to high density habitat areas projected, unstructured existing neighborhoods, peripheral villages joined by the city and new residential housing sector density. In these sectors, creating housing, shops, hotel equipment is allowed. In the state, the following provisional regulation must guide the issuing of building permits.

The plot concerned must however previously meet the following criteria:

- Direct access from the plot on an organized track and carriage of a minimum width of 8m;
- Minimum Front 10m course.

### Article I-1: Types of occupation or use of the prohibited ground

Are prohibited in areas UA1 and U2

- **Temporary nature buildings;**
- Industrial facilities;
- DeLUPits and craft activities whose area exceeds 1 000m2,
- The opening and operation of quarries;
- o scrapdeLUPits;
- The landfill outside the cleverly placed garbage bins and platforms.

Article 2-I: Occupations and uses subject to special authorization

- The public buildings and having a cultural destination, social or religious;
- Fuel distribution points.

### Condition of land use

### Article I-3: Access and Highways

The minimum with of the access road to the plot can not be inferior to 8m

### **Article 4-I: Land Use Options**

- Minimum area of land: 150m2
- Minimum Front land: 10m
- Emprise Maximum ground60%

• Maximum cos: 1.50

# Article I-5: Maximum height of constructions

- Maximum-Height: 12m
- Number Of maximum floors: 2

# Article 6-I: Implementation of constructions

# **4** In relation to public and private roads

The constructs should be implemented on with drawal of 3 m or 5 m with respect to the alignment channels.

# **4** - Compared to separative limits

The buildings can be located along the separative limits maximum depth of 20 m. In addition, they must be separated by a distance of at least 2 m. The facade should not have berries.

The non-contiguous buildings of the dividing line must be separated by a minimum distance of 2 m.

The two-story buildings must be separated from the dividing line by a minimum distance equal to half the height of the facade

# **4** - Compared to others in the same property:

Two non-contiguous buildings installed on the same plot should be a space between one and the other greater than half the highest high of the two buildings and never lower than 3 m.

# Article 7-I: Parking

A parking space at a minimum by design must be provided, then:

- For Public buildings, one parking space per 25sqm built floor.
- A Place to 20m<sup>2</sup> dining room
- For Other type of construction, with a floor space of 100sqm built with a minimum of one space per unit.

### Article 8- I: Open spaces and plantations

50% of the surface of the land, less the influence of structures, must be converted into a garden planted in the ground.

### Article 9-I: Architectural Easements

- 1. In terms of facades, there are no special requirements.
- 2. For the roof, straw roofs are allowed for boukarous;
- 3. The height of fences, if available, is free. The choice of materials and colors are also against a provisional, unstable materials are forbidden.

### VII.2- <u>REGULATIONS APPLY TO AREAS U1, UA1, UA2</u>

The U1 sectors are dominated sectors "habitat type villa." The UA2 sectors are UA3 residential urban areas projected for the average individual housing and low densities.

### Article 1-II-: Types of Occupation or Land Use Prohibited

Are prohibited in areas U1, UA2 and UA3:

- 1. Temporary nature buildings;
- 2. Industrial establishments;
- 3. Commercial establishments of high annoyance;
- 4. Handicrafts and various deLUPits;
- 5. Quarrying.

Article 2-II-: Occupation and Land Use subject to special authorization

- The creation of a mini-mall is permitted if the importance of a subdivision, a neighborhood unit or of a residential group warrants. This mini mall must then be isolated villas;
- Buildings open to the public and having a cultural destination, social or religious

Terms of land use

### Article 3-II: Minimum width of access roads

The width of the access road to the plot can not be less than 8m.

### **Article 4-II: Land Use Options**

- Minimum area of land: 200m
- Minimum Front land: 10m
- Emprise maximum ground: 60%
- Maximum Cos 1.50.

# Article 5-II: Maximum height of constructions

- Maximum Height: 12m
- Maximum number of floors: 2

### Article 6-II : Implementation of constructions

# **4** -By Respect to public and private roads

The constructions should be implemented on with drawal of 3 m or 5 m with respect to the alignment channels.

# **4** - Compared to separative limits

The buildings can be located along the separative limits limit maximum depth of 20 m. In addition, they must be separated by a distance of at least 2 m. The facade should not have berries.

