

Case Study

TECNOAGRO, Nicaragua

January 2008 - October 2011



Tecnoagro



Presentation

Technologia de EXPORTACIÓN, S.A. – from now on Tecnoagro is a private Nicaraguan enterprise of family and institutional capital committed to farmers to encourage te export of agricultural products with opportunities in foreign markets.



This summary presents Tecnoagro’s case and the main results from their participation nin the project: “Promotion of social enterprises and environmental opportunities in Central America and the Dominican Republic” – initiative that allowed it receiving financial resources associated to assistance to create capacities for it’s operations integral improvement.

When reading this document it should be kept in mind that it is not exhaustive in covering all millennium objectives, only objectives 1, 7 and 8 (see “Millennium Objectives”) which constitute the influence sphere of the analyzed project. Likewise, within each objective, the indicators that best illustrate the enterprise and project contribution are mentioned. The report has been made by CEGESTI based on data and indicators provided by TECNOAGRO and OIKOCREDIT (information sources are detailed for each case) organizations in charge of data verification.

The project

Encouraging social and environmental business opportunities in Central America and the Dominican Republic SCHOKLAND-SME CA&DR Fund

This initiative has been possible thanks to funds granted by the Ministry of Foreign Affairs of the Netherlands Government, and the alliance established among Oikocredit, ICCO and CEGESTI.

Millennium Objectives

Millennium objectives are a set of eight goals with specific time limits with the purpose of eradicating extreme poverty in the world by 2015. In the United Nations Summit of 2000, world leaders from rich and poor countries committed to reaching these goals.

The project intends to contribute with Millennium Objectives 1, 7 and 8 by facilitating the financial resources and technical assistance to small and medium enterprises in the region.

	GOAL	How the Project intends to contribute
GOAL 1	Erradicate extreme poverty and hunger	Promote the creation and maintenance of decent job posts by strengthening socially responsible enterprises, and their economic exchange with stakeholders.
GOAL 7	Ensure environmental sustainability	Support enterprises in continuously improving their environmental development.
GOAL 8	Encourage a World alliance for development	Encourage alliances among organizations and national and International actors for development.

Further information on the Millennium Objectives:
www.endpoverty2015.org www.minbuza.nl



Ministerie van Buitenlandse Zaken

Tecnoagro's Profile



In Tecnoagro's Own Words

"Today, all activities at Tecnoagro are done with social awareness, and a responsible attitude towards environment. Today, we think green. We have changed the way we see the environment, and we have become socially aware. We have learnt how to take care of our employees granting them social benefits and granting them safety and protection in their work areas".

Ing. Diego Vargas Belli, General Manager

Context

In 2004, Tecnología en Agro Exportación S.A. "TECNOAGRO" starts its activities as a SOLCIEDAD ANONIMA with two owners. With seed capital provided by the two founders, operations start by gathering, processing and exporting red silk beans – as main product. In 2006, product scope is increased introducing yucca and malanga (*Xanthosoma sagittifolium*), and later "NOSTALGIC products such as soda pop and corn cookies, or ring-shaped pastries – which increased sales by 529%. Early in 2007, two collection and processing centers are opened , one in Nueva Guinea and the other one in Jinotega to work with agricultural products. In July 2007, a plot of land was purchased in Santa Rita de Leon, and that starts the operation of the processing plant in Leon. In 2008, PYMECAPITAL becomes a financial partner. Starting 2011, OIKOCREDIT grants financing to invest in improvements, purchase equipment and work capital.

Vision

"Be leaders in the export of Nicaraguan agricultural products, competitive and recognized nationally and internationally by their quality, acting socially responsible and friendly with the environment".

Mission

"Promote Nicaraguan agribusiness of small, medium and large farmers incorporating Them as strategic partners to promote an agri-exportation of roots, tubers, grains and Nostalgic products in a sustainable and socially responsible manner complying with International market expectations".

Tecnoagro Generalities 2011

Founded in	2004
Products	Paraffined yucca, purple and coconut malanga, beans, nostalgic products, yucca flour.
Labor force	10 permanent employees and 120 temporary ones.
Suppliers	20 roots and tubers farmers
Key actors	225 (farmers, permanent and temporary employees, suppliers)
Annual sales (foreseen)	USD 2.12 millions
Assets	USD 1.99 millions

Data by September 2011. All Enterprise activities included.

