

FOOD SOVEREIGNTY FOR 50 FAMILIES IN MEXICO.



CECOM A.C.

“Promoting the integral development of peoples”



GENERAL DATA.

Business Name:	CENTRAL DE EJIDOS Y COMUNIDADES DE MÉXICO CECOM A.C.
Legal Concept:	Civil Association.
Slogan:	"Promoting the integral development of peoples"
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Foundation year:	2015
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OUR MISSION.

Improve the productive or social circumstances that impede the integral development of people, taking as a central axis training, promotion, foresight, prevention, protection and rehabilitation.

OUR VISION.

Consolidate ourselves as a solid institution in the integral attention to people in conditions of vulnerability from the link with social assistance institutions, as well as with professional service providers for the productive development and the development of skills for a Better quality of life through a multidisciplinary approach.

EXECUTIVE SUMMARY.

Since the creation of CECOM A.C. In 2015, we focus on management based on our corporate values, working six strategic lines: *Productive development/popular economy; social development; Indigenous and Afro-descendants; different capacities; Environment and natural resources; And sport, culture and tradition.* Social responsibility is one of our main values and our practice has been defined by working in the attention to vulnerable groups taking preeminence of the human being and his work on capital, thus responding to the necessary balance that we believe must be between the economic aspects, Social and environmental.

In this context, we carry out actions aimed at sustainable and responsible development, placing special emphasis on the integral development of peoples, counting with human capital, social capital and infrastructure necessary for the development of activities, attention and follow-up actions.

Adaptation to climate change must be seen as an opportunity to improve our actions for the benefit of our planet Earth, this time we propose to install 50 organic modules of family vegetable production in southeastern Mexico, particularly in the State of Guerrero, which Will enable us to contribute to improving the sustainability and food security of people affected by different factors such as organized crime, poor access to water, lack of access to electricity and away from shopping centers where they can source food. This type of orchards allows obtaining excellent yields at low costs, contributing to food security in a friendly and sustainable way to the environment. We are convinced that "IF WE CARE FOR THE PLANET THE CARE OF OURS".

WHERE DOES OUR PRODUCTION PLAN GO?

Our mission is to improve the circumstances that impede the integral development of people, the general objective of installing the backyard modules for the production of vegetables is to improve the sovereignty and food security of people affected mainly by social and environmental problems, motivating them and Developing in them capacities to produce foods rich in nutrients and of excellent quality.

Our strategy is based on the promotion and development of productive capacities of the community, installation of modules and monitoring of beneficiary families.





It is this aspect, our actions are directed in the short, medium and long term based on these four strategies.




Strategy	Short term	Medium term	Long term.
Promotion.	<p>Carry out awareness activities among the inhabitants of the chosen populations on the positive benefits and impacts of implementing the backyard vegetable production modules and as a source of alternative food production.</p> <p>Generate actions and awareness of the importance of the inclusion of employment of young people, women and people with disabilities.</p>	<p>We will deepen awareness of the importance of caring for orchards as a system Which generates fresh and healthy food, taking care at all times to use organic products for both nutrition and pest and disease control.</p>	<p>It will seek to have a comprehensive educational management and articulation with local organizations and authorities so that people are motivated with the strategies proposed and the implementation of new strategies that come to improve the social conditions of the incidence microregion.</p>
Community capacity building.	<p>Strengthen the productive knowledge of the families that will benefit from the backyard modules, both in planting and in the care of the species to be planted.</p>	<p>Teach inhabitants to establish their seedlings with native species of the region and to develop their root fertilizers, foliar nutrients, to control pests and diseases using waste from harvests or products harvested from the region of attention.</p>	<p>Strengthen the sustainable and responsible use of natural resources in combination with agricultural production, through sustainable production systems.</p>

<p>Modules of production.</p>	<p>Establishment of production modules, with the active participation of beneficiary families. The model type is 60 square meters, distributed in 4 beds of 10 X 1 meters, with a corridor of 0.70 meters between beds.</p>	<p>Maintenance of the production modules at each end of the production cycle, carried out by the beneficiary families. Replicate the idea of production with other families within the same locality or nearby populations.</p>	<p>Replicate the idea of production through the exchange of experiences with leading producers and producers in more distant localities.</p>
<p>Tracing.</p>	<p>Establish a plan and a program of integrated management of the established plantation, through appropriate care and management, seeking at all times to improve productive methods.</p>	<p>During the promotion stage, local organizations and governments will be made aware of timely follow-up of the home gardens, with periodic monitoring being our responsibility. This is because we consider it important that local people take ownership of established actions and Can propose improvements and propagation of the same with their neighbors.</p>	

IMPACT IN THE COMMUNITY.

