

# Common Initiative Groups (CIGs) Enhancement in Agricultural Production Oku, Cameroon

Godwill Tobouah Nyanchi<sup>1</sup>, Nchamcham Nsungnen Olive<sup>2</sup>

<sup>1</sup>Department of Geography, University on Yaounde, Yaounde, Cameroon

<sup>2</sup>Department of Geography, The Higher Teacher Training College (ENS), University on Bamenda, Bamenda, Cameroon

## Email address:

goddy288@yahoo.com (G. T. Nyanchi), nchamcham@yahoo.com (N. N. Olive)

## To cite this article:

Godwill Tobouah Nyanchi, Nchamcham Nsungnen Olive. Common Initiative Groups (CIGs) Enhancement in Agricultural Production Oku, Cameroon. *International Journal of Sustainable Development Research*. Vol. 5, No. 3, 2019, pp. 71-78. doi: 10.11648/j.ijdsr.20190503.12

**Received:** April 30, 2019; **Accepted:** July 7, 2019; **Published:** October 23, 2019

---

**Abstract:** The cultivation of crops and the rearing of animals remains the major economic activity for sustainable rural livelihood. It employs more than 80% of the countryside population in this vicinity. Agriculture in most of the less developed countries involves 62% of the working population and contributes over 20% to their countries Gross Domestic. Farmers use different methods to improve agricultural productivity, in order to meet the demand of the increasing population over time. The primary method of information collection on the subject under study focused on first hand data from farmers. Questionnaires were administered to the targeted population in the area. The questionnaires focused on soil management techniques, intensification and modernization of crops such as maize, beans and Irish potatoes. The open and close ended question technique was adopted. Direct field observation and visit to farms where various crops are cultivated was undertaken. Results obtained revealed the urgent necessity for the creation of common initiative groups to boost agricultural production. It is against this background that the inadequate mechanized agricultural system has resulted in the creation of Common Initiatives Group (CIG) with efficient farmers' participation and involvement to boost agricultural productivity. These practices are glaring within the agricultural dependent population of Oku.

**Keywords:** Groups, Agricultural Production, Society, Development

---

## 1. Introduction

Farmers in this area share information on techniques of improving their financial situation, geared towards an improvement in agricultural productivity. These Common Initiative Groups adopt improved methods of agricultural production like agro-forestry methods, soil improve techniques, improve storage techniques and discourage methods that reduce food supply. With the advent of these Common Initiative Groups, there has been an improvement in agricultural productivity in most rural localities in the world. In Cameroon, agriculture constitutes the main economic activity of the population of which over 70% is involved (National Institute of Statistics). Agricultural productivity is a key sector of the economy employing more than 60% of the working population and accounts for 42% of the Gross Domestic Product in 1998. In a bid to overhaul the agricultural sector in crisis, the government of Cameroon adopted a new strategy for agricultural development in which the farmers have to be involved in

agricultural innovation, productivity and trade than before. The objectives of the policy have been to uplift and modernize the agricultural sector from the base through grassroots common initiatives, evidenced in farmers' groups and associations. Today the agricultural sector in Cameroon is characterized by the existence of thousands of informal and formal farmers' groups, associations and cooperatives.

## 2. Methodology

A wide range of methodology was adopted by this study. Field observations in the area were useful in giving direction to the research. Observation in the study area was very useful in giving direction, and it helped in visual analysis. Formal and informal interviews were also used to gather data. Formal interviews were conducted with resource persons who had information on CIGs activities and their innovations in the area. Focus group discussions were taken into consideration. Group discussions involved farmers of all ages and sex to gather

information from them. Regular quarter meetings, social gatherings, and associations involved in agriculture constituted the bedrock of these groups that received attention. Research documents were consulted such as published and unpublished, textbooks, dissertations, administrative documents, and journals that have a direct or indirect relationship with CIGs. Maps within the study area were studied and taken into consideration. Internet sources dealing with CIGs and agriculture constitute a principal secondary source consulted.

### 3. Results

The results obtained revealed that most farms in this area practice mixed farming to make full use of their land. It was also realized that CIGs members carried out mostly single cropping on their farms. This made their yields to be higher than those adopting mixed cropping. This output increases attracted other farmers to ally with the different CIGs of their choice. The increase in membership focused attention on ideas of improving agricultural productivity thus improving on their lifestyle.

