République du Cameroun

Paix-travail –Patrie

Ministère de l'Economie de la
Planification et de l'Aménagement
du Territoire

Republic of Cameroon

Peace- Work –Fatherland

Ministry of Economy, Planning and
Regional Development

Regional Territorial Planning and
Sustainable Development Plan

LOT 5: North-West Region

DIAGNOSTIC STUDY OF THE TERRITORY

Volume II: Annexes

Data, figures and survey results

For   The Ministry of Economy, Planning and
        Regional Development, Yaounde (MINEPAT)

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Diagnostic study of the territory - Annexes

The diagnostic report consists of three parts:
Volume I: the evaluation of the current situation and the SWOT analysis
Volume II: annexes, parts 1 and 2 with additional data, figures and tables.
Volume III: the cartographic atlas.

This volume II consists of:

- Extensive descriptions of the protected areas and natural habitats
- Tables of weather data and climate parameters
- Tables on production outputs (volumes sold, cultivated surfaces)
- Tables of socio-demographic and socio-economic parameters (population size, structure, employment, migrations)
- Statistics on public services and basic infrastructures (education, health, transport)

It is structured as follows:

The part 1 serves as detailed documentation of the sources and the data that have been evaluated by the experts. These data have been summarised in the evaluations of the first volume and their references can be found in the text. The tables also present the data that have been exploited in the figures of the first volume.

The part 2, documents the results of the regional field survey that took place from April to June 2018. Socio-economist experts were hired by the consultant in Bamenda to design and carry out a field survey in order to gather information at the level of the subdivisions. They submitted a questionnaire to the experts for approval which was then used by their field collectors recruited in the localities. The experts then used the information they could source from its results as inputs for their evaluation in this diagnostic report.

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Part 1: Tables, data and facts regarding the diagnostic of the sectors (secondary data)

1   Environment (Data of chapter 4. Environment, natural resources and climate change)

1.1. Meteorological and land cover data

Table A 1:   *Heights (in mm) and number of rainy days in some localities of the North-West region during the agricultural campaigns of 2009 to 2015*

Locality	Data	2009	2010	2011	2012	2013*	2014	2015
Mbengwi	Height	2,544	2,249	-	3,123	3,099	2,569	2,082
	Number of days	146	174	-	157	143	147	131
Kumbo	Height	1,752	1,766	-	-	513	3,232	-
	Number of days	163	154	-	-	53	271	
Bamunka	Height	1,286	1,656	-	12,301	3,210	3,198	-
	Number of days	-	135	-	94	120	269	-
Nkambe	Height	2,066	-	-	2,211	2,226	2,198	2,198
	Number of days	150	-	-	150	156	154	140
Bali	Height	-	-	-	3,387	-	3,099	-
	Number of days	-	-	-	136	-	280	-
Bamenda Up Station	Height	2,550	2,556	2,351	2,275	2,537	3,218	-
	Number of days	188	180	144	206	192	269	-
Bamenda Airport	Height	1,677	3,837	-	-	919	3,075	-
	Number of days	163	152	-	-	74	279	-
Fundong	Height	2,680	2,859	-	2,938	2,738	2,735	-
	Number of days	205	194	-	191	171	183	-
Wum	Height	1,189	-	-	-	-	2,345	-
	Number of days	167	-	-	-	-	172	-

Source: MINADER/Department of Agri-Surveys and Statistics/AGRI-STAT N°015 and 016/Regional Service of Agri-Surveys

Table A 2:   *Monthly amount of rainfall (mm) and number of rainy days in Bamenda up Station from 2009 to 2014*

Month	2009		2010		2011		2012		2013		2014	
	Height	Days	Height	Days	Height	Days	Height	Days	Height	Days	Height	Days
Jan.	5	1							39	3		
Feb.	20.7	2	65.7	8	10.2	4	67.8	9	27.8	6	9	3
Mar.	57.3	5	141.4	7	27.8	7	103.4	12	262.9	15	156	17
Apr.	197.2	18	86.2	12	174.7	12	78.5	6	142.4	12	317	29
May	200.5	21	232.8	20	249.6	18	225.5	24	262.9	25	463	31
Jun.	220.6	26	190.9	21	257.2	17	316.8	28	142.4	12	340	30
Jul.	579.6	30	297.8	26	447.7	23	380.5	30	266.9	15	385	29
Aug.	575.3	29	489.9	27	432.7	20	391.1	30	377.8	31	406	31
Sep.	342.2	27	592.3	27	397.1	20	384.2	29	409.9	28	449	30
Oct.	312.6	23	400	25	204.6	12	240	25	277.8	20	382	31
Nov.	39.1	6	58.7	7	128.5	5	86.9	13	239.9	15	248	22
Dec.					20.8	6			87.6	10	63	16
Total	2,550.1	188	2,555.7	180	2,350.9	144	2,274.7	206	2,537.3	192	3,218	269

Source: MINT/ Regional Delegation for the North-West/Office of Meteorology. MINT

Table A 3: *Distribution of the main land covers in the North-West Region in 2018*

		Water surface	Built surface	Mosaic sahelian savanna / cropland	Mosaic cropland / shrubby grassland	Forest	Total surface of division
Boyo	Surface area (km²)	1.1	0.4	386.5	777.5	480.4	1,645.8
	Surface area (ha)	106.43	39.51	38,645.50	77,750.73	48,042.36	164,584.5
	% of the surface of the division	0.06	0.02	23.48	47.24	29.19	100
	% of the regional surface for this class	1.12	1.24	12.52	9.08	8.48	-
Bui	Surface area (km²)	1.2	7.5	380.1	1356.1	466.7	2,211.6
	Surface area (ha)	120.65	748.26	38,005.60	135,609.57	46,673.10	221,157.2
	% of the surface of the division	0.05	0.34	17.18	61.32	21.10	100.00
	% of the regional surface for this class	1.27	23.54	12.31	15.84	8.24	-
Donga-Mantung	Surface area (km²)	8.7	5.4	905.0	2,121.9	1,296.7	4,337.8
	Surface area (ha)	870.50	544.23	90,497.59	212,192.73	129,674.34	433,779.4
	% of the surface of the division	0.20	0.13	20.86	48.92	29.89	100.00
	% of the regional surface for this class	9.17	17.12	29.32	24.79	22.89	-
Menchum	Surface area (km²)	16.7	0.6	863.3	2155.3	1503.7	4,539.6
	Surface area (ha)	1,668.23	58.14	86327.83	215,534.70	150,369.21	453,958.1
	% of the surface of the division	0.37	0.01	19.02	47.48	33.12	100.00
	% of the regional surface for this class	17.58	1.83	27.97	25.18	26.54	-
Mezam	Surface area (km²)	1.3	14.5	243.6	1,022.4	570.4	1,852.3
	Surface area (ha)	132.82	1,452.78	24,364.28	102,240.90	57,043.71	185,234.5
	% of the surface of the division	0.07	0.78	13.15	55.20	30.80	100.00
	% of the regional surface for this class	1.40	45.70	7.89	11.94	10.07	-
Momo	Surface area (km²)	0.0	0.3	111.7	489.7	1191.0	1,792.6
	Surface area (ha)	0.00	28.44	11,170.08	48,966.66	119,095.38	179,260.6
	% of the surface of the division	0.00	0.02	6.23	27.32	66.44	100.00
	% of the regional surface for this class	0.00	0.89	3.62	5.72	21.02	-
Ngo-Ketunjia	Surface area (km²)	65.9	3.1	196.6	638.4	156.7	1,060.6
	Surface area (ha)	6,589.21	307.71	19,660.37	63,836.37	15,670.08	106,063.7
	% of the surface of the division	6.21	0.29	18.54	60.19	14.77	100.00
	% of the regional surface for this class	69.45	9.68	6.37	7.46	2.77	-
Total land cover surface (ha)		9,487.84	3,179.07	308,671.25	856,131.66	566,568.18	1,744,038.0
% of the Region's surface		0.5	0.2	17.7	49.1	32.5	100.0

Source: land cover classified from Landsat-5, -7, and -8 images

Table A 4:   Evolution of the vegetal land covers between 1987 and 2018

		Surface 1987 (km²)	Difference 1987-2003	Surface 2003 (km²)	Difference 2003-2018	Surface 2018 (km²)	Overall change 1987-2018	% of initial surface
Boyo	Mosaic sahelian savanna / cropland	547.24	**-160.66**	386.58	**-0.13**	386.46	**-160.79**	-29.4
	Mosaic cropland / shrubby grassland	526.50	**299.09**	825.59	**-48.08**	777.51	**251.01**	47.7
	Forest	566.91	**-135.78**	431.14	**49.29**	480.42	**-86.49**	-15.3
Bui	Mosaic sahelian savanna / cropland	699.56	**-355.15**	344.41	**35.65**	380.06	**-319.50**	-45.7
	Mosaic cropland / shrubby grassland	958.89	**576.49**	1535.38	**-179.29**	1356.10	**397.20**	41.4
	Forest	537.66	**-212.92**	324.74	**141.99**	466.73	**-70.93**	-13.2
Donga-Mantung	Mosaic sahelian savanna / cropland	1495.09	**-448.20**	1046.89	**-141.92**	904.98	**-590.12**	-39.5
	Mosaic cropland / shrubby grassland	1229.55	**902.96**	2132.51	**-10.58**	2121.93	**892.38**	72.6
	Forest	1594.48	**-448.72**	1145.76	**150.98**	1296.74	**-297.73**	-18.7
Menchum	Mosaic sahelian savanna / cropland	1720.93	**-1062.01**	658.92	**204.36**	863.28	**-857.65**	-49.8
	Mosaic cropland / shrubby grassland	1351.99	**784.63**	2136.62	**18.73**	2155.35	**803.36**	59.4
	Forest	1453.16	**278.59**	1731.75	**-228.05**	1503.69	**50.54**	3.5
Mezam	Mosaic sahelian savanna / cropland	475.22	**-340.10**	135.12	**108.52**	243.64	**-231.58**	-48.7
	Mosaic cropland / shrubby grassland	682.31	**442.37**	1124.68	**-102.27**	1022.41	**340.10**	49.8
	Forest	685.64	**-102.73**	582.91	**-12.47**	570.44	**-115.21**	-16.8
Momo	Mosaic sahelian savanna / cropland	333.82	**-256.08**	77.74	**33.96**	111.70	**-222.12**	-66.5
	Mosaic cropland / shrubby grassland	393.47	**170.87**	564.34	**-74.68**	489.67	**96.20**	24.4
	Forest	1063.95	**84.94**	1148.90	**42.06**	1190.95	**127.00**	11.9
Ngo-Ketunjia	Mosaic sahelian savanna / cropland	307.43	**-99.74**	207.69	**-11.08**	196.60	**-110.82**	-36.0
	Mosaic cropland / shrubby grassland	392.52	**276.20**	668.72	**-30.36**	638.36	**245.84**	62.6
	Forest	288.15	**-157.61**	130.54	**26.16**	156.70	**-131.45**	-45.6
NW Region	Mosaic sahelian savanna / cropland	5579.29	**-2721.94**	2857.35	**229.37**	3086.71	**-2492.57**	-44.7
	Mosaic cropland / shrubby grassland	5535.22	**3452.61**	8987.83	**-426.51**	8561.32	**3026.09**	54.7
	Forest	6189.95	**-694.23**	5495.72	**169.96**	5665.68	**-524.27**	-8.5

Source: land cover classified from Landsat-5, -7, and -8 images

1.2. Demographics on poverty

Table A 5:   *Share of the population living below the poverty threshold by region from 2001 to 2014 (%)*

Regions	Year		
	2001	**2007**	**2014**
Littoral	19.1	12.1	6.9
Douala	10.9	5.5	4.2
Littoral exclusive Douala	35.5	30.8	19.5
Centre	29.8	21.6	13.9
Yaounde	13.3	5.9	5.4
Centre exclusive Yaounde	48.2	41.2	30.3
Adamawa	48.4	52.9	47.1
East	44.0	50.4	30.0
Far North	56.3	65.9	74.3
North	50.1	63.7	67.9
North-West	52.5	51.0	55.3
West	40.3	28.9	21.7
South	31.5	29.3	34.1
South-West	33.8	27.5	18.2
Cameroon	40.2	39.9	37.5

Source: NIS 2016

Table A 6:   *Percentage of population using wood to cook in the kitchen*

	2001	**2005**	**2006**	**2007**	**2010**	**2011**	**2014**
Location of residence							
Douala	40.1	40.0	43.7	46.9	46.4	47.2	38.4
Yaounde	32.7	34.3	33.7	32.2	32.0	30.8	27.9
Other cities	75.9	80.4	84.8	82.2	74.5	82.7	71.2
Area of residence							
Urban	55.1	56.3	66.6	58.7	53.1	66.0	47.8
Rural	97.0	95.6	98.1	96.2	95.2	98.0	93.9
Region of investigation							
Douala	40.1	40.0	43.7	46.9	46.4	91.0	38.4
Yaounde	32.7	34.3	33.7	32.2	32.0	86.8	27.9
Adamawa	92.3	92.7	89.0	94.8	88.8	47.2	85.0
Centre	92.4	86.4	93.7	91.7	90.9	91.3	81.7
East	95.4	95.6	95.1	95.7	94.6	98.0	91.2
Far North	99.5	97.0	96.8	97.2	97.5	84.6	97.9
Littoral	81.5	86.9	87.5	84.8	86.4	97.6	80.1
North	94.9	97.0	97.6	97.8	96.3	95.8	96.3
North-West	95.7	94.9	95.1	94.4	93.6	91.3	88.8
West	93.8	93.8	92.3	92.3	88.0	83.9	90.7
South	83.4	88.9	89.8	88.3	69.7	92.1	79.8
South-West	79.1	78.9	84.2	84.4	81.0	30.8	70.1
Cameroon	82.4	82.2	82.5	82.9	79.1	82.8	75.3

Source: NIS, ECAM, 2, 3, 4

1.3. Protected areas

1.3.1. Laws and definitions

In Cameroon a distinction is made between protected classified forests and unclassified forests.

According to law N° 94/01 of 20th January 1994 relating to forestry, wildlife and fishery regulations in Cameroon, protected areas are zones geographically delimited and managed with a view to attaining

the specific objective of conserving and realising the sustainable protection of one or more given natural resource(s), such as certain species.

In the forestry administration, forests are classified according to a classification of land by the Ministry of Lands. The 1994 forestry law mentioned above defines forest as: any land covered by vegetation with a predominance of trees, shrubs and other species capable of providing products other than agricultural produce. There are permanent and non-permanent forests.

Permanent forest: Land that is used solely for forestry and/ or as a wildlife habitat. Permanent forest in Cameroon shall cover at least 30 % of the total area of the national territory and reflect the country's ecological diversity. There are State forests as well as Council forests. Within State forests a distinction is made in forest (flora) reserves and wildlife (fauna) reserves.

Non-permanent forest: This is a forest land on a non-permanent forest estate, that may be used for other purposes than forestry. It can be classified and partially protected. They could either be council forests, community forests or plantation forests, belonging to the public authorities or private individuals.

Other important definitions of key terms used in this annex are, in an alphabetic order:

- Forest plantation: reforested land or land intended for reforestation with a view of producing forest products and/or protecting a fragile ecosystem.

- Game reserve: area set aside for the conservation, management and propagation of wildlife and for the protection and management of its habitat. Hunting is forbidden, except by authorization of the Minister in charge of wildlife, as part of duly approved management operations. Dwelling and other human activities are also regulated or forbidden.

- Important Bird Areas: area with relevant restricted range species of birds

- National park: usually a large scale, uninterrupted area whose fauna, flora, soil, subsoil, atmosphere, waters and natural environment as a whole is of special interest and should be preserved from any natural deterioration and protected against any human interference likely to alter their outlook, composition and evolution.

- Plant life sanctuary: area intended for the full protection of certain endemic plant species.

- Protected area: a zone geographically delimited and managed with a view to attaining the specific objective of conserving and realising the sustainable protection of one or more given resources.

- Protection forest: a forest intended for the protection of fragile ecosystems or which is of scientific importance.

- Sanctuary: a forest within which only specially designated animals or plant species are given full protection.

- Wildlife: species belonging to any natural ecosystem, as well as all animal species captured from their natural habitat for domestication purposes.

1.3.2. Important Bird Areas

In the table below you find five areas that are considered to be Important Bird Areas (IBA's) in the North-West Region. Four of them belong to the above mentioned, classified and already protected forests.

Table A 7:   Protected Areas by IBA Criteria

Name	IBA Criteria
Bali-Ngemba Forest Reserve	A1, A2, A3
Mbi Crater Game Reserve	A1, A2, A3
Mount Mbam, Fumban Jakiri	A1, A2, A3
Kilum-Ijim Mountain Forest	A1, A2, A3
Njinsing Forest: Tabenken	A1, A2, A3

Source: http://www.globalspecies.org/ntaxa/903806

Table A 8:   *Permanent forest- Forest reserves*

N°	Forest (Flora) Reserves	Year of Creation	Localities/ Communities	Subdivision	Division	Surface (in ha)
1	Mbembe Ako Forest	1934	Ako, Mbembe, Dumbu, Kwei, Gimbeu, Mayo Binka.	Ako	Donga-Mantung	2,849
2	Kom-Wum Forest	1951	Mentang, Mbongkisu, Mughom, Baiso, Mbengkas, Aghem, Kom,	Fundong & Wum	Boyo, Menchum	8,029
3	Bafut-Ngemba Forest	1953	Bangba, Sananga, Mendankwe, Akum, Neshele, Nshielu, Benjon, Santa	Santa, Bamenda I, Tubah, Bamenda III	Mezam	3,238
4	Bali-Ngemba Forest	1953	Bali, Ngemba	Bali	Mezam	1,147
5	Tubah Forest	1953	Bambui, Babanki	Tubah	Mezam	85
6	Kilum-Ijim Mountain Forest & Plantlife Sanctuary	2004	Elak, Oku, Belo	Oku, Belo	Bui, Boyo	1,000
	Total					16,348

Source: NIS, 2017

Table A 9:   *Permanent forest-Wildlife reserves*

N°	Wildlife (Fauna) Reserves	Year of Creation	Localities/ Communities	Subdivision	Division	Surface (in ha)
1	Mbi Crater Game Reserve	1964	Mbingo, Foleshele	Belo	Boyo	370.00
2	Kagwene Gorilla Sanctuary	2008	Kagwene, Mbulu and Njikwa	Njikwa, Mamfe	Momo (70%), Manyu (30%)	1,944.00
3	Kimbi-Fungom National Park	2015	Gayama, Kimbi, Wum, Nyos, Nkang, Esu, Fungom, Fonfuka, Dumbo, Kwep, Akum	Fungom, Fonfuka, Misaje	Menchum, Boyo, Donga Mantung	95.38
	Total					2,409,38

Source: NIS, 2017

1.3.3. Classified protected areas

In the North-West Region, there are ten protected areas. Seven of them are flora reserves. Mount Mbam is in both the North-West Region (Bui) and in the West Region (from Jakiri towards Fumban). From the flora reserves the Bali Ngemba is a plantation forest, Kilum-Ijim mountain forest is a plant life sanctuary, while the other five are protection forest. There are three fauna reserves. Mbi Crater is a game reserve, Kagwene Gorilla Sanctuary is a wildlife sanctuary, protecting specifically the Cross River Gorilla and Kimbi Fungom is both a fauna reserve as well as a National Park, where every aspect of the natural environment is protected. Thus all the protected reserves have a different protection status.

Figure A 1:   Protected areas in the North-West Region
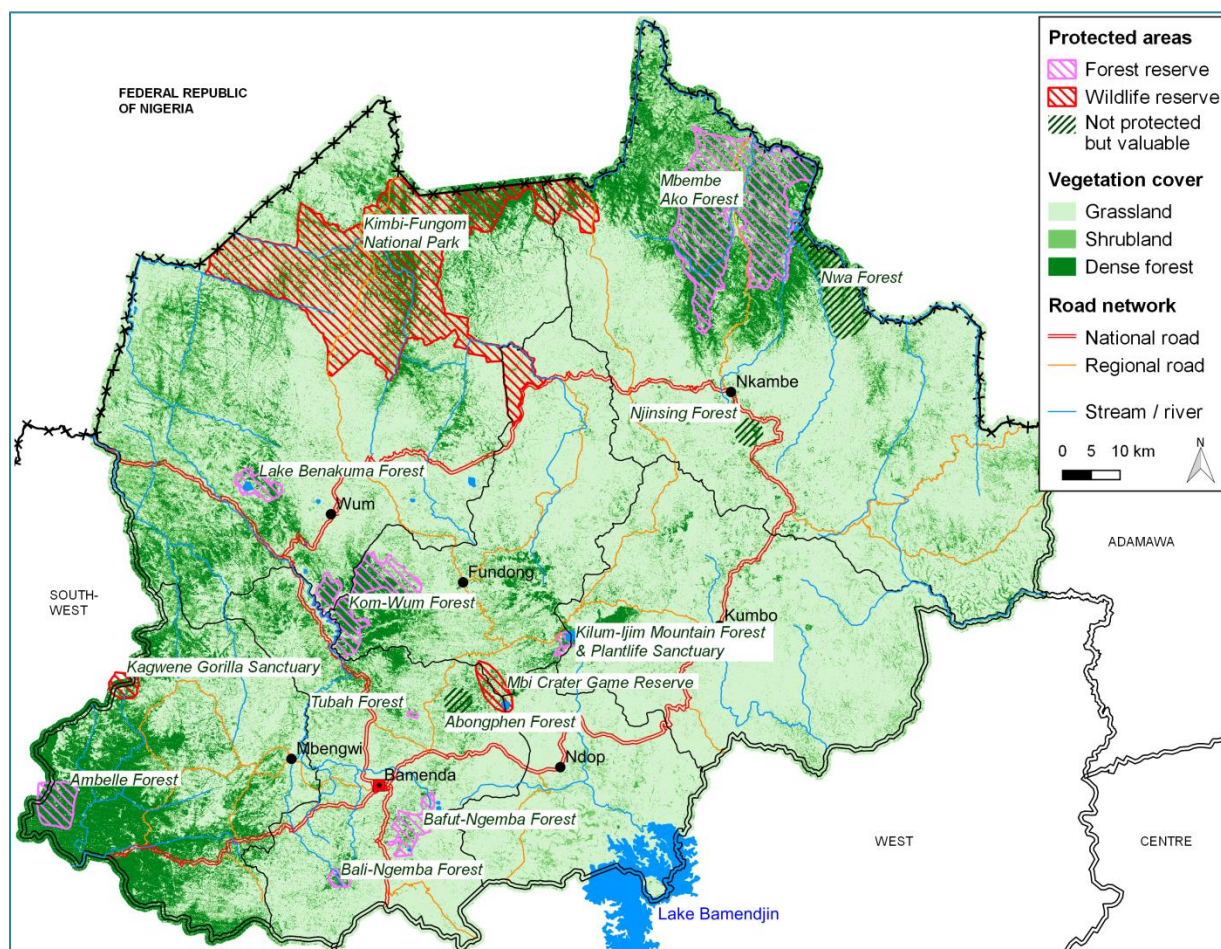
Data source: MINEPAT / MINEPDED and Landsat Tree Cover 2015

Mbembe Ako Forest Reserve

Basic Information

Division: Donga-Mantung

Villages: Ako - Berabi - Bogu - Gife Hill - Mount Kinka - Ndaka

Altitude: 1,800 - 2,500 m

Surface: 28,470 ha

Year of designation: 1934

The Mbembe Ako Forest reserve is a hub to endemic plant species. It was created under the United Kingdom Trusteeship, it was mapped in 1994 and it covers 28,470 ha of land.

Researchers have found that the Mbembe Ako Forest Reserve has seven (endemic) plant species that have not been found anywhere else on earth. The mapping was done by a team of Botanists from the Tropical Plant Exploration Group TroPEG, a Cameroon-based NGO, in collaboration with the Rufford Small Grant Foundation. They assessed the forest-, woodland- and savannah biodiversity. The research also revealed that the reserve is very rich in species diversity. There are 2,500 herbs, grouped in 54 families and 14 are medicinal. The plant species are well utilized by the local communities. Yet the reserve maintains its biodiversity as well as its relatively high carbon stock.

As for animals there are abundant species of chinis, apes, birds and other animals in the reserve. The forest faces a lot of challenges from Nigerians who invade and carry out unregulated forest exploitation. Currently, there are plans to transform the Mbembe Ako Forest Reserve into a management unit because of its rich flora and fauna.

Kom Wum Forest Reserve

Basic information
Division: Boyo (Fundong) and Menchum (Wum)
Villages: Mentang, Mbongkisu, Mughom, Baiso, Mbengkas, Aghem, Kom
Surface: 8,029 ha
Year of designation: 1951

The resources found are the highly valued Cameroon-Nigeria Chimpanzee (*Pan troglodytes ellioti*), as well as other endangered animal and plant species. The forest reserve is surrounded by five villages that include Mentang, Mbongkisu, Baiso, Mbengkas and Mughom. The projects engaged by the communities are on the community Eco-guards, to support and improve law enforcement in the reserve and to create and sustain chimp conservation awareness in communities and schools.

The Fundong council has been consistently losing timber as well as several protected animal species to poachers in the past years. It was therefore urgent and important to recruit and train eco-guards in order to cut down on the prevailing rate of illegal poaching, illegal hunting, illegal logging and all other ills practices within this rich forest and wildlife resources. The training was carried out in partnership between the Fundong council and the Centre for Indigenous Resources Management and Development (CIRMAD).

Farming and hunting are the highest anthropogenic activities recorded in the reserve with an encounter rate of 1.19 signs per km respectively. As a result of high human influences, effective conservation strategies through sensitization campaigns and participatory approach should be intensified to preserve the fast declining chimpanzees remaining in these forested areas.

Bafut Ngemba Forest Reserve

Basic Information
Division: Mezam (Santa, Bamenda I, Bamenda III and Tubah)
Villages: Bangba, Sananga, Mendankwe, Akum, Neshele, Nshielu, Benjon, Santa
Altitude: 1,800 – 2,500 m
Surface: 3,238 ha
Year of designation: 1953

Bafut Ngemba Forest Reserve is a natural forest, 35 km from Bamenda and 3 km from Santa. It is southwest of Mount Bangba, southeast of Sananga and south of Mendankwe having an average elevation of 2,340 m. Localities in the area are: Bangba Mountain, Sananga (Hill, 4 km northwest), Mendankwe (4 km north), Neshele Mountain (5 km northeast), Nshielu (5 km southeast), Akum (5 km west) and Benjon (6 km southeast). Landmarks in the area are: Mubang escarpment, Lake Bambuluwe (4 km south), Bambili Lake (6 km northeast), lake Awing and Santa Peak (8 km south).

Figure A 2:   *Lake Bambili*

Source: Regional Delegation MINEPDED

Figure A 3:   *Lake Awing*

Source: Regional Delegation MINEPDED

The Bafut-Ngemba Forest Reserve has faced conservation challenges. It is an example of a protected area that has gradually been encroached and suffered from rampant deforestation. However, the extent and rate of change to the forest landscape is not fully understood, particularly by local land users and decision makers. Documentation of land cover provides information for better understanding of historical land use practices and change as well as current land use patterns. This mountain range is a montane forest habitat which is home to endemic bird species. *Astylosternus rheophilus* is a very common endemic species. Although it tolerates some habitat modification, widespread habitat loss and degradation are threats to it. *Chytridiomycosis* might pose an additional threat, at least in situations where populations are already stressed.

Bali Ngemba Forest Reserve

Basic Information

Division: Mezam (Bali)

Villages: Bali, Ngemba

Altitude: 1,350-2,100m

Surface: 1,147 ha

Year of designation: 1953

Bali-Ngemba Forest Reserve is located in the valley of the Alatening stream, south-west of Bamenda. The vegetation comprises a continuous band of sub montane and montane forest, much of it degraded to varying degrees. There are large Eucalyptus plantations between.1,350-1,600 m which are exploited for timber and fuel wood. Above 1,600 m there is a patchwork of natural forests and farms. Although the understorey of the forest is much cleared for the growing of coco-yams, maize, plantains and potatoes, it retains a continuous canopy. Patches of intact forests are found mainly on the higher northern edge of the reserve. The reserve is completely surrounded and, except on the most inaccessible slopes, encroached by farmland, particularly for the cultivation of Arabica coffee.

