

# The influence of Farmer grazer conflicts on food security in the North West region of Cameroon: The case of Mezam Division

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**Abstract**— This study sets to contribute to conflicts resolution through an understanding of how conflicts over land influence food security and rural livelihoods in Mezam. Land conflicts often have extensive negative effects on economic, social, spatial and ecological development. This is especially true in Mezam division, where land market institutions are weak, opportunities for economic gain by illegal action are widespread and many poor people lack access to land. Data were collected using a semi structured questionnaire and focus group discussions were organized where possible. A total of 200 questionnaires were administered to both farmers and grazers in Mezam, Santa, Bali, Tubah and Bafut. These were done through face to face interviews, discussion with graziers and farmers representatives, focus groups as well as field observation so as to permit us carry out an ample information from the field and have an in-depth study of the conflict situation in Mezam. These data were introduced into SPSS version 24.0 and analyzed using descriptive statistics, frequencies, charts and graphs. Common conflicts recorded in the area in Mezam are farmer-grazer conflicts and land ownership. Regarding the effects of conflicts on food security, 60% of respondents attested disruption of livestock activities and food production cycle, 52.5% mentioned shortages in food supply resulting to high prices in the local markets. Conflicts also resulted to the flee of the local farm labour force. It was also found out that conflicts affected rural development projects in the study area such as micro credit institutions, bridges, roads, electrification projects, storage facilities, markets and portable water. Dialogue platforms as one of the best means to mitigate conflicts related to tenure conflicts and ensure food safety in the warring communities. This will facilitate communication between the villagers in the affected areas and improve on food production and accessibility. It was suggested that one of the ways to resolve tenure conflicts in the area was for the administrative authorities to demarcate boundaries or map out farm and grazing lands between the various villages and also facilitate the process of issuing land titles. This was to legally redefine and practically demarcate the boundaries between grazing and farm lands within the conflict hot spots in Mezam division. It was concluded that tenure conflicts are a result of the expansionist and dominant tendencies of some groups of individuals, a community as well as certain influential elites' over land in the area. Tenure problems in the region in particular are related to the lack of documentary evidence (land titles and certificates). Looking at the existing policies, legal and institutional framework discussed in this study, I can say that I have been able to identify some commissions and policies put in place by the Government of Cameroon governing land administration and management that is sufficient in strengthening the tenure security of the local population in Mezam if respected and put in practice. It was also recommended that the administrative authorities should facilitate the issuing of land titles to the local population and demarcate farming and grazing lands between villages.

**Keywords**— food security, Mezam division, Farmer-grazer.

## I. INTRODUCTION

Around the 1970s, rural areas in the western United States, as elsewhere across the country and world, have been subject to social, economic, and political forces that have resulted in novel demographic and land tenure trends when compared to previous decades (Abrams, 2011). The construction of any historical narrative is an inherently problematic undertaking. History is not simply an objective recounting of events, but an important way of reflecting the standpoint of the historian and the economic and cultural environment in which the historian is embedded. Histories of the American West in particular suffer from a long legacy of uncritical narratives that serve only to reproduce dominant cultural tropes (Limerick, 1987). Such an undertaking is necessary in order to provide context for both the continuities and discontinuities in social, economic, and ideological structures represented by contemporary patterns of rural gentrification. It is argued here that many of the contestations over land ownership and use in Wallowa County at the start of the twenty-first century have been present for nearly 150 years, as individuals and social groups grapple with the multiple and conflicting meanings of land and land ownership within the context of a constantly-developing economic and social world linked to modernizing capitalism.

Looking at how these conflicts have been managed in the Wallowa County in the Oregon state of the United States of America, we noticed that landowners who do not conform to conventional producer stereotypes could nevertheless help to diversify the local economy and facilitate new models of land use and stewardship. There was equally the need of expanding the definition of “working lands” beyond traditional boundaries may be an important first step to managing the land tenure changes associated with rural restructuring and amenity migration. Key resources that are in short supply (e.g. winter range) may help encourage continued production across the broader landscape. Local entities should identify these key components and take steps to promote their continued productive use (Abram, 2011).

