

City Merida	
Country	Mexico
Population	1,040,916
Title of policy or practice	Productos Ecosistémicos Reserva Ecológica Cuxtal [Ecosystem Products of the Cuxtal Ecological Reserve]
Subtitle (optional)	4 Production Lines with the Cuxtal Ecological Reserve Brand
URL video	<a href="https://www.youtube.com/watch?v=5Q_mAoVwRgk">https://www.youtube.com/watch?v=5Q_mAoVwRgk</a>
Category	Food Production
SDGs	SDGs: 1, 2, 3, 6, 8, 11, 12, 13, 17.
Brief description	<p>The Cuxtal Ecological Reserve is a municipal Protected Natural Area, established in 1993 with the following objectives: To protect the water catchment area for the supply of Merida city; To regulate the expansion of the city in that area; To preserve the region's ecosystems; To encourage environmental education and scientific investigation, To impel a rational exploitation of the natural ecosystems, To provide a place of recreation and relaxation to the Yucatán population; To develop nature tourism.</p> <p>The main threat to the Reserve is the vegetation cover loss caused by the establishment of human settlements, productive systems and extraction of stone materials. Despite the deterioration of the ecosystems, the Reserve is the main provider of environmental services to the population, such as the provision of water in quality and quantity, the damping of natural phenomena, climate regulation and protection of biodiversity.</p> <p>A big part of the population living in the Reserve, which is mainly rural population, is in condition of vulnerability and poverty, with significant rates of malnutrition, overweight and obesity, as well as lack of local employment sources.</p> <p>The low agricultural yield of the lands, the dependence on chemical inputs and the intermediation for the commercialization of agricultural products, has caused the abandonment of the field, as well as greater costs for consumer goods and greater vulnerability for many families.</p> <p>What brought together civil society organizations, Academic Institutions, Government and International Agencies to develop this project was the will to start the production of 4 products within a sustainable framework, that could be compatible with the Cuxta Reserve Management Program, while at the same time allowing the conservation of biodiversity, as well as contributing to a better food diet of the population and to the generation of economic income in the families.</p>
Date of start and state (ongoing/completed)	01/2019 – 06/2021 Ongoing
Actors and stakeholders involvement	<p>Municipal Departments: Sustainable Development, Social Development, Civic Participation, Governing Board of Cuxtal Ecological Reserve, Permanent Secretary of Markets.</p> <p>ONG: Alianza por Cuxtal, Niños y Crías, AC, FEYAC, AC, Basura Cero Yucatán, VIVE</p> <p>Academic Institutions: Universidad Marista de Mérida, Universidad Autónoma de Yucatán</p> <p>International Agencies: GIZ.</p>
Approach	<ul style="list-style-type: none"> <li>Analysis of production lines in the communities of the Reserve;</li> </ul>

