Case Study:
Habitat Improvement Workshop
(Filadelfia – Paraguay)

Felipe Zalamea, November 2011

Read article on Sustainable Pangea

Summary :
Permanent social irrigation technology for peasant farmers and indigenous communities in the Paraguayan Chaco region.

1. Specification

- Name: Habitat Improvement Workshop (Taller de Estudios para la Mejora del Hábitat)
- Acronym: Temha
- Legal structure: Social enterprise (company limited by shares)
- Status: Active
- Start date: 2007
- Number of employees: 7 (of which 5 women)
- Number of volunteers: -
- Address: Casilla de correos 766, 9300 Fernheim, Paraguay
- Email: antoniomompo@gmail.com
- Organisation or network memberships :

2. Sector

- Category : Organic agriculture
- Reach : Local
- Context : Rural

3. Description

The beginnings: problem and start-up

The Chaco is an inhospitable region situated between Argentina, Brazil, Paraguay and Bolivia. Water is scarce and water management a problem for local communities, particularly farmers. Temha created an irrigation technology to enable small to medium scale farmers to optimise their water usage.

The concept: ideas, innovation, social technology

The permanent irrigation system uses hand-made non-standardised clay pitchers of varying sizes and porosity levels. Each pitcher is buried with the plant and filled to the brim with water which then passes through the clay at different rates and in varying quantities, thus irrigating the plant. Years of experimenting have enabled them to determine exactly what type of pitcher (size, depth, porosity etc..) works best for each type of plant.

Progression

Temha started in 2007 as an informal group whose objective was to share and transfer, free of charge, this technology to indigenous and farming communities of the Chaco. The organisation developed its activities on a quarter-hectare of land on which it has several organic plots (in the shape of a mandala), a plant nursery, large-scale worm-based composting, an office and a well-equipped ceramic workshop. The structure is designed to minimise any negative impact on the eco-system (dry toilets, collection and treatment of grey water, re-use of waste materials, recycling, worms that ingest paper and cardboard).

After a years' work and at the request of the UN, they developed a ceramic filter, almost 100% effective against bacteria, to improve the quality of drinking water for inhabitants of the area.

In 2010, they decided take on a formal status and set up a company limited by shares, with an initial capital of 4.500 Euros. In 2011, they bought a neighbouring plot of 6 hectares in order to expand their activities and increase production.

Objectives

- Free transfer of the social irrigation technology and bacteriological filter throughout all Chaco communities.
- Raise awareness and train communities on subjects relating to organic agriculture, responsible use of resources, human rights and quality of life.
- Dissemination of community knowledge, best practises, skills and techniques.

Activities

- Demonstrations of the permanent irrigation technology.
- Sales (not for profit) or exchange of excess humus or plant production (medicinal or decorative).
- Organic food production, for the time being only for own consumption.
- Classes, workshops and training courses on subjects relating to agriculture and sustainability, paid for by the community with funds from NGOs or international cooperation.
- Community college for farmers and artisans (all women) to learn and disseminate their ancestral knowledge and skills.
- Ceramic workshop.
- Bartering network.

Beneficiaries/Clients

Farming and indigenous communities in Chaco, Paraguay.

Financial backing

Own resources

Other stakeholders

None

Self-sufficiency and autonomy

Temha has been self-sufficient and self-managed from its inception.

4. Analysis

Best practices

Temha is a social enterprise that looks very much like a NGO. Any profits from training projects are re-invested into community projects. Their social irrigation technology needs to be implemented throughout the Chaco area and in other regions where water scarcity poses a threat to the quality of life and self-sufficiency of local communities. Similarly, sharing best practices is a means to promote organic agriculture and preserve the environment.

Sustainability

- Economic: the money raised through the workshops and training courses is sufficient to ensure that Temha is financially viable.
- Environmental: Temha's activities have a positive net impact on the environment. The exchange and dissemination of best practices promote organic agriculture, the conservation of ecosystems and the responsible use of resources.
- Social: raising awareness on issues such as gender equality, public health, human rights and the rights of minorities and indigenous people strengthens the self-sufficiency of these communities. There is a noticeable improvement to their quality of life and members are more aware of their rights.
- Cultural: the ancestral knowledge and skills of indigenous people and farmers are valued and promoted. The community college is part of a process of self-development that leads to increased self-esteem and dignity.

Reproduction of best practices and transfer of social technologies

The community college model can be implemented in other areas where peasant farming is still dominant and where there is a drive to promote sustainability. The irrigation technology can be adapted to any area where water scarcity is a problem.