In some parts of Central Africa in General and Cameroon in particular, the scarcity of productive lands is the source of conflicts. In countries like Chad and the Central African Republic, scarcity of land coupled with politically related issues are the roots of the civil unrest. The problem of refugees, created by years of civil unrest, has compounded conflicts over land. Disputes over ownership of resources and climate change are also responsible for farmer-grazer conflicts (Sone, 2012; Arias and Ibanez, 2012; Ajuwon, 2004;

Fasona and Omojola, 2005). For instance, the migration of the Fulani to the South due to drought into far distances and even across national boundaries results in farmer-grazer conflicts (Fonjong et al., 2010).

According to Havnevik (2005), this problem revolves around land ownership in Cameroon, which is a major source of conflict. Land is construed as a vital means of survival and hence the primary reason why people and communities compete (vie) to exert control over it. The court systems in Cameroon are deluged with land related conflicts. In fact, the frequency of land disputes is so common in the North West of Cameroon that it is featured in the USAID country report. All customary power relations, social control, consumption, distribution and of course, the management of land and natural resource here begin and end with a Fon, (the legitimate traditional leader of any given chiefdom), and the complex palace institutions that are associated with royalty. In the study site like elsewhere in sub-Saharan Africa, the traditional perception was that “Land is not a commodity. The agricultural activities and other livelihood options are affected by various factors (climatic conditions, markets, infrastructure, and physical conditions), unequal access to land and insecure land tenure have the most profound effect on the livelihoods of smallholders in Cameroon.

What is produced and who consumes it depends greatly on tenure security. Clear and secure property rights for owners and users reduce the potential for conflict and the threat of eviction; provide incentives to conserve and improve these assets; encourage land-related investments; allow land rental and sales markets to transfer land to more productive uses and users; and, if coupled with cost-effective systems of land administration, reduce the cost of credit by leveraging these assets as collateral (World Bank 2008). Land tenure and land-use conflicts have the potential to undermine both environmental stability and food security but investment in institutions for local level conflict management is often the missing dimension in development policies. In Cameroon, many different legal frameworks govern access to land and its use. These compete with one another, providing another source of conflict.

The relative decline of agricultural production for domestic food and industrial requirements is a major concern in Mezam. There has been increased food insecurity and impoverishment because of the increasing cost of food for the majority of the poor and the concentration of consumption among the relatively wealthier and better-endowed countries,

regions and social groups with access to land and incomes in and outside the agriculture sector (Haman, 2009). It should be noted that following information collected on the field, food prices have known a significant increase between the years 2014-2018. Food stuffs such as rice have increased from 350 francs to 625kg for imported brands and up to about 700 francs for some local brands such as the Ndop rice and Yagoua, food stuffs such as maize, beans, irish potatoes and the like have also risen in such a way that an average cost of food in the urban centers ranges from 1500 francs to about 3000 francs. Most of the best agricultural land is used for the production of export, with little of the produce finding its way onto the local market. Most African countries are characterized by dependency on production of a small range of primary commodities and have traditionally been dependent on the export of a single commodity. Agricultural development, in which better productive land and resources are provided to the poor, is key to poverty reduction, but the State, in response to both internal and external pressure, is steadily withdrawing from active involvement. However, some development organizations and other grassroots organizations have played a critical role in supporting peasant economies through improving land tenure security and other general working conditions of communities (MBOSCUDA 2018).

## II. METHODOLOGY

### 2.1. Geographical location

The North West region has a total land surface area of 17300 km square lies within the Western highlands of Cameroon. It falls between latitude 5° 40' and 7° to the North of the equator and longitude 9° 45' and 11° 10' to the east of the Greenwich meridian. Most of the lands are located in altitudes above 900m above sea level. The region is bordered to the east by the West and Adamawa regions, to the North by the Federal Republic of Nigeria and to the South and West by the South West Region. The study area is characterized by high relief, cool temperatures, and heavy rainfall. The plateau experiences an equatorial climate of Cameroon type. It has two major seasons: A long wet season of nine months and a short dry season of three months. During the wet season, humid prevailing monsoon winds blow in from the west and lose their moisture upon hitting the region's mountains. The rainfall there per year ranges from 1000mm to 2000mm. The high elevations give the area a cooler climate which favours human activities such as agriculture.

