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ANALYSIS OF THE SOCIO-ECONOMIC VIABILITY OF THE FOUTA DJALLON FARMERS' FEDERATION "FPFD" – GUINEA

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ABSTRACT

With a view to analyzing the socio-economic viability of the Federation of Payers of Fouta Djallon "FPFD" in Guinea, a study was carried out between January and April 2023 at the FPFD/Middle Guinea with producers, groups and Unions which make up the federation. The objective was to conduct a participatory analysis of the socio-economic viability of the FPFD, and identify the issues for local development. For this purpose, five types of questionnaires were developed and completed. After investigation, we arrived at the following conclusions: On the economic level, the federation operates on the basis of contributions, subsidies, the sale of agricultural products and provision of services. Potato cultivation brought in the greatest profit (49,390,000 GNF/ha) and the operating costs were borne by the federation, the State and the donors. This study allowed the FPFD to identify its weaknesses and threats, its strengths and its opportunities. 45 parameters were evaluated, including 34 viable and 11 non-viable, with a viability rate of 75%, and solution approaches were proposed. Finally, we recommend improving the management of accounting files, statistical data, social cohesion, transformation, market study, for better sustainability of the achievements of the FPFD.

KEYWORDS: Federation, Union, producers, analysis, socio-economic viability, FPFD.

1. INTRODUCTION

In all countries, Peasant and Rural Organizations (PROs), whether informal, recognized, ephemeral, flexible, large or small, interest a growing number of people and are the place for expressing the interests of peasants and a means of achieving the objectives they set for themselves (ZELLER et al., 1986). This makes the agricultural and rural sector a sector now directly exposed to international competition.

Faced with global challenges such as food security, environmental protection and the promotion of employment (especially youth employment), the agricultural sector must respond effectively to the challenges of sustainable agriculture. In addition to economic and productive functions, agricultural operations must also combine quality, land use planning, respect for the environment, diversification, etc. while achieving optimal costs (BATONWERO, 2022).

In Africa, the organization of farmers, in its traditional form (mutual aid groups for agricultural work, tontines, etc.), still remains in force in most rural societies. Let's say that peasant organizations were operational after the establishment of community development which was born after the Second World War. From this process, we could educate the masses for literacy, women's education, carry out community work to equip villages socially, carry out agricultural extension campaigns. Hence the key principle was to help people help themselves (CAMARA, 2018).

Peasant organizations are built at the interface between local society and global society as a means of resolving these relationships. And what makes it effective is its ability to solve problems (BOSC et al., 2002).

Often referred to as a geological scandal, Guinea, once known as the "River of the South" or the water tower of West Africa, is a country rich in natural resources, giving it potential for growth sufficient to escape poverty. These rich and diversified resources constitute an important asset for economic diversification. Its arable land potential is estimated at 6.2 million hectares, of which 25% is developed and less than 10% is cultivated annually. Precipitation is abundant, ranging from 1,100 to 4,000 mm; the potential of the river plains is immense, with a hydrological network of 6,500 km (PNIASA, 2016). Yet poverty rates remain high and the country's economy remains fragile. Its agriculture is family and diversified, representing half of the active population. Production systems, although relatively diversified, are characterized by small family farms with low yields, limited investment capacity and high vulnerability to climatic and economic disasters (SARA, 2019).

In Guinea, the development of the agricultural sector is seriously hampered by a series of factors, including deficiencies in the institutional, regulatory and macroeconomic framework, effective national monitoring services, and insufficient institutional financing in rural areas, as well as the lack of adequate infrastructure and formal private sector to support economic growth and modernization of rural areas.

It is in this difficult context that the Organization of Agricultural Producers (OPA) is trying to mobilize to provide services to its members and defend their interests (PNAFA, 2013).

Based on a study carried out in the Republic of Guinea, a non-exhaustive list was produced to highlight the different functions exercised by peasant organizations, in particular: Land management, environmental management, credit management, equipment management, collective production, marketing, advice to producers, producer representatives, etc. (BEAUDOUX and FORGET, 1992).

