

Sustainable Development in Central America and the Dominican Republic

Company: **Distribuidora Suira, S.A.**
Country: Panama
Project: TMF Program: Poverty reduction and environmental improvement.
An Integral Sustainable Development strategy.
Year: 2006

THE COMPANY

Distribuidora Suira, S.A. is a family enterprise that started operations in 1995. In its first years, it was exclusively an intermediary between producers and consumers – selling vegetables, fruits and other greens. In 2000, it entered the business of processing and commercialization of these products. The *Suira* family considers its success lies in satisfying the needs of the markets niches – keeping quality standards and faith in God.

Distribuidora Suira is located at the Municipal Supply Market in Curundu. It has 34 full time employees who process 5,200 pounds of product daily. Operation takes place 7 days a week.



PRODUCTS AND MARKETS



Currently, *Distribuidora Suira, S.A.* processes and commercializes vegetables, fruits and other greens. It offers peeled, clean, vacuum packed, and ready for consumption products for restaurants or residences. The main processed products are: potatoes, yucca, and yam which together constitute 80% of the company's sales.

Their products are distributed in the Capital City. The main clients are Niko's Restaurants, ESSO's the convenience store "On the Run" and the "PriceSmart" supermarket chain, amongst others.

PROJECT DESCRIPTION

The project consists of the training and technical support for the improvement in Environmental Management and Good Manufacturing Practices (GMP), according to the TMF Program: "Poverty Reduction and Environmental Improvement: An Integral Sustainable Development Strategy". The methodology for the implementation started with the conceptualizing –stage at which an internal and external organizational analysis took place to determine its sustainability profile, as well as its options for improvement in Environmental Management and Good Manufacturing Practices (GMP).






Then, the action plans were established for each of the topics, as well as the indicators and monitoring mechanisms to guarantee compliance with the established objectives.

Finally, training and technical assistance were provided to support the company in implementing the action plans. This way, it was intended to fulfill the transfer of knowledge to the organization; and also prepare them for the follow up oriented towards the achievement of the expected results was developed.

MAIN ATTAINED RESULTS

Initial Diagnosis	Achieved improvements
ENVIRONMENTAL MANAGEMENT	
ENERGY CONSUMPTION	
<ul style="list-style-type: none"> ▪ Leaks and failures in the isolation areas that operate with A/C. ▪ The raw materials cold room is exposed to sunlight. It does not have a vestibule area to reduce the direct heat transfer when the door opens. ▪ Use of incandescent light bulbs in the fruit area. ▪ Lack of efficiency in the use of electrical engines. 	<ul style="list-style-type: none"> ▪ It was recommended to implement the following improvements: <ul style="list-style-type: none"> a. Place a mechanical arm to the office door so that it remains closed most of the time. b. Seal the hole above the A/C unit. c. Avoid the plastic curtain's open spaces in the entrance area to the plant, by the raw materials storing zone. d. Install a plastic curtain in the employees' entrance area, as thermic isolator. ▪ The following measures were recommended: <ul style="list-style-type: none"> a. Verify that the temperatures be exact for the raw materials to be kept in adequate conditions. b. Take periodic reading of the cold room's temperature to ensure that it is kept within the set ranks. c. Place plastic curtains with strips that overlap in the raw materials cold room. d. Revise the condition of the cold room's isolating walls; place a refracting and isolating coating for the ceiling. ▪ It was recommended to replace all incandescent light bulbs for fluorescent tubes or light bulbs. ▪ The following practices were recommended: <ul style="list-style-type: none"> a. Keep the preventive maintenance program updated and have a historical chart of the equipments' performance to know tendencies. b. Keep the potency level above 0.9, mainly conditioning or replacing the over dimensioned engines or those too depreciated. c. Turn the highest consuming equipment on at intervals of 15 minutes during the high production periods to keep the average maximum demand under 12 KWh per month. d. Distribute the energy demand of the equipments in at least two meters.