Mezam division is found in the mountainous areas of Cameroon. The majority of the land is situated above 1000m altitude. The topography of the region is characterized by extremely varied relief composed of mountains, escarpments, valleys, plains and plateau. Mountainous and high plain zones are above 1000m. The plains are rich in alluvial deposits which is a potential for intensive agriculture. Cattle rearing and water catchments are found mostly at the higher plains. The altitude stretches from 200m as in Mbembe Ako up >3000m as in mount Oku all found in the North West region.

## III. METHODS OF DATA COLLECTION

### 3.1 Sampling techniques and size

However, in the present study, we used the simple random sampling technique to arrive at our objectives. This technique was solicited because it is the most popular method for choosing a sample among population for a wide range of purposes. In this sampling, each member is equally likely to be chosen as part of the sample since it eliminates bias from the selection procedure. It also guarantees representativeness of the sample size. The target area (population) of the study was Mezam, division. We worked with a target population of 400 households by selecting at least 100 households from each subdivision. This is because of the need to assess all the chosen subdivisions. At the end of the field survey, we were able to come out with 50 sampled households thus giving us a total of 200 people in the four localities.

### 3.2 Data Analyses

Quantitative data were analyzed into frequency and cross-tabulations using the SPSS (statistical package for social sciences version 24.0). On the other hand, qualitative data were analyzed manually and used with the quantitative data to triangulate and enrich our research work. It should be noted that these raw data were codified, keyed into the computer primarily through the aid of Microsoft excel 2010 verified and then imported into SPSS for final analysis.

### 3.3 Descriptive Statistics

Descriptive method was used for this study. This method is concerned with the description of data and characteristics about a population. The descriptive method here attempts to describe, explain and interpret the conditions of the present situation. That is its purpose is to examine a phenomenon that is occurring at a specific place and time such as the land tenure conflicts we studied in Mezam. This method

is appropriate for this study because the study is concerned with the assessment of perceptions and documentation of land tenure conflicts and food security. The descriptive statistics here make use of frequency distribution and percentages. To facilitate our interpretation, the results of this study were illustrated through the use of tables, pie charts, diagrams, histograms, cross tabulations and bar charts.

#### IV. RESULTS AND DISCUSSIONS

##### 4.1 Common conflicts in Mezam division

The impact of land tenure on food security and sustainable natural resource management is complex. Land conflicts often have extensive negative effects on economic, social, spatial and ecological development. This is especially true in Mezam division, where land market institutions are weak, opportunities for economic gain by illegal action are widespread and many poor people lack access to land. The table below shows the most common conflicts recorded recurrently in Mezam.

Table 2: Common conflicts occurring in Mezam

Types of conflicts	Frequency (F)	Percentage (%)
Farmer-grazer	78	39
Grazer-grazer	58	29
Landownership	64	32
<b>Total</b>	<b>200</b>	<b>100</b>
<b>Witnesses of conflicts in study area</b>		
Eye witness respondents	Frequency (F)	Percentage (%)
Yes	158	79
No idea about conflicts	42	21
<b>Total</b>	<b>200</b>	<b>100</b>
<b>Occurrence of farmer-grazer</b>	<b>79</b>	<b>39.5</b>
<b>Land ownership conflicts</b>	<b>78</b>	<b>39</b>
<b>Grazer-grazer conflicts</b>	<b>43</b>	<b>21.5</b>
<b>Total</b>	<b>200</b>	<b>100</b>

##### Farmer-grazer conflict

From the presentation of our findings on the table above, we noted that Farmer-grazer conflicts usually occurring between ethnic Fulani cattle herders and non-Fulani subsistence farmers' act as the main conflicts recorded in the study area with about 39% of our respondents confirming that. This is a general phenomenon around agro-pastoral areas in the world and the North West Region of Cameroon in particular. However, from the table above we notice that 79% of the total population are aware of the occurrence of conflicts within the area as against 21% who have no idea about conflicts and from the results, it appeared that farmer-grazer conflicts occur more frequent in Mezam than landownership

conflicts even though both are recorded as major threats. I noticed that most of these threats *and rioting resulted from tenure conflicts are a result of the expansionist and dominant tendencies of some groups of individuals, a community as well as certain influential elites' over land in the area. Tenure problems in the region in particular are related to the lack of documentary evidence (land titles and certificates).*

