

**COMPREHENSIVE FOOD
SECURITY PROJECT WITH
THE CONTRIBUTION OF
INDIGENOUS FARMER FIELD
SCHOOLS:
THE PALMITO CASE, SUCRE,
COLOMBIA.**



SUMMARY

Ecoceanos Corporation contributes 1 farmer field school to promote food security for vulnerable families in the municipality of San Antonio De Palmito, Sucre. In 2020, Ecoceanos and the farmers of the community met with an NGO (Bosquecolombiano), to plan a comprehensive food security project. The project begins in 2021, with two phases; the first ends in the same year and the second concluded in 2023. This project was implemented to improve the livelihoods of 420 vulnerable families of extreme and high food insecurity with the reduction of 30% of children classified below average height by age in the project area; and a 25% increase in the value of family productive assets. The methodology of work with families focuses on productive and environmental aspects, and a design of non-formal adult education was applied.

During the time that the project was applied, it was concluded that the methodology worked to strengthen organizational capacities, support for agricultural production, animal health, agricultural exchange events, post-harvest, which is expected to be replicated and sustainable because it is based on organizations with decision, where peasant women play a very important role.

Keywords: schools, food security, indigenous, training.

1. INTRODUCTION.

This project is framed within the thematic line of sustainable development, it presents the contribution of farmer field schools to the food security of families in rural communities, which is carried out with a comprehensive Food Security project executed by Corporación Ecoceanos and financed by Bosque Colombiano Org. in the department of Sucre to benefit 420 families. (In two phases: 2020-2021 and 2022-2023). The project proposed here has involved all the local actors both to define it and to establish it. The sense of belonging of the population, together with the participation of technical-trained personnel, allows for a greater degree of certainty in success. With this project, partnerships have been made to leverage resources, with different institutions and in the different components, as is the case of the Municipal Mayor's Office of Palmito. It has been structured with four main components: Maternal and Child Health, whose

strategic objective is to reduce diseases among women of reproductive age and children under five years of age. Basic Sanitation and Infrastructure, to promote rural population's access to safe water, sanitation services, markets and supplementary irrigation for their crops. Municipal Strengthening, with the aim of increasing the management capacity of municipal governments to improve planning processes and adequate programmatic execution. Rural Income Generation, its objective is to increase the availability of food and mainly the economic income to meet their needs in a sustainable way, without damaging the environment. Within this component, the methodology of Farmers' Field Schools has been used and the specific case in the Municipality of San Antonio De Palmito in the department of Sucre is developed. It is important to make it known that a great support for the proper functioning of this project has been the agricultural promoter, who is a farmer of the community, with a desire to learn, commitment and leadership.

2. FRAME OF REFERENCE.

2.1. Location

The municipality of San Antonio de Palmito is located at an elevation of 3.0 m above sea level. It has an area of 18,147 hectares, of which 0.33% corresponds to the densely populated nucleus (Urban) and 99.66% corresponds to the areas of the rural sector and/or indigenous population settlements.



2.2. Weather conditions

The hot season lasts for 2.4 months, from January 30 to April 12, and the average daily maximum temperature is over 34°C. The warmest month of the year in Los Palmitos is March, with an average high of 35°C and a low of 23°C.

The cool season lasts 2.8 months, from 7 September to 1 December, and the average daily maximum temperature is less than 32°C. The coldest month of the year in Los Palmitos is November, with an average minimum temperature of 22°C and a maximum of 31°C.

2.3. Agricultural production

The economy of the department of Sucre has been based mainly on livestock of all kinds, that is, cows, horses, pigs, goats and even donkeys. The second activity that contributes the most is agriculture, with crops such as cassava, corn, plantain, yams, rice, avocado, pineapple and cotton.

2.4. Population

Palmito is one of the 26 municipalities of the Sucre Department, Colombia. According to the DANE (National Administrative Department of Statistics), Palmito has 16,224 inhabitants: 7,860 women (48.4%) and 8,364 men (51.6%). The inhabitants of Palmito represent 1.6% of the total population of Sucre in 2023.

3. THEORETICAL FRAMEWORK

3.1. Comprehensive Food Safety Projects

Integral Project because it implies that the work concentrates the largest number of components of the project; maternal and child health, basic sanitation and infrastructure, municipal strengthening, and rural income generation in a community (simultaneous or sequential), to better meet the needs of a target population.

The project is based on the focus on household livelihood security. Livelihoods are essentially what a rural family uses to sustain its existence and the ways in which it uses its income and the food it produces to meet its basic needs. The topics considered for the implementation of

this project were: food security, maternal and child health, education, housing, environmental health, time to rest and community participation. The greatest contribution is to food security, through greater availability of food and income from the commercialization of products generated.