WATER CONSUMPTION AND WASTE WATERS GNERATION	
<ul style="list-style-type: none"> ▪ Faucets leak. ▪ Improvement options in the clearing of the areas in the processing plant and the company's external areas. <div style="text-align: center;"> </div> <ul style="list-style-type: none"> ▪ Water loss in the pre-washing. ▪ The size of the gutters' sieves is approximately 1.0 centimeter generating problems of solid wastes in residual waters. ▪ Lack of sieves in the U shape pipes at the plant. 	<ul style="list-style-type: none"> ▪ It was recommended to change the position of those faucets that are constantly damaged because they are located in transferring areas. ▪ It was suggested to start an in-plant damage report program and establish a preventive maintenance program for the entire plant on water distribution. ▪ It was recommended to implement the following measures: <ul style="list-style-type: none"> a. Collect most of the garbage from the floor through sweeping – in dry. b. Use metallic dustpans (aluminum or metal resistant to oxidation) with small holes to drain the water: one for the inside of the plant and the other for the outside. c. Install pressure pistols in the hoses for the cleaning of the different areas. ▪ It was suggested to place a plug to the washing sinks to prevent the loss of chlorinated water. ▪ It was recommended to change the sieves' light to 5 millimeters or less to avoid any peels or bits of fruits or vegetables going through. ▪ It was suggested to place a sieves system with a 45° angle to reduce the quantity of residual organic matter that runs into the gutters, as well as the entrance of vectors into the plant.
WASTE GENERATION	
<ul style="list-style-type: none"> ▪ Organic waste management. ▪ Generation of waste from bleach containers and nets. 	<ul style="list-style-type: none"> ▪ It was suggested to look for a person or company that picks up organic waste on a daily basis to use it as raw material in other processes. For that purpose, it was recommended to separate vegetables and fruits residues from the other kinds of plant waste. ▪ It was suggested to purchase bleach (disinfectant) in 5 gallon containers and rebottle them into smaller bottles. It was also recommended to make washable cloth hair nets to be used for longer periods of time. Both measures reduce the amount of waste and generate economic savings for the company.

WORK RISKS	
<ul style="list-style-type: none"> ▪ Personnel are exposed to sudden temperature changes. ▪ Wet floors in the plant. ▪ Possible risks during the cutting of products. <div style="text-align: center; margin-top: 10px;">  </div>	<ul style="list-style-type: none"> ▪ It was recommended to provide coats for the cold rooms to the personnel in charge of handling merchandise in the raw materials cold room; or add a vestibule to the raw materials cold room. ▪ It was suggested to adapt the peeler's discharge hose so that it is connected to the plant's draining pipes. ▪ It was suggested to provide special safety gloves to personnel who cut product. <div style="text-align: center; margin-top: 10px;">  </div>
Good Manufacturing Practices (GMP)	
<ul style="list-style-type: none"> ▪ Inadequate storage for raw and auxiliary materials. ▪ Standardization of processes. ▪ Raw material is directly exposed to the environment when it is unloaded. ▪ Inconveniences caused by the place's infrastructure. <div style="text-align: center; margin-top: 10px;">  </div>	<ul style="list-style-type: none"> ▪ It was recommended to install a shelving system in the dry raw materials area as to prevent raw and auxiliary materials from being in contact with either the floor, or water. ▪ Work was jointly done with the company to strengthen The Good Manufacturing Practices (GMP) as well as the Sanitation Standard Operating Processing (SSOP) handbook. ▪ It was suggested to place an empty basket between the floor and the unloading basket. The basket where food is unloaded should not touch the ground. ▪ It was recommended to isolate and modify the external raw material receiving area to comply with Good Manufacturing Practices (GMP). ▪ The following improvement measures were suggested for the infrastructure: <ol style="list-style-type: none"> a. Place a mesh in the fan's hinge to avoid the entrance of insects and dust particles. b. Place another mesh at the plant's entrance hole underneath the stairs. c. Change the plant's entrance gate as it is damaged and rusty. d. Paint the entrance's hall ceiling as it is flaking. e. Change the legs of the washing sink in area 1, as well those of the table in the disinfection area- they are rusty. f. Place the same adaptation floor-wall available in the fruit area to the rest of area 1.



Phrase by the Entrepreneur

DISTRIBUIDORA SUIRA, S.A. Grupo de procesados we thank **God** and **CEGESTI** for their granting us this opportunity to participate in this project that has been much useful for the company.

At ***DISTRIBUIDORA SUIRA, S.A.*** corrective measures have been taken which culturally and economically achieved changes of great importance – such as energy savings, development of awareness among collaborators on cleaner production and good manufacturing practices – helping us use our own resources; not only with the productive conviction that we can do things better today than yesterday, but also that tomorrow they will be done better than today.

It must be pointed out that CEGESTI's work greatly helps, enables organizational change and contributes to enterprises like ours to extensively improve their productivity and competitiveness. This is to say, the benefits are not only for the enterprises that have many resources, but also for those which achieve using them very productively with a high technological level.

Thank you.

**Luis A. Suira S.
General Manager**