##### Grazer-grazer conflict

It can equally be observed that this conflictual phenomenon is also recurrent among the herders themselves as about 29% of our respondents said they usually witness conflicts related to two grazing groups living in the area. These disputes are principally due to competition over the use

of land and water resources for agricultural and non-agricultural use increased in human and animal population as well as resource access rights, inadequacy of grazing resources, values, cultures and beliefs. Grazer-grazer conflicts

are less recorded in Mezam as presented on the table above only 21.5% of respondents confirmed this case. This has hence been confirmed in the findings of Rashid, 2012; Kelsey & Knox, 2012 in the same region.

Table 3: How conflicts affect food security and rural livelihoods

	Effects of conflicts on	Frequency	Percentage (%)	Rank
1	Food production	120	60	1
2	Food supply	105	52.5	2
3	Flee of Labour force	95	47.5	3
4	Transformation of farm and livestock products	80	40	4

**Food production**

From the table above, 60% of our respondents attested that food production is the most affected during conflicts. This so because during conflicts, the agricultural as well as livestock activities are disrupted. Areas of large production experience destruction, seizing of crops and animals. However, our respondents related the effects of conflicts on food production as a threat to food security and rural livelihood of the local population. Production usually drop substantially in most cases during conflicts due to adverse effects on labor supply, access to land and access to credit and/or direct effects on capital such as theft and destruction of assets. Observing micro-level responses to conflict exposure in situ is particularly challenging, but there is growing empirical evidence on the coping strategies of conflict-affected individuals and households to protect their productivity, livelihoods and food security. This is related to the fact that about 70% of the population of the North West region in general and that of Mezam in particular rely on agriculture for their food supply. These results however, complement those of Rockmore 2015 on impact of conflicts on food safety.

However, looking at the effects of conflicts on the livestock sector, the sampled population linked this to a decline in livestock number among the grazers. This can be explained by the fact that the human population is continuously growing and needs to exploit the available land which is becoming limited so some grazers have to sell part of the stock to obtain capital to buy land, food and other material assets. Other respondents attributed this decline to

incidences of cattle diseases, and the insufficient poor quality pastures which result due to conflicts and pressure on the limited land. Livestock has to adapt to the new systems of grazing as land is reducing. The rangelands in the region too are as well becoming counter-productive in terms of quality pasture as they are dominated by invasive spaces and weeds such as chromolaena odorata and fern grass. Another condition in the study area is related to the breed of cattle reared because most of the pastoralists still keep the local breeds with little or no innovation and they mostly rely on ethno-medicines for the health of their live stocks making disease control very difficult

**Food supply**

The data presented on the table above revealed that 52.5% of our respondents said conflicts affect food supply and therefore create food shortages. This disrupt both the upstream input markets and the downstream output markets thus this situation turn to deter food production, commercialization and stock management. This is so because whenever there are conflicts in an area, farmers do not have access to their farms and therefore the cropping cycle is also affected. This equally affects the prices of food stuffs as well as livestock in the local markets as crops quality are poor coupled with poor farm to market roads that make it difficult to transport the little available food stuffs to the markets. This therefore has a direct effect on food availability and accessibility.

**Flee of farm labour force**

However, 47.5% of our respondents attested that during conflicts, there is little or no follow up in farming activities thus crops cannot be planted on time or at all,



weeded or harvested. The flee of the farming population to more safer areas results to the disruption of farming calendar and also leads to low yield.

### Transformation of farm and livestock products

However, when looking at the level of crops transformation and processing, we found out that technologies that exist for the transformation of cereals, grain legumes, root/tubers, and leafy vegetables into a broad variety of local products include drying, milling and fermentation. In Mezam, this percentage is low because most of the farmers are not involved in transformation of farm products and those who transform their products use rudimentary technologies and rely on local and inefficient implements which yield inconsistent and unhygienic products. Such products have precarious shelf stability and eating qualities and are limited

only to certain socio-cultural groupings. Farmers' access to existing improve technologies is limited by inadequate capital and information.