To date, 185 species have been recorded. *Tauraco bannermani* is common above 1,800 m, but has been recorded down to 1,600 m and breeds in shade trees above cocoyam plantations. However, the relatively high density of *T. bannermani* may be due to immigration of birds displaced by forest clearance elsewhere. *Platysteira laticincta* and *Malaconotus gladiator* also occur and, as most of the forest lies between 1,400-1,800 m, the population of the latter may be healthy. *Phylloscopus herberti* has been recorded recently. Five species of the Sudan–Guinea Savanna biome and 17 of the Guinea–Congo

Forests biome also occur; the former include *Dendropicos poecilolaemus*, the only Important Bird Area (IBA) in Cameroon from which it has, to date, been recorded.

Non-bird biodiversity: local reports indicate that *Cercopithecus preussi* (EN) may still survive, but probably not for long.

Table A 10:   Populations of IBA trigger species: year of most recent IBA criteria assessment: 2001

Species	Current IUCN Red List Category	Season	Year(s) of estimate	Population estimate	IBA Criteria Triggered
Cameroon Olive-pigeon *Columba sjostedti*	LC	resident	2000	present	A2, A3
Bannerman's Turaco *Tauraco bannermani*	EN	resident	2000	present	A1, A2, A3
Bar-tailed Trogon *Apaloderma vittatum*	LC	resident	2000	present	A3
Western Green Tinkerbird P*ogoniulus coryphaea*	LC	resident	2000	present	A3
Grey Cuckooshrike *Ceblepyris caesius*	LC	resident	2000	present	A3
Banded Wattle-eye *Platysteira laticincta*	EN	resident	2000	present	A1, A2, A3
Laniarius poensis	NR	resident	2000	present	A3
Green-breasted Bush-shrike *Malaconotus gladiator*	VU	resident	2000	present	A1, A2, A3
Yellow-breasted Boubou *Laniarius atroflavus*	LC	resident	2000	present	A2, A3
White-bellied Crested-flycatcher *Elminia albiventris*	LC	resident	2000	present	A3
Cisticola discolor	NR	resident	2000	present	A2, A3
Green Longtail *Urolais epichlorus*	LC	resident	2000	present	A2, A3
Black-collared Apalis *Oreolais pulcher*	LC	resident	2000	present	A3
Bamenda Apalis *Apalis bamendae*	LC	resident	2000	present	A1, A2
Bangwa Warbler *Bradypterus bangwaensis*	NT	resident	2000	present	A1, A2, A3
Cameroon Mountain Greenbul *Arizelocichla montana*	NT	resident	2000	present	A1, A2, A3
Western Mountain Greenbul *Arizelocichla tephrolaema*	LC	resident	2000	present	A2, A3
Cameroon Olive Greenbul *Phyllastrephus poensis*	LC	resident	2000	present	A2, A3
Black-capped Woodland-warbler *Phylloscopus herberti*	LC	resident	2000	present	A2, A3
Sylvia abyssinica	NR	resident	2000	present	A3
Waller's Starling *Onychognathus walleri*	LC	resident	2000	present	A3
Mountain Robin-chat *Oreocossypha isabellae*	LC	resident	2000	present	A2, A3
Grey-chested Kakamega *Kakamega poliothorax*	LC	resident	2000	present	A3
Cameroon Sunbird *Cyanomitra oritis*	LC	resident	2000	present	A2, A3
Northern Double-collared Sunbird *Cinnyris reichenowi*	LC	resident	2000	present	A3
Baglafecht Weaver *Ploceus baglafecht*	LC	resident	2000	present	A3
Black-billed Weaver *Ploceus melanogaster*	LC	resident	2000	present	A3
Brown-capped Weaver *Ploceus insignis*	LC	resident	2000	present	A3
Red-faced Crimsonwing *Cryptospiza reichenovii*	LC	resident	2000	present	A3
Shelley's Oliveback *Nesocharis shelleyi*	LC	resident	2000	present	A2, A3
Oriole Finch *Linurgus olivaceus*	LC	resident	2000	present	A3
Thick-billed Seedeater *Crithagra burtoni*	LC	resident	2000	present	A3

Source: BirdLife International, 2018, Important Bird Areas factsheet: Bali-Ngemba Forest Reserve, http://www.birdlife.org on 17/05/2018

Note: This table presents the IBA criteria triggered and the species that triggered them at the time of assessment. The current IUCN Red List category may vary from that which was in place at that time.

Leptonychia kamerunensis is a small under-store tree of sub montane evergreen forest. This species is endemic to Cameroon and known from about six localities in the forests of the Cameroonian Highlands. It has an estimated extent of occurrence (EOO) of 1,045 km² (within the range for Endangered under class A with a minimum area of occupancy (AOO) of 40 km² (within the range for Endangered under criterion B2). A continuing decline in the area and quality of this species' habitat is observed in the

Cameroonian Highlands due to deforestation for timber and agriculture, which has been extensive, and continues. The main ongoing threat to this species is clearance of its surviving forest habitat for timber and agriculture, and based on these threats it occurs at six or seven locations.

Tubah Forest Reserve

Basic Information

Division: Mezam (Tubah)

Villages: Bambui, Babanki

Surface: 85 ha

Year of designation: 1953

There has been rampant encroachment on Cameroon's protected forest landscapes in the last few years. This has resulted to the loss of substantial parts of the forest cover, through cultivation for agriculture, settlements, charcoal processing, logging and hunting.

The present vegetation of Tubah forest reserve consists mainly of savannah ecosystem, with the *Poaceae* of *Grammeae* plants forming the main vegetation layer interspersed with a few other annuals, perennials and trees. According to Ngwa and Fonjong (2002a), the vegetation of this region is both natural and cultivated. The cultivated vegetation consists of planted trees like cola nut, eucalyptus, raffia palm and other fruit trees.

Many international environmental conservation organisations have focused on the Tubah Upland Forests of Cameroon, particularly on raising awareness about the forest exploitation and the detrimental impacts it has on the diverse habitats of animals such as the Nigerian Cameroon Chimpanzee.

In 2013, CAEPC Cameroon liaised with farmers, grazers, hunters and students to engage about forest exploitation and the importance of conservation and restoration. They aimed to improve, enhance and raise awareness about the conservation status of threatened trees for chimpanzee food and habitation within the Tubah Upland Forest. They conducted training workshops on tree identification, reforestation techniques and nursery establishment with the communities surrounding the Tubah Upland Forest and about issues such as forest exploitation to conserve and restore threatened tree species for chimpanzee food and habitation. This included men and women from administration, government, community leadership authorities, hunters, grazers and student communities.

A permanent nursery was established with the involvement of 58 community members. In total, 10,000 poly pots were filled with 6,000 trees including species such as Mysopsis, Beshemidia, Vocanga, Vitex, Cordia and Ficus. Workshop participants and community members also planted 5,000 trees during the demonstration on reforestation techniques in degraded patches linking a corridor between the Fitsen and Kubu patches.

Figure A 4:   **Kilum-Ijim Mountain Forest**   **Figure A 5:**   **Plantlife Sanctuary**

Source: Regional Delegation MINEPDED

Source: Regional Delegation MINEPDED

Kilum-Ijim Mountain Forest ad Plant life Sanctuary

Basic Information
Division: Boyo (Bello) and Bui (Oku)
Villages: Elak, Belo
Altitude: 2,200-3,011 m
Surface: 1,000 ha
Year of designation: 2004

In brief, the natural vegetation at the highest altitudes of Mount Kilum (2,800-3,011 m) supports forests within the afro-subalpine prairies on thinner soils. A community of rare endemics grows in waterlogged areas. These high altitude communities have been badly damaged in recent decades and some of the forest has been cleared or burned. In these areas, *Adenocarpus mannii*, *Hypericum revolutum* and, near the forest edge, *Gnidia glauca* are the main ligneous species which are the first stages in the succession back to montane forest. Where no trees are left, *Pennisetum clandestinum dominates*. Lower down, from about 2,200-2,800 m, the natural vegetation is montane forest. This can be subdivided into fairly open forest above 2,400-2,500 m, where *Carapa grandiflora* is relatively rare and the lower zone where *Carapa* is fairly common. Between 2,400 – 2,700 m, dense monospecific alpine bamboo *Arundinaria alpina* thickets occur. This bamboo also occurs in association with mixed montane forest, forming a distinct vegetation type. In particular, the *Podocarpus latifolius* and *Arundinaria alpina* are unique in all of Central Africa.

Kilum-Ijim forest in the Bamenda Highlands is an excellent example of the high level of endemism to be found amongst the flora and fauna of this biome. It supports many endemic birds and plants and also amphibians, small mammals and reptiles. Hunting over the last 200 years has played a major role in the loss of Kilum-Ijim mega fauna, including species such as Leopards (*Panthera pardus*), Elephants, Buffaloes and Antelopes. Indeed, the culture and tradition of the forest-adjacent Oku, Nso and Kom peoples encourages hunting these large mammals, notably the Leopard and Colobus Monkeys (*Colobus species*). The largest mammal in the present-day forest is the Olive Baboon (*Papio anubis*). Other large mammals include the Preuss's Guenon (*Cercopithecus preussi*), Green Monkey (*Cercopithecus aethiopstantalus*), African Civet (*Viverra civetta*), Serval (*Felis serval*) and Duikers (*Cephalophus species*). The remaining large mammal populations are severely depressed and close to

regional extinction. Long-term effects of (near) extinction on ecosystem stability and forest regeneration are still uncertain. The forest supports many small mammal species, amongst which are six strict endemics, namely (*Chrysochlorisbalsai*) a Golden Mole, (*Grammomysnov sp*ecies) Woodland Mice, (*Hylomyscus grandis*), African Wood lice, (*Lamottemys okuensis*) Mount Oku Mouse, (*Lemniscomys mittendorfi*) Zebra Mouse and *Lophuromysnov species.*

The forest remains an excellent example of the ornithological riches of the Cameroon montane forest biome. Six bird species of the Kilum Ijim forest are in the highest category of protection and conservation. Eight bird species belong to the second category: species of restricted range with world distributions < 50,000 km^2. The third category birds (biome restricted assemblage) of the Afrotropical Highlands (Fishpool, 1997) lists 43 species for Cameroon, of which 31 species have been recorded in the Kilum-Ijim forests. Two of them are endemic to the Bamenda Highlands: *Tauraco bannermani* (Bannerman's Turaco) and *Platysteira laticincta* (Banded Wattle-eye), for which the Kilum-Ijim forest is arguably the last stronghold (Collar et al., 1994; Forboseh and Ikfuingei, 2001). Finally, Lake Oku qualifies for IBA category A4 (congregations) for little Grebe (*Tachybaptis ruficollis*). The one-percent threshold for this species in Africa is 500 individuals (Fishpool, 1997). Several hundred individuals are regularly seen on the lake and their numbers increase during the dry season. The forest also supports endemics in other faunal taxa, including two amphibians (*Xenopus species*, Oku Clawed toad and possibly *Crotaphatrema lamottei*, Lamottes' Caecelian.

Mbi Crater Game Reserve

Basic Information

Division: Boyo (Belo)

Villages: Mbingo, Foleshele

Altitude: 1,600-2,100 m

Surface: 370 ha

Year of designation: 1964

Mbi Crater is a Faunal Reserve of 370 ha: the crater itself is c.1 km across and lies at 2,060 m. It consists mostly of grassland, probably seasonally flooded, and there is also a smaller permanent swamp. The rims are covered with a mosaic of montane forest, Gnidia woodland, montane grassland and rocky ridges and much the same range of habitats occurs at nearby Mbingo. The main section of forest here flanks the escarpment (c.1,900-2,100 m) just beyond the north-western rim of the crater, and lies outside the reserve on a privately-owned cattle-ranch. The ranch entirely surrounds Mbi crater and extends north-westwards to the boundary of Mbingo forest, which is also on private land, belonging to Mbingo Baptist Hospital. It comprises at least 400 ha of gallery forest and grassland between 1,600–2,000 m.

Figure A 6:   Key biodiversity

Source: Tchagra, 2012

Some 120 bird species have been recorded in this game reserve. The two Bamenda highlands endemics, *Tauraco bannermani* and *Platysteira laticincta*, are both widespread as are other restricted-range species. There is a probable record of *Tyto capensis* from Mbi Crater; *Malaconotus gladiator* should be searched for at Mbingo, where the lower altitude of the forest appears more suitable than at Oku. Three Sudan–Guinea Savanna biome (A04) and three Guinea–Congo Forests biome species also occur.

For non-bird biodiversity, Mbi Crater is thought to hold some endemic plant species, under investigation by staff of the Royal Botanic Gardens, Kew and some mammals.

According to a study done by Tsi Evaristus Angwafo, Fotang Chefor and Billa Samuel Fru (November 2012) nine species of medium sized mammals were recorded within the reserve. The family Bovidae was well represented. Bushbuck (*Tragelaphus scriptus*) and Blue duiker (*Cephalophus monticola*) were the most abundant mammal species with an encounter rate of 1.09 and 0.73 signs/km respectively. Mammals had higher densities in the west and southwest section of the reserve because of low intensity of anthropogenic activities. Hunting was the most frequent anthropogenic activity recorded in the study area. Only 37.5% variation in the encounter rate of medium mammals was provoked by anthropogenic activities. The reserve is important because the population depends on it for bush meat, medicinal plants, and water. To some extent, the reserve is a liability because of restricted access and constant raiding of their farms by monkeys from the reserve.

We can generally recommend that the government adopts a participatory management approach, establishing a joint anti-poaching team and provide alternative sources of protein to local people to reduce unsustainable hunting in the reserve. The government should also establish a compensation mechanism for those whose crops are constantly raided by animals from the reserve and organise mass sensitisation programs for local communities on the importance of wildlife conservation.

Source: Bird Life International (2018) Important Bird Areas factsheet: Mbi Crater Faunal Reserve - Mbingo forest. Downloaded from http://www.birdlife.org on 17/05/2018.

Kagwene Gorilla Sanctuary

Basic Information
Division: cross divisional: Momo (Njikwa) in North-West Region for 40% and Manyu in South-West Region (Mamfe) for 60%
Villages: Kagwene, Mbulu and Njikwayama
Altitude: 2,037 m
Surface: 19.44 km^2
Year of designation: 2008

The Kagwene Gorilla Sanctuary consists of rugged, mountainous terrain and represents the highest altitudinal extent of the Cross River gorilla's distribution, with the highest point at 2,037 m above sea level. Only about half of its land is a prime gorilla habitat, while the rest includes grassland or cultivation not suitable for the species.

It is located between the Mbulu and Njikwa forests in western Cameroon, divided by a Regional boundary, and encompasses the northern part of the South-West Region, and the southern part of the North-West Region.

Nine villages surround the reserve, and villagers have historically utilised land within the sanctuary boundary for farming and hunting to varying degrees. Mbororo settlements (settled grazers) are dotted within and surrounding the sanctuary, and these pastoralists graze their cattle on areas of open grassland adjacent to the Kagwene Mountain forests. Much of this land is burned each year to

encourage the growth of new grasses, often resulting in the unplanned burning of forest. Currently, farmers also continue to cultivate crops within the boundaries of the sanctuary, especially in the southern sector of the reserve, with cocoyam being the crop most commonly grown beneath the forest canopy. Wildlife Conservation Society operates a research camp from within the KGS, which has a permanent staff presence.

Despite its relatively small size (only 19.44km^2), the montane forest of Kagwene is crucially important for the conservation of Africa's rarest ape. Richard Bergl of the North Carolina Zoological Park has confirmed that the Kagwene gorillas are genetically distinct from other sites where samples have been successfully collected and analyzed (Aaron Nicholas, Wildlife Conservation Society).

The Cross River gorilla is the most endangered of all great ape taxa, and its rare and increasingly fragmented populations continue to be threatened by habitat loss and, to a lesser degree, hunting for the bushmeat trade. The 11 or so sites in which the Cross River gorilla is still known are spread across approximately 12,000 km² of extremely rugged and forested terrain spanning the Nigeria-Cameroon border region, with remaining populations estimated at 70-90 individuals in Nigeria, and 150 individuals in Cameroon (Oates et al. 2003).

Figure A 7:   *Kagwene forest*   *Figure A 8:*   *Kagwene botanical survey*

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Farm areas that were mapped are numerous within the reserve. Researchers have recorded both top storey and understorey vegetation, in addition to understorey density, the slope of the ground, and canopy cover. A preliminary analysis of the habitat map has shown that only a little over half of the sanctuary is forested (i.e. under tree cover and not farmland), and therefore potentially available to the gorillas. The other half of the sanctuary is roughly split between farmland under canopy and grassland patches. By overlaying nest site locations, some researchers found that the gorillas at Kagwene do not nest in either farmed or grassland areas. As they are not known to crop-raid, farmland prevalent in the southern sector of the sanctuary is clearly avoided by the gorillas, while grasslands in the northern sector can be seen to fragment forest potentially suitable for the gorillas.

Further analysis and dissemination of gorilla nesting habitat preferences at the reserve are ongoing. This involves a full analysis of how the gorillas nest with respect to available top store and under store habitats in the sanctuary. The habitat map is an extremely useful tool for elaborating management strategies for the sanctuary, as well as for gorilla trackers working on a daily basis within the sanctuary. (Ruth Wiseman, Ymke Warren, Aaron Nicholas, Mary Mackenzie and James P. Higham)

Kimbi-Fungom National Park

Basic Information

Division: Menchum, Boyo, Donga Mantung (Fungom, Fonfuka, Misaje)

Villages: Gayama, Kimbi, Wum, Nyos, Nkang, Esu, Fungom, Fonfuka, Dumbo, Kwep, Akum

Altitude: 890 m

Surface: 95,380 ha

Year of designation: 2015

The Kimbi Fungom National Park is a Prospective Category I Protected Area. After evolving from the combination of Fungom Native Authority Forest Reserve in 1932 and Kimbi River Game Reserve in 1964, this biodiversity hotspot, which was in February 2015 named the Kimbi-Fungom National Park is on the way to becoming a Category I protected area. Created as category 2 protected area with a surface area of 95,380ha, research has shown that the Park has all it takes to be a category one protected area.

To be a category 1, the surface area must be equal or above 100,000 ha, while the park is only short of 4,620 ha and the land is there. Everything has been done while just waiting for a team from Yaounde to confirm the boundaries of the areas that are to be added to the park. If the already (for now) identified area is added, the Park's surface area will increase to 150,000 ha and will thus be upgraded into a Category 1 protected area" the Conservator (Mr. Fominyam) disclosed and this will also have a lot of implications especially with the management of natural resources in the area.

The upgrading of the park will equally:

- Go a long way to create a large wildlife habitat/safe haven and some wildlife species that migrated before the Lake Nyos disaster may come back given that the Park is surrounded by some biodiversity hotspots and animals can not be held by administrative boundaries.

- Add to a list of other protected areas within this rank included but not limited to the Korup, Bakossi, Campo-Ma'an, Mount Cameroon, Mbam-Djerem, Waza, Faro, and BoubaNjida National Parks.

Besides the over 81 wildlife species distributed across its over 95,380 ha, the Kimbi-Fungom National Park and its peripheries are full of touristic sites unique in location, form and structure (Shancho Ndimuh, June 2017). It also suffers from illegal trans-border exploitation activities. The touristic sites are:

- The python cave at Gayama (the heart of a national park)

- The Gayama twin hill, protruding towards the sky

- Triple river confluence at Kimbi, that is a spectacular fishing camp with emblematic fish species

- The Katsina waterfall and a gentle flowing river beneath, navigable with boats and canoes from Cameroon towards Nigeria

- The New Man Hill and thrilling views of the national park

- The cable bridge at Nkang Kwep Akum, Kimbi Gayama built by the Germans in the 1800's. It's about 60-100 m long, crossing over River Katsina through a very narrow but spectacular gorge;

- The Hill Top View Point between Marshy and Nkang, giving a real view of the Dumbo Ranch and Nigeria;

- Lake Nyos in the to be extended National Park, which exploded in 1986 suffocating 1,746 people, 3,500 cattle and displacing 4,430 persons

- Besides other thrilling sites like the Dumbo Cattle Ranch, Lake Wum, the Caves around Fonfuka, the Misaje Shrine Forest, alongside palaces with their historic artifacts collections and spectacular natural landscapes.

Figure A 9:   Lake Nyos

Source: Ministry of Forestry and Wildlife

1.3.4. Unclassified forests, belonging to the category of communal forests

Beside the protected areas there are other important biodiversity hot spots in the North-West Region which are however yet not protected and unclassified. In this annex we so far identified the following areas:

- Lake Nyos is an ecologically fragile, but yet unprotected area and is outside the Kimbi Fungom National Park
- Abongphen communal forest (Tubah subdivision in Mezam, adjacent to Tubah forest);
- Benakuma lake in Menchum;
- Ntem forest, Nwa forest, Atwe forest and Itiaku forest;
- Njinsing forest-Tabenken in Nkambe subdivision (Donga Mantung).
- Savannah Botanic Garden (SABOGA) in Bafut subdivision (Mezam) belonging to a private individual.

These are all potential patches of forest and sites that need to be protected or classified.

Other areas might be identified in a later stage of this project.

Abongphen (Unclassified) Communal Forest

Basic Information
Division: Mezam (Tubah)
Village: Big Babanki
Surface: 200 acres

Abongphen (Unclassified) Communal Forest is in real trouble and may disappear in a few years.

Figure A 10:   Abongphen Forest on fire

Source: Kedjum-Keku

Often referred to as the Tubah Upland forest, the hitherto circa 4,000 acre forest hosting some of the last remnants of the most endangered chimpanzee subspecies, the Nigeria Cameroon Chimpanzee. Besides hosting the Nigerian Cameroon Chimpanzees, the area is also quite important for bird diversity. There are over 100 species of birds of which a high percentage is endemic. There are also a good number of endemic reptile, amphibian, insects and plant species.

The area is serving as the only source of drinking water to over 100,000 Cameroonians. It has over 100 springs and they are already getting dried out (Kedjom-Keku Executive Director, Mr. Martins Mikes). It has been reduced to circa 200 acre and may disappear within the next five years if desperate and urgent actions are not taken now.

 "One of the biggest threats to the forest is the totally wrong approach by the Ministry of Agriculture and Rural Development, who opened up a road to this forest; for instance, the population has increased like ten times in the last six months just because of the road. Ndawara is also another threat. He rented some 2,000 hectares from the former Fon of Big Babanki (who was even burnt by the villagers because of this) but never gave it back, despite losing the case in 2012. He is instead increasing his plantation and extending to the Abongphen Highland Forest and the forest towards this area is gone because he's got thousands of cows there and a big plantation, and to remove him is very difficult" (Executive Director of the Kedjom-Keku Conservation Association for Sustainable Development, Mr. Martin Mikes)

 "Poaching is going on there but there are not so many poachers because most of the animals have already been hunted. The biggest challenge is actually the turning of forest into farmlands and residential area. The villagers are selling the land to local cooperatives, lawyers, rich people, etc. With all these, the forest is going to disappear latest in five years," Mr. Mikes explained.

Njinsing Forest Tabenken

Basic Information
Division: Donga-Mantung
Villages: Tabenken
Altitude: 1,800 - 2,200 m
Surface: 200 ha

This montane forest, known as Njinsing, is located west of the road between Kumbo and Nkambe, northeast of Mount Oku (CM012). The site comprises a small stand of sub montane and montane forest mostly between 1,800 m and 2,200 m, but which descends to Tabenken village at 1,600 m. It is completely surrounded by farmland or degraded savanna among montane pastures of *Sporobolus africanus*. The vegetation is typically montane with emergent species including *Croton macrostachyus*, *Podocarpus latifolius*, *Polyscias fulva*, *Albizia gummifera*, *Schefflera abyssinica* and *Prunus africana*. The forest is greatly disturbed, as it is the main source of fuelwood for the surrounding villages.

See Table A 11 for key species. A total of 80 species have so far been recorded, the result of a single day's visit. Afrotropical Highland biome species are well represented and the site is particularly important for *Tauraco bannermani* and *Platysteira laticincta*, for both of which this is the northernmost site known. Three species of the Guinea–Congo Forests biome also occur.

This is the only remaining patch of montane forest in the area and its unprotected status means that it is heavily exploited for agriculture, timber, fuelwood and medicinal purposes. Some parts of the forest remain, however, largely intact which may be attributable to local taboo. However, this tradition is certainly under threat due to pressure for more agricultural land.

Source: BirdLife International (2018) Important Bird Areas factsheet: Njinsing - Tabenken. Downloaded from http://www.birdlife.org on 17/05/2018.

Table A 11:   IBA Criteria: Populations of IBA trigger species

Species	Current IUCN Red List Category	Season	Year(s) of estimate	Population estimate	IBA Criteria Triggered
Bannerman's Turaco *Tauraco bannermani*	EN	resident	2000	present	A1, A2, A3
Western Green Tinkerbird *Pogoniulus coryphaea*	LC	resident	2000	present	A3
Banded Wattle-eye *Platysteira laticincta*	EN	resident	2000	present	A1, A2, A3
Laniarius poensis	NR	resident	2000	present	A3
Yellow-breasted Boubou *Laniarius atroflavus*	LC	resident	2000	present	A2, A3
White-bellied Crested-flycatcher *Elminia albiventris*	LC	resident	2000	present	A3
Cisticola discolor	NR	resident	2000	present	A2, A3
Green Longtail *Urolais epichlorus*	LC	resident	2000	present	A2, A3
Black-collared Apalis *Oreolais pulcher*	LC	resident	2000	present	A3
Bangwa Warbler *Bradypterus bangwaensis*	NT	resident	2000	present	A1, A2, A3
Cameroon Mountain Greenbul *Arizelocichla montana*	NT	resident	2000	present	A1, A2, A3
Western Mountain Greenbul *Arizelocichla tephrolaema*	LC	resident	2000	present	A2, A3
Sylvia abyssinica	NR	resident	2000	present	A3
Waller's Starling *Onychognathus walleri*	LC	resident	2000	present	A3
Mountain Robin-chat *Oreocossypha isabellae*	LC	resident	2000	present	A2, A3
Grey-chested Kakamega *Kakamega poliothorax*	LC	resident	2000	present	A3
Cameroon Sunbird *Cyanomitra oritis*	LC	resident	2000	present	A2, A3
Northern Double-collared Sunbird *Cinnyris reichenowi*	LC	resident	2000	present	A3
Baglafecht Weaver *Ploceus baglafecht*	LC	resident	2000	present	A3
Bannerman's Weaver *Ploceus bannermani*	VU	resident	2000	present	A1, A2, A3
Brown-capped Weaver *Ploceus insignis*	LC	resident	2000	present	A3
Shelley's Oliveback *Nesocharis shelleyi*	LC	resident	2000	present	A2, A3
Oriole Finch *Linurgus olivaceus*	LC	resident	2000	present	A3

Source: Birdlife International, 2018

Note: This table presents the IBA criteria triggered and the species that triggered them at the time of assessment (2001). The current IUCN Red List category may vary from that which was in place at that time.

Mount Mbam Forest

Basic information
Altitude: 1,100-2,335 m
Surface: 12,000 ha

Mount Mbam, also known as the Mbam Hill Forest, is a massif situated between the towns of Foumban and Jakiri and includes about 2,000 ha of montane forest, mainly on the plateau at about 2,000 m. The massif is an abrupt, isolated mountain with montane savanna grassland mixed with large patches of gallery forest on the plateau and the slopes, where they line the numerous streams, some of which are seasonal and some permanent. Many large forest patches extend down to about 1,400 m. The numerous galleries on the plateau range between 5 m and 100 m in width and 500–1,000 m or more in length.

The forest is dominated by *Albizia gummifera*, *Polyscias fulva* and *Schefflera mannii* while other common species include *Syzygium guineense*, *Carapa procera*, *Ficus species*, *Nuxia congesta*, *Olea capensis*, *Croton macrostachyus* and *Eugenia gilgii*. Emergent shrubs in the *Sporobolus africanus* grassland include *Hypericum revolutum*, *H. riparium* and *Agauria salicifolia*. The hills are dotted with small settlements of mainly Fulani cattle grazers. Population densities at lower altitudes are higher, with at least 10 villages at the foot of the hills.