### 4. Discussion

#### 4.1. Development of CIGs in Oku

The putting in place of CIGs holds a great promise to the contribution of agricultural productivity in Oku. Taking into consideration that agriculture is the main activity of the population of this locality, and given this decrease, Common Initiative Groups aim at increasing agricultural productivity within this locality. These Common Initiative Groups amongst others include Chiangka Young Farmers (CIG) found in Chiangka, with registration number NW/GP/03/03/7753 of 04<sup>th</sup> September 2003. This group is involved in maize production. Kofkecheckle Mixed Farming (CIG) in Mbokenghas Oku with registration number NW/GP/01/05/9735 of 12<sup>th</sup> December 2005. This group is base on maize production. Itiyketam Sustainable Farming CIG based in Manchok with registration number

NW/GP/01/01/5457 of 17<sup>th</sup> September 2001. It is base in the cultivation of potatoes and maize. Simonkoh Mixed Farming CIG based in Simonkoh with registration number NW/GP/01/07/11026 of 03<sup>rd</sup> May 2007. It is base on the production of solanumpotatoe, maize and tomatoe. Mbam Dynamic Farmers Union in Mbam Oku with registration number NW/GP/01/09/10026 of 10<sup>th</sup> January 2008 with coffee as the main agricultural produce. CIGs practices towards agricultural productivity helps to ensure an increased agricultural productivity. CIGs activities are impacting on agricultural productivity. These groups act in strict respect of *Law N° 92/006 of 14<sup>th</sup> August 1992 and Prime Ministerial decision N° 92/455 of 2<sup>nd</sup> November 1993* on the creation and functioning of CIG and cooperatives. Part of Oku is occupied by significant remnants of the montane forest with an endangered ecosystem, which is of global importance for conservation. Forest conservation strategies put in place by the Kilum Mountain Forest Project limit further encroachment. Within the past years, intensive agriculture has been carried out in Oku without the possibility of colonizing “new lands” these has left farmers with no choice than coming together to form CIGs to improve agricultural productivity since it is their main source of livelihood [1].

#### 4.2. CIGs and Different Crops Cultivated

There are so many CIGs in Oku. The types of CIGs present in Oku are involved in maize, potatoes, beans, coffee and vegetable productivity. CIGs are involved in different agricultural sub-sectors of cultivation. This accounts for the fact that these CIGs and activities are continuously gaining grounds within local communities. Oku's population in general and CIGs members in particular benefit from the activities of these associations. Soil fertility is reducing as a result of increase in population and poor farming methods by peasant farmers within Oku. CIGs have been specialized in the production of the following food crops like maize, beans, coffee, potatoes, vegetable and livestock rearing as seen in table 1.

**Table 1.** CIGs and different crops cultivated.

Cultivation Sub-Sector	Common Initiative Groups
Coffee sub-sector	-Chieh Young Farmers CIG
	-Manchok Cooperative Credit Union LTD
	-Oku Area Cooperative Credit Union LTD
	-Itoh Community Graziers CIG
	-Mbam Modern Farming CIG
Maize sub-sector:	Chiangka Young Farmers CIG
	-Kofkecheckle Mixed Farming CIG
	-Shikefone Mixed Farming CIG
	-Itiyketam Sustainable farming CIG
	-Simonkoh Hardworking Farmers CIG
Solanum potatoes sub-sector:	-Solidarity Mixed Farming CIG
	-Unity Farming CIG
	-Chiangka Young Farmers CIG
	-Kofkecheckle Mixed Farming CIG
	-Shikefone Mixed Farming CIG
Vegetable and garden	-Jikijem Young Gardeners CIG
	-Mbam Modern Farming CIG
	-Chieh Young Farmers CIG

Source: Fieldwork 2015.

Table 1 show several types of CIGs specialized in different crop cultivation sub sectors. These include the maize sub-sector with the following CIGs like Chaingka Young Farmers CIG, and Kofkechekle Mixed Farming CIG. Maize is one of the food crop extensively cultivated in Oku. Findings show

that about 95% of farmers are actively involved in the cultivation of this crop. CIGs involve in its cultivation are found within the localities of Chaingka, Simonkoh, Ngvenkei 11 and Manchok. Figure 1 below shows quantity of potato seeds supplied, planted and sold within the study area.

