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# Feasibility Study Report: Implementing a Farmer Field School

The case study of Pitti, Cameroon



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# Executive Summary

The objective of this report is the assessment of the feasibility of a Farmer Field School in Pitti, Cameroon. From the field research work we could produce an extensive collection of findings that we analysed and on which we provided suggestions. In the following section those will be summarised.

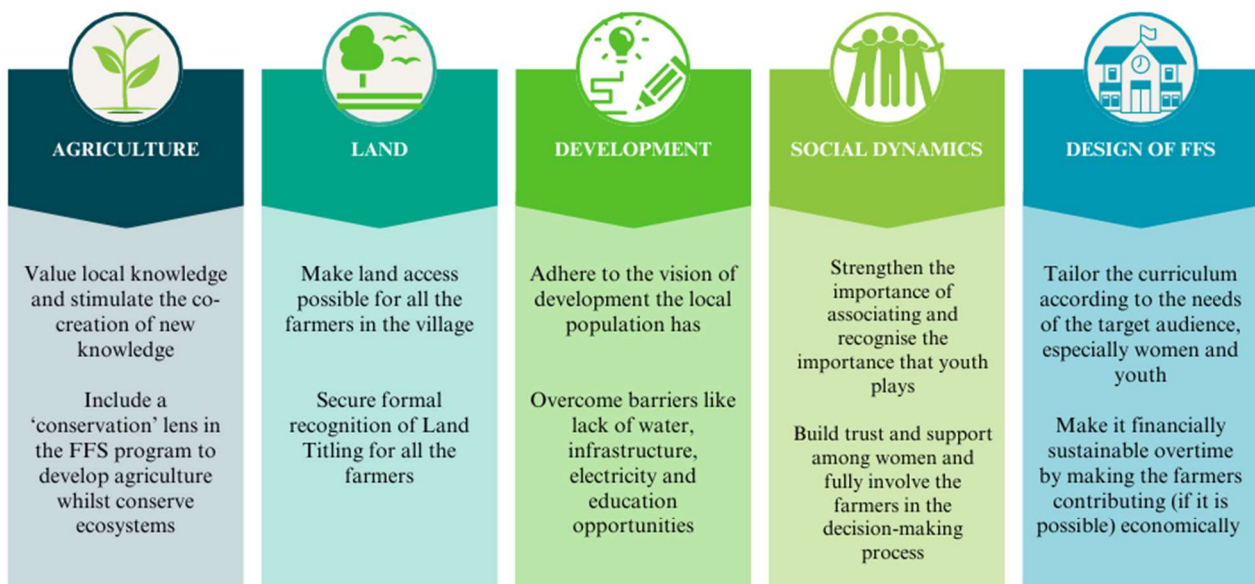
- ▶ The first result we will analyse relates to agriculture. There are various types of farms in Pitti which can be summed-up to ‘small-scale local farms’ using traditional methods and ‘larger-scale intensive farms’ managed by external investors. The local inhabitants practise slash-and-burn agriculture and animal husbandry mainly for auto-consumption and local markets. Some locals practise organic farming and use agroforestry as a tool to enhance the long run health of the ecosystem. Local farmers tend to plan less formally and are subjected to availability of resources and habits. Lack of water, knowledge and means poses a challenge for local farmers to scale up their production. Although it is not a widely used practice some male farmers associate in GICs. External investors, instead, use more conventional methods with chemical inputs and intensive animal breeding. Agribusinesses have a rigorous planning, cost benefit analysis and industrial agricultural techniques. Although investors from the city and various large-scale businesses are buying land, most locals still have access to land. In Pitti, customary practices provide land access to the villagers facilitated by the chief of the village. Formally, land titling is a process that is hardly ever used due to its complexity. Women tend to be disadvantaged when it comes to land ownership compared to their male counterparts due to cultural biases. As traditional practices are not recognised by the law the risk of the land to be claimed by the state at any point is strong and this could pose a long-term risk for the agricultural production of Pitti's farmers.
- ▶ Different visions on agriculture are to be found in the village; those are reflected in the perception of development by the local population. Development is seen in two ways: an inevitable industrial development driven by Douala's expansion; many villagers foresee an inevitable industrial growth. They anticipate both benefits like improved infrastructure, more economic opportunities and drawbacks like loss of rural identity and environmental negative effects. The second type of development is ‘controlled development’ which is deemed more sustainable as it integrates environmental conservation with progress. Environmental conscience and education are crucial to foster such an approach. Practically, there are multiple barriers to development like lack of infrastructures, electricity, clean water for human consumption and of water for agriculture. Furthermore, there are barriers to accessing the market in Douala and lack of educational institutions in Pitti. Those different visions for both agriculture and development do not have a neat distinction in the preferences of the people of Pitti. In order to create an inclusive target audience for the implementation of the FFS, those different perceptions must be taken into account when creating a curriculum.
- ▶ This tension between modernity and ecological preservation is especially noticeable in the youth of the village. The will for earning money to sustain short term needs leads youth to a consistent rural exodus to the city. Nonetheless, youth is important for Pitti's development, as it is quite mobile between Pitti and the nearby Douala, and as a consequent proportion of it wants to work in agriculture and carry on their future in Pitti. Youth in the village lacks opportunities, resources and recognition. The absence of a secondary school and education after the age of 14 pushes the youth away to the city. Social media accentuates the allure of the life in the city, often wrongfully portraying it as easier compared to rural life. Despite this, a part of youth returns to the village after being let down by the difficulties and the high cost of living in urban areas. Many young people work in agriculture and wish to pursue this future believing in a potential development of Pitti. FFS might be a potential catalyst as many interviewees argued for reversing the trend of the rural exodus.
- ▶ A general sense of community is important for the implementation of the project as it could leverage the knowledge of the training. An example of mutual assistance in Pitti is the fact that elderly give land to cultivate to young couples and in return they are helped with everyday tasks. Kinship ties often go beyond blood relations and support is compensated through the exchange of goods and services. This sense of solidarity though, is seen in social dynamics among women. Women experience mistrust and jealousy and friendships and cooperation are quite limited. This is shown in the fact that women prefer to work individually and do not associate. Although mistrustful women interviewees expressed the willingness to share their knowledge to other women and villagers that could not participate in the training. Women comply to the role of caregivers and are in charge of the household. This extra burden (as they also work the land) makes women prioritise short term needs over long term projects which could pose a challenge in targeting

them for the FFS. . Assure women and youth participation is essential for establishing a successful FFS is pivotal to give them access to resources, education and to build a supporting welfare that allows these two categories to thrive The curriculum should indeed be targeted to follow their needs. The training should be comprehensive of more frontal lessons type of training and practical sessions like working on one farm in rotation or doing internships in third parties plots of land.

Overall, there is strong evidence for the need of an FFS in Pitti, as all sections of the population demonstrated enthusiasm in the project. An FFS could also play a pivotal role in overcoming the lack of access to knowledge and education whilst also valuing local knowledge. There is also a high potential for scaling-up farming practices and for agroecology as some local practices fit in this model. The following table shows a summary of suggestions we provide in the report.

## SUGGESTIONS FOR FFS

### SUMMARY



# Index

Contextual Background.....	6
Methodology .....	8
Information on Pitti .....	10
Findings Results of the Field Research.....	15
Agriculture in Pitti .....	16
Access to land.....	24
Social Dynamics Pitti.....	26
Women in Pitti.....	28
Youth in Pitti.....	31
Development of Pitti.....	35
Barriers to development .....	35
Designing the farmer-field school: some early suggestions .....	38
The proposed plot of land for the FFS.....	44
Conclusion.....	47
Bibliography .....	48



## Contextual Background



## Contextual Background

This report has been produced by the present master students at the Graduate Institute on International and Development Studies, during the course 'Applied Research Project' (ARP). In the framework of the ARP, we were mandated by TERE0 to conduct a feasibility study on the establishment of an Agroecology Farmer Field School in Cameroon, in the village of Pitti.

The research project started in October 2023 and lasted until June 2024, culminating in the creation of the present report. During the first phase of the project, we elaborated the Terms of Reference, conducted in-depth literature review, and designed the methodology as well as prepared for the field research mission in Cameroon. The second phase was dedicated to the data collection on the field in Cameroon, which was carried on from the 25th of January 2024 until the 16th of February 2024. Finally, from our return from the field until June 2024 we focused on the data analysis and the redaction of the present report.

## Objective of the project

The primary objective of this project is to contribute to the sustainable development of the region by promoting inclusive, equitable and sustainable agricultural practices. To achieve this goal, the project intends to create an agroecological education centre in Pitti Gare (Pitti), located in the Littoral region in Cameroon. The school will provide comprehensive practical education on agroecological practices, while leveraging existing grassroots knowledge and practices in agriculture. The project will empower especially young people and women who are particularly vulnerable to poverty arising from social challenges, economic crisis, conflicts and climate change. By providing them with the skills and resources to practise sustainable agriculture, the project aims to help them achieve independence and lift themselves out of poverty.

This project is a joint effort by three different organisations: Tereo, and two local NGOs l'Association pour la Solidarité et le Développement Durable (A2SD) and Alternatives Durables pour le Développement (ADD). The project is going to be carried out by AS2D with the technical support of ADD, while Tereo will represent the Fédération Genevoise de Coopération as the main funder of the

project, and will provide supervision, additional technical support and training to the AS2D field team.

## Context of the research

This marks the first time that the organization Tereo is initiating a project in Cameroon. To guide us, Tereo elaborated the following research questions:

- ▶ Is there a sufficiently vast and interested target audience that could benefit from the implementation of the proposed project?
- ▶ Which are the specific activities the project should focus on? For example, which agricultural practices, diversification of crops, and type of educational training should be highlighted in the project?
- ▶ Are the proposed activities recommended by the local partner the most sustainable and effective practices for the region?
- ▶ Is the project feasible in the proposed social, infrastructural and ecological context?
- ▶ What general technical, methodological and cultural challenges the project might face and how can they be overcome?
- ▶ What specific gender-related challenges would the project face, and how can it overcome them?
- ▶ What could be the local partner's concrete contribution to the project (what do they already have to create the center)?
- ▶ What are AS2D needs (what do they lack to create the center)?
- ▶ Are there specific advantages for the project in the area? Are there specific obstacles?
- ▶ Would the revenue-generating activities of the center have the potential to sustain it financially in the long term

These questions have guided our research and data collection in the field. However, given the broad and varied nature of these important topics, and considering the limited time and resources available for this project, we focused on collecting primary data on some key issues. Namely, our focus was to assess the target audience's interest, the project's suitability in the local context, gender-related challenges, local social dynamics, advantages and obstacles in the area, and the agricultural practices of the local population. Our overarching aim was to assess the local situation, identify potential challenges related to the creation

and sustainability of the agroecological educational centre, and propose suggestions where possible.

Throughout the project we have been supervised by Prof. Christophe Gironde, senior lecturer at the Graduate Institute in agrarian change, livelihoods and human development; and Alberto Rotundo, senior project manager at Tereo. Furthermore, have been supported by AS2D and ADD, for the preparation and during the fieldwork. We spent the first week of the total three we were in Cameroon with ADD. There we could gather information on their already implemented FFS, CAPAM. The FFS is located close to Mbalmayo and was founded in 2014 to tackle the high rates of unemployment and poverty of the local youth. It is structured as follows: a team of qualified instructors, a parent's association that co-manages the FFS. The Center includes classrooms, dormitories for 100 students and a plot of land and a water tower. In order to talk to the people of Pitti, due to language and cultural barriers we were helped by Marie Rose, the niece of the Chief of the village and Gilbert, one of the sons of the chef. Those two figures were essential in gathering knowledge from the population, and to uncover many dynamics and to get access to information on all the topics we were interested in. They were our focal points in the research. Gilbert accompanied us and organised each focus group and interview and is the figure that administers the lands, helping his father. Marie-Rose was pivotal to talk to the women as she accompanied us personally for a tour of the village and translated every time was needed. That is why throughout the text they will be addressed with their names. One last figure will be called by her name and that is Maman Antoinette, an elderly woman, originally from Pitti who leaves the majority of the year in France. She tried to create a project for curcuma cultivation for women through sustainable practices, but it failed for lack of trust among women. She now cultivates curcuma sustainably in the village. Moreover, we would like to point out that all the pictures in the report have been taken by us during the field research between January and February 2024.

The report is structured as follows: we will first describe the socio-economic situation in Pitti. Then, we will analyse the results of the research by taking into account: agriculture and land access, social dynamics and different visions on development among the people in the village. This will be done in the framework of designing a FFS and, therefore, suggestions will be provided throughout the text. In the end we will draw our conclusions and mention a few limitations of the research.

## Methodology

To assess the feasibility of the project proposed by AS2D, a comprehensive methodology has been devised. Recognizing the importance of on-the-ground insights, field research has been undertaken to gain a nuanced understanding of the challenges and the need in establishing such a project. The complete planning throughout the field research can be found in the annex. The combined findings from both the research at ADD and Pitti has been pivotal in determining the viability of the proposed project of AS2D. To ensure a thorough analysis, a mixed-method approach has been used, consisting of interviews, field observation, focus groups, and distributing questionnaires. This approach will allow us to gather both qualitative and quantitative data, enriching our understanding of the various factors influencing the project's feasibility.

Our field research for this project has incorporated both deductive and inductive approaches. The deductive approach served as our initial guide, shaping our research questions, and providing a structured framework. In contrast, the inductive approach enabled us to explore the village of Pitti Gare more broadly and deeply. Through inductive reasoning, we discovered new findings and dynamics within the community that were not initially the primary focus of our research questions. This flexible approach allowed us to remain open to unexpected insights and to adapt our inquiry based on emerging themes and observations during our fieldwork. By combining both deductive and inductive approaches, we aimed to achieve a comprehensive understanding of the local context and the factors influencing the viability of the AS2D project.

During our field research, we conducted a total of 15 interviews and 6 focus groups in Pitti and 5 focus groups held at ADD. Of the interviews, five were conducted at ADD and ten in Pitti Gare. The focus groups at ADD were organised with the assistance of ADD staff, while those in Pitti Gare were facilitated by the son of the village chief. It is important to acknowledge that a potential limitation of this approach is the possibility of slight bias in the selection of focus groups participants. Moreover, the interviews conducted during our field research were implemented using a snowball sampling technique, which is a method where existing participants refer potential new participants for the study. This approach was particularly useful when reaching individuals who may have otherwise been challenging to interview through traditional sampling methods allowing for the identification of key



informants and networks within the community. Additionally, questionnaires were distributed throughout the village as part of our research and distributed online. From the online questionnaires we received three responses, while from the questionnaires distributed in the village, we obtained 50 responses. The aim of these questionnaires was to gather quantitative data that could be used to complement and support the qualitative insights gained from interviews and focus groups. By employing questionnaires, we sought to obtain structured information on specific aspects related to the project, such as demographic profiles, attitudes, preferences, and needs of the community members

The qualitative data analysis comprised several essential steps. Initially, the interviews were transcribed, and field research notes were compiled. The coding process was conducted using an inductive approach facilitated by Atlas.ti, enabling the identification of emergent themes and patterns that might have been overlooked in a deductive coding process. To ensure reliability, a triangulation coding method was employed involving multiple coders independently coding the same interviews to minimise researcher bias. Subsequently, the coded data were organised into code groups, which were then categorised into overarching themes, forming the foundation of our findings structure. This systematic approach allowed for a comprehensive analysis of the qualitative data collected during our field research.