The non-contiguous buildings of the dividing line must be separated by a minimum distance of 2 m

The two-store buildings must be separated from the dividing line by a minimum distance equal to half the height of the façade

# **4** Compared to others in the same property:

Two non-contignous buildings installed on the same plot should be a space between one and the other more than half of the highest height of the two buildings and never inferior to 3m.

### Article 7-II: Parking.

A parking space at a minimum by design must be provided, then:

- For public buildings, one parking space per 25m<sup>2</sup> built floor.
- A place for dining room 20m<sup>2</sup>
- For other types of construction, with a floor space of 100 m<sup>2</sup> built with a minimum of one space per unit.

# Article 8-II: Open spaces and plantations.

50% of the surface of the land, less the influence of structures, must be converted into a garden planted in the ground.

# Article 9-II : Architectural Easements

- In the field of facades, there are no special requirements;
- For the roof, straw roofs are allowed for boukarous;
- The height of the fences, if available, is free. The choice of materials and colors are also against a provisional, unstable materials are forbidden.

# VII.3- AREAS AND APPLICABLE REGULATIONS A1 A2

A1 and A2 sectors correspond to areas designed to accommodate centrality:

- 1. The high density group housing;
- 2. Services;
- 3. Commercial equipment;
- 4. Offices.

Located along the primary or secondary roads, it consists of several levels of buildings with shops on the ground floor.

# **Article 1-III: Types of Occupations or Prohibited Uses**

- 1. Hazardous said, unhealthy;
- 2. Hydrocarbon deLUPits with the exception of those related to the immediate use of the vehicles;
- 3. the opening and operation of quarries;
- 4. DeLUPits wrecks of vehicles or obsolete scrap.

## Article 2-III: Access and Highways

Direct access to a public or private road is required for any construction business in these sectors. The characteristics of this access should allow a better defense against fire and satisfy the rules of civil protection.

Amenities impasse routes are prohibited.

## Article 3-III: Served by the Water, Sanitation and Drainage

- 1. The construction must be connected to the public drinking water network.
- 2. Individual septic tank is allowed in the absence of a collective network serving or semi collective property unit. But the treatment devices must comply with current standards and allow easy connection to the network of community sanitation if it comes to exist.
- 3. The free flow of rainwater into the public grid must be ensured by the development result of any plot.

# Article 4-III: Characteristics of the plot

In this sector central character, he is no minimum buildable parcel. Only will be considered the LUPsibilities of general integration.

# Article 5-III: Implementation of Constructions by Report to Separative Limits

The implementation of constructions side separative limits are permitted provided that the depth of the building does not exceed 15 m. Beyond this depth, it is not permitted constructions separative lateral limits. In this case, the decline observed in relation to these shared edges shall not be less than 3 m.

# Article 6-III: Implementation of constructions by Public Rights of Way and Ways to Report

Any construction along the primary road should respect the alignment path expressed at the sector plan. Moreover, the minimum setback required is 2m.

These constructions must observe a minimum distance corresponding to half the height of the lower building, but not less than 3m.

### Article 8-III: Maximum LUPsible Land Use

- 1. The maximum construction height is R + 5 without exceeding 22 m.
- 2. The land use coefficient is not free along the primary roads. There should be a 7m drop according to the general town planning code

### Article 9-III: Plantations

The plant type must not be too intrusive.

# **Article 10-III: Architectural Easements**

The buildings located along the primary axis are hit the alignment servitude and architecture. If built terraced (side) and the existence of a substantive dependence of land, the obligation to make public passages under porticos is required. In all cases, the arcades on the ground floor is required on the main facade. The width of the porticoes and arcades 3m will be counted from the alignment path.

# Article 11 -III: Parking

The parking of vehicles that meet the needs of the buildings must be insured on the private plot, outside of the public right, ie:

- 1. Housing: 1 parking space per dwelling,
- Administration offices: 1 place for surface 100m<sup>2</sup> built off work, or to 5 workstations,
- 3. Shops: 1place to 30m<sup>2</sup>,
- 4. Hotels: 1 up to 3 bedrooms and 1 room for 15 m<sup>2</sup> dining room,
- 5. Show: 1 parking for 5 theater tickets.

### VII.4- REGULATION APPLIES TO AREAS (E)

Area E is an area for academic activities or advanced training of all kinds.