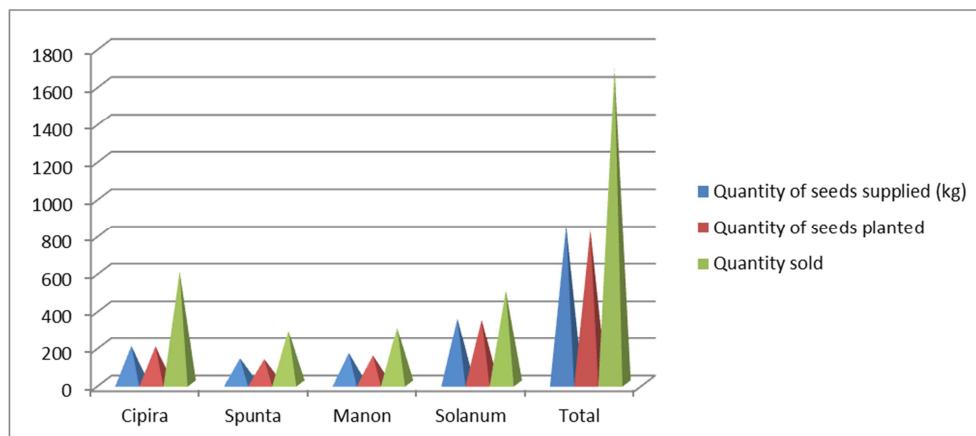


Figure 1. Improved tuber species supplied, planted and sold by the Chaingka Young Farmer in Oku.

As seen above, different specie of potato was planted in Oku. These CIGs cultivate an estimated area of 11.321 hectares and produces and estimated 22.642 tons of maize each year [2]. CIGs involve in these sectors benefit from

abundant farmland and seed selection and planting is done during the rainy season. Application of fertilizer such as NPK: 20.10.10 guarantees production of maize. Table 2 shows Production trends from 2008 to 2012.

Table 2. Maize production and areas under cultivation in Oku from 2008-2012.

Crop	Area (ha) & production (tons)	2008	2009	2010	2011	2012
Maize	Area (ha)	11.321	10800	10100	9085	9057
	production (tons)	22642	20422	19569	19868	19960

Source: SDDARD annual report 2012 and fieldwork.

Table 2 surface area decreased in cultivation from 11,321 hectares in 2008 to 9,057 in 2012. Production increased from 19,569 in 2011 to 19,960 tons in 2012. This justifies the fact that CIGs have boosted the production of maize output. In addition, there also exist the vegetable and garden sub-sectors in which CIGs involve in the cultivation include, Jikijem Young Gardeners CIG, Mbam Modern Farming CIG

and Chieh Young Farmers CIG. They are found within the locality of Mbam, Jikejem, Cheih, Jiyane and Ngashie all in Oku. They concentrate on the cultivation of tomatoes, cabbage, carrots and huckleberry. Findings revealed that they operate on an estimated area of 1237 hectares and produced 12,129 tons of vegetables in 2010.

Table 3. Tomato production and area under cultivation in Oku from 2008-2012.

Crop	Area (ha) & production (tons)	2008	2009	2010	2011	2012
Tomato	Area (ha)	85	98	142	520	335
	production (tons)	1700	2103	3251	4521	6525

Source: SDDARD annual report 2012 and fieldwork.

Table 3 shows that surface area cultivated increased from 85 hectares in 2008 to 335 hectares in 2012. Production increased from 4521 tons to 6525 tons in 2012. This trends show that, the sub-sector involved in the cultivation of the vegetable increased the production of vegetables in Oku from 2008 to 2012. CIGs that are within the potatoe sector cultivate different species. These include SimonkohHardworking Farmers CIG, Solidarity Mixed Farming CIG, Unity Farming CIG, Chaingka Young Farmers

CIG. They are found within the localities of Simonkoh, Manchok, Kevu, Lang, Jiyane, Elak, Jikejem, Ibal. Findings revealed that they cultivate on a total area of 1,214,358km and harvested 2,665, 538ton [3]. Field investigation also revealed that 80% of farmers are involved in the cultivation of potatoes. This accounts for the fact that its cultivation is only within the highland area of Oku. From field investigation, from 2008 to 2015 potatoes production trends have been increasing, and this trend is shown in table 4.

**Table 4.** Trends of potato production and area under cultivation in Oku from 2008-2012.

Crop	Area (ha) & production (tons)	2008	2009	2010	2011	2012
Solanum potatoe	Area (Ha)	9.613	9452	9310	9215	9193
	Production (tons)	144.188	141620	138546	137100	137895

Source: SDDARD annual report 2012 and fieldwork.

