

BRAZIL



A Sabià Agroecological Development Center Initiative

A family agroecosystem focused on the recovery of soil fertility in the Caatinga area.

Map



The initiative takes place in the Brazilian semi-arid region, which has 28 million inhabitants and is the most populous semi-arid region in the world. Its natural vegetation is “Caatinga”, a biome that has xerophyte plants, capable of restoring their full physiological functions after long cycles of drought. The Enjeitado community lives on the bank of the Pajeù River, in the territory of Sertão do Pajeù. The drought between 2011 and 2018 was the longest in the last 100 years and led to the death of some native plants in some areas.

Context



The agroecosystem has been developed by Dona Raimunda and her husband Antônio Queiroz. The Enjeitado community became involved with agroecological processes while regular technical advice and rural extension was being provided by the Sabià Centre. Subsequently many families have adopted practices as a result of farmer-to-farmer knowledge sharing and replication based on the experience of the Queiroz family.



Description

The initiative is focused on the recovery of soil fertility in the area, which was extremely degraded. It began in 1999, starting with the protection of the **Caatinga** area and with cultivation of native and fruit trees. Since 2004 the **Sabià Centre** has promoted agroforestry systems as a way of achieving production with greater sustainability. The couple had support in obtaining suitable genetic materials (seeds, seedlings and cuttings). The Technical Advisory and Rural Extension Service, **ATER** performed a strategic role in promoting the viability of this initiative, by providing on-going agroecological technical assistance.

The total area of the agroecosystem is **33 hectares**, with 2 ha of **agroforestry**, 3 ha of **corn and bean fields** and 28 ha of **Caatinga**. Dona Raimunda and Antonio Queiroz take care of direct management of the agroecosystem. In addition to plant production (mainly corn and beans), the family breeds animals and maintains a reservoir for fish breeding and production. They produce **90%** of the food they **consume**. The family uses an irrigation system to enhance food production. The soil is fertilised with organic mater produced on the farm, in addition to manure of both chickens and cattle. Drought-resistant palma cactus is grown as livestock fodder.

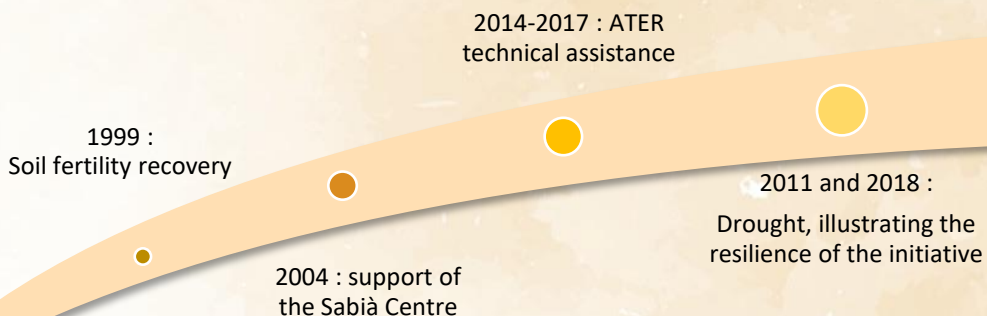


5000 people
have visited
the initiative



Corn, beans, fruits,
medicinal herbs, honey,
chicken, fish...

Trajectory





Results and Benefits

The initiative permits to the family to improve the quality of their food, with less work and a better understanding of the soil. They had a lot of criticism from the community but now they are proud to demonstrate and be agroforestry farmers. The agroecology brought the family closer to the academic field as well as popular education, both with activities related to research, teaching and extension of agroecosystem.



