

## Sustainable Development in Central America and the Dominican Republic

**Company:** EMPRESA DE ALIMENTOS BAVARIA S.A.  
**Country:** Nicaragua  
**Project:** Programme Poverty Reduction and Improvement of the Environment:  
An Integral Sustainable Development Strategy.

### THE COMPANY

Alimentos Bavaria S.A. was founded in 1994. It is located in Managua, Nicaragua. Its main quarters are dedicated to production and manufacturing processes; it also has three sales points located in different places in Managua (El Mirador, Los Robles and Carretera Sur).

The products' commercial name is Bavaria Delikatessen.

Currently, the company employs 30 people and results in approximately 30 indirect positions.



### MISSION

*"We are a company dedicated to the production and commercialization of deli products. We offer our clients a variety of high quality products distinguished by their flavor and alimentary features, as well as the guarantee of being prepared under excellent hygienic conditions. We are committed to the continuous improvement of our employees' life quality, and with the identification of actions to promote the economic, social and environmental development of the community."*

### PRODUCTS

The company's main products are:



- Beef and pork cuts
- Cold cuts (ham, pâté, sausages and others)

The company is able to diversify its products by incorporating spices and through the smoking process.

Additionally, the company also commercializes imported cheeses, wine, olive oil and others.

### PROJECT DESCRIPTION


The methodology to implement the Sustainability Strategy in the company started with the conceptualizing of the sustainable development system which include an internal and external organizational analysis took place to determine its sustainability profile, as well as its options for improvement in the environmental, economic and social dimensions.









Later on, a sustainability strategic framework was established; here the organization's strategy was shaped which includes Mission, Vision, organizational values, strategic objectives in the three mentioned dimensions, and the company's commitment to sustainable development.

Based on the strategic framework, the action plans were defined in each dimension; and the monitoring mechanisms and indicators were established to guarantee the fulfillment of the established strategic objectives. Later on, 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; also, the follow up oriented towards the achievement of the expected results was developed.

## MAIN OBTAINED RESULTS

Starting diagnosis	Achieved Improvements
<b>ECONOMIC DIMENSION</b>	
<b>1. Value Drivers</b>	
<ul style="list-style-type: none"> <li>- Lack of indicators to monitor the company's financial results to make decisions about it.</li> <li>- Need to improve some aspects related to the accounting system (profitability control by sales point, stock control, and the register for receivable and payable accounts).</li> </ul>	<ul style="list-style-type: none"> <li>- A strategic plan was developed as well as indicators to follow up on established objectives.</li> <li>- Personnel were trained on Economic Value Added (EVA), and on the different value drivers activities, which are part of the company's financial results.</li> <li>- A tool to monitor the main indicators related to value chain (growth, profitability, work capital, investments and financing) was implemented.</li> <li>- An action plan was defined to improve the company's value chain.</li> <li>- An analysis on the company's relevant accounting elements was done and recommendations on that regards were given.</li> <li>- It is a goal for January 2005 to formalize the restructuring of the accounting system to implement the handling of the accounting by each business unit.</li> </ul>
<b>2. Good Manufacturing Practices</b>	
<ul style="list-style-type: none"> <li>- Needed improvements in infrastructure, warehouses, hygiene, process and product.</li> <li>- Improvement opportunities in raw materials control and water consumption for the process (micro biotic, chemical and organoleptic tests)</li> <li>- Lack of implementation of a Good Manufacturing Practices (GMP) program</li> <li>- Lack of written procedures and controls registers.</li> <li>- Food safety and innocuousness issues not included in employees' induction program</li> </ul>	<ul style="list-style-type: none"> <li>- Plant personnel were trained on Good Manufacturing Practices – emphasizing hygiene topics.</li> <li>- Improvements were made regarding the plant's hygienic aspects.</li> </ul> <div style="text-align: center;">  </div> <ul style="list-style-type: none"> <li>- Infrastructure recommendations were taken into account for the current plant remodeling – which will have a second phase early in 2005.</li> <li>- Currently the learnt methodology is being implemented.</li> </ul>
<b>ENVIRONMENTAL DIMENSION</b>	
<b>1. Efficient use of raw materials and prevention of solid waste production</b>	
<ul style="list-style-type: none"> <li>- Waste of spices in the weighting process.</li> <li>- Production of solid waste due to the excess meat packing material (plastic and cardboard boxes). This is needed to reduce the possibility of decomposition due to lack of refrigeration.</li> <li>- Production of waste resulting from plastic bags used daily to measure out detergent.</li> </ul>	<ul style="list-style-type: none"> <li>- A 5% savings was achieved in the spices consumption after two months of having implemented the due procedures in the weighting process.</li> <li>- The option of purchasing refrigerated trucks to avoid early product decomposing is being studied; and by so doing reduce the quantity of packing materials</li> <li>- Plastic detergent bags were changed for reusable recipients. A saving in bag consumption is sought, as well as a decrease in solid wastes.</li> <li>- Meat residuals – stuck on to the equipment's walls – are reprocessed.</li> </ul>

