# Congregation "Figlie della Misericordia del TOR di San Francesco"



# Social Project in Maluku, D.R. Congo



Congregazione delle Figlie della Misericordia del TOR di San Francesco Via di Porta Maggiore 38 - 00185 Roma (Italia)

Technical Partner:





# **TABLE OF CONTENTS**

1	BA	CKGROUND	2
	1.1 1.2	Democratic Republic of Congo	
2 3		NGREGATION "FIGLIE DELLA MISERICORDIA"GICAL FRAMEWORK	
	3.1 3.2 3.3 3.4	Goal  General objectives  Specific objectives  Activities	7 7
4	3.5	Project Phasing  OJECT PHASE 1	9
<b>5</b>	4.1 4.2	Guest House (casa religiosa)  Family Farmers_Emergency Agriculture	10
6	5.1	Market research (to be included in the Feasibility Study, Project Phase 1)	
0	6.1 6.2 6.3 6.4 6.5 6.6	Food Security	
7 8 9	EN	H FARMING ERGY GENERATION PACITY BUILDING	24
1	9.1 O F	Craftsmanship PROPOSED BUSINESS MODEL FOR SOCIAL AGRIBUSINESS (PHASE II)	
	10.1	Economic Sustainability of the Project	



### 1 BACKGROUND

# 1.1 Democratic Republic of Congo

The Democratic Republic of Congo (DRC) has an estimated total population of 89.6 million people (in 2020), of which the majority is Christian (almost 95%).

DRC is the second largest country of the African continent. The following table shows the size of the country, including the different functions of the land (FAO, 2016):

	<b>Area</b> (x1000 ha)	Part of total country (%)
Country	234'486	100
Land	226'705	97
Water	7'781	3
Agricultural	32'000	14
Forest	152'578	65

DRC faces very difficult socio-economic situations and continues to suffer from a series of shocks, such as armed conflict, epidemic outbreaks and natural hazards (FAO, 2020).

# **Food insecurity**

In DRC, 13.1 million people are severely food insecure across 101 of the country's 145 territories. In the Kasai, Tanganyika and eastern regions, the deterioration of the food insecurity, is mainly caused by a decline in agricultural production, due to conflict and pests (fall armyworms which cause significant crop damage) and production losses particularly in maize-growing regions, floods or insufficient rains, and limited access to land and inputs (FAO, 2020).

# Water, sanitation and fertility

Currently, 43% of households in DRC have access to drinking water, of which 69% in urban areas and 23% in rural areas. Only 20% of the total population has access to sanitation.

The average fertility rate in Sub-Saharan is 4.8 children per woman and in DRC the average is 6.1 children per woman. The early childbearing rate (15-19 years) is 125.24 births per 1,000 adolescent girls (The World Bank, 2020).

# Children

DRC has 48.4 million children who represent 54% of the total population, and of which 43% is malnourished.

The human capital index is 0.37% (Sub-Saharan Africa average is 0.40%). This means that a child born today will be 37% less productive in adulthood than a child who received a complete education and proper health care. Children in DRC spend on average 9.2 years in school and 43% of children are malnourished (The World Bank, 2020).

# **Economy**

DRC's poverty rate has fallen slightly over the past two decades (mostly in rural areas), nonetheless the DRC remains one of the poorest countries in the world. In 2018, 72% of the population, especially in Kasaï and in north western regions, is living in extreme poverty on less than \$1.90 a day. After reaching an economic growth of 5.8% in 2018, the growth slowed down to 4.4% in 2019. The result was that commodity prices dropped, particularly for cobalt and copper, which account for over 80% of DRC's exports (The World Bank, 2020).



The current COVID-19 pandemic, is expected to trigger an economic recession (-2.2%) in 2020. For almost two years, DRC was fighting the Ebola epidemic, especially in Nord Kivu, South Kivu, and Ituri provinces, where 3,453 cases and over 2,200 deaths have been reported (The World Bank, 2020).

# 1.2 Project location

The city of Kinshasa has 14.3 million inhabitants, and this number increases with about 4.3% each year. The inhabitants are distributed over 24 communes of which 18 urban and 6 rural.

Figlie della Misericordia Congregation (CFM) owns two plots in DR Congo, representing a very huge asset for the project. The first one is a 5 hectares plot, located in the outskirts of the municipality of Maluku, 67 km from Kinshasa along Congo river.

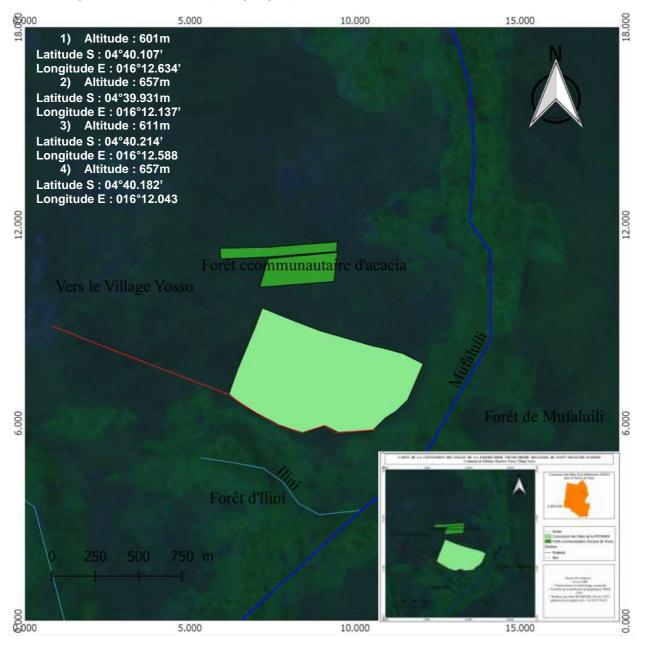
The location is had many advantageous since it is near a stream; there is drinking water, electricity, and an internet connection available; there are paved roads; a transport system; and a large international supermarket.



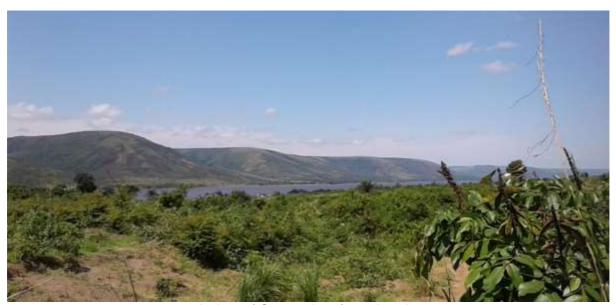


The second plot is located about 100 kilometres from both Kinshasa and Maluku and has a dimension of 50 hectares; this plot will be involved in the second phase of the project (agrisocial-business).

The image below shows the plot, geographics and coordinates.







A view of Congo river from the plot.

The relief of Kinshasa is made up of a large plateau, multiple hills, a plain and swamps on the banks of the Congo River. The Kinshasa plain is about 300 meters above sea level and covers an area of around 100 km<sup>2</sup>.

The City of Kinshasa and the region of Maluku are characterized by a tropical climate, which is hot and humid. The balance between average monthly precipitation and baseline evapotranspiration is positive between October and May, which allows for two farming seasons. The humid and hot climate, may call for food storage procedures and tools.

In the rainy season, with abundant precipitation, the level of the water table rises and can reach the surface in some valleys. This balance sheet becomes in deficit between June and September, the period which corresponds to the dry season.

