



## **Obstacles in Central African Agricultural Development and the Future Prospects**

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### **ACRONYMS**

**CAR:** Central African Republic

**FAO:** United Nations Food and Agriculture.

**ACDA:** Central Agency for Agricultural Development.

**ICRA:** Central African Institute for Agricultural Research.

**GDP:** Gross Domestic Product

**UNDP:** United Nations Development

**ISDR:** Higher Institute of Rural Development

### **Abstract**

Located in the heart of Africa, Central African Republic is a vast country of 623 000km<sup>2</sup>, sharing the boarder with Chad, Cameroon to the west, to the south the Republic of Congo and the Democratic Republic of Congo and to the east Sudan and south Sudan. It has 4.5 million inhabitants, half of whom are below 18 (50%) and 62% live in the rural areas. The country is endowed with vast and varied natural resources: A good rainfall, a dense river network, and rich soils, large basement full of mineral resources, forests and diverse savannah and abundant wildlife. Despite these potentials, the country has moved in a cycle of impoverishment ,economic and socio-health continues to deteriorate, consequently increasing pressure on natural resources and accelerated environmental degradation. The economy is still dependent on agriculture in spite of the failure of crops. Agriculture remains the most contributing sector to the formation of national wealth as it represents 55% of GDP. This performance is not as a result of the improvement of agriculture, but is explained by lower secondary and tertiary sectors following the destruction of the means of production of the main industries. Agro-ecological conditions remain very favorable. It meets the needs of plants and allows diversification of agriculture production. Agriculture's potential is estimated at 15 million cultivable hectares of which only about 0.7 million hectares are cultivated annually. Vegetation is much diversified, giving large pastures for transhumant livestock, and large forest reserves. Typology is distinguished by the following systems: cotton-food crop, livestock, coffee-food crop and livestock synergetic- tourism, food crop agriculture been a regular pressure with the conversion of former producers of cash crops (cotton, coffee and tobacco). Between 2008 and 2009, There was an increase of between 3.8 in 1104 to 100 tones in 1145 tones driven by the production of cassava the staple food of Central Africa. Without all these efforts and huge potentials, the results of agricultural are very low and the development is slow. In addition, environment and climate insecurities, explain the slow development of agriculture in Central African as well as primarily technical and technological skills. They are ways to

**find adequate solutions to these problems. This is through the exploitation of research themes centered on the management of agricultural land and conflicts between pastoralists and farmers, improvement of operational conditions, the integration of livestock into agriculture, adaption of a management board as a dynamic means of vulgarization. Establishing of partnerships in matters of research development or research themes which should highlight all the various problems raised by farmers and in the end, solutions could help develop the Central African agricultural sector.**

## INTRODUCTION

Agriculture, that is to say the cultivation of the soil, started when human beings decided to stop living a transhumance type of life where they lived by gathering, hunting or fishing. In Central Africa, the agricultural sector is the largest part of the economy, employing over 80% of the assets involved and contributing 55% to national GDP. At this time, the estimated overall results of this activity were still very low. This was a worrying situation for the future of agriculture in Central Africa and led to the rising of the following questions:

- ✓ How the situation had developed to this and what were the real problems blocking the development of sector?
- ✓ What were the solutions to the problem in order to develop the sector?
- ✓ What were the main lines of research to find solutions that could phase out the problems of the agricultural sector in Central Africa?
- ✓ Had the mass exodus of young and energetic farmers to the city made an impact on farming in Central Africa?

To answer these questions, it is important and appropriate to present a history of the picture of the agricultural situation, the large potentials that exist in agriculture production and finally the constraints to its development.

### General Situation of the Central African

Located between the equator and the Tropic of Cancer between North latitude 2 ° 15 'and 11 ° 01' east longitude and 14 ° 20 'and 27 45 ', The country is totally landlocked surrounded by the following nations Cameroon to West, Chad to the north, Sudan and South Sudan to the east, the Republic of Congo and the Democratic Republic of Congo to the south. The country is endowed with abundant natural resources including productive agricultural land, a plenty of rich minerals resources such as gold, diamonds (found throughout the territory), and uranium containing flora species as well as quality Iroko and Sapele and a rich fauna and vary. The population is estimated at 4.5 million on an annual based demographic growth of 2.5%. and, about 38% of the population live in urban and semi urban areas. This proportion of the urban and semi-urban area is as a result of a massive rural exodus in recent years by a portion of the young population fleeing armed conflict looking for a better life leading to bankruptcy in agricultural production of main cash crops (cotton, coffee, tobacco, etc.). This phenomenon has an impact on the problems of food security on one hand but on the other hand also hinders agricultural development of the country