The table below describes key species and a total of 137 species have so far been recorded. The mountain holds important numbers of *Tauraco bannermani*, probably the second-largest population after Mount Oku. *Apalis bamendae* is not uncommon and occurs at 2,050 m in company with *Apalis cinerea*, *A. pulchra* and *A. jacksoni*. Four species of the Sudan–Guinea Savanna biome and 10 of the Guinea–Congo Forests biome also occur.

Table A 12:   Important Bird Areas factsheet: Mount Mbam

Name	IBA Criteria
Apalis bamendae (Bamenda Apalis)	A1, A2
Apaloderma vittatum (Bar-tailed Trogon)	A3
Arizelocichla tephrolaema (Western Greenbul)	A2, A3
Buccanodon duchaillui (Yellow-spotted Barbet)	
Campephaga petiti (Petit's Cuckooshrike)	
Caprimulgus nigriscapularis (Black-shouldered Nightjar)	
Coracina caesia (Grey Cuckooshrike)	A3
Cossypha isabellae (Cameroon Mountain Robin)	A2, A3
Cyanomitra oritis (Cameroon blue-headed sunbird)	A2, A3
Falco alopex (Lesser Kestrel)	
Hypergerus atriceps (Oriole Warbler)	
Lagonosticta rara (Black-bellied Firefinch)	
Laniarius atroflavus (Yellow-breasted Boubou)	A2, A3
Nesocharis shelleyi (Shelley's Oliveback)	A2, A3
Onychognathus walleri (Waller's Starling)	A3
Oriolus nigripennis (Black-winged Oriole)	
Phyllastrephus poensis (Cameroon Olive Greenbul)	A2, A3
Ploceus baglafecht (Baglafecht Weaver)	A3
Ploceus insignis (Brown-capped Weaver)	A3
Pogoniulus coryphaeus (Western Tinkerbird)	A3
Sarothrura pulchra (White-spotted Flufftail)	
Tauraco bannermani (Bannerman's Turaco)	A1, A2, A3
Tauraco persa (Guinea Turaco)	
Tockus fasciatus (African Pied Hornbill)	
Tricholaema hirsuta (Hairy-breasted Barbet)	

Source: BirdLife International, 2018

Other sites of ecological significance

Donga-Mantung Division

- Ntem Forest: The Ntem Forest (Nkambe) believed to hold some populations of the Nigeria-Cameroon Chimpanzee.

- Nwa forest: The enclavement of Nwa forest and its difficult terrain punctuated with rocks, hills and bumpy roads is also a potential fauna and flora area. The Sardauna local government area of Nigeria's Taraba State equally shares a long border with Nwa Sub Division.

Menchum Division

- Atwe forest and Itiaku forest are potential patches of forests that are used mostly for medicinal plants and home to many species of wild animals.

- The Wum council forest has a potential for providing wood, timber and poles. These patches of forest in addition to savannah and shrubs host a good number of species of wildlife. The area plays host to many protected species, most of whom are threatened. There are species such as antelope, hare, porcupine, cane rats, monkey, deer and chimpanzees. Most of these animals are hunted by poachers for food or as an economic activity.

- Lake Benakuma

- Lake Nyos

Figure A 11:   Lake Oshien (left picture), Hot spring at Itiaku (middle) and Menchum fall (right picture)

Source: Regional Delegation MINEPDED

1.4. Impacts of climate change

The following data were shared by John Paul Suiven of the University of Bamenda who is preparing his PhD on Climate Variability with the example of the Bui Plateau.

About 80% of the people in the North-West Region are farmers. If someone has another kind of job then their wife or husband and their parent(s) most probably do the farming. Even those that have a regular paid job, each morning might feed their pigs or poultry or take their goats to a green spot beside the river, before leaving for work. And after work they would collect their animals for the night or tend their crops in the garden. There can hardly be found any compound without animals and one or several gardens. Some of these gardens are around, but most of them are far, once inherited or purchased by somebody of the family before. Cropping of beans, grand nuts, corn, potatoes, jama jama, plantains, mango's, water melon, cola nuts, avocado's (called pears), cabbage, prunes, cassava, yam, coco-yam, etcetera can be observed literally everywhere, except for forests and nature protected areas. Food is primarily used for everyday life in the family, and the surplus is exchanged with neighbours in return for other products or services or sometimes sold along the street or in the village market. There are only few cash crops that are not used for local consumption, such as coffee, tea and sometimes sugar cane. These products are usually sold to a cooperation. Shifting periods of precipitation, by whatever cause, therefore affect the very heart of the socio-economic existence of all people in the North-West Region.

1.4.1. Rainfall

The study is based on data from stations on the Bui Plateau in Jakiri (1961-2006), Ndu (1957- 2015), Oku (1986-1997), Tobin (1998-2009), Shisong (1975-2015), Takui (1997-2016) and Mbo Nso (1975-2015).

Looking to the mean annual rainfall (anomaly trends) it seems to be gradually (5-10%) increasing (Jakiri, Ndu and Tobin) or slightly decreasing (Shisong, Oku and Takui). Looking to the rainfall seasonality it is obvious from all stations that the Bui Plateau is an area with seasonal rainfall with a longer drier season (November till March). There is a tendency of a prolonged dry season and delay in the onset of the rainy season, with the consistent rains only prevailing from July. This trend seems to increase with unsustainable land use practices as well as with climate change. Each season has rainfall seasonality anomalies characterised by extreme drought or extreme rainfall events. In Jakiri and Ndu the trend is a decreasing rainfall in the dry season and an increase in the rainy season. The relatively high elevated stations of Oku and Takui show a decreasing trend in both seasons, while Shisong shows little variability. The past ten years clearly show a prolonged dry season that easily disrupts the agricultural calendar. When crops germinate in March till mid-April the risk of insufficient rainfall is rising. As a result of drought and/ or a higher vulnerability of pest attack farmers can be forced to replant.

The probability of the occurrence of extreme droughts can be measured by calculating the standardised precipitation index (SPI). The values for Bui Plateau are presented in Figure A 12.

Figure A 12:   SPI values for Bui Plateau (1957-2016)
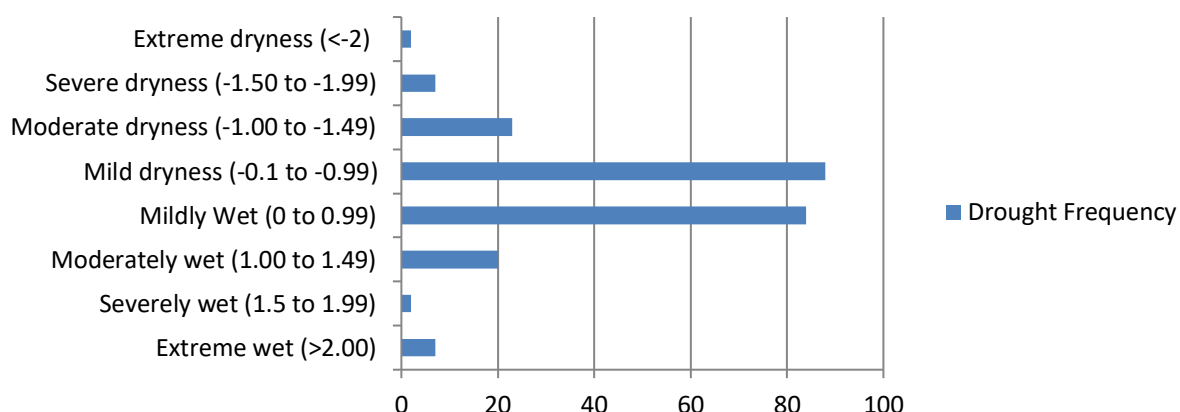
Source: Suiven, 2018

When considering the development of the decadal rainfall change as a mean to assess climate variability, analysis of further data shows that, since the first meteorological data were collected in Bui in 1957, 4 out of 6 decades showed a decrease in mean rainfall. The overall trend is a decreasing amount of rain ranging from 0.024% in Ndu, to 2.02% in Jakiri and 3.375% in Shisong.

Results of the field survey regarding questions relevant to changing precipitation

Looking at the field survey carried out by PNDP on behalf of this project, the stakeholders responded on questions about precipitation as follows. Below each table you will find a short analysis about the significance of these data.

Table A 13: *Repartition of the respondents according to those who declared that they have been facing problems in their locality because of massive precipitation or hail (Source: PNDP, 2018)*

Division	Proportion(%) of respondent who declared that they have been facing problems	Proportion(%) of respondent who declared that they didn't face problems	Indifferent
Boyo	53.4	53.1	3.4
Bui	60.4	20.8	18.9
Donga-Mantung	16.8	43.7	9.5
Menchum	62.1	20.9	17
Mezam	66	24.5	9.4
Momo	33.3	38.9	27.8
Ngoketunjia	42.2	43.8	14.1
Total	**52.2**	**32.8**	**15**

A first observation concerns the origin of the respondents. It is very surprising that in divisions like Bui and Donga-Mantung, that are primarily agricultural, as many as 20.8% (Bui) or even 43.7% of the respondents would say they did not experience any problems with massive precipitation and/or hail, while there is abundant evidence in both divisions of the contrary in recent years. This can only be explained by looking at the nature of the respondents. Many of them are governmental officials at the national or regional level that apparently are not aware of these problems or were not around at the time of occurrence. Then regarding the respondents who are aware: the highest percentages are in Bui, Menchum and Mezam. For the two urban areas, it can be explained because the massive precipitation caused floods in urban areas. Menchum suffered in 2017 from floods from Nigeria because the barrage in an artificial lake could not cope with the amount of rainfall. Momo (most forested) has the lowest percentage (33.3%) while the others are intermediate (Ngoketunjia, Donga-Mantung and Boyo).

Table A 14: *Repartition of the respondents according to those who declared that they witnessed unusual shift in the start of precipitation periods during the past 20 years causing problems in agricultural production in their locality (Source: PNDP, 2018)*

Division	Proportion(%) of respondents who declared that they witnessed unusual shift in the start of precipitation periods causing problems in agricultural production	Proportion(%) of respondents who declared that they didn't witness unusual shift in the start of precipitation periods causing problems in agricultural production	Don't know or don't have ideas
Boyo	39.7	53.4	6.9
Bui	67	16.5	16.5
Donga-Mantung	49	34.4	16.6
Menchum	63.2	16.4	20.4
Mezam	64.8	18.5	16.7
Momo	42	30.7	27.3
Ngoketunjia	49.2	35.4	15.4
Total	**54.5**	**27.6**	**17.9**

More than half of the respondents of Boyo declared that they did not witness unusual shifts in the start of precipitation periods causing problems in agricultural production. This raises questions as it disqualifies the knowledge of the respondents (see above). For the people who did witness it the highest proportion is in Bui and Mezam, both urbanised divisions, while in this table Donga-Mantung and Nguketunjia are average (just below 50%) while respondents in Boyo and Momo were relatively not aware of problems. Momo could reflect the reality because this region has a lot of (partly Palm oil tree) forest which is not affected by drought easily or maybe meteorological conditions in the forest with a lot of evaporation even made the shift lower in the Momo division (to

be investigated). For Boyo there seems not to be any reasonable explanation again, so this could be attributed to the methodology and the selected people to interview.

Table A 15: **Period of the year which the respondents declared having witnessed unusual shift in the start of precipitation periods causing problems in agricultural production**

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
% of the respondents	2.4	7.1	8.2	32.9	7.1	3.5	7.1	9.4	8.2	3.5	7.1

1.4.2. Temperature

As far as the mean temperature is concerned there are data on minimum, maximum and mean monthly temperatures. These vary a lot with the station's altitude. Elevated stations like Oku, Takui and Ndu have lower temperatures.

Globally the average temperature at the surface of the Earth is 15°C. In all stations except for Oku, temperatures are rising. In 1983, 1997/1998 (El Nino) and 2013 temperatures were extremely high, caused by (prolonged or extreme) drought. The decrease in Oku (only measured in the relatively short period of 1986-1997) is explained by its specific fresh-mountain climate with chilly weather conditions. Also the lowering of the global average temperature by 1.5°C, caused by the eruption of Mount Pinatubo in June 1991 and the emissions of large quantities of particulate matter in the global atmosphere has influenced the Oku station (shorter period) more than the other stations.

Looking at seasonal temperature anomalies the high elevated stations (Ndu, Oku and Takui) show relatively little disparities in the seasonal temperature. Between the locations the variations are considerable. In Ndu the wet season T is 17°C, while the Tmax and Tmin are 18.2°C and 16.3°C. For the dry season these values are 17.4°C, 16.2°C and 18.1°C. The (lower) station of Tobin has a mean T in the wet season of 24.1°C with a mean maximum of 22.4°C and a mean minimum of 22.4°C. In the dry season these values are 25.7, 22.7 and 36.1°C respectively. Ndu shows an increasing temperature in both seasons, while Tobin is fairly constant, showing a slight increase. Abnormal high temperatures are always recorded at the onset of the rainy season but also in the dry season, when there are few clouds, day temperatures are relatively high while at night in some highland stations like Takui even freezing temperatures are recorded (in January 2010 as low as - 2°C). Frosty conditions might be detrimental for crops as well as for indigenous trees planted to protect watersheds. Eucalyptus however survives these low temperatures.

Considering the decadal temperature change, most stations show a trend of increasing temperatures (again with Oku as the only exception). The table below shows the decadal changes in mean annual temperature for the Mbo Nso station from 1975-2013. The mean annual temperature as well as the mean maximum temperatures for Mbo Nso are (statistically significantly) rising, while the mean minimum temperature is decreasing slightly. Changing temperatures will influence both nature, forestry and agriculture potentials in the North-West Region.

Table A 16: **Decadal Mean Annual Temperature and Change (oC), Mbo Nso (1975-2013)**

Decades	Av. Temp (°C)	SD	CV	%Δ	Min Temp (°C)	Max Temp (°C)	Diff (°C)
1975-1984	21.49	0.32	1.5	-0.3	21.09	22.13	1.04
1985-1994	21.74	0.37	1.7	-0.05	21.13	22.48	1.35
1995-2004	21.84	0.52	2.4	0.05	21.08	22.48	1.4
2005-2013	22.13	0.69	3.11	0.34	20.97	23.12	2.15

Cumulative Standard Deviation: 0.475; Cumulative CV: 2.103%, Cumulative % change: 0.04% (+0.184oC)
Source: Suiven, 2018

Overall since 1982 the mean temperature increased with 0.407% which is a T rise of 0.28°C in Bui, which is largely in line with global changes. Impacts are widespread and make livelihood sources at the household level and the communities increasingly vulnerable.

1.4.3. Evaporation, relative humidity, sunshine and wind

Evaporation is a key factor in determining relative humidity as well as precipitation and therefore critical in the hydrological cycle. It is influenced by precipitation and (solar) radiation. The mean annual evaporation for the Ndu station is 124.8 mm³. The annual trend is a decrease caused by the reduction of moist surfaces and the planting of large Eucalyptus plantations. While in the dry season water molecules escape easily to the atmosphere, the wet season has a far lower evaporation. In Ndu the average wet season evaporation is 63.9 mm³, while the mean dry season evaporation stands at 210.7 mm ³. Both show a decreasing trend.

The decadal evaporation change show a decrease since 2002.

The Relative Humidity is the ratio of water vapour amount actually in the air to the maximum amount of water vapour required for saturation at that particular temperature and pressure. It tells us how close the air is to being saturated. It is influenced by wind speed, solar radiation and quality / quantity of aerosols in the atmosphere. In the Bui Plateau the mean annual Relative Humidity for Ndu is 71.4%. The long year trend shows a slight increase (see table below). During the dry season the relative humidity drops to 55%, while in the rainy season it is fairly constant on 83%, close to saturation. In 1997/1998 it was exceptionally low because the global circulation pattern was disrupted by El Nino.

The decadal relative humidity change increased slightly from 1982-1992 and has since then been showing a decrease till date.

Figure A 13: *Slightly increasing Relative Humidity anomaly trend, Ndu (1982-2015)*
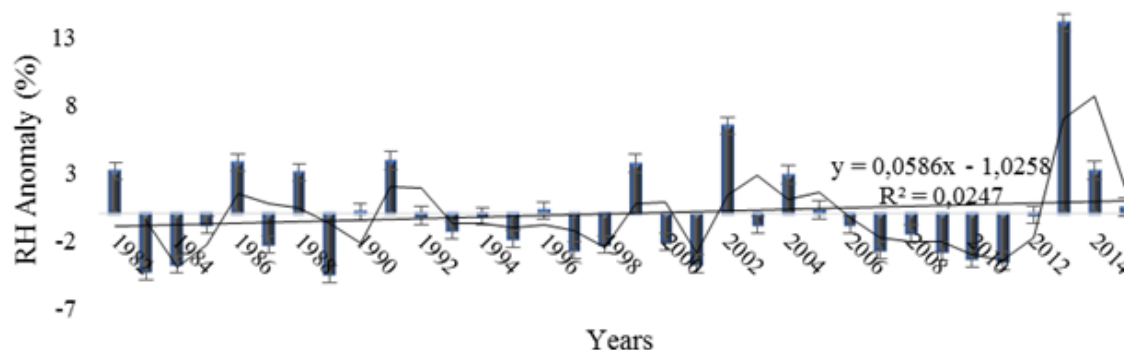
Source: Suiven, 2018

Surface solar radiation has been observed to decline since widespread measurements started globally from the mid 1950s. This so called dimming was also observed on the Bui Plateau. When we look at the Ndu station there is a clear decrease of both mean annual sunshine hours (179 hours, see table below) while in the wet and dry season it is respectively 141 and 233 hours. In the rainy season rain bearing clouds block sun rays from getting to the land surface and lead to heavy convectional showers in the afternoons when sunshine is expected to be at a maximum.

Figure A 14: *Slightly increasing Relative Humidity anomaly trend, Ndu (1982-2015)*
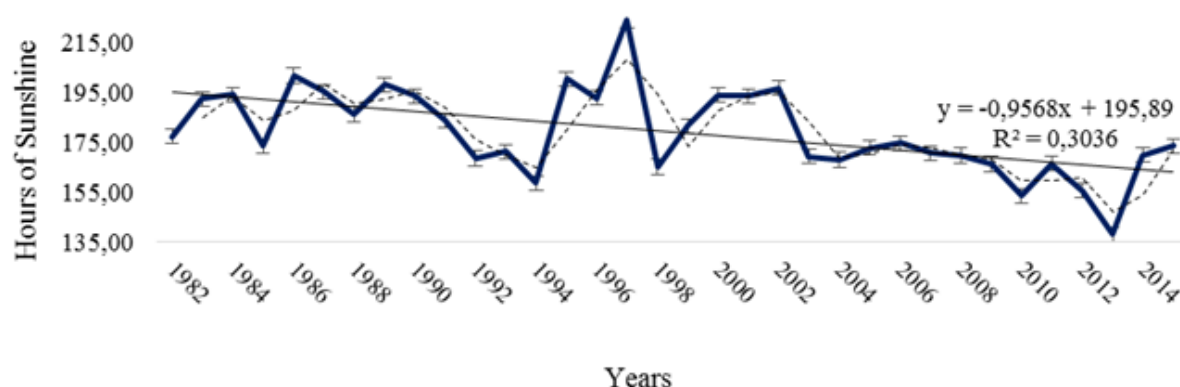
Source: Suiven, 2018

The decadal sunshine change shows a decreasing trend in line with annual and seasonal trends.

The role of wind velocity in the hydrological cycle and the climate system is to transfer moisture and energy from one sphere to another. It is measured using the Beaufort scale over land, from 0 (calm, smoke rising vertically) to 3 (gentle breeze, leaves and small twigs moving) to 6 (strong breeze with large trees in motion), to 9 (strong gales, breaking of twigs, walking difficult) to 12(hurricane, damage). Near-surface terrestrial wind speeds in the tropics are observed to decline. The same is observed in Ndu station, although the location in the Tea reserve with numerous wind breaks in place, might not reflect the situation elsewhere in Bui. The decadal mean wind velocity that was observed since 1982, was showing an increase until 2002 and since then, is decreasing like the annual trend.

Figure A 15: *Decreasing annual wind velocity pattern, Ndu (1982-2015)*
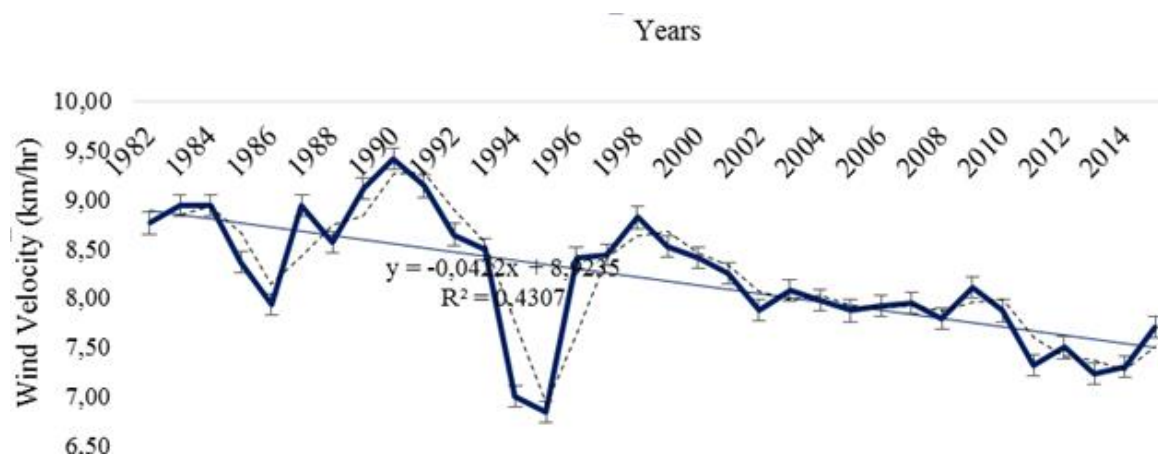
Source: Suiven, 2018

The annual wind velocity observed in Ndu is 8.2 km/h. Seasonal wind velocity anomalies show an average of 7.6 km/h in the dry season with a decreasing trend. The dominant winds in the dry season are the cold dry North-East Harmattan winds that causes severe drought conditions, where small-scale agriculture ventures can only be successful through irrigation. In the wet season the mean wind velocity is 9 km/h also with a decreasing trend. The inhabitants of the Bui Plateau are confronted with too much water that can cause landslides, occasional floods and a very poor condition of the farm-to-market roads. In some locations strong breezes and high winds (40-60 km/h) can be observed, that can be detrimental to agricultural production because the wind can destroy crops, especially corn (maize). In February / March 2018 winds and strong rains with hail were detrimental to flowering trees on Mount Oku, causing a strong decline in honey production possibilities.

2 Economy (Data of chapter 5. Economy)

2.1. Agriculture

Table A 17:   Evolution of the surface (in ha) and the production (in tons) of some food crops

Cultures	2005		2006		2007		2008		2009		2010		2011	
	Surface area	Produc-tion	Surface area	Produc-tion	Surface area	Produc-tion	Surface area	Produc-tion	Surface area	Produc-tion	Surface area	Produc-tion	Surface area	Produc-tion
Pineapple	1	6	5	95	9	247	12	329	28	404	29	424		431
Peanut/ groundnut	5,835	9,655	5,846	10,097	5,846	5,621	6,004	4,344	5,339	6,513	5,530	7,715		8,419
Banana	6,023	57,988	6,247	59,832	3,888	34,934	4,191	36,912	4,610	40,603	4,792	43,696		53,245
Plantain Banana	8,873	70,739	9,493	76,975	9,547	79,166	11,499	91,630	12,649	100,793	13,954	111,195		120,195
Cucumber/ pumpkin seeds	463	695	3,569	5,362	4,979	3,905	5,131	4,542	2,649	5,405	2,797	5,981		3,224
Ginger	505	…	505	3,031	445	3,382	475	3,558	1,443	8,558	1,516	9,970		10,065
Gumbo (okra)	4,022	8,385	4,112	8,443	1,714	8,461	1,808	8,798	2,039	9,920	2,154	10,467		9,738
Bean	75,939	86,151	80,247	91,954	74,634	93,307	76,959	91,638	92,603	120,106	113,269	129,606		133,368
Palm oil	8,275	26,925	8,831	24,774	8,866	23,283	9,063	23,901	9,969	26,291	10,153	52,818		53,817
Yam	6,414	62,687	6,564	61,190	4,213	64,699	4,029	63,935	5,201	82,534	6,491	90,790		92,589
Cocoyam/ Achuh	17,162	178,038	17,702	178,622	18,132	168,243	18,142	183,248	18,342	182,008	18,278	105,259		97,891
Maize	76,755	163,754	81,410	181,653	87,979	177,134	95,189	189,042	76,878	153,756	80,740	176,473		164,120
Cassava	8,198	86,686	8,865	90,020	5,889	91,770	6,045	92,723	10,758	100,751	13,768	110,708		130,746
Millet/Sorghum	2,979	6,451	2,979	6,451	3,032	2,422	4,378	4,874	6,310	5,361	6,328	5,111		4,728
Niébé/koki	26	27	26	27	201	246	313	336	565	264	623	281		-,
Onion	4	48	4	49	24	122	24	120	43	1,420	49	1,513		1,954
Watermelon	-	-	39	947	40	1,154	40	1,162	50	1,241	53	1,303		1,290
Sweet Potato	2,389	16,148	2,072	16,798	2,328	13,590	2,569	15,381	3,618	17,019	3,598	19,340		20,110
Pepper	43	194	46	211	166	233	205	255	1,230	3,309	1,220	3,408		4,228
Irish potato	7,927	47,637	8,319	52,254	5,472	52,787	5,490	53,321	4,212	37,185	4,007	43,262		45,858
Rice	4,910	15,430	5,112	16,158	11,768	17,096	12,587	18,033	22,037	23,705	27,302	27,108		25,556
Soya bean	2,619	1,601	2,747	1,807	1,186	1,966	1,273	2,027	1,787	1,784	2,034	2,156		2,249
Tomato	2,500	31,504	2,731	34,554	2,886	36,119	3,002	37,688	3,568	39,902	4,367	36,808		45,410
Voandzou	2,216	2,822	2,239	2,851	3,342	3,196	3,467	3,465	4,814	3,812	5,195	4,193		4,321

Source: Compiled using data from the Regional delegation of MINADER

Table A 18: ***Evolution of the production of certain crops between 2012 and 2016***

Cultures	Year				
	2012	**2013**	**2014**	**2015**	**2016**
Bananas	58,570	65,599	73,470	84,491	92,940.1
Dry beans	146,704	164,309	184,026	206,109	226,719.9
Cassava	150,358	171,408	191,977	216,934	238,627.4
Groundnuts	207,818	10,465	11,721	13,127	14,439.7
Maize	158,958	207,818	238,991	274,840	302,324.0
Onions Dry	2,149	2,364	2,648	2,992	3,291.2
Plantains	138,224	158,958	182,802	210,222	231,244.2
Potatoes	52,737	63,284	75,941	91,129	100,241.9
Rice Paddy	30,156	34,679	41,614	49,937	54,930.7
Soy Beans	2,586	2,974	3,420	3,933	4,326.3
Taro (Cocoyams)	112,574	101,317	106,383	111,702	122,872.2
Tomatoes	49,951	55,945	64,337	73,988	81,386.8
Yams	105,551	120,337	138,386	159,144	175,058.4

Source: Regional delegation of MINADER

Table A 19: ***Production (in tons) and surface (in hectares) of the first five food crops by Division***