The city of Kinshasa's hydrographic network is made up of the Congo River, the rivers flowing into it and a few very small lakes. These rivers originate mainly from the hills and flow from South to North, pass the plain and flow into the river.

The soils of Kinshasa are mainly sandy, which results in poor water and nutrient retention capacity for plants. Therefore, agricultural activities are very marginal due to the constant and regular need of irrigation.

The constant presence of water from the nearby river, and the large catchment area, are favourable conditions for agribusiness.

# 2 CONGREGATION "FIGLIE DELLA MISERICORDIA DEL TOR DI SAN FRANCESCO"

The Congregation of the Figlie della Misericordia del TOR di San Francesco (Daughters of Mercy of the Third Order Regular of St. Francis) was founded by Blessed Marija of Jesus Crucified Petković on October 4, 1920 in Blato on the island of Korčula in Croatia, on the initiative and with the help of the Bishop of Dubrovnik, Monsignor Josip Marčelić.

From 1928, when it was annexed to the order of Friars Minor, the Congregation belonged to the diocese by rights. In 1944 the Congregation obtained a Decree of Praise and in 1956 became a Congregation by pontifical rights.

The aim of the congregation is "training and saving of poor youth". This was a response to the needs of that time (of both society and the Church). In that period, after World War I, southern Croatia was in a difficult social, political and economic situation.



The Congregation spread rapidly from the south to the north of Croatia and neighboring countries (Serbia and Macedonia) and, already in 1936, it began its charitable and missionary apostolate in Latin American countries.

Between 1936 and 1949 the Foundress sent thirty young sisters from Croatia to South America for charitable and missionary apostolate. In 1940 Marija of Jesus Crucified Petković travelled to Argentina to visit her nuns and due to the war she remained there until 1952. During her stay in South America she founded many other communities of the Congregation and spent a lot of time doing missionary work. Marija of Jesus Crucified Petković expanded her work to Paraguay (1941), Chile (1949), Peru 1953) and Uruguay (1958), giving the Congregation an international significance.

After 12 years of apostolate in Latin America the Foundress in 1952 came to Rome where she established the General House and transferred the General Administration of the Congregation from the Mother House in Blato to Rome. In the General House in Rome she lived her last 14 years of her earthly life guiding the Congregation. Exhausted by her work and sacrifice, she died on 9 July in 1966.

After the Church-process conducted by the Diocese of Rome and by the Congregation for the Causes of Saints, the fame of sanctity is recognized by the Church on 5 July 2002 by the Decree on the life and extraordinary virtues and on 20 December of the same year by the Decree on the miracle that happened in Peru thanks to her intercession, Pope John Paul II proclaimed Marija of Jesus Crucified Petković blessed on 6 June 2003 in Dubrovnik, Croatia. While the process of canonization is still ongoing she remains a lasting symbol of love and mercy to all the needy.

Today, the Daughters of Mercy work as part of the universal Church in accordance with the charisma of the Congregation: "Witnessing the mercy and love of the Father and following Christ the crucified remaining faithful to the spirit of the Gospel, we serve the Church following the example of Francis of Assisi and Blessed Marija of Jesus Crucified Petković".

In the Church and in the society the Congregation puts into practice the motto of its Foundress which says: "Be strong women with maternal heart". Combining together the life of prayer and concrete apostolate in 53 communities distributed over 14 countries of Europe and America: Croatia, Bosnia and Herzegovina, Serbia, Slovenia, Italy, Germany, Canada, Argentina, Paraguay, Chile, Peru, Romania, Cuba and since September of the year 2019 also in Africa in the Democratic Republic of the Congo.

In accordance with the needs of the Church and specific purposes of their call, around 335 nuns are dedicated to:

- Education of children and youth, especially orphans and the abandoned;
- Teaching and school education of children and youth;
- The health apostolate and care for the elderly;
- Parish apostolate, evangelization, religious education and missionary work;
- Promotion of human and Christian dignity;
- Promotion of ecumenical dialogue;
- Training of people for justice, peace and preservation of creation;
- Family apostolate and leading of lay Church movements.

In this year 2020, the Congregation wishes to celebrate its first 100 years launching a new strategic project in DRC for supporting young mothers and vulnerable children.

For more information, please visit: http://www.figliedellamisericordia.org/



# 3 LOGICAL FRAMEWORK

The logical framework is built around the current instability and difficult socio-economic situation that the Democratic Republic of Congo experiences, and based on the values and believes of the Figlie della Misericordia congregation, with a strong focus on vulnerable children, young people and women.

# Sexual violence and abuse

In DRC, sexual violence is used as a weapon in conflict, child marriage is common and domestic violence is viewed as acceptable.

The latest numbers (of 2018 and 2019), show that the DRC has the highest number of reported sexual violence events in the continent of Africa. The reported cases include rape, sexual slavery, trafficking, forced/early marriage, intimate partner violence and sexual exploitation and abuse. All these forms of violence further exacerbate the vulnerability of women and girls; the abuse of power; and gender inequalities.

A published study in the *American Journal of Public Health* shows that 1.69-1.80 million women reported that they have been raped in their lifetime, and approximately 3.07-3.37 million women reported that they experiencing intimate partner sexual violence. Of these victims, 65% are children and adolescents younger than 18 years, with 10% of all victims younger than 10 years old (Peterman, Palermo, & Bredenkamp, 2011).

# **Food insecurity**

The World Food Programme (WFP) reported that 15.6 million people are severely food insecure in DRC and that DRC is experiencing the second largest hunger crisis in the world after Yemen. Estimated is that 3.4 million children are acutely malnourished (World Food Programme, 2019).

In DRC, a large part of the foods are imported and the crops which are produced in the country are affected by extreme weather events (such as prolonged droughts and floods) due to climate change, which results in poor quality products and high prices.

# **Education**

The education system in DRC is not sufficient and the education level is poor. Estimated is that 3.5 million children of primary school age, are not in school. Of the children who attent school, 44 percent starts school late (after six years old). National data indicate that only 67% of children who enter the first grade, will complete the sixth grade. Of those who reach the sixth grade, only 75% will pass the exit exam (U.S. Agency for International Development, 2019).

### 3.1 **Goal**

The goal to strive for is that all children, young people and women, in the Democratic Republic of Congo, can live a safe life.

# 3.2 General objectives

The general objectives of this project are the creation of equal opportunities (through education - SDG 4); safety for women (SDG 3, 5, 16); Food security (through local, sustainable and accessible food and clean water - SDG 2, 6, 7, 14, 15); and decent work (through social businesses - SDG 1, 8, 11).

# 3.3 Specific objectives

The specific objectives of this project are: protect, educate and literate children between 0-6 years (quality education); end child labour and the protect children; gender equality; easy access to help and a safe haven for women; increase and diversification of agricultural production; increase of capacity to use and manage water resources for agricultural purposes; strengthen of agricultural skills of young people and women; capacity building; and the construction of a scalable, self-sustaining project model.



# 3.4 Activities

The following activities contribute to the achievement of the specific objectives (and with that, the general objectives and the end goal).

- To educate and literate children between 0-6 years and to end child labour and to protect children, the following activities will be executed: Provision of quality primary education; a school garden; hand crafts; the provision of a safe house; and the development of safeguarding policy.
- To achieve gender equality and to provide easy access to help and a safe haven for women, the following activities will be executed: the creation of social businesses to make women financially independent; provision of capacity building to empower women; the provision of a safe house and a safeguarding campaign to increase awareness.
- To increase and diversify agricultural production; to increase the capacity to use and manage water resources for agricultural purposes; and to strengthen agricultural skills of young people and women, the following activities will be executed: Sustainable agriculture; provision of a plant nursery; sustainable fish farming; generation of renewable energy (solar PV); provision of new irrigation techniques; training of trainers in agriculture; and a training program for young people and women.
- To build capacity; and to construct a scalable, self-sustaining project model, the
  following activities will be executed: trainings in farming; trainings in business; the
  reinvestment of profits in the total project (1) and in the social businesses (2); and
  training in cycles of 12 months.