Though the area under cultivation has witnessed a decrease within the past years from 9,613 hectares in 2008 to 9,193 in 2012, productivity has slightly increased to 137,895 tons. This is due to the role of CIGs in Oku given the fact that Potato is one of the staple crops cultivated. Within the coffee sub-sector, CIGs and cooperatives are found in Oku and include, Chieh Young Farmers CIG, Oku Area Cooperative

Credit Union LTD (OACU), Mbam Modern Farming CIG. These groups are found in Manchock, Itoh, Mbam, and Lang. About 65% of farmers are involved in the cultivation of coffee from findings gathered in the field. This is due to the recent regeneration of coffee farms within the study area. Coffee production trends are shown in table 5 below.

**Table 5.** Grades and quantity of coffee statistics for five years 2007-2011 by OACU LTD.

Year	Grades							Total
	A	B	C	D	E	F	G	
2007	17.605	58.680	12.587	69.860	-	52.837	9.120	220.689kg
2008	22.740	79.133	21.000	76.140	-	45.180	14.142	258.335kg
2009	23.340	91.320	22.260	100.620	-	67.920	16440	321.900kg
2010	10.860	28.260	6.000	27.360	-	17.820	54.000	113.700kg
2011	10.560	41100	9278	46140	-	34020	5412	146.510kg

Source: SDDARD and fieldwork 2014 and 2015.

Table 5 shows a decrease in coffee harvest in 2010. In 2007, total production of coffee was 220.689kg. This total rose to 258.335kg in 2008, 321.900kg in 2009. In 2010, total production dropped to 113.700kg and later increased to 146.510kg. This is attributed to the simple fact that most coffee farms were cleared during periods of price drop. Attentions were shifted to other productive domains such as livestock. At the moment 68% of farms in lowland areas are being replanted with coffee trees. Maximum production was realized in 2009 with about 321.900kg. This is attributed to the massive recolonization of farms and the increase in the number of coffee farmers. In addition, coffee prices equally witnessed a slight increase in kilograms. This was because farmers used herbicides and insecticides to prevent coffee destruction from diseases. In 2010 to 2011, coffee production witnessed a drastic drop to about 146.510kg. This sub sector needed much assistance from CIG and the OACU LTD.

#### 4.3. Approaches of CIGs to Agricultural Productivity in Oku

Enormous techniques have been put in place by CIGs

**Table 6.** Improved tuber species supplied, planted and sold by the Chaingka Young Farmers.

Variety of potato species	Quantity of seeds supplied(kg)	Quantity of seeds planted(kg)	Quantity sold(kg)
Cipira	200	198	600
Spunta	134	130	285
Manon	163	150	300
Solanum	350	344	500
Total	847	822	1685

Source: SDDARD 2018 and field work.

From Table 6, it is deduced that to improve on potatoes production, the Chaingka Young Farmers CIG sensitizes their

geared towards the improvement of agricultural productivity. These agricultural innovations aim at improving output. Several CIGs exist within each cultivating sub-sector.

##### 4.3.1. The Use of High Yield Potato Varieties

Farming groups and associations are generally considered to be closer to peasant farmers because the farmers are members of such an association or a group [4]. Chiangka Dynamic Farmers CIG was put in place by the youths of this locality who are mainly farmers. Their main aim was to improve on rural livelihood. This CIG adopted different approaches to improve on agricultural productivity. They are mainly involved in potatoes production. Their main approach is the use of improved potatoes species. Improved seedlings are supplied to the CIG by Zonal Extension Workers (ZEW) from agric posts. The farmers then multiply the seeds and plant.

During harvesting, larger produce are kept to later serve as future seeds. Table 6 illustrates improved tuber species by Chaingka Young Farmers.

members and to use high yielding seeds as seen in the photo below.



Figure 2. Potato Seed Multiplication Farm in Simonkoh Oku

To obtain information on how to use these seeds the farmers attend seminars organized by ZEW and HEIFER project. Types of potatoes produce include *Cipira*, *Spunter*, *Manon* and *Tupira*. The produce gotten from these seeds contributes greatly in potatoes yields. To boost production, farmers prefer high yielding seeds to plant in their farms through single cropping farming system. Findings shows that about 95% of farmers prefer to grow *Cipira*, *Tupira*, and *Manon* potato specie. The adoption of this approach is due to the fact that, they produce high yields and is also good for consumption. The species are highly consumed by the Oku population than the *Spunter* specie [5].