The producers' organization was created in 2000 as part of the promotion and development policy of the United Cooperation Movement. They are supported by various rural development agencies (NGOs, groups, unions, federations).

In the context of rural development, the sectoral policies formulated by the Guinean government are based on the responsibility of producers for any choice of production, technology and organizational forms, as well as on participation in decisions and interventions that concern them. These organizations carry out rice, potato, corn, fruit and vegetable production activities. They bring economic benefits to stakeholders and strengthen regional integration.

Indeed, these structures have an important place in the national economy because they contribute to: Promoting youth employment; Strengthen food production; Increase in agricultural income and standard of living. (PNDA,2007).

This situation has pushed the Organization of Agricultural Producers (OPA) of Guinea to concentrate its efforts to better respond to the difficulties affecting the agricultural sector.

They come together within a dynamic peasant movement called the National Confederation of Peasant Organizations of Guinea (CNOPG), which constitutes a major catalyst for institutional, technical and economic innovation in the agricultural sector (SP-SRP 201 3) .

The Federation of Peasants of Fouta Djallon created in 1992 is not outside of this contribution and occupies an important place in the CNOPG. However, since its creation, no investigation had been carried out within it within the framework of its socio-economic viability in particular and other Federation of Guinea in general. However, the Federation of Peasants of Fouta Djallon regularly orders and carries out a set of studies in order to have a better knowledge of its areas of intervention to adapt its activities and sustain the structure. It is in view of these observations and knowing that agriculture and livestock constitute the key sectors of development of our country; we were mainly interested in analyzing the viability of the FPFJ from economic, social and local development points of view. This study attempted to highlight the social and economic logic of individual and collective behavior of farmers by emphasizing the reasons which can lead groups and unions to fail or succeed.

Therefore, the objectives sought through this research are:

The general objective: Carry out a participatory analysis of the socio-economic viability of the Fouta Djallon Farmers' Federation and determine the issues that will arise from it

The specific objectives are:

- Evaluate the level of viability of the federation;
- Identify the factors which determine this viability;
- Identify the difficulties encountered and formulate avenues of reflection for the sustainability of the initiative;

- Evaluate the challenges of the FPFDD on local development;

2- MATERIALS AND METHODS

2.1. Materials

Overview of the search area

In Guinea, four agroecological regions stand out, Lower Guinea (Maritime Guinea) in the west, Forest Guinea in the southeast, Middle Guinea (Fouta Djallon) in the center-north and Upper Guinea in the northeast. Each region is characterized by its social structure, its agricultural production systems, as well as agricultural sectors which emerge and develop at different stages of maturity depending on local opportunities and dynamics.

Middle Guinea, often presented as a “natural region” of Guinea, brings together the mountainous massifs of Fouta Djallon and the plains which extend from the foothills of the massifs to the Senegalese border. With an area of nearly 60,000 km², it is inhabited by more than two million inhabitants, or nearly 20% of the Guinean population National Institute of Statistics (INS, 2017).

On the one hand, the different massifs of Fouta Djallon and the plains of the Gaoual and Koundara prefectures do not have the same physical characteristics (climate, topography, hydrology, etc.). Also, these sub-regions have not experienced the same historical developments, which results in different modes of development of the environment and processes of differentiation of production systems. Finally, within each sub-region there are inequalities between production systems of which FPFDD occupies a prominent place.

The social and economic dynamics, which are the subject of research, are observed in a spatio-temporal framework, through which the various data collections are carried out. Indeed, it is one of the natural regions which has aroused scientific curiosity: Middle Guinea which covers 24% of the national territory.