# Article IV-1: Types of Occupation or Land Use Prohibited are prohibited in sectors E as appropriate, the following activities:

- 1. Temporary nature buildings,
- 2. Industrial establishments; for Zone E, industrial or experimental activities related to training activities are tolerated,
- 3. DeLUPits and craft activities for area E, it can be tolerated if they have an objective experimental, educational or training;
- 4. The opening and exploitation of quarries for commercial purLUPes,
- 5. Scrap metal deLUPits.

# Article 2-IV : Types d'Occupation ou d'Utilisation du Sol Autorisés Sous Réserves

Article IV-2: Types of Occupation or Land Use Permitted Reserves Sub Can be allowed under certain conditions related to the strict respect of the environment in the natural area

- The development of rest areas;
- The development of recreational areas;
- Play areas, subject to their integration to the whole. Reserves focus on compliance with environmental, hygiene and public health, and safety of persons.

# Article 3-IV-: Access and Highways

Direct access to a public or private road is required for any construction business in these sectors. The characteristics of this access should allow a better defense against fire and satisfy the rules of civil protection.

Any public through the creation shall observe the following standards:

- Minimum pavement width: 6 m
- Minimum width of grip ways: 8 m

# Article 4 -IV: Served by the Water, Sanitation and Drainage

- 1. The construction must be connected to public or private drinking water system.
- 2. Individual septic tank is allowed in the absence of a collective network or semi collective serving the area. But the treatment devices must comply with current standards and allow easy connection to the network of community sanitation if it comes to exist;
- 3. The free flow of rainwater into the public grid must be ensured by the development result of any plot.

# Article 5-IV: Features of the building plot

In these areas for school and university activities mainly, plots to bear all

construction, whether residential or school (staff housing, student residence ...) will allow

to promote maximum setting, as in American universities for example.

Thus, the authorized minimum buildable plot is 2000  $m^2$  in the E sector

# Article 6-IV: Implementation of constructions by Public Rights of Way and Ways to Report

The minimum required setback is 4 m for the MC area and 15 m for E. sector.

# Article 7-IV: Maximum LUPsible Land Use

The maximum construction height is 2 + R for school buildings and R + 2 university

residences (E); with a coefficient of footprint (CES) up to 0.3.

# Article 8-IV: Plantations

The open spaces that are not parking areas must be grassed and / or planted a tree pin high for two parking spaces or  $25m^2$  of turf.

# Article 9-IV:Parking

Parking of vehicles that meet the needs of the buildings must be insured on the plot,

outside of the public right, ie:

- 1. Tied housing: 1 parking space per dwelling;
- 2. Student residence (E): 1 parking space for 25 resident students;
- 3. Administration offices: 1 up to 50 sqm of built area off work, or to 2 workstations;
- Academic Restaurant: 1 up to 40 m<sup>2</sup>; Amphi classrooms: 1 parking space for 25 students.

### VII.5- REGULATION APPLICABLE TO NATURAL AREAS (N1, N2, N3)

The natural area known mainly the following areas:

- 1. Wetlands and other flood-prone areas;
- 2. The areas of very steep slopes> 20%;
- 3. Valley bottom cashed or depressions;
- 4. The green spaces, urban parks and woods classified
- 5. Protected areas, agricultural areas

# Article 1-V: Occupation or Types of Land Use Prohibited

Are prohibited in the natural area

- 1. The construction of any kind;
- 2. The industrial and deLUPits classified or not;
- 3. Scrap metal deLUPits;
- 4. Unauthorized felling of trees unless it is for renovation of plantations.

# Article 2-V: Occupation types or authorized under Land Use Reserves

May be authorized, subject to certain conditions related to the strict respect of the environment in the natural area

- L'aménagement Rides trails or tour;
- L'aménagement Rest areas;
- L'aménagement Relaxation areas;
- The Fish farming activities;
- The Playgrounds, subject to their successful integration in the near by Nature.

Reserves focus on compliance with environmental, hygiene and public health, and safety of persons.

# VIII- FILE BEFORE PROJECT SUMMARY (APS)

# VIII.1- <u>DESCRIPTION OF HIGHWAYS AND OTHER NETWORKS</u> VIII.1.1- <u>ROADS</u>

### VIII.1.1.1- <u>Mainline</u>

In the area of Molyko, there is one main two-line paved road in good condition with a length of 3 km and 20 m sway separated by a median. It is shown by white stripes on the roadway, reorganized by covered concrete channels and concrete nozzles.