Due to Covid pandemia, a new component has been added to the project in order to provide emergency support for food security through a "family farmers" agricultural project.

The following diagram shows how the goal, the general objectives, the specific objectives and the activities are connected.

Each general objective is connected the UN Sustainable Development Goals (SDGs) which are most relevant for that objective within this project.

Goal	General Objectives	SDGs	Specific Objectives	Activities
			1.1. Education for	1.1.1. Quality primary education
ပ	1. Equal	4 CONCUTO	children between 0-6	1.1.2. School garden
DRC	opportunities:	Y i	years old	1.1.3. Hand crafts
<u>n</u>	education		1.2. End child labor &	1.2.1. Safe house
			protect children	1.2.2. Safeguarding policy
women			2.1. Gender Equality	2.1.1. Social businesses to make women financially independent
<b>×</b>	2 Cafaty for waman	3 SECURITION 5 TO THE MODIFIES		2.1.2. Women empowerment & capacity building
and	2. Safety for women		2.2. Easy access to	2.2.1. Safe house
			help and a safe haven	2.2.2. Safeguarding campaign
eldoed	3. Food security: Local, sustainable and accessible food	sustainable	3.1. Increase & diversification of agricultural production 3.2. Increase capacity to use & manage	3.1.1. Sustainable agriculture
960				3.1.2. Plant nursery
				3.1.3. Sustainable fish farming
n D				3.2.1. Renewable energy generation
Š				3.2.2. New irrigation techniques
en,			water resources for agricultural purpose	
children, young			3.3. Strengthen of	3.3.1. Training of trainers in agriculture
Ä			agricultural skills of	3.3.2. Training program in agriculture for young people & women
_			young people &	
Safe life for			women 4.1. Capacity Building	4.1.1. Trainings in farming
Ξ		1 NO. BECOMME COMP. 11 INCOMPLETED	4.1. Capacity building	4.1.2. Trainings in husiness
afe	4. Decent work:	e de de	4.2. Construction of a	4.2.1. Reinvestment in the total project (1) & in social businesses (2)
S	Social Businesses	ABBE	scalable, self-	4.2.2. Training in cycles of 12 months
			sustaining model	4.2.2. Training in Gyoles of 12 months



# **Short Terms Goals:**

- 1) Fill the gap in the local agriculture-food market by incorporating a solid social business venture able to become self-sustaining and profitable in a short-time.
- 2) Transfer know-how and providing dignified employment for vulnerable women and young people
- 3) Improve food security within the local communities by distributing the produce adopting a work-for-food scheme.
- 4) Educate and protect children between 0 and 6 years old

# **Long Terms Goals:**

- 1) Introduce quality seeds and crops to agricultural routines within the area.
- 2) Consolidate best practices concerning production, conservation and transformation of food products.
- 3) Transmit to future generations the awareness that it is possible to work in safe and protected environments and in dignified conditions.
- 4) Literate children.

# Results:

- I. Locally-owned social businesses and subsistence agriculture which is capable of generating surpluses to ensure livelihoods and development.
- II. Sustainable agricultural activities generate direct and indirect household income within the communities. Decreased child labour thanks to increased household income.
- III. A robust local cooperative system based on women and young people preferred employment approach.
- IV. Innovative model of self-sustainable social entrepreneurship, proved in the Kolwezi area (DRC) and Angola.
- V. Literate children which are safe and have future opportunities.

### **Directs beneficiaries:**

Direct beneficiaries are considered pro-quota investments (other than the pro-quota investments for the social businesses), intended to support to the development of the general project. The funds will be notably diverted to finance:

- Safe spaces for women, young people and children, including
  - Community-based social protection
  - Vocational skill training and economic empowerment for girls and women
  - Health, Hygiene and Sanitation
  - Advocacy of girls and women's rights
- Empowered, literate children which have the opportunity to thrive, including
  - Eradication of child labour
  - Child protection
- Strengthened communities through sustainable agricultural practices, including
  - Improved food security
  - Reduction of malnutrition (improved micronutrients through non-processed food)
  - Improved resilience through the increase of biodiversity
  - Protection of the land through sustainable agricultural practices

# Indirect beneficiaries:

- Profits pro-quota intended for support to local Community where the Project takes place.
- Employees employed in the project and their families, who will receive a salary and specific high-level training.
- Monthly pro-quota investments, intended to support the social businesses, which can be used for high-end technologies, which will lead to better production, which benefits self-sustainment. Competence sharing and on-the-job learning will be beneficial for the whole community.



# Other beneficiaries:

The proposed model envisages reinvestments of the profits, intended to further support the different projects and improve the social impacting.

We have therefore indicated as other beneficiaries the followings:

- Reserve fund for the project's sustainability
- Pro-quotas intended to remunerate the social investment



# 3.5 Project Phasing

The social project of the CFM congregation in Maluku, Democratic Republic of the Congo, aims to guarantee sustainability and long-term impact to the educational and social protection activities aimed at girls, boys, young mothers and young women, managed by the community. **The project is divided into 2 phases**: this document and its annexes describe in detail the first phase, with an estimated duration of 1 year, and provide information on the main elements of the second phase.

During the <u>first phase</u> of the project, the main objectives are 4; the first one is to provide a safe home for the 4 sisters currently present in the Congo, which is built directly on the land owned by the Congregation, in order to guard the plot and to ensure a more effective realization of the project activities (involving, however, immediately a savings on rental costs). The second one is to equip the sisters with a vehicle that guarantees their autonomous, economic and safe mobility in a huge Country like Congo (also in this case with an immediate reduction in the rental costs of a car with driver, extremely high in the DRC).

The third objective is to tackle the problem of food security, exacerbated by the ongoing Covid pandemic, through a targeted intervention aimed at families, which can quickly make them self-sufficient through an emergency agricultural project. Finally, the fourth objective is to carry out a complete feasibility study that addresses the realization of the project **second phase**, represented by the implementation of a long-term social agribusiness able not only to make the mission autonomous but also to provide the local community with elements of socioeconomic development based on sustainable agricultural production and pisciculture (fish farming).

It is essential to consider that the third objective of the first phase of the project, or the emergency agricultural project, in addition to representing a good basis for the feasibility study for the social agribusiness project (project phase two), will also represent its preparatory work, especially in terms of training (training of trainers and training on the job).



# 4 PROJECT PHASE 1

In the horizon of the project Logical Framework, the project implementation workplan includes two phases, namely Project Phase I and Project Phase II. The objectives of Project Phase I are:

- to establish a guesthouse ("casa religiosa")
- to ensure safe, autonomous and value-for-money mobility to the sisters on the field (through the acquisition of a project car)
- to launch an emergency agricultural project to fight Codiv pandemia consequences on food security
- to provide a full feasibility study for a sustainable long term agri-social-business (Project Phase II)

Below, more details about point 1 and point 3 of Phase 1.

# 4.1 Guest House (casa religiosa)

The guesthouse is especially important, because the initiators of this project, 4 sisters of the Congregation Figlie Della Misericordia, need to be present at the location where the project will take place (Maluku, DRC).