The quantitative analysis for our study is based on data collected from questionnaires distributed in Pitti. We initially printed 150 questionnaires in paper form. Additionally, we offered an online version, but only received 3 responses. We distributed the questionnaires while walking around the village and interacting with villagers, as well as during focus groups. We often handed out multiple questionnaires, encouraging recipients to pass them along to friends and neighbours, which meant we had limited control over who received them. The design of the questionnaires was a collaborative effort involving Gilbert and the staff of Tereo. On the last day of our field research, we collected the completed questionnaires. Later on, we input the data into an Excel spreadsheet, formatting the responses to create tables and graphs according to our needs. The Excel table was also sent to the partners Tereo, AS2D and ADD.



# Information on Pitti

Pitti Gare (hereafter referred to as Pitti) is a village situated in the Littoral region of Cameroon, with a population of around 1000 people. It is situated close to the most populous city of the country Douala and close to Edea, a big centre of the region. Pitti is connected to Douala through the highway that leads to an unpaved road built in 2021. *Figure 1* illustrates this through a map of Pitti.



*Figure 1: Map of Pitti. As shown in the map Pitti is in the middle between Edea and Douala, connected by the highway N3 (which is still being constructed).*

Around the main road there are a few houses: the “entrance of the village” which is blocked by a rope, a restaurant and a bar, a motor bike station, the school, a private house with the garden, a shop (*Figure 2*), and the house of the chief of the village (*Figure 4*). The rest of the village is at the other side of the electric transmission towers, so roughly 500 metres away from the main road. The village is composed of four areas. The houses are sparse, usually a few hundred metres separated one from the other, while in the middle there is forest and narrow paths that connect the houses. Sometimes there is an agglomerate of two or three houses, but normally the houses are distanced one from the other.

Many houses have a home garden where they cultivate the vegetables they need for their consumption and a “front yard”. *Figure 3* illustrates a typical house in Pitti. Some houses have a sort of a fence made from plants. Some houses are made from wood boards, some out of clay around a wood structure, some out of metal sheets and some out of bricks. Only a few houses have animals such as chickens and pigs, it seems that the majority of the

villagers do not have animals near the house. *Figure 2* illustrates a typical house in the village.



*Figure 2: Shop at the entrance of Pitti*



*Figure 3: Typical house in Pitti*



*Figure 4: House Chef du Village*



*Figure 5: Water well and school in the village*

In the village there are only two water wells, one near the school and the other one is situated at the other side of the electric transmission tower. Households

that are furthest away have pipes/water pipes to bring water from the borehole. Those two are not enough for the whole village and the water is contaminated and has never been tested. The water in the wells sits in the sun for days and is infected with amoebas and bacteria and many people get sick with it, especially children. As there is not enough water, sometimes they drink or use the water from the river which is polluted and sometimes not even used for the animals

Many women, mostly mothers, in the village raised concerns in the focus groups about how the infected water makes people sick and how hard it is to get medical attention. There is only a nurse that comes to the village sometimes and can help if the kids are sick but going to the hospital would be generally the best option. Medicines are very expensive as well and not always available. The closest medical facility is the hospital in Douala, but transportation is expensive and made complicated by the bad infrastructure.



Figure 6: Railroad Pitti

Despite having a railroad, the train system is unreliable and often the people from the village need to take bikes or taxi bikes to move to the other villages or cities. The train is expected to pass two or three times a week, but the majority of the people

report that it is never on time and that they often wait up to one day or one night before it passes. This is not only a huge lack of essential public transport but also represents a huge obstacle if people need to be treated or do business in Douala. For this reason, motorbikes are the most used means of transportation even though as the fuel price has risen it is a rather expensive one. Other than the price the road is unpaved therefore dusty and bumpy.

The lack of electricity is another issue faced by the village as it makes everyday activities more complicated and without electricity and internet connection the village seems to be more archaic and isolated than it could potentially be. The majority of the households do not have electricity. The villagers, indeed, use solar lamps that they recharge during the day, who can afford to have a generator, but it is rather rare. In the village there is only one school that is both a kindergarten and a primary school. Many parents complained about the education that their children receive in the village, but a distinction has to be made between kindergarten and primary school. For the first, there were no complaints as one of the main teachers (Marie-Rose) lives in the village and goes to the school 6 times a week to take care of the children that otherwise would have to stay alone at home as the parents have to go work, mostly in the fields that are few km away from the house. Marie-Rose is not hired nor paid by the government; it is the directrice of the school, who is hired from the government, that pays her for 3 days per week. Regarding the primary school there were many complaints about the teachers as they do not attend school regularly but just twice or three times per week as they live outside Pitti. On the contrary, according to many villagers for primary school the teachers sometimes do not come to school without saying it beforehand so the kids would either go home alone or just play outside. This is because the majority of the teachers live in the city and have other teaching jobs and it is inconvenient for them to go to the village. Sometimes, when they are supposed to come, they do not show up leaving the children alone and with a lack of good education, especially compared to their peers in Douala.

## Pitti's Economy

Throughout the two-week field research, we attempted to draw a (limited) sketch of Pitti's economy: Pitti's economy is based on the production of local agricultural products and on the other side on the selling and buying of products outside the village, mainly in Douala. Pitti is connected to Douala by road and train.

### *The goods produced in Pitti and the ones bought in Douala*

The following goods are produced in Pitti: vegetables, fruits, palm wine (Matango). Some of the latter locally made products are sold in Douala, including also wood and coal. Inhabitants of Pitti also buy products outside the village: the products which are not produced in Pitti - although they are available in local shops, are usually cheaper in Douala and thus often bought there. With the money earned at the market, two female interviewees reported buying rice, clothes and shoes for the children, pasta, peanuts, oil, flour, sugar, honey, fish, and things for the house.

### *'Transactions' within Pitti*

Within Pitti, some economic 'transactions' are done through a cash transaction, whereas others are 'for free' or through an exchange of services. Transactions with cash include those at the three small shops in Pitti - they sell bread, drinks such as bottled water, alcohol, Coca Cola, industrial juices, and other types of products which are not produced in Pitti, alongside some made in Pitti. We also had the chance to interview one of the 10 'sellers' of Pitti, a woman who buys products in Douala twice a week by motorbike and resells them in Pitti, including tomatoes, ginger, leek, smoked fish, peanuts, spices, and biscuits.

Some other transactions are done by cash, such as a woman who reported that she was paying youth to help her transport goods from Pitti to Douala's market. On the other hand, there are plenty of transactions which are set in exchange for a service, people are given "something to eat and drink", as was the case for an old woman who received help from others because health problems impeded her ability to work. Or another woman who requested help from relatives to cut the fruits and prepare it for transportation in exchange for "something to eat and drink". Although Pitti has the advantage of producing all kinds of products of first necessity,

thereby guaranteeing a certain level of autonomy, there is still a need for cash: for paying school and education, health services, fuel and transportation modes, and to buy products in Douala which are not produced in Pitti. The main inflows of cash in the village are originated through the selling of products in Douala, but also by working in Douala, selling land, or by remittances. Out of the 52 people who answered our questionnaire, 65% (34 people) said to have another source of revenue besides agriculture. Out of these 65%, 26% of the people are being sent money by people outside the village, 56% said to run a small 'shop', and 32% said to have a 'salary'. In Pitti, there are four collective saving assemblies, which enable inhabitants to put money aside and 'withdraw' cash when needed. The system is institutionalized and legalized. Concerning adherence, it seems that anyone has the right to join a collective (there is no criteria) as long as one is able to pay back, although usually people join a collective with relatives they trust. Pitti also has a saving bank for emergencies, such as when a family member passes away.

### *Going to the market' and barriers to selling products in Douala*

Depending on the 'category' of locals, the way the products are transported to Douala is organized differently. Male youth seems to organize itself by giving all the goods to be sold to one of them, who is then in charge of going to Douala and bringing back the cash. On the contrary, it seems that women are managing this exercise alone (there is a link to the difficulties of trust, see section 'lack of solidarity among women').

There are multiple barriers to selling products in Douala. Firstly, transport is in general expensive. One way to access the market is through the road, which is usually taken by motorbike, but it seems rather inaccessible for most sellers (at least, it is not a 'common' transportation mode). As said before another mean of transportation is the train which appears to be very expensive as the price for the transportation changes according to the weight of the products. Facing these high costs, villagers usually only go when they have a lot to sell, on average three times a month. Furthermore, the train's irregular schedules put at risk the quality of the products that are to be sold as they risk rotting in the sun. Some women have said that they have waited the whole night for the train to pass. The 'going to the market' happens as such: one usually travels at night to arrive in the early morning at the market. One puts a number on one's products and pays someone to charge it on the train, then one travels by motorbike to go to Douala to pick up the products. At the market, there

is a buyer (usually a saleswoman) waiting to buy all the products to, in turn, resell those to customers. People usually have an usual 'buyer' which they call when they arrive in Douala. The price is not fixed as every day the price changes depending on offer and demand.

Addressing the barriers to selling products in Douala must be a major objective of a future FFS in Pitti. Especially, if other types of production (agroecological practices) are encouraged, the output of these products must be thought through: *are there going to be consumers interested in these products?* , and *how to marketize and commercialize the products?* The latter was also advised by the president of the development

*“Pitti has great potential. Whatever it would produce. We're on the doorstep of Douala, on the way out of Pitti we've got a big city, I think one of the biggest in Central Africa. You can produce and sell everything you've produced, but you have to do it well. We need to target what we're going to produce. What are the needs of the people in the city? We define them. What can we produce? We've got lots of shops in the city, so we get together and produce them”*



# Stakeholder map

In the following map are outlined the main stakeholders in Pitti, which can also be potential partners for the FFS in financial and educational terms.



Figure 7: Stakeholder map



In this section, we will present and problematize the findings from our field research, highlighting how these insights pose challenges to establishing the Farmer Field School (FFS). While the previous section utilized our findings to paint a contextual picture of the village, this part will emphasize the findings crucial to the creation of the FFS. We will explore agricultural practices in Pitti, access to land, social dynamics within the village, and the unique situations of women and youth. Additionally, we will identify specific barriers to development and propose some suggestions for the FFS project in Pitti.

## Agriculture in Pitti

Agriculture is the main activity for the majority of Pitti's population. This result was already indicated in a report made by the Major of Dibamba and Pitti, Mr. Alain Bata (2023), and confirmed again in our field research through interviews and an informal assessment. Alongside Pitti's inhabitants, external actors - mostly investors from Douala or other Cameroonian cities, have set up larger-scale agricultural projects, as will be discussed below. Locals mostly practice small-scale slash-and-burn agriculture and animal husbandry, for which a varying proportion of the production serves for auto-consumption or for being sold in Douala's markets. External actors mostly practice a more intensive larger-scale monoculture or animal husbandry, for which the production is sold in Douala's supermarkets or is exported. First, cases of the different types of farms in Pitti will be outlined, followed by a discussion on how agriculture is organized in Pitti. Thereafter, an analysis of the different visions of agricultural models and of the future of agriculture in Pitti will be presented. Finally, results will be presented on the pressures faced by Pitti's agriculture and ecosystems, and the lack of means that farmers are facing.

### *Examples of farms case example*

We had the chance to visit various farms managed by locals, two agriculture cases and 4 animal husbandry cases will be presented here. Mama Antoinette runs a three hectares farm in organic agroforestry: she combines the culture of curcuma with various fruit trees. She had a project to bring together Pitti's women in a cooperative growing curcuma, which could then be exported – for the moment, the project is put on pause. More representative of most inhabitants' farming method, Marie Rose practices slash-and-burn agriculture: with some help, she cut trees, assembled the trunks, and burned it “to free the field”, she also left some trunks for it to “rot on the ground, as when it stays it enables to give more food



*Figure 7: Pig farm number 1 which breeds 10 pigs.*

for the plants”. She is planting pistachio, corn, plantain, macabo, manioc, ignam, taro and more. We also visited three small-scale pig farms. The first one was the largest and most professional: the farm is located in the forest and breeds around ten pigs. When they are 18 months old, he sells them in Douala's markets. He feeds them with a mix of soy and corn bought in Douala, although he manifests a desire to produce livestock's food locally. He is not part of a GIC {cooperative} in Pitti because there are not enough pig breeders in Pitti. The latter is in part explained because of the high risks of animal husbandry including diseases: in the past he lost 80 pigs due to an epidemic and had to start all over again. He sees that there is more potential in Pitti for animal husbandry, but states that there is a general lack of financial means and knowledge.



*Figure 8: Pig farm number 1 which breeds 10 pigs*

The second pig breeder we visited just started his activity a year ago after a friend taught him some techniques. He started with 1 pig, and increased to 5



pigs through breeding, and wants to do more and bigger, but highlights the lack of means in terms of knowledge and funds – he is therefore very invested in an FFS. The third farm included 2 pigs, managed by a young man who also started a year ago. Lastly, there is also a case of a larger-scale farm owned by the President of the Development Committee, where he grows mainly oil palm. Whilst he is not originally from Pitti, he has been living there for around 20 years.

Next to farms owned by local inhabitants, we also visited larger-scale farms managed by external investors. The first one is a larger-scale farm producing bell pepper (hereafter referred to as bell-pepper-farm) through conventional methods and poultry more intensively. The bell peppers are grown in greenhouses in ‘above-ground’ pots, with various fertilizers and pesticides sprayed at the various steps of growth. It is owned by an investor from Douala, who has a team of permanent workers on the farm. The farm is energetically independent thanks to solar panels and has various machines including one to transform corn to feed the poultry.

## How agriculture is organized

In Pitti, in general, there are four ways through which agriculture is planned and organized, each corresponding to one ‘type’ of actor: external investors, locals, locals with an alternative model, and locals assembled in a ‘GIC’ (farmer’s cooperatives).