The installation of family modules for the production of vegetables will, in the first place, meet the objective of improving nutrition, sovereignty and food security in the participating families, producing varied foods rich in nutrients, secondly, when there is a surplus of Production will be marketed among neighbors healthy products, fresh and at a lower cost by not having to move large distances food.

-  The positive impacts are.
-  Organic production.
-  The whole family can participate, being activities that do not require much effort and do not work with toxic waste.
-  Easy to replicate with neighbors.

-  Environment friendly modules, with an efficient irrigation system, a solar electronic system and harvesting and storage of rainwater.
-  Soil retention.
-  Scenic beauty.

With the implementation of this program, the goal is to benefit 250 people directly distributed in 50 participating families, in which they will develop productive skills to establish an intensive production system with the intention of producing healthy food for self-consumption and in your case generate income. The goal is that trained people can establish a way of life in the actions learned and also can replicate the idea with their families and neighbors.

TECHNOLOGY AND INNOVATION TO BE APPLIED.

The central innovation that we are proposing is to motivate the inhabitants of the localities to benefit by promoting and developing productive skills so that they take ownership of the actions to be performed, as this will give us a large percentage of success in the production modules of vegetables and in the replication of the same in the neighboring populations.

It is intended to use a self-sustaining and efficient production model by having a rainwater collection and storage system, a solar electric system and an efficient micro-sprinkler irrigation system in the use of water.

SCALABILITY.

Although it is true, certain physical and climatic conditions are necessary for the development of this proposal, it can be implemented in other regions and can serve as a model as long as native species are preferred or adapted to that region, or even can be planted in micro tunnels when the regions are cold or have frost at certain times of the year. The condition we consider important is to motivate the local inhabitants to take ownership of the idea and to be aware of the important benefits of having a family vegetable production module, even this proposal can be implemented in peri-urban areas or on roofs using pots.

When families are already motivated, they have the necessary knowledge to care for and maintain their orchard and especially if they have enough physical space, this idea can easily scale to larger crops with the intention of marketing the crop.

VIABILITY.

The proposal brings together characteristics, technical and operational conditions that ensure the fulfillment of its goals and objectives and the components that form it are framed within the context of an integrated multisectoral approach, which seeks to consolidate an idea defined and analyzed by technicians and professionals with broad Experience that have worked in the execution of similar actions, the aspirations of the communities and the prioritization of the needs of the inhabitants of the Region where it will be implemented.

The project and its structure respond to a strategy that seeks to consolidate the efforts made within the framework of sustainable rural development, seeks to harmonize economic investments with those of a social nature and the actions themselves and as a whole, respond to national needs and Do not superimpose efforts or duplicate actions.

Through the Adaptation and Generation of Technology component, trials are carried out in demonstration modules that complement and reinforce the actions developed for the establishment and maintenance of plantations and represent a suitable mechanism to disseminate the technology to be developed.

PLAN OF OPERATIONS AND RESOURCES.

For the proposed proposal it is contemplated to follow the following process of operations.

1. Approach and information to local communities and authorities.

We will seek a first approach with the local authorities and communities explaining the actions we wish to implement, explaining that it is the backyard agriculture or family garden, as well as the benefits it brings to health and family economy. At this stage of the process we will identify the local producers or producers that can help us with the follow-up in the next stages, we will also identify the best place to establish a demonstration module in which practical training is done so that families later Can replicate what has been learned in your garden. At this stage, the species that best adapt to the climatic and environmental conditions of the area are identified.