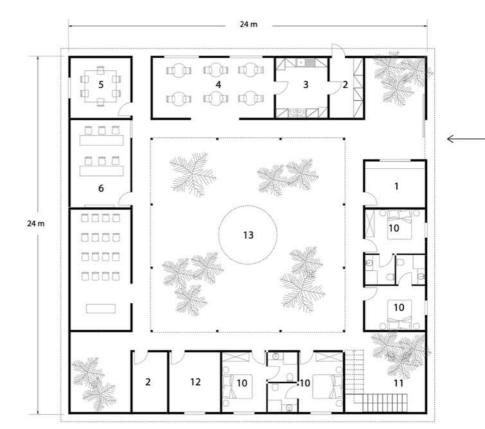
Their presence will help them to understand the project location and to connect with local, nearby communities (1) and it will allow them to coordinate the project (2).

The two-level guesthouse is designed by AOUMM architects and has a total surface of 425 m². The guesthouse will be a modular building, which means that the building exists of different repetitive modules, which are prefabricated. To prevent high initial investments the guesthouse is planned to be built in two phases, namely Phase A and B, which the modular system is very suitable for.

The drawing below shows the initiated spaces for phase A, consisted of four bedrooms for the sisters. Other spaces include a kitchen; a cafeteria; an office; a classroom; a community area; an internal courtyard; a conference room; a laundry room; and an underground water tank for the storage of water of the roofs, which can be directly used for the toilets and the garden (irrigation).



The total surface of the buildings of Phase A is 255 m<sup>2</sup>, with a total expected cost of 160,000  $\in$ .



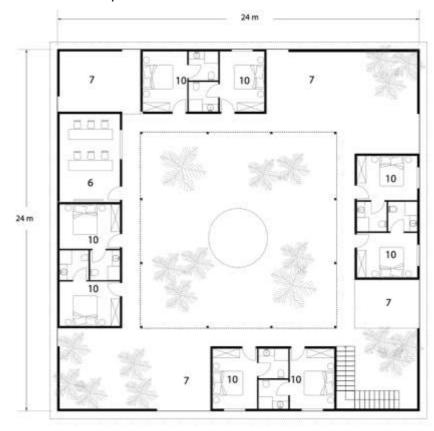
- 1 Entrance garden
- 2 Deposit/Storage
- 3 Kitchen
- 4 Café
- 5 Office
- 6 Classroom
- 7 Relax area
- 8 Internal courtyard
- 9 Conference room
- 10 Room
- 11 Distribution
- 12 Laundry
- 13 Underground watertank

### Built area 255 sqm 4 Rooms

Scale 1:200



In Phase B (First Floor or separate building, if necessary for project purposes), eight additional rooms and a classroom are built, with a total surface of 170 m². The open spaces in between can be used as relax areas. The cost of this phase is estimated at 98.250 €.



- 6 Classroom
- 7 Relax area
- 10 Room
- Built area 170 sqm 8 Rooms

Scale 1:200

After completion of Phase B, the building will have a surface of 425 m², with a total of 12 rooms and a total expected cost of 258.250 €. The drawing below shows the axonometry of the complete design (Phase A and B).





The full concept of the Guest House is shown in **Annex I.** 

# Guest House\_Budget by items

GUEST	HOUSE	CASA	RELIGIOSA

	Category	Nr.	Unit	Unit Cost [€]	Total Cost [€]	PHASE 1: 255 square meters
Design	services	1	lump sum	10.000 €	10.000 €	GROUND FLOOR
Field Mission_Technical Supervision	services	2	lump sum	2.000 €	4.000 €	(4 bedrooms)
Field Mission_Expenses (flights, insurance, accomodation&meals,)	expenses	2	lump sum	1.750 €	3.500 €	
Construction works + local construction oversight	works	255	square meters	450 €	114.750 €	
Furniture & Equipment	goods	1	lump sum	15.000 €	15.000 €	
General Coordination & Supervision	services	1	lump sum	5.000 €	5.000 €	
Field Mission_Coordination	services	1	lump sum	2.000 €	2.000 €	
Field Mission_Expenses (flights, insurance, accomodation&meals,)	expenses	1	lump sum	1.750 €	1.750 €	
Contingency / unexpected expenses	expenses	1	lump sum	4.000 €	4.000 €	
				TOTAL	160.000 €	

	Category	Nr.	Unit	Unit Cost [€]	Total Cost [€]	PHASE 2: 170 square meters
Design	services	1	lump sum	5.000 €	5.000 €	FIRST FLOOR
Field Mission_Technical Supervision	services	1	lump sum	2.000 €	2.000 €	(8 bedrooms)
Field Mission_Expenses (flights, insurance, accomodation&meals,)	expenses	1	lump sum	1.750 €	1.750 €	
Construction works + local construction oversight	works	170	squared meters	450 €	76.500 €	
Furniture & Equipment	goods	1	lump sum	10.000 €	10.000 €	
General Coordination & Supervision	services	0	lump sum	5.000 €	0€	
Field Mission_Coordination	services	0	lump sum	2.000 €	0€	
Field Mission_Expenses (flights, insurance, accomodation&meals,)	expenses	0	lump sum	1.750 €	0€	
Contingency / unexpected expenses	expenses	1	lump sum	3.000 €	3.000 €	
				TOTAL	98.250 €	

PHASE 1+2: 425 square meters

GRANDTOTAL 258.250 € GROUND FLOOR + FIRST FLOOR
(12 bedrooms)

Maluku Project proposal



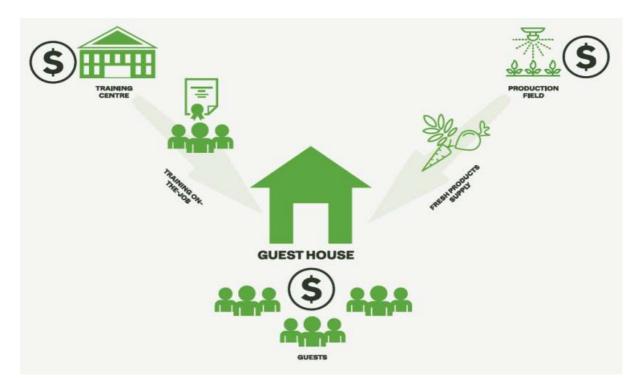
# 4.2 Family Farmers\_Emergency Agriculture

This project component is fully explained in its technical details in **Annex II and III.** 

Notably, it represents also a preliminary activity for Project Phase 2 in terms of:

- Training
- Initial investments / capex (partially)
- Feasibility Study

This activity will be developed on 500 square meters in the 5 hectares plot in Maluku, just beside the Guest House, in order to ensure full control and training.



The project budget is divided as represented in **Annex III** and in the below detailed breakdown; every 2 months, it is possible to reach 300 families with a kit, including basic tools, training material and seeds (or rooted plants). Each family needs around 50 square meters of land to start the production, but this surface can be obtained also through hanging solutions if the land is not available.

Considering an average of 4,5 members per family, it is possible to reach 1.350 beneficiaries per cycle (2 months); finally, considering that each kit has a direct cost of around 40 Euro, the direct cost per person is estimable in **less than 10 Euro/person**.

For each cycle, the direct costs for the kits amounts to 12.000 Euro; considering 15k Euro for the initial investment (capex) and yearly running costs around 13.000 Euro (opex), the total cost per person in case of a 1-year project will be around **12 Euro/person** to ensure a sufficient level of food security.