External investors usually have rigorous planning of their project, for each step of the project and for each decision they weigh the costs and benefits: they invest in a parcel of land, plan the planting of a certain crop, calculate the inputs needed, and then sell the yields in Douala or for export. Examples mentioned above in the section on farm cases are the bell pepper farm, and the circular pisciculture-and-pineapple farm. On the contrary, it seems that local farmers tend to have less planning involved, but rather base more decisions on ‘habits’ or ‘available ‘resources’.



Figure 9: The intensive bell-pepper-farm

The second large-scale farm is an intensive poultry project, which is said to be the largest investment of poultry farms in central Africa. The third farm is one managed by a group of investors from Douala, which although coming from an urban background have just bought land and plan to grow manioc on it. A fourth large-scale farm differs from the conventional ones as it practises circular agriculture: mainly pisciculture and pineapple, also produces, poultry, cattle, honey and tea with citronella. Circularity is implemented as the residue of pineapple transformation are mixed with grasses grown around the lakes to feed the cattle. Some of the products grown in the farm are served in the restaurant on the farm, some in Duala, whilst pineapple juice is also exported.

Indeed, one female farmer answering to the question “*how do you decide what to plant?*” first seemed to not understand the question and then answered, “now it’s for the manioc”, thus it seems she decides what to plant according to the season and habits repeated each year. Another example is that some farmers answered the question with: “*we plant everything*” or saying that it was based on the ‘availability’ of the seeds. Next to ‘habits’, it seems that agricultural planning is based on ‘availability’ - they plant what they have, thus they plant ‘everything’. A third type of planning is associated to locals which have an alternative agricultural project. There were very few of such

locals, one of them is the agroforestry curcuma farm. The latter farming model is thought through and planned: she chose agroforestry for the ecological and social benefits, plants trees because they yield fruits which can be eaten and plants curcuma because when dried it is worth a lot of money when exported. The fourth type, local farmers assembled in a GIC (Groupements d'Initiatives Communes) - a form of farmer cooperative, tend to plan the season similar to the dynamic discussed in 'type 2', but with the specificity that the farmers are organized in a group, hence there is more planning than in 'type 2'. The GIC in Pitti is rather small, with around 8 members: they prefer to have less members and be with only motivated and team-oriented people, rather than with many people and with friction. They share knowledge, and sometimes produce the same crops and sell them together.



Figure 10: Feed bag for pigs and the receipt, bought in Douala and composed of a mixture of soy and corn (Pig farm 1)



Figure 11: The agroforestry farm which cultivates fruits and curcuma



Figure 12: Poultry farming in a large warehouse (the picture only depicts a small part of it) at the bell-pepper-farm.



Figure 13: pineapple field in the circular farm

## *Suggestion for the FFS related to Pitti's agricultural organization*

- ▶ The aforementioned 4 types of agricultural planning have certain implications for the FFS project in Pitti. For the first type 'external investors with a rigorously planned project', there seems to be some space and leverage for the FFS to influence some of these projects to include sustainable farming practices in their 'planning'. The bell-pepper-farm, for example, the farm investor said they use pesticides and GMO seeds because "*our technician {farm worker} learned this during training courses. The trainer recommended these seeds, they {the farm workers} were trained for them*". And when asked if pesticides were not dangerous for the health of the consumers, he answered: "*No, it's advised by the person who sells us the seeds. We have an engineer who comes on site. We supply high quality chicken and peppers for a more upmarket audience*" (CFA 2'300 for one chicken). Our interpretation is that the reason why they use a lot of pesticides and GMO seeds comes from the way the employees have been trained. Hence, there is a leverage point in having a training center teaching sustainable practices, as the manager could have his employees be trained for sustainable practices and transit to agroecology. A second leverage point is that his production techniques are in part planned like this to satisfy an "upmarket audience" with quality, thus the manager could be interested in transitioning to organic production to supply an upmarket audience with 'high quality organic products'. The latter points need to be treated cautiously though, as perhaps the farm manager is convinced by conventional methods on a more 'ideological level', and thus might not be so open for change towards agroecology. For the second type of agricultural planning by 'locals', the FFS can have a leverage by helping the locals to transit to an agricultural planning which is more efficient for them, which reduces high external costs, identifies potential benefits, and eventually increases productivity through sustainable practices. CAPAM, for example, offers accounting courses to farmers to calculate the costs and benefits, thus giving them tools to plan their planting season. Importantly, this transition to better planning must happen without losing 'local knowledge' {see section below on 'Value Local Knowledge'} and without adding too much 'planning' or 'administrative' weight and time, as most locals already have a high workload. For the third type, 'locals with an alternative model', the FFS can give visibility to their sustainable practices, and present their farm as an 'example farm'.
- ▶ Related to the fourth type -the farmer GIC, an FFS in Pitti could aim to increase solidarity and teamwork among the farmers. It could support the existing GIC with material and by co-creating knowledge {see section *Designing FFS*}. Importantly, the FFS should support the creation of a GIC of female farmers, which will be hard to do because of the lack of solidarity among women in Pitti {see section *Social Dynamics in Pitti*}. In Mbalmayo, ADD supports various GIC and farmer cooperatives around the town by going to their villages and giving them several workshops over time, whilst sometimes giving some GIC members classes in their headquarters. We visited one GIC of 8 members (including two women), of which the experience is interesting to share for the FFS in Pitti. The GIC members reported the following advantages of being in a GIC: (1) together they work faster, (2) they can share knowledge among them: "we're all called upon to do research, and that's the strength of the group. He brings his hand to the challenge, everyone searches, and one finds and shares". The third (3) advantage is that together they can buy material such as a 'sprayer' which alone they could not afford to buy. Fourthly (4), being organised in a GIC is a prerequisite for receiving subvention by the state and facilitates being supported by organisations like ADD. They also shared with us some negative points of a GIC, among one is the difficulty to work together. The latter difficulty will be a main obstacle to be overcome by the FFS in Pitti to foster the working together of local farmers.

## Different visions of agriculture

Throughout the various interviews, results show two different kinds of agricultural practices which each inform on a particular vision of agriculture in Pitti: one of agroecology and a conventional one. Importantly, the latter two concepts were not systematically the one referred to by locals, but they were coined by the researchers through an analysis which brings together the different interviews and field research observations. These two visions will be discussed here.

The first vision is one which sees agroecology as the multi-level solution: this vision sums up the practices and opinions which favour sustainable, organic, and smaller-scale agriculture. Various inhabitants utilise agroecological practices, such as the farm case which implements circularity in agri-systems, or the one practising agroforestry, highlighting the power of “plants associated with one another can sometimes provide protection”. Practising organic agriculture was put forward by many respondents and so for different reasons: the son of the chief of the village states:

*“We traditionally, it's organic. Fertilisers are expensive. You have to look at what you're investing in, what you're earning. On a small plot it's not interesting”. “We want to preserve bioproduction. No pesticides, {because} it's uncontrollable”.*

Furthermore, during the interviews five respondents claimed, ‘using organic because chemical inputs are seen as unhealthy’: a female farmer said that “she wants to know what she eats”, whilst pesticides were deemed multiple times as “not healthy”. This position was also defended by the municipality major: “when we eat organic food, we stay healthy, we last longer perhaps, we don't have too many problems. {With} agribusiness, there are risks in consumption {...} and that leads to certain illnesses” - although he also argues for the need of industrial agriculture alongside an organic one. Another respondent - a female agroforestry farmer, was actively critical over intensive monoculture, as it impedes practising ancestral agriculture:

*“They grow palm oil trees because they've been told they'll be easy to sell and to lift themselves out of poverty. But {...} palm oil does a lot of damage to the subsoil, it dries out the soil {...} so you don't have to grow anything else where there's a palm. As a result, Africans have less and less space in which to carry out their ancestral agriculture, which made and ate food {and} certain products are in short supply ».*

The same respondent argues that:

*“The solution for Africans is to turn their backs on intensive farming, no more cocoa, cocoa benefits billionaires”. “We need to go back to family farming, of one or two hectares. And we need agroforestry {...}. With agroforestry, you can eat cassava, you can process fruit trees”. “Agroforestry is the future of Africa, we mustn't take the model we're being sold. Here we were doing agroforestry before the concept was coined”.*

The president of the development committee has also praised agroforestry: “in agroforestry, there is a quality of tree that can be planted”, for a type of “farming that allows you to make money, long-term farming. It produces much sought-after wood that can last 200 years”. Another argument which fits the agroecology vision is that a pig breeder shared his desire for producing livestock's food locally to cut on production costs. Furthermore, the son of the chief of the village shared the desire to produce quality food, to “export what is certified and not what is waste, in the same way that we defend ourselves against importing waste”.

A second vision and set of practices on agriculture in Pitti that appeared throughout the research is a position positive over ‘modernising’ agriculture in a conventional way. This vision takes shape through some farms in Pitti using pesticides; traditional farming seen as archaic and an obstacle to development; and pesticides/GMOs being positively viewed by some interviewees. A few larger-scale farms use pesticides and practise intensive farming and animal husbandry, exemplified by the bell-pepper-farm which uses GMO seeds and synthesised inputs to boost flowering, transform flower into fruits, increasing size of fruits, maintain the green colour, and an insecticide (one of the products identified was Codafol). The manager of the latter farm guarantees the healthiness and quality of his conventional products. The municipality major also expressed positive views on conventional farming:

*“In order to move forward, we are also waiting for new technologies of animal breeding. This means that here, we may not have the expertise. So, that's why, with partners like you, we're going to work together to reach the standard, the international standard”.*

The latter quote highlights that there might be different expectations for the FFS between the part of Pitti's inhabitants which share the ‘modern-conventional’ vision of agriculture, and the FFS

which will propose an ‘agroecological’ model. Indeed, if the “*international standards*” which will be brought “*with partners like you*” refer to industrial or intensive practices, it is a different model relative to the one that the FFS will propose. In addition, in the latter quote, we can detect the idea of “moving forward” from current knowledge (that is maybe seen as ‘past’ and ‘bad’) to something said to be ‘modern’ and thus ‘better’. Whilst the call for more knowledge is not negative in itself, there seems to be a negative view on the current state of knowledge. This idea of seeing ‘traditional farming as archaic’ was mentioned by seven respondents. This dynamic will be discussed in the next box on ‘value ancestral knowledge’



## ***Suggestion for FFS: value ‘ancestral knowledge’:***

- ▶ During the interviews, local knowledge and practises (which we call ‘traditional’ farming) were often seen and referred to as ‘archaic’, and which was then put in opposition to ‘modern’ agriculture. In this opposition, ‘traditional’ knowledge is seen with less value compared to ‘modern’ knowledge, and there is an explicit call to get rid of the former in order to ‘develop’ and ‘modernise’. This idea can be detected in the following quotes. In identifying obstacles to development, the SG of the development committee states that “*we have inherited bad practices from our grandparents. The wheel, the axe, it's archaic. This peasant can't develop because there's no training*”. Similarly, the son of the chief said that:

***“young people tend to imitate the old, i.e. the traditional. Now we have to modernise, we have to change, {...} we need another approach in the sense of development, i.e. cultivate to live better while conserving nature”.***

Another interviewee stated that to increase youth’s interest into agriculture, there is a need for changing the techniques:

***“farming is still done in a very archaic way. It's as if we were back in the 1960s. There's a real lack of tools, people don't know what to grow, {...} it's all done by hand. People don't know the agricultural techniques”.***

- ▶ The interviewee argues that this “*ancestral methods*” “*discourages the youth, there is no future*”. The head of the primary school also pointed at these “*archaic methods*” and praised the potential of change coming, as “*with your development project, well, things can take off*”. From all these quotes, it seems that either there is no existing knowledge (which is not the case, as locals do farm with certain practices and techniques), or that this existing knowledge is seen negatively and potentially undervalued. Therefore, if new knowledge would be shared with Pitti’s farmers through an FFS, there is a need to also actively value local knowledge, “*ancestral methods*” and these ‘traditional’ practices. In fact, valuing local knowledge is a central component of Gliessman’s (2010) understanding of agroecology as a transition process which redesigns agroecosystem to include ecological processes and local knowledge. Valuing local knowledge stands also in the main objectives an FFS should have according to the FAO (2016): the objectives of an FFS include among others the improving and adaptation of technologies based on local *and* scientific knowledge, and the co-generation of knowledge. The future FFS in Pitti will thus have to value local knowledge whilst bringing new knowledge, and also fostering the co-creation of knowledge.

## ***External pressures on Pitti's ecosystems and agriculture***

There are complex interlinkages between agriculture and the environment as agriculture inherently relies on its surrounding ecosystems, but it also exercises a pressure on them. Some interviewees showed interest in protecting ecosystems, whilst others had opinions or practices which threaten them. In addition, Pitti's agriculture and ecosystems both face pressure from climate change and industrial projects.

Some inhabitants show great importance in preserving ecosystems. This ecological awareness can be seen in the following quotes. The son of the chief said that: *"we don't sell wetlands, because they're natural and need to be preserved. Biodiversity must be preserved"* and *"there are species that need to be preserved, the trees have medicinal properties"*. In the same light, mama Antoinette advocates for the following: *"one must leave 50m of forest next to the rivers"* to protect ecosystems and conserve water. Similarly, the major says that *"farming also has an environmental impact that has to be taken into account"*. The son of the chief argues that Pitti's inhabitants are sensitive to the need for preserving the environment: *"people in the village are aware of the problem, they raise awareness among foreigners and industrials"*. This awareness is a great element for the FFS project, as the FFS can build on it to foster agroecological practices which benefit the farmers and the ecosystem. At the same time, however, some interviewees have shown opinions which could lead to pressuring the environment: indeed, some wild animals are seen as "pests" and are hunted such as hedgehogs, crocodiles, wild boars, and especially snakes. Also, a view was expressed that development will necessarily destroy wild forest, whilst someone has shared the fear that forests are seen as an infinite resource by the inhabitants.

Moreover, the Cameroonian law seem to encourage deforestation, as some interviewees shared there is a necessity to "value" (cut) the Forests to protect your ownership from the state: *"it needs to be developed. A virgin forest belongs to the State. So, the land starts to belong to you when you develop the forest"*. Agriculture also faces pressure, as interviewees reported a decrease in soil quality. In addition, climate change causes among others the rarefaction and deregulation of rain falls, whilst the rainy season has been reported to come along later than usual. On top of this, the increasing number of industrial projects in Pitti could threaten ecosystems and agricultural land:

*"We put industry, we put it all there. Chemical plants next to a pineapple stand are no good. {...} we bathe in this water. But you can't bathe in water that's contaminated with oil, contaminated with environmental waste. It's the same water we give to animals, it's the same water we drink"*.