**The Central African Republic's map**

### **Location Central African Agriculture**

In Central Africa, the majority of people depend on both agriculture and livestock productivity. In some parts of the country, agriculture is not regarded by the locals from the standpoint of food production, but also as the most important activity for economic development and as a measure of conservation of the environment. During the rain season, grown mainly as the main element of food, is cassava (*Manihot esculentum*), sweet potato (*Ipomoea batatas*), millet (*Pennisetum American*), sorghum (*Sorghum bicolor*), and also corn (*Zea mays*) and groundnut (*Arachis hypogaeae*). Other crops next to cash crops include: cotton (*Gossypium barbadense*), coffee (*Coffea arabica*), tobacco (*Nicotiana tabacumde*), etc. .... During the dry season, tomatoes (*Lycopersicum esculentum*) and other vegetables are grown in areas where water resources are abundant. Thus rural residents, while earning income for their livelihood, also support the growth of the national economy.



**farmers work hard to produce food**

### **CAR, A Country Containing Important Natural Resources**

The CAR does not have a uniform climate throughout country. The separation of temperature, humidity and rainfall are important, both in terms of duration on one hand, but also in terms of quality requirements. This quality climate and adequate rainfall thus help the needs of plants, allowing for the wide culture practice.

- ✓ The relief of CAR is mountainous shaped and the mountain formations have given rise to the large basins constitution that are drained by a river network which is very favorable to the development of irrigated crops. The unit has varied soils divided between ferallitics and ferruginous soils, all with agronomic values ranging from good to mediocre.
- ✓ The Central African Republic has a very diversified temperature and has potential biological resources or biodiversity and constitutes the wealth of the country's natural resources. It also offers extensive grazing lands for livestock for which the dominant mode is transhumance areas also for hunting and important forest reserves, mills and crops of coffee, cocoa, oil palm, pepper and fruit divers etc. The forests have great diversity of humidity, dry and galleries spread steppe environment of about 50.000km<sup>2</sup> demonstrated by sufficient water wealth and variety of ecosystems.

The political-administrative location unfavorable for a dynamic agricultural development Vast country of 623 000km<sup>2</sup> with a population of about 4.5 million people, vast natural resources: forests, wildlife and a dense river network, but it is among the poorest countries in the world (179th rank according to IHD. PUNUD 2008). Since independence in 1960, the political situation has always been troubled with many coup d'Etat, mutinies and the takeover by the army not permitting the country to enjoy its wealth. Although the country is full of enormous natural resources, the development of its agriculture is poor. Indeed, the history of agriculture is punctuated by several facts and practices whose effects have not allowed a harmonious and formal development. We attempt to explain the lack of agriculture development in Central Africa.

### **Human Pressure on Agricultural Land and the Environment**

The CAR covers an area of 623 000km<sup>2</sup> for a population of about 4.5 million inhabitants, with an average density of 6.9 inhabitants per km<sup>2</sup>. Its annual average demographic growth rate is 2.5%. As revealed by demographic findings, the gradient density of the population is from the East to the West. Villages are found mainly along the road and have not taken the best agricultural soils. The reason for the settlement was simply to achieve control of the population on one hand and activities connected to crops and other products for export. It is in this context that the pressure for agricultural activities of plant, animal and other produces are exercised over a territory around the village whose radius does not exceed 15km. The real purpose of the decision was to increase the size of villages for socio-economic bases of investments namely: village shops, school, health center, to be made available for lots of people, a decision that has only promoted strong human population pressure on vegetation, soil and other natural resources in the area. In addition to the absence of good ecological governance, and in default of a rational area providing guidance on areas for cultivation and migratory herds, the land has witnessed an uncontrolled exploitation of the physical environment and therefore accelerating the progressive and irreversible degradation of natural resources. These findings were visible around large agglomerations (Kokamy-Yambere 1992). We all know agriculture, like all other human activities, has effects on the natural environment. In Central Africa, several families live below the poverty line. These families like others in African Countries are dependent on nature for survival. The soil, vegetation, water

and wildlife are their main economic capital, which they have free access to, natural resources are fragile, complex and requires that the government ensure farmers respect that.