# Emorgonou Agricultura Dudget by itema

# Family Farming Kit

# Nursery

CAPEX	Nr.	U/M		U/C		Total
Pipes	1	flat rate	€	1.500,00	€	1.500,00
Tanque (5,000 I) and its support	1	Piece	€	1.000,00	€	1.000,00
motor pump	1	Piece	€	500,00	€	500,00
Nursery structure	1	flat rate	€	5.000,00	€	5.000,00
Fillet nursery	500	sqm	€	1,00	€	500,00
Nursery installation	1	flat rate	€	3.000,00	€	3.000,00
Motocultivator	1	Piece	€	1.500,00	€	1.500,00
Soil enrichment (1 ton of manure)	20	Loads	€	25,00	€	500,00
Agricultural tools	1	flat rate	€	1.000,00	€	1.000,00
Maintenance tools	1	flat rate	€	500,00	€	500,00

€ 15.000,00

# OPEX

	Utilities	1.000 €
Gasoline for equipment		1.000 €
	Production factors	1.700 €
Fertilizer (Organic)		500 €
Small plants / suckers / cuttings		500 €
Biological sanitary products		200 €
Seeds for nursery		500 €
	Maintenance	1.000 €
motocultivator		300 €
motor pump		300 €
Irrigation system		400 €
	Logistics	1.000 €
Transport for staff		500 €
Transport for products		500 €
Staff local		7.200 €
	Sub-Total	11.900 €
Contingency (10%)		1.190 €
	TOTAL	13.090 €

# **FAMILY FARMING KIT**

Kit for a family and an area of 50 square meters	U/M		U/C	Qty	Т	otal
Seeds	Grams	€	0,30	35	€	11
Watering can	Piece	€	7,00	1	€	7
Hoe	Piece	€	8,00	1	€	8
Measuring tape	Piece	€	1,50	1	€	2
NPK fertilizers	Kg	€	1,00	10	€	10
Book register	Piece	€	1,00	1	€	1
Agronomic techniques and procedures leaflet	Piece	€	2,00	1	€	2
				atal ataula l		40.0

Total single kit € 40,0

Nr. Of kit 300

Total budget € 12.000

	AFTER
Seeds (35 gr.)	MATURATION
Rio Grande Tomato 5 g.	70 to 90 days
Tomato Roma 5 g.	70 to 90 days
Cucumber Ashley 5 g	60-70 days
Texas early grano onion 5 g.	150 days
Portuguese Kale/Cabbage 10 g	60-70 days
Cabbage Copenhagen market 10 g.	60-70 days
Chinese cabbage10 g.	60-70 days



# 5 PROJECT PHASE 2

Project Phase II includes all the activities connected to the objectives of the project, namely the creation of a safe house for vulnerable children, young people and women, including safeguarding policy (1), sustainable agricultural practices in collaboration with women and young people (2), primary education for children between 6-12 years old (3), Knowledge transfer of practical skills and business principles (4).

Project Phase II will see also the full implementation of the **social-agri-business** designed to ensure long term sustainability to the project mission and to improve local economy and food security through the application of replicable and scalable economic models.



Such kind of social business has its own goals in terms of impact on the population, that we can properly divide in short and long term goals:

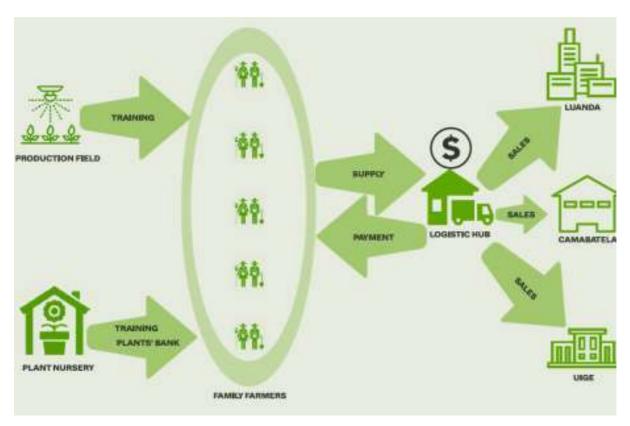
# **SHORT TERM GOALS:**

- Fill the gap in the local agriculture-food market by incorporating a solid social business venture able to become self-sustainable and profitable in a short-time
- Transfer know-how and empowerment to local cooperatives and provide dignified employment, alternative to dangerous artisanal mining
- **Improve food security within the local communities** by distributing the produce adopting a work-for-food scheme

# LONG TERM GOALS:

- Introduce quality seeds and crops to agricultural routines within the area
- Consolidate best practices concerning production, conservation and transformation of food products
- Transmit to future generations the awareness that it is possible to work in safe and protected environments and in dignified conditions





# Example of similar projects:

https://www.think-global.it/projects/agri-social-business-kolwezi-phase1/ https://www.think-global.it/projects/agri-social-business-kolwezi-phase2/ https://www.think-global.it/projects/feasibility-study-agri-social-business-angola/ https://www.think-global.it/projects/emergency-agriculture-response-covid-19/

# 5.1 Market research (to be included in the Feasibility Study, Project Phase 1)

It is necessary to know which foods are most in demand by potential customers and what their food habits and traditions are. Customers could be reached through traditional sales channels in the markets, to which could be added shopping centres and restaurants. It is very important that fresh produce (leafy vegetables) find quick outlets to evacuate goods, without having refrigeration facilities for storage, especially in the countryside.

Therefore, in 2018, Think Global srl did a pre-feasibility study in the Kolwezi area, southern DRC in 2019, more data was collected and information was integrated through two technical assessment missions, conducted by international agri-business experts. The intention was to elaborate a Social Business Model to be first implemented in Kolwezi area and then scaled-up and replicated at a regional and international level. This has already successfully been done in Angola and this project in **Maluku could be the next implementation location.** 

The survey developed by the project team, highlighted the following:

- a) There are no industrial sized agricultural productions in the Kolwezi area
- b) Most of the unprocessed food products currently traded in the Kolwezi market both formal and informal are of foreign origin
- c) The average quality of unprocessed food products is considered of a low-level

This has led to a positive assessment about the opportunity of developing social business in the primary sector (food production). **Expected is a similar situation in the Maluku area.** 

The survey on the availability of horticultural products in the informal markets of Kolwezi and Tshala (DRC) showed a marked interest in establishing continuous relationships with local producers that prove capable of guaranteeing continuity quality and in production.



The table below provides information about products found at the market, including the average selling price, and it provides an indication of the demand (high, medium or low).

Product	Average selling price (\$/kg)	Demand (High, Medium, Low)
Onion	0.30	High
Cabbage	0.70	Medium
Cucumber	0.70	Medium
Tomato	0.70	Medium
Pepper	1.20	High
Chilli pepper	1.70	High
Eggplant	0.70	High
Lettuce	0.70	High
Garlic	1.70	High
Potato	0.70	Medium
Carrot	0.70	Medium
Yam	0.10	Medium
Celery	0.70	Medium
Beans	0.30	Medium
Green beans	1.20	High

Most of the production (with particular reference to informal markets) takes place during the rainy season. During the dry season, prices are higher due to poor quality and lower availability (see Annex IV).

# 6 SOCIAL-AGRIBUSINESS

As mentioned before, CFM owns two plots in DR Congo. The first one is a 5 hectares plot, located in the outskirts of the municipality of Maluku and the second plot is located about 100 kilometres from Kinshasa and has a dimension of 50 hectares.