The project in Tecnoagro

Tecnoagro was selected as beneficiary of the Project “Promotion of social enterprises and environmental opportunities in Central America and the Dominican Republic” which has as objective to contribute to the integral development of the region through the creation of capacities in private enterprises.

In the project’s context, Tecnoagro received a loan from Oikocredit and Schokland fund for \$650,000USD along with assistance to create capacities by CEGESTI to improve social and environmental performance.

Loan Purpose

The credit granted to Tecnoagro was mainly used as work capital, besides a third was used for improvements in Leon’s plants, and the purchase of equipment to improve production capacity. Sought goal was to increase capacity and efficiency, reduce costs and start new sub-products to reach other markets. By November 2011, only two thirds of the loan had been delivered to the enterprise.

Purpose of the assistance to create capacities

Tecnoagro received assistance to improve the company’s social and environmental performance. Some of the achievements reached were:

- ✓ Decrease in energy and fuels consumption.
- ✓ Decrease in water consumption.
- ✓ Fit out of a primary treatment system for residual waters from the process.
- ✓ A recycling program was set.
- ✓ Improvement in employees’ working conditions.
- ✓ Improvements in the infrastructure and equipment safety conditions.

By November 2011, most improvement plans had been implemented and some others were in the process of being implemented. Tecnoagro continues the monitoring of social indicators to ensure the sustainability of recommended actions by Cegesti.

Tecnoagro’s Sustainability

With the loan granted to Tecnoagro, and the measures applied in this project’s context, the organization was helped to incorporate medium and long term sustainability criteria. Tecnoagro’s strengthening represents a contribution for Nicaragua to improve its results regarding Millennium Objectives 1, 7, and 8. The following chapters detail how this contribution was achieved.



Samples of personal protection equipment delivered to employees at the Leon plant.



Milenium
Development Goal



Decent work and development promotion through Tecnoagro's strengthening

CHAPTER'S SUMMARY

Tecnoagro generates a direct impact in the social and economic development of those communities where it works. This is achieved through the economic exchange with stakeholders: employees, farmers, shareholders' suppliers, and the community.

Tecnoagro has become more aware of the important of taking care of its collaborators, ensuring adequate working conditions and providing a better working environment.



Employees

TECNOAGRO is the source of employment for many a family in the communities where it interacts. It is also the only way many small and medium size farmers of roots and tubers, and nostalgic producers can export.

TECNOAGRO is concerned about its workers' wellbeing – permanent and temporary (those who work during the harvest) reason why one of the first improvements was to give all employees personal protection equipment.

In the particular case of the Leon plant, it is one of the few sources of employment in the community Reparto Santa Lucia – location where the company has contributed not only with employment, but also with social and communal projects



"Initially transportation was uncomfortable and difficult for employees, but with time they have learnt that what is being sought out are benefits for them and the company".

Chart 1. Indicators related to employees at the Leon Plant

Employees at The Leon Plant	Key Indicators	2008	2009	2010	2011*
	Direct employees	10	12	8	9
	Total paid salaries including social security contributions (US \$)	47,734	47,526	29,792	29,190
	Annual Salary average paid including social security contributions (US\$)	4,773.00	3,961.00	3,724.00	3,243.00
	% of female employees	20.0%	25.0%	40.0%	33.0%
	% of rotation among permanent employees	0.0%	20.0%	22.0%	0.0%
	% of employees from the community	100.0%	100.0%	100.0%	100.0%
	Average of temporary employees (harvest season)	n.d	65	87	120

* Annual data for 2011 were calculated base don Juneo 2011.



"With the Project we learnt to export responsibly."

Ing. Marcelo Vega,
Operations Manager



"It has been a new and fruitful experience as far as learning how to be a socially and environmentally responsible enterprise. It has been very timely in order to know towards where to go".

Lic. Perla López,
Financial Manager.

Farmers and Producers

TECNOAGRO Works with different small and medium size roots and tubes farmers. Sixteen stand out as they have become associated producers for the company. They are distributed in the following manner: 43% are located in Nueva Guinea, and they farm lilac malanga, 37% farm coconut malanga in Jinotega, and 20% are in Leon and they farm yucca.

Tecnoagro's work with farmers includes technical assistance for sowing and crop, giving a hand during harvest and the purchase of the entire production. Indicators related to farmers are presented in Figure 2.