Division	2005			2006			2007			2008		
	Crops	Production	Surface area	Crops	Production	Surface area	Crops	Production	Surface area	Crops	Production	Surface area
Boyo	Plantain	25,067	3,144	Plantain	29,251	3,482	Plantain	30,147	3,482	Plantain	31,245	3,692
	Banana	18,943	1,967	Banana	20,497	2,115	Maize	19,442	8,674	Maize	21,410	9,954
	Maize	16,351	7,664	Maize	19,442	8,474	Bean	18,741	14,571	Bean	17,897	14,571
	Irish potato	15,413	1,083	Irish potato	17,440	1,136	Irish potato	17,618	1,006	Irish potato	17,796	1,006
	Bean	14,367	12,626	Bean	17,142	14,099	Cocoyam/Achuh	14,400	1,237	Cocoyam/Achuh	14,400	1,237
Bui	Maize	35,210	16,504	Maize	38,884	17,791	Maize	30,084	17,791	Maize	30,084	17,791
	Bean	18,341	16,118	Bean	19,704	17,314	Bean	17,147	15,314	Bean	18,871	15,337
	Irish potato	10,485	427	Irish potato	12,107	461	Irish potato	12,230	461	Irish potato	12,354	473
	Yam	8,477	866	Yam	8,881	911	Yam	8,881	915	Yam	9,028	923
	Plantain Banana	2,718	341	Cuc umber/ Pumpkin seed	4,667	3,111	Banana	4,512	445	Plantain	5,007	814
Donga-Mantung	Cocoyam/Achuh	66,306	6,392	Cocoyam/Achuh	67,632	6,552	Cocoyam/Achuh	56,104	6,552	Cocoyam/Achuh	63,104	6,557
	Maize	51,188	23,993	Maize	53,397	25,433	Maize	53,677	25,490	Maize	53,677	25,490
	Plantain	24,983	2,595	Plantain	25,943	3,250	Plantain	26,119	3,250	Plantain	27,917	3,567
	Banana	24,915	3,125	Banana	25,233	2,647	Bean	20,808	15,460	Bean	19,985	15,464
	Yam	23,169	2,368	Bean	20,808	18,460	Yam	19,631	1,808	Yam	19,970	1,811
Menchum	Maize	18,809	1,813	Maize	23,140	8,503	Maize	23,140	8,503	Maize	27,880	12,451
	Cocoyam/Achuh	17,917	8,398	Cocoyam/Achuh	15,133	1,836	Cocoyam/Achuh	16,704	1,836	Cocoyam/Achuh	18,709	1,839
	Palm oil	17,092	5,254	Palm oil	14,595	5,687	Palm oil	14,025	5,687	Palm oil	14,025	5,687
	Cassava	11,441	1,082	Cassava	12,356	1,244	Cassava	13,597	1,254	Cassava	13,988	1,296
	Potato	8,699	1,287	Tomato	9,526	725	Tomato	9,958	725	Tomato	10,390	725
Mezam	Cassava	60,190	5,692	Cassava	61,942	6,142	Cassava	61,813	3,142	Cassava	62,212	3,198
	Cocoyam/Achuh	39,397	3,797	Cocoyam/Achuh	40,185	3,968	Cocoyam/Achuh	41,119	3,968	Cocoyam/Achuh	41,119	3,970
	Maize	30,355	14,228	Maize	33,687	15,116	Maize	33,687	15,116	Maize	33,987	15,614
	Irish potato	14,773	5,046	Irish potato	16,250	5,336	Irish potato	16,416	2,688	Irish potato	16,582	2,688
	Yam	10,999	1,131	Yam	11,767	1,162	Yam	12,410	471	Yam	9,411	195
Momo	Cocoyam/Achuh	34,943	3,369	Cocoyam/Achuh	35,333	3,402	Cocoyam/Achuh	27,114	3,402	Macabo/Taro	33,114	3,402
	Yam	19,595	2,003	Yam	20,119	2,073	Yam	22,140	827	Yam	23,001	901
	Plantain	9,158	1,149	Plantain	9,391	1,190	Maize	10,036	9,112	Maize	14,036	9,948
	Maize	5,948	2,788	Maize	6,036	2,800	Plantain	9,391	1,190	Plantain	12,225	1,190
	Tomato	5,862	465	Tomato	5,966	466	Tomato	6,236	466	Tomato	6,507	466
Ngo-ketunjia	Bean	23,899	21,244	Bean	24,933	21,945	Bean	25,769	18,963	Bean	23,441	18,941
	Maize	6,785	3,180	Maize	7,068	3,293	Cocoyam/Achuh	11,478	1,012	Cocoyam/Achuh	11,478	1,012
	Gumbo (okra)	6,666	3,333	Gumbo (okra)	6,880	3,416	Maize	7,068	3,293	Maize	7,968	3,941
	Cocoyam/Achuh	6,140	592	Cocoyam/Achuh	6,140	592	Gumbo (okra)	6,892	1,016	Gumbo (okra)	7,211	1,089
	Rice	5,386	1,714	Rice	5,676	1,783	Rice	6,005	2,904	Rice	6,334	3,214

Source: MINADER/Department of Agricultural Surveys and Statistics /AGRI-STAT N° 014, 015 and 016

Table A 20:   Crop map for the North-West Region by Sub-Division

Divisions	S/N	Subdivisions	Agroecology	Main Crops
Mezam	1	Santa	High (H)	Solanum potatoes, vegetables, beans, arabica coffee.
	2	Tubah	Mid (M)	Plantains, sweet yams, yellow yams, honey, cocoyams, Solanum potatoes, huckleberry.
	3	Bafut	Mid/low (M/L)	Cocoyams, yellow yams, ginger, palm oil, rice, maize
	4	Bali	M	Maize, pineapple, sugarcane, cassava, yellow yams
	5	Bamenda I	M	Solanum potatoes, maize, beans, cocoyams, honey
	6	Bamenda II	M	Yellow yams, vegetables, plantains, colocasia, maize, beans
	7	Bamenda III	M	Yellow yams, vegetables, plantains, colocasia, maize, beans
Ngoketunjia	8	Babessi	M	Cocoyams, rice, maize, colocasia, groundnuts, cassava.
	9	Ndop	M	Rice, maize, colocasia, cocoyams, A. coffee, huckleberry (Bamessing).
	10	Balikumbat	M	Plantains, Okra, groundnuts.
Momo	11	Mbengwi	M	Cocoyams, yams, cassava, maize, beans
	12	Batibo	H/M/L	Cocoyams, yams, cassava, oil palm, raffia palm, Solanum potatoes, coffee
	13	Widikum	L	Oil palm, yams, cocoyams, cocoa.
	14	Njikwa	M/L	Cocoyams, plantains, cassava, maize, beans, arabica coffee, robusta coffee
	15	Ngie	L	Oil palm, cocoyams, maize, beans
Menchum	16	Wum	M	Maize, groundnuts, beans, cocoyams
	17	Fungom	M/L	Maize, beans, Groundnuts, plantain, Honey
	18	Menchum valley	L	Groundnuts, plantain, yams, cassava, cocoa
	19	Furu-Awa	L	Groundnuts, yams
Boyo	20	Fundong	H/M/L	Maize, beans, Solanum potatoes
	21	Belo	H/M/L	Maize, beans, Plantain, Solanum potatoes
	22	Njinikom	H/M/L	Plantain, maize, arabica coffee
	23	Bum	M	Plantain, maize, beans, oil palm
Bui	24	Oku	H	Honey, Solanum potatoes, maize, beans, Arabica coffee
	25	Noni	M/H	Solanum potatoes, maize, beans, Arabica coffee
	26	Mbven	M/L	Solanum potatoes, maize, beans
	27	Kumbo	M/H	Solanum potatoes, maize, beans, Arabica coffee
	28	Jakiri	M	Solanum potatoes, maize, beans plantain, pear, citrus
	29	Nkum	H	Solanum potatoes, maize, beans
Donga-Mantung	30	Nkambe	H	Groundnuts, maize, bean, yellow yams
	31	Misaje	M	Groundnuts, palm oil, maize, plantains.
	32	Ndu	H	Solanum potatoes, beans, maize
	33	Nwa	M/L	Palm oil, rice, Soya beans, maize, beans
	34	Ako.	L	Palm oil, Soya beans, citrus, cocoyams

Source: Regional Delegation of MINADER

Table A 21: ***The main market for the agricultural goods produced in each division of the North-West Region***

Main market for agriculture goods produce	distribution of the respondent of each division according to those who declared that agricultural goods produced are mainly sold in the different market						
	Boyo	**Bui**	**Donga Mantung**	**Menchum**	**Mezam**	**Momo**	**Ngoketunjia**
Local markets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Other markets in the Region	55.70%	67.30%	43.90%	48.10%	57.40%	57.10%	82.80%
Other cities in Cameroon	45.90%	51.80%	14.60%	18.20%	42.60%	16.50%	57.80%
Market in Nigeria	8.20%	10.90%	32.30%	51.30%	27.80%	3.30%	26.60%
Other countries	16.40%	16.40%	5.50%	4.50%	22.20%	4.40%	23.40%

Source: NW field survey 2018

2.2. Livestock and Fishing

Table A 22:   Evolution of Livestock population figures (number) for the region and per division

Division	Cattle			Sheep			Goats			Pigs			Fowls		
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
Boyo	71,963	86,078	97,517	17,260	19,497	21,860	38,992	44,919	51,470	9,820	11,711	1,344	115,695	96,559	121,145
Bui	59,443	71,108	80,558	56,043	63,307	70,779	56,251	64,801	74,252	28,274	33,720	38,708	197,764	201,652	242,423
Donga-Mantung	141,605	168,882	191,325	78,418	88,582	99,317	115,059	132,548	151,879	21,163	25,240	28,973	170,390	181,913	221,349
Menchum	68,442	81,868	92,141	22,375	25,274	28,338	28,445	32,769	37,548	20,147	24,028	27,583	72,113	78,493	94,326
Mezam	23,860	28,537	32,329	11,507	12,998	14,574	46,024	53,019	60,751	23,702	28,268	32,450	538,369	210,482	508,950
Momo	16,422	19,648	22,259	17,473	19,738	22,130	21,734	25,037	28,688	43,003	51,287	58,874	118,130	91,903	133,116
Ngoketunjia	9,782	11,696	13,250	10,016	11,316	12,884	13,104	15,097	17,297	23,194	27,663	31,750	142,565	173,255	121,495
Total	391,517	467,817	529,985	213,092	240,712	269,882	319,609	368,190	421,885	169,303	201,917	219,682	1,355,026	1,034,257	1,442,804

Source: Regional delegation of MINEPIA

Table A 23:   Evolution of the number of Fish farmers and fish ponds

Division	Number of farmers			Number of ponds			Surface area (m²)			Quantity of fish produced (Tilapia, carp, catfish) (kg)		
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
Boyo	58	59	78	75	89	108	975	995	2,095	99,307	6,758	-
Bui	107	107	107	128	128	128	10,400	10,400	10,400	183,226	10,137	-
Donga-Mantung	121	121	121	165	165	165	7,670	7,670	7,670	207,858	13,516	-
Menchum	43	43	43	97	97	97	9,900	9,900	9,900	73,557	7,884	-
Mezam	90	256	266	196	498	510	52,161	74,700	74,950	142,087	41,831	-
Momo	112	169	169	259	259	259	15,790	1,790	1,790	174,916	26,651	-
Ngoketunjia	85	85	86	115	115	120	19,700	19,700	20,050	145,575	13,218	-
Total	616	840	870	1,035	1,351	1,387	116,596	125,155	126,855	1,026,526	119,995	-

Source: Regional delegation of MINEPIA

Table A 24:   Repartition (%) of the respondent according to those who declared the main technique of fishing practiced in their division

Main technique of fishing practiced	Repartition (%) of the respondent according to those who declared the main technique of fishing practiced in their division						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Fishing nets	8.20%	10.90%	50.60%	52.90%	29.60%	28.30%	53.80%
Fishing baskets	41.00%	9.10%	42.70%	23.90%	24.10%	26.10%	55.40%
Fishing line	0.00%	6.40%	17.10%	41.90%	18.50%	23.90%	40.00%

Source: NW field survey 2018

Table A 25: **The Appreciation of the usage of the fish products produced in each division of the North-West Region**

Different usage of fish products by the local population	distribution (%) of the respondent of each division according to their appreciation of the usage of fish products						
	Boyo	**Bui**	**Donga Mantung**	**Menchum**	**Mezam**	**Momo**	**Ngoketunjia**
Household consumption	45.90%	26.40%	60.40%	69.70%	44.40%	70.70%	61.50%
Selling in local market	44.30%	15.50%	40.20%	31.00%	29.60%	19.60%	47.70%
Selling in big cities	0.00%	0.00%	2.40%	1.30%	0.00%	0.00%	12.30%
Exchange with other commodities (salt, …)	0.00%	0.00%	3.70%	1.90%	0.00%	0.00%	3.10%

Source: NW field survey 2018

2.3. Forestry

Table A 26: **Statistics of locally sold woods in 2015**

Month	Mezam		Momo		Ngoketunjia		Donga-Mantung		Menchum		Boyo		Bui		Total	
	Volume (m³)	Number of warehouses/ counter	Volume (m³)	Number of warehouses/ counter	Volume (m³)	Number of warehouses/ counter	Volume (m³)	Number of warehouses/ counter	Volume (m³)	Number of warehouses/ counter	Volume (m³)	Number of warehouses/ counter	Volume (m³)	Number of warehouses/ counter	Volume (m³)	Number of warehouses/ counter
January	1,963.5	64.0	62.3	22.0	434.2	29.0	2,741.2	52.0	-	-	52.7	3.0	108.2	15.0	5,362.1	185.0
February	2,235.0	65.0	71.6	20.0	45.7	2.0	296.2	19.0	45.7	2.0	117.9	18.0	151.2	30.0	2,963.5	182.0
March	1,906.3	56.0	46.3	7.0	450.7	27.0	115.3	12.0	0.5	2.0	134.1	19.0	179.6	33.0	2,832.8	154.0
April	1,783.0	71.0	51.4	20.0	340.8	25.0	193.7	17.0	-	1.0	126.0	19.0	309.0	35.0	2,803.9	188.0
May	1,783.0	74.0	85.2	13.0	217.4	25.0	177.8	14.0	13.8	3.0	139.9	30.0	322.6	35.0	2,739.4	137.0
June	1,353.0	139.0	42.4	13.0	194.9	22.0	177.6	15.0	51.1	3.0	86.0	30.0	226.8	35.0	2,131.8	265.0
July	1,601.7	140.0	85.2	12.0	307.2	24.0	217.1	15.0	17.0	12.0	17.3	13.0	245.0	36.0	2,490.5	240.0
August	1,368.3	126.0	54.3	12.0	214.0	24.0	144.6	15.0	57.3	12.0	15.8	17.0	53.8	34.0	1,908.1	240.0
September	653.3	125.0	21.7	12.0	143.5	28.0	808.1	14.0	10.2	9.0	35.3	16.0	531.6	36.0	2,203.7	240.0
October	1,623.9	121.0	23.2	21.0	219.8	28.0	85.8	8.0	18.4	15.0	11.2	13.0	228.3	35.0	2,210.6	241.0
November	1,125.9	133.0	76.8	21.0	433.4	28.0	100.1	8.0	27.2	15.0	74.1	13.0	287.9	35.0	2,125.4	241.0
December	1,564.7	133.0	34.2	14.0	88.1	7.0	112.6	6.0	27.2	13.0	193.1	13.0	202.1	22.0	2,221.9	208.0
Total	18,961.6		654.6		3,089.7		5,170.3		268.3		1,003.4		2,846.1		31,994.1	

Source: Regional Delegation of Forestry and Wildlife

Table A 27:   ***Statistics of locally sold woods in 2014***

Month	Mezam Volume (m³)	Mezam Number of warehouses/counter	Momo Volume (m³)	Momo Number of warehouses/counter	Ngoketunjia Volume (m³)	Ngoketunjia Number of warehouses/counter	Donga-Mantung Volume (m³)	Donga-Mantung Number of warehouses/counter	Menchum Volume (m³)	Menchum Number of warehouses/counter	Boyo Volume (m³)	Boyo Number of warehouses/counter	Bui Volume (m³)	Bui Number of warehouses/counter	Total Volume (m³)	Total Number of warehouses/counter
January	1,484.7	130.0	83.7	14.0	621.6	28.0	209.6	8.0	538.0	14.0	19.1	19.0	354.3	39.0	3,311.0	252.0
February	1,370.1	130.0	100.1	14.0	625.4	28.0	119.0	8.0	60.7	14.0	33.8	19.0	309.0	39.0	2,618.1	252.0
March	1,332.9	130.0	162.7	14.0	369.2	28.0	122.8	8.0	62.9	14.0	104.0	19.0	341.3	39.0	2,494.8	226.0
April	1,193.5	130.0	160.5	13.0	603.2	13.0	158.5	8.0	90.6	9.0	-	14.0	394.2	39.0	2,600.5	226.0
May	953.0	130.0	100.2	13.0	298.2	13.0	319.7	8.0	77.0	9.0	56.7	14.0	329.3	39.0	2,134.1	226.0
June	2,005.2	130.0	72.8	13.0	301.3	13.0	114.4	8.0	102.3	9.0	36.3	14.0	194.8	39.0	2,827.1	226.0
July	1,151.9	130.0	102.0	13.0	66.5	13.0	291.2	8.0	21.8	9.0	78.5	14.0	399.7	39.0	2,111.6	226.0
August	1,086.7	130.0	80.7	13.0	4.2	13.0	152.4	8.0	39.9	9.0	114.0	14.0	365.7	39.0	1,843.6	226.0
September	1,905.0	138.0	109.2	13.0	230.4	13.0	158.7	8.0	40.5	9.0	33.2	14.0	345.9	39.0	2,822.9	226.0
October	1,279.1	138.0	82.8	14.0	224.6	23.0	17.0	8.0	25.7	9.0	83.9	14.0	278.0	39.0	1,991.1	245.0
November	1,599.6	138.0	95.7	14.0	446.2	23.0	166.6	8.0	73.4	9.0	22.4	14.0	307.9	39.0	2,711.8	245.0
December	1,930.2	138.0	84.0	14.0	403.2	23.0	63.3	8.0	95.4	9.0	15.3	14.0	482.0	39.0	3,073.4	245.0
Total	17,291.9		1,234.4		4,193.0		1,893.2		1,228.2		597.2		4,102.1		30,540.0	

Source: Regional Delegation of Forestry and Wildlife

Table A 28:   ***Evolution of the quantity (in tons) of non-timber forest products in transit or exploited in 2014***

Products	January	February	March	April	June	July	August	September	October	November	December	Total	Observations
Prunes africana (Pygeum)	-	43.0	41.0	57.2	17.0	38.0	30.4	35.0	28.0	7.0	-	320.6	Harvested products in Bui and Boyo divisions destined for Bafoussam and Yaoundé.
Gnetum africana (Eru)	-	27.0	22.1	36.2	21.7	35.7	42.8	21.9	9.0	30.0	1.1	277.7	Harvested products in the Centre region destined for Nigeria.
Ebene	-	-	9.2	-	-	-	-	-	-	-	-	38.2	Harvested products in the Centre region in transit.
Invingia gabonenesis (Bush mango)	-	-	-	-	-	5.0	3.7	26.9	2.6	-	-	38.2	On transit from East. Centre and South-West Regions
Ebaye	-	-	-	-	-	-	-	10.0	24.0	-	-	34.0	
Voacanga	-	-	-	-	-	-	-	-	-	21.0	-	39.4	

Source: NIS, 2017

Table A 29:   Evolution of the quantity (in tons) of non-timber forest products in transit or exploited in 2015

Product	January	February	March	April	May	June	July	August	September	October	November	December	Total	Observations
Prunus africana (Pygeum)	-	24.0	8.4	8.0	52.2	79.0	13.0	28.0	37.0	16.0	16.4	-	282.0	Harvested products in Bui and Boyo divisions destined for Bafoussam and Yaoundé.
Gnetum africana (Eru)	16.0	16.0	21.0	38.5	41.0	58.6	24.3	75.5	40.7	15.8	11.2	9.2	351.8	Harvested products in the Centre region destined for Nigeria.
Invingia gabonenesis (Bush mango)	-	-	-	-	-	-	-	-	-	-	3.0	-	-	On transit from East, Centre and South-West Regions.

Source: NIS, 2017

Table A 30:   *Volume (in m³) by specie of wood legally sold in the North-West Region in 2015*

Specie	January	February	March	April	May	June	July	August	September	October	November	December	Total
Eucalyptus	2,538.0	2,496.5	1,939.0	1,901.2	1,487.0	2,381.1	1,469.7	1,251.0	1,913.7	1,080.3	2,171.7	4,775.9	25,405.2
Cypress	80.0	66.2	98.3	134.7	59.8	-	110.6	107.6	102.6	9.9	-	330.6	1,100.3
Ayous	208.6	356.1	215.6	383.1	395.5	275.0	311.8	359.4	290.6	178.4	191.5	449.8	3,615.4
Iroko	343.7	-	128.7	130.9	161.5	149.8	159.6	17.3	69.1	108.6	119.0	277.6	1,665.8
Sapelli	30.6	-	76.8	28.8	-	5.5	-	-	21.6	-	31.0	66.0	260.3
Aiele	-	19.0	-	-	-	-	-	-	-	-	-	-	19.0
Gmelina	-	28.8	-	-	-	-	-	9.3	4.2	-	-	4.2	46.5
Acajou	1.9	9.8	3.2	-	-	-	-	-	-	-	-	12.5	27.4
Bilinga	3.8	-	-	-	-	-	13.9	-	12.5	-	-	14.4	44.6
Doussie blanc	-	-	-	2.4	-	-	-	-	-	-	15.1	-	17.5
Frake	-	-	-	-	-	-	23.9	35.0	-	80.6	68.2	74.4	282.1
Kossipo	-	-	-	-	-	-	9.6	41.3	-	16.6	-	-	67.5
Bombax	-	-	-	-	-	-	-	-	4.2	-	1.4	-	5.6
Anengre	-	-	-	-	-	-	-	-	-	10.6	-	-	10.6
Ngollon	-	-	-	-	-	-	-	-	-	9.8	9.6	-	19.4
Bibolo	-	-	-	-	-	-	-	-	-	9.4	-	-	9.4
Sipo	-	-	-	-	-	-	-	-	-	8.1	-	-	8.1
Bongossi	-	-	-	-	-	-	-	-	-	1.0	-	-	1.0
Moro	-	-	-	-	-	-	-	-	3.0	-	-	-	3.0
Azobe	-	-	-	-	-	-	-	-	36.7	-	-	-	36.7
Bété	-	-	-	-	-	-	-	2.4	4.8	-	2.4	-	9.6
Domba	-	-	-	-	-	-	-	-	-	-	1.9	-	1.9
Eyong	-	-	-	-	-	-	-	-	-	-	-	78.8	78.8
Pachyloba	-	-	-	-	-	-	-	-	-	-	1.0	-	1.0
Padouk	21.3	7.4	-	12.0	-	-	6.2	5.4	7.3	-	12.4	19.2	91.3
Mahogany	-	-	4.6	-	-	-	2.0	9.6	9.5	-	-	7.5	33.2
Other types of wood	83.7	4.1	1.7	7.9	7.2	15.8	4.3	1.2	1.2	6.1	1.2	2.4	136.8
Total	3,311.6	2,987.9	2,467.9	2,601.0	2,111.0	2,827.2	2,111.6	1,839.6	2,481.0	1,519.4	2,626.5	6,113.3	32,998.0

Source: NIS, 2017

2.4. Mining and Quarries

The Distribution of Industrial Quarry Companies and Artisanal Quarries in the North-West Region is as follows;

Table A 31:   *Distribution of Industrial Quarry Companies in the North-West Region*

Division	Value
Boyo	-
Bui	1
Donga Mantung	-
Menchum	-
Mezam	3
Momo	1
Ngoketunjia	1
Total	6

Source: MINMIDT

Table A 32:   *Distribution of Artisanal quarries in the North-West Region*

Division	Value
Boyo	22
Bui	27
Donga Mantung	18
Menchum	5
Mezam	30
Momo	35
Ngoketunjia	15
Total	167

Source: MINMIDT

Table A 33:   *Evolution of Industrial Quarry Exploitation in the North-West Region*

Division	2013	2014	2015	2016	2017
Boyo	-	-	-	-	-
Bui	1	1	1	1	1
Donga Mantung	-	-	-	-	-
Menchum	-	-	-	-	-
Mezam	2	3	3	3	3
Momo	1	1	2	-	1
Ngoketunjia	1	-	-	-	1
Total	5	5	6	4	6

Source: MINMIDT

Table A 34:   *Evolution of Semi-Mechanized Quarry Exploitation in the North-West Region*

Division	2013	2014	2015	2016	2017
Boyo	-	-	-	-	-
Bui	1	1	1	-	-
Donga Mantung	-	-	-	-	-
Menchum	0	2	1	-	-
Mezam	0	3	3	-	-
Momo	-	-	-	-	-
Ngoketunjia	2	2		-	-
Total	3	8	5	-	-

Source: MINMIDT

Table A 35:   *Evolution of Artisanal Quarry Companies in the North-West Region*

Division	2013	2014	2015	2016	2017
Boyo	-	4	3	5	22
Bui	86	81	57	53	27
Donga Mantung	4	17	21	7	18
Menchum	3	5	3	18	9
Mezam	43	49	49	45	45
Momo	35	56	56	54	35
Ngoketunjia	-	10	10	22	15
Total	171	222	231	197	167

Source: MINMIDT

2.5. Business and industries

Table A 36: ***The most common type of Small and Medium Size Enterprise (SME) in each division***

Most common type of Small and Medium Size Enterprise (SME)	Repartition (%) of the respondent of each division according to those who declared the most common type of SME in in their locality						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Tailoring	90.20%	94.50%	92.10%	94.20%	88.90%	87.00%	96.90%
Carpentry	88.50%	91.80%	89.00%	94.20%	83.30%	90.20%	95.40%
Barbing/ Hair dressing saloon	88.50%	86.40%	72.60%	65.80%	79.60%	69.60%	93.80%
Food processing/ restaurant	19.70%	22.70%	23.80%	26.50%	22.20%	40.20%	12.30%
Wielding	72.10%	50.90%	34.10%	21.90%	53.70%	32.60%	55.40%
Mechanic	82.00%	87.30%	86.60%	90.30%	92.60%	91.30%	92.30%
Petty trading/ provision stores	98.40%	98.20%	95.10%	97.40%	96.30%	97.80%	98.50%

Source: NW field survey 2018

Table A 37: ***The Main destination for the handicraft products produced in each division according to the respondent declaration***

Main destination of the handicraft product produced in…	Percentage of respondent of each division who declared that most of the artisanal goods produced in their area are mainly sold in the following destination						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
In the local market and Neighboring towns of the Region	72.10%	88.20%	90.90%	89.70%	77.80%	91.30%	75.40%
All the cities of Cameroon	57.40%	41.80%	12.80%	12.30%	42.60%	20.70%	36.90%
Abroad	49.20%	30.00%	4.90%	7.70%	20.40%	18.50%	18.50%

Source: NW field survey 2018

Table A 38: ***The main barriers/problems to the development of handicraft activity in each division***

Main barriers/problems to the expansion of handicraft activity	Repartition (%) of the respondent of each division according to those who declared the main barriers/problems to the expansion of handicraft activity in their locality						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Lack of workingequipment	80.30%	71.80%	67.10%	71.00%	57.40%	73.90%	66.20%
Lack of training (vocational)	85.20%	78.20%	84.10%	81.90%	66.70%	80.40%	72.30%
Absence of links with external markets	50.80%	65.50%	37.80%	42.60%	48.10%	40.20%	41.50%
Lack of finance ressources	86.90%	80.90%	68.90%	72.90%	61.10%	79.30%	69.20%
Poor value of the activity/ Lack of interest by youths	77.00%	74.50%	82.90%	69.70%	63.00%	76.10%	70.80%

Source: NW field survey 2018

2.6. Tourism

Table A 39:   Number of hotels and rooms per category and per division in Cameroon in the year 2015