<ul style="list-style-type: none"> <li>- Meat waste in the cutter.</li> </ul> 	<ul style="list-style-type: none"> <li>- Filters have been placed in wastewater pipes to avoid their missing with solid wastes. Wastewater</li> </ul> 
<p><b>2. Efficient water use and prevention of wastewater production</b></p>	
<ul style="list-style-type: none"> <li>- High water consumption in the washing processes (150 m<sup>3</sup> monthly).</li> <li>- High production of wastewater.</li> </ul> 	<ul style="list-style-type: none"> <li>- For washing hoses, pistols were installed. Investment was \$30.00 USD, and the expected savings are \$550.00 USD.</li> <li>- The cooking water for sausages is reused in the process of plant washing (4 m<sup>3</sup> per cooking).</li> </ul>  <ul style="list-style-type: none"> <li>- Three daily washings have been established with set amounts of waters. This measurement is causing a monthly savings of \$6.25 USD and a reduction in the production of soapy waste water.</li> </ul>
<p><b>3. Energy efficiency</b></p>	
<ul style="list-style-type: none"> <li>- Energy lost in cold rooms.</li> </ul>  <ul style="list-style-type: none"> <li>- Heat lost in smoking rooms.</li> </ul>	<ul style="list-style-type: none"> <li>- A restriction to enter and exit the cold room dispatching area was established – only three operators are allowed at a time.</li> <li>- Drawers were set in the smoking room's chimney to take maximum advantage of the equipment's capacity.</li> </ul> 
<p><b>4. Adequate handling of chemicals and detergents.</b></p>	
<ul style="list-style-type: none"> <li>- Chemicals are not stored separately.</li> <li>- Measured out quantities of detergent for the washing of machinery and the plant are bigger than needed.</li> </ul>	<ul style="list-style-type: none"> <li>- A warehouse was furnished to exclusively store chemicals.</li> <li>- The measured amount for washing was reduced by 50%.</li> </ul>

**SOCIAL DIMENSION**

**1. Occupational Safety**

- There is no risks and accidents monitoring.



- Risks at the plant were identified and measures recommended. Some of the risks are:

- Cuts or dismembering while chopping or grinding meat. Measure: to wear gloves.
- Back and spine injures while lifting meat. Measure: to wear lumbar belts.
- Burns while smoking meat. Measure: to wear thick gloves.
- Deep cuts while hanging meat in cold rooms. Measure: to use a stool to hang meat.
- Gas produced explosion. Measure: place fire extinguishers.

- A first aid kit and two fire extinguishers were set in the production plant.

**2. Internal and External Social Projection**

- Lack of social projects with external interest groups.
- Internal, vertical communication fragmented.
- Little personnel involvement in the achievement of company objectives.



- Lack of procedures (guide) for clients' service at the selling point which highlight the product's kindness and its impact in customers' nourishment.

- At the managerial level, awareness of the need of social projection directed towards the company's external agents was achieved. This was done through workshops like: Social Entrepreneurial Responsibility, Social Management, and Change Management.

- By identifying improvement opportunities in internal communication mechanisms as well as employee involvement in objectives achievement the awareness of the need to strengthen Human Resources Management was achieved.

- A guide for customers' service will be made for sales points.

**Comment by Karl Frederick Welles Avilés**  
General Manager – Entrepreneur

*"Participation in the Program has helped us greatly to improve our service. Courses offered were easy to implement in the labor, social, production and accounting aspects. Acquired knowledge has been incorporated little by little seeing an improvement in the company's general performance. As a company, we are always willing to participate in these programs as we are highly benefited while collaborating in the country's prosperity".*