### VIII.1.1.2- Feeder routes

Molyko is crossed by service roads spread over several sections for a total of 17.98 so linear Km allowances vary from 3 to 6m. On these routes, we décomptons 2.32 km of paved roads in good condition and a deteriorated kilometer. The rest of the channels is in the ground and a linear 15.50 Km significantly degraded. The storm sewer system is almost not present on the tracks and dirt present on tarred roads with satisfactory condition. In general, these channels are mostly impassable in the rainy season and promote the raising of dust during dry periods.

### VIII.1.1.3- <u>Pedestrian routes</u>

Here, we observe several pedestrian crossings on land between the mini-cities do not meet the standards and spread over several kilometers.

### VIII.1.2- OTHER NETWORKS

### VIII.1.2.1- Electricity Network

In the region of Molyko, we observe the passage of high voltage and medium voltage distribution network spread over several kilometers through the interconnections based on metal pillars, concrete and wood. The electrical network is dense, disorganized with lines overloaded causing brownouts. The public lighting network is absent, however, we note a few kilometers on the main track and the junction to Malingo Dubai Center. We also see some street lights installed on certain intersections and in front of some buildings.

### VIII.1.2.2- <u>Drinking water Network</u>

This network is aging and consisting of PVC pipe and galvanized steel tubing with diameters between 25 and 250 mm. The capacity and elapsed flow of water is insufficient. Drilling and individual wells are absent.

### VIII.1.2.3- <u>Telecommunications network</u>

In the area of Molyko, we note the presence of several telephone operators: MTN, ORANGE, CAMTEL and NEXTEL through pylons installed on each other. CAMTEL the network consists of an air network and another underground. Telecommunication is reinforced by the presence of many cable companies and Internet cafes. TVs community centers and news outlets are totally absent.

### VIII.1.3- <u>Sewerage</u>

### VIII.1.3.1- <u>Sanitation RAINWATER</u>

Molyko is crossed by a small linear drainage structures. To this end, we note a few meters of concreted rectangular gutters partially covered, for masonry trapezoidal ditches with variable sections and longitudinal edges. Overall, the lack of sanitation facilities and crossing into service roads and footpaths of the study area contributes to stagnant waters, soil erosion, degradation of the environment and flooding.

### VIII.1.3.2- <u>SanitationWastewater</u>

The predominance of individual solutions mark the wastewater treatment in the area. Barely 40% of the population of Molyko eliminates its waste water in acceptable conditions. This is due to non awareness on the environment and the importance of the preserved. Part of the population is aware of this aspect but the main obstacles are the lack of civility of the people and financial resources. In the area of Molyko, most people use septic tanks as a means of wastewater disposal and when construction is interested in fashion these pits, one can see with bitterness that this process contributes to pollution groundwater and some pits encroach on taxiways

### VIII.1.3.3- <u>Solid Waste Management</u>

In the city, household waste management is provided by the company without any pretreatment HYSACAM form (separation of organics, plastics and industrial). Despite the government policy to use biodegradable envelopes, plastic waste production remains effective given the delay in the implementation of alternatives. On the other hand the population incivility causes the creation of dumps in areas of Molyko in public places, in

drains and gutters. It should also recognize the garbage collection in the area is not regular. Indeed, we observed in some places full garbage containers pre-waste collected by people .However people in turn do not fully ensure the pre-collection. Indeed, despite the facilities put in place (garbage bins) is sometimes observed garbage scattered on the ground beside bins, illustrating a lack of education on hygiene and sanitation.

### VIII.2- METHODOLOGICAL APPROACH ROAD MESH

# VIII.2.1.1- <u>General</u>

As part of the organization of Molyko sector plan in the city of BUEA, the proposed road network was obtained by taking into account the existing road. This area is densely occupied and disorganized, we chose:

- **4** Minimize maximum destruction of existing buildings;
- Search and create new channels of service and liaison for Molyko is accessible and connect to the rest of the city;
- **4** Keep up the geometry of existing roads;
- Create three crossings for inter-linking districts with spans of 34m, 15m and 20m;
- **4** Maintaining the geometry of existing roads;
- **4** Establishment of a reliable and sustainable sanitation.