Category			Adamawa	Centre	East	Far North	Littoral	North	North-West	West	South	South-West	Total
	5*	Hotels	-	1	-	-	-	-	-	-	-	-	1
		Rooms	-	257	-	-	-	-	-	-	-	-	257
		Beds	-	291	-	-	-	-	-	-	-	-	291
	4*	Hotels	-	4	-	-	4	-	-	-	1	-	9
		Rooms	-	565	-	-	633	-	-	-	54	-	1,252
		Beds	-	809	-	-	1,023	-	-	-	60	-	1,892
	3*	Hotels	1	9	1	6	13	3	8	5	6	5	57
		Rooms	50	571	46	223	1,109	202	491	242	218	308	3,460
		Beds	50	670	47	269	1,141	256	492	244	278	308	3,755
	2*	Hotels	3	34	1	5	33	2	11	21	15	10	135
		Rooms	86	1,290	43	150	1,095	91	265	692	464	346	4,522
		Beds	86	1,368	44	177	1,151	99	267	696	518	346	4,752
	1*	Hotels	26	66	52	49	31	29	48	37	97	23	458
		Rooms	461	1,198	954	829	651	396	850	558	484	530	6,911
		Beds	461	1,218	954	853	682	406	842	567	502	530	7,045
Total classified		Hotels	30	114	54	60	81	34	67	63	119	38	660
		Rooms	597	3,881	1,043	1,202	3,488	689	1,606	1,492	1,220	1,184	16,402
		Beds	597	4,356	1,045	1,299	3,997	761	1,631	1,507	1,358	1,184	17,735
Total non-classified		Hotels	59	216	57	74	525	74	65	47	178	137	1,432
		Rooms	721	2,627	691	841	6,754	836	746	682	1,147	1,263	16,308
		Beds	721	2,613	691	893	6,802	1,040	776	682	1,198	1,263	16,679
Total		Hotels	89	330	111	134	606	108	132	110	297	175	2,092
		Rooms	1,318	6,508	1,734	2,043	10,242	1,525	2,352	2,174	2,367	2,447	32,710
		Beds	1,318	6,969	1,736	2,192	10,799	1,801	2,407	2,189	2,556	2,447	34,414

Source: MINTOUL, 2015 "L'Annuaire des Statistiques du Tourisme et des Loisirs 2015"

Table A 40:   *Revenues of establishments of accommodation by region and by type of service in 2015 (in thousands)*

	Prestations								Crude income	Net income
	Rooms paid	Breakfast	Restaurant	Bar	Tel/fax	Dry cleaning	others	Taxes		
Adamawa	110,297	9,278	96,558	27,984	-	1,259	5,855	40,295	251,232	210,937
Centre	2,192,587	732,884	773,559	3,670,321	596,625	222,180	2,469,009	1,644,253	10,657,795	9,013,542
East	335,433	12,268	52,917	64,918	450	659	9,492	62,760	538,899	476,139
Far North	268,018	14,012	40,815	68,049	-	173	4,159	55,283	450,510	395,227
Littoral	7,280,304	201,251	2,325,297	317,442	4,479	81,207	394,063	1,362,632	10,604,043	9,241,411
North	274,979	23,132	240,726	69,767	-	3,138	14,598	100,459	626,339	525,880
North-West	289,013	9,471	37,872	64,826	-	-	54,170	69,452	455,352	385,899
West	204,746	6,709	26,830	45,925	-	-	38,376	49,202	322,585	273,383
South	796,648	20,524	315,411	200,262	2,586	801	63,026	154,908	1,399,258	1,244,350
South-West	614,305	52,920	208,437	184,044	1,022	1,358	76,601	1,138,687	219,197	919,490
Total	12,366,330	1,082,449	4,118,422	4,713,538	605,162	311,405	3,129,349	4,677,931	25,525,210	22,868,258

Source: MINTOUL, 2015 "L'Annuaire des Statistiques du Tourisme et des Loisirs 2015"

Table A 41:   *Revenues of establishments of accommodation by region and by type of service in 2014 (in thousands)*

	Prestations								Crude income	Net income
	Rooms paid	Breakfast	Restaurant	Bar	Tel/fax	Dry cleaning	others	Taxes		
Adamawa	327,937	35,044	90,131	81,142	146	1,295	7,587	92,469	543,284	450,815
Centre	12,237,310	731,450	3,720,548	1,424,084	231,490	86,450	1,206,547	3,284,543	19,637,880	16,353,337
East	1,175,776	19,767	89,058	124,501	754	1,138	14,424	246,249	1,425,417	1,179,168
Far North	565,936	21,252	75,602	99,812	204	395	8,765	771,965	1,362,632	590,667
Littoral	14,275,105	394,611	4,559,406	622,435	8,782	159,229	772,673	2,671,827	20,792,241	18,120,413
North	662,351	71,781	182,042	163,887	295	2,616	15,325	186,765	1,097,297	910,532
North-West	548,209	11,006	7,477	86,373	-	-	93,871	107,923	854,860	746,937
West	515,352	10,347	7,029	81,196	-	-	88,245	101,455	803,624	702,169
South	1,490,335	38,396	590,058	374,641	4,837	1,499	117,907	289,796	2,617,673	2,327,878
South-West	1,258,182	72,726	528,229	320,185	1,320	2,787	131,489	453,663	2,356,227	1,903,506
Total	33,056,493	1,405,380	9,849,580	3,378,256	247,828	255,409	2,456,833	8,797,322	50,900,468	43,285,422

Source: MINTOUL, 2015 "L'Annuaire des Statistiques du Tourisme et des Loisirs 2015"

3 Urbanisation and demography (Data of chapter 6. Urbanisation)

Table A 42: *Proportion of the population in Cameroon from 1976 to 2025*

Region		North-West	Cameroon
Population	**1976**	980,531	7,663,246
	1987	1,237,348	10,493,655
	2005	1,728,953	17,463,836
	2011	1,842,158	20,138,637
	2012	1,870,148	20,636,954
	2013	1,900,547	21,143,237
	2014	1,933,358	21,657,488
	2015	1,950,667	21,917,602
	2018	2,212,633	24,863,337
	2025	2,428,173	29,442,327
Percentage of national total	**1976**	12.80	100
	1987	11.80	100
	2005	9.90	100
	2011	9.15	100
	2012	9.06	100
	2013	8.99	100
	2014	8.93	100
	2015	8.90	100
	2018	8.89	100
	2025	8.20	100

Source: GPHC 1976, GPHC 1987, 3rd GPHC, BUCREP, 2005

Table A 43: *Evolution of the population of administrative units the North-West between 1987 and 2005*

Administrative unit	Sur-face (km²)	1987				2005			
		Male	Female	Total	Density (hbt/ km²)	Male	Female	Total	Density (hbt/ km²)
Jakiri		17,443	18,872	36,315		22,346	24,676	47,022	
Mbven		6,009	5,943	11,952		10,073	10,216	20,289	
Noni		9,632	10,699	20,331		19,206	20,194	39,400	
Oku		26,722	28,860	55,582		42,466	45,254	87,720	
Kumbo		29,624	29,804	59,428		40,758	42,721	83,479	
Nkum		15,961	17,495	33,456		20,828	23,231	44,059	
Bui	**2,297**	**105,391**	**111,673**	**217,064**	**94.5**	**155,677**	**166,292**	**321,969**	**140.17**
Nkambe		28,379	29,840	58,219		29,264	33,768	63,032	
Ndu		29,786	31,931	61,717		34,262	39,693	73,955	
Misaje		11,524	11,092	22,616		11,018	11,623	22,641	
Ako		14,139	14,651	28,790		19,812	20,537	40,349	
Nwa		27,213	28,361	55,574		33,882	36,072	69,954	
Donga-Mantung	**4,279**	**111,041**	**115,875**	**226,916**	**53.03**	**128,238**	**141,693**	**269,931**	**63.08**
Fundong		15,551	17,423	32,974		20,531	25,300	45,831	
Njinikom		8,983	10,149	19,132		9,068	11,393	20,461	
Belo		21,372	24,213	45,585		18,314	22,443	40,757	
Bum		8,427	7,984	16,411		8,599	9,239	17,838	
Boyo	**1,592**	**54,333**	**59,769**	**114,102**	**71.67**	**56,512**	**68,375**	**124,887**	**78.45**
Wum		15,037	15,787	30,824		18,812	20,288	39,100	
Fungom		19,937	23,435	43,372		26,624	32,042	58,666	
Menchum-Valley		12,054	13,110	25,164		24,936	25,299	50,235	
Furu-awa		3,179	3,125	6,304		7,076	6,921	13,997	
Menchum	**4,469**	**50,207**	**55,457**	**105,664**	**23.64**	**77,448**	**84,550**	**161,998**	**36.25**
Bali		16,578	17,337	33,915		14,410	15,965	30,375	
Bamenda 1		9,827	9,353	19,180		13,797	14,562	28,359	
Bamenda 2		45,563	44,091	89,654		89,726	94,551	184,277	
Bamenda 3		19,429	17,758	37,187		54,779	55,474	110,253	
Tubah		19,138	20,089	39,227		22,817	25,725	48,542	
Santa		26,669	30,790	57,459		29,913	34,478	64,391	
Bafut		17,239	19,182	36,421		29,178	28,752	57,930	
Mezam	**1,745**	**154,443**	**158,600**	**313,043**	**179.39**	**254,620**	**269,507**	**524,127**	**300.63**
Balikumbat		15,638	16,302	31,940		33,753	34,784	68,537	
Babessi		17,801	20,038	37,839		22,886	26,322	49,208	
Ndop		22,962	24,352	47,314		32,906	36,697	69,603	
Ngo-Ketunjia	**1,126**	**56,401**	**60,692**	**117,093**	**103.99**	**89,545**	**97,803**	**187,348**	**166.38**
Batibo		19,986	22,928	42,914		20,809	23,810	44,619	
Ngie		13,777	14,629	28,406		8,637	9,060	17,697	
Widikum-Menka		10,426	11,082	21,508		13,927	14,225	28,152	
Mbengwi		15,609	16,502	32,111		15,323	16,268	31,591	
Njikwa		8,956	9,571	18,527		8,126	8,508	16,634	
Momo	**1,792**	**68,754**	**74,712**	**143,466**	**80.06**	**66,822**	**71,871**	**138,693**	**77.4**
North-West	**17,300**	**600,570**	**636,778**	**1,237,348**	**71.52**	**828,862**	**900,091**	**1,728,953**	**99.94**
Cameroon	**466,050**	**5,162,878**	**5,330,777**	**10,493,655**	**22.52**	**8,632,036**	**8,831,800**	**17,463,836**	**37.47**

Source: GPHC 1987 and 2005

Table A 44: ***Evolution of the projected population by age of the North-West***

Age groups	2012			2013			2014			2015			2025		
	Sex		Total	Sex		Total	Sex		Total	Sex		Total	Sex		Total
	Male	Female		Male	Female		Male	Female		Male	Female		Male	Female	
0-4	142,853	140,960	283,813	145,161	143,243	288,404	147,665	145,716	293,381	148,649	146,632	295,281	162,653	165,769	328,422
5-9	138,220	133,907	272,127	140,483	136,097	276,580	142,930	138,467	281,397	143,890	139,343	283,233	153,624	157,023	310,647
10-14	136,038	131,322	267,360	138,303	133,503	271,806	140,738	135,848	276,586	141,711	136,733	278,444	146,114	151,046	297,160
15-19	117,810	121,771	239,581	119,744	123,758	243,502	121,818	125,898	247,716	125,009	129,148	254,157	129,711	136,354	266,065
20-24	77,825	95,703	173,528	79,043	97,212	176,255	80,357	98,846	179,203	82,423	101,355	183,778	103,692	109,750	213,442
25-29	56,940	76,307	133,247	57,811	77,500	135,311	58,763	78,792	137,555	60,265	80,785	141,050	101,256	106,860	208,116
30-34	45,886	59,191	105,077	46,595	60,134	106,729	47,367	61,152	108,519	48,484	62,717	111,201	97,258	102,711	199,969
35-39	36,807	46,504	83,311	37,382	47,256	84,638	38,002	48,070	86,072	38,986	49,305	88,291	79,121	89,803	168,924
40-44	29,870	38,156	68,026	30,340	38,777	69,117	30,846	39,449	70,295	31,641	40,468	72,109	44,692	67,126	111,818
45-49	24,939	31,200	56,139	25,332	31,715	57,047	25,763	32,273	58,036	26,430	33,116	59,546	30,769	53,482	84,251
50-54	20,208	25,138	45,346	20,535	25,562	46,097	20,886	26,017	46,903	21,432	26,704	48,136	24,041	40,795	64,836
55-59	17,919	21,460	39,379	18,214	21,835	40,049	18,530	22,230	40,760	19,020	22,827	41,847	19,028	31,716	50,744
60-64	15,085	17,562	32,647	15,333	17,870	33,203	15,605	18,199	33,804	16,019	18,694	34,713	14,754	25,583	40,337
65-69	13,289	14,033	27,322	13,512	14,288	27,800	13,755	14,558	28,313	14,422	15,275	29,697	12,430	20,560	32,990
70-74	9,660	9,370	19,030	9,830	9,539	19,369	10,009	9,714	19,723	10,490	10,189	20,679	8,480	14,523	23,003
75-79	5,777	5,295	11,072	5,879	5,391	11,270	5,988	5,491	11,479	6,280	5,762	12,042	5,732	9,517	15,249
80-84	3,045	3,204	6,249	3,100	3,257	6,357	3,155	3,317	6,472	3,307	3,478	6,785	2,236	4,019	6,255
85 and more	3,279	3,615	6,894	3,336	3,677	7,013	3,398	3,746	7,144	3,562	3,927	7,489	2,409	4,537	6,946

Source: 3ʳᵈRGPH, BUCREP, 2015; NIS – Demographic projections and estimations of the target priorities of different health programmes and interventions

Table A 45: ***The distribution of the population of the Region by sex from 2006 to 2015 (corrected)***

Year	Total	Males	Females	Number of more women than men
2006	1,738,382	833,183	905,199	72,016
2007	1,754,313	840,704	913,609	72,905
2008	1,772,657	849,387	923,270	73,883
2009	1,793,413	859,232	934,181	74,949
2010	1,816,580	869,962	946,618	76,656
2011	1,842,158	882,126	960,032	77,906
2012	1,870,148	895,450	974,698	79,248
2013	1,900,547	909,933	990,614	80,681
2014	1,933,358	925,575	1,007,783	82,208
2015	1,968,578	942,120	1,026,458	84,338

Source: NIS, 2017

Table A 46: *The evolution of urban rural population distribution in the North-West from 2005 to 2010 (corrected)*

Status	Year			
	North-West	Cameroon	North-West	Cameroon
	2005		**2010**	
Total population				
Total	1,728,953	17,463,836	1,804,695	19,406,100
Urban Population	641,558	8,514,938	760,459	10,091,172
Rural Population	1,087,395	8,948,898	1,044,236	9,314,928
Males				
Total	828,862	8,632,036	862,269	9,599,224
Urban Population	314,286	4,276,130	369,693	5,029,993
Rural Population	514,576	4,355,906	492,576	4,569,231
Females				
Total	900,091	8,831,800	942,426	9,806,876
Urban Population	327,272	4,238,808	390,766	5,061,179
Rural Population	572,819	4,592,992	551,660	4,745,697
Percentage of urban population	37.1	48.8	42.1	52

Source: 3rd GPHC, BUCREP, 2005; BUCREP, projection published in 2010

Table A 47: *Variation in change of place of residence in the Divisions of the Region in 2005*

Status	Division of Residence							Total
	Boyo	**Bui**	**Donga-Mantung**	**Menchum**	**Mezam**	**Momo**	**Ngo-Ketunjia**	
Total	124,887	321,969	269,931	161,998	524,127	138,693	187,348	1,728,953
Non migrants	112,017	276,464	247,844	141,472	346,816	125,424	165,037	1,415,074
Migrants	12,870	45,505	22,087	20,526	177,311	13,269	22,311	313,879
Index of residential mobility	10.31	14.13	8.18	12.67	33.83	9.57	11.91	18.15
Males								
Total	56,512	155,677	128,238	77,448	254,620	66,822	89,545	828,862
Non migrants	51,043	134,018	117,535	67,386	167,319	60,233	78,772	676,306
Migrants	5,469	21,659	10,703	10,062	87,301	6,589	10,773	152,556
Index of residential mobility	9.68	13.91	8.35	12.99	34.29	9.86	12.03	18.41
Females								
Total	68,375	166,292	141,693	84,550	269,507	71,871	97,803	900,091
Non migrants	60,974	142,446	130,309	74,086	179,497	65,191	86,265	738,768
Migrants	7,401	23,846	11,384	10,464	90,010	6,680	11,538	161,323
Index of residential mobility	10.82	14.34	8.03	12.38	33.40	9.29	11.80	17.92

Source: 3r^{d} GPHC 2005, BUCREP

Table A 48: *Land use of North-West Region in 2014*

Class Name	Area (km^2)	Percentage
Build-up Land	322.52	1.85
Agricultural Land	3,561.37	20.39
Forest	6,326.12	36.24
Grass Land	4,130.79	23.66
Others	2,988.82	17.12
Water body	128.48	0.74
Total	17,458.10	100

Source: GP-DERUDEP; LUMINOUS ENGINEERING & TECHNOLOGY SERVICES

Table A 49:   Distance between Bamenda and the headquarters of the Divisions of the North

Kick-off point	Division	Point of arrival	Distance (km)
Bamenda	**Boyo**	Belo	47
		Bum (Fonfuka)	100
		Fundong	70
		Njinikom	58
	Bui	Jakiri	83
		Kumbo	100
		Mbven (Mbiame)	115
		Nkum	110
		Noni (Nkor)	70
		Oku (Elak)	73
	Donga-Mantung	Ako	210
		Misaje	190
		Ndu	135
		Nkambe	170
		Nwa	190
	Menchum	Fungom (Zhoa)	120
		Furu-Awa	120
		Menchum Valley (Benakuma)	81
		Wum	80
	Mezam	Bafut	17
		Bali	20
		Bamenda 1	-
		Bamenda 2	-
		Bamenda 3	-
		Santa	25
		Tubah (Bambui)	10
	Momo	Batibo	45
		Mbengwi	25
		Ngie (Andek)	52
		Njikwa	72
		Widikum-Menka	66
	Ngoketunjia	Babessi	58
		Balikumbat	60
		Ndop	43

Source: Regional Delegation-NW/MINTP

Table A 50:   Population evolution in Bamenda III

Year	Total Population	Population increase
2000	59,294	-
2001	63,079	3,785
2002	67,105	4,026
2003	71,388	4,283
2004	75,945	4,557
2005	80,793	4,848
2006	85,950	5,157
2007	91,436	5,486
2008	97,272	5,836
2009	103,481	6,209
2010	110,086	6,605
2011	117,113	7,027
2012	124,588	7,475
2013	132,540	7,952
2014	141,000	8,460
2015	150,000	9,000

Source: Bamenda III Council Development Plan (2012)

Table A 51:   *Types of property crime in Bamenda*

Crime	Record	Percentage
Theft	517	53.0
Misappropriation	156	16.0
Destruction	163	16.7
False pretence	78	8.0
Violation of injunction order	18	1.8
Corruption	6	0.6
Sales of illicit drugs	7	0.7
Forgery	30	3.1
Total	975	100

Source: Legal Department of the Bamenda High Court, 2016

4 Technical Infrastructure (Data of chapter 7. Technical infrastructure)

4.1. Transport infrastructures

Table A 52:   *Classified road network in the North-West Region, state as of July 31st 2017*

| | Roads of the classified network | | Linear | | | Network status (%) | | |
| | | | Asphalted | | Earthen (km) | Total (km) | | Average | |
	no.	Designation	(km)	(%)			Good		Bad
National	N6	Santa (Border OU) - Bamenda	24.90	100		24.90			
	N6	Bamenda - Batido	43.85	100		43.85			
	N6	Batido - Lim SW	29.00	100		29.00			
	N11	Bamenda - Bambui	10.15	100		10.15			
	N11	Bambui - Ndop (Int D72)	29.93	100		29.93			
	N11	Ndop (Int D72) - Nkambe	20.00	16	108.46	128.46			
	N11	Nkambe - Misaje (Int D105)		0	22.32	22.32			
	N11	Misaje (Int D105) - Weh		0	76.73	76.73			
	N11	Weh - Wum		0	10.64	10.64			
	N11	Wum - Befang	10.00	61	6.28	16.28			
	N11	Befang - Bafut	17.00	43	22.95	39.95			
	N11	Bafut - Bamenda (Int N6)	18.21	100		18.21			
		All National Roads	**203.04**	**45**	**247.38**	**450.42**	**16.17**	**52.87**	**30.95**
Regional	P18	Bamenda - Tudig		0	30.59	30.59			
	P18	Tudig - Oshum (Int N6)		0	16.31	16.31			
	P20	Border OU - Jakiri		0	11.69	11.69			
	P24	Bafut - Bambui		0	12.65	12.65			
	P24	Bambui - Fundong	57.00	100		57.00			
	P24	Fundong - Weh		0	34.71	34.71			
	P24	Weh - Esu		0	14.76	14.76			
	P26	Kakar (Int N11) - Ntaba	17.00	73	6.38	23.38			
	P26	Ntaba - Lim AD		0	41.44	41.44			
		All Regional Roads	**74.00**	**31**	**168.53**	**242.53**	**5.22**	**37.81**	**56.97**
Departmental	D72	Ndop (Int N11) - Lim OU		0	27.13	27.13			
	D73	Sop - Nwa - Yang		0	39.04	39.04			
	D74	Nkambe - Ako		0	38.52	38.52			
	D74	Ako - Abonshie (Bor. Nigeria)		0	19.82	19.82			
	D102	Belo - Okou		0	28.25	28.25			
	D102	Oku - Koumbo		0	27.05	27.05			
	D103	Tudig (Int P8) - Acha - Andek		0	18.51	18.51			
	D103	Andek - Widikum		0	20.07	20.07			
	D103 A	Acha - Njikwa - Andek		0	49.97	49.97			
	D104	Befang - Benakuma		0	16.17	16.17			
	D104 A	Wum (Int N11) - Bu		0	13.29	13.29			
	D105	Misaje – Bor. Nigeria (Menchum)		0	43.74	43.74			
	D106	Mbungei (Int N6) - Guzang - Ashong		0	12.13	12.13			
		All Departmental Roads		**0**	**353.69**	**353.69**	**4.57**	**11.43**	**84.00**
		All Roads in the North-West Region	**277.04**	**26**	**769.60**	**1 046.64**	**9.71**	**35.38**	**54.91**

Source: MINTP

4.2. Water and Energy sub-sector

Table A 53:   *Number of subscriptions per shopping centre in the North-West, Cameroon in 2006 and 2017*

Type of Clientele North-West Agency	2017			2006
	Medium Voltage (MV)	Low Voltage (LV)	Total	Total
Bafut		3,133	3,133	826
Bali		2,410	2,410	1,149
Bambili		4,327	4,327	1,223
Batibo		2,989	2,989	1,178
Fundong	2	4,001	4,003	1,337
Kumbo	3	12,540	12,543	4,493
Mankon	8	21,742	21,750	9,113
Mbengwi	1	2,776	2,777	1,072
Ndop		6,929	6,929	2,394
Ndu		2,236	2,236	954
Nkambe	3	2,365	2,368	1,122
Nkwen	14	17,651	17,665	5,867
Santa	1	3,225	3,226	1,119
Wum	1	2,193	2,194	1,056
Total	**33**	**88,517**	**88,550**	**32,903**

Source: ENEO

4.3. Telecommunications sub-sector

Table A 54: *Major actors in the telecommunications sector in the North-West Region*

Body Media	Status	FM	Body Media	Status	FM
Mezam					
CRTV North-West	Public	FM 92.5	Rush FM Bamenda	Community	FM 104.5
ABAKWA FM	Private	FM 99 .0	Christian Gospel Radio	Religion	FM 98.1
Foundation Radio	Private	FM 100.0	Santa Meteo	Thematic	FM 103.5
Afrique Nouvelle	Private	FM 102.7	City FM	Private	FM 88.9
Radio Hot Coco	Private	FM 94.0	CBS	Religion	
CBC Radio	Religion	FM 97.2	SKY Sport Community Radio	Private	FM 96.1
NDEFCAM Radio	Private	FM 94.9	Media Afrique FM	Private	FM 96.8
Radio Evangelium	Religion	FM 102.0	Santa Community Radio	Community	FM 95.3
Bui					
Bui Community Radio	Community	FM 97.5	City Community Radio	Community	FM 94.2
Hellen Chris Radio	Private	FM 96.0	Jakiri Community Radio	Community	FM 93.0
Radio Evangelium	Religion	FM 100.5	Nkor Community Radio	Community	FM 98.0
Oku Community Radio	Community	FM 95.5			
Ngoketunjia					
Stone FM	Private	FM 94.7	Chamber Radio	Private	FM 103.2
Donga-Mantung					
Donga Mantung Community Radio	Community	FM 105.1	Dan Batouri Radio	Private	FM 103.0
Savanna Frontier Radio	Private	FM 92.00			
Boyo					
Boyo Community Radio	Community	FM 95.0	Belo Community Radio	Community	FM 96.4
Momo					
Rainbow FM Mbengwi	Private	FM 99.5	Voice of Moghamo	Community	FM 96.5
Menchum					
Menchum Community Radio	Community	FM 94.7	Wum Community Radio	Community	FM 99.9
Television					
STV	Private		CNTV	Private	
CANAL 2 International	Private		RTN	Private	
LTM	Private		Horizon TV	Private	
Equinoxe TV	Private		DBS	Private	
VISION 4	Private			Private	
Media	**Status**		**Media**	**Status**	
Cable Network Distributors					
CANAL+SAT	Distributor		SWECOM	Distributor	
CANAL 2 TV+	Distributor		Irresistible Cables	Distributor	

Source: Regional Delegation of MINPOSTEL

5 Social Infrastructure (Data of chapter 8. Social infrastructure)

5.1. Education

Table A 55: **Enrolment in Nursery, Primary and Secondary Schools in 2015**

	Nursery			Primary			Secondary			Total	%
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
Boyo	1,350	1,397	2,747	18,886	17,232	36,118	7,669	9,319	16,988	55,853	9
Bui	1,117	1,115	2,232	34,042	32,333	66,375	15,588	18,614	34,202	102,809	17
Donga-Mantung	2,683	2,710	5,393	34,037	32,510	66,547	10,649	10,577	21,226	93,166	15
Mezam	8,823	8,726	17,549	42,080	39,720	81,800	38,192	41,759	79,951	179,300	29
Momo	1,441	1,483	2,924	20,540	20,340	40,880	8,479	8,591	17,070	60,874	10
Menchum	649	680	1,329	21,187	18,975	40,162	6,910	7,000	13,910	55,401	9
Ngo-Ketunjia	1,366	1,431	2,797	21,131	20,713	41,844	10,578	12,107	22,685	67,326	11
Total	17,429	17,542	34,971	191,903	181,823	373,726	98,065	107,967	206,032	614,729	100

Source: compiled from the 2015 Statistical Yearbook of the North-West Region

Table A 56: **Enrolment Statistics for Secondary Schools in 2016/2017**

Beginning of Year Enrolment Statistics for Secondary Schools in the North-West Region in 2016/2017					
	Number of Students				Total
Division	Public		Private		
	Boys	Girls	Boys	Girls	
Boyo	6,566	8,311	1,866	2,030	18,773
Bui	13,133	15,964	2,553	3,653	35,303
Donga-Mantung	10,552	9,813	758	836	21,959
Menchum	7,616	6,126	1,217	1,121	16,080
Mezam	24,752	23,769	12,612	16,235	77,368
Momo	7,865	8,854	926	1,116	18,761
Ngoketunjia	10,827	11,086	1,559	1,558	25,030
Total	81,311	83,923	21,491	26,549	213,274
GrandTotal	165,234		48,040		

Source: Regional Delegation of MINESEC

Table A 57: **Number of schools in 2015**

Division	Nursery	Primary	Secondary	Regional Total	Percentage
Boyo	72	201	53	326	9.34
Bui	339	383	99	821	23.52
Donga-Mantung	146	378	57	581	16.65
Mezam	282	452	125	859	24.61
Momo	90	192	56	338	9.68
Menchum	29	197	35	261	7.48
Ngo-Ketunjia	64	176	64	304	8.71
Total	1,022	1,979	489	3,490	100.00

Source: compiled from the 2015 Statistical Yearbook of the North-West Region

Table A 58: **Number of Secondary Schools in 2016/2017**

Regional Summary of Secondary Schools in the North-West Region in 2016/217			
Division	Number of Schools		
	Public	Private	Total
Boyo	43	11	54
Bui	81	29	110
Donga Mantung	61	10	71
Menchum	33	4	37
Mezam	82	58	140
Momo	54	8	62
Ngoketunjia	50	19	69
Grand Total	404	139	543