The region covers a total of 38,750 km² with a relatively higher population density per compared to the national average which stands at 44 inhabitants per km²

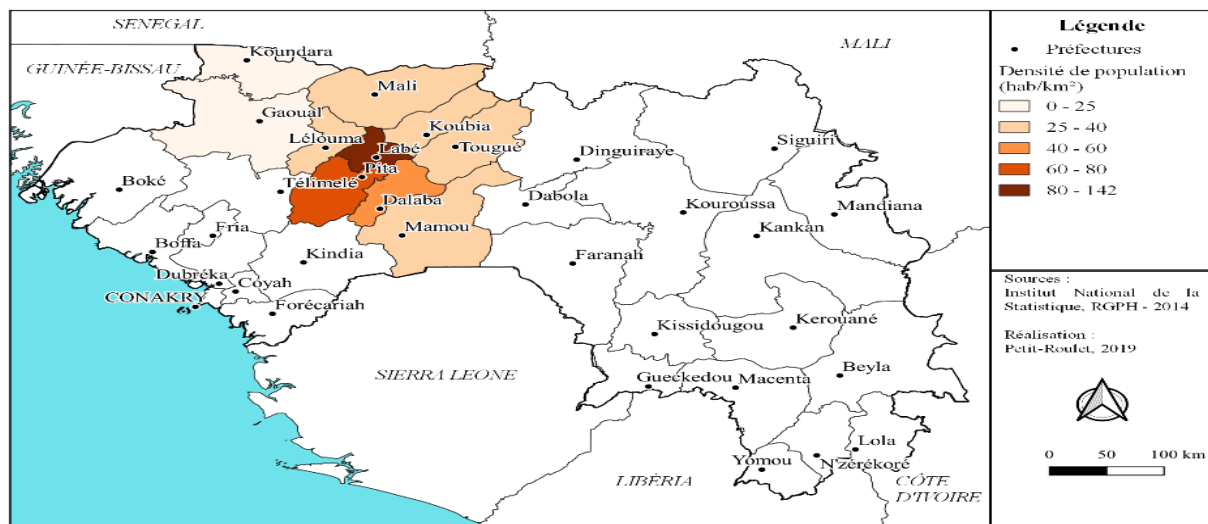
Fouta Djallon is located between 9.92° and 12.67° north latitude and between 11.41° and 14.09° longitude West of Guinea. He naturally identifies with the region of Middle Guinea which is one of the four agroecological zones of the country. But the original Fouta Djallon extends over the northwest of the country with the prefectures of Gaoual and Koundara, today falling under the administrative region of Boké, in Lower Guinea.

Presentation of the Farmers' Federation of Fouta Djallon (FPFDD)

The FPPD, created in 1992, is a peasant organization which operates in 3 administrative regions including 2 in Fouta Djallon (Mamou and Labé) and the Boké region, 10 prefectures, 94 neighborhoods. Its head office is in Timbi Madina (Pita Prefecture).

The Federation currently has 35,336 members, 69% of whom are women, spread across 1,257 groups, 48 unions and 22 in the structuring phase with technical support from the regional branch of the CNOPG in Middle Guinea and accompanied by a technical team.

The federation currently manages five (05) agricultural production sectors: (i) potatoes: created in 1992 (ii) onions: in 1994; (iii) tomatoes: in 1999; (iv) rice: in 2010; and (v) corn: also created in 2010. In addition to these five (05) formalized and non-formalized production sectors, other crops are added such as fonio, peanuts, beans, eggplant, cabbage and cassava. These sectors allow producers to ensure household food security. See figure 1





**Figure 1: 1a Situation of Guinea compared to Middle Guinea
1b: Situation of Middle Guinea in relation to Timbi Madina (FPFD Headquarters)**

2.2. Methods

The methodology adopted for this research is as follows:

- Data collection was done as follows: (i) exploration and design of research tools; (ii) planning, supervision; (iii) constitution of a varied, diverse and representative sample with data collection. Identification and choice of strategic groups, as well as sampling; (iv) control and monitoring of a research plan; and (v) finally, evaluation of the mechanisms and internal and external validation of the research, four questionnaire sheets were designed to collect information from target groups which are the FPDF, local elected officials, state technical services and partners. These evaluation sheets of the organization made it possible to assess five (05) of its points: its identification, its history, its structure and its functioning, its financial management and its partnership system through censuses of the experiences carried out, the successes and failures and, for each type of action carried out, then express themselves on their realities, suggestions, to collect the opinions of those interviewed on the favorable or unfavorable factors through sampling (30%) of unions, groups, producers isolated people, resource people, technical and administrative services, kobo collet and kobo tool box applications were used to better understand the data.
- Processed and analyzed data using SPSS and sigma plot statistical software
- Presentation of the results by profile or target group and overall, two methods allowed us to arrive at its different results, these are: The qualitative and quantitative one;
- Writing summaries capitalizing on the experiences of the FPDF for each of the sectors and reporting to the federation office and its technical team; specifically

- Determining FPDF strengths, weaknesses, opportunities and threats
- Determination of the viability coefficient

After a description of the methodology used, a separate analysis of each of the dimensions of the viability of the Federation (Economic, social) was made.

The parameters studied were: operating costs, yields, the collaboration matrix and viability parameters, and the viability rate was determined by the formula: $Kv = A/B \cdot 100$, where Kv : rate of viability; A: Number of viable parameters; B: Total number of parameters taken into account; according to WANDA (2014).

For the viability assessment scale, we used the table below

Table 1: Viability scale

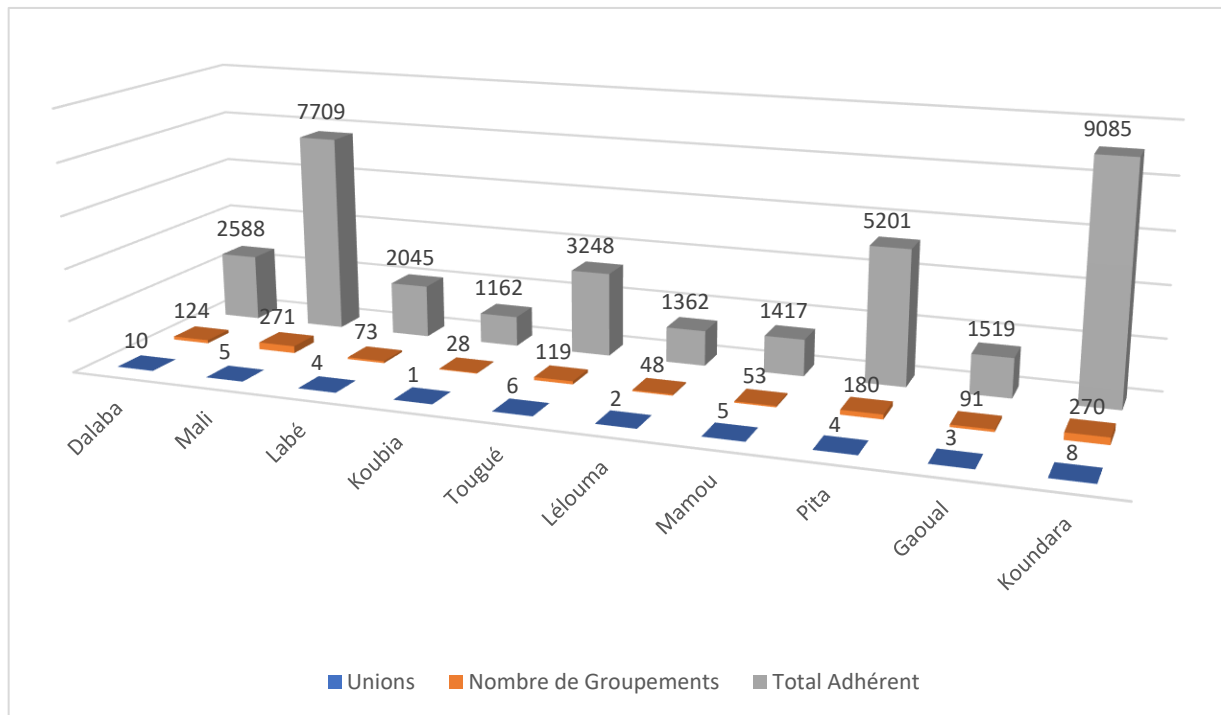
Category	Coefficient	Appreciation	Characteristic
1	0.1 – 0.20	Null	Unsustainable
2	0.21 – 0.49	Weak	Not very viable
3	0.50 – 0.59	Pretty good	Average Viability
4	0.60 – 0.79	GOOD	Viable
5	0.80 – 1.00	Alright	Very viable