# VIII.2.1.2-The different channels projected

The linear tracks of the following is planned:

- Routes of allowances 6m: 12.23 Km (see road network)
- Routes of 8m-way: 2, 45 Km (see road network)
- Routes of 10m ROW: 3.3km (see road network)
- Number of affected buildings: around 180.

# VIII.2.1.2- <u>ProLUPal of development alternatives</u>

- First alternative: track bilayer coated surface dressing;
- Second alternative: mostly paved paths pavers and other concrete;
- Third variant: paved lane asphalt concrete thickness 5cm.

### VIII.3- SUMMARY DEVELOPMENT COSTS OF ROADS

### VIII.3.1- Planning Summary by cost of road surface dressing (first alternative)

N°	Designation	Unit	Quantity	Unit Price	Total Price
1	WAY				
1.1	expropriations	ft	1	500 000 000	500 000 000
1.2	demolitions	m3	300	14 000	4 200 000
1.3	Tractof-wayclearance	m²	12 000	1 500	18 000 000
	SUBTOTAL1				522 200 000
2	General earthworks				
2.1	Shaping Platform	Km	18	1 568 000	28 224 000
2.2	purges	m3	300	10 500	3 150 000
2.3	Embankment pozzolan	m3	700	24 500	17 150 000
	SUBTOTAL2				48 524 000
3	FLOOR AND SIDEWALK				
31	Crushed serious base layer 20cm				
5.1	thickflood	m3	28 800	38 000	1 094 400 000
	Coating				
3.2	bilayercoated	m²	144 000	6 200	892 800 000
3.3	Reinforcedconcretepavementcoatingdosed				
	at350kg /m3	m <sup>2</sup>	36 000	18 500	666 000 000
3.4	Curbs orgutters	ml	5 678	16 000	90 848 000
3.5	miscellaneous furnishing	ft	1	150 000 000	150 000 000
	SUBTOTAL 3				2 894 048 000
4	SANITATION				
4.1	Cleansingandcleaning of				
	guttersandculverts	ml	600	4 200	2 520 000
4.2	Construction ofreinforced				
	concretegutters	ml	10 500	86 750	910 875 000
	SUBTOTAL 4				913 395 000
5	PUBLIC LIGHTING	Km	15	35 000 000	525 000 000
	SUBTOTAL5				525 000 000
6	Moving and/or networksRepair				
6.1	AESSonelNetworks	ft	1	410 000 000	410 000 000
6.2	CAMWATERnetworks	ft	1	600 000 000	650 000 000
6.3	PTTnetworks	ft	1	375 000 000	300 000 000
	SUBTOTAL 6				1 360 000 000
	TOTALDUTY				5 349 772 000
	VAT (19, 25%)				1 029 831 110
	TOTAL ALL TAXES INCLUDED				6 379 603 110
	SIX BILLION THREE HUNDRED SE		NINE MILI	JON SIX HUN	IDRED

THOUSAND THREE HUNDRED FRANCS CFA

N°	Designation	Unit	Quantity	Unit Price	<b>Total Price</b>
1	WAY				
1.1	expropriations	ft	1	500 000 000	500 000 000
1.2	demolitions	m3	300	14 000	4 200 000
1.3	Tractof-wayclearance	m²	12 000	1 500	18 000 000
	SUBTOTAL1				522 200 000
2	General earthworks				
2.1	ShapingPlatform	Km	18	1 568 000	28 224 000
2.2	purges	m3	300	10 500	3 150 000
2.3	Embankmentpozzolan	m3	700	24 500	17 150 000
	SUBTOTAL2				48 524 000
3	FLOOR AND SIDEWALK				
3.1	Crushedseriousbase layer20cmthickflood	m3	28 800	38 000	1 094 400 000
	Coating				
3.2	bilayercoated	m²	144 000	26 200	3 772 800 000
3.3	Reinforced concrete pavement coating dosed at350kg /m3	m²	36 000	18 500	666 000 000
3.4	Curbs orgutters	ml	5 678	16 000	90 848 000
3.5	miscellaneous furnishing	ft	1	150 000 000	150 000 000
	SUBTOTAL 3				5 774 048 000
4	SANITATION				
4.1	Cleansing and cleaning of gutter sand culverts	ml	600	4 200	2 520 000
4.2	Construction of reinforced concrete gutters	ml	10 500	86 750	910 875 000
	SUBTOTAL4				913 395 000
5	PUBLIC LIGHTING	Km	15	35 000 000	525 000 000
	SUBTOTAL5				525 000 000
6	Moving and/or networksRepair				
6.1	AES SonelNetworks	ft	1	410 000 000	410 000 000
6.2	CAMWATERnetworks	ft	1	600 000 000	650 000 000
6.3	PTTnetworks	ft	1	375 000 000	300 000 000