2. Selection of participating families and establishment of commitments.

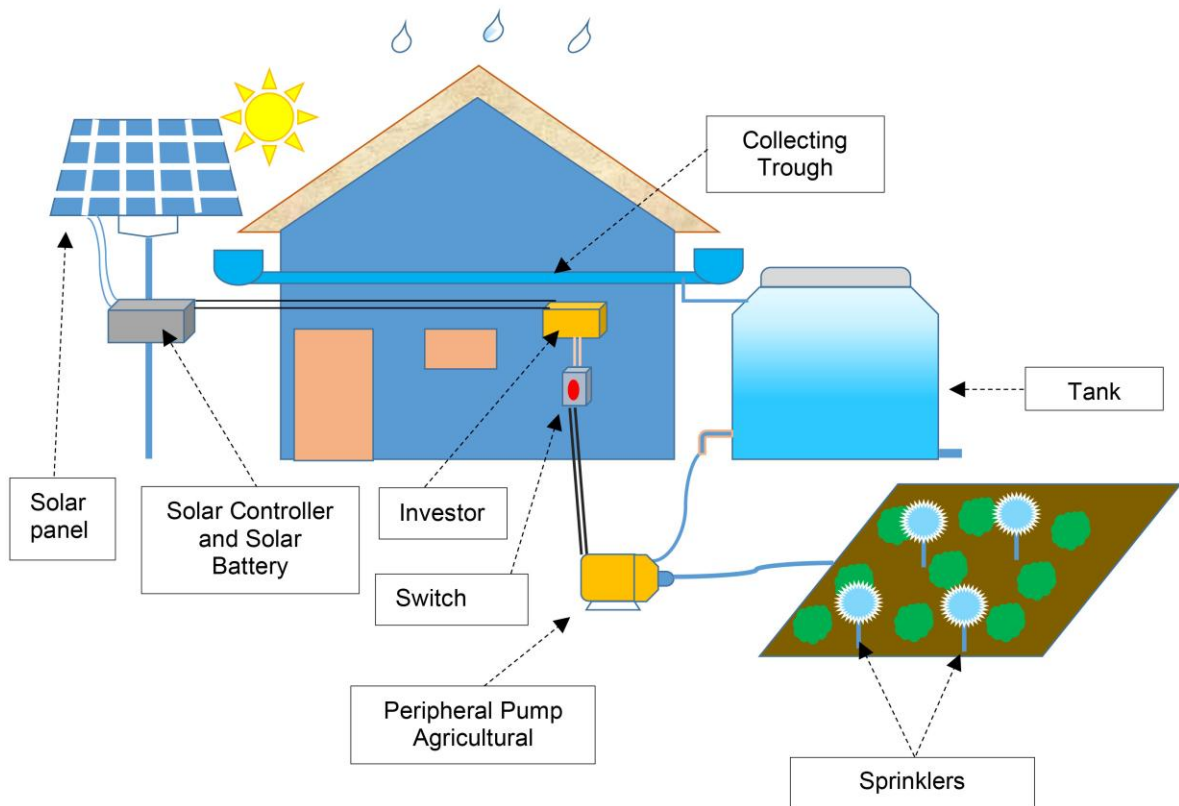
The direct beneficiary families will be chosen those that according to their interest shown in the previous step and to their level of commitment with the fulfillment of the objectives are considered suitable for the development of the backyard modules in their community.

3. Planning the family production module.

The planning of the garden is of vital importance since we must be aware that we are going to work with the land and not against it and see that each step is a benefit of it.

The model that is contemplated is of 60 square meters, preferably distributed in beds of 10 meters of length by a meter of I think and a corridor of 0.70 meters of width between each bed. However, it will seek to adjust to the physical conditions of the terrain, respecting at all times the goal of modules of at least 60 square meters.

The idea is to build a ferrocement cistern on the side of the home where rainwater can be collected for irrigation of the orchard in the dry season, which will be equipped with everything needed for both collection and use. This tank will be connected to the irrigation system by micro spray with an electric pump (connected to a solar electric system).



In this stage, together with the beneficiaries we will identify the best location for the orchard, a space that is not far from the house, with good access, identify the vegetation that is available, the best orientation to protect it from excessive winds

and Especially capturing most sunlight. The best location for the ferrocement tank and for the electrical system will also be identified.

4. Establishment of the family production module.

The first step will be to clean and adapt the place where the ferrocement tank will be found and start the construction process until finishing and equipping it.