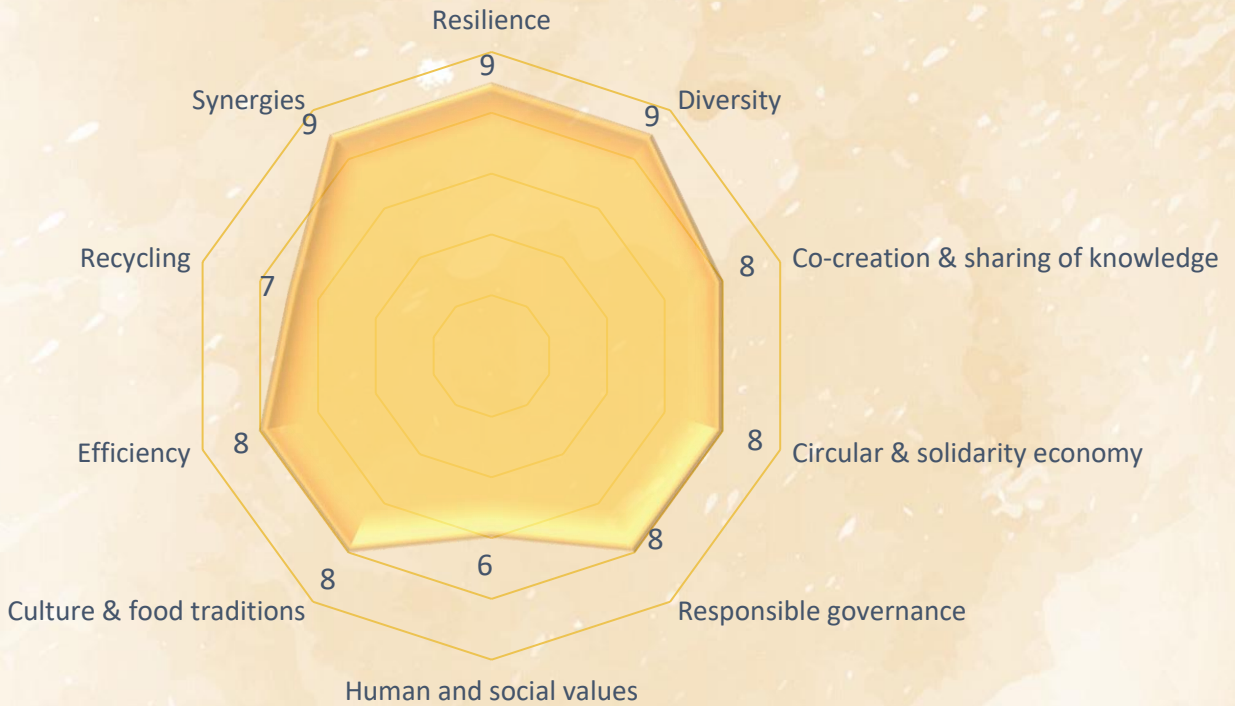
The initiative demonstrates to the community a **different approach** to traditional agriculture, which involved burning to clear soils, monoculture and cattle raising. The **agroforestry systems** provide insight into how the **ecosystem functions**, and how to **recover** a degraded area. The family benefits from having land that is now more valuable after they applied sustainable soil management and enhanced the **fertility**

Resilience increased with the adoption of agroecological practices. Based on the way the area was treated in the past, the family recognizes that it would already be exhausted, and would not have resisted the last long drought. The agroecosystem allowed the family to survive on the land during a period of extreme drought and enabled the productivity to recover faster with fewer losses.



The initiative reshaped the landscape of the farm. Where once there was naked land, with a lot of visible erosion and gullies, today there is varied vegetation including trees, shrubs and medicinal plants producing food and supporting apiculture. The bank of Pajeù River, previously devoid of vegetation, today has a riparian forest with great diversity of species.

Alignment of the initiative with FAO factors



Resilience : 9

The initiative has enhanced resilience by the production of food, the investment in water and food storage; this has been achieved by improved access to information, such as policies and programmes supporting family farming and access to agroecological technical assistance.

Human & Social values : 6

The initiative is fostered by the participation of Dona Raimunda in the feminist School, promoted by the Sabià Centre. The family has also hosted indigenous groups in knowledge exchange processes in the area.

Diversity : 9

The initiative promotes diversity by the implementation of various production systems, with emphasis on agroforestry; by rescue, multiply and share creole seeds; by the permanent evolution of biodiversity, with more than 100 distributed by the agroecosystem.

Culture & food traditions : 8

The agenda of Food and Nutrition Security and Sovereignty is ever-present. Traditional corn and beans are used for preparation of food, and vegetables and fruits have been incorporated into a more diverse diet.

Co-creation & Sharing Knowledge: 8

Family membership of social organizations, the trade union movement, community organizations, educational research and extension structures enables them to participate in promotional activities for agroecology.

Efficiency : 8

Agroecological practices like nutrient recycling of pruning and crop debris, manure incorporation, multiplication of native seeds increase the agroecosystem's efficiency and feed the farm family

Synergies : 9

The interaction between the subsystems enables harmony in the ecosystem : it reduces the need for external inputs and promotes synergistic processes, where energy flows are circular. For example, the fish feed on fruit waste.

Responsible Governance : 8

Land access for the initiative is provided in compensation for the environmental service provided in the preservation of the Caatinga and recovery and maintenance of an area of riparian forest of the Pajeú River.

Recycling : 7

The initiative recycles nutrients within the production systems and reuses plastic bottles for seed storage. All uneaten food is fed to the farm animals or returned to the production system as organic matter.

Circular & Solidarity Economy : 8

Fruit is sold locally and donated to neighbours. Strengthening cooperative practices, such as task forces for agriculture activities promotes solidarity among the families within the community.

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The Avaclim project aims to create the necessary conditions for the deployment of agroecology in arid areas.

For more information : www.avaclim.org

Financial partners :



FONDS FRANÇAIS POUR
L'ENVIRONNEMENT MONDIAL

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September 2020
Editing : CARI & Caatinga
Design : pikopiko.io
Photos credit : Centro Sabia