#### 4.3.2. Irrigation Farming Techniques to Cultivate Potatoes

This is done as a way to cultivate potato all year round. Field work confirms that farm preparation starts from the month of February to March and harvesting is usually done in the month of May and June. This is usually attributed as rainy season potatoes. In order to ensure a continuous production of potatoes throughout the year, irrigation of field is applied. Here, preparation is done in August to September and harvesting is done in December. This is achieved by Chaingka Young Famers because they have a good number of streams where water is easily channeled into fields. This area is close to the Kilum Forest which helps to supply water. Findings reveals that the soils are also suitable for the cultivation of potatoes and about 40% of local farmers are involved in this practice. At times farmers contribute money to buy pipes that are directly connected from the forest to link their various farms. This has contributed to potatoes production. Famers ensure that connected pipes are controlled to ensure that enough water is available to enhance potatoes growth. To reduce the burden of work on individual

farmers of this CIG, the farmers collaborate by assisting each other to do farm preparation, (planting weeding and harvesting) to reduce cost. As part of their activities, farmers are train on composting mainly household manure cow dunk, the proper use of chemical fertilizers and pesticides. They are also educated on the proper use of right products, right quantity and at the right place and time.

In addition to the cultivation of potatoe, this group carries out individual execution of projects like piggery and poultry as a way of diversifying their production. They use cross breeding piglets, with poultry they produce eggs, and chicken for sell as well as to increase food nutrients of their family members. This encourages their members to indulge in poultry and farming. As a means of collaboration, they have thrift and loans in a revolving scheme known as *njangi*, which help farmers to buy improved seeds and fertilizers.

#### 4.3.3. Intensifications and Modernization of Maize Cultivation

Field work shows that most of the CIGs involved in the intensification and modernization of maize cultivation in Oku are located in Mbockengas, Koshung, Manchock, with close to 112 members from 2000 to 2015. This CIG (Kofkechekle Mixed Farming), is involved in mixed agricultural productivity, in which they sought to demonstrate high quality farming standards through the use of improve seeds and best farming practices that would increase maize and beans yields. Their main agricultural products are beans and maize. Their approach is on smallholder agricultural modernization. They use high yield varieties maize which include, the Cameroon Maize Selection (CMS), the *kaisai*, ATP which are improve seeds, resistant to insects' infection and mature faster [6]. As compared to the local seeds, improve seeds yield more, as these maize specie produce special growth and height about 1.5m above the ground.

#### 4.3.4. Modernization and Intensification of Beans Production

Presently, the varieties of beans cultivated are black beans, red beans, MIDENO and spotted beans. This group mainly advises its members to produce black beans and white beans with high quality and equally of high demand. With the use of these modern seed varieties, maize and beans production has really improved and field work confirms that more than 95% of members plant this species. Table 7 shows beans production and related surface area under cultivation.

Table 7. Beans production and surface areas cultivated in from 2008-2012.

Crop	Area (ha) & production (tons)	2008	2009	2010	2011	2012
Beans	Area (Ha)	11600	11300	10000	9200	9193
	Production (tons)	5800	5780	5680	5100	4900

Source: SDDARD 2018 and field work.

Table 7 shows that the total surface area for beans cultivation has drastically reduce from 2008 – 2009. Surface area dropped from 11.321 hectares in 2008 to 9057 hectares in 2012. Productivity equally dropped from 5.661 in 2008 to 4529 tons in 2012. In order to expand agricultural

productivity, eradicate poverty and empower farmers within the Itiyketam locality in particular and Oku in general, These CIGs acquire assets, which are mainly for agricultural investments [7].

These include special tools such as hoes, cutlasses, water

pipes, poultry and building equipments. They lend the equipments to farmers and money collected is reinvested in obtaining seeds and fertilizers.

#### 4.4. Intensification and Modernization of Honey Production

The Oku Bee Farmers CIG and Oku Honey Cooperatives (OHC) seek ways of improving honey production in Oku. Oku honey is of high quality and is widely consumed in Oku and beyond. Oku Honey Farmers CIG carry out beekeeping to diversify farmers' economic activities in the area. Findings from field work indicate that, this activity employs 313 bee farmers with an overall bee hives number of 3000 [8]. Annual production fell between 10 to 13 tons because of late colonization of the bee hives. (Manager Oku honey society). These bee associations sensitized the population to conserve bee loving trees which include; *Shefflera*, *Nuxiacongesta*, *Prunusafricana*, *Syzygiumstaudtii* and *Shefflera*. Findings further revealed that a large number of farmers are now actively engaged in the production of honey there by becoming potential bee farmers. These farmers are trained on modern beekeeping techniques. Honey serves as a source of

food and medicine.