"It is a fantastic option giving the assistance provided. This is why one has to be grateful as it has enabled us to recover our welfare as farmers. Tecnoagro's support has helped me improve".

Mr. Roberto Solórzano, Comarca Chacraseca neighborhood, León
Yucca producer, 3 years with Tecnoagro



"The technical assistance provided to producers on behalf of the enterprise is key to ensure quality and maximize productivity".

Ing. Antonio Guido Caballero, Leon Plant Manager, Tecnoagro.



"As if Tecnoagro was holding your hand, they helped us understand the process and achieve the objective: a better crop".

Mr. Oscar Danilo Centeno Rivas, Tololar, León. In charge of Ricardo Espinoza's farm. 3 years with Tecnoagro.

Chart 2. Indicators related to products and producers

Leon Plant Producers	Key indicators	2008	2009	2010	2011**
	Total number of roots and tubes producers	121	343	238	233
	Number of yucca producers	51	87	63	70
	Number of lilac malanga producers	22	80	86	92
	Number of coconut malanga producers	48	176	89	71
	Average in kilos of yucca received daily	3,252	2,628	2,201	3,237
	Average in kilos of lilac malanga received daily	4,935	7,041	3,883	4,082
	Average in kilos of coconut malanga received daily	1,742	1,689	3,229	1,730
	Average payment per kilo of received yucca	0.17	0.25	0.15	0.15
	Average payment per kilo of received lilac malanga	0.80	0.79	0.61	0.61
	Average payment per kilo of received coconut malanga	0.42	0.34	0.51	0.25
	Average daily payment to yucca producers	555.6	659.3	324.0	485.6
	Average daily payment to lilac malanga producers	1,398.7	1,329.9	1,970.8	1,051.4
	Average daily payment to coconut malanga producers	2,077.3	2,421.3	1,968.4	1,019.4

** Data updated base on information to October, 2011.



"Tecnoagro is a great facilitator in regards to exporting; it complements us as it enables us to sell the totality of the production."

Mr. Luis Ramón Salazar, producer from Chucaseca, León. 6 years as associated producer with Tecnoagro.

As shown in Figure 2, there has been a small decrease in the Lumber of farmers and product work from 2009 to 2011, in part due to a general drop in the international market. The company has attempted to keep its production and has worked in fidelity plans with the farmers to seek stability in its relation to the enterprise and ensure the product's quality and quantity.

Assistance to the farmers.

TECNOAGRO is strengthening an assistance process with the purpose of improving the product's quality and also to start a fidelity process towards the company with the farmers. Some of the topics worked are:

- ✓ Good agricultural practices
- ✓ Products traceability
- ✓ Support to access improved seed
- ✓ Program to access supplies.
- ✓ Support to choose agricultural supplies and applications

Suppliers

Besides roots and tubes farmers, and the other products the company markets (beans, nostalgic products, and corn round pastries among others), there is a relationship with industrial and agro-industrial supplies providers. Most supplies to pack, such as sacks, boxes, tape and others are purchased to Nicaraguan companies which contributes to their growth. It has to be noted that sometimes the local market does not have enough supplies, or does not comply with the required quality which makes it necessary to purchase some materials abroad.

Chart 3. Indicators related to Suppliers

Suppliers	Key Indicators	2008	2009	2010	2011**
	Basic inputs main suppliers	7	23	24	19
	Total purchases to suppliers (US \$)	6,709.26	123,247.87	167,857.97	86,019.21
	Average purchases per supplier	958.47	5,358.60	6,994.08	4,527.33

**Annual average based on data to October 2011

Figure 1. Street built with the company's support and to benefit the community.



Community

Tecnoagro contributes to the development of some Nicaraguan communities, especially in rural areas, providing a market option for various products.

The Project especially contributed to improve the conditions in the Leon plant - located in Reparto Santa Lucia. Figure 2 illustrates some of the input the enterprise has done in the community.



"Tecnoagro is the principal employer in this community. Before there were only sporadic works in construction or selling tortillas (for women). Now, almost the entire community is working here."