## **Suggestions for the FFS to preserve Pitti's ecosystems**

During our field research we witnessed the dynamic interactions between agriculture, ecosystems, and development. Whilst industrial development projects put pressure on both agriculture and ecosystems, agricultural expansion also pressures Pitti's forests: local farmers practising slash-and-burn (in aggregation) and larger-scale intensive farms both impact ecosystems in their own ways through land-system change, soil defertilization, water usage, or risks of pollution (example: spillings). Accordingly, there is a risk that establishing an FFS in Pitti which scales-up agriculture can add pressure on Pitti's ecosystems and accelerate deforestation. On the other hand, an FFS in Pitti can also alleviate and deviate this (unstoppable?) force of development towards a more 'sustainable' development by orienting the scaling-up of agriculture towards an agroecology model rather than a conventional one. An example is that there seems to be a wave of Douala investors starting agricultural projects around Pitti with most often conventional intensive models. By reinforcing the expertise in agroecology of the local population, an FFS could redirect this finance towards sustainable agriculture as it will have increased sensibilization of investors, expertise of locals, whilst also empowering the local population in protecting their environment. Nonetheless, to take the latter dynamic into account, we advise the future FFS to adopt a "forests/biodiversity conservation lens" to ensure improved farmers' livelihoods, sustainable farming techniques, and conservation of (existing) ecosystems. Next to the conservation lens, the FFS should sensibilize the local population ecosystem conservation, as was also suggested by the son of the village chief: *"we need to equip young people with the knowledge they need to manage their environment. They need it, it's their strength, it's their heritage"*. In addition, we suggest that there needs to be rigorous planning with the different actors of what 'sustainable' will mean beyond the buzzword, and a careful analysis of which forests and other ecosystems (such as wetlands) are to be preserved

and how to do so. Importantly, the local population (including women and youth) is a key actor and should be in the driving seat of what is considered sustainable and how to achieve sustainability.

### *Lack of means for farmers*

Pitti's farmers reported a general lack of means for scaling-up agriculture, including lack of finances, lack of knowledge, and a lack of water, whilst some factors are said to render agriculture unappealing. Especially in animal husbandry, breeders were mentioning the lack of financial means and lack of knowledge as enormous barriers to either scale-up or to even just start an animal farm. Animal husbandry bears a high initial investment and requires in-depth knowledge. It also faces many risks of diseases which can decimate an entire farm. In addition, three interviewees reported a lack of water for animal husbandry, as there needs to be a constantly functioning water system to have animals. The lack of agricultural material has been said to discourage youth: "as there are no machines, everything is done by hand. It's getting tiresome and they think it's better to leave and go into town». Youth males have also mentioned the difficulty that the distances to fields can be very long, up to one or two hours of walking. Several of these 'lacks' are strong justifications for the need of an FFS in Pitti: firstly, and obviously, the lack of knowledge reported throughout multiple interviews justifies the need for an FFS which could bring in external knowledge, value local knowledge, and foster the co-creation of new knowledge. Besides, the FFS should also play a positive role in alleviating the lack of water and lack of material, which next to knowledge are essential for scaling-up agroecology in Pitti. In addition, the FFS project should think through the lack of finance, and if possible, provide solutions, as a person who graduates from an FFS with knowledge but without material or finance will probably not be able to start an agroecological project. Some of these lacks, however, also show potential difficulties for an agroecology FFS: the fact that youth is discouraged by an agricultural model "with no machines {with} everything done by hand" perhaps also highlights that not every local will be enthusiastic about agroecology. Nevertheless, it seems that an FFS can have a game changing impact to alleviate all the above-mentioned 'lacks' in the section we will deep dive in these suggestions



## Access to land

This chapter examines land ownership and land access in Pitti. Traditional practices seem to provide access to land to all villagers in need, with the village chief and elderlies playing a key role. However, the dysfunctional legal framework on land might potentially threaten the long-term stability of Pitti's agriculture and the success of the FFS.

In Pitti, the vast majority of the people live at a subsistence level and agriculture is the basis to their livelihood. Many authors highlight the importance of having formal land ownership in order to increase agricultural productivity and exit poverty (Fonjong et al., 2013; Joel & Bergaly, 2020; Kenfack Essougong & Teguaia, 2019). Nevertheless, only 2% of the land in Cameroon is titled. Authors argue that this is the result of a complicated, costly, and dysfunctional titling process and to the presence of functional parallel traditional practices that allows Cameroonians to acquire land through customary practices (African Development Bank, 2009) (Njoh, 2013) (Kenfack Essougong & Teguaia, 2019) (Fonjong et al., 2013). In fact, it seems that in the village the majority of the people have access to land, although it was never clear if this means that the villagers have formal right to inherit land or even if they have legal ownership over it; nevertheless, the villagers, regardless of their status, seem willing to provide land to those in need.

In Pitti it seems that the Chief of the Village has the control of a vast territory in the area, although it is not clear if this ownership over the land stems from customary practices or formal land property. The latter were created in 1974 and make the State as the owner of all the lands of the country (Kenfack Essougong & Teguaia, 2019). The territories without titles which are occupied or used under customary practice are considered "national domain". According to article 16 of Ordonnance n° 74-1 of 6 July 1974 fixing the property regime "The national domain is administered by the State with a view to ensuring its rational use and development". One of the sons of the village's chief, Gilbert, is tasked to administer these lands as well as seek for possible buyers and renters in Douala and elsewhere. According to him, the Chief of the Village makes sure that everyone has a plot of land to cultivate as the village disposes of a sort of "fund of lands" which is reserved for the population of Pitti. Every child and woman in the village has the right of a piece of land for free. Gilbert and the rest of the family of the chief of the village ensures not to sell or rent out too much of the land to "foreigners" (people coming from outside the village). One of the major shortcomings of the legal framework regulating land rights is that it

does not acknowledge nor address the presence and influence of parallel customary practices, which are still today widely used to regulate land issues (African Development Bank, 2009). This can be problematic for the project for multiple reasons. First, it is not clear if the plot destined to the FFS, which belongs to the Chief of the Village, is formally titled, and if such title will be passed or sold to AS2D. Furthermore, since 1989 it is not possible to use customary claims over land to formalise the ownership and title the land (Njoh, 2013). This means that in case the land is not titled, customary claims can do little to protect the user of the plot, as the law allows third parties (such as private companies) to acquire ownership of the land although the territory is used under customary practice (Kenfack Essougong & Teguaia, 2019). This can be especially a risk in a context of fast-paced and uncontrolled urban expansion as it is happening in Douala, situated only about 20 km away from Pitti.

Furthermore, this problem applies to the rest of the villagers as well. Secure access to land is essential for their survival and key to address food security. Apparently, it is not only the traditional authority that provides the land. In fact, multiple sources confirmed that the elderly of Pitti, such as uncles, aunts, grandparents, neighbours or simply acquaintances often support the youth or young couples by ensuring them access to land. The "papa" or the "mama" gives a plot of land for the youth to cultivate, apparently often for free. The President of the Development Committee also shared this view

*"Every family has a bit of land. Those who don't have any ask their neighbours, their brothers, and they give it to them".  
"The "papa" doesn't go to the plots far away anymore, and they tell those who are close that they can use them... There's always an agreement".*

According to youth, also foreign landowners give or lend a plot of their land to whoever needs it. In short, multiple people confirmed that everyone has in one way or another access to a plot of land, which can be for their exclusive use or shared with other members of the family. Sometimes it is because it belongs to the family, or because it is gifted or rented. The data we collected from the questionnaire seems to further confirm this practice.



<b>Land ownership</b>	<b>n</b>
Tot of women answering the questionnaire	19
Tot of men answering the questionnaire	33
Tot answers of the questionnaire	<b>52</b>
<hr/>	
<b>Possess land</b>	<b>29</b>
Women	11
Men	18
<hr/>	
<b>Does not possess land</b>	<b>17</b>
Women	7
Men	10
<hr/>	
n/a	<b>6</b>
Women	1
Men	5

Table 1: Land ownership

The table and the following chart are based on the answers we collected from the questionnaire for the question « *Possédez-vous des terres à Pitti?* » (In english: do you possess land in Pitti?). 56% of the people indicated that they possess land, of which 21% are women while 35% are men. Among those possessing land, 61% of the people are renting to others or lending for free to others a plot of land.

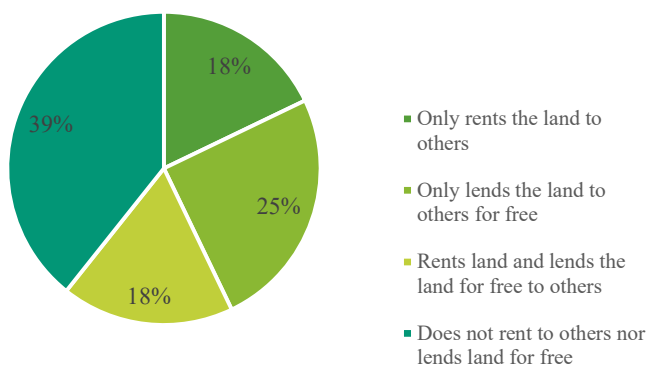


Figure 14: Behavior of people possessing. Land or lending the land for free

Although the confirmation that the land is provided in the majority of cases, it is not clear to what extent the villagers have formal ownership of the land or if their access to land stems from customary law. In the interview with the Chief of the Village, one interviewee explains the process of gaining access to land, suggesting that people favour guaranteeing informal and flexible access to land over the formalisation of land rights. He explains that the village chiefs play a pivotal role in this process, being the guarantors land under the law. They can facilitate meetings between landowners and young people, where arrangements can be made for land to be lent for a specified number of years. This allows young individuals to save money to eventually purchase the

land. Sometimes, landowners even lend land for free. The public authority, particularly the mayor, also has a significant role in ensuring access to land. The mayor can engage with landowners and form partnerships with the municipality to lend land to young people who lack access post-training. A municipal councillor, who often owns considerable land, can act as a guarantor, and donate land without needing to go through formal procedures. This lending is in the general interest, provided there is a legal structure, the project is proposed to the commune, and there is proper follow-up.

This process can be problematic because as mentioned above the law does not recognize the traditional authority as an entity regulating matters on land, although from the data collected in the field, the chief of the village is indeed a pivotal figure in securing access to land. In fact, according to the law, the traditional authority plays a role only as part of the Land Consultation Board, which has to approve the preliminary land concession in accordance with other civil administrators (Fonjong et al., 2013). Furthermore, our discussions with the mayor and the village chief confirmed the literature that formal legal procedures are not enforced by public authorities (Kenfack Essougong & Tegua, 2019). Additionally, it is noteworthy that some women reported being able to inherit land, despite literature indicating that women generally face numerous barriers and practices that impede formal land ownership and inheritance, making them particularly insecure in terms of land tenure (Fonjong et al., 2013; Linonge-Fontebo, 2018; Njoh et al., 2017; Raoul, 2017). However, Linonge-Fontebo (2018) notices that in some communities in Cameroon, women are able to inherit land as long as they are single, therefore Pitti might follow a similar practice. From our findings it seems that most of the people in Pitti have access to land, and no one mentioned that obtaining access to land is a challenge. Therefore, it is not clear if people have access to land based on customary practice or they have formal ownership over the land. This could undermine their long-term capacity to scale up agriculture. In general, the dysfunctional legal framework on land ownership might present several challenges to the success of the project. This is because, regardless of the official status of the land, the State, the Traditional Authority, and other stakeholders (such as agribusinesses) wield considerable power, and it seems that there are no legal instruments defining a clear governance. Therefore, the land destined for the FFS and the assets of the inhabitants seems to be at the mercy of the country's internal political climate without any formal instruments that can guarantee a long-term stability



## Social Dynamics Pitti

In this chapter the social dynamics of the village will be presented in the following way: we will highlight the presence of a general shared sense of solidarity and mutual support in the village, which clashes with a lack of mutual support and trust specifically among the women. Furthermore, we will uncover the gender roles in agriculture and the role of women as caregivers to show the gender imbalance that women face in the village.

### Social Cohesion and Collective Support in Pitti

During our research we focused on understanding the social dynamics and the sense of solidarity in the village as the collective dimension is a key driver to allow a long-lasting transition to sustainable agricultural practices. Mier et al. (2018) highlight the importance of rural social movements and collective engagement in effectively driving the agroecological transition. According to our findings, there is a sense of community and mutual assistance, with people helping those in need regardless of age or gender. Nevertheless, despite this communal spirit, our conversation with the women revealed a lack of solidarity among the women in the village.

In the village there is a general sense of solidarity and help towards the people in need regardless of their age and sex. Young couples are provided with land to cultivate, while elderly widows can count on their kin to help in their parcel or provide directly for their needs. An elderly lady said, *“I never had children and my husband died, so all the village is my family”*. Often, they receive support by their family, although we noticed that the kinship ties are sometimes blurred

and go beyond simple blood ties. While they often use the terms “mama”, “papa”, “tantine” or “frère”, it is important to notice that it refers to an enlarged idea of family. Furthermore, it seems that there is always a sort of compensation for the service provided. A plot is cleared in exchange for a warm meal, or a good is brought safely to the market in exchange for a drink. This sense of community and shared support seems to translate also in how people are cultivating the land. Many sources confirmed that often the elderly or the “papa” or “mama” provide a plot of land to those in need. Even if the plot belongs to another person, sometimes farmers still plant fruit trees although there is the possibility that another person will collect the fruits. A young farmer said, *“I can't use the tree for myself, but it will benefit ‘papa’, it's a way of giving back”*.

### *Lack of solidarity among women*

The findings on a positive and shared sense of community do not translate in a sense of togetherness among the women of the village. During the interviews and focus groups women never expressed any indications of solidarity regarding their shared challenges. On the contrary, when prompted, the interviewees explained that they do not trust other women in the village, because of jealousy and gossip, which can lead to unwanted conflicts. According to them, one can trust only their family members or some members of the same church. Because of this shared mistrust, for the women it is also difficult to establish friendships as adults. The majority of women cannot rely on childhood friends anymore because they have to leave their village of origin after marrying. In other cases, even if they still have ties with childhood friends, they do not trust the women who live in their same village enough to support each other on the field. One woman we interviewed is

renting a part of her land to a childhood friend (the woman is separated from her husband, thus returned to Pitti), but even if they are both in a similar difficult situation in need of help to clear their land, they do not join forces and prefer to work independently. This mistrust is also reflected in how the women go independently at the market. Many of them regularly go to the market to sell their goods, but as they fear losing money if they entrust their merchandise to a third person (even if it is a known woman from Pitti), they prefer to go independently. *“You would not trust anyone with your money, would you?”* was the explanation a woman gave us, while another said *“The life in this village is not so social”* lamenting the fact that she cannot ask for help from the people of the village.