The guesthouse and the first agricultural activities will take place on the 5 ha plot, because of the advantages of the location; nearby a river and about 7 km from Kinshasa.

In the first instance, the 50 ha plot can be used for experiments, such as setting up a food forest, with the aim of the creation of a self-sustaining ecosystem. Wild bees can be used for pollination and, if the right circumstances are created, for honey production.

The agribusiness will be part of the capacity building and the creation of social businesses.

# 6.1 Food Security

About 75% of the world's poorest people get their food and income from farming small plots of land, typically 1 ha or smaller, and most of them labour under difficult conditions. They are faced with diseases, pests, and drought, as well as unproductive soil. Their livestock are frequently weak or sick, resulting in reduced production of eggs and milk to eat or sell.

Access to reliable markets for their products and good information about pricing is limited, and government policies are often biased against agriculture or do not adequately address the most pressing needs of poor farming households.

Women are a vital part of these farms, where, beyond caring for and feeding their families, they provide a large and often dominant share of farm labour, but have more limited access to and control over production resources such as land, seeds, equipment, and credit.

Improvements in agricultural productivity coupled with greater opportunities to engage in competitive markets can create social and economic ripple effects. With increased incomes, small farmers will be able to better feed their families, send their children to school, take care of their health, and invest in their farms. These investments also can spur the local economy, and farm surpluses can help expand food processing, distribution, and retail businesses.

This project is expecting to have an environmental, social and economic impact beyond the territorial and contextual scope of the project. In the field of food security strategies, we may



interact with and find solutions in the highest and most unresolved purpose of reducing the food losses in the post-harvest, preservation and distribution phases in developing countries.

# 6.2 Good agronomic practices

In horticulture, the agricultural activity par excellence and the most intensive, because it is done with repeated and brief cultural cycles. Therefore, the planned social agribusiness model is based on permaculture, which means whole system thinking, based on the patterns and resilient features observed in natural ecosystems.

The aim is to extend the lifespan of the products that are used and then reworked to be reintegrated into the biological cycle without producing waste, but considered a resource, reducing losses along the value chain.

Other aspect can be the integration of renewable technologies, crop rotation, the recovery of organic matter with composting and the production of organic matter to return to the soil by improving their chemical-physical qualities, and reduction and management of plastic waste.

A fundamental and strategic aspect is the maintenance of soil fertility, which strictly depends on the chemical-physical composition of the soil. It is therefore useful to assess the performance of a chemical analysis and the weaving of the soil, but also the fact that the soils of Kinshasa are essentially sandy and with a low content of clay and humus, which results in a low nutrient and water retention capacity. The consequence is that the performance of agricultural production must provide for the supply of organic matter according to the opportunities available: compost; various herbaceous plants; farmyard manure; tree leaves (mango for example); and treatment residues such as brewery grains.

The adoption of good agronomic practices, the search for resistant varieties and the implementation of adaptation measures, the management of natural resources for the mitigation of climate change, in particular the now recurring phenomena of irregular rains and droughts are the key to improve food security for sustainable development in rural areas of the territory, but also in the region.

The intervention, dealing with family agriculture, is consistent with poverty reduction priorities and food and nutrition security challenges.

Resilience in rural communities as:

- Encouraging sustainable agriculture by promoting the use of local varieties and agricultural techniques and low-cost and environmental impact products;
- Aiming to improve access to water resources and inputs;
- Promoting associationism and addressing small farmers (70-80% women) to promote equal opportunities and gender equality.

In perspective, in the context of Social Business Project in Kolwezi, DRC, there are also research and experimentation of models for preserving grains of cereals and legumes with physical and mechanical methods, without the use of expensive and harmful chemicals, for both the soil and people.

Within the project there are the competences and conditions to define and replicate methods of prevention, monitoring and defensive measures of foods, as an alternative to the usage of fumigants and chemical substances producing residues in the food with exposure to the risk of poisoning for the user in the long term.

According to recent figures from WHO and FAO, insects, mites and rodents cause food losses of about 10% in developed countries, and about 35% in developing countries. This has an effect on the price and condition of foods.

Global losses reached around 100 billion dollars in 2018 and at the same time, over one billion people suffer from chronic malnutrition. This is an unacceptable situation, both from a humanitarian point of view and in the light of the hard work; and the waste of resources for food production, such as soil; water; fertilizers; and energy.



Reducing the post-harvest losses would increase the availability of food in the world without the need of other resources or additional costs on the environment (the total food waste rate in developed countries is about 33%).

Planning and marketing are the two most important and strategic aspects of the vegetable and legume value chain. The planning of the organization and rotation of crops in the fields, is essential in order to obtain the best results from an agronomic and economic point of view.

The need for water varies depending on the species cultivated, the stage of growth, the type of soil and the climatic conditions of the production area. In general, it is estimated that 5-8 L/m² of water per day is required for high-intensity vegetables and crops.

The following high-intensity crops are planned to be produced:

HIGH-INTENSITY CROPS					
FRUIT VEGETABLES Tomatoes, Peppers, Hot Chilli Peppers, Eggplant, Zucchini, Cucumbers					
LEAF VEGETABLES	Lettuces, Various Salads, Amaranthus (Lenga-Lenga), Parsley				
LEGUMINOUS	Beans and Green Beans				
CABBAGES	Hood, Chinese, Cauliflower				
TUBEROSE	Carrots, Garlic				
TESTING AREA	Rice				

In a higher end of the land available and in larger parcels the following crops can accommodate in a profitable and lower water requirement (2-4 L/m²), with a seasonal cultivation cycle.

The following medium-intensity crops are planned to be produced:

MEDIUM-INTENSITY CROPS						
FRUIT VEGETABLES	Tomatoes,	Peppers,	Chilli	Peppers,	Eggplant,	Zucchini,
	Cucumbers					
LEGUMINOUS	Soya, Peanuts, Beans					
TUBEROSE	Potatoes, Sweet Potatoes					
CEREALS	Corn					

In an even higher range of the land available, as well as on the perimeters of the plants, in areas with low maintained demand and sporadic irrigation and in particularly dry periods, it is considered strategic to invest in long-cycle crops such as fruit plants.

The following low-intensity crops are planned to be produced:

LOW-INTENSITY CROPS			
FRUIT PLANTS	Pineapple, Citrus Fruits, Avocados, Variety of Bananas		
TESTING AREA	Cassava		

# 6.3 Resilience through biodiversity

In this project, neglected and underutilized plant species native to DRC will be produced, with the aim of restoration and preservation of biodiversity, cultural heritage and food sovereignty. Harnessing of indigenous crops and traditional knowledge, helps to become resilient to extreme weather events (such as prolonged drought, tropical cyclones and floods, due to climate change), since the larger the biodiversity, the bigger the chance that certain crops will survive.

An example of a traditional crop from DRC is manioc. It is a widespread plant really appreciated by the population, because of the low demand of maintenance and output of the



fresh root and flour. This basic food contributes to the food security in many rural and urban families. Cassava has a long culture cycle, namely from 12 to 18 months for many varieties, some of which have a ripening time of up to 24 months.