### **Rudimentary Methods of Farming**

The slash and burn agriculture has long been the only agrarian system of peasant agriculture in Central African which has always been perceived as a single farming system or even archaic. These farming methods were once structured around the extended family, but this technique gradually lost its peculiarity and begun to appear as correspondence between this entity and family. That comes from the phenomenon of segmentation that operates widely in the enlarged family for issues of ownership of factors of production and control of production and revenues. Therefore, farm sizes are very small between 0.7 to 1.9 with less than 5 hectare farm assets. Many times crop fertilization is almost inexistent. These methods of farming remain strongly dominated by practices taking place in different places and they that do not allow for the recovery of investment. The farms are characterized by a very low level of income to allow enlargement. Unfortunately these are models of farms that are most widespread in Central Africa because their farmers practice rain fed or irrigated farming, and never have the opportunity to acquire a tractor, work animal, selected fertilizers and pesticides, and seeds to be cultivated in advance per family or per worker area, nor yield per hectare. Consequently, making agricultural labor very difficult and farmers do not see why they should put in additional efforts for uncertain or limited results. Notwithstanding these serious facts, majority financial decision-makers, politicians, international organizations, and technical advisors need to improve these farmer's competitiveness, because family farming is also very important in the life of the country. This type of farming not only ensures Central African food security in quality and quantity on one hand, but also economic development, therefore, it can transform from subsistence to commercial farming.



**this picture present the Rudimentary methods of central African farming**

### **Uncoupled Systems of Farms (Livestock-Agricultures)**

The majority of rural residents in CAR have either agriculture and livestock type of farming and it is frequent to find farms based solely on vegetable production or animal production but

never two at a time, and yet the initiative of promoting dual farming was launched in the 60's. This was directed towards the integration of agriculture and livestock, as such a combination would thus ensure peace between farmers, protect the environment, increase the size of the farm and eventually diversify production choices on the one hand and on the other hand reduce the suffering of farmers, i.e., using the plow and other soil working machines. This initiative was aimed at promoting the transfer of manure from livestock farming to crop farming and therefore achieve a reduced costs of mineral fertilizers and finally offer the opportunity to increase the income of the farmers. But it is clear that this initiative has not been applied and the extension of this technology remains limited because of low farm income . It is made even more difficult by the absence of a system of agricultural credit to afford in acquisition of farming tools and implements for farm expansion and clearing of new plots.

### **Agricultural Techniques have Improved**

In Central Africa, now as before, the slash and burn agriculture appears to be the management system most widespread in the tropical forestry area (Bahumet and Maret, 1994 Warner 1995). This mode allows for a thousand of people to feed in tropical forests (Bahumet and Maret 1994). The plots are well cultivated and reclaim no livestock or intensive care. The observations made in the conditions of Central Africa agricultural production reveal that tillage is not limited and often has a land clearing, followed by a slash and burn and a light weeding: This is often insufficient to allow proper conservation of the water available for crop plants and also provide good control of weeds in crops. Agriculture is based on the mixed farming type (a combination of several species or varieties in the same field.) The appeal of local seeds is the most frequent, maintenance of cultures is of very limited way and plant protection is almost nonexistent. This is further perpetuated until today, because the support provided by public services is not compared to a program and specific objectives that do not take into account the whole farm, nor do they incorporate new forms of intervention based on partnership.

### **Fetish and Occult Practices, a Real Brake for Central African Agricultural Development**

The Central African Agriculture is the key sector of the economy. Employs more than 80% of the population and contributes 55% of national GDP, while the overall results still remain very low due to some occult practices and Fetish. Notwithstanding efforts of government, national and international organizations (FAO, ACDA, FIDA, etc) aimed at changing farmers mentalities. Yet the perpetuation of certain socio-cultural practices inhibit progress and individual initiative. Thus, dynamic farmers and some people desiring to enter this sector are too hesitant for fear of being bewitched .The same farmers who produce a lot are also believed to practice fetishes activities. This creates a state of frustration and represent a real blockage to growth and progress of Central African agriculture.

