

<b>Company:</b>	<b>HERNANDEZ PRINT SHOP</b>
<b>Country:</b>	Panama
<b>Project:</b>	Program TMF: Poverty reduction and environmental improvement. An integral, sustainable development strategy.
<b>Year:</b>	2005

## THE COMPANY

Hernandez Print Shop was created in 1937 as a small company with general paper supply on Central Avenue. In 1958 it becomes part of the offset system and it goes into the box-making industrial production market.

Since the 1970's, printing technology in Panama advanced and an improved Offset is incorporated – which was adopted by the company. Since 1991, Hernandez Print Shop has renovated its infrastructure and machinery. They have leading-edge technology in the printing section.

Currently, Hernandez Print Shop is a medium size company – which generates 44 permanent jobs; it primarily deals with the production of secondary packing for industrial use in the food, liquor, cleaning products, pharmaceuticals- among other – sectors.

Its current owners consider the base of the company's success to have efficient equipment, trained personnel, and processes quality controls.

## SERVICES

Its main products are:

- Folding boxes (95%)
- Paper labels (4.5%)
- Savings books (0.5%)

Four years ago, the making of labels represented 33% of the company's total production; nonetheless, in recent years it has diminished because companies are purchasing plastic, self-adhesive labels abroad. Some big clients stopped buying from them; even then they remain in the labels market.

Its quality management system achieved that product returns be inferior to 0.1% of all sales. This allows them to have product traceability to keep track of claims and to be able to comply with established specifications.

## PROJECT DESCRIPTION

The methodology to implement the Sustainability Strategy in the company started with the conceptualizing of the sustainable development system –at which stage 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 strategic sustainable frame was developed which included the organization's mission, vision, organizational values, strategic objectives in the three mentioned components and the company's commitment to sustainable development.

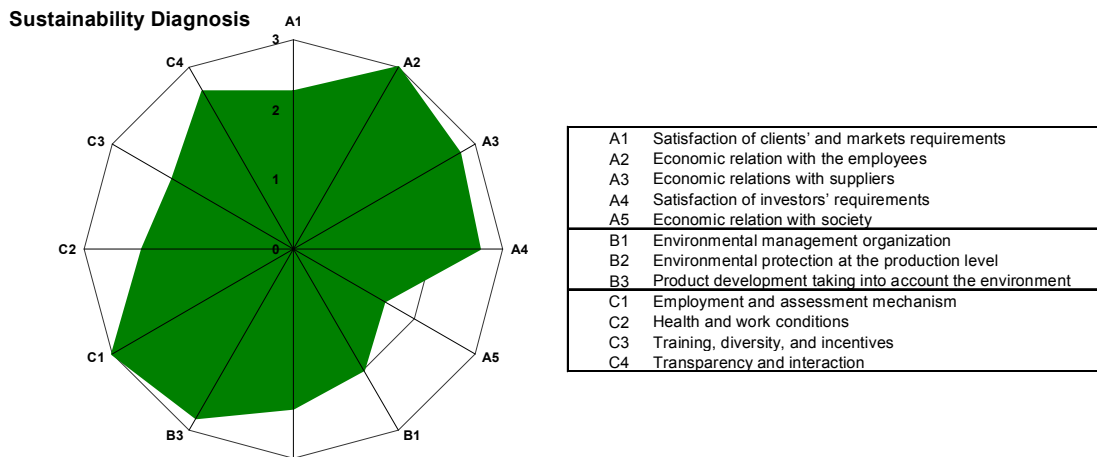
Based on the strategic frame, the action plans in each of the component were defined and indicators and monitoring mechanisms were established to guarantee compliance with the strategic established objectives. Later on, training and technical assistance were provided to support the company in implementing 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.

## INITIAL ASSESSMENT

The sustainability questionnaire is an instrument, which eases the identification of perception in regards to the actions the company carries out in sustainable development issues. This diagnosis is presented in a graphic form, and is the result of the assessment of the following components:

- Economic component
- Environmental component
- Social component

When applying the diagnosis, it is imperative that all needed information is collected to support and provide evidence which supports the performed assessment. The following graph evidences the Hernandez Print Shop initial situation.



The previous chart allows a general perception of the assessed components in the questionnaire and at the same time it gives the opportunity to observe which components are closer to its implementation in the company.

It was possible to identify that the topics with the biggest strengths which relate to the economic relation with the employees (A2), and with suppliers (A3), shareholders' requirements satisfaction (A4), product development – taking into account the environment (B3), and employment and assessment mechanisms (C1). It is important that the company keeps a continuous improvement policy in these topics which are close to the sustainability scheme.

Moreover, the topics with the most opportunity to improve – which are the economic relation with society (A5), environmental management organization (B1), health and labor conditions protection (C2), and transparency and interaction (C3) were identified. These topics demand a special analysis to determine the routes, which allow an improvement within the organization.