Packaging is still depended on traditional technologies and materials such as leaves, sticks and wood. Even at that level, only a small portion of the food intended for the market is packaged. A greater bulk is marketed in open utensils with the obvious attendant health, environmental and regulatory problems. Improvements through the use of metal, plastic and improved wood packaging materials has been timid and limited to private concerns, public corporations and others who have both the information and capital. Although there is no known simple inexpensive technology that by itself makes a profound impact on the post-harvest sector of food crops in Mezam.

Table 2: Estimated quantities of crops cultivated in the last three farming seasons

Crop	Yield in tons 2016	Yield in 2017/tons	Yield in 2018/tons
Maize	48733	45750	3840
beans	48379	4838	3739
Irish potatoes	59188	58160	4634
yams	13105	13101	12205
tomatoes	3947	2946	1346
Soya beans	4276	3265	3255
Sweet potatoes	5638	5540	5000

From the data collected from the field, we noticed that the decline of crop yield within the three past years is related to the fact that farmers have low access to cultivable land as a result of population expansion and the need for social amenities such as schools, hospitals and markets. Provision of food security and tenure security for the rapidly growing urban populations is among the most demanding tasks in this area. Hence, the recent crisis hitting the region too is a contributing factor to a drop in crop yield as farmers are restricted from going to their farms as usual. There is thus a danger that poor small scale farmers found in Mezam may become too poor to invest and unable to maintain the productivity of the land on which they subsist if land tenure conflicts are less taken care of unless systematic actions are taken to promote sustainable intensification of smallholder agriculture. It should be noted that the promotion of tenure security enhances incentives to conserve land, secure tenure rights but still does not guarantee an increase in crops yield

because the soil fertility and crops varieties too matter. Despite all these, we cannot talk of food insecurity in Mezam because the local population still has food to feed and take some excess to the market for commercialization.

However, when looking at the marketing channels of crops, we noticed that the perishable nature of most food crops cultivated by crop farmers in the division makes it difficult to expand their market areas. Consequently, their distribution channels are short and concentrated within specific locations. The food crop market is dominated by a large number of small agents who handle very small quantities of the commodities. Bulky food crops such as root and tubers have a low ratio of value to the bulk and weight of the commodity.

However, some of these food crops are exported to the neighbouring Gabon and Equatorial Guinea as most buyers get them from the farms at low prices and transport them there to retail. Consequently, only the few agents able to

invest in adequate transportation facilities benefit from economies of scale by handling larger quantities over time and space.

**4.2 Cost of production, estimated loses and benefits**

However, our interest here is to determine the cost of production inquired by farmers and grazers as well as the estimated loses and benefits during conflicts as can be seen below.

*Table 3: Milk production in the traditional system and cattle breed*

Breed	Qty/L during conflicts	Qty/L during normal time
White Fulani cows	1	2
Red zebu	2	4
Gudali/Hybrids	2.5	5
<b>Total</b>	<b>5.5</b>	<b>11</b>

Observing from the table above, we notice that milk production is relatively linked to cattle breed and the quantity vary over time. Data on the table show that the white cows are able to produce only a liter of milk during conflicts because they do not support stress and they also eat a lot according to our respondents. But they are able to produce up to 3 liters during normal periods when there is enough pasture and less control over their movements as compared to the red zebu and the hybrids which produce a range of 2 to 2.5 liters even under strenuous conditions and up to a double

production in normal situation. Animal rearing is a common practice in the region in general and Mezam in particular due to its physical landscape, climate and grasslands with some spotted forest patches making it easy for free grazing various livestock’s. Also, the pastoralists attest that they own at least 1-2 herds (in areas like Santa we recorded about 80-200 cows per cattle herd) of cattle each which are contained on a piece of 1-2 ha of land in the densely populated areas such as Bali with about 11.1% of the rural population as well as santa and pinyin neighbourhoods.