The second step will be to establish the orchard in the location chosen in the previous step, the beds will be set to double excavation with a mixture of 800 grams of humus of worm per square meter. To protect it from the passage of people and animals will be surrounded by cyclonic mesh, using for these tools contemplated in the production model, such as shovels, rake, etc.

The third and last step is to install the electrical and irrigation system according to the beds established for such case, after having finished is done an irrigation test to verify that everything works correctly.

5. Planting and transplanting.

Unless in the first stage (during the planning and awareness process) the opposite is determined, the modules are intended to plant the following species:

Common name	Scientific name.
Radish.	Raphanus raphanistrum
Coriander.	Coriandrum sativum
Lettuce.	Lactuca sativa
Habanero pepper.	Capsicum chinense
Tomato.	Solanum lycopersicum
Bean.	Phaseolus vulgaris
Pumpkin.	Cucurbita maxima
Corn.	Zea mays
Local production vegetables.	

This stage is composed of two types of planting since these are adapted to each type of seed and climate, or even traditions and customs of planting.

Direct sowing. It consists of planting in the same place where the vegetable will grow, develop and be harvested. It is one of the simplest and most used methods in the world and is recommended for seeds with rapid germination.

Sowing in storage. It is a tray where the seeds first germinate and after having a considerable space the seedling is transplanted to the place where it will be grown and harvested. This sowing method will be used with seeds of slow germination and will be implemented simultaneously with the previous stage.

6. Control and monitoring.

Participating families will be visited for the verification of the orchards and their correct functionality, solving doubts and collecting comments on the production of vegetables that they are carrying out, since these actions are necessary to provide a systematic feedback flow of Information, which in turn allows to make the appropriate adjustments and in a continuous way during the implementation. This will allow the lessons of practical experience to be captured and synthesized with the intention of using it as a model in other communities or regions.

STAFF AND MANAGEMENT TEAM.

For the development of the proposal the following work team is contemplated.

Personal.	Quantity	Experience
Engineer in ecology.	1	Specialist in the development of organic fertilizers, environmental conservation of flora and fauna, restoration of soils and conservation of agricultural areas.
Agricultural engineer.	2	Experts in maize and fruit production, cultivation of open and greenhouse vegetables, crop counseling in soil preparation, irrigation, nutrition, harvesting, weed control, pests, diseases and post-harvest management. Execute community development projects involving agricultural activities such as home gardens, backyard farms, sustainable agriculture and conservation of natural resources, duly articulated with the improvement of the quality of life of the inhabitants and involving them in the projects.
Computer engineer.	1	Specialist in the design, development, implementation and administration of computer services, software and hardware. Database management.
Local leader producer.	3	Person of recognized reputation and experience to whom the inhabitants of the locality have confidence, respect and sometimes they go to him to request their advice.
Degree in economics.	1	Consolidation of social groups, administration and popular savings funds.

PLANNING.

Schedule of activities.

STAGE.	MONTHS												
	1	2	3	4	5	6	7	8	9	10	11	12	
Approach and information to communities and local authorities.													
Selection of participating families and establishment of commitments.													
Planning the family production module.													
Establishment of the family production module.													
Sowing and transplanting.													
Control and follow up.													

INVESTMENT BUDGET.

The investment cost disaggregated below is for each of the family vegetable production modules.