Source: Regional Delegation of MINESEC

Table A 59:   *Teaching Staff number in the Nursery, primary and Secondary education in 2015*

Division	Nursery			Primary			Secondary			Regional Total	%
	M	F	T	M	F	T	M	F	T		
Boyo	-	77	77	234	469	703	557	352	909	1,689	9.00
Bui	-	184	184	304	746	1,050	1,146	651	1,797	3,031	16.00
Donga-Mantung	-	81	81	230	336	566	308	146	442	1,101	5.79
Mezam	13	660	673	564	2,289	2,853	2,802	2,494	5,296	8,822	47.00
Momo	-	77	77	158	353	511	409	359	768	1,356	7.20
Menchum	-	37	37	146	203	349	336	221	557	943	5.01
Ngo-Ketunjia	-	107	107	251	443	694	641	416	1,057	1,858	10.00
Total	13	1,223	1,236	1,887	4,839	6,726	6,219	4,641	10,838	18,800	100.0

Source: compiled from the 2015 Statistical Yearbook of the North-West Region

Table A 60:   *Staffing Situation in secondary schools in the North-West Region in 2017*

Staffing Situation in the North-West Region					
Division	Type of School	Staffing Situation		Total	Grand Total
		Administrative	Teaching		
Boyo	Public	184	592	776	1,082
	Private	49	257	306	
Bui	Public	317	963	1,280	1,892
	Private	128	484	612	
Donga Mantung	Public	216	484	700	830
	Private	32	98	130	
Menchum	Public	127	442	569	788
	Private	27	192	219	
Mezam	Public	437	2,981	3,418	3,894
	Private	92	384	476	
Momo	Public	244	735	979	1,157
	Private	32	146	178	
Ngoketunjia	Public	245	732	977	1,379
	Private	57	345	402	
General Total		2,187	8,835		11,022

Source: Regional Delegation of MINESEC

Table A 61:   *Student per teacher ratio*

Division	Student teacher ratio in nursery	Student teacher ratio in primary	Student teacher ratio in secondary	Teachers in division	Students in division	Student teacher ratio in division
Boyo	35.7	51.4	18.7	1,689	55,853	33.1
Bui	12.1	63.2	19.0	3,031	102,809	33.9
Donga-Mantung	66.6	117.6	46.8	1,101	93,166	84.6
Mezam	26.1	28.7	15.1	8,822	179,300	20.3
Momo	38.0	80.0	22.2	1,356	60,874	44.9
Menchum	35.9	115.1	25.0	943	55,401	58.7
Ngo-Ketunjia	26.1	60.3	21.5	1,858	67,326	36.2
Total	28.3	55.6	19.0	18,800	614,729	32.7

Source: compiled from the 2015 Statistical Yearbook of the North-West Region

Table A 62: **Number of classrooms in Nursery, Primary and Secondary education**

	Division	Boyo	Bui	Donga-Mantung	Mezam	Momo	Menchum	Ngo-Ketunjia	Total
Nursery	F	30	158	50	348	16	10	53	665
Nursery	SF	4	90	66	96	2	6	10	274
Nursery	P	77	192	66	164	81	28	53	661
Nursery	T	111	440	182	608	99	44	116	1,600
Primary	F	523	775	639	1,964	599	470	477	5,447
Primary	SF	255	957	540	690	176	162	246	3,026
Primary	P	63	164	468	349	189	203	144	1,580
Primary	T	841	1,896	1,647	3,003	964	835	867	10,053
Secondary	F	349	529	265	1,628	416	216	359	3,762
Secondary	SF	128	272	94	88	40	81	52	755
Secondary	P	9	42	46	53	39	26	20	235
Secondary	T	486	843	405	1,769	495	323	431	4,752
Regional Total		1 438	3,179	2,234	5,380	1,558	1,202	1,414	16,405
%		8.8	19.4	13.6	32.8	9.5	7.3	8.6	100

Source: compiled from the 2015 Statistical Yearbook of the North-West Region

Table A 63: **Student per classroom ratio per division**

Division	Ratio in Nursery	Ratio in Primary	Ratio in Secondary	Students in region	Classrooms in region	Ratio
Boyo	24.75	42.95	34.95	55,853	1,438	38.84
Bui	5.07	35.01	40.57	102,809	3,179	32.34
Donga-Mantung	29.63	40.40	52.41	93,166	2,234	41.70
Mezam	28.86	27.24	45.20	179,300	5,380	33.33
Momo	29.54	42.41	34.48	60,874	1,558	39.07
Menchum	30.20	48.10	43.07	55,401	1,202	46.09
Ngoketunjia	24.11	48.26	52.63	67,326	1,414	47.61
Total	21.86	37.18	43.36	614,729	16,405	37.47

Source: compiled from the 2015 Statistical Yearbook of the North-West Region

Table A 64: **Number of schools, personnel and enrolment in SAR/SM in the North-West Region**

Division		2015							
		Personnel				Enrolment			
	No	M	F	Total	%	M	F	Total	%
Boyo	1	4	7	11	6.43	29	12	41	5.30
Bui	6	9	10	19	11.11	102	54	156	20.00
Donga Mantung	4	7	3	10	5.85	116	44	160	20.80
Menchum	2	5	8	13	7.60	7	2	9	1.20
Mezam	3	21	17	38	22.22	17	10	27	3.50
Momo	6	33	16	49	28.65	218	83	301	39.10
Ngoketunjia	3	16	15	31	18.13	61	24	85	10.00
Regional total	25	95	76	171	100.00	550	229	779	100.00
Percentage		55.56	44.44	100.00		70.6	29.4	100.00	

Source: compiled from the 2015 Statistical Yearbook of the North-West Region

Table A 65: ***Staffing and enrolment situation in the various private vocational training centres by gender***

Name of training centre	2015					
	Personnel			Enrolment		
	M	F	Total	M	F	Total
CBC Apprenticeship Training Center	39	1	40	27	20	47
ACCA FOCUS Institute	-	-	-	-	-	-
Deco Planet Training Center	-	4	4	3	6	9
FLEXCOM	10	5	15	68	70	138
Jesus Care Home Economic Center	-	2	2	-	-	-
Institute of Science Technology	5	5	10	7	8	15
Institute of Vocational Training and Specialisation of Human Resources	2	6	8	8	10	18
Institute of Professional Studies	8	1	9	11	19	29
Fidelity Advance Professional Training Centre	14	7	21	67	50	117
Agape Skills Development Center	-	-	-	-	-	-
Institute of Industrial Reformation Bamenda	6	4	10	19	8	27
Training Center For Professional Trainers In driving	2	1	3	8	2	10
LAHMOTECH Vocational Training Institute	6	6	12	8	-	8
Higher Institute of Catering and Hotel Management	7	3	10	-	-	-
Missionary Institute of Health Technology and Development	7	2	9	12	5	17
New York Salon Vocational Training Institute	2	3	5	-	-	-
Paul's Computer Institute	8	13	21	90	100	190
PYRAMID Institute of Professional Studies	6	8	14	18	6	24
Mount Zion Training Centre	11	4	15	32	28	60
Shalom Business College	5	3	8	-	-	-
GRASSFIELD Polytechnic	38	2	40	18	12	30
Tangka Institute of Professional Studies	10	20	30	5	7	12
Laurate Business College	26	14	40	110	90	200
ONE STOP Vocational Training Centre	4	2	6	10	15	25
SHUMAS Bio Farm Training Centre Kumbo	6	3	9	30	34	64
Chumbow Foundation	2	-	2	1	3	4
Difotronics high tech Information Technology multimedia training centre Bamenda	5	-	5	9	9	18
Nazareth Agro Pastoral Production Centre	8	2	10	18	12	30
Institute for Hotel Catering and Tourism Management (Bamenda)	1	4	5	-	-	-
Genesis Institute of Accounting & Management (GIAM) Bamenda	8	6	14	2	4	6
Camgew Vocational Training Centre (OKU)	2	4	6	15	9	24
St.Micheal Catholic Formation Centre Meluf Parish Kumbo	3	3	6	24	19	43
Self Reliance Promoters School of Management (Kumbo)	3	2	5	27	20	47
St. Francis Home for Skill Training (Kumbo)	7	1	8	-	-	-
Berikids Vocational Training Institute Bamenda	4	1	5	-	-	-
Longla Information Technology Centre Bamenda	5	4	9	-	-	-
Algayu Vocational Training Centre (Ndu)	6	3	9	7	13	20
Optimistic Business School Bamenda	5	3	8	2	8	10
Vocational Training Centre for Health Providers (Belo)	3	2	5	20	39	59
Ready to Wear African Style V T I Bamenda	1	2	3	3	5	8
Nyoh Computer Training Centre (Wum)	2	4	6	18	6	24
CFP Saint Augustine Professional Senegalese Tailoring Association (SAPTTA) Kumbo	3	2	5	23	7	30
Cameroon Opportunity Industrialization Training Centre (Kumbo)	4	3	7	6	7	13
St. Theresia Institute of Nursing and Biomedical Sciences and Good chemotherapy Kumbo	9	10	19	4	7	11
Cameroon Petroleum Academy (Babanki)	3	2	5	5	10	15
Training and Demonstration Training Centre (Mbiame Kumbo)	4	5	9	7	8	15
Total Regional (46)	310	182	492	742	676	1,418
%	82.93	17.07	100	49.73	50.27	100

Source: updated from the baseline study of the North-West Region, 2006

Table A 66: **Basic information on Teacher Training Colleges**

	Division	Boyo	Bui	Donga-Mantung	Mezam	Momo	Menchum	Ngo-ketunjia	Total
Students	Boy	35	86	111	141	361	81	82	897
	Girl	176	392	183	721	587	143	280	2,482
	Total	211	478	294	862	948	224	362	3,379
	%	6.20	14.10	8.10	2.50	28.10	6.60	10.70	100.00
Teachers	Males	6	30	20	66	33	7	18	180
	Females	12	25	15	107	56	12	28	255
	Total	18	55	35	173	89	19	46	435
	%	4.14	2.64	8.05	39.77	20.46	4.37	10.57	100
Classrooms	FIN	3	8	15	28	12	8	8	82
	SFIN	-	5	-	-	2	2	-	9
	PR	-	-	-	6	-	-	-	6
	Total	3	13	15	34	14	10	8	97
	%	-	-	-	-	-	-	-	-
No. of schools		1	3	3	5	3	1	2	18
%		5.56	16.67	16.67	27.78	16.67	5.56	11.11	100

Source: compiled from the 2015 Statistical Yearbook of the North-West Region. FIN: Finished, SFIN: Semi-Finished, PR: Provisory

Table A 67: **Student per teacher and per classroom ratio in Teacher Training Colleges**

Division	Enrolment	%	Teachers	%	S/T R	Classroom	%	S/CR
Boyo	211	6.2	18	4.14	11.7	3		70.3
Bui	478	14.1	55	10.64	8.7	13		36.8
Donga-Mantung	294	8.7	35	8.05	8.4	15		19.6
Mezam	862	25.5	173	39.77	5.0	34		25.4
Momo	958	28.1	89	20.46	10.7	14		67.7
Menchum	224	6.6	19	4.37	11.8	10		22.4
Ngoketunjia	362	10.7	46	10.57	7.9	8		45.3
Total	3,379	100.00	435	100.00	7.8	97		34.8

Source: compiled from the 2015 Statistical Yearbook of the North-West Region

Table A 68:   Statistical evolution of the education sector from 2003-2015

Year	Number of schools				Enrolment					No of teachers				Classrooms			
	N	P	S	TT	N	P	S	TT	H	N	P	S	TT	N	P	S	TT
2003	133	1,265	170	12	7,675	341,783	84,164	1,168		293	4,725	3,761	296	53	1,102	2,136	108
2004												3,877					
2005	371	1,378	208		106,395	159,675	205,669		409,766	549	1,673	5,592		491	3,965	2,095	
2006					109,265	575,974	211,222					5,668				2,027	
2007	437	1,620			112,216	591,526	216,924	2,004		1,268	9,364			832	8,721		
2008					115,205	607,497	222,782										
2009					118,357	623,909	228,796										
2010			253		105,860	316,793	344,842	3,373	210,690			4,393				2,844	
2011			362				172,960			938		4,733				3,044	
2012			409	14	108,984	326,276	355,232					6,589				3,236	
2013	2,000	1,140	448	17	110,752	331,649	361,101	1,315	220,120	2,524	10,067	7,571		1,870	10,376	3,514	
2014	1,173	2,202	472	20	112,667	337,447	370,129	1,391		2,524	10,672	7,759				4,042	
2015	1,022	1,979	489	18	34,978	373,726	206,032	3,389		1,236	6,726	10,860		1,060	10,053	4,752	97

Source: compiled from the Statistical Yearbooks of the North-West Region and Baseline study of the North-West Region, 2006

5.2. Culture

Table A 69: **Cultural centres, cinema halls, museums, sites and monuments in 2015**

Division	Private Cultural centres	Cinema halls	Museum			Cultural sites and monuments
			Public	Private	Traditional chieftaincy museum	
Boyo	-	-	-	-	1	7
Bui	1	-	-	1	2	9
Donga-Mantung	-	-	-	-	1	5
Menchum	-	-	-	-	-	9
Mezam	3	-	1	4	8	2
Momo	-	-	-	-	1	7
Ngoketunjia	-	-	-	-	3	7
Total	4	-	1	5	16	46

Source: compiled from the 2015 Statistical Yearbook of the North-West Region and Regional Delegation of MINAC for the North-West, 2017

Table A 70: **Number of registered musicians by division and by sex in 2015**

Division	Musicians			Plastic artists	Traditional dance groups	Cultural festivals
	Male	Female	Total			
Boyo	9	3	12	1	17	-
Bui	16	8	24	2	21	2
Donga-Mantung	12	-	12	4	17	-
Menchum	4	2	6	2	9	-
Mezam	90	26	116	8	148	8
Momo	19	10	29	2	24	3
Ngoketunjia	8	2	10	2	11	4
Total	158	51	209	211	247	17

Source: compiled from the 2015 Statistical Yearbook of the North-West Region

Table A 71: **Origin and number of visitors in 2017**

Country	Number of visitors	Percentage
Austria	2	2.2
Australia	1	1.1
Belgium	3	3.4
Benin	1	1.1
Cameroon	38	42.7
Canada	3	3.4
France	8	9
Germany	3	3.4
Greece	1	1.1
India	3	3.4
Iran	1	1.1
Italy	4	4.5
Ireland	1	1.1
Kenya	1	1.1
Netherlands	2	2.2
South Africa	1	1.1
Spain	1	1.1
Sweden	1	1.1
United Kingdom	8	9
United States of America	6	6.7
Total	89	100

Source: Babungo museum visitors register for 2016 and 2017

5.3. Sport

Table A 72:   ***The distribution of sports infrastructure in the North-West Region***

Division	Football stadia		Volleyball stadia		Handball stadia		Basketball stadia		Tennis courts		Olympic swimming pool		Gymnasia		Athletic tracks		Total	Percentages
	Priv	Pub	Priv	Pub	Priv	Pub	Priv	Pub	Priv	Pub	Priv	Pub	Priv	Pub	Priv	Pub		
Boyo	7	2	5	0	37	0	2	0	0	0	0	0	0	0	1	0	54	6.85
Bui	2	1	1	1	1	1	6	2	0	1	0	0	0	0	0	0	16	2.03
Donga-Mantung	3	1	1	0	2	1	2	1	0	0	0	0	0	0	0	0	11	1.4
Menchum	37	3	11	0	37	1	4	1	10	0	0	0	0	0	0	0	104	13.2
Mezam	87	128	19	27	108	158	10	7	5	2	0	1	4	1	0	1	558	70.81
Momo	7	12	4	1	1	3	3	1	1	0	0	1	0	1	0	0	35	4.44
Ngoketunjia	4	3	0	1	1	1	0	0	0	0	0	0	0	0	0	0	10	1.27
Total	147	150	41	30	187	165	27	12	16	3	0	2	4	2	1	1	788	100.00
Sub totals	297		71		352		39		19		2		6		2			1 576
Percentages	37.69		9.01		44.67		4.95		2.41		0.25		0.76		0.25			100.00

Source: compiled from the 2015 Statistical Yearbook of the North-West Region

Table A 73:   ***Affiliated clubs in the North-West Region***

Division	Football		Volleyball		Handball		Basketball		Athletics		Total	%
	M	F	M	F	M	F	M	F	M	F		
Boyo	1	1	0	0	0	0	0	0	0	0	2	4.44
Bui	1	0	0	0	0	0	0	0	0	0	1	2.22
Donga-Mantung	4	0	0	0	0	0	0	0	8	0	12	26.67
Menchum	1	0	0	0	0	0	0	0	1	1	3	6.67
Mezam	11	3	1	0	1	1	1	1	3	3	25	55.56
Momo	1	0	0	0	0	0	0	0	0	0	1	2.22
Ngoketunjia	1	0	0	0	0	0	0	0	0	0	1	2.22
Total	20	4	1	0	1	1	1	1	12	4	45	100
Sub total	24		1		2		2		16			
%	53.33		2.22		4.44		4.44		35.56		100	

Source: compiled from the 2015 Statistical Yearbook of the North-West Region

5.4. Health

Table A 74:   Health infrastructure in the North-West Region

Division	Boyo	Bui			Donga-Mantung				Menchum		Mezam					Momo			Ngoketujia	Total
Health districts	Fundong	Kumbo East	Kumbo west	Oku	Ndu	Nkambe	Nwa	Ako	Wum	Benakuma	Bafut	Bali	Bamenda	Santa	Tubah	Mbengwi	Batibo	Njikwa	Ndop	19
Health Areas	12	20	11	11	9	15	7	8	16	8	14	7	17	11	12	17	14	5	15	229
Hospitals (all types)	3			8				4		2			6				6		1	30
Integrated Health Centres	16			30				36		16			47				37		16	198
Health Posts	9			19				5		0			0				3		1	37
Pharmacies (public)	15			34				19		17			47				47		18	197
Training schools				1									2							3
Laboratories	11			32				19		13			46				19		18	158

Source: compiled from the 2015 Statistical Yearbook of the North-West Region)

Table A 75:   Health personnel in the North-West Region

Division	Boyo	Bui			Donga-Mantung				Menchum		Mezam					Momo			Ngo-ketujia	Other facilities							Total
Health District	Fundong	Kumbo East	Kumbo west	Oku	Ndu	Nkambe	Nwa	Ako	Wum	Benakuma	Bafut	Bali	Bamenda	Santa	Tubah	Mbengwi	Batibo	Njikwa	Ndop	TSALT	TSNA	TSRH	TSSRN	TSLT	Reg. Hosp.	R.D. P.H.	Total
Specialists	-	-	-	-	-	2	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	14	1	19
Doctors	5	3	1	1	3	4	3	7	1	1	3	4	2	7	5	7	4	3	7	-	-	-	-	-	24	5	100
Nurses	24	28	41	9	21	14	7	31	9	10	33	28	133	39	62	51	41	10	46	-	-	7	9	-	139	12	812
Medico-Lab. Technician	6	8	6	3	4	3	2	5	1	2	5	7	33	14	14	17	7	1	18	4	8	1	-	3	39	-	203
Biomedical Technician	-	-	-	-	-	-	-	-	-	-	1	5	9	-	2	2	-	-	-	-	-	-	-	-	-	-	19
Health Technician	1	-	-	-	-	-	-	-	-	-	2	-	9	-	-	-	1	-	4	-	-	-	-	-	14	-	31
Administrative Staff	2	1	-	2	1	4	-	2	-	-	4	5	12	6	2	4	8	2	4	-	-	1	1	-	7	31	99
Others	3	3	-	2	-	2	-	-	-	-	6	7	21	3	2	2	4	-	5	-	-	-	-	-	12	-	72
Total	41	43	48	17	29	29	12	45	11	13	54	57	220	69	87	83	65	16	84	4	8	9	10	3	249	49	1,355

Source: compiled from the North-West Regional Fund for Health, PIG, Strategic plan for 2015-2017and the 2015 Statistical Yearbook of the North-West Region

Table A 76: **Number of health establishments and doctors per 1,000 inhabitants per division**

Ratio of health establishments and doctors per 1,000 inhabitants					
Division	**Population**	**No. of health establishment**	**No. of inhbts per health establishment**	**No. of doctors**	**No. of doctors / 1000 inhbts**
Boyo	140,902	28	5,032	5	0.04
Bui	363,257	57	6,373	5	0.01
Donga-Mantung	304,546	45	6,768	17	0.06
Mezam	591,339	53	11,157	40	0.07
Momo	156,478	46	3,402	14	0.09
Menchum	182,772	18	10,154	2	0.01
Ngo-Ketunjia	211,373	18	11,743	7	0.03
Total	1,950,667	265	7,361	71	0.04

Source: based on data from NIS, 2017

6 Social system (Data of chapter 9. Social system)

6.1. Employment situation

Table A 77: **Sectors of employment in the North-West Region**

Sectors of employment	No. of employment 2012	No. of employment 2013	% 2012	% 2013
Public formal	10,135	10,305	1.2	1.2
Private formal	356,111	356,201	43.0	43.0
Formal	**366,246**	**366,506**	**44.3**	**44.3**
Informal	461,000	461,100	55.7	55.7
Total	827,246	827,606	100	100

Source: compiled from the 2015 Statistical Yearbook of the North-West Region

Table A 78: ***Classification of employment and income earned in the North-West Region***

Category of income form employment	Employment example	Employment income category	Monthly Income range in FCFA	% of total population	Characteristics of income group	Employment areas
First	Formal and informal, Lecturers, Civil, administrators, managers, businessmen, military	Very high income	Over 500,000	2.5	Super class salary earner with post of responsibility Very successful entrepreneur	Mezam
Second	Formal and informal, Lecturers, Civil, administrators, managers, businessmen, military	High income	300,000-499,999	5	Super class salary earner without post of responsibility Senior salary earner with post of responsibility Successful entrepreneur	Mezam, Bui
Third	Formal and informal, Lecturers, Civil, administrators, managers, businessmen, military	Medium income	150,000-299,999	10	Senior salary earners with no post of responsibility Moderate successful entrepreneur	All divisions
Fourth	Formal and informal Teachers Businessmen Builders	Low income.	100,000 150,000	15	Intermediate wage earners with post of responsibility Averagely successful entrepreneur	All divisions
Fifth	Informal and formal Teachers Builders Businessmen	Very low income	50,000 100,000	20	Junior salary earners with post of responsibility Stable intermediate wage earners Stable entrepreneur	All divisions
Sixth	Informal Roadside vending Small businesses Builders	Low income households	25,000 50,000	17.5	Auxiliary salary earners Seasonal wage earners Successful entrepreneurs	
Seventh	Informal Roadside vending Small businesses Builders	Very low income households	Below 25,000	30	Unstable wage earners Occasional jobbers. Unemployed	

Source: Compiled from the 2015 Statistical Yearbook of the North-West Region

6.2. Migration and rural exodus

Table A 79: **Migration indices for the North-West Region for 2005**

Migration status	Division							Total
	Boyo	**Bui**	**Donga-Mantung**	**Menchum**	**Mezam**	**Momo**	**Ngo Ketunjia**	**Total**
Total	124,887	321,969	269,931	161,998	524,127	138,693	187,348	
Non migrants	112,017	276,464	247,844	141,472	346,816	125,424	165,037	1,415,074
Migrants	12,870	45,505	22,087	20,526	177,311	13,269	22,311	313,879
Migration indice	10.31	14.13	8.18	12.67	33.83	9.57	11.91	18.15
Males								
Total	56,512	155,677	128,238	77,448	254,620	66,822	89,545	828,862
Non migrants	51,043	134,018	117,535	67,386	167,319	60,233	78,772	676,306
Migrants	5,469	21,659	10,703	10,062	87,301	6,589	10,773	152,556
Migration indice	9.68	13.91	8.35	12.99	34.29	9.86	12.03	18.41
Females								
Total	68,375	166,292	141,693	84,550	269,507	71,871	97,803	900,091
Non migrants	60,974	142,446	130,309	74,086	179,497	65,191	86,265	738,768
Migrants	7,401	23,846	11,384	10,464	90,010	6,680	11,538	161,323
Migration indice	10.82	14.34	8.03	12.38	33.4	9.29	11.8	17.92

Source: North-West Region demographic study, NIS, 2017

Table A 80: **Interdivisional Migration Balance**

Division	Immigration	%	Emigration	%	Balance
Boyo	3,404	3.11	11,631	10.63	-8,227
Bui	7,774	7.1	32,768	29.94	-24,994
Donga-Mantung	7,041	6.43	15,536	14.19	-8,495
Menchum	4,606	4.21	11,805	10.78	-7,199
Mezam	71,144	64.99	10,604	9.69	60,540
Momo	4,752	4.34	18,744	17.12	-13,992
Ngoketunjia	10,741	9.81	8,374	7.65	2,367
Total Intra North-West	109,462	100	109,462	100	0

Source: North-West Region demographic study, NIS, 2017

Table A 81: **Interregional migration balance**

Region	Immigration	%	Emigration	%	Balance
Adamawa	2,874	3.19	13,692	3.46	-10,818
Centre	9,475	10.51	76,391	19.31	-66,916
East	1,459	1.62	2,823	0.71	-1,364
Far North	4,595	5.10	12,746	3.22	-8,151
Littoral	12,030	13.35	89,542	22.64	-77,512
North	1,946	2.16	4,210	1.06	-2,264
West	26,661	29.58	39,195	9.91	-12,534
South	2,123	2.36	12,106	3.06	-9,983
South West	28,983	32.15	144,844	36.62	-115,861
Total	90,146	100.00	395,549	100.00	**-305,403**

Source: North-West Region demographic study, NIS, 2017

Part 2: Results of the Stakeholder field survey on regional planning sectors
April – May 2018 (NW Field Survey, 2018)

1   Background of the field survey

Within the framework of the realization of the Regional Territorial Planning and Sustainable Development Plan of the North-West Region, which aimed at:

- Addressing the deficit of information on the regional territory
- Steering the spatial planning of equipment
- Organizing the land use,
- Creating a framework for informed decision-making and for the implementation of local planning instruments (PLU, POS, etc)

It is necessary to obtain a detailed picture of the North-West Region. Notably its monographic, economic potentials, threats, opportunities, problems and surroundings. To that effect, the project is staged in 4 Phases: the diagnostic study of the territory, the prospective analysis of the territory, the contractualization of the territory and the formalization of the Regional Development Plan.

Concerning the Diagnostic Study, it consists of (according to the terms of reference of MINEPAT):

1. Data & information collection on three levels:

    - National sources (ministries, agencies in Yaoundé), covered by national key experts
    - Regional sources (regional delegations, PNDP, UBa etc), by regional experts
    - Divisional / local sources; collection by field assistants (Supervised by Mr PEGUI Yannick Félix and coordinated by Prof. FOGWE).

2. An evaluation of the current situation: tabular and graphical presentation of quantitative data and/or a qualitative description, and a cartographic presentation if meaningful (done by the national, regional and international experts for their specific field of expertise)

3. A retrospective evaluation: analysis of data and information over the last decades (~20 years), detection of trends and breaks, interpretation of data.

4. A compilation and synthesis of both evaluations to perform the SWOT analysis

5. A SWOT analysis of cross-cutting issues

6. The formulation of key stakes and issues for the Region (based on SWOT).

In order to perform the Diagnostic Study it was necessary to collect extensive quantitative and qualitative primary and secondary data on our identified analysis sectors. The project team decided to have a pragmatic approach and to run the collection of data on all the three levels in parallel to avoid losing time and information. To speed up with work, tasks were assigned to each expert of the project team.

For the primary data collection at the divisional and local level, a plan of action for data collection with two main assessment-methods was initially proposed to better cover the entire North-West Region and exchange subsequently with many key stakeholder of the region. The plan of action proposed consisted to:

- The conduction of Semi-structural interview on the critical area of appraisal with the main stakeholders at the local level and border area (Divisional officers; Mayors; Fons and traditional

Authorities; Community Development Association (officers); Civil Society; Religious Organization, NGOs, Businessmen etc.); Key Local Elites; Representatives of Minorities (Fulani, Physically Challenged.