*Table 4: Average cost of milk and milk products during conflicts VS normal period*

Milk products	cost per L during conflicts	cost per L during normal time
Sour milk	350F	250F
Butter 2000F	1500F	
Butter oil	3000F	2000F
<b>Total</b>	<b>5350F</b>	<b>3750F</b>

Looking at the data on the table above, we notice that the prices of milk and milk products during conflicts time is always on the rise because the quantity of milk produced is small and in most cases only few households skim milk. We understand here that, grazers make a profit of 100F to 1000F per liter of milk as well as milk products during conflicts as compared to normal time. It should be noted that milk not taken by calves is usually home consumed, spoilt or marketed in the urban city of Bamenda. Milk and milk products are

marketed either directly by producers or are collected by processing companies. The milk processing companies are found in the urban cities of Bamenda, Douala and Yaounde where excess is being sold. In other areas, such as the surrounding villages, milk marketing is informal. It is either bought directly from the <<walde>> homestead by individuals or grazers /their wives carry it to the market place. In this case the price is higher than what is offered by the processing plants.

On average, 20 to 50% of milk is home consumed in places where marketing is a problem especially in places like Awing, Bali and Santa, sour milk is sold to dog owners. After

milking, women and children can take up to 2 hours to get to the market place, and wait for up to 4 hours for the milk to be sold before going back to the homestead.

Table 5: Estimated loses and benefits resulting from conflicts

Effects of conflicts	Frequency	Percentage (%)
Loss of lives of both people and animals	78	38.6
Destruction of properties	64	32
Destruction of biotic ecosystems and food crops	58	28.7
<b>Total</b>	<b>200</b>	<b>99.0</b>

From the frequency distribution table showing the consequences of land tenure conflicts, 38.6% of the respondents said these conflicts result to the loss of lives of both people and animals in the conflict area. It should be that according to the data gathered from focus group discussions with our respondents, they said about 15-20 animals and 10-17 farms are being destroyed each year. This amounts to an estimated sum of about 15million. Hence, 32% of them mentioned the destruction of properties such as houses, farm equipment other valuable items amounting to huge sums of money as one of the consequences of these conflicts. According to one of our respondents, the exact amount of money spent after each damage caused by the conflicts cannot be known by the local population that cannot evaluate the damaged items per value unless they are assisted by the administrative authorities who are competent in the domain while 28.8% of the respondents talked of the destruction of biotic ecosystems and food crops as a consequence of the land related conflicts.

#### 4.3. Proposed methods of conflicts resolution

In this section of the study, we briefly looked at the factors that resulted or caused tenure conflicts in the sampled areas in Mezam Division of the North West Region of Cameroon among which we had mistrust between one another, lack of the sense of consideration for one another amongst the people, inadequate involvement or participation of the natives in rural projects, lack of dialogue platforms, limited peace and