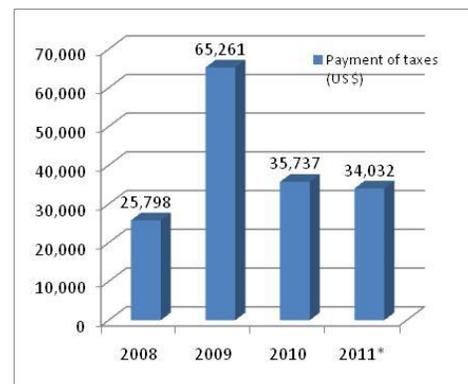
Mrs. Miguel Cano, plant operator and a resident of

Reparto Santa Lucia, León. 3 year with Tecnoagro.

Government

Tecnoagro also contributes to the country by paying its taxes which according to the Nicaraguan government are paid to the Central Government. In 2011 as a result of negotiations with the Ministry of Foment, Industry and Commerce, TECNOAGRO achieved a resolution that exonerates it from paying the 15% added value tax on its purchases of packing materials, and other supplies which add up to approximately \$30,000 USD per year. Figure 3 presents the amount of sales tax paid in the last four years.

Figure 2. Taxes paid by TECNOAGRO to the central government



*Annual data for 2011 averaged according to registers up to October 2011

Financial Intermediaries

TECNOAGRO receives loans to finance its operations; as a result, the financial intermediaries are from other important stakeholders which receive a benefit from the company's operations. Chart 3 details interests paid to these entities in the last years.

Chart 4. Indicators related to Financial Intermediaries

Financial expenses	Key indicators	2008	2009	2010	2011*
	Financial expenses (US \$)		52,724	94,207	114,570

* Annualized data based on the information up to October 30, 2011

Partners and Stakeholders

Tecnoagro has identified its main stakeholders both internally and externally. It has also defined strategies to get close to each group with the purpose of aligning their interests to the ones of the enterprise and achieve strategic alliances.

Partners and action holders are one of the company's shareholders. Currently, the enterprise has three partners: two physical and one corporate person. Chart 4 shows the main indicators related to partners and some relevant financial reasons.

Figura 3. Mapeo de grupos de interés

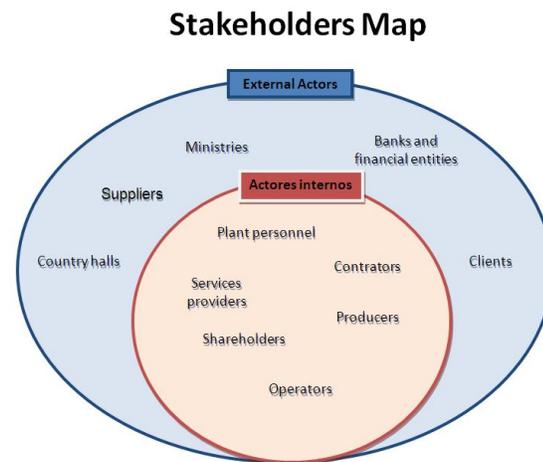


Chart 5. Indicators related to Partners

Partners	Key indicators	2008	2009	2010	2011*
	Number or associates		3	3	3
Profil sharing in USD		50,631	0	0	0
Average profil sharing per partner (USD)		16,877.00	0.00	0.00	0.00
Return on Equity Total(ROE)		18.2%	-12.4%	-17.8%	-26.1%
Return on Actives (ROA)		4.4%	-5.1%	-7.7%	-9.8%

*This process helped us become aware and know the company better, where we were failing, and where improvement was needed, and the best was that we made the commitment".

Roxana Delgadillo de Vargas, Tecnoagro's founding partner.



The Company

Chart 6 presents different key indicators related to Tecnoagro's financial performance. In the past few years, the company has experienced a decrease in annual sales and total income; this has encouraged a strategy change directed towards reducing operative costs, more technification, and product quality which permits it to reach new markets. A pledge for a series of important investments was made as objective of the OIKOCREDIT credit (yet to be completed) to achieve its long term objectives. During the prices crisis, profit margins were low, nonetheless, for the first trimester of 2012 the company shows improvement due mostly to the exportation of higher quality paraffined yucca, the moderate recuperation of the coconut malanaga and the opening of beans exports. This year's the first trimester, the company will produce a significant volume of Yucca for export produced under strict quality standards beginning from its primary production. This strategy will result in a more homogenous product. The enterprise expects to find new markets for its products and increase efficiency through the recent investments in new equipment and infrastructure improvements.