## 5. Innovations in Beekeeping

Modern beekeeping techniques put in place by Bee Farmers Association and Oku Honey Cooperative in Oku include; the charge from the traditional hive to the Kenyan top-bar hives, industrial and medicinal uses of hive products, prevent accidental fires and beehive. They encourage their members to install their hives in hot areas since they are more prone to migration than those in cool areas. Bee farmers carry their hives to the low land region of Oku which has high temperatures like Mbam, Lum, Itoh, Chak. Kenyan top-bar hives kept in hot areas are successfully taken to the forest. Field work confirms that good quality and quantity of honey is harvested from the Kenyan top-bar hives. This Oku honey has a unique quality in taste and whitish in color. Thanks to these innovations put in place by the Oku bees associations the honey production has become a source of income, food and medicine to the entire population. This has improved the lives of honey producers in Oku Sub-Division. Table 8 shows the 2011 and 2012 annual honey production in Oku.

Table 8. Oku Honey Cooperative Society LTD Production in 2011/2012.

Product	Quantity (KG/L) 2011	Quantity (Kg/L)2012
Unrefined honey	136	390
Refined honey	5580	3480
Honey drink	180	135
Beeswax.	60	193
Clotted honey	735	735

Source: Oku Honey Cooperative 2012.

Field work findings revealed that 210 bee hives were constructed and carried to Mbam Oku and some parts of Noni for colonization. Out of this number, 60 bee hives got colonized before 31<sup>st</sup> December 2012. During this period at least 400 liters of white Oku honey was produced by the Oku Bee Farmers Association and Oku Honey Cooperative between 2012 -2013. It can be deduced that apart from producing honey, bee farmers are also trained on the use of bi-products. Wax extraction as a bi product is used for the fabrication of candles, shoe polish, savon and post cards. These byproducts are sold to other manufacturing centers hence bee farmers tend to generate income. The activities of Oku Bee Farmer CIG and Oku Honey Cooperative have greatly contributed to honey production as well as products used by the community.

## 6. Soil Management Technique and Vegetable Cultivation in Oku

A minority of local farmers concentrate on the cultivation of tomatoes, cabbage, carrots and huckleberry on an estimated surface area of 1237 hectares. The activities include land preparation, seed selection, planting, fertilizing as well harvesting and marketing of vegetable. Farmers,

activities are also based on composting local manure, proper use of chemical fertilizers and pesticides emphasizing on the use of right product in adequate quantity and form. The vegetable and garden sub-sector has increase their productivity thus enabling members to improve on their standards of living.

### 6.1. Night Paddock System for Cultivation of Crops Like Ground Nuts, Soya Beans and Maize

CIGs involved in this activity are found in the locality of Itoh, Boh, Nchak and Ngham found in low land Oku. They are involved in grazier activities as well as crop production. Their main produce includes livestock (cows, sheep, and goats) and crop production which include groundnuts, soya beans, ground nuts and maize. This practice is done by the cattle rearers as well as farmers who live in this area. This particular area is known for frequent farmer grazier conflicts. As an approach to multiply crop production and livestock productivity, the Itoh Community Graziers CIG adopted the Night Paddock Manuring Farming (NPMFS) technique introduced in 2006[9]. Field observation confirms that negotiation in this farming system are possible and done in a way to build fence around their farms. During the dry season when crops are already harvested, cattle move into farm to deposit enough dung. The farm is allowed to fallow for at



least three months. This is done by the members of the group. Over the years, farmers have been producing high yields. Similarly other farmers within this locality who are not members of this CIG are engaged in the practice through negotiations with the Itoh Community Graziers CIG. To improve on livestock grazing, farmers whose farms have been fertilized by cow owners' in turn pay an annual sum of 13,000 F CFA each to cattle owners.