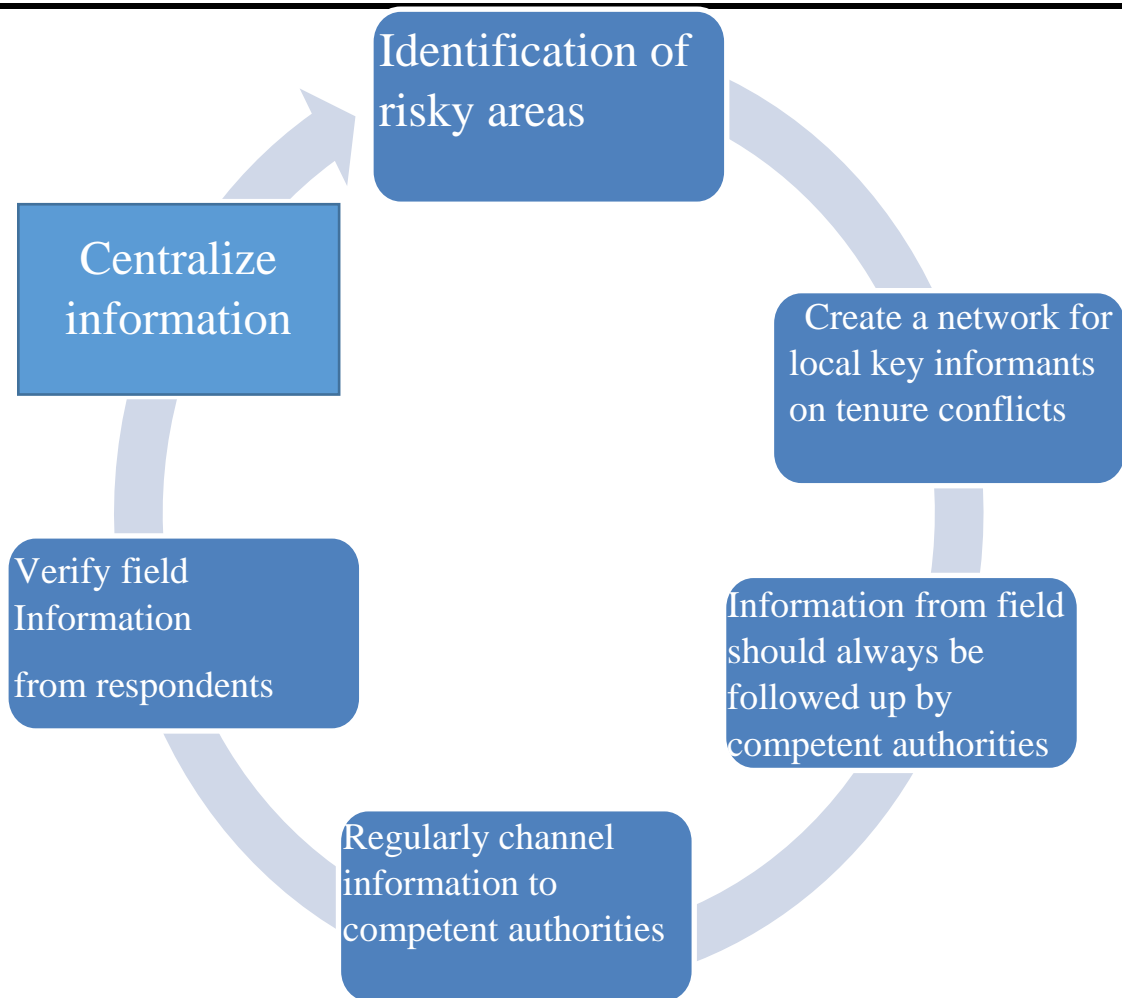
conflict settlement committees by the traditional and administrative authorities. From our findings, it was revealed that 52.55% of the respondents made mention of Dialogue platforms as one of the best means to mitigate conflicts related to tenure conflicts and ensure food safety in the warring communities. This will facilitate communication between the villagers in the affected areas and improve on food production and accessibility.

However, 30.62% of our respondents said one of the ways to resolve tenure conflicts in the area is for the administrative authorities to demarcate boundaries or map out farm and grazing lands between the various villages and also facilitate the process of issuing land titles.

The government should however, intervene through the agro-pastoral commissions. This is to legally redefine and practically demarcate the boundaries between grazing and farm lands within the conflict hot spots in Mezam division as well as the North West Region as a whole. This could be achieved through law-enforcement agents to make sure these boundaries are respected.

Furthermore, the Government through the staff of the Ministry of Agriculture and Rural Development should organise sensitization campaigns within the conflict hot spots and use the extension officers to vulgarise the message to the rural less educated farmers by teaching them good farming practices and enlightening them on the impacts of conflicts.





*Fig 1: An ideal scheme for effective conflicts resolution*

In the figure above, our interest is to propose a kind of simple method that could help reduce the rate of tensions in the conflict hotspots if put in practice by the various stake holders involved. Six essential points proposed here should work as follows:

- The conflict hotspots should be identified, map out and published to the local population and the territorially competent authorities of the area as well as the Non-Governmental Organizations interested in land tenure conflicts;
- Create a local network of key informants and train them on data collection techniques related to tenure conflicts;
- The information collected from the field should always be subjected to constant monitoring and evaluation by competent authorities so as to avoid misinformation;
- The data collected about conflicts hotspots or emerging conflict areas should always be reported to the senior divisional officers and local councils for proper and early action;
- The information should be verified by the trainers so as to be sure it complies with the methods of identification and collection of data related to tenure conflicts;
- It should be centralized in a data base and made available to the competent administrative authorities of the region who can easily spot out the areas in question and react on time.