Given the conflicting perspectives on solidarity and community, it appears that a strong sense of trust may only exist among individuals who share close familial ties. This suggests that the community cohesion is not determined by proximity in age, gender, or occupation. While access to land appears to be universally granted to villagers in some form, mutual support does not extend to other services such as agricultural work, marketing goods, or addressing common challenges for all villagers solely based on their identity as residents of Pitti, or as women, mothers, or farmers. Consequently, although there is a sense of community among certain groups, particularly regarding land access as highlighted in the previous section, it may not be sufficient to foster a lasting sense of unity across the community. Therefore, the collective mobilisation needed for the agroecology transition, might prove to be challenging.

Interestingly, while women seem to be reluctant to share resources and difficulties with other women in the village, the women interviewed during the focus group mentioned that if they had the knowledge (gained from the FFS), they would be ready to share it with the rest of the village. In the same line, also in informal conversations with male farmers, they confirmed that the knowledge on farming practices is often shared and copied among villagers. These affirmations offer interesting venues for scaling up agroecological practices in a horizontal manner. However, it is crucial not to overlook the complex and selective social fabric of the village. There is the risk that the horizontal knowledge sharing among villagers might exacerbate social inequalities, as they might preferentially share their knowledge within their existing social circles while inadvertently excluding others, thereby creating new divisions among the farmers.

#### Suggestion:

- In this context, the Farmer Field Schools should aim to cultivate a collective movement and foster a strong sense of purpose and unity among the farmers, enabling a sustainable transition to agroecology. However, despite many villagers expressing a sense of community and cohesion, the experiences of women revealed a more nuanced and granular social fabric within the village, which might lead to conflicts and hostility among residents. It is crucial that the establishment of the FFS does not worsen these tensions; rather, it should promote equal access to the training and actively work towards nurturing a genuine collective effort and solidarity among all members of the community to achieve long lasting sustainable change.

Mama Antoinette tried to create a Woman Association in Pitti 3 years ago. The women in the focus groups told us that there were conflicts, jealousies and accusations, so they renounced and prefer to work alone. Mama Antoinette gave us a more nuanced explanation stating that the major worry for a woman is to provide for the immediate needs of her family first. *“{...} she gets up in the morning, she has to eat, she has to take care of herself, her child goes to school, she doesn't have the money, so you can't come and tell her*

*“We have a project that will last two years, three years, we'll be rich”, she's not interested because it's not immediate”.* Gilbert gave us a similar explanation. *“Women have very short-term needs: food, rent, school fees, etc...If the field lasts 1 month, it means 1 month without income [...] Some people can't afford to wait, they've got the expenses right now, so a 6-month project isn't possible. 6 months contains a lot of risk, if it fails it's over, you need something that pays off in the short term too”.*

Fulfilling short term needs is a major concern for women; this tendency to favour quick gains over longer term investments is present also among the youth, as we will explore later. This can be a considerable obstacle in scaling up agroecology and the participation of the most vulnerable. Agroecology builds upon local knowledge, grassroots support and practices that foster the long-lasting sustainability of the whole agricultural production. Therefore, it is not

directly answering to the immediate needs of the local population, but rather it offers an enduring solution.

#### Suggestion:

- To overcome this obstacle, the literature suggests that the organisations involved in the FFS should fully involve the farmers in the decision-making process, by clearly exposing their agendas, avoiding a top-down management and including indigenous knowledge in designing the program (Rosset & Altieri, 2017). In other words, the program should be specifically built upon the needs of the farmers while offering a comprehensive training on agroecological practices, thus it is advisable to include an effective feedback system in the training.

## Women in Pitti

Connecting with women in the village proved to be challenging. Our female team members made efforts to engage with the women in informal settings, often speaking with them alone to facilitate more open conversations. To improve our interactions, we sought the help of Marie Rose, the maternal schoolteacher from Pitti, who acted as a translator and cultural mediator. Nevertheless, discussing topics related to their sense of solidarity among the women of the village remained difficult. Furthermore, the interviewees insisted that they do not perceive a clear separation between genders; however, specific gender-related challenges did emerge during our discussions. In what follows, we will break down the role of women as caregivers, and the social gender roles.

conflicts over status and assets between him and her family. In the case the husband is deceased or the couple divorces, the woman goes back to her village of origin. This customary practice has multiple consequences on the social ties and on women's capacity to inherit land as highlighted also by the literature (Fonjong et al., 2013; Linonge-Fontebo, 2018).

Although the majority of women did not express that there is a separation of tasks according to gender, claiming that "*in Africa there is no difference between men and women*", it seems that the tasks of women are defined according to their role as caregivers. In general, the women first do the chores and once finished, they join the husband or other male members of the household in the field. On the contrary, men help in the chores only once they finish their main activities, like working on the field. It seems that children and men are helping with the chores although it is not clear to what extent. From some accounts it seems that it is especially the girls, compared to their brothers, who are more involved in housekeeping tasks. Other women confirmed that the older children are taking care of the younger siblings when the parents are out in the field. This was the case also during one of our tours in Pitti. As it was the Celebration of the Youth, and the school was closed, we saw many children alone in the houses taking care of one another.

All the women we interviewed said that they start their day by taking care of the chores such as: preparing breakfast, preparing the children to go to school, clean the house and fetch the water. Women are disproportionately burdened from unpaid labour in domestic spheres as shown also by the literature (Time & Whitaker, 2023). This can be a major obstacle when targeting women for the adoption of agroecological practices, which is labour-intensive by nature. Women might be unable or unwilling to dedicate more time and resources to farming (El Bilali et al., 2022). Rural women in Cameroon are providing about 90% of the substance food supply,



and it is estimated that during the growing season, they spend 6 to 8 hours per day in the field. Nevertheless, as women are also the main care providers taking care of house chores and care of children and elderly, in total they can work 1.5 to 3 times longer than their male counterparts. Without proper empowerment on gender equality, a more labour-intensive agricultural practice might pose a greater risk to the already fragile health of rural women (Tambi et al., 2017).

The findings from the field confirmed the role of women as caregivers. In fact this role as caregiver is also expressed through other activities and their priorities. Often women take care of the home garden before going out to the field. The home garden is usually a smaller plot of land in proximity to the house. The products grown there are used for direct consumption, as the field is usually placed several kilometres away. A few women referred to “my vegetables” indicating the plot of land they are cultivating the vegetables destined to feed the family. In the two pictures below, we can see two examples of home gardens. We can distinguish various fruit trees such as plantain, papaya, and avocado, and other staple products of the local diet such as ignam and manioc. In the first picture we can also see some chickens roaming in the garden. Both pictures have been taken by the students while in Pitti, between January and February 2024.



What is not used to feed the family is sold in the market when needed. According to the interviewees it is always the woman that goes to the market to sell their goods and buy items for the family which are not available in the village. Such goods are: flour, sugar, honey, fish, peanuts, clothes or items needed for the house or “what the kids need” such as shoes or sweets to make them a surprise. The remaining profit is often saved to pay for their major expenses; especially to cover the health expenses often as a consequence of the bad quality of the water, and school fees. The frequency in which women go to the market is dictated by their needs and their yields, which can vary from once per week, to once per month. We could also conclude that it seems that it is socially accepted that the woman manages the money for daily expenditures as she is the one deciding what to sell and when to sell the goods, and buying what is currently needed at home. The last day of our field research Mama Antoinette confirmed what other women told us:

*“... they [women] are big players in family farming, but they have small fields, half a hectare. They farm to eat first. And if they have a few seeds or an excess, they sell, but first of all it's to eat, and then they sell to prepare for the children's return to school and to look after their health. But they're great players. There isn't a woman in the village, very few, who doesn't have fields. They have fields, but they're small fields, less than a hectare and that's it. They can't do more because they need the means to défricher [clean the field].”*

Another task of the women linked to their caregiver role is the education of the children. Almost every woman when asked confirmed that they received all their knowledge including their knowledge on farming, from their mothers and grandmothers. According to them this is because the children always stay with their mothers and the mothers know what to grow for their families. Furthermore, some have the view that the children are a responsibility of the women, including their education.

Furthermore, many women lamented their lack of free time and hardships of working the land. This account of a woman from Pitti is just an example of the common narrative we heard from many of them:

*“Well, when I get up in the morning, the first thing is to get the kids ready for school and everything. After carrying the kids, I do the housework and all. If maybe there are clothes to wash, I wash them, I go in the bush and when I come back from the bush, I’ll have to cook and do everything else. Until the evening, the children come home from school. Children need to study. You have to, you have to. So that’s how I spend my whole day. I tell you sometimes I rest on weekends, when I decide, I say Saturday, I don’t go out to the bush and Saturday I take my days off and then I rest. Why? Because you see this body here, you can’t just manipulate it in any way. Because, as you manipulate the body, you’re the one who is done. But the work remains. That’s the way it is,”*

However, when the interviewee continued and was asked what she does on her rest day, she answered *“On Saturdays, you take everything, wash the clothes, dry them. I call it rest”*, *“Why do you call it rest?”* we asked her, *“Because I’m not going into the bush on that day”* was her answer. Our findings confirm the extensive literature on the relegation of women to caregiver roles and the prolonged, often unrecognized work they perform to ensure their family’s livelihood (for further details see Time & Whitaker, 2023; Fonjong et al., 2013; Linonge-Fontebo, 2018; Raoul, 2017). Among the many negative consequences of this condition, what is critical to the success of the project and the transition to agroecology is their lack of spare time.

### ***Gendered roles in agriculture***

Apparently, everyone in the village can work on a plot of land in one way or another. Some women mentioned that they are able to inherit land, although as mentioned in the section dedicated to land, it is not clear if they gain formal ownership over the land, or if it is restricted to access to land. Many interviewees reported having the freedom to choose what to plant on their parcels. This decision is sometimes made in communal accord with other household male members, while other times it is based on personal preference, with women tending to refer to “my vegetables” or planting “what is available”, therefore it seems like there is not a clear separation of roles between man and women. However, the major difficulty the women face in agriculture is linked to the demanding nature of the work and their “lack” of physical strength. Especially in the dry season, when the field needs to be *défriché* or cleared (slash and burn practice), all the women lament their dependence on the man or lack of support because they are widowed or separated, to help them to clear the land.

A separated woman with 6 children expressed her difficulties because she cannot rely on the support of a man. *“you have to manage”* she said, expressing the lack of alternative support. This leads these women to spend precious resources to hire youth to help them on the land to do the *“heavy work”* as they are stronger. According to the elementary teacher, many boys are active in agriculture, while the girls are usually preferred to continue their studies because of their physical characteristics. *“Here, we know that the boy can manage on his own. So that’s why the boy most often opts to stay here in the field and the girl to continue her studies, most often for financial reasons and the boy’s aptitude and strength too”*.

The villagers perceive that this physical difference is the major difference between man and woman, and this governs other aspects of daily life. For instance,

the woman prepares the meals or goes to the market because the man can endure the hard work on the land for a longer period. In other words, because the man is considered to be stronger physically, the woman takes care of all other “lighter” tasks. It seems that the work on the land itself is sometimes separated following the same logic. The woman selects and plants the seeds while *“the man does the hard work”* of clearing the land. Nevertheless, it is important to note that when specifically asked about these gender roles, multiple people confirmed that there is no difference between men and women and that *“everyone does everything”*.

#### **Suggestion:**

- ▶ To effectively support the women, it is crucial to empower them and ensure that their vital role in family livelihood is recognized. Establishing a shared sense of solidarity and mutual support among women is also essential to create a genuine grassroots support network and that they can rely on one another. Furthermore, we strongly recommend implementing a welfare framework to enable their participation in the training at the FFS, such as providing for after-school care. Lastly, it is imperative to avoid reinforcing existing gender inequalities in caregiving responsibilities, but on the contrary promote a more balanced burden sharing system.

## Youth in Pitti

Pitti's youth faces many challenges, and is said to massively exode from rural zones, but it is also viewed as central for (rural) development and has shown interest in staying in the village and working in agriculture, whilst also being supported by elderly. These different dynamics will be presented here.

## Lack of opportunities, means and consideration for youth

Youth in Pitti faces various challenges as it lacks opportunities, means and consideration. Five interviewees have addressed the issue of not having the means as a barrier to start projects or pursue education: one interviewee of 16 years old and farmer with two pigs: *"A lot of people here have the will but not the means. So they all want the training center to see the light of day"*. Similarly, a 23 year old inhabitant of Pitti, says: *"It's a question of resources, and if you want to embark on a project you need resources. Some young people don't have the means"*. On a different note, a mother talking about her 16-years-old daughter said:

*"She wasn't going to university, but she says she wants to train in medicine. And unfortunately, no means to do so. She stayed at home this year because of the means"*.

Besides not having means, there seems to be a cycle of poverty, as the school director says that youth inherit their parents' small jobs:

*"Most of these young people do virtually the same things as their parents. That means working in the fields {...}. They survive, they work in the fields, they do the little things that allow them to live, but they can't live a normal life. {...} They try to survive"*.

Besides these tangible barriers, there is also a general feeling from youth of not being valued and considered: as old people do not listen to youth, elderly talking negatively about youth, and that elderly should give youth more responsibility. Indeed, a young woman in comparing Pitti to other villages, said: *"In other villages youngsters and adults live together, respect and help each other and take decisions together but not in Pitti. 'Ici le Papa n'écoute pas'"*. Similarly, a 43-year-old woman

defended youth: *"here young people are not considered in this village. I tell you the truth, they're not considered, they're not considered"*. Some elderly have shared thoughts linking youth to drugs: some municipality representative pointed out that *"the guys are getting into games of chance to*

*take drugs"*, and showed hope in how trainings of the type of FFS could counter this tendency. But a youth woman showed criticism of this idea of youth and drugs, and asked for the youth to be given the chance, to be given responsibility:

*"Papa, try to at least give us that space. Let them at least try to listen to us. Because they don't even want to listen to us. Of course, they get it into their heads that young people today are into drugs, smoking, drinking and so on. But no, it doesn't mean that if you drink or smoke, it means you can't think. {I'd like us to give young people the freedom to try {...}, maybe they're putting a burden on young people"*.

Next to the idea of youth and drugs, there is one of youth and money: some elderly have shared that they believe that youth care more about money than solidarity, and so did the chief: *"The youngsters are not interested in sustainable development, they want to make money in the immediate future"*. Similarly, the son of the chief said that youth does not care enough about land and environment:

*"Not enough, not enough, excuse me, not enough. Because uh, today's youth mostly want money to guide their lives. Yes, because if you sell the land to have a car, the land to have a house, in other words to have a standard of living like the others, you see, today's young people are looking for a standard of living. Imitating others who live in the city"*.

The desire of youth to make money in the short-term and the corresponding disinterest for sustainable development could have some implications for the FFS in Pitti, and they should be taken into consideration for the project: after how much time or training would the FFS have an impact on income?