Examples of indigenous, neglected and underutilized plants in DRC are (Slow Food, n.d.):

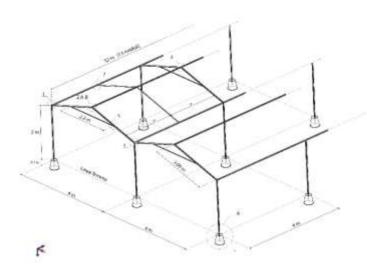
- Bulukutu: an aromatic plant which can be used for tea
- Chaama: a type of yam
- Ketchu Pepper: black pepper from the forest
- Mfumbwa: a climbing plant of which the leaves, fruits and tubers can be eaten
- Tule Na Bwana Rice: extremely fragrant rice variety
- Sambaza fish: sardine (Limnothrissa miodon)
- Mpafu: dark purple-coloured elliptical fruits (African elemi or canarium)
- Alwaru: mall leguminous plant (Fr: clotolaria)

In DRC, there 93 gardens, which are part of Slow Food's 10,000 gardens for Africa project. More specifically, around Kinshasa there are 20 gardens. Slow Food and Slow Food convivia in DRC, could be an interesting partner in this project.

For more information, please visit: <a href="https://www.fondazioneslowfood.com/en/what-we-do/10-000-gardens-in-africa-2/gardens-in-africa-map/">https://www.fondazioneslowfood.com/en/what-we-do/10-000-gardens-in-africa-2/gardens-in-africa-map/</a>

# 6.4 Plant nursery

The plant nursery is the strategic centre for planning and crucial area of agricultural activity for planning and planting. The proposed nursery is designed on an area of 100 m<sup>2</sup>, made with a durable structure of angle iron, with a height of 3 m, and 4x4 m. modules, covered with 50% darkening shade net to protect the sprouts and small plants from the sun, heavy rain and wind.



Planting will be done in seed germination trays, containers or bags, all made from biodegradable materials or very durable materials (which can be used over and over again), to prevent waste.

The seedlings can be produced in optimal conditions, to create strong plants; young plants are healed from germination so that they can withstand harsh conditions in the field.

The young plants will be divided over the company (this agribusiness project); community members; and stakeholders.

This professional technique has many advantages, including early production, the possibility of expanding production schedules of early and late cultivated plants, production and propagation of horticultural and fruit plants (eg. mango, avocado, passion fruit, papaya, lychee).





# 6.5 Irrigation

One of the most limiting factors of agriculture is the availability of water, which can be especially problematic during the long dry seasons. In these months, irrigation of the soil is needed to be able to produce vegetables. During the wet season, rains are usually irregular and insufficient, and therefore irrigation plays also a big role in this season.

An irrigation system will make it possible to lengthen the period of agricultural production throughout the year, regardless the season. This will significantly improve the value chain of field products, in particular the vegetables, which are the most profitable products in the production activity of irrigation schemes.

In addition, by creating more stable and sustainable production conditions, a model is available to counter the negative effects of shocks and various critical issues, such as climate change. This is of even greater importance during pandemic outbreaks (such as the current COVID-19 pandemic), since the risk of a bad harvest has big implications on the food security of families and communities.

The proposed irrigation system for this project is a drip system. This irrigation method combines efficiency and ease of use, will allows for maximum benefits from each cubic meter of water distributed, and with that, a substantial increase in food production.

This type of irrigation, allows of control the amount of water to be made available to the roots of plants for production throughout the season, without wasting water. Usually, for this system, the use of a pump is limited, which will also have a positive effect on the costs.

The drip system allows for ideal and constant soil moisture levels, which improves soil stability; facilitation of cultivation; and hygiene of the product. A disadvantage of this ideal circumstances is the increase of plant pests and diseases.



# 6.6 Food processing

Food processing (food transformation and food preservation) could be interesting to:

- Extent the availability of certain crops throughout the year
- Reduce the need for cooled storage
- Reduce food waste
- Provide decent work
- Be resilient for the effect of extreme weather events (due to climate change)

The most common ways of food preservation are: curing; cooling; freezing; heating; sugaring; pickling; jellying; canning; and fermenting.

Examples of food processing are turning wheats into bread (fermenting and heating); fruit into jams (sugaring and canning); tomatoes into tomato paste/sauce (heating and canning); or cabbage into sauerkraut (fermenting).

# 7 FISH FARMING

In many developing countries, the consumption of protein is insufficient, which is problematic, since proteins are fundamental for structural and functional elements of the body and metabolic interactions. Not only the quantity of protein is an important factor, but also the quality of protein (Schönfeldt & Hall, 2012).

In DRC, fish accounts for 40% of the animal protein intake and is therefore highly important. The current fish production does not comply with the demand, which leads to an increase in price. In June 2020, FAO stated that fish farming should be "a sustainable increase in national fishery production".

Fish can be produced commercially in tanks, ponds or other enclosures. The location of the 5 ha plot, allows for fish farming, since the river is nearby.

For this project, there will be focused on sustainable fish farming, which means the creation of an ecosystem, in which no chemicals and antibiotics are used; where the fish are self-sufficient (no need for food); and with limited impact on wild fish. This type of sustainable fish farming goes beyond FAO's Code of Conduct for Responsible Fisheries.

Fish farming will be part of the capacity building and the creation of social businesses. Theoretical knowledge is the first goal that needs to be achieved during the initial training stage.

The aim of the activities is to create aquaculture knowledge in unskilled personnel, and prepare the team for the further practical operations. Sessions on fish and general aquaculture knowledge will be held at the beginning to introduce every staff member to the most important concepts. Afterwards, theoretical sessions and procedures on data collection and reporting will take place.

# **Training Structure:**

- Phase 1: Theoretical Knowledge Training
- Phase 2: "Hand in Hand" Practical Knowledge Training
- Phase 3: Knowledge consolidation and performance achievement

The final objective is to establish a long-term aquaculture reference centre, in order to introduce fish farming knowledge in Maluku, and to provide further opportunities to communities.





# **8 ENERGY GENERATION**

The Internal Rate of Return (IRR) for solar projects is between 6-10%, with a payback period of 7-10 years. Solar energy would make the guesthouse more autonomous (if storage is applied), less sensitive to blackouts and it will be profitable in the long run.

SEVA for AFRICA ONLUS (<a href="https://sevaforafrica.com/">https://sevaforafrica.com/</a>) donates and installs photovoltaic systems. They work in more than 10 African countries, including the Democratic Republic of Congo, which could be an interesting partner for this project.

Therefore, the Congregation wishes to apply for a PV system donation as part of its contributions to the whole project.

# 9 CAPACITY BUILDING

The project promotes a range of training activities, according to the methodology of "learning by doing" and a system of participation in rotational activities throughout the year, aimed at vulnerable women and youth in the nearby communities of Maluku.

These activities aim to improve the production and use of resources, as well as to increase the marketing capacity of farmers' agricultural production, the income and food security of their families.

The aim of the formations is to introduce new irrigation techniques (drip system), to check the characteristics and use of organic seeds, to make culture techniques more efficient, to start the production of compost, to promote crop diversification, to introduce agricultural production conservation and processing techniques for food security.

The final objectives of this activity are:

- Production techniques transfer aimed at improving the production of strategic crops (high, medium and low intensity) and increasing yields on horticultural, cereals and legumes, tuberose and fruit plants, intended for income production.
- the dissemination of resilient and sustainable technologies to ensure the availability of food for family use and for the market.
- The realization of professional agricultural activities in the fields of Maluku is one of the crucial points of the project. The Maluku Farm is promoted as a reference centre.



collection and aggregation of farmers, knowledge development, place of management and field trials where beneficiaries will have the opportunity to exchange information and improve techniques and agricultural practices, to learn and evaluate new solutions to the problems of the field, to study the conditions for the quantitative and qualitative increase in productivity and income production.