- The conduction of focus group discussion by using the SWOT analysis matrix and the logical framework of each sectorial ministries at the level of each division with the divisional key stakeholder (SDO; Mayors; Fons and traditional Authorities ; Divisional Delegates of different Ministries; Community Development Association (officers); PNDP Representatives; Civil Society; NGOs, Businessmen etc.); other development agencies at the divisional level

But the project team decided to adopt only the first approach which consisted of the conduction of Semi-structural interview on the critical area of appraisal with the main stakeholder at the divisional and local level and border area.

For the success of this operation, field questionnaires have been developed according to the key area of the diagnostic study to guide the field enumerators.

Following the orientation of the project team, as of the 26th march 2018, fifteen Council Development Officers (CDO) were commissioned to administer questionnaires through Semi-structured interviews with key stakeholders in the councils of the North-West Region.

The table below presents the detailed number of questionnaires administered per council:

2   Result of the treatment of the primary data

2.1. Identification/Characteristics of respondents

NB: the methodology used to select the respondent is "the geography stratified and random selection of key stakeholders at the divisional and council level".

Table A 82:   *Detailed number of questionnaires administered per council*

Division	Councils covered	Number of questionnaires administered	Name/Function of the data collection agent
Boyo	Belo	15	CDO Fundong
	Fundong	30	
	Njinikom	15	
Bui	Elak Oku	30	CDO Elak Oku
	Nkor	20	
	Kumbo	30	CDO Jakiri
	Jakiri	20	
	Nkum	10	
Donga Mantung	Ako	40	CDO Ako
	Misaje	40	CDO Misaje
	Ndu	40	CDO Nkambe
	Nkambe	40	
	Nwa	40	CDO Nwa
Menchum	Benakuma	40	CDO Benakuma
	Furu Awa	40	CDO Furu-Awa
	Wum	40	CDO Wum
	Zhoa	40	CDO Zhoa
Mezam	Bafut	30	CDO Bafut
	Santa	15	
	Tubah	15	
Momo	Andek	20	CDO Andek
	Njikwa	20	
	Mbengwi	40	CDO Mbengwi
	Widikum	10	
Ngoketunjia	Babessi	15	CDO Balikumbat
	Balikumbat	15	
	Ndop	30	
Total		740	

Table A 83:   *Repartition (%) of the respondents per area of residence*

Division	Council	Number of respondent	Percentage out of the general total
Boyo	Belo	14	2.0%
	Fonfuka	0	0.0%
	Fundong	30	4.3%
	Njinikom	17	2.4%
Total Boyo Division		61	8.7%
Bui	Elak Oku	29	4.1%
	Jakiri	31	4.4%
	Kumbo	25	3.6%
	Mbiame	0	0.0%
	Nkor	20	2.9%
	Nkum	5	0.7%
Total Bui Division		110	15.7%
Mezam	Bafut	31	4.4%
	Bali	0	0.0%
	Bamenda I	0	0.0%
	Bamenda II	0	0.0%
	Bamenda III	0	0.0%
	Santa	10	1.4%
	Tubah	13	1.9%
Total Mezam Division		54	7.7%
Ngoketunjia	Babessi	15	2.1%
	Balikumbat	21	3.0%
	Ndop	29	4.1%
Total Ngoketunjia Division		65	9.3%
Donga Mantung	Ako	48	6.8%
	Misaje	38	5.4%
	Ndu	12	1.7%
	Nkambe	27	3.9%
	Nwa	39	5.6%
Total Donga Mantung Division		164	23.4%
Menchum	Benakuma	40	5.7%
	Furu Awa	40	5.7%
	Wum	37	5.3%
	Zhoa	38	5.4%
Total Menchum Division		155	22.1%
Momo	Andek	30	4.3%
	Batibo	6	0.9%
	Mbengwi	44	6.3%
	Njikwa	10	1.4%
	Widikum Boffe	2	0.3%
Total Momo Division		92	13.1%
Overall total		701	1

Table A 84:   *Repartition (%) of the respondent per age group and sex*

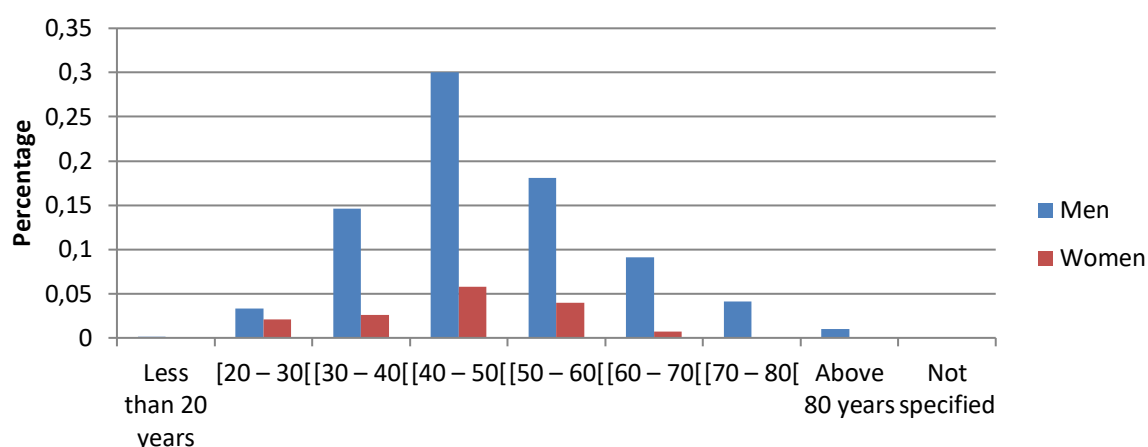| Age groups	Sex		Total
	Men	**Women**	
Less than 20 years	0.1%	0.0%	0.1%
[20 – 30[	3.3%	2.1%	5.4%
[30 – 40[	14.6%	2.6%	17.1%
[40 – 50[	30.0%	5.8%	35.8%
[50 – 60[	18.1%	4.0%	22.1%
[60 – 70[	9.1%	0.7%	9.8%
[70 – 80[	4.1%	0.0%	4.1%
Above 80 years	1.0%	0.0%	1.0%
Not specified	/	/	4.4%
Total	80.5%	15.3%	100%

Figure A 16: *Distribution of population by sex and by age*

Table A 85: *Repartition of the respondent per sector and type of occupation*

Type of occupation	Description	Number	Percentage
Official of Public institution and administration	State worker (general administration) State worker (Technical services) Council workers (general administration) Council workers (Technical services) Teacher Medical staff	243	34.7%
Private sector and economic operators	Farmers Grazers Traders Transporter Finance operator Freelance operator/consultant Lawyers Others SME operator	221	31.5%
Elected officials	Senator Member of parliament Municipal councellor	51	7.3%
Civil society	Non-governmental Organization (NGO) Village Development Association Elites socio-professional group Student association	81	11.6%
Traditional authorities	Fon/traditional Notable/Traditional council officials	58	8.3%
Religious authorities	Pastor Others categories of religious authorities	30	4.3%
Not specified		13	1.9%
Total		701	100%

3 Land use, land conflict and climate issues

3.1. Land use, land conflict issues

Table A 86: *Repartition of the different land uses and patterns in the Boyo division in order of importance to the respondent*

Type of land use and patterns	Classification of land use and patterns according to the proportion of respondent who declare their order of importance in Boyo division							
	1st	2nd	3rd	4th	5th	6th	7th	8th
Farming	100.0%							
Grazing		54.1%						
Urbanization			44.0%					
Quarry				20.0%				
Mining					20.0%			
Forest						18.0%		
Touristic site							3.0%	
Protected areas								2.0%
Other								

Table A 87: *Repartition of the different land uses and patterns in the in the rural Council of the North-West Region in order of importance to the respondent*

Type of land use and patterns	Classification of land use and patterns according to the proportion of respondent who declare their order of importance in Rural council of the North-West Region							
	1st	2nd	3rd	4th	5th	6th	7th	8th
Farming	92.7%							
Grazing		73.3%						
Forest			27.8%					
Quarry				18.5%				
Urbanization					18.3%			
Touristic site						6.0%		
Protected areas							4.0%	
Mining								2.0%
Other								

3.2. Climate issues

Table A 88: *Repartition of the respondents of each division according to those who declared that they have ever experienced landslides in their locality.*

Division	Proportion(%) of respondent who declared that they have been faced problems	Proportion(%) of respondent who declared that they didn't faced problems	Indifferent
Boyo	53.4%	43.1%	3.4%
Bui	60.4%	20.8%	18.9%
Donga Mantung	46.8%	43.7%	9.5%
Menchum	62.1%	20.9%	17.0%
Mezam	66.0%	24.5%	9.4%
Momo	33.3%	38.9%	27.8%
Ngoketunjia	42.2%	43.8%	14.1%
Total	52.2%	32.8%	15.0%

Figure A 17: ***Repartition of the respondents according to those who declare that they have been faced problems in their locality because of massive precipitation or hail.***
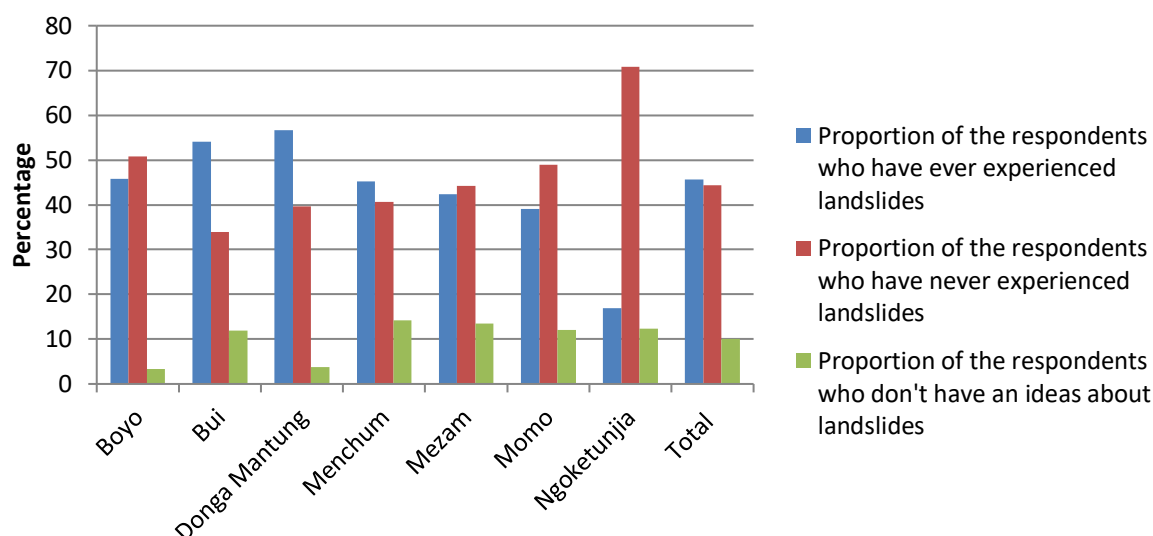

Table A 89: ***Repartition of the respondents according to those declared that they witnessed unusual shift in the start of precipitation periods during the past 20 years causing problems in agricultural production in their locality.***

Division	Proportion(%) of respondents who declared that they witnessed unusual shift in the start of precipitation periods causing problems in agricultural production	Proportion(%) of respondents who declared that they didn't witnessed unusual shift in the start of precipitation periods causing problems in agricultural production	Don't know or don't have no ideas
Boyo	39.7%	53.4%	6.9%
Bui	67.0%	16.5%	16.5%
Donga Mantung	49.0%	34.4%	16.6%
Menchum	63.2%	16.4%	20.4%
Mezam	64.8%	18.5%	16.7%
Momo	42.0%	30.7%	27.3%
Ngoketunjia	49.2%	35.4%	15.4%
Total	54.5%	27.6%	17.9%

Table A 90: ***Period of the year which the respondents declared having witnessed unusual shift in the start of precipitation periods causing problems in agricultural production.***

Repartition (%) of the respondents according to those who declared having witnessed unusual shift in the start of precipitation periods causing problems in agricultural production during the following months of the year											
Month	**Jan.**	**Feb.**	**Mar.**	**Apr.**	**May**	**Jun.**	**Jul.**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Dec.**
Proportion of the respondents	2.4%	7.1%	8.2%	32.9%	7.1%	3.5%	7.1%	9.4%	8.2%	3.5%	7.1%	3.5%

Table A 91: ***Proportion (%) of the respondents according to those who make proposal on how to adapt to the natural/hydrological hazards***

Proposal measure on how to adapt to the natural/ hydrological hazards	Proportion (%) of the respondent who make the proposal
Put in place appropriate measures to evacuate the population	19.54%
Build self-defence measures by the population	25.82%
Put in place a monitoring measure to Seek for assistance	30.39%
Afforestation/Planting of trees	80.88%
Adopt appropriate agriculture practices and avoid bush fire	43.65%
Permanent education and sensitization of population on environmental mitigation risk measures	92.87%

Table A 92:   *Activities conducted in each division that contribute to the climate change*

Activities conducted by the population that contributed to the climate change	Distribution(%) of the respondents of each division according to those who declared that the following activities who contribute to the climate change are conducted in their locality						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Slash and burn farming	75.41%	76.36%	85.98%	92.26%	77.78%	91.30%	84.62%
Tree cutting/ deforestation	93.44%	77.27%	82.93%	87.10%	88.89%	82.61%	89.23%
Intensive use of charcoal/firewood	60.66%	40.00%	34.76%	38.06%	35.19%	22.83%	43.08%
Poor waste management	75.41%	51.82%	31.71%	34.19%	42.59%	31.52%	63.08%
Poor management of plastic	73.77%	37.27%	23.78%	29.68%	38.89%	27.17%	44.62%

Table A 93:   *Consequences of climate change in the different locality of the North-West Region.*

Consequences of climate change in the different localities of the North-West Region	Distribution(%) of the respondents of each division according to those who declared that the following consequences of climate change are observed in their locality						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Poor/decreasing agricultural yields	88.52%	73.64%	74.39%	77.42%	61.11%	72.83%	63.08%
Irregular change of seasons	86.89%	72.73%	70.12%	83.23%	74.07%	61.96%	58.46%
Environmental degradation/Erosion	80.33%	42.73%	35.37%	50.97%	37.04%	31.52%	41.54%
Landslides	32.79%	33.64%	21.95%	17.42%	24.07%	21.74%	20.00%
Natural/hydrological hazards	14.75%	24.55%	14.02%	9.03%	25.93%	11.96%	21.54%
Decreasing volume of water streams	81.97%	72.73%	65.24%	72.90%	68.52%	53.26%	55.38%
Destruction of high forest, natural reserves	60.66%	31.82%	31.71%	25.16%	33.33%	23.91%	21.54%
Disease increase (because of hit, cold…)	78.69%	46.36%	58.54%	56.77%	51.85%	27.17%	38.46%

Table A 94:   *Resilience strategies do the people of the North-West Region use to counter climate change*

Resilience strategies to climate change use in the different locality of the North-West Region	Distribution(%) of the respondents of each division according to those who declared that the following resilience strategies to climate change are used in their locality						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Mixed cropping (maintain land coverage)	78.69%	65.45%	50.61%	67.74%	38.89%	52.17%	49.23%
Define soft slopes where building or cropping is considered to be risky	16.39%	20.91%	7.93%	28.39%	18.52%	15.22%	18.46%
use of indigenous species in reforestation	22.95%	35.45%	17.07%	25.16%	27.78%	23.91%	20.00%
Take care of sufficient seed availability in case of drought in young seedlings	19.67%	24.55%	18.90%	22.58%	27.78%	11.96%	21.54%
Take meteorological information into their everyday decisions in moments of seeding, planting and harvesting to prevent and minimalize damage	14.75%	23.64%	8.54%	9.68%	20.37%	14.13%	12.31%
Tree planting	88.52%	57.27%	47.56%	47.74%	59.26%	53.26%	56.92%
Reduction of slash and burn farming techniques	77.05%	50.00%	44.51%	39.35%	42.59%	38.04%	33.85%

4 Current development issues of communities/local economy

4.1. Agriculture activities

Table A 95   *The main agricultural goods produced in each division of the North-west Region*

Division	Main agricultural products and proportion of respondent of the division who declared that it is their main agricultural product				
	1st	2nd	3rd	4th	5th
Boyo	Maize (33.1%)	Beans (30.1%)	Plantains/ Banana (25.3%)	Coffee (7.2%)	Cocoyams (4.2%)
Bui	Maize (34.2%)	Beans (32.9%)	Irish potatoes (19.5%)	Coffee (7.9%)	Cassava (5.5%)
Donga Mantung	Maize (43.8%)	Beans (17.9%)	Palm oil (16.4%)	Cocoa (11.9%)	Groundnuts (10.1%)
Menchum	Maize (33.9%)	Groundnuts (27.5%)	Plantains/ Banana (13.7%)	Cocoa (12.6%)	Cassava (12.3%)
Mezam	Maize (32.1%)	Vegetables (19.3%)	Beans (18.3%)	Cassava (15.6%)	Cocoyams (14.7%)
Momo	Palm oil (25.5%)	Cocoyams (25.0%)	Maize (18.5%)	Cassava (17.0%)	Beans (14.0%)
Ngoketunjia	Maize (34.6%)	Beans (21.1%)	Groundnuts (20.3%)	Rice (15.8%)	Cassava (8.3%)

Table A 96: *The main technique of agricultural production in each division of the North-West Region*

Division	Repartition (%) of the main technique of agricultural production in each division according to the respondent answer	
	Subsistence	Mechanized
Boyo	100.00%	0%
Bui	98.15%	1.85%
Donga Mantung	98.77%	1.23%
Menchum	100.00%	0%
Mezam	100.00%	0%
Momo	100.00%	0%
Ngoketunjia	93.85%	6.15%
Over all total	98.83%	1.17%

Figure A 18: *The main technique of agricultural production in each division of the North-West Region*
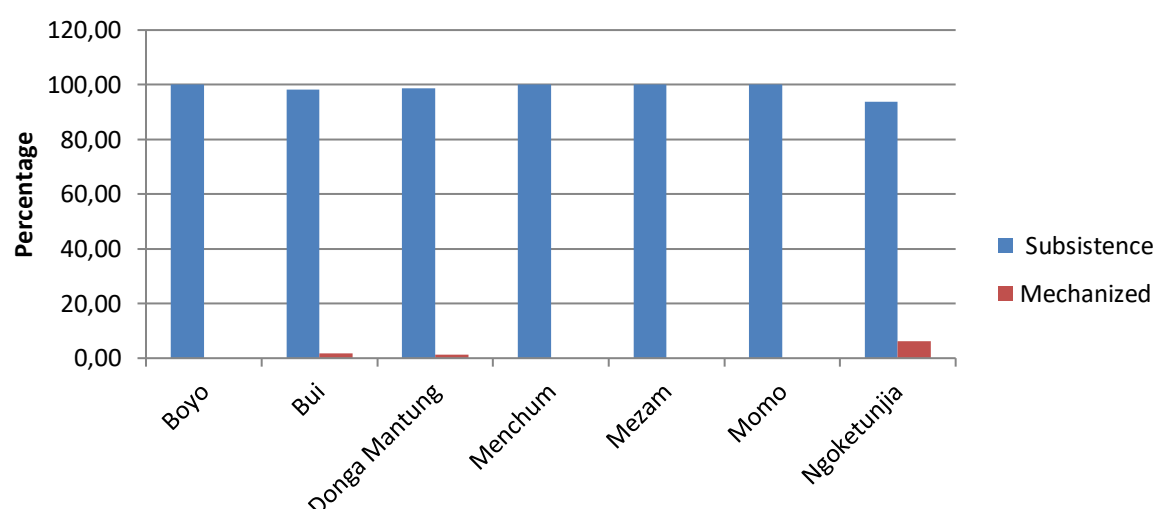

Table A 97: *The main market for the agricultural goods produce in each division of the North-West Region*

Main market for agriculture goods produce	Distribution of the respondent of each division according to those who declared that agricultural goods produce are mainly sold in the different market						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Local markets	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Other markets in the Region	55.7%	67.3%	43.9%	48.1%	57.4%	57.1%	82.8%
Other cities in Cameroon	45.9%	51.8%	14.6%	18.2%	42.6%	16.5%	57.8%
Market in Nigeria	8.2%	10.9%	32.3%	51.3%	27.8%	3.3%	26.6%
Other countries	16.4%	16.4%	5.5%	4.5%	22.2%	4.4%	23.4%

Figure A 19: ***The main market for the agricultural goods produce in each division of the North-West Region***
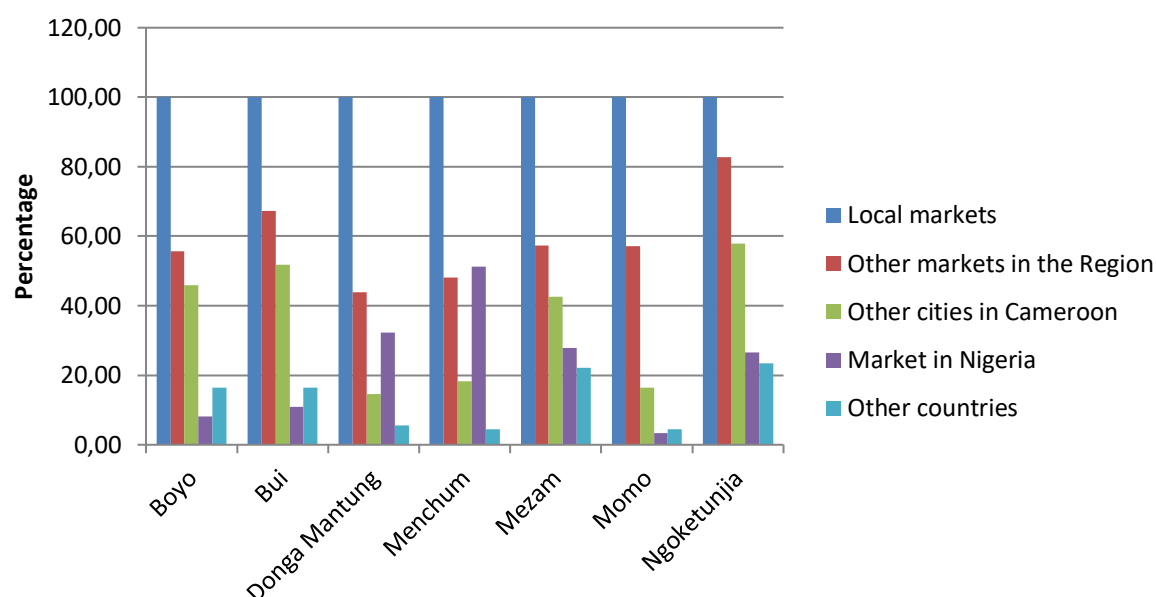

Table A 98: ***The main difficulties faced in the process of production of agricultural goods in each division of the North-West Region***

Main difficulties faced in the process of producing crops	Distribution of the respondent of each division according to those who declared the following difficulties in the process of producing crops						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Poor road networks	96.7%	94.5%	96.3%	98.7%	96.3%	94.6%	86.2%
Lack of labour force (youth not interested in agriculture)	80.3%	39.1%	41.5%	41.9%	48.1%	34.8%	50.8%
Lack of fertilizers and improved seeds	91.8%	80.0%	62.8%	59.4%	61.1%	51.1%	80.0%
Market price not encouraging	86.9%	86.4%	68.3%	83.2%	74.1%	66.3%	83.1%
Poor wages plantations	16.4%	11.8%	6.7%	22.6%	20.4%	10.9%	16.9%
Long distance between house and farms	82.0%	65.5%	59.8%	76.1%	63.0%	53.3%	41.5%
No access to water for irrigation	26.2%	30.9%	18.9%	23.9%	38.9%	18.5%	35.4%
Farmer-grazers conflicts	15.2%	6.0%	18.0%	22.0%	8.0%	13.0%	11.7%

Figure A 20: *The main difficulties faced in the process of production of agricultural goods in each division of the North-West Region*
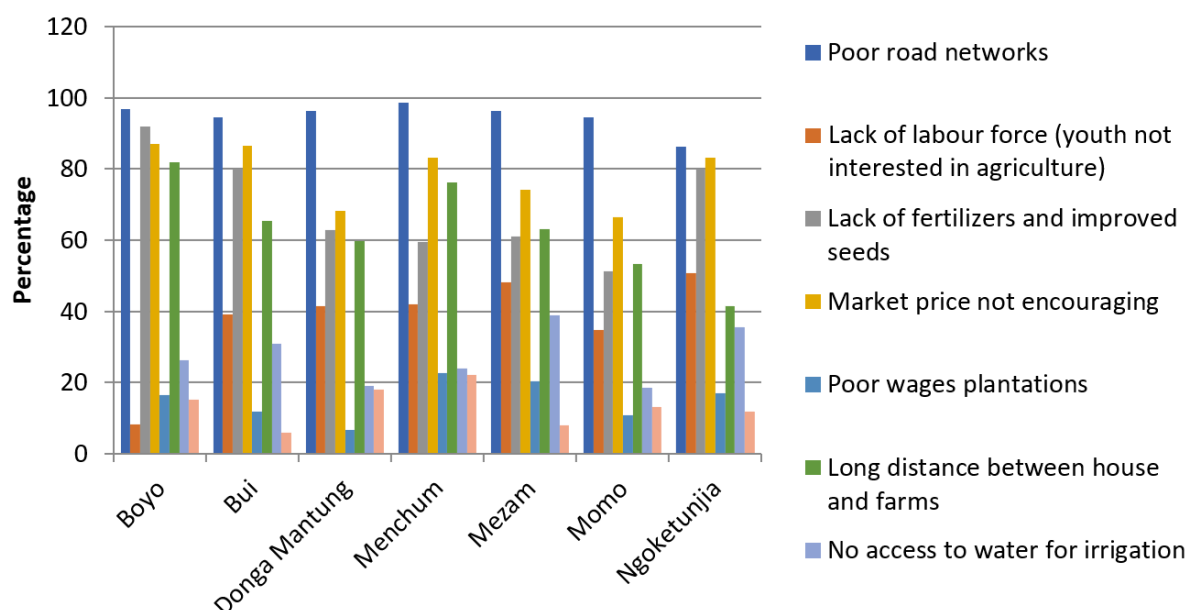

Table A 99: *The main risk faced in the process of producing and marketing in each division of the North-West Region*

Main risk faced in the process of producing and marketing crops	Distribution of the respondent of each division according to those who declared the following risk are faced in the process of producing and marketing crops						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Bad weather/climate change	88.5%	86.4%	82.9%	86.5%	87.0%	58.7%	80.0%
Migration of villagers	80.3%	31.8%	33.5%	41.9%	29.6%	43.5%	33.8%
Sociopolitical tensions	88.5%	58.2%	33.5%	42.6%	48.1%	39.1%	67.7%

Figure A 21: *The main risk faced in the process of producing and marketing in each division of the North-West Region*
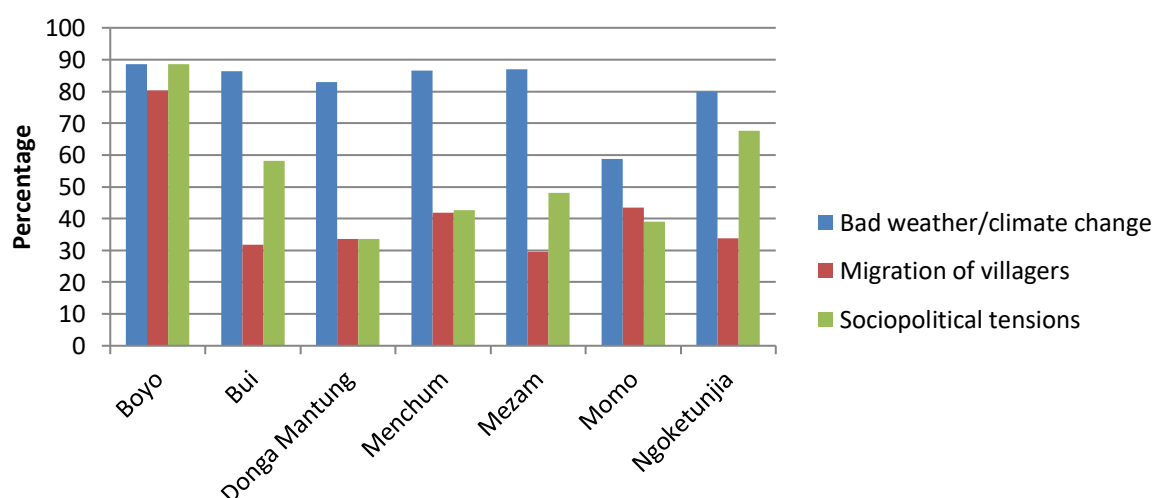
4.2. Fishing activities