## 6.2. Soil Management Techniques for Crop Production

CIG involve in these activities (KechecleKefeh Women Group) is a feminist association which seeks to improve on agricultural techniques used by women in applying new innovations in their farms. This is to improve on the socio economic status of members, since agriculture is their main income yielding activity. As observed before agricultural innovations, farmers agricultural output was relatively low. But with the implementation of these innovations by this CIG agriculture has improved resulting in an increase from 20% to 50% from 2008 to 2012.

The implementation of these agricultural innovations is based on environmental sustainability. KechecleKefeh Women Dynamics CIG in Oku sensitized and ensures the use of agricultural intensification by its members. The fact that the population of Oku has been increasing from 48,533 inhabitants in 1987 to 87720 inhabitants in 2012 agricultural practices change slightly [10]. Under a fixed land surface, there is need to educate the population on soil improvement techniques. Women are also thought on methods of preventing soil erosion and leaching. Field work confirms that these farmers mostly use contour ploughing, in which ridges are constructed across the slopes as a means of reducing soil erosion. Ridges and furrows are divided into columns which serve as channels for runoff. Also, Inter/cropping and constructed hedges are cultivated around their farms which prevent soil from heavy rainfall.

## 7. Assessment of Agricultural Practices and Crop Yields in the Different Sub-Sectors in Oku

However, despite the improvements in agricultural techniques, areas put under cultivation for the different crops cultivated have been gradually reduced in size. Percentages of production for the various food crops have been encouraging, justifying that much effort are put in place by CIGs to improve on production. The surface area under cultivation in 2008 for maize was 11,321 accompanied with a production of 22,642 tons. As years passed, this production trends reduced to 19,422, increased to 17,569 in 2010, 15,868 in 2011 and dropped to 14,860 in 2012. Productivity trends were equally accompanied by decrease in farm sizes for the various accompanied years. In 2008, surface area under farmlands progressively reduced in size from 11,321 to 10,800 in 2009, moved from 9,085 in 2010 to 9,087 in 2011 and finally to 9,057 in 2012. In a nutshell, maize production for 2008 and 2012 saw a percentage change of 65% while surface area changed from 2008 to 2012 by 80%[11]. Generally, a similar trend was experienced in the different crops cultivated within the study area. Beans production and surface area witnessed an 80% change, solanum potatoes had a 95% change in surface area and total productivity.

## 8. Ranking of Crop Preference by CIGs

Crops are ranked according to the taste and preferences of the farmers. Most of the crops cultivated by the numerous CIGs found in Oku are cultivated following a preference attached to it. In Oku some crops are most preferred by CIG depending on the reasons attach to the crop. These motives vary due to the fact that some crops are highly consumed, most profitable, highly productive, greatly improved on or less perishable. Table 9 shows different crops and their rate of preference cultivated by CIGs.

*Table 9. Different crops preferred and their rank occupied.*

Crops	Maize	Beans	Potatoes	Vegetable	Coffee
Highly produced	1	0.5	1	0.5	0
Highly consumed	1	0.5	1	1	0
Most profitable	1	1	1	0.5	0
Greatly improved	1	1	1	0.5	0
Less perishable	1	0	0	0	1
Total	5	3	4	2.5	1

Source: Fieldwork 2018.

Note: Ranking 5 for most preferred and 1 for least preferred crop by CIGs.

As shown on table 9 above maize and potatoes are mostly preferred by CIGs in Oku with a rate of 5 and 4 respectively. This is due to the fact that these crops are highly cultivated, highly consumed, most profitable, greatly improve, and perishable and take a shorter duration to mature as compared to coffee that is least preferred by CIGs due to the fact that it takes a longer time for growth. Coffee and vegetables are also least preferred by CIGs because they are not, less profitable and are highly perishable. From 1987 to 2014, the

highest crop improved upon by CIGs is maize and potatoes. This is because corn *fufu* is a staple meal in Oku and yields more profit than the other crops [12].

## 9. Agriculture, CIGs and Rural Livelihoods

Agriculture in most parts of Cameroon remain the main

economic activity for socio economic sustenance, but over the past decade, it has been observed that agricultural productivity and farm sizes in Oku Sub-Division in the North West Region of Cameroon have been on a decline. Areas dominantly affected are both Upland and Lowland areas in Oku. These include: Ngvenkei II, Lui, Simonkoh, Manchok, Lang, Kevu, Mbock-Kevu, Tolon, Ngemsiba and Jiyaniin the Upland areas and Mbam, Itoh, Boh, in the Lowland areas. It has been observed that the production of crops such as beans, solanumpotatoes, maize and cocoyams has been on a decline from 1987-2013.