One of the main objectives is to create an institutional, technical and organizational capacity of women through the transfer of innovative technologies put in place, including women empowerment.

The project foresees a rotation cycle of 12 months (figure below), taking into account:

- Production cycles and optimization of the different phases of the training (training, experience, capacity consolidation);
- Rapid rotation of the personnel employed to distribute the remuneration to more households and to train a large number of beneficiaries.



# 9.1 Craftsmanship

Craftsmanship could be interesting to:

- Reduce organic waste
- Provide decent work
- Connect children with young people and women

Examples of craftsmanship are the transformation of organic waste to paper; branches (organic 'waste') into baskets; fats into soaps (saponifying); the production of hand sanitizer; and tires into shoes.

# 10 PROPOSED BUSINESS MODEL FOR SOCIAL AGRIBUSINESS (PHASE II)

Each phase of the project, provides a common mechanism to guarantee a standard Profit Sharing Scheme aimed to support the local community where the project takes place and to support the programs throughout the country.

Each phase of the project has been modelled through a first module, which is meant to constitute the core of the project receiving an important initial investment in terms of funds and know-how transfer. Next steps (additional modules) in the project will beneficiate from the initial investment and are designed to perfectly fit with first modules generating important economies of scale.



The expected range of investment for start-up is between 150k€ and 500k€.

The range of investment for additional modules is between 10k€ and 30k€, allowing for implementation of a very agile fundraising strategy that can be direct either through SMEs, small associations or to private donors.

Foreseen is the production of food products ready to be placed on the market. The sales strategy envisages a first phase in which the products will be sold on the informal market and gradually it will differentiate the sales channels, such as local distribution chains, hotels and restaurants.

Since a large part of the production will be destined to market, it will generate profits in a reasonable time. According to the model, generated profits will be then re-invested in social activities, such as:

- Investment in productive activities within the community
- Support to the general program

Remaining part of the production will be destined to support food security and safe guarding campaigns.

The production plans are based on the project carried out in Kolwezi, where sales revenues reached sustainable levels; the ability to cover fixed and variable costs within a reasonable time (between 3 and 5 years). The planned investment is therefore aimed at covering the expected losses for each project; once the break-even is reached, each project will be able to self-finance its operations without the need to receive additional grant funding.

The long-term goal is to create self-proposed ventures benefit. Furthermore, the economic sustainability is determined by the fact that these social enterprises - once their market positioning is consolidated - will ideally be able to attract additional social impact capital for the development of the additional modules envisaged by the project. This further development guarantees its scalability and - once the efficacy of the model has been proven - the replicability first at national and subsequently regional level.

The planned agricultural activities in Maluku's farm have a wider scope because they intend to experiment and apply a sustainable food production system through understandable, replicable and resilient agricultural practices that increase the productivity and income of rural households, which help to conserve ecosystems, strengthen food security and adapt to climate change, which progressively improve the terrain and soil quality, which promote proximity employment, gender equality and women's empowerment.

# 10.1 Economic Sustainability of the Project

The model is inclusive and social, economic and environmentally sustainable, and promotes the fair integration of beneficiaries.

- Social: the project will be carried out according to the principle of accountability from the bottom up with stakeholders and local partners;
- Environmental: Through the actions and tools promoted, the intervention will preserve
  over time the key role of supplier of natural resources essential for the livelihood of
  communities. The project will also enhance the correct management of the
  environment while ensuring the protection, renewal of natural resources and a greater
  resilience to climate change.
- Economic: the project focuses on simple technologies, which make use of easily available and low-cost materials. The production of horticultural and agricultural products responds to real market demands and zero km. The involvement of the members, who will actively and critically participate in the implementation of the interventions to ensure both the effectiveness of action and the duration over time, combined with the interest in improving their conditions, lead to reasonable guarantees of success.



It is intended to propose a model of farm management consistent with the circular economy approach intended as a tool to improve people's well-being and, at the same time, achieve economic results. Therefore, a virtuous and educational path of circular business management applied to agriculture is developed, through efficient use of natural resources and good practices such as the installation of renewable technologies, crop rotation, recovery of organic matter with widespread composting, reducing



SUPPORT TO LOCAL COMMUNITY

SUPPORT TO FdM GENERAL **PROGRAM** 

RESERVE FUNDS FOR SOCIAL BUSINESS

waste starting with rational water use, attention and management to plastic waste.

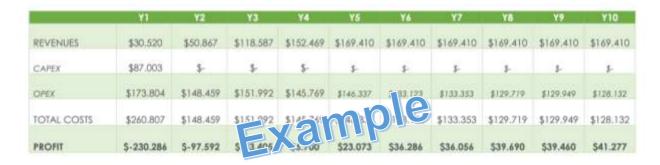
The aim is to extend the life of the products that are used and then reworked to be re-entered into the biological cycle without producing waste, now considered a resource, reducing losses throughout the value chain.

Energy generation, craftsmanship and food processing interconnect all the different components of this project. This will not only improve the social inclusion, but it will also generate income, which contributes to the economic sustainability of the project.

The following table and graph are an example of the losses and profits that the project is expecting to have.

Note: The rent for the apartments the sisters currently live in is 650\$, which would mean a saving of 7800\$ per year if they live in the guesthouse. The generation of renewable energy will (after the breakeven point) also have a positive effect on the balance sheet. As well, to rent a car with driver costs around 100 USD per day (+ fuel).

Final financial and sustainability performances of the project, including a comprehensive panel of KPIs and a breakeven estimation, will be designed and validated during the Feasibility Study (Project Phase I).







# **REFERENCES**

- FAO. (2016). Democratic Republic of the Congo. Retrieved July 2, 2020, from http://www.fao.org/countryprofiles/index/en/?iso3=cod
- FAO. (2020). Crisis in the Democratic Republic of Congo. Retrieved July 2, 2020, from http://www.fao.org/emergencies/crisis/drc/intro/en/
- Peterman, A., Palermo, T., & Bredenkamp, C. (2011). Estimates and determinants of sexual violence against women in the Democratic Republic of Congo. *American Journal of Public Health*, 101(6), 1060–1067. https://doi.org/10.2105/AJPH.2010.300070
- Schönfeldt, H. C., & Hall, N. G. (2012). Dietary protein quality and malnutrition in Africa. *British Journal of Nutrition*, 108. https://doi.org/10.1017/S0007114512002553
- Slow Food. (n.d.). Ark of Taste. Retrieved July 8, 2020, from https://www.fondazioneslowfood.com/en/ark-of-taste-slow-food/?fwp\_arca\_nazione=democratic-republic-of-the-congo-en
- The World Bank. (2020). The World Bank in DRC. Retrieved July 2, 2020, from https://www.worldbank.org/en/country/drc/overview
- U.S. Agency for International Development. (2019). Education. Retrieved July 9, 2020, from https://www.usaid.gov/democratic-republic-congo/education
- World Food Programme. (2019). Food security. Retrieved July 9, 2020, from https://www.wfp.org/countries/democratic-republic-congo

# **ANNEXES**

Annex I: Concept for Prototype Guest House Annex II: Emergency and Early Agriculture

Annex III: Family Farming Kit Maluku

Annex IV: Preliminary Info and Questionnaire Agribusiness Maluku

Annex V: Budget Project Maluku

Annex VI: Logical Framework graphic Maluku

Annex VII: Time Schedule / GANTT chart PHASE1 Maluku

Annex VIII: Bill of Quantities Guest house Maluku

Annex VIII: Pictures and maps