### **Systems of Support to Farmers Very Deplorable**

The Central African agricultural sector is experiencing difficulties because the CAR has not made progress in the modernization of the sector as farming operation is built around a family and which is also the center of decision making. Technical support therefore, should be based on the effective participation of farmers and their families in the choice of themes and decisions taken. These farmers need in reality technical, material and financial support in order to produce the food they consume, reestablish their livelihoods and local economic opportunities, but it is clear that the intervention is still focused on the extension method based on training and visits, centered on the dominant cash crops, cotton, coffee and palm oil forestry area and other activities. Farmers are supported not by their own projects, but rather to the execution of programs that have a sectorial character in relation to the operation. Thus, support for producer organizations is still around some fliers namely: cotton, coffee, palm oil

and cattle. Similarly, fertilization programs and treatment are for those branches of activities. It should rather encourage the consolidation of farmers around projects that are their own, rather than making donations deplorable to farmers, these gifts are sometimes made up of food and other things. In reality the Central African agricultural sector is still raw and therefore needs support in terms of equipment such as: tractors, work animal, selected seeds, fertilizers and pesticides. The recovery of this country depends on agriculture and rural development.

### **How did we Get There and What are the Problems ?**

Agriculture in Central African Republic is not performing as it is supposed to and suffers from certain limitations. This is because for a long time, the main type of farming that has been practiced is extensive subsistence farming with rudimentary technology not conceivable in the context of a system of organization or companies. The population does not induce regeneration exploitation of natural resources and environment (soil, vegetation, climate, etc. ..), the exchanges between village communities reigns by the use of the monarchy as well as certain constraints across different fields namely:

- ✓ The demographics questions,
- ✓ The economics questions,
- ✓ Society organization question, and,
- ✓ The organizational matters of powers.

Thus, while the Central African agriculture will not see their situation change dramatically (as regards agricultural policy, environment, financing agriculture etc,,), the objectives of the millennium will not be reached and the desire for progress towards a modern agriculture. Thus Central Africa is called to migrate to intensive agriculture, agriculture business or agro-business, not only to address issues of livelihood, but also to manage revenue invested in various areas of development.

### **Central African Agriculture Problems**

This vicious cycle that exacerbates desertification and causes the stagnation of agriculture in Central African comes from inadequate nature of current agricultural methods that are not suitable to the natural environment. Consequently, the problems are.

Monoculture of the main cereals which ensue harmful effects and are continued each year, resulting in decreased productivity and the presence of harmful insects and diseases.

2-Lack of soil fertility measures: Due to low levels of fertilizer and reduction of organic matter (livestock wastes etc.), soils are impoverished.

3-Inadequate agricultural techniques: techniques inappropriate to the land and culture type are not developed; thus, the same methods being used without taking into account the type of soil, leading to productivity been low and deterioration of the environment.

4- Limited farm lands: agricultural production has concentrated so far only on sloppy plateau land while lowlands that we can consider conducive to agriculture are hardly used.

### **Future Prospects for Agricultural Research**

In view of all the main obstacles of agricultural development that we have presented above, one can ask the question, on what to do to rationally exploit agricultural land, improve the

performance of farms and trigger significant and sustained increase in agricultural income. Further matters connected with the economic environment of agricultural activities which deserve answers must come at the political level. There are three main areas where future research must focus:

- ✓ Research on the improvement of the performance and quality of operations.
- ✓ Research on the management of conflict centered around agricultural land existing between breeders and farmers by redefining the agro pastoral zone, but also provide mechanisms for prevention and the management of conflict.
- ✓ Do extensive research to identify, analyze and understand thoroughly the Fetish and occult practices that block and do not honor individual progress and success of farmers in different regions.

### **CONCLUSION**

To conclude, I wish to re-emphasize that; many obstacles to the development of the Central African Agriculture reveal the absence of a variable land management given that it still belongs to individual peasants to manage they own property, or an exaggeration of chunking arable land with rudimentary techniques. Also noteworthy in this regard is the importance of demographic pressure on land.

Without ignoring the economic problems facing Central African, it seems important to draw attention to a number of research elements that could bring to remove blockages that hinder agriculture in central African. This will require the ACDA, ISDR, ICRA, and even FAO of much research, effectively management consulting and technical innovations, systems of crops, livestock systems and animal traction which would be quite interesting.

Finally, this research work should not only generate scientific results but also satisfy them. Partnership with development must be maintained at a very high level, because the ultimate goal of research is the implementation of solutions to answering problems of farmers and herders. Researchers should also benefit dialogue with producers to understand their problems and needs to be able to translate into effective research protocols, because in a country like the Central African Republic, agriculture should rather be widely supported and accompanied enough.

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