Source: LEPAGE (2008)

3-RESULTS

The results of this research are as follows:

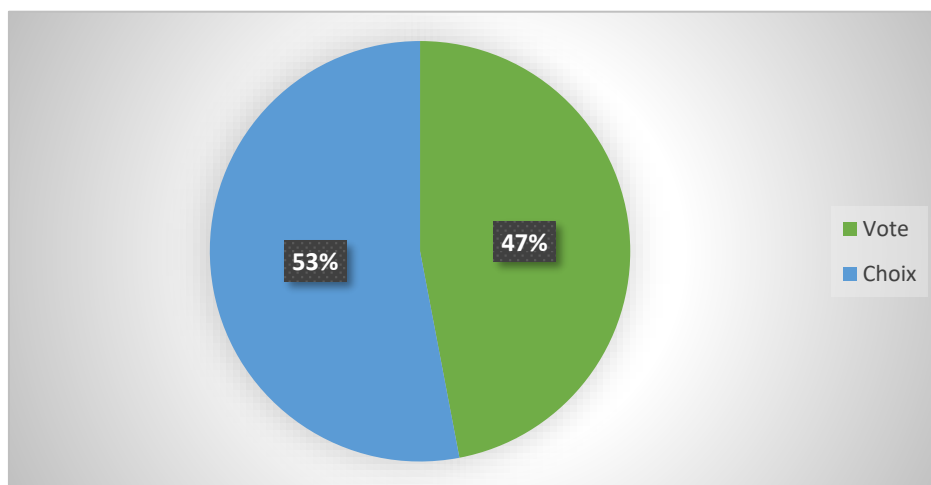
- Situation and operation of the FPDF
Number of members: 35,075 of which 69% are women, Age of FPDF: 29; union number 48, groupings 1244; zone 21, and sectors 5. See details by prefecture in graph I
Graph I: Situation of member OPAs by unions and prefectures of the FPDF



During this research, we surveyed 2762 producers individually, grouped and semi-grouped, during the interview, there were 63% who responded formally and 37% informally.

• Method of choosing those responsible for the FPF:

Graph II: Methods of designating those responsible



Graph II shows 53% of FPF officials are appointed by choice and 47% by vote

- The comparison of potential yields to that obtained, which is recorded in table 2

Table 2: Return obtained by speculation

No.	Culture	Variety	Potential yield (t/ha)	Yield obtained (t/ha)
1	Rice	CK90	3	3
2	But	QPM	3	1.5
3	Potato	Nicola	30	25
4	Tomato	Rome	20	10
5	Onion	Galmi Violet	10	18