	<ul style="list-style-type: none"> <li>• Action plan design;</li> <li>• Producers meeting;</li> <li>• Business and technical training and strengthening;</li> <li>• Marketing and Public Campaigns;</li> <li>• Logistical support and linkage of value chains.</li> </ul>
<b>Innovation</b>	<ul style="list-style-type: none"> <li>• First in the country to develop a brand of ecosystem products in a Municipal Protected Natural Area;</li> <li>• It is an alternative to stop urbanization and deforestation, establishing sustainable production systems compatible with nature conservation and waste management;</li> <li>• Organic beekeeping is particularly suited to fight against biodiversity loss and social and economic poverty. It also allows the protection of landscape and biodiversity;</li> <li>• Organic agriculture promotes maintenance and improvement of soil, reduces agrochemical use (food security) and improves ecosystem health in the long term;</li> <li>• The proposal includes an increase in the biodiversity of flora (fruit trees) that ensures nutritious and healthy food for the population as well as timber production, which represents a big income source;</li> <li>• The project is a reaction to climate change, in line with several analysis and the PACMUN [Pacific Model United Nations]. It promotes sustainable practices in the production of healthy and quality food, improving health (reducing malnutrition and obesity) and food autonomy of the rural population;</li> <li>• It creates value chains between producers and consumers of the same municipality; several government Departments are involved in coordination with Academic Institutions, small producers and civil society;</li> <li>• It encourages the use of local supplies, increasing the value of the products.</li> </ul>
<b>Impact</b>	<p>Target population: Producers in rural areas within the Reserve in condition of poverty and marginalization (29.4% of the rural population in Merida), families with high malnutrition, obesity and overweight indices. Vulnerable groups without access to financing, training and negotiating power. Problems in the area: decrease in agricultural activity, unemployment, strong pressure caused by urbanization, lack of health services, violence, lack of adequate waste management.</p> <p>Economic benefits: Improvement of production; training and technical assistance in agroecological production (empowerment); direct linkage with local consumers and logistical support for marketing within a fair-trade framework.</p> <p>Objectives achieved:</p> <ul style="list-style-type: none"> <li>• Increase in family income from the production and marketing of food products;</li> <li>• Launch of the Cuxtal brand;</li> <li>• Generation of jobs in rural areas.</li> </ul> <p>Social benefits: access to healthy and high quality food products (food security) that improve the health and nutrition of adults and children (reduction of malnutrition and obesity); improvement of the food diet. Involvement of diverse actors (government, producers, consumers, academic institutions and civil society) in the integration of the value chains. Preservation of traditional production and nutrition techniques and promotion of the culture. Reduction of migration to urban areas, as a result of self-employment.</p>
<b>Inclusion</b>	<p>Governance: collaboration of actors (government, civil society, academic institutions, international agencies), municipal budget, mapping of producer, technical competence building.</p> <p>Nutrition and sustainable diets: reduction of malnutrition in children and obesity and overweight in adults.</p> <p>Social and economic equity: empowerment (economic support, advice and training) to local producers in conditions of vulnerability and poverty in the Reserve area. Creation of jobs and self-</p>

employment in rural areas.

Food production: sustainable production that promotes care for the environment and the soil; conservation of biodiversity and traditional products. Direct links with local private and municipal markets.

Food distribution and supply: Improvement of self-consumption and supply of local products.

Launch of the Cuxtal brand.

It adopts an ecosystem approach to guide a global planning of the territory.

Food waste: promotion of transformation for preservation of products.

Territorial inclusion: The project is led by a municipal authority, but State institutions are involved (Department for rural development and agricultural promotion), alongside federal institutions (forestry sector, indigenous and environmental sector).

Social inclusion: collaboration between municipal Departments, civil organizations, Academic institutions and international agencies, local markets.

It improves water management and reuse.

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**Adversity coefficient**

Target population: Producers in rural areas within the Reserve in condition of poverty and marginalization (29.4% of the rural population in Merida), families with malnutrition, obesity and overweight indices. Vulnerable groups without access to financing, training and negotiating power. Problems in the area: decrease in agricultural activity, unemployment, strong pressure caused by urbanization, lack of health services, violence, lack of adequate waste management.

Economic benefits: Improvement in production, training and technical assistance in agroecological production (empowerment), direct linkage with local consumers and logistical support for marketing within a fair-trade framework.

The area has a record of faecal contamination.

The lack of employment in the area causes migration to the city, threatening the traditional customs of the area, where the population is mostly Mayan speakers.

Main problems: decrease in agricultural activities, unemployment, violence, vandalism, lack of health services, cultural and sports activities.

The management of waste in the area is insufficient, there is waste burning, waste abandonment in public roads, bodies of water and caves.

Environmental and social impacts: Leaching processes, soil contamination, groundwater contamination, methane and carbon dioxide emissions into the atmosphere, proliferation of harmful fauna, public health problems, effects on wildlife, landscape deterioration, and uncontrolled site propagation.