Chart 6. Indicadores relacionados con el desempeño financiero de la compañía

The Company	Key Indicators	2008	2009	2010	2011*
	Annual sales (USD)	3,648,918	2,937,254	2,818,760	2,117,058
	Total income (USD)	3,662,063	2,990,029	2,903,527	2,122,292
	Total assets (USD)	1,138,500	1,861,839	1,957,701	1,993,231
	Net benefits (USD)	50,631	-95,191	-151,293	-194,826
	Assets rotation	n.d	199.30%	141.00%	160.10%
	Operative profit margin	2.80%	0.00%	-0.70%	3.50%
	Operative sustainability reason	1.01	1.26	1.23	1.33
	Interests coverage ratio	1.96	0.01	0.14	1.40
	Liquidity co-efficiency	1.16	2.79	2.00	1.61
	Acid test	0.94	2.48	1.81	1.51
	Capital - debt ratio	3.09	1.43	1.31	1.67
	Assets - passices ratio	0.76	0.59	0.57	0.63

Milenium
Development Goal



Environmental Sustainability



Chapter Summary

Productivity in harmony with the environment became one of TECNOAGRO's productive development pillars.

As part of the project, the enterprise determined environmental aspects and impacts for its processing plant in Leon, and established a monitoring system that enables the keeping of acting records for aspects like water, electricity and fuel consumption, dust generation, residual waters and solid waste.

TECNOAGRO's Action for Environmental Sustainability

Tecnoagro is committed to environmental protection. Actions have been taken in three areas: biodiversity protection, environmental awareness, and reduction of environmental impact due to productive operations.

Biodiversity protection

TECNOAGRO is aware of the need to encourage biodiversity protection, and is committed to DAR SU GRANO DE ARENA. Work is done to improve the protection of soils at the farms as to keep their nutritional features, and decrease sediment ARRASTRE towards water sources which may be impacted. Also, the company tries to work with programs for AGROQUIMICOS that permit using what is exactly needed – to avoid oversaturation of chemicals in the environment.

Environmental awareness

TECNOAGRO started an awareness process directed towards collaborators to create environmental awareness and promote the compliance of good manufacturing practices which contribute to reducing their impact. A cleaning campaign was also done at the plant where employees learnt to separate residues to be recycled. Bins for selective collection were availed, and there is a residual management plan.

Reduction of environmental impact in the process

As a result of the technical assistance received in the context of the Project "Promotion of social enterprises and environmental opportunities in Central America and the Dominican Republic", Tecnoagro has started monitoring indicators and implementing actions to reduce its operations impact in the environment. The main achievement for the company has been precisely to start keeping data to know the pollution levels generated and from there start improvements. Work was done with energy and water use, fuel consumption, waste generation and emission into the air. These are the results:

Chart 7. Indicators of emissions into the air.

Emissions into the air	Key Indicators	2008	2009	2010	2011
	Percentage of yucca flour dust emitted into the atmosphere in regards to raw material		n.d.	n.d.	2.36%
Monthly average of yucca flour emitted into the air (kg)		n.d.	n.d.	988	1,097

Chart 8 Indicators of water consumption in Leon.

Water consumption	Key Indicators	2008	2009	2010	2011*
	Average monthly consumption from the aqueduct per ton produced (m3/Ton)		n.d.	n.d.	0.80
Monthly consumption of water pumped from the well (water for the process, m3)		n.d.	n.d.	n.d.	1703***

*** Dato puntual tomado con base en medición de mayo 2011

Figure 4. Sample of the awareness campaign to employees at the Leon plant



Chart 9. Indicators of electrical consumption

Electrical consumption	Key Indicators	2008	2009	2010	2011*
	Average monthly electrical consumption per produced kilo (KWh/Kg)		n.d.	n.d.	1.56
Average monthly demand(KW)		n.d.	n.d.	114,570	138,027

Chart 10. Indicators of residues generation

Solid residues	Key Indicators	2008	2009	2010	2011*
	Average monthly recycled residues produced per ton of packed product (Kg/Ton)		n.d.	n.d.	4.03
Total recycled residues recovered per year (kg)		n.d.	n.d.	6886.6	2584.68

Chart 11 Indicators of fuel consumption

Fuel Consumption	Key indicators	2008	2009	2010	2011*	
	Monthly average diesel consumption per produced ton (Córdobas/Ton)		n.d.	n.d.	145	198
	Monthly average Gas consumption per produced ton (Gallons/Ton)		n.d.	n.d.	0.53	0.59
Monthly average parafin consumption(kg)		n.d.	n.d.	n.d	665.8**	

As data shows it, it was not possible to establish decreases in the impacts especially because for the base year data was inconclusive due to the lack of registers. For 2011 it was possible to quantify all impacts sources, and therefore indicators evidence a higher relative quantity in almost all cases.