The concept of food safety has been used in very different senses over time and by different authors. In its early uses, the concept referred almost exclusively to the food security of countries, without reference to the food security of individuals or families. This security was conceived, above all, in terms of the country not being dependent on food imports. A country, according to this approach, would be food secure when it can produce all the food (or at least the staple foods) that its population requires, without having to resort to imports. "Food Security is the situation when all people have physical and economic access at all times to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life"

Food security is interlinked with a variety of factors, including sustainable management of natural resources, increased production, policies at different levels, international trade, maintenance of biodiversity, environmental protection, peace and stability. Because of their vulnerability, families are susceptible to "food insecurity, which occurs when people lack safe access to a sufficient amount of safe and nutritious food for normal growth and development and an active and healthy life. It may be due to the unavailability of food, insufficient purchasing power, improper distribution, or improper use of food in the household. Food insecurity, poor health and sanitation conditions, and inappropriate care and feeding practices are the main causes of poor nutritional status. Food insecurity can be chronic, seasonal or transitory" (SOFI 2000, Glossary, p. 26).

3.2. Farmer Field School

The methodology was born in Southeast Asia in the 1980s and has come to strengthen various local rural development movements in Africa and Latin America. Since 1999, more than 300 facilitators from Latin America have been trained. They focus on priority learning topics on productive and environmental aspects, applying a non-formal adult education design: discovery learning. They provide a new platform for interaction between science and development

institutions and the practice of agriculture. They are made up of groups of people with a common interest, who come together to study the "how and why" of a particular topic. Topics can vary considerably, from integrated pest management (IPM), organic farming, animal husbandry and soil tillage to income-generating activities such as handicrafts, service delivery units, functional collection units.

4. OBJECTIVES

General of the Sustainable Food Security Programme

Improve the livelihoods of 420 vulnerable households in the Municipalities of extreme and high food insecurity with the reduction of 30% of children classified below the average height by age in the project area; and a 25% increase in the value of family productive assets.

5. METHODOLOGY

5.1. Description

The methodology is innovative and has a great future, since it allows groups of farmers to be trained in a practical way and with high quality results, being able to become a form of sustainable crop management within the community, at the end of the 2nd. o 3rd crop cycle. The fundamental principle of the schools is based on the empowerment of farmers, who are encouraged to make all decisions concerning the management of their plot and to carry out a process of "learning-by-doing" throughout the crop cycle.

In such a way that farmers become the true architects of the successes and/or failures that the learning process entails. With this, it is expected that what each participant has learned in a practical way will be applied on his or her own individual premises.

4.2. Implementation

We know that sustainable development is not possible without investment in human and social capital (OCD 2001). Because social capital resides in others, it is important to focus and

understand the feelings and trust between farmers and trainers. We use the methodology of the schools, which has objectives of comprehensive education; The course or class is held in the field on a periodic basis and the conditions of the field define most of the topics that are designed in a participatory way with the farmers, where the problems in the field are analyzed from before planting to harvesting and even until sale, or during a livestock system or fruit management. The steps to follow are:

i) Training of facilitators

Facilitators must know the philosophical principles of this methodology, so as not to forget their role in the training process; On the other hand, they must be sufficiently trained, both in the management of the crop under the technology to be transferred, as well as in group management with the use of participatory and dynamic techniques applied to that technology.

ii) Selection and motivation of participating farmers

This step is one of the most important in the implementation process, because it is necessary that those who are going to be part of a school feel sufficiently motivated and above all committed.

iii) Elaboration of curriculum according to the crop

The curriculum must be prepared prior to the start of the crop cycle, with sessions whose sequence does not have a rigid order, but on the contrary can be adapted to the phenological state of the plant and to the needs and/or interests of the participants. The sessions are a kind of guides that the facilitator uses as a technical orientation with methodological elements, which can be developed according to the skills of each facilitator.

iv) Development of Sessions

The typical development of a school session has the following steps:

- Presentation of the program (schedule, methodology, activities to be carried out).
- Roll call of participants.
- Review of the previous session.
- Theoretical explanation.
- Field work (group work in the plots).
- Exercises on the topic to be discussed (groups).
- Decision-making regarding the problem encountered in the crop.
- Evaluation of the session.
- Commitments for the next session.
- Drafting of the minutes, signing and closing of the session.

v) Monitoring and evaluation system

Another important step in analysing how it is developing its activities is monitoring and evaluation. In the implemented field schools, follow-up was carried out through individual charts, where the participant's attendance was monitored, the title of the session developed in each meeting; It also serves to record the grades resulting from the periodic evaluations, carried out in the training days. At the end of the cycle, those who were approved received their individual evaluation notebook and a certificate that certifies their approval and use during the development of the Field School.



Certificate of approval given to a farmer participating in the trainings.