### VIII.3.2- <u>Summary cost of development of the road paver (second variant)</u>

N°	Designation	Unit	Quantity	<b>Unit Price</b>	Total Price
	SUBTOTAL 6				1 360 000 000
	TOTALDUTY				8 229 772 000
	VAT (19, 25%)				1584231110
	TOTAL ALL TAXES INCLUDED				9 814 003 110

### NINEBILLIONEIGHT HUNDRED ANDFOURTEENMILLIONTHREETHOUSAND HUNDREDFRANCSCFA

# VIII.3.3- <u>Coût sommaire d'aménagement de la voirie en béton bitumineux (troisième</u> variante)

N°	Designation	Unit	Quantity	Unit Price	<b>Total Price</b>
1	WAY				
1.1	expropriations	ft	1	500 000 000	500 000 000
1.2	demolitions	m3	300	14 000	4 200 000
1.3	Tractof-wayclearance	m²	12 000	1 500	18 000 000
	SUBTOTAL1				522 200 000
2	General earthworks				
2.1	ShapingPlatform	Km	18	1 568 000	28 224 000
2.2	purges	m3	300	10 500	3 150 000
2.3	Embankmentpozzolan	m3	700	24 500	17 150 000
	SUBTOTAL2				48 524 000
3	FLOOR AND SIDEWALK				
3.1	Crushedseriousbase layer20cmthickflood	m3	28 800	38 000	1 094 400 000
	Coating				
3.2	bilayercoated	m²	144 000	13 500	1 944 000 000
3.3	Reinforced concretepavementcoatingdosed at350kg /m3	m²	36 000	18 500	666 000 000
3.4	Curbs orgutters	ml	5 678	16 000	90 848 000
3.5	miscellaneous furnishing	ft	1	150 000 000	150 000 000
	SUBTOTAL 3				3 945 248 000
4	SANITATION				
4.1	Cleansingandcleaning of guttersandculverts	ml	600	4 200	2 520 000

N°	Designation	Unit	Quantity	<b>Unit Price</b>	<b>Total Price</b>
4.2	Construction ofreinforced	ml	10 500	86 750	910 875 000
	concretegutters				
	SUBTOTAL4				913 395 000
5	PUBLIC LIGHTING	Km	15	35 000 000	525 000 000
	SUBTOTAL5				525 000 000
6	Moving and/or networksRepair				
6.1	AESSonelNetworks	ft	1	410 000 000	410 000 000
6.2	CAMWATERnetworks	ft	1	600 000 000	650 000 000
6.3	PTTnetworks	ft	1	375 000 000	300 000 000
	SUBTOTAL 6				1 360 000 000
	TOTALDUTY				6 400 972 000
	VAT (19, 25%)				1232187110
	TOTAL ALL TAXES INCLUDED				7 633 159 110

### SEVEN BILLION SIX HUNDRED AND THIRTY THREE MILLION ONE HUNDRED AND FIFTY NINE THOUSAND ONE HUNDRED AND TEN FRANCS CFA

### VIII.4- PROGRAMMING AND LOCATION OF EQUIPMENT

After presenting the existing equipment in the area Molyko, we see an imbalance in the distribution of these urban facilities. But also through the absence, inadequacy and obsolescence of some equipment. We understand the importance of the programming of these devices so they can be implemented in a consistent and efficient manner to ensure the harmonious development of this strategic area that is intended for the city of Buea. As part of our study, we propose in this part of the programming equipment to the 2029 horizon, based on programming done through the development of the Land Use Plan (LUP) of the city of Buea. That is to say that as part of this program the PS Molyko, we will extract all the equipment programmed in this area during the programming of the LUP equipment Buea. This approach stems from the fact that Molyko which is the subject of a Sector Plan (PS) comes detailing the results arising from the Land Use Plan (LUP) of Buea.x

### VIII.4.1- <u>Remainder population estimates based on the assumptions of studies</u>

Before entering fully into the programming of equipment Molyko, we will proceed in the following table for a summary of the estimate of the population of Molyko under the assumptions of study.