Table A 100: *Repartition (%) of the respondent according to those who declared that fishing is an important activity in their division*

Repartition (%) of the respondent according to those who declared that fishing is an important activity in their division						
Boyo	**Bui**	**Donga Mantung**	**Menchum**	**Mezam**	**Momo**	**Ngoketunjia**
41.0%	20.0%	58.5%	47.7%	37.0%	55.4%	61.5%

Table A 101: *Repartition (%) of the respondent according to those who declared the main technique of fishing practiced in their division*

Main technique of fishing practiced	Repartition (%) of the respondent according to those who declared the main techniques of fishing practiced in their division						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Fishing nets	8.2%	10.9%	50.6%	52.9%	29.6%	28.3%	53.8%
Fishing baskets	41.0%	9.1%	42.7%	23.9%	24.1%	26.1%	55.4%
Fishing line	0.0%	6.4%	17.1%	41.9%	18.5%	23.9%	40.0%

Table A 102: *The Appreciation of the usage of the fish products produce in each division of the North-West Region*

Different usage of fish products by the local population	Distribution (%) of the respondent of each division according to their appreciation of the usage of fish products						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Household consumption	45.9%	26.4%	60.4%	69.7%	44.4%	70.7%	61.5%
Selling in local market	44.3%	15.5%	40.2%	31.0%	29.6%	19.6%	47.7%
Selling in big cities	0.0%	0.0%	2.4%	1.3%	0.0%	0.0%	12.3%
Exchange with other commodities (salt, …)	0.0%	0.0%	3.7%	1.9%	0.0%	0.0%	3.1%

Figure A 22: *Repartition (%) of the respondent according to those who declared the main technique of fishing practiced in their division*
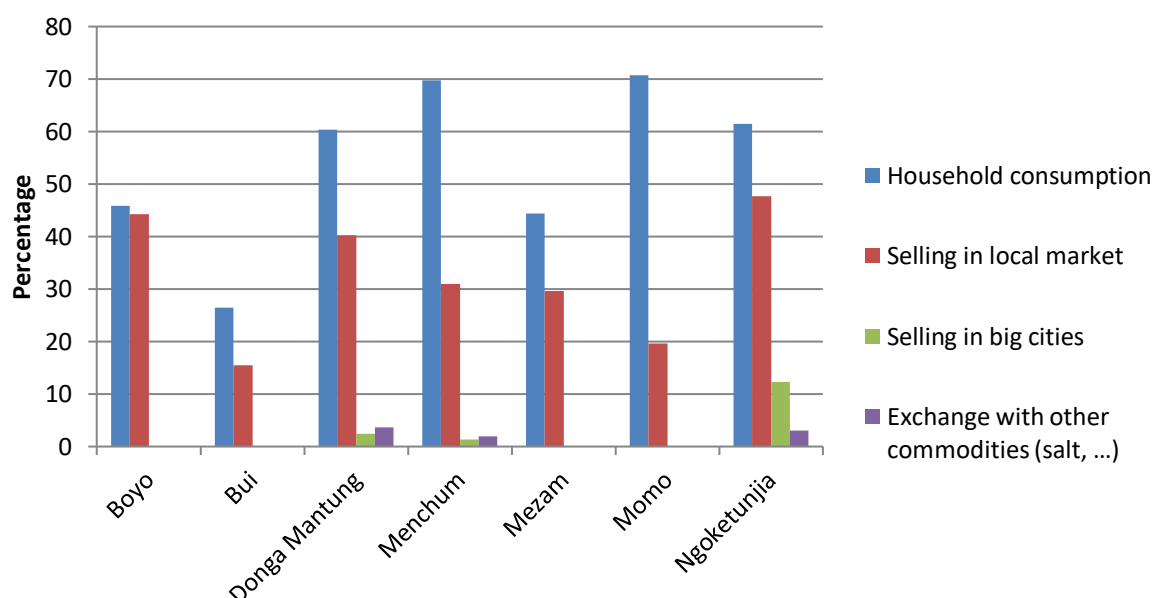
Table A 103: **The main barriers/problems to the expansion of fishing activity in each division**

Main barriers/problems to the expansion of fishing activity	Repartition (%) of the respondent according to those who declared the main barriers/problems to the expansion of fishing activity in their division						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Lack of labour force	14.8%	7.3%	19.5%	25.8%	13.0%	12.0%	13.8%
Lack of fishing material/ equipment	39.3%	19.1%	45.7%	58.7%	35.2%	33.7%	55.4%
Lack of conservation facilities	39.3%	14.5%	40.9%	40.6%	24.1%	35.9%	41.5%
Effect of the climate change	39.3%	15.5%	17.7%	16.8%	14.8%	17.4%	30.8%
Inadequate knowledge on the fishing technique	4.9%	6.4%	4.9%	7.7%	11.1%	8.7%	7.7%
Lack of big river/ fishing ponds	24.6%	19.1%	9.8%	15.5%	22.2%	29.3%	4.6%

Figure A 23: **The main barriers/problems to the expansion of fishing activity in each division**
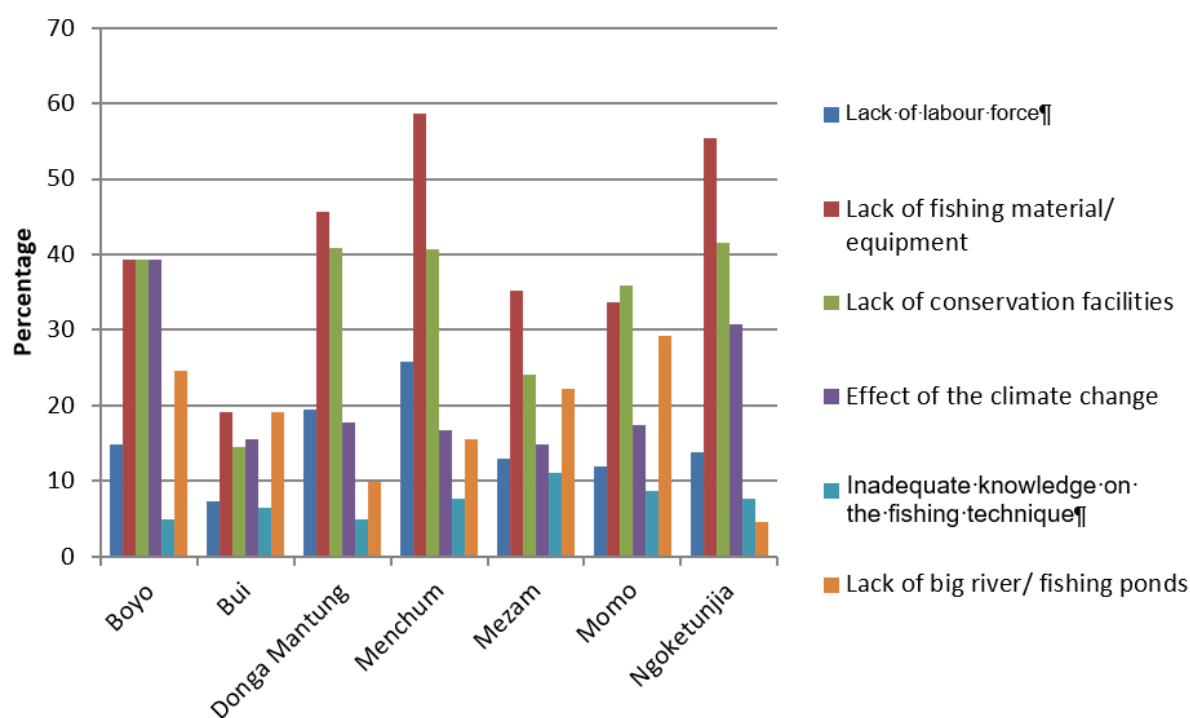
4.3. Livestock activities

Table A 104: *Proportion (%) of the respondent of each division who declared that there are constraints/barriers to the development of livestock activity*

Proportion (%) of the respondent of each division who declared that there are constraints/barriers to the development of livestock activities						
Boyo	**Bui**	**Donga Mantung**	**Menchum**	**Mezam**	**Momo**	**Ngoketunjia**
72.1%	91.8%	82.3%	89.0%	79.6%	73.9%	69.2%

Table A 105: *The main barriers/problems to the development of livestock activity in each division*

Main barriers/problems to the development of livestock activity	Repartition (%) of the respondent of each division according to those who presented the main barriers/problems to the development of livestock activity in their localities						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Lack of finance resources	14.8%	19.1%	15.9%	15.5%	18.5%	21.7%	18.5%
Animals epidemics/ diseases	88.5%	60.9%	76.8%	52.9%	55.6%	67.4%	61.5%
Lack of animals drugs/veterinary services	37.7%	20.0%	34.8%	43.2%	35.2%	26.1%	43.1%
Lack of grazing land/ Farmers-grazers conflict	70.5%	82.7%	73.8%	78.7%	90.7%	76.1%	53.8%
Effect of the climate change	13.1%	14.5%	15.9%	18.1%	13.0%	27.2%	15.4%
Lack of improve pasture/ High cost of feeds	18.0%	20.9%	20.7%	17.4%	16.7%	27.2%	13.8%
Inadequate knowledge on the livestock rearing/grazing technique	13.1%	15.5%	17.1%	29.0%	20.4%	16.3%	13.8%
Market price not encouraging/ poor marketing	13.1%	13.6%	12.8%	14.8%	18.5%	14.1%	13.8%

Figure A 24: *The main barriers/problems to the development of livestock activity in each division*
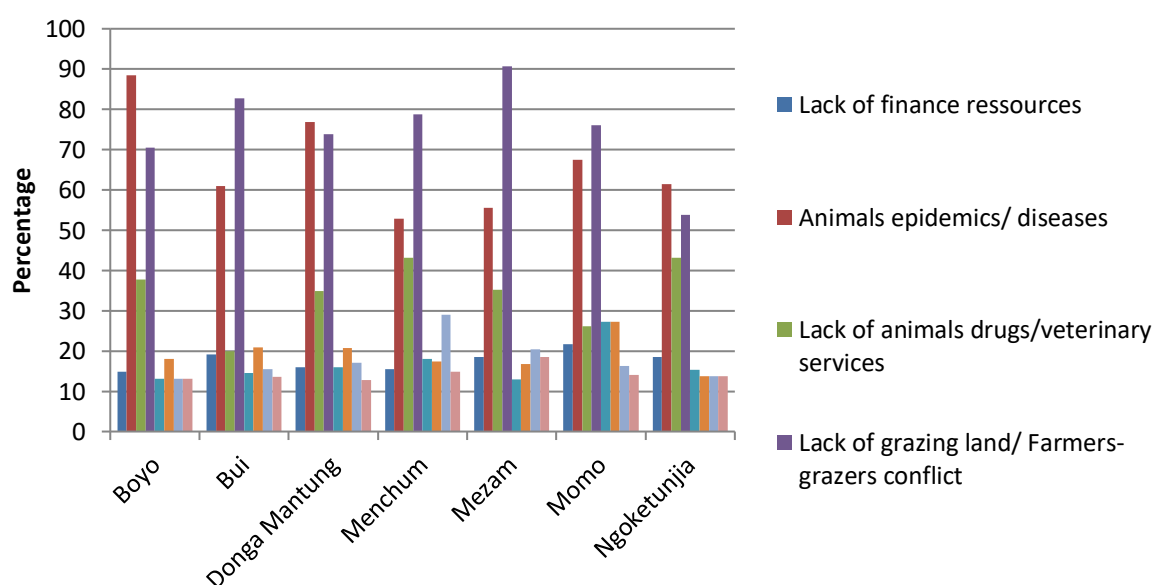
4.4. Handicraft activities

Table A 106: ***The Main type of handicraft activity in each division according to the respondent declaration***

Main handicraft activity in the North-West Region	Percentage of respondent of each division who declared that the following artisanal activity are mainly developed in their locality						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Weaving	85.2%	85.5%	89.6%	89.0%	83.3%	88.0%	60.0%
Carving/pottery	73.8%	67.3%	45.1%	57.4%	48.1%	62.0%	53.8%
Bamboo work	57.4%	60.9%	40.2%	55.5%	46.3%	60.9%	52.3%
Embroidery/ beading/knit	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A 107: ***The Main destination for the handicraft products produced in each division according to the respondent declaration***

Main destination of the handicraft products produced in…	Percentage of respondent of each division who declared that most of the artisanal goods produced in their area are mainly sold in the following destinations						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
In the local market and Neighbouring towns of the Region	72.1%	88.2%	90.9%	89.7%	77.8%	91.3%	75.4%
All the cities of Cameroon	57.4%	41.8%	12.8%	12.3%	42.6%	20.7%	36.9%
Abroad	49.2%	30.0%	4.9%	7.7%	20.4%	18.5%	18.5%

Figure A 25: ***The Main destination for the handicraft products produced in each division according to the respondent declaration***
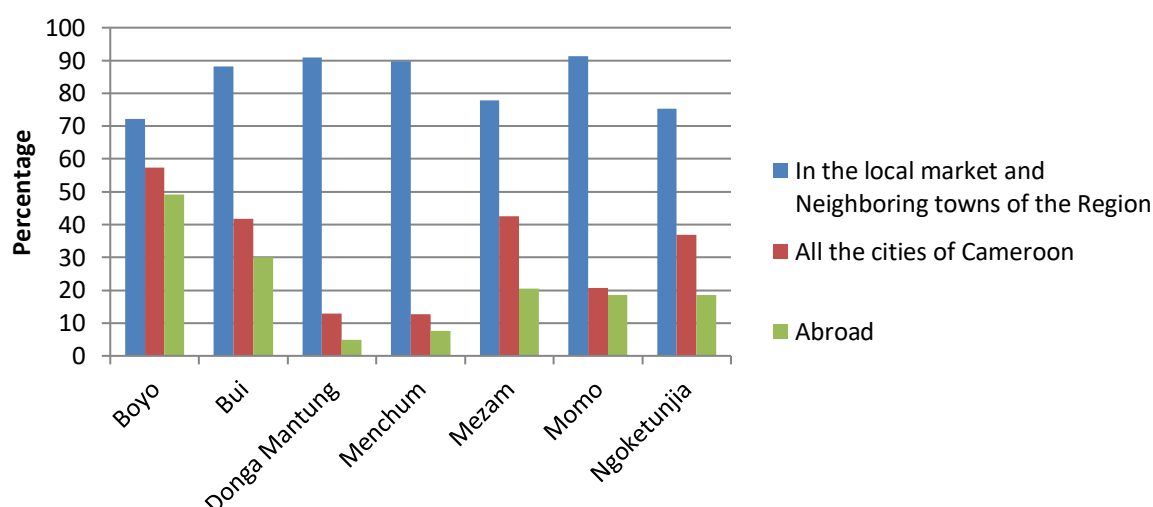

Table A 108: ***The main barriers/problems to the development of handicraft activity in each division***

Main barriers/problems to the expansion of handicraft activity	Repartition (%) of the respondent of each division according to those who declared the main barriers/problems to the expansion of handicraft activity in their localities						
	Boyo	Bui	Donga Mantung	Menchum	Mezam	Momo	Ngoketunjia
Lack of working equipment	80,3%	71,8%	67,1%	71,0%	57,4%	73,9%	66,2%
Lack of training (vocational)	85,2%	78,2%	84,1%	81,9%	66,7%	80,4%	72,3%
Absence of links with external markets	50,8%	65,5%	37,8%	42,6%	48,1%	40,2%	41,5%
Lack of finance resources	86,9%	80,9%	68,9%	72,9%	61,1%	79,3%	69,2%
Poor value of the activity/ Lack of interest by youths	77,0%	74,5%	82,9%	69,7%	63,0%	76,1%	70,8%

Figure A 26: **The main barriers/problems to the development of handicraft activity in each division**
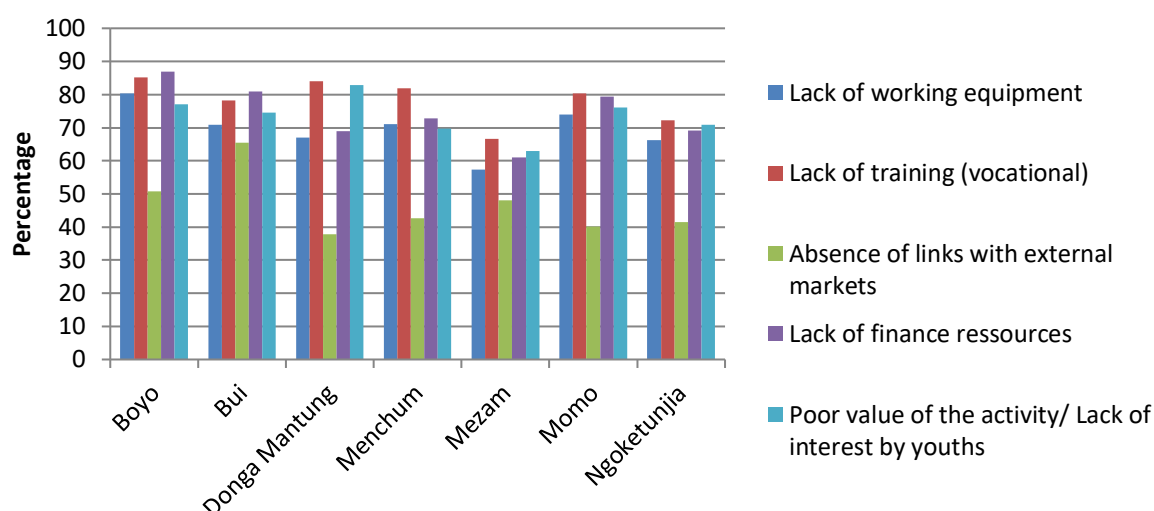
4.5. Small and Medium Size Enterprises (SME)

Table A 109: **The most common type of Small and Medium Size Enterprise (SME) in each division**

Most common type of Small and Medium Size Enterprise (SME)	Repartition (%) of the respondent of each division according to those who declared the most common type of SME in their localities						
	Boyo	Bui	Donga-Mantung	Menchum	Mezam	Momo	Ngoketunjia
Tailoring	90.2%	94.5%	92.1%	94.2%	88.9%	87.0%	96.9%
Carpentry	88.5%	91.8%	89.0%	94.2%	83.3%	90.2%	95.4%
Barbing/ Hair dressing saloon	88.5%	86.4%	72.6%	65.8%	79.6%	69.6%	93.8%
Food processing/ restaurant	19.7%	22.7%	23.8%	26.5%	22.2%	40.2%	12.3%
Wielding	72.1%	50.9%	34.1%	21.9%	53.7%	32.6%	55.4%
Mechanic	82.0%	87.3%	86.6%	90.3%	92.6%	91.3%	92.3%
Petty trading/ provision stores	98.4%	98.2%	95.1%	97.4%	96.3%	97.8%	98.5%

Figure A 27: **The most common type of Small and Medium Size Enterprise (SME) in each division**
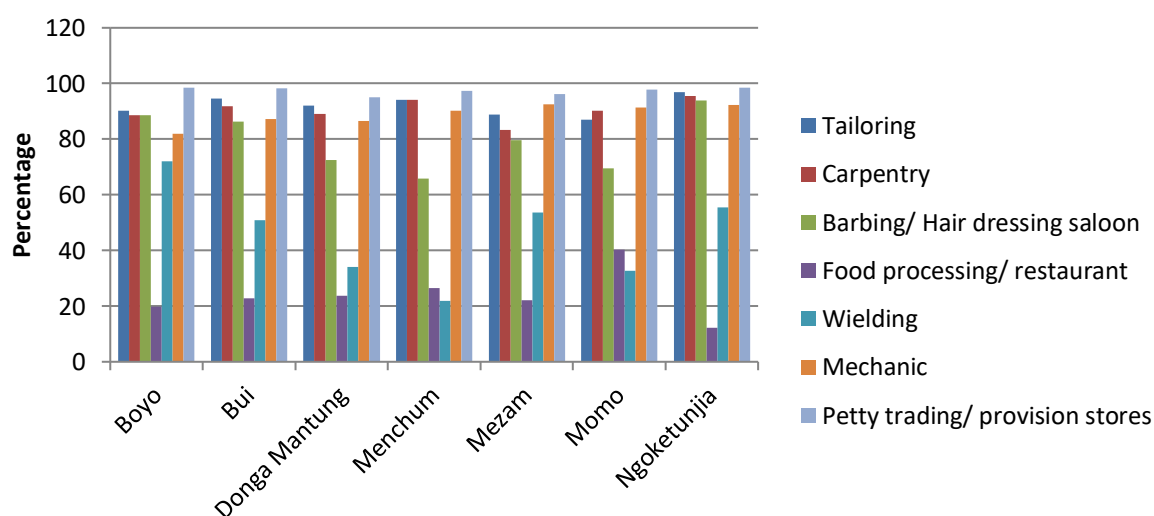
Table A 110: ***The main difficulties faced by the SME in their daily running***

The main difficulties faced by the SME in their daily running	Repartition (%) of the respondent of each division according to those who declared the main difficulties faced by the SME in the daily running in their localities						
	Boyo	Bui	Donga-Mantung	Menchum	Mezam	Momo	Ngoketunjia
Lack of finance resources (capital)/ difficult access to loan	98.4%	94.5%	92.1%	90.3%	87.0%	93.5%	98.5%
Lack of equipment and material	82.0%	86.4%	70.7%	72.3%	75.9%	88.0%	80.0%
Limited access to socio-economic infrastructures (road, electricity, water, market)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Excessive taxes	65.6%	89.1%	64.0%	61.9%	92.6%	89.1%	87.7%
Corruption practice	23.0%	19.1%	12.8%	20.6%	33.3%	14.1%	13.8%
Limited business and technical knowledge of private operators	88.5%	86.4%	72.6%	65.8%	79.6%	69.6%	93.8%
Irregular demand of goods and services by customers / Market price not encouraging (low purchasing power)	82.0%	80.9%	81.7%	95.5%	55.6%	77.2%	58.5%
Lack of training (vocational)	39.3%	50.9%	40.2%	43.2%	29.6%	33.7%	32.3%
Rural Exodus of youths	86.9%	57.3%	79.9%	87.7%	31.5%	72.8%	69.2%

5   Social System

Table A 111: ***Analysis of the satisfaction of population vis-à-vis the existence of social welfare facilities***

Division	Proportion of the respondents who declared that the existent welfare facilities meet the needs of people in their localities	Proportion of the respondents who declared that the existent welfare facilities doesn't meet the needs of people in their localities	Proportion of the respondents who does not know	Total
Boyo	38.2%	43.6%	18.2%	100.0%
Bui	24.2%	61.3%	14.5%	100.0%
Donga-Mantung	26.9%	59.0%	14.1%	100.0%
Menchum	32.4%	48.5%	19.1%	100.0%
Mezam	51.4%	34.3%	14.3%	100.0%
Momo	49.3%	38.8%	11.9%	100.0%
Ngoketunjia	13.2%	73.7%	13.2%	100.0%
Region	33.5%	51.4%	15.1%	100.0%

Table A 112: ***Analysis of the incidence of rural exodus in rural area of the North-West Region***

Level of Incidence	Repartition (%) of the respondent of each division according to those who declared that their localities have been affected by rural exodus within the past 5 years							
	Boyo	**Bui**	**Donga-Mantung**	**Menchum**	**Mezam**	**Momo**	**Ngoketunjia**	**Region**
Not really	20.3%	10.5%	13.1%	17.4%	27.5%	8.8%	25.8%	16.0%
Somehow	35.6%	54.3%	30.1%	36.9%	35.3%	34.1%	43.5%	38.1%
Very much	44.1%	35.2%	56.9%	45.6%	37.3%	57.1%	30.6%	46.0%

Figure A 28: ***Analysis of the incidence of rural exodus in rural area of the North-West Region***
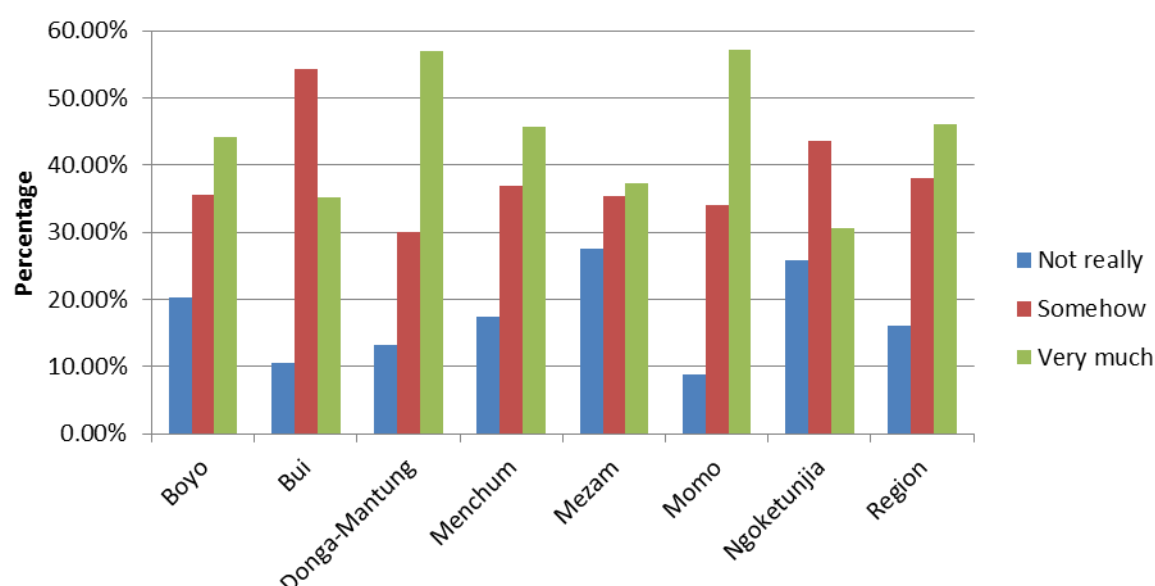

Table A 113: ***Analysis of the causes of rural exodus in rural area of the North-West Region***

Main causes of rural exodus	Repartition (%) of the respondent of each division according to those who declared the main causes of rural exodus in their localities							
	Boyo	**Bui**	**Donga-Mantung**	**Menchum**	**Mezam**	**Momo**	**Ngoketunjia**	**Region**
Unemployment	96.6%	96.2%	93.5%	97.3%	95.7%	98.9%	96.4%	96.2%
Lack of higher education schools	93.2%	79.0%	66.0%	73.6%	51.1%	53.4%	71.4%	70.0%
Ethnic tensions/ conflicts	39.0%	11.4%	11.8%	29.7%	12.8%	13.6%	33.9%	21.6%
Lack of leisure facilities	71.2%	41.9%	37.9%	57.4%	38.3%	40.9%	37.5%	46.3%
Climate change	37.3%	7.6%	11.1%	10.8%	10.6%	10.2%	10.7%	14.2%
Lack of social amenities (electricity, road, water…)	62.7%	71.4%	71.2%	66.9%	51.1%	72.7%	60.7%	65.2%

Table A 114: ***Analysis of the main destinations of the majority of youths that migrate from the North-West Region***

Main destinations	Repartition (%) of the respondent of each division according to those who declared the main destination of the majority of youths that migrate from their localities							
	Boyo	**Bui**	**Donga Mantung**	**Menchum**	**Mezam**	**Momo**	**Ngoketunjia**	**Region**
Bamenda city	90.9%	80.8%	57.0%	46.7%	75.6%	83.9%	73.2%	67.7%
Divisional headquarter of their localities	23.7%	39.0%	25.9%	42.7%	37.8%	28.7%	51.8%	35.2%
Yaoundé/Douala	35.6%	81.0%	72.8%	58.7%	75.6%	65.5%	69.6%	66.9%
Other big cities of Cameroon	89.1%	75.2%	67.1%	65.3%	60.0%	79.3%	62.5%	70.6%
Out of Cameroon	23.6%	33.3%	56.9%	54.7%	22.2%	26.4%	16.1%	33.4%