The livestock sector is not visibly affected as the number of goats, sheep, cows and poultry. Goat and sheep rearing is a common practice in a majority of households in Oku. Though the number of goats and sheep are small, it remains an important economic activity. Cultivation of farms using local techniques has led to a drastic drop in agriculture. The soil nutrients are lost through this practice. Farm outputs have been negatively affected igniting farmers to group themselves into association or CIGs to increase agricultural output which is the main source of livelihood in this locality though crops and animal decline still persist. Despite the role and importance of sensitization of farmers about the prime goals or objectives of these CIGs as well as the efficient implementation of the set goals by CIGs remains a sign post in enhancing agriculture in this Sub-Division. With the creation of these CIG's there has been a greater prospect in improving agricultural productivity in Oku.

## 10. Conclusion

This study dwelled on the types of CIGs and their approaches to improve agricultural productivity in Oku. CIGs generally adopt new approaches in boosting agricultural productivity. These approaches are indeed successful in meeting their objectives as a group. Different sectors that benefitted from these approaches include the maize, beans, potatoes and coffee sub-sectors. This is a result of sustainable farming practices adopted by the numerous CIGs within the study area. CIGs have valuably contributed to agricultural productivity in Oku. Despite these contributions there exist barriers to CIGs to improve agricultural productivity in Oku Sub Division. There is a significant relationship between number of CIGs and increased agricultural productivity in Oku. CIGs have been doing a lot in the contribution of agricultural productivity. This is done through creating of awareness on new farming techniques in Oku, which cannot actually be left out. This has improved the agricultural sector as well as other activities in Oku. Their contributions have

created a positive impact on the people of this locality. CIG and NGOs in Oku contribute to change mentalities towards environmental conservation as well as enhance food security through community initiative. Members attend sessions on natural resources management and adaptations on appropriate technologies and farming methods.

## References

- [1] AJUH Joshua, 2010, A Geographical Appraisal of Rural Poverty in the Era of Modern Communication Technology: A Case Study of Buea Sub-Division, South West Region of Cameroon, Ph.D Thesis. University of Yaounde 1. 351P.
- [2] GODWILL Tobouah Nyanchi, 2019, Productivity Challenge of Soils Along the Slopes of Mount Oku in Cameroon. *Fluid Mechanics*. Vol. 5, No. 1, 2019, pp. 1-7. doi: 10.11648/j.fm.20190501.11.
- [3] GODWILL Tobouah Nyanchi, 2015, Agro Forestry Practices in Oku Sub-Division: An Impetus to Food Supply and Rural landscape Transformation. Masters Dissertation, Department of Geography. University of Yaounde 1. 149P.
- [4] NCHAMCHAM Nsungnen O., 2015, The Contribution Of Common Initiative Groups To Agricultural Production In Oku Sub-Division, University of Bamenda 91P.
- [5] AJIBOLA V., 2009, Contributions of Agro forestry Practice in Ondo State, Nigeria to Environmental Sustainability and Sustainable Agricultural Production, New York, Row Publication. 40P.
- [6] AKINNIFESI F., R., LEAKEY, J. OLUYEDE C., AJAYI, G., 2008, Indigenous Fruit Trees in the Tropics. Domestication Utilization and Commercialization. ICRAF, London CABI International 438P.
- [7] BEDI V., 2009, Vie Associative et Développement: GIC,-GIE-COOERATIVE – ONG. 92P.
- [8] ELONGJ., G., 2005, Organisations Paysannes et Constructions des Pouvoirs dans le Cameroun Forestier 151P.
- [9] FAO1992, Conduite de Petites Enquêtes Nutritionnelles, Manuel de Terrain, No 5, 180P.
- [10] HAWKINS R., and BRUNT G., 1965, The Soils and Ecology of West Cameroon, Volume 1, FAO, Rome, 212P.
- [11] HAWKINS P., and Brunt M., 1965, Report to the Government of Cameroon on Soils and Ecology of West Cameroon. Report No 2083 Rome FAO.
- [12] MBANGA L., A., and HUMPHREY N., 2013, Participation of Farmers' Groups as a Panacea for Revamping the Agricultural Sector: Analysis in the North West Region of Cameroon, Published in *Revue Pluri disciplinaire de L'école Normale Supérieure De Maroua (Cameroun) Hor-Serie No 2*, 482P.