Figure 6. Resides collecting campaign at the plant



Certifications and Awards

Tecnoagro's work has been recognized nationally in different ways, especially for its work supporting the agricultural sector's growth. Some of these awards include:

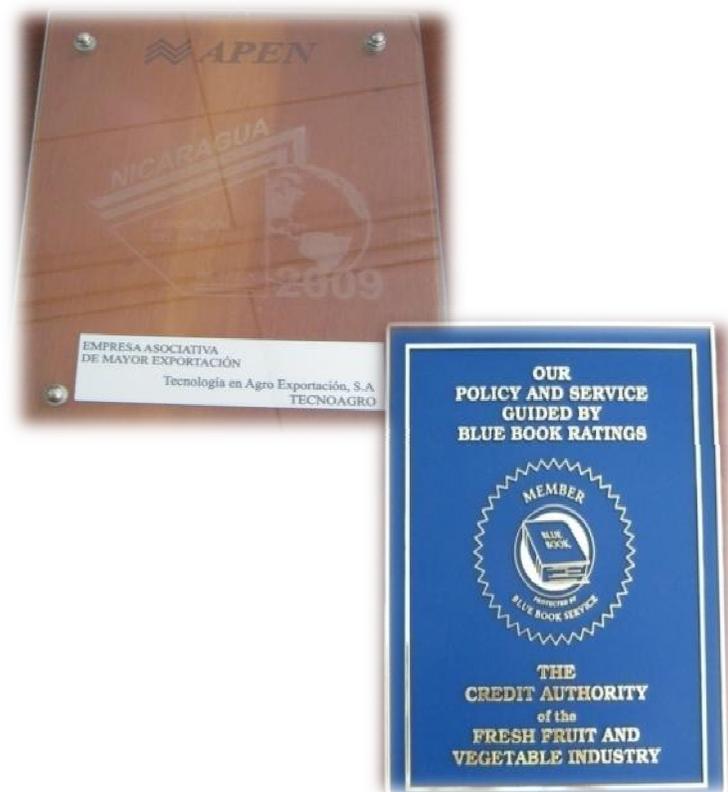
- Awards by the Bolsa Agroindustrial Upanic S.A for the company's success and its support to the development of the agribusiness sector, awarded in June 2008.
- Award by CROWLEY for its support to the sector, awarded in March 2006.
- Award by The Credit Authority of the Fresh Fruit and Vegetable Industry, as member of the Blue Book Service.

Also, two important awards have been granted:

- APEN Award, exporter of the year
- Nicaraguan Award to Sustainable Entrepreneurial Leadership in the social impact and proven environmental categories, awarded in June 2010

Recently, Tecnoagro has started a process to become certified in Global Gap. It is in the diagnosis stage and it hopes to continue in 2012 to the second phase.

Figure 7 Samples of awards received



Milenium
Development Goal



World Association for Development

CHAPTER SUMMARY

The company has a series of commercial Partners that enable it to make important and stable businesses which allow a further development of its potential. One of these product partners is Golabal Village Association; TIP TOP INDUSTRIAL S.A. food processing plant should also be mentioned. It demands a high percentage of the yucca flour the company produces. The rest of allies are commercial partners like importers among whom there is a wide diversity based on the type of product they market. For roots and tubes, some of the important partners are: Caste Produce, Coast Tropical El Sol Brands Inc, J & C Enterprise Inc., M & M Farm Inc., Manley Sales, New York Produce, Inc., San Jay Enterprise y Thial ly Distribución.

The business' and corporate government' vision has become strengthened in its management which is projecting us to work in a continuous improvement plan that benefit the company's mission for the coming years for the wellbeing of partners, employees and the environment".