## **MOST RELEVANT RESULTS:**

<b>Strategic Planning</b>
<p style="text-align: center;"><b>Company's Mission</b></p> <p>Hernandez Print Shop is a national company, leader in the lithographic industry. Our mission is continuous improvement in our products and services – to satisfy our clients' needs; and so flourish as a business.</p> <p style="text-align: center;"><b>Company's Vision</b></p> <p>To be recognized as indisputable leaders in the national lithography industry and to become positioned in the Central American, and Caribbean market while keeping the highest quality standards – based on ISO 9001:2000 guidelines.</p>
<ul style="list-style-type: none"><li>• The company's strategic frame was revised to update the company's mission and vision.</li><li>• A company's strategy map was designed to define the main areas to reach the goals at the financial, client, process, and learning and internal growth level.</li><li>• A strategic plan was established for the following year with strategic objectives and defined efficiency indicators.</li></ul>
<b>Environmental Strategy, Quality and Health and Occupational Safety</b>
<p><b>Integrated Quality and Environmental Management System.</b></p> <p>Hernandez Print Shop decided to expand its quality management system, and make it an integrated quality and environmental management system.</p> <p>Within the project's execution, personnel were sensitized regarding environmental impact caused by presses and the way how it can be mitigated. Likewise, they were introduced to the topic of Cleaner Production.</p> <p>A new policy for the Integrated Quality and Environmental Management System was defined.</p>
<p style="text-align: center;"><b>Integrated Quality and Environmental Policy</b></p> <p>Hernandez Print Shop takes great care over the making of folding boxes and labels of excellent quality, aiming for the clients' satisfaction and other stakeholders in the organization's adequate performance. It makes an effort to clearly define its expectations; it controls products design, plans and controls processes, keeps the plant under hygienic conditions; identifies, assess and controls environmental aspects related to the operations so that pollution is prevented and the environmental impact is minimized – so that products are made according to specifications complying with the applicable legal environmental frame.</p> <p style="text-align: center;"><i>“To keep its quality reputation and its commitment to the Integrated Management System continuous improvement is the highest priority for Hernandez Print Shop”.</i></p>

- Personnel were trained (Production Management, five production department supervisors, and the quality department) in the identification of environmental issues and impact, and the methodology to differentiate the levels of significance, according to its frequency and severity.
- All processes carried out at the company are analyzed – taking into account all related entries and exits whether they may be routinely or not.

The following tools were developed:

- Aspects and Environmental Impacts Identification Matrix
- Identification Procedure Proposal for Environmental Impacts and Aspects.



- Matrix for Legal Requirements applicable to the company.
- Identification Procedure Proposal and Environmental Legal Requirements Upgrade



With the intention to improve the efficiency in the resources use, and to eliminate or diminish the environmental impact caused by the print shop operations, the following tools were developed:

- Environmental Program for Water Consumption
- Environmental Program for the Generation of Wastewaters
- Environmental Program for Solid Waste
- Environmental Program for Chemicals Management
- Environmental Program for Energy
- Matrixes and graphs for the registry for water and energy consumption, electricity demand and potential factor, related to the production level of the company
- Steps to identify the key aspects and to map the location of chemical products in the company
- Revision form for the water supply system and sanitary artifacts
- Proposed Form for Environmental Reports
- Presentation of the SYLVANIA method for disposal of fluorescent light tubes.
- Training was given in: the essential steps to carry on an energy efficiency analysis, good practices and the identification of inadequate practices in the handling of chemicals, and consumption data registry and analysis.



- A responsibility matrix was designed for the company to update the Responsibilities section in the existing Procedures Handbook. The Quality System Coordinator was trained to update the matrix based on the company's situation.
- The proposed Environmental Management System was documented in the Integrated Quality and Environment System Handbook – providing the indications regarding where to obtain more detailed information about the functioning of specific system parts.
- Jointly with the Quality System Coordinator the company's Internal and External Communication Process was defined, and the Matrix and the Communication Time Table proposed was designed. The procedure defines the communication means, which will be used in the company; and the communication with the company's external or private entities.



- Environmental controls were established which will remain after the fulfillment of established goals in the environmental programs. The environmental control objective is to plan those operations, which are associated with the identified significant environmental aspects – according to its environmental policy, objectives and goals to ensure they are carried out under specific conditions.
- A “Steps to Follow and Operational Control to Implement Matrix” was developed to facilitate the company's incorporation into the existing Procedures; or to develop new procedures as is the case of the Chemical Products Handling Procedure.

## Security and Occupational Safety

- The Quality System Coordinator was oriented on the used methodology to identify value and classify risky situations to the health and safety of the company's personnel.
- A risk matrix was created according to the developed activities – in which the activity and location where details are given on where the danger is generated, the equipment, tools and materials which are involved in the activity.
- Risks classified as high were selected to elaborate improvement options, seeking in the first instance to eliminate the dangerous situation.
- A procedure and Preparation and Response Plan to Emergencies was designed for the company – considering preventive actions to reduce the risk of emergencies, preparation actions and personnel training, activities delegation to take action in case an emergency occurs and actions to be taken to recuperate the areas after the emergency.



Suggested improvement measures are:

- Include as part of the hiring process the informing workers about possible health alterations due to exposition to chemical substances in the environment - before they start their chores and periodically.
- Monitor the noise level to which workers are exposed during operations.
- Chemical concentration measurement in the company.
- Give adequate maintenance to the hoses' filters.
- Relocate volatile and flammable chemical substances in a ventilated site, away from engines which may cause a sparkle or generate high temperatures.
- Maintain the MSDS (Material Safety Data Sheet) of all chemical substances and the needed equipment to take care of emergencies.
- Keep personnel trained to handle emergencies.



## Economic Component

- There was training on EVA (Economic Value Added) and the different value indicators, which may incite to improve the company's results.
- Capital cost was defined, EVA and the company's integral command chart.
- An action plan on generated results was made.

In the short term, the following ought to be made:

- Update the information with the accounting data in the past few years.
- Analyse more frequently the accounting information.
- Follow up on this plan
- Do an expenditure analysis.
- Improve at the administrative level the knowledge and handling of the accounting information..

In the long term, the following ought to be made:

- Update every month the integral command chart with the accounting information to graphically show advancement in the indicators.
- To follow up on the defined action plan.
- Use the integral command chart as a report for the board of directors
- Transfer expenses no related to the business to payments