## Youth's rural exodus

Next to these challenges faced by youth, results also highlight certain factors pushing for rural exodus of youth, including the lack of development and lack of opportunities, pursuing education, and views of life in Pitti versus life in Douala.



### ***Lack of development pushes youth away***

The lack of development pushes youth away, as they aspire for better life conditions and modernity. The head of the primary school for example, said that: “young people in general, if they had the chance, they would all dream of moving to the city”. This aspiration was exemplified by one of the youths interviewed: “we want the evolution, it's this {lack of evolution} that pushes young people to leave”. Similarly, as 15 years old said: “The village is not good, there is no light, no water, no roads. There's work in Douala. To be comfortable in the village, you need light and water, if so I'm staying”. When we asked the youth if it wasn't for the school, would he stay? He answered negatively, because: “I would live for electricity”. Another person explained that this aspiration of modernity is increased with social media:

*“with the advent of the Internet, with young people seeing videos, who have the impression that the city is El Dorado, that the city is easier.*

*Farming is archaic, ancestral methods, no techniques, it discourages young people, 'there's no future', no development projects”*

There is thus potentially a sharp contrast between the idea of the city and modernity opposed to the

village's ‘underdevelopment’, with agriculture then also seen negatively:

*"As there are no machines, everything is done by hand. It gets tiring and they think it's better if I leave and go into town. There, there'll be an office, there'll be work and I'll earn good money".*

This idea of seeing the job of farming negatively was shared by a mother talking about her daughters, saying that she wants them to study so that they don't have to work the land as she does, because “working the land is a suffering”. But the previous interviewee said that this evasion to Douala's modernity is an illusion, as “when he arrives in town, he realises that there's no office, there's no work”, which leads one to come back to the village which also bears its difficulties: “he has to work twice as hard to come back, because when he leaves the village, he loses his place”.

The fact that a proportion of youth is not excited by agriculture “done by hand” and “without machines”, and as some people see farming as “a suffering” might mean that this youth may not be enthusiastic with agroecology, and thus not with an agroecology FFS. In addition, the desire of youth for “evolution”, and its attraction to the city and ‘modernity’ might increase the latter tendency, as they might dream of other jobs or lives than farming. The FFS can play a role in satisfying some of these desires, but it might not be enough for all the youth.



## ***Leaving Pitti to pursue education***

Pitti holds one school which serves as both kindergarten and primary school up until the age of 11 (maximum 14) years old. The lack of education post-14 years old pushes the youth that has enough means to pursue education outside the village, mainly in Douala. When asked if he wants to stay in the village in the future, the 15 years old boy, answered: *“leaving to continue school”*. This trend was found among other youth males, and confirmed by older villagers: one interviewee, who left to Douala to pursue education, speaks of a “brain drain”, and of *“parents with ambitions to send their children to get a better education in the city. That's what contributed to the emptying of rural areas”*. In another interview, one of the women said that her children are going to high school in Douala, which is very expensive, but she wants them to study. Interestingly, Pitti's head of the maternal school analyses that more youth girls leave Pitti for education than males:

*“The boys stay to work in the fields and the girls, on the other hand, go to school. That's why we have more boys here than girls. You won't find that many here. But you will find boys. Very few come back. Very few because in town, there's marriage, there's work”*.

In fact, during the field research, we had a hard time to come across or to get in touch with female youth. She explains the latter phenomenon as such:

*“The very young boys who are here, they already know how to clear the forest. So I say to myself that when there's {...} a financial problem, {...} more often than not the parent gives the girl an advantage over the boy. Here, we know that boys can look after themselves. That's why the boy usually opts to stay here in the bush and the girl will continue her studies, usually because of financial problems and the boy's ability and strength too. Because this is the land, {...} that's all it is”*.

Here, the head of the maternal school analyses that in families with less financial means there is a tendency to send youth females to pursue education whilst youth males' capabilities are a factor for keeping them in the village. It is important to consider the impact an FFS will have on the latter dynamic: will the implementation of an FFS in Pitti enable female youth to stay in the village? Or will parents still prefer to send their daughters away to pursue education? If so, will the FFS only or mainly train youth males?

Another important factor to consider for the FFS is the fact that there is no education offer after 14 years old in Pitti: if for example, the target audience of the FFS is from 18 years old onwards, what will happen to the youth between 14 and 18? They might all want to jump straight from primary school to the FFS training.

## **Youth as a main actor for Pitti's development**

Whilst youth face challenges, lacks means, or is unconsidered, it is simultaneously viewed as central for development and has shown interest in staying in the village and working in agriculture, whilst also being supported by elderly.

### ***The desire of youth to work in agriculture***

Numerous youths have shared with us their desire to work in agriculture in the future - if they're not doing so today already. One of the interviewed men (30 years old), wants to stay in Pitti, to start a project and work in agriculture (*“faire les champs”*), and even considers to build his house here, whilst stating that things are getting better in the village, and that they're part of the positive change. Similarly, a 18 years old guy interviewed wants to: *“Taking responsibility in the village, building a life here, setting up a farming project”*. Other people have come back (partially) to Pitti for agricultural projects:

*“So, I'm coming back to try and experiment with my knowledge as a geologist, to {...} develop this family heritage. Because the land we own has remained undeveloped for a long time. Because we young people weren't interested in it. I'm interested because, with my personal culture, with my education, with all the things I see on the internet, I tell myself that this is something for the future”*.

When asked how he sees the future of the village, one youth answered: *“developing the village, doing great things with the elders, they can give a vision, ideas. Papa gives ideas”*. Youth wants to be part of the positive change in the village with the rest of the community. This is a great leverage point for the FFS: enabling and empowering the youth to be the driving force of positive change in the village. In addition, the fact that a considerable proportion of the youth is interested in agriculture, in farming as a job, and in building a future in Pitti, shows the interest, potential, and necessity of an FFS in Pitti.

### ***Youth interested in FFS:***

Generally, all the youth showed interest in an FFS in Pitti, highlighted already by the fact that although we casted an interview with two youth males, five showed up. During the interviews with youth males, they said that the majority of youth “*want to work in the fields and are interested in an FFS*”. A youth of 23 years old said that “*it’s a good project, I want to know more about it, I’m very interested*”. A man of 30 added that “*we don’t have a monopoly on knowledge, so we need to educate ourselves*”. One youth of 18 was more cautious: “*it depends on the conditions*”. One other of 16 topped that “*a lot of people here have the will but not the means. So, they all want the training centre to see the light of day*”. Despite the open interest shown by the youth we talked to, we also realized that throughout our 2-weeks in Pitti, we did not see many youths in the village. It seems that the youth is quite mobile between Pitti and Douala, and the designers of the future FFS should look into this dynamic more in-depth, to answer the following problematic: is there a sufficient amount of youth which would be present in Pitti to follow training in an FFS? Would this youth follow training every day of the week, or only some days, or only during the weekends? In Nicaragua for example, there is a peasant technical school (one of the three types of La Via Campesina’s peasant agroecology schools (PAES) whom’s target group is youth, and which gives classes only during the weekends as the youth is working during the week (LVC, 2017). This type of school operates mainly in countryside areas with a lack of educational opportunities for youth, and their main objective is to fulfil that gap, and they provide a technical diploma. Importantly, they require more external investments and input, and coordination with authorities. As shown in the literature review in the appendix, different models of FFS exist, and there needs to be further research done to identify the best one for Pitti’s youth.

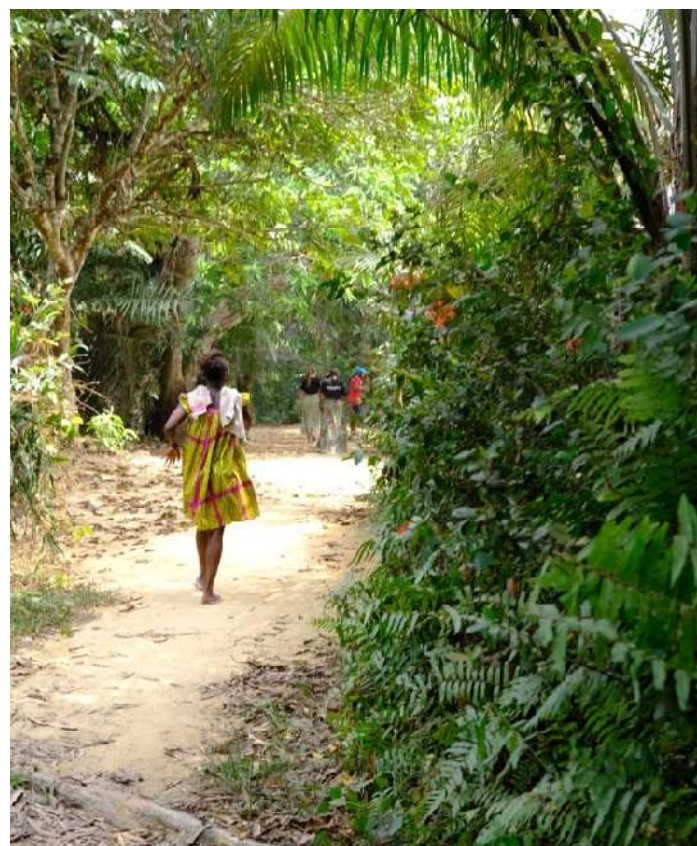


### ***The feeling of a reverse trend of rural exodus: the youth coming back to Pitti?***

Some villages, young and old, think that the FFS will bring back the youth to Pitti. If this is the case, there would be a reverse trend of rural exodus. This idea was brought about by a 23-year-old male: “*Those who leave, some of them want to come back to bring things back to the village*”. Similarly, there is a general feeling among older people in Pitti that the FFS will bring back youth to the village, as exemplified by this analysis of the president of the development committee:

*“The rural exodus, because young people can’t find anything good here. But the young people will come back with the training centre, they can become bosses here, the training centre is like the sound of the bell. They are abandoned in town”.*

The son of the chief shared a similar view: Lots of youth leave for Douala, but “*the majority don’t have a decent job {in Douala}, they’ll be back*”. This feeling that the FFS will bring back the youth to Pitti is hard to verify or estimate. The latter statements also need to be treated with caution, as they might be too influenced by the desire of Pitti inhabitants to make statements which increase the chance of the FFS project being approved. Nevertheless, it was observed and thought during the field research that the youth seem to be quite mobile between Pitti and Douala, and thus if there are great opportunities in Pitti, an FFS for example, some youth might come back to Pitti for the time of the training at least.



## Development of Pitti

In the following section a depiction of how development, often quoted as a general term, is meant and reflected upon by the people interviewed in Pitti. Their personal concept of development and the reality of the field are sometimes in contrast while sometimes they harmonise. Having an understanding of development that is comprehensive of the will of the beneficiaries is essential in building an effective curriculum and in building trust when implementing the FFS.

Development was probably the most mentioned word in the interviews we conducted on the field. The perception on how development should look in the village varies according to the different interviewees, but the majority of the villagers agree on the fact that Pitti lacks it at the present time.

*“Our village lies between two major towns. They are the locomotives of development. But we, the ‘wagons’, are not attached to the development locomotive.”*

There are two main categories of development narratives in the interviews: sustainable and industrial development. On one hand, it is commonly thought in Pitti by the interviewees that development will necessarily and inevitably be industrial and that therefore, the village will be eaten up by the city. In Pitti, the interviewees express a vision of inevitable industrial development driven by the expansion of nearby cities Douala and Edéa. They acknowledge that Pitti will gradually be absorbed into a larger metropolitan area. This integration poses both opportunities and challenges, as development accelerates and infrastructures like highways begin to impose itself upon rural lands. The villagers recognize the potential risks, including the loss of rural identity and environmental impacts, yet they also see possibilities for progress, such as improved roads and increased economic opportunities. The community remains hopeful that within the next 20 to 30 years, significant advancements can be achieved, balancing growth with conservation efforts. On the other hand, in Pitti, the interviewees envision a more sustainable development that balances progress with the preservation of natural resources and biodiversity. Some villagers prefer controlled development which comprehends introducing environmentally friendly industries and promoting sustainable practices like agroforestry.

Using renewable energy sources like solar panels and implementing better infrastructure, such as boreholes, are seen as pivotal steps. They emphasise the importance of environmental education to empower the community to make informed decisions that protect the ecosystem. This vision highlights the need to integrate a modernist approach with environmental stewardship for sustainable development in Pitti. This type of development complements well with the possible disadvantages that development might bring. However, there are considerable barriers to take into account as we will explore here below.

## Barriers to development

Various barriers impede development to unfold in the village. One of the main obstacles is the weak political commitment shown by the governments to enhance the situation in rural areas like Pitti. A lot of interviewees stated that the government takes general and inefficient action while to make a difference those should be tailored based on the different regions and contexts. As mentioned in previous chapters another remarkable barrier in developing especially related to agriculture and farming is the access to land. In the words of one of the interviewees we spoke to during the research:

*“In the community, we have property but it's first the state. If it wants, it takes it. For a road, or a mining operation. It takes, it doesn't ask. Sometimes it's the state, we don't have the power”.*

Moreover, the villagers often mentioned the lack of means to scale up agricultural production and to achieve development. The people from Pitti unanimously claim that agriculture is done in an archaic way “it seems like we are stuck in the 1960s. *“There's a real lack of tools, people don't know what to grow or people don't know how to do everything by hand. First of all, people don't know farming techniques and even there's a big problem with seeds and inputs.”*

As mentioned in the chapter “Information on Pitti”, the lack of water represents a huge problem for everyday human life. The bad quality of water also represents a consistent obstacle in scaling farming

and agricultural production up. Creating a system which provides clean water is a prerequisite for building an FFS. Without water the farmers have a limited possibility of diversifying crops, choosing the ones that do not need a lot of water. Also, because of the bad quality of water, the expenses for health become higher, therefore they have less resources to invest in agriculture as many women pointed out. Same goes for animal breeding, the farmers often have to use the water for the river which is too polluted for animals too. In the same light, electricity would be pivotal for both achieving a better life for the people of Pitti but also for developing the village itself. Indeed, electricity is essential for transforming food locally, a category often overlooked in the region purely for lack of means and knowledge and that could be part of the curriculum of the FFS.

During several interviews it was explained that with electricity it would be possible to add value to the products that are produced like cocoa to make cocoa butter, palm nuts to make palm oil etc. in the words of one interviewee: *“If we could use machines to transform food, we could the Made in Pitti, to be able to achieve some kind of autonomy”*.