- The share (%) of the main speculations of the Federation see Graph III

Graph III: The place of speculation as a percentage of the FPF

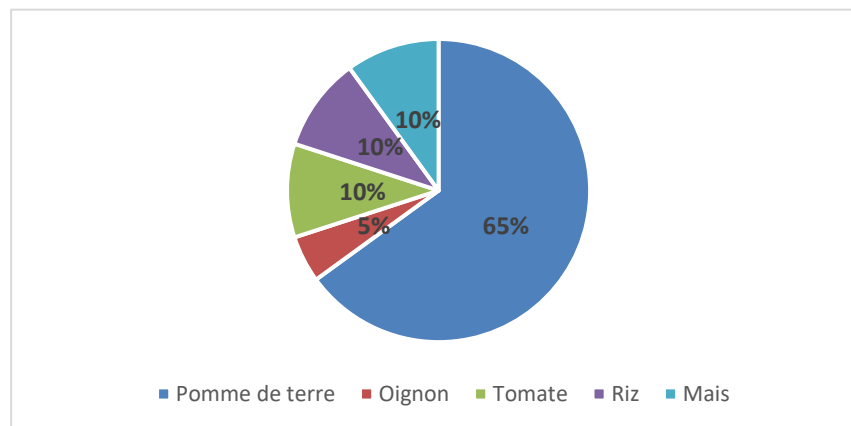
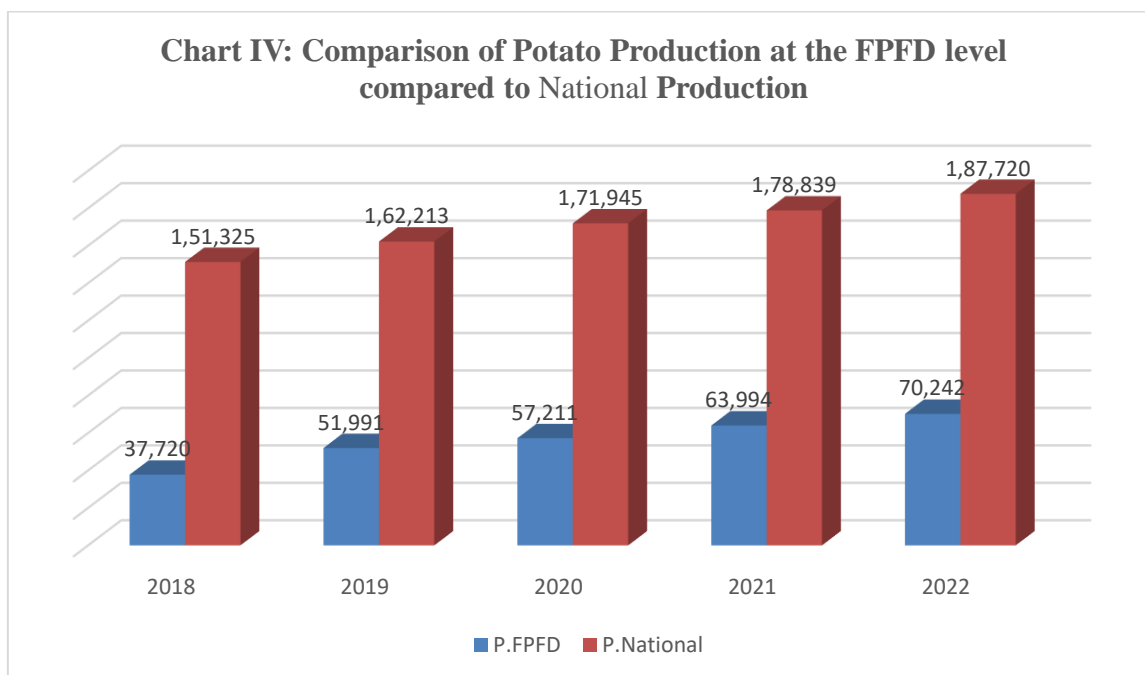


Figure III shows that the potato occupies 65% of the production of the members surveyed.

- Comparison of the total production of the Federation and that National, see graph IV



We can see from this graph above, a growth in potato production both at the national level and at the FPF from 2018-2022.

- Evolution of memberships in producers, groups, unions and municipalities affected from 2009 to 2022 at the Federation level.

Table 3: Structuring of groups, CR or CU unions and FPF sector from 2009-2022

Designation	Reference year 2009-2010	2016-2017	%	Reference year 2016-2017	2021-2022	%
Member Producers	21,554	34,496	60	34,496	35557	3
Group	705	1218	73	1218	1257	3
Union	33	46	39	46	48	4
CR or CU affected	50	56	12	56	62	11
Sector	5	5	0	5	5	0

From table 3 we noticed overall that the number of members was higher from 2009-2017 , compared to 2017-2022