6. ACHIEVEMENTS

Achievements at the farmer level

- There are farmers who are able to work as a team, who are motivated to continue under this scheme, who are interested in investigating problems that arise in the crops and, most importantly, who begin to feel capable of making decisions in a group almost independently of the technician.
- Participating farmers replicate the practices of the field school on their individual farms, validating the technologies used.
- Women feel more empowered and express a strong interest in carrying out group-managed crops between men and women with a 50% female participation.

Achievements with agricultural activities

- Seed renewal generated an 80% increase in field productivity. Traditional corn ratios from 1:12 to 1:20.
- With 5 layer modules, nutrition, organization and family income were improved (\$80 USD net for 8 months).
- Establishment of 18 participatory demonstration plots and 6 group organic gardens.
- 5 demonstration events / exchange of experiences and 4 productive fairs supported by the Ecoceanos Corporation.
- 16 trained Agricultural Promoters, with their respective technical educational package.

Achievements with Post-Harvest Activities

- 16 trained post-harvest artisans have their respective toolbox.
- Generated average post-harvest artisan income of \$200 for a total of \$2,249.3 over a 10-month period.
- Indirect employment was generated (13 assistants) and an average income per assistant of \$50 USD.
- The 34 Women's Groups have had an average savings of \$150 usd /Group for a total of \$3,000 USD that served as a counterpart to incorporate alternative technology (mills, vents, sorters)
- Functional Grain Collection Units were formed with 11 Women's Groups, with a storage capacity of 162 qq, generating an estimated total income of \$200 USD.

7. CONCLUSIONS

- After actively working with the Sustainable Food Security project, it can be concluded that: This methodology is based on the popular knowledge of farmers, their needs and decisions

according to (Oakley, 1993). Because it is important to nurture people's enthusiasm and abilities to discover new methodologies that allow them to improve their diet and that of their families, which has been a fundamental objective of the project. It is important to limit the role of the trainer to stimulating them, so that they use their capacities and this process is sustainable and not dependent, with strong support from the agricultural promoter of the community.

- They are made up of mixed groups of men, women and young people with a common interest, who come together to study the "How and Why" of a particular topic. With a bottom-up approach, active participation and continuous progress, incorporating local knowledge and thus strengthening the attitudes, practices, skills and mindset change of conformity of our farmers.

- With the methodology of Farmer Field Schools, it is concluded that the methodology lends itself to strengthening the organizational capacities of rural communities, support for agricultural production, animal health in large and small livestock, agricultural exchange events such as field days and meetings, post-harvest to reduce losses. This methodology is expected to be replicable and sustainable because the work is based on community organizations and decisions where women play a very important role.

- Topics in which they can range from integrated pest management (IPM), organic agriculture, animal husbandry and soil tillage to income-generating activities such as handicrafts, service delivery units, functional collection units, which have generally been managed by women with good household incomes.

- The problem of food security is solvable, but a global approach and the development of networks of human groups are needed. It is a great collective task of humanity, with a bottom-up approach; active participation and continuous progress because it is important to nurture people's enthusiasm and skills. Then incorporate local knowledge and strengthen attitudes, practices, skills and mindset change.

- Finally, the Ecoceanos Corporation would like to achieve the goals of food security and poverty eradication for all.

REFERENCES.

FAO, 2014. Alimentar al mundo, cuidar el planeta. 2014 año internacional de la agricultura familiar. Acceso: 26 de Mayo de 2016. <http://www.fao.org/family-farming2014/es/>

FAO, 2014. Agricultores familiares alimentar al mundo, cuidar el planeta. Diciembre de 2014. Acceso: 26 de Mayo de 2016. <http://www.fao.org/assets/infographics/FAOInfographic-IYFF14-FamilyFarms-es.pdf>

DANE. 2015. Departamento Administrativo Nacional de Estadística. Balanza comercial serie mensual 2007 - 2015. <http://www.dane.gov.co/index.php/comercioy-servicios/comercio-exterior/balanza-comercial>. Acceso: 15 de mayo de 2016.

GRUPO SEMILLAS COLOMBIA. 2015. Conservación y uso sostenible de la biodiversidad, derechos colectivos y soberanía alimentaria. Normativas sobre Semillas en América Latina al servicio del control corporativo.

ONU. La ONU dice que las cosechas orgánicas a menor escala son la mejor forma de alimentar al mundo. 2015. <http://www.ecoportel.net/Eco-Noticias/La-ONU-diceque-las-cosechas-organicas-a-menor-escala-son-la-mejor-forma-de-alimentar-almundo>.

Portafolio.co. El déficit comercial del país aumentó 146 %. 2015. <http://www.portafolio.co/economia/importaciones-colombia-febrero-2015-dane>. Acceso: 26 mayo de 2016.

Portafolio.co. Creció el área con transgénicos en Colombia. Febrero 2015. <http://www.portafolio.co/economia/transgenicos-colombia-2015>. Acceso: 28 de Mayo de 2016.