## Drivers/leverages to development

The need for knowledge from a potential FFS is strongly seen as a driver for development, from cultivating crops to adapting to the international market; the people of the village recognize the added value of learning an area of expertise. Knowledge and education is also intended (by the son of the chief) as being armed intellectually in taking the right choices in defending the village and the land. In this context, knowledge as awareness brings a certain type of development that does not necessarily respond to the global and industrial agricultural system but follows a logic of protection of the land and the right of the farmer to decide on its own land. Awareness allows people to defend themselves an example that gives development a certain definition is provided by the oldest son of the chef du village, who is a professor at the university of Douala:

*“Everything revolves around capitalism today.*

*If a young person has a piece of land and someone offers him millions, he'll easily give it up. And for him not to give in, he has to be educated to say no, I'd rather not have those millions. He protects the land. He has to ask the question: Are you buying my land? What do you want to do? You can't just dump nuclear waste in the village, for example. When you build an industry to store nuclear waste, you won't be [able to put it next to a river, next to an underground water table.”*



Education, knowledge and awareness are one of the most important and long-term leverage for development. That is why not only creating a FFS is important but also provide children with a functioning school and reliable teachers. The government and public authorities are essential in this regard both to provide support to the FFS and to improve public services. During the field research we, indeed, spoke to a few authorities in order to present the idea of the project and they showed a strong interest. This is what the municipality councilor said in this respect: *“The town council provides support and is also looking for partners so that together we can try to improve the living conditions of our community.”* But, on the other hand, the representatives of the government did not show us concrete ways to help the community or effective ways to tackle the challenges of the village, for what we could observe.

As stated in the first paragraph of the report, Pitti is close to Douala, and this proximity was profusely mentioned during the interviews. Douala is seen as an advanced city with a wider range of availability of jobs (more often small jobs). The city is mostly seen as an advantage for the development of Pitti, even though there are some discordant voices saying that Douala’s bad characteristics risk being exported to Pitti. Even so, in this section Douala will be representative as a positive opportunity for the village’s development. The main reason can be summarised with these two quotes: *“most people who farm can go and sell in town and come back. And the costs aren't very high compared to people who are maybe 50 kilometres from Douala, 100-150 kilometres.”* Gilbert argues that the proximity to the city is one of best features of the village:

*“The village next to two big cities, it's not given to just anyone. Some people are just lucky enough to be next to the city. So, you can go into town at any time, even if it's at night, you can go out, you don't have any problems. Even if you have to walk, you can still get to the city. So that's how lucky we are compared to others who don't have it. So that's what I like about Pitti. We're close to the city, very close to the city, not to say that we're in the city.”*

The necessity of opening to Douala is palpable in the village but there is the need to create new projects in the village that will bring youth back to the village in order for it to progress and avoid the *fuite des cerveaux*. In this context food transformation was definitely a brilliant suggestion made by one of the farmers, a woman interviewed and Maman Antoinette. In the same focus group mentioned before, a woman shows interest in taking part, as she

has seen in her hometown, in a course to transform manioc into flour to make cakes. Maman Antoinette showed interest in setting up a business in producing fresh juices as transforming fruits into juices would allow farmers to earn more money without adding close to none expenses for the producer. Also, local production would also cut the cost of transportation, nowadays on the rise, by both serving the purpose of cutting CO2 emissions and cost for the buyers.

#### Suggestions for development:

- ▶ Although water, electricity and education are not tightly related to implementing an FFS they are a step zero in order to succeed in implementing an FFS. Without water it is impossible to realise a long-term project and implement a comprehensive curriculum that includes various crops and animal breeding. Creating a consistent system of education is important for creating a cultural base on which the knowledge from the FFS would strive. Moreover, the idea of development that the FFS would follow should be based and tailored on the conception the local people have on the matter and not imposed arbitrarily from above.



## Designing the farmer-field school: some early suggestions

The field research allowed us to uncover the specific challenges that youth and women are facing in the rural areas in Cameroon. While confirming the literature, the community we interviewed highlighted specific barriers, challenging dynamics and preferences that need to be addressed in order to establish a tailored and successful Farmer Field School. In light of these findings, together with specific suggestions from the interviewees and secondary literature we developed some suggestions related to the target audience, the curriculum and the educational methods, financial sustainability, and finally some suggestions related to the plot of land destined to the FFS.

### Target audience

In this part we will highlight the challenges specific to the youth and women, while proposing some solutions based on the suggestions of the interviewees and literature. By focusing on youth, the FFS aims to provide educational opportunities and enhance employment prospects in a context of rural exodus and limited educational facilities. For women, the FFS addresses challenges such as time constraints and physical demands in agriculture, aiming to empower them through practical training and advocacy for gender equality.

### Target group youth in Pitti:

Youth will be one of the main target groups in Pitti. This focus is essential because, as mentioned before, there is a rural exodus among youth due to a lack of opportunity, and the only educational facility in Pitti is a primary school that serves children up to the age of 14. In targeting the youth, the FFS could bring educational opportunities in the village. Additionally, the rural youth tend to work in precarious settings, often in low-skilled and unproductive roles. Therefore, the FFS could play a significant role in

enhancing their employment prospects and economic stability of 14. In targeting the youth, the FFS could bring educational opportunities in the village. Additionally, the rural youth tend to work in precarious settings, often in low-skilled and unproductive roles. Therefore, the FFS could play a significant role in enhancing their employment prospects and economic stability.

CAPAM, an already existing FFS in Mbalmayo, provided suggestions when targeting youth for an FFS. In an interview with the teachers of CAPAM, they explained that it would be more beneficial to focus on younger children, especially those who cannot continue their studies. This would allow them to gain skills which consequently helps them obtain a job more easily. This approach could be particularly impactful in Pitti where many youths have limited educational opportunities beyond primary school. The FFS could fill a critical educational gap by providing these young individuals with practical agricultural training and development skills. One teacher of CAPAM, however, did argue that it would be better to rather work with students that have pursued further education since, for them, it would be easier to be introduced into the work field more successfully compared to youth with little to no education.

This was further explained by the observation that youth might find it more difficult to become independent or to be successful entrepreneurs at a young age compared to older beneficiaries. According to IFAD (2019), this could be explained by the fact that rural youth struggle to access key resources which prevents them from successfully implementing agroecology practices. These resources include the access to formal or informal financial infrastructures such as loans, opening a bank account or even obtaining access to land. The students of CAPAM also reiterated this concern for the trajectory after the FFS. They expressed an overall concern that there will be a lack of work opportunities after completing the FFS. One of the alumni argued that they would prefer the FFS to admit less students, so that more resources would be available to support students in implementing their farming projects or finding employment in farms after their training. Additionally, the students also argued that obtaining resources, both financial and material, after the FFS is a major challenge. Students all agreed that for them, and even more for women, it is almost impossible to get a fund from the bank that

will enable them to buy materials for their farming, as obtaining funding depends on sex and a privileged social status.

Thus, it is essential that when the FFS in Pitti targets youth with little to no education (which limits their chances for work opportunities compared to youth with more education), it includes mechanisms to support these young individuals in overcoming financial barriers. With this suggestion we do not intend to exclude experienced farmers in Pitti from the training and from the support mechanisms, however for vulnerable populations such as youth and women it is especially challenging to overcome these barriers. Ensuring access to resources such as loans, grants, or partnerships with financial institutions could help mitigate these challenges. Additionally, developing strong linkages with local businesses and agricultural enterprises to secure job placements for graduates could address the concerns about post-training employment opportunities. This approach will not only provide the necessary skills and education but also create a sustainable path for youth in Pitti post-FFS.

Lastly, another challenge in targeting youth that surfaced throughout the interviews with the students of CAPAM, is the negative perception some of the youth have of agriculture. One of the interviewees explained that working in agriculture is not perceived as a proper job, it is rather seen as a “job that you do because you’ve failed in life.” He argued that it is a challenge to help young people to understand that they are on the right track. One of the students in the focus group explained the perception the youth has of agriculture and his own vision as following:

*Because we young people here in Africa are disinterested, disinterested in agriculture (...) you don’t necessarily have to wear a tie and sit at a comfortable desk to get a bit of money. You can work in agriculture and still get by in life (...) young people think that if you wear a tie and a suit, you’ll have a good life.*

This perception could also pose a significant challenge in Pitti when trying to attract or motivate youth to the FFS. Many young people in Pitti may share similar negative views of agriculture, seeing it as a fallback option rather than a viable career path. Schools can play a big role in shaping the perception of youth towards agriculture. A report by PAFP

(2011) confirmed that teachers could instill a more positive image towards agriculture by explaining to their students the many aspects of agriculture, its importance, and the opportunities it offers. Addressing these perceptions is vital for the long-term success of the FFS and for encouraging youth engagement and retention in agricultural careers. However, while talking with the community in Pitti, many recognize agriculture as a fundamental means of livelihood. In fact, in the questionnaire, 48 people out of 52 indicated that they intend to work in agriculture in the future. So even if the youth is initially seeking other opportunities in the city, many eventually settle back in rural areas, therefore would benefit from the education later in life.

### Targeting women in Pitti:

Women are another particularly vulnerable population that need to be targeted for the FFS. As we mentioned in the chapter on women in Pitti, women are disproportionately burdened as caregivers, leaving them much responsibility in providing for the livelihood of the family such as harvesting the products to prepare meals, going to the market, and helping in the field on top of caring for the wellbeing of family members and doing the chores in the house. The major difficulties specifically affecting women are the lack of time, and the intensity of the physically demanding manual work required in agriculture.



Agroecology is labor intensive, therefore requires a high amount of energy, skill and time, all precious resources that women struggle to have access to. In order not to further endanger the wellbeing of women and exacerbate their vulnerable condition, it is essential to integrate the practical agricultural training with advocacy efforts addressing gender inequalities and the disproportionate caregiving responsibilities of women. Furthermore, it is crucial to build a genuine support network that encourages reciprocal assistance and solidarity among women. Additionally, it would be beneficial empowering women to share their agroecology knowledge with other disadvantaged women who are unable to attend the training. Moreover, involving women and other beneficiaries in decision-making processes and establishing a robust feedback mechanism will enable women to voice their current needs, which can then be addressed by the project.

Similarly to youth, also women have to face bigger barriers compared to men in order to become successful entrepreneurs in farming. For instance, women in Cameroon are more prone to fall in poverty conditions compared to men (Time & Whitaker, 2023; Fonjong et al., 2013). Because of early marriages, early childbearing and their disproportionate role in caregiving activities, girls tend to drop off from school earlier than boys. Although the maternal school principal in Pitti confirmed the opposite, that the girls usually stay longer in school as the boys can find petty jobs more easily, it is still a noteworthy indicator of the precarious situation of women in Cameroon. In addition, women are relegated to informal and less paying jobs (usually in agriculture), which makes it especially harder to request loans, participate in cooperatives, and in decision making structures, or simply start an entrepreneurial rural activity. For this reason, we strongly suggest that the FFS ensures mechanisms to overcome these financial barriers.

## Farmer-field school curriculum and educational methods

To develop the curriculum and educational methods for the FFS in Pitti, we reviewed the CAPAM model to reflect on what methods and content would be most effective. The CAPAM model offers a comprehensive approach to agricultural education, which can provide valuable insights.

The curriculum at CAPAM's FFS depends on the type of formation offered. CAPAM provides three types of formation:

- ▶ **À la carte:** This option allows individuals to choose specific formations or workshops according to their individual needs. It is tailored to the specific requirements of the farmers and the context of their farms. Due to its customised nature, this formation is more expensive than the other types.
- ▶ **Dual Program:** This program is targeted at individuals who already have a background in agriculture. It builds on their existing knowledge and skills, providing advanced training.
- ▶ **Integral Program:** This comprehensive two-year program is aimed at individuals with little or no knowledge of agriculture. The program is structured with a balanced mix of theory and practice. Students spend two weeks at the school for theoretical instruction in a classroom setting, followed by two weeks at various farms in the region for practical internships. The selection of internships is informal, with the primary requirement being that the host farm is sufficiently large and experienced to support the interns.

During focus group discussions, students highlighted that the practical components were the most beneficial, as they allowed them to apply theoretical knowledge in real-world settings and significantly improved their skills. This hands-on approach aligns with literature, which suggests that a dynamic dialogue between learning and doings is essential for effective education (FAO, 2016). This approach not only enhances students' skills but also empowers them to change their reality through practical application of theoretical knowledge.

Additionally, given that the majority of the students at CAPAM are young beneficiaries, the school also offers classes not strictly related to agriculture, such as informatics and French. Teachers argue that these complementary classes provide students with broader educational opportunities, enabling them to pursue further studies if they choose. Students have expressed that the diversity of the curriculum is one of the most positive aspects of the formation.

### *Designing the curriculum*

Creating the curriculum for the FFS in Pitti requires a tailored approach based on the community's needs. Firstly, through questionnaires and interviews, we have tried to understand what the people in the village would like to learn through the project. Both the results of the questionnaires (which can be seen in *Figure 15*) and interviews indicate that people are evenly interested in different agricultural training



practises the project could offer. As can be noted from the table below, there is an even distribution of interest across various agricultural training practices, suggesting a broad and balanced interest in different aspects of agricultural education. This equitable distribution underscores the diverse learning preferences within the community, highlighting the importance of offering a comprehensive curriculum that encompasses a range of topics.

*“You have to tell people that fertiliser is no good, that this fertilizer is organic, it preserves nature, it doesn’t damage nature... what impact does fertilizer have on soil in terms of water? ... this training is important”.*

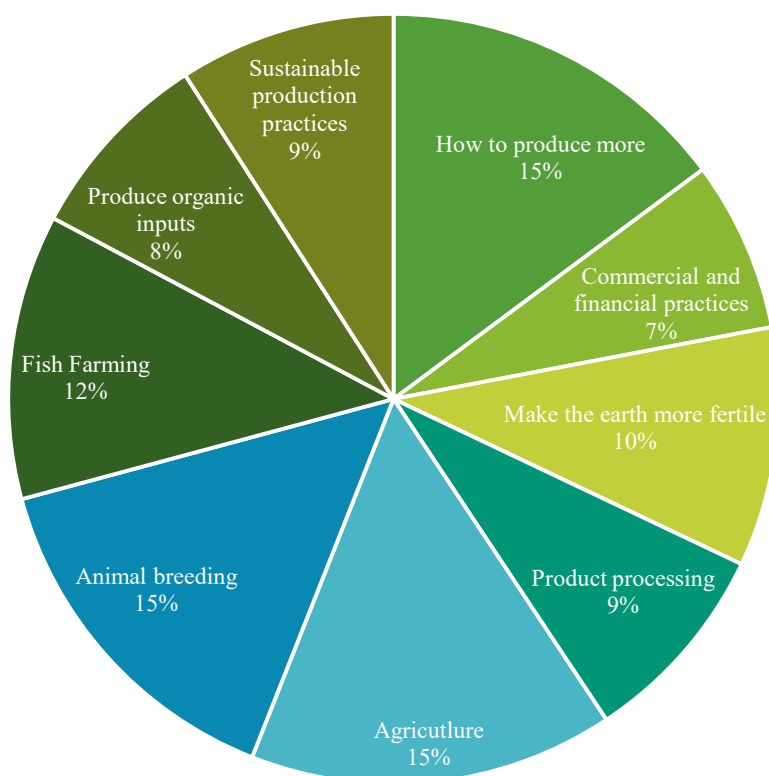


Figure 15: Results of what people would like to learn

By acknowledging and incorporating these varied interests, it can be ensured that the FFS curriculum resonates with the aspirations of the farmers in Pitti and effectively addresses their educational needs.