FAMILY MODULE OF VEGETABLE PRODUCTION

INVESTMENT BUDGET

CONCEPTS	UNITY	QUANTITY	UNIT COST	TOTAL COST
TOTAL INVESTMENT BY MODULE:				\$ 1,803.95
FAMILY MODULE OF VEGETABLES WITH LABOR TOOLS				
Cyclonic mesh 1.75 meters high by 20 meters long 13 gauge.	Roll	1.5	\$ 61.05	\$ 91.57
Tray germination unicef 200 cavities	Piece	1	\$ 4.42	\$ 4.42
Shovel Square, with fiberglass handle	Piece	1	\$ 7.91	\$ 7.91
Pickaxe 7 Pound Wooden Handle	Piece	1	\$ 12.03	\$ 12.03
15 liter red sprayer	Piece	1	\$ 32.97	\$ 32.97
Solid worm humus.	Kilogram	37.5	\$ 1.74	\$ 65.41
Seed (Several species adapted to the climate).	Kilogram	1	\$ 11.63	\$ 11.63
SUBTOTAL:				\$ 225.93
MICROWAVE IRRIGATION SYSTEM				
Ferrocement cistern, 10,000 liters equipped.*	Equipment	1	\$ 732.56	\$ 732.56
16 mm polished. Diameter, caliber 45	Meter	15	\$ 0.35	\$ 5.23
L/H micro-sprinkler, green	Piece	15	\$ 0.87	\$ 13.08
Mini-valve PVC-INS 16 mm with rubber	Piece	15	\$ 0.99	\$ 14.83
8mm 16mm terminal for PE/BD tube	Piece	15	\$ 0.17	\$ 2.62
Black pipeline 100 meters 1/2 "c-40 12 kg	Rollo	1	\$ 31.92	\$ 31.92
1.5-inch 120 mesh ring filter with through valves and adapter	Piece	1	\$ 58.14	\$ 58.14
SUBTOTAL:				\$ 858.37
ELECTRICAL OPERATING SYSTEM				
Photovoltaic Solar Panel 250w Polycrystalline	Equipment	1	\$ 319.77	\$ 319.77
Solar Battery Deep Cycle	Piece	1	\$ 127.33	\$ 127.33
Inversor 12v a 120v 1000W	Equipment	1	\$ 174.42	\$ 174.42
Safety switch 30 amps of 2 poles	Piece	1	\$ 10.99	\$ 10.99
Solar Charge Controller MPPT 30 Amp. 12v/24v	Piece	1	\$ 87.15	\$ 87.15
SUBTOTAL:				\$ 719.65

* The unit cost is broken down in the following table.

Cost of investment of ferrocemen tank for harvest and water storage.

CONCEPTS	UNITY	QUANTITY	UNIT COST	AMOUNTS
Gray Portland Cement	Ton	1	\$ 215.12	\$ 215.12
Electromalla Corrugated 6-6 Caliber 8 2.5 Meters high.	Meter	13	\$ 4.36	\$ 56.69
Chicken Wire of Caliber 22. Height of 1.75 meters	Meter	26	\$ 1.45	\$ 37.79
Sand with rock particles.	M3	1.5	\$ 15.41	\$ 23.11
Gravel	M3	0.5	\$ 16.57	\$ 8.28
1.22X2.44 Meters Triplay Wood Sheet. 3mm thick.	Piece	6	\$ 14.53	\$ 87.21
3" nail with head Caliber 12.5	Kilogram	0.5	\$ 2.91	\$ 1.45
3/8 " corrugated rod.	Piece	5	\$ 7.56	\$ 37.79
Annealed wire	Kilogram	4	\$ 1.16	\$ 4.65
Metal cover for cistern, 50X50 centimeters. Caliber 18.	Piece	1	\$ 35.47	\$ 35.47
Water collector channel. Galvanized sheet 6"x 8" and 4 "output	Piece	4	\$ 2.62	\$ 10.47
Hydraulic PVC tube 4", 6 Meters long	Piece	1	\$ 14.65	\$ 14.65
Hydraulic PVC tube 2", 6 Meters long.	Piece	1	\$ 11.63	\$ 11.63
Reduction of 4" to 2" hydraulic PVC.	Piece	1	\$ 3.49	\$ 3.49
Galvanized sheet collector channel union.	Piece	3	\$ 4.53	\$ 13.60
Step valve 2" Galvanized. Female thread.	Piece	1	\$ 33.43	\$ 33.43
Galvanized tube 2" by 30 centimeters, finished in threaded.	Piece	1	\$ 4.65	\$ 4.65
Bottom valve 1" (Pichancha) Stainless steel suction grate.	Piece	1	\$ 11.63	\$ 11.63
Peripheral Water Pump 1/2 HP	Equipment	1	\$ 76.45	\$ 76.45
Black Polyduct 100 Meters 1" caliber-40	Piece	0.5	\$ 75.58	\$ 37.79
Tee smooth PVC Cédula 40 of 1".	Piece	4	\$ 1.51	\$ 6.05
			TOTAL:	\$ 731.40