Table 4: Profitability economic by speculation

No.	Culture	Total cost (GNF)	Yield (t /ha)	Amount (GNF)	Profit (GNF)	Average price per kg at the edge of the field (GNF)
1	Potato	75,610,000	25	125,000,000	49,390,000	5,000
2	Tomato	45,000,000	10	55,000,000	10,000,000	5,500
3	But	3,126,000	1.5	7,500,000	4,374,000	5,000
4	Rice	8,400,000	3	12,000,000	3,600,000	4,000
5	Onion	62,500,000	18	108,000,000	45,500,000	6,000
TOTAL		-	-	307,500,000	-	-

From this table 4, it appears that potatoes gave the greatest profit , i.e. 49,390,000 FG/ha, calculated on the basis of their farm account book for the campaign (2022);

- The result of the analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT) of the FPPD, indicates that it is necessary to strengthen the achievements, transform the weak points in goals in order to deal with threats, see table 5.

Table 5: Viable parameters and solution approaches

No.	Setting	Appreciation	Solution Approach
1	Mechanization of agriculture	Unsatisfactory –	- Make a diagnosis, - Formulation of strategy and action plan - Preparing for implementation artwork , - Partnership expansion training , - Find appropriate equipment;
2	Payment of contributions	Weak	- Sensitization ; - Application of texts; - Reduce the amounts to be paid
3	Obtaining financing through agricultural credit	Little existing	- Renewal of trust; - Sanction against bad payers; - Ensure the availability of credits before implementing activities;
4	Education level of union members	Weak	- Strengthening current training; - Creation of new training modules;

5	Land rights	AVERAGE	- Compliance with legal texts relating to land and state law; - Acquisition of land titles;
6	Union transformation unit	Lack	- Create transformation units
7	Maintenance of equipment, tools and structures	Little satisfying	- Repair tools and machines, equipment; - Train technicians; repair of irrigation and drainage canals;
8	Involvement of women in decision-making	Weak	- Involve women in all decision-making bodies
9	Soil analysis in the laboratory	No performed	- Analyze the soil to know its fertility and make contributions accordingly before any use;
10	Lack of knowledge of the content of the management procedure manual by most members	Weak	- Dissemination and compliance with the content of the manual;
11	Health and security	Unsatisfactory	- Create a prevention plan; - Combat risks at source; - Adapt the work to the man; - Take into account the evolution of techniques; - Replace what is dangerous with what is less dangerous; - Take measures collective and individual protection (PPE)

- Assessment of the viability of the Federation in terms of the number of essential parameters studied is shown in Table 6.

Table 6 : Level of satisfaction of unions with the services provided by the Federation

Service	Satisfaction level (%)		
	1	2	NEITHER
Agricultural Council	26.66	73.34	-
Supply of agricultural inputs	20.	80	-
Agricultural credit	16.66	70	13.34
Member training	43.33	46.66	10.01
Governance support	30	18	52
Market access	53.33	30	16.67
Partner access	56.66	36.66	6.68

Support for infrastructure and equipment	51.66	20.66	21.68
Support in the development and access to agricultural areas and access	13.33	33.33	53.34
Average	34.62	46.05	24.81

Legend: 1=Satisfactory, 2=Very satisfactory and NI=Not indicated

From table 6, speaking of the satisfaction of the services provided by the federation to its members, we see overall that 46% of the unions questioned are very satisfied; 34.662% are satisfied, 24.8% not satisfied. However, efforts remain to be made by the federation in terms of support for governance and development of agricultural areas and creation of processing units.

The in-depth analysis of the 45 evaluation parameters taken into account during this study shows that 34 are viable, 11 non-viable, those non-viable are due to the illiteracy of the members, the non-modernization of agriculture, insufficient financial resources.

The parameters studied are technical, social, economic, administrative and the viability rate is (75%).