Ing. Diego Vargas Belli, General Manager

Alliances for Development

TECNOAGRO has developed different alliances nationally that allow it to develop its business as well as assist in others' growth. Some of the national alliances are;

- Coconut and lilac malanga planting Project with medium size producers of roots and tubes, specifically with the Jose Dolores Estrada Cooperative in Matagalpa – in the case of lilac malanga, and in “La Chunga” Farm in Chinandenga for coconut malanga.
- Yucca Project with associated farmers and the private company Agricorn¹ in Leon region, to increase production, sustainability and the supply of raw material.
- Added value project for primary products and the search to better use second quality non-exportable products to produce yucca flour for animal consumption and frozen yucca.
- Support Project to suppliers of corn pastries in the Somoto region.
- PYMECAPITAL is a company investor, therefore it is part of its Board of Directors.



Tecnoagro encourages new businesses with producers and associated groups – always innovating in new markets and trying to get better added value.

- Tecnoagro is a strategic partner in SCHOKLAND Project.
- OIKOCREDIT is a PYMECAPITAL shareholder.

Cuadro 12 Indicadores relacionados con los aliados de la empresa

Allies	Key indicators	2008	2009	2010	2011
	National allies	n.d.	n.d.	n.d.	4
International allies	n.d.	n.d.	n.d.	2	

Commercial Partners

Tecnoagro Works with various commercial partners like importers, each Alliance is different depending on the type of product they market. For roots and tubes, some of the important partners are: Castre Produce, Coast Tropical El Sol Brands Inc., J & C Enterprise Inc., M & M Farm Inc., Manley Sales, New York Produce, Inc., San Jay Enterprise and Thial ly Distribución.

Cuadro 13 Indicadores relacionados con los aliados de la empresa

Commercial allies	Key indicators	2008	2009	2010	2011
	Number of commercial allies	-	2	3	4
Number of commercial allies abroad	25	20	16	16	

¹ AGRICORP is a Nicaraguan Enterprise that develops innovating industrialization processes and distribution of basic food. Visit <http://www.agricorp.com.ni/>

Tecnoagro's Final Message

Project's main results

" For our company, the phrase "Entrepreneurial Social Responsibility" was unknown two years ago; nonetheless, after receiving the technical assistance and training provided by CEGESTI, through their advisors and technicians who accompanied us for almost a year, this phrase acquired a new meaning among the company's directors and workers. The technical assistance was effective and has changed awareness amongst us; the consultancy has taught us how to be organized in procedures on a daily basis. We have learnt how to implement and keep measuring indicators that will help us have better expenses control and consequently saving that will benefit the company's profitability"

Ing. Diego Vargas Belli
Tecnoagro's General Manager





Tecnoagro's Sustainability Indicators

The following pages integrate all indicators detailed in the previous chapters.



Dimension	Indicator					Source
Government	Key indicators	2008	2009	2010	2011*	
	Payment of taxes (USD)	25,798	65,261	35,737	34,032	Financial Manager
Financial expenses	Key indicators	2008	2009	2010	2011*	
	Financial expenses (US \$)	52,724	94,207	114,570	138,027	Financial Manager
Partners	Key indicators	2008	2009	2010	2011*	
	Number of associates	3	3	3	3	Financial Manager
	Profit sharing in USD	50,631	0	0	0	Financial Manager
	Average profit sharing per partner (USD)	16,877.00	0.00	0.00	0.00	Financial Manager
	Return on Equity Total(ROE)	18.2%	-12.4%	-17.8%	-26.1%	Financial Manager
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	Net benefits (USD)	50,631	-95,191	-151,293	-194,826	Oikocredit
	Assets rotation	n.d	199.30%	141.00%	160.10%	Oikocredit
	Operative profit margin	2.80%	0.00%	-0.70%	3.50%	Oikocredit
	Operative sustainability reason	1.01	1.26	1.23	1.33	Oikocredit
	Interests coverage ratio	1.96	0.01	0.14	1.40	Oikocredit Nicaragua
	Liquidity co-efficiency	1.16	2.79	2.00	1.61	Oikocredit
	Acid test	0.94	2.48	1.81	1.51	Oikocredit
	Capital - debt ratio	3.09	1.43	1.31	1.67	Oikocredit
	Assets - passives ratio	0.76	0.59	0.57	0.63	Oikocredit
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	Direct employees	10	12	8	9	Financial Manager
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	% of rotation among permanent employees	0.0%	20.0%	22.0%	0.0%	Financial Manager
	% of employees from the community	100.0%	100.0%	100.0%	100.0%	Financial Manager
Average of temporary employees (harvest season)	n.d	65	87	120	Financial Manager	
Leon Plant Producers	Key indicators	2008	2009	2010	2011**	
	Total number of roots and tubes producers	121	343	238	233	Financial Manager
	Number of yucca producers	51	87	63	70	Financial Manager
	Number of lilac malanga producers	22	80	86	92	Financial Manager
	Number of coconut malanga producers	48	176	89	71	Financial Manager
	Average in kilos of yucca received daily	3,252	2,628	2,201	3,237	Financial Manager
	Average in kilos of lilac malanga received daily	4,935	7,041	3,883	4,082	Financial Manager
	Average in kilos of coconut malanga received daily	1,742	1,689	3,229	1,730	Financial Manager
	Average payment per kilo of received yucca	0.17	0.25	0.15	0.15	Financial Manager
	Average payment per kilo of received lilac malanga	0.80	0.79	0.61	0.61	Financial Manager
	Average payment per kilo of received coconut malanga	0.42	0.34	0.51	0.25	Financial Manager
	Average daily payment to yucca producers	555.6	659.3	324.0	485.6	Financial Manager
	Average daily payment to lilac malanga producers	1,398.7	1,329.9	1,970.8	1,051.4	Financial Manager
	Average daily payment to coconut malanga producers	2,077.3	2,421.3	1,968.4	1,019.4	Financial Manager