Additionally, from the interviews, people have also expressed that through the project they hope to learn how to produce organically. The son of the chief, for example, argued that the project should help in educating young people on how to produce organically:

Moreover, a key aspect that has to be considered in designing the FFS curriculum is the timing of the courses to accommodate participants’ schedules. Insights from the focus groups revealed a strong preference for weekend sessions. In one focus group with women, they noted that *“they would prefer to go to school Saturday afternoon-evening, as the rest of the time they are busy working in the field or with their children.”* This idea was further supported by questionnaire results showing a clear preference for weekend sessions as can be noted in Figure 16 below.

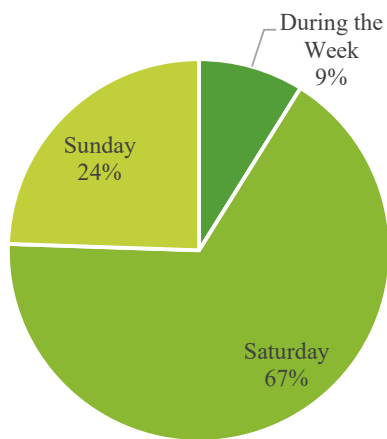


Figure 16: Results of what time of the week people would want to participate in FFS

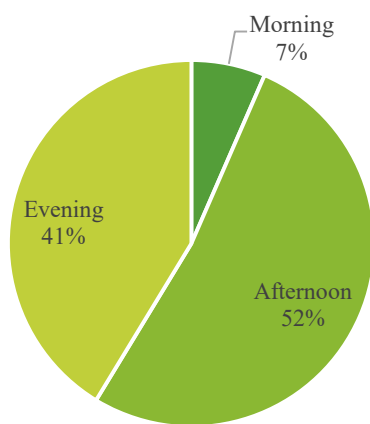


Figure 17: Results of what time of the day people would want to participate in FFS

These aspects should be considered to ensure accessibility for participants who are engaged in agricultural work and other responsibilities during weekdays. Additionally, literature has also underscored the importance of recognizing the disproportionate burden placed on rural women, who spend 6 to 8 hours per day in the field and often work significantly longer hours than their male counterparts due to their roles as primary caregivers for their families. Without proper empowerment on gender equality, a more labor-intensive agricultural practice might pose a greater risk to the already fragile health of rural women (Tambi et al., 2017). Therefore, although scheduling FFS sessions on weekends can match the schedules of women and enable them to follow classes, there is a risk that it will add more stress, responsibility, and workload on women. This dynamic should be tackled in the FFS program, and there is a need for further research on how to do it. One way can be to foster women empowerment and the sharing of the care work with men, thereby freeing time for women which if they want can be spent on taking FFS classes.

From the above-mentioned unique needs of each ‘stakeholder group’ and taking inspiration from the CAPAM model and the variety of FFS models discussed in the literature, we suggest that the FFS in Pitti proposes multiple educational programs which can suit the needs of each group. For youth, two models are interesting: the ‘integral program’ of CAPAM and also the peasant technical school model (LVC, 2017) which was introduced in the section on ‘youth interested in FFS’. Both latter models propose a complete program on a rather long-time frame (for example, 1 or 2 years) and with a certification at the end. For farmers already in activity, it is important to provide programs with flexibility: one model is short term full-time programs of a few days up to a few weeks or months, such as the ‘à la carte’ or ‘dual program’ of CAPAM. Another option is to provide training sessions directly on the field, at the location where the farmers live. ADD does this by going to various villages and accompanying the GIC of the village. In the latter mentioned models for active farmers, there is a need to pay extra attention on the case of female farmers, as since they usually bear the responsibility of all the care work, FFS classes might add too much workload - one way to solve the latter is to empower women and sharing the responsibilities of the care work they do with men.

In addition to the latter proposed models, we highlight the great potential of the farmer-to-farmer (F2F) method and suggest that it is suitable for Pitti’s context. The F2F is a form of peasant-led horizontal learning where the peasant is both the trainer and trainee, and which has led to large-scale agroecological transitions (LVC, 2017). As compared to the CAPAM school in Mbalmayo, which is situated nearby the town and not directly close to rural villages, the FFS in Pitti would lie at the heart of a rural village. Therefore, it can be a great platform for local farmers of Pitti and neighboring villages to share and co-create knowledge and enact the farmer-to-farmer method. By providing material, seeds, and other means, and a space for knowledge sharing, the FFS in Pitti could be a great driver to the F2F. The advantage is that this way the FFS would stimulate continuous local research, innovation, and knowledge co-creation and sharing - in a way that also suits the schedules of the farmers (both youth, male and female farmers), as learning and researching is done alongside the usual work, is smooth and flexible. We highlight that for the F2F to best work in Pitti, there might be a need for more association and organizations between farmers (more GIC) and also more solidarity among women. The FFS could stimulate this association and solidarity through its programs.

## Financial sustainability

Financial sustainability is a crucial aspect in assessing the feasibility of the FFS project. During interviews and focus groups a prevalent theme was the community's belief in participant contributions, either in financial form or through other means. Participants expressed a clear sentiment that involvement in the FFS should entail contributions, with one stating; "you have to feel involved. Everyone has to make a contribution." This sentiment was further emphasized, with comments such as: "We think that everyone is up for it. People are willing to contribute, but we need to gain their trust. Because in the past there have been false projects." The importance of building trust was reiterated: "If we win their trust, everyone will contribute. We need to be serious." Furthermore, data from the questionnaires confirmed that many community members are willing to contribute to the project, both in cash and through other means as can be seen in *Figure 18*. This willingness to contribute would foster a sense of ownership and commitment among participants.

These community sentiments align closely with insights from the literature on the financial sustainability of FFS. Okoth et al. (2003) and the FAO (2016) underscore the critical role of financial sustainability, advocating for co-financing or participant contributions to avoid dependency syndrome. Our research findings reiterate this perspective, as there is strong community belief in the necessity of participant contributions to enhance involvement and ownership. However, as mentioned above, our research revealed that this willingness to

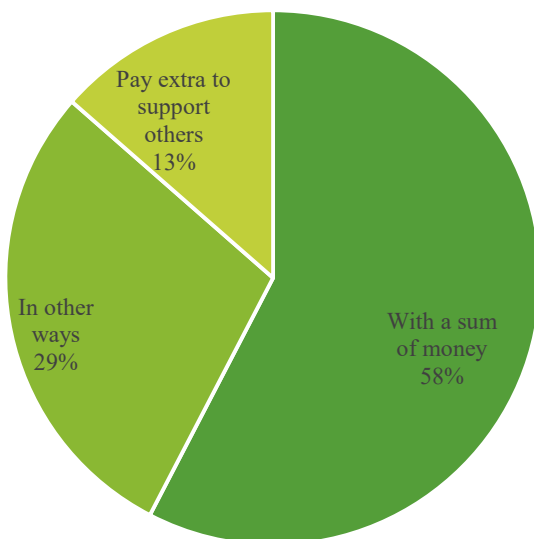


Figure 18: Results of how people would contribute to FFS

contribute hinges on building trust within the community, given past experiences with false projects. If trust is established, participants are willing to invest in the FFS, thereby enhancing the project's financial sustainability and reinforcing commitment. This convergence between the literature and findings underscores the importance of incorporating participant contributions to ensure the financial viability and the community's engagement with the FFS project in Pitti.

## Location and transportation to FFS

The location and transportation logistics for the FFS are critical factors influencing its success. Interviews with students at CAPAM highlighted significant challenges due to the school's distance from the city. Initially, the absence of a school bus meant students had to cover their transportation costs, which many could not afford. Consequently, the importance of providing transportation to ensure accessibility for all students was strongly emphasized.

Another key recommendation from the interviews is the strategic positioning of the FFS close to other farms. As one participant noted, "The center should be near other farms so that it is easier for students to do internships and have enough space to use the land." This proximity would facilitate practical training opportunities and provide access to land for agricultural activities. In this context, Pitti is particularly advantaged as it is surrounded by numerous farms and commercial agricultural projects, making it a suitable location for the FFS.

Supporting these insights, the literature suggests that the geographical scope of an FFS should be concentrated around a specific area. Indeed, according to the FAO (2016) expanding an FFS too broadly can dilute its impact, whereas a concentrated approach enhances its effectiveness.

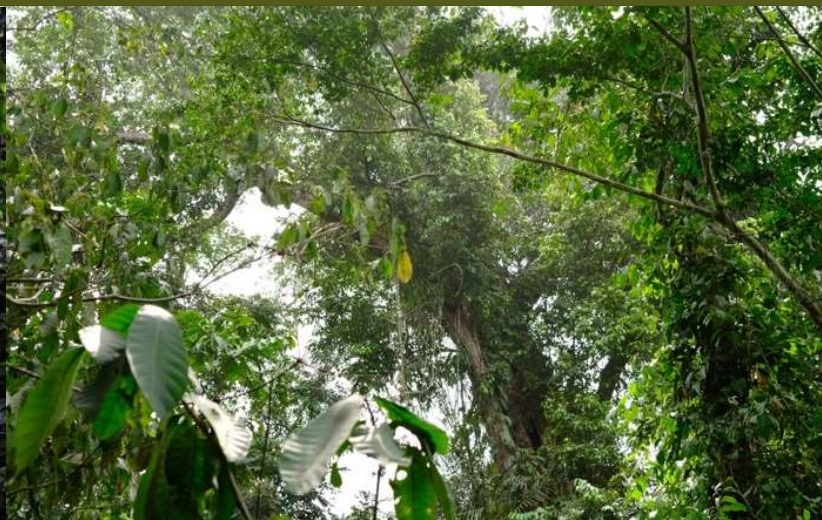
Applying this information to the establishment of an FFS in Pitti, it becomes clear that selecting a location close to other farms and ensuring reliable transportation are paramount. By situating the FFS in Pitti, surrounded by agricultural activities, and providing necessary transportation, opportunities for practical training can be enhanced and accessibility for participants ensured, ultimately maximizing the impact and success of the FFS.

## The proposed plot of land for the FFS

The chef of the village provides a plot of land of 2,5/3 hectares which can be used by the FFS if the project goes through. The parcel is linked to the village by a unpaved road, which is situated at 30 minutes walking distance and 5 min by car/motorbike from 'the center' of the village (where the house of the village chief and school is). The road touches the plot and is accessible but might be more difficult to reach in the rainy season. For its 'neighbors', the plot is surrounded by two fields owned by the son of the chief and one by another local farmer, meaning that there seems to be no risks of an industry project plan in the near future. The plot has a small slope: at the top there is the road and at the bottom a small river. There seems to be several 'microclimates', from rather dry, warm, and exposed to sunlight at the top to humid, fresh and shady at the bottom where the river and trees lie, with even a small 'wetland'. At the bottom, there are trees and also a large tree baptized by the locals as 'the king'. The river is 1 meter wide during the dry season and gets to 1.5-3 meters in the rainy season. For the moment, the water is rather still and there is a small artisanal 'fishermen dam'. During the visit it was said that the water level used to be higher in the past, which might indicate that it will keep decreasing in the future. Importantly, there are no other sources of water at the top of the plot, and the only water source is the river. Gilbert assured during the visit that no pollution of water could occur as there are no industries that lie at that height.

Concerning the use of land, the plot was converted and cleared from primary forest to agricultural land 25 years ago (around 1999), and was used until 2019 to grow manioc, macabo, plantain, and ignam - since then it has been left in fallow. Although the person presenting us the plot guaranteed the fertility of the soil and that there was never use of any pesticides, a more precise assessment of the quality of the soil needs to be done. In CAPAM, the FFS was established on a poor soil (before the FFS, the land was used for intensive cultivation of manioc) which came as a surprise because no soil tests had been conducted when buying the land, but it also turned out to be an asset as it enables the teachers to show how agroecological techniques can regenerate the soil. The soil type seems to be 'sandy', as is the case for most of the littoral region. The pictures below show the plot, the different 'levels' of microclimates, the slope, the soil and the river.







## Conclusion

This report falls into the framework of a feasibility study whose goal is to assess the implementation of a FFS in Pitti, Cameroon.

The results presented above are the product of data collection and analysis that we operated during a two-week fieldwork and of the literature we reviewed. The interviewees showed a great interest in pursuing an education related to agricultural and animal breeding practices. Although different ideas on modernization and development are to be taken into account, as they reflect the different vision of the local population, a special attention should be put to sustainable practices that respect the ancestral heritage. Two specific categories should be tackled specifically meaning women and youth. Those two were the most difficult to interview and appear to be the ones who face the most challenges. Indeed, women are burdened with caregiving responsibilities and their cohesion seems very weak. Youth lacks means and a solid education that would be beneficial for implementing agricultural projects that would lift them from an uncertain and unstable professional future. As suggested from the data collection regarding the design of the FFS curriculum both front lessons and practical sessions should be incorporated in the scholastic program. Overall, the possibility to implement a FFS in the village would be a great opportunity for the vast majority of the population of Pitti who showed a very strong interest in the project as it could provide a solution to poverty and lack of education. The main goal of the first stages of the project should be to build trust among the beneficiaries and the local NGO for the FFS to work effectively in the long run.

## *Limitations*

The present research shows some limitations derived from methodological, cultural matters and from the researchers' background. Starting from the latter category, we could be on the field only for two weeks due to time and economic constraints therefore the data we gathered is limited. Regarding cultural limitations, we sometimes faced a language barrier. Although three out of four members of the group could speak French, oftentimes the people from Pitti could only speak the local language and comprehending each other resulted as

problematic. This was problematic especially when interacting with women and resulted in less women who responded to the questionnaire we created and shared. another methodological shortcoming derived from the fact that there is a lack of young people (below 20 years old) in the village. As they moved to the city to study, we could not interview them and they also could not answer our questionnaire. Lastly, the results must be interpreted with caution as they might be subjected to a positive response bias. Every single participant showed interest in the implementation of the FFS but it remains unclear to what extent this interest can end up as an effective and practical participation in the project or in a general interest to bring development for their village. A potential FFS should tackle economic needs like lack of financial resources to scale up farming, infrastructure like access to clean water, electricity and an efficient and cheap transport system, as those are the prerequisites to a long-term success in the project.

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