Challenges of the Federation on local development, the actions below are carried out by the FPF

- Infrastructure: more than 50 stores with a storage capacity varying between 10 to 200 tonnes and two (2) platforms (cold room) with a capacity of around 6000 tonnes; sanitation and crossing works.....
- Support for production: purchase and distribution of inputs on credit, hydro-agricultural development (238 ha)...
- Support activities: Structuring the farming world, integration of young farmers, adult training, support for mastering technical itineraries, tests in farming environments, organization of deadline visits and study trips, management advice, etc.
- Marketing support: Consultation with traders, market study, search for new appetizers, preservation methods, organization of fairs, etc.
- Increase in production and productivity: increase in production volume, increase in yields
- Supply of agricultural tool inputs, seeds, phytosanitary products:
- Integration of young people into agriculture with subsidies...
- Representation and defense of interests before the State and development partners...

In addition to initiatives to transcend the constraints and blockages encountered in local development; also she always remains alert and imaginative to provide more adapted solutions, with a view to remaining in the logic of advancements.

4- DISCUSSIONS

The analysis of socio-economic viability carried out on " FPPD' highlights the diagnosis and analysis of the constraints linked to the functioning of the federation and to the scale of social and economic viability.

- ❖ For carrying out the research activities, applications of kobocollet and kobotoolbox and statistical software SPSS and sigma plot for the collection and processing of data were used which provides good results, which will improve knowledge, and by continued to resolve the problems of the Federation.
- ❖ The FPPD has a strong collaboration matrix with national and international institutions including CNOGP, PNAAFA, SERPROCA, PDAIG, SARA, ENABEL, AFD, FAO, HAZERA and technical services based in Guinea. GRANDVAL (2013), confirms that the strengthening of POs allows them to find their institutional position within the territories.
- ❖ Our results prove the opportunity to strengthen FPPD through formalized collaboration with financing and technical institutions for the sustainability of achievements.
- ❖ Although the burdens are huge and the level of education is low but the essential parameters are viable.
- ❖ The yields obtained are close to potential yields in general.
- ❖ The viability rate obtained is 75% compared to (55%) obtained by WANDA (2014).
- ❖ Unlike LEPAGE et al (2008) who used the standardized safety margin for the assessment of economic viability,
- ❖ The weak points are lower than the strong points with an opportunity for sustainable development of the FPPD.

5- CONCLUSION

Middle Guinea is made up of different regions and is home to dynamic agriculture. The increase in population since colonization has led to an expansion of cultivated land, a shortening of fallow periods, and a decrease in cultivated land per capita. These conditions are conducive to the development of a commercial crop with high added value per surface unit, mainly the cultivation of potatoes and onions. These products are experiencing unprecedented development, which is disrupting the agricultural systems of the Fouta Djallon massif.

Foutah Djallon Farmers' Federation. By representing and protecting the interests of its members, through training and the dissemination of techniques, and in particular through the establishment of credits for seed activities, it has favored and encouraged a substantial increase in market gardening production.

The impact of FPPD's actions goes beyond supporting the development of market gardening and rice production. The creation of producer groups has facilitated communication between farmers thanks to the link that the FPPD has established with various national and international partners, making it an

anchor point for numerous development and research projects at a time when agencies national support systems for agriculture are seriously lacking in resources. The FPPD thus positions itself as a major player in the Guinean agricultural world and one of the main producer organizations in West Africa.

At the end of this research, we can retain the following points:

- In the groups/unions surveyed there are more women members than men, while there are more men leaders than women, mode of choice of leaders by designation 57%;
- The Federation sells nearly 70% of its production (vegetables), 30% of its production (cereals); the rest is intended for seeds and consumption;
- The yields obtained are close to potential yields in general;
- Most of the members surveyed are satisfied with the services provided by the Federation;
- The Federation benefits greatly and on all levels from the assistance of the PNAFA; SERPROCA; CNOFG; AFD....
- Currently, the federation owns approximately 2246 ha of which 1644 ha are exploited;
- The parameters studied are technical, economic, social, administrative;
- The viability rate is good (75%);

Recommendations

Thanks to these analytical elements, multiple avenue of intervention can be developed to promote sustainable agricultural development in average Guinea/Fouta, by meeting the challenges of the current dynamic and benefiting all farmers, particularly the poorest.

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