Year	2005	2014	2019	2024	2029			
Low								
case(2.8%))	13 864	17 776	20 408	23 429	26 898			
Medium								
variant(4.5%)								
	13 864	20 603	25 675	31 996	39 873			
High								
case(6%)	13 864	23 423	31 345	41 947	56 134			
ource: RGPH2005/estimation du COMPETING BET /BEFA								

Table 46 : Estimated population of Molyko under the assumptions of study

As part of the development of the Land Use Plan (LUP) of Buea, the hypothesis of study was chosen the low hypothesis. It is in that sense in the context of the development of PS Molyko as we adopt the low hypothesis study

### VIII.4.2- Programming equipment

### Table 47 : Programming of educational facilities in Molyko low hypothesis

E autimm and	E-righting a	Facilities at creating						
Туре	Facilities		Population	Ratio	Location	Area	Construction type	Observations
nursery	5	/		1/ 6800				
primary schools	7	/		1/1800				The existing facilities must be
Private secondary institutions	7	/		1/12000				renovated The listed sites are the priority.
CETIC	/	1	26 898	1/26400	MOLYKO	1,5ha	R+3	Some areas are revised upwards in
High School of general education	1	1		1/12000	MOLYKO	2ha	R+3	order to provide for LUPsible extensions
TechnicalHigh School	/	1		1/26400	MOLYKO	2ha	R+3	

**Table 48 :** Programming socio-educational equipment Molyko low hypothesis

EquipmentType	Function	Number	Programmingthreshold Location Area		
Public institutions from early childhood (Youth House)	whose role is to provide additional life to the family and at school, they must be programmed into the neighborhood unit"neighborhood"	As much as there are neighborhood in the city With over 10,000 inhabitants	Near sports facilities of the district or schools (Molyko)	0,25 ha	

**Table 49 :** Programming health equipment Molyko low hypothesis

EquipmentTune	Existing	Facilities at	Programmi	ngthreshold	Caracteristic		Observations
Equipment Type	Facilities	creating	Population	Ratio	Location	Area	Obser various
Hospital	1	1		1/ 13446	Molyko	/	
DistrictMedical Centre	/	1		1/26 898	Molyko	3 ha Optimal Size 200 beds, 150 m2 beds	Allow the patient to resume surplus of other health facilities
Integrated health center	3	2	26 898	1/6533	Molyko	1haOptimumsizeof70beds,150 m2beds	
Cabinet/clinical/ ambulatorycare center	2	/					Those found to be enlarged

E	Existing Facilities	Facilities at creating		Program	Observed		
Equipment I ype			Population	Ratio	Location	Area	Observation
Football field	03	/		1/8966		2ha	
Tennis court	/	1	26 898	1/ 26 898	Molyko	1.5ha	The sites are listed for sites developed with bleachers can accommodate meetings.
omnisportStadium	1	/		1/26 898		15ha	

Table 50 : Programming of sports equipment Molyko low hypothesis

Table 51 : Programming cultural facilities in Molyko low hypothesis

	Existing Facilities	Facilities at creating		Progra			
EquipmentType			Population	Ratio	Location	Area	Observation
national Museum	/	/					/
Movie theater	/	1	26 898	1/26 898	Molyko	0,094ha	In view of the context in which it is programmed it can also be used for theatcher performances
Municipallibrary / media	/	1		1/26 898	Molyko	0,05ha	/

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# CONCLUSION

This report (urban diagnosis) is to make an inventory of Molyko on the land area of demographic change, the site created, and the socio-economic base. This inventory was done through the implementation of a methodological approach that involves:

- Direct observations on site;
- Information obtained by interview resource persons;
- Socio-economic surveys;
- The collected documentation and working sessions with the Master Authority or its representatives.

This has allowed the collection of field data. Following data collection, the various analyzes have been made. From these analyzes, it appears that Molyko has several strengths that give cause for hope for the future and constraints to its development.

Following these analyzes, a preliminary design was developed with the aim to project the spatial organization of Molyko and location of new equipment. This approach takes a rather special character because it gives an overview on the principles that will be linked to the development of the next mission in this case the development proposals.

# **IX-** APPENDIX