## V. CONCLUSION

The major concern of this section has been to draw a conclusion of the main discussions of the study and also formulate a number of recommendations relating to the various stakeholders. It is now widely accepted that land and natural resource issues can contribute to the outbreak of violent conflict, contribute to perpetuating or prolonging conflict. If this is left unaddressed, peace building efforts can even lead to renewed conflict.

However, we have brought out and also discussed the causes of the antagonistic sentiments among the local population in Mezam Division of the North West region of Cameroon. Regarding the major conflicts recorded in the area of study, their causes, farmer-grazers conflicts and land ownership disputes were recorded as the main conflicts in the area. From the findings of the study, we have been able to see how these land related conflicts occur in the region and their effects on rural development projects. We have seen from the results of this study all the covered localities have access to schools, health facilities, and electricity to a certain level while some such portable water, roads, storage facilities and so forth are available and become less accessible to the local population especially during conflicts.

As seen from our findings, the causes of the conflict are a result of the expansionist and dominant tendencies of some groups of individuals, a community as well as certain influential elites' over land in the area. The findings from the data collected indicated that the increase of the population lies behind the conflict between most villages in Mezam division. This, as already discussed in the previous chapter we understood that land disputes in the study area as reported by most of the respondents were considered to be a significant tenure security issue since its value is low and agricultural activities in the area are still subsistence in nature.

It should be noted that, the tenure problems in the region in particular are related to the lack of documentary evidence (land titles and certificates). Looking at the existing policies, legal and institutional framework as already discussed in chapter one, we can say that we have been able to identify of some commissions and policies put in place by the Government of Cameroon governing land administration and management that is sufficient in strengthening the tenure security of the local population in Mezam as well as the Cameroonian citizens as a whole.

However, we have been able in this study to identify food insecurity as another form of land tenure insecurity.

Since food insecurity is largely caused by poverty, improving access to food requires increasing the income of the poor local farmers. This is because most of the very poor class of the local population involved in farming and even grazing solely relies on agriculture and related activities, it indicated that their incomes respond more to the growth of agricultural activities than the growth of any other sector.

On conflict resolution, we found out that people resort to informal institutions first to resolve the conflicts and then to formal institutions only when the informal institutions are unable to resolve the conflicts. Thus, it is important to recognize the ability of the local informal institutions and clarify the institutional responsibilities of different institutions.

Otherwise, the lack of clarity of institutional responsibilities could be exploited by powerful individuals and may have negative consequences for equity. However, from our field observations, we noticed a transversal situation that applies to all the 4 sub-divisions. Education is given the first place despite the existence of conflicts in the study area. There is equally a problematic situation among the grazers in difficult areas like Pinyin in Santa and Nta-ya in Bafut who have no access to schools during conflicts as the children were afraid to get to the villages around to attend schools.

Again, it was noticed that grazers hardly get connected to electricity because of their dispersed settlements and the power line ends only in the nearby accessible villages and hardly extend to their camps in the interior.

## VI. RECOMMENDATIONS

A number of recommendations are made in this section to reflect the research work carried out in Mezam division and its environs as thus:

### To the crop farmers and grazers

In view of the rapid population pressure, competition over land ownership, environmental factors and declining farmlands there is the need to adopt improved farming techniques. The farmers should adopt intensive cultivation by using improved seeds and farm inputs.

They should also cultivate grain legumes such as soya beans and cow peas that will be used for cattle fattening.

The opinion of farmers and grazers should be reflected in decisions and solutions concerning their livelihood activities.

**To the Government**

The government policy of land reforms should consider gender issues and also give women access to land since they are more involved in crops production such that they can improve on their yields and contribute to food safety.

The administrative authorities should facilitate the issuing of land titles to the local population and demarcate farming and grazing lands between villages.

**To the Non-Governmental Organizations**

The Non-Governmental organizations should encourage dialogue and peaceful talks when resolving land disputes in the area especially MBOSCUDA and Action against hunger (ACF) that are the most renowned organizations involved in conflicts resolution on the field.

Their programs should be consistent with the broader social, cultural, economic and political environment to avoid ethnic sentiments.

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