Suppliers	Key Indicators	2008	2009	2010	2011**	
	Basic inputs main suppliers	7	23	24	19	Financial Manager
	Total purchases to suppliers (US \$)	6,709.26	123,247.87	167,857.97	86,019.21	Financial Manager
	Average purchases per supplier	958.47	5,358.60	6,994.08	4,527.33	Financial Manager

* Annualized, based on information June 30, 2011.

** Annualized, based on information of October 30, 2011.

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Fiscal year data as of January 1 to December 31.

Milenium Development Goal	Dimension	Indicator					Source
	Emissions into the air	Key Indicators	2008	2009	2010	2011	
		Percentage of yucca flour dust emitted into the atmosphere in regards to raw material	n.d.	n.d.	2.36%	2.56%	Leon Plant Manager
		Monthly average of yucca flour emitted into the air (kg)	n.d.	n.d.	988	1,097	Leon Plant Manager
	Electrical consumption	Key Indicators	2008	2009	2010	2011*	
		Average monthly electrical consumption per produced kilo (KWh/Kg)	n.d.	n.d.	1.56	1.59	Financial Manager
		Average monthly demand(KW)	n.d.	n.d.	114,570	138,027	Financial Manager
	Solid residues	Key Indicators	2008	2009	2010	2011*	
		Average monthly recycled residues produced per ton of packed product (Kg/Ton)	n.d.	n.d.	4.03	3.8	Leon Plant Manager
		Total recycled residues recovered per year (kg)	n.d.	n.d.	6886.6	2584.68	Leon Plant Manager
	Fuel Consumption	Key indicators	2008	2009	2010	2011*	
		Monthly average diesel consumption per produced ton (Córdobas/Ton)	n.d.	n.d.	145	198	Financial Manager
		Monthly average Gas consumption per produced ton (Gallons/Ton)	n.d.	n.d.	0.53	0.59	Financial Manager
		Monthly average parafin consumption(kg)	n.d.	n.d.	n.d	665.8**	Leon Plant Manager
	Water consumption	Key Indicators	2008	2009	2010	2011*	
		Average monthly consumption from the aqueduct per ton produced (m3/Ton)	n.d.	n.d.	0.80	0.55	Leon Plant Manager
		Monthly consumption of water pumped from the well (water for the process, m3)	n.d.	n.d.	n.d.	1703***	Leon Plant Manager

* Based on the cut to July 2011.

** Data based estimated monthly average to September 2011

*** Data point based on measurements taken in May 2011

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Fiscal year data as of January 1 to December 31.

Milenium Development Goal	Dimension	Indicator					Source
	Allies	Key indicators	2008	2009	2010	2011	
		National allies	n.d.	n.d.	n.d.	4	Financial Manager
		International allies	n.d.	n.d.	n.d.	2	Financial Manager
	Commercial allies	Key indicators	2008	2009	2010	2011	
		Number of commercial allies	-	2	3	4	Financial Manager
	Number of commercial allies abroad	25	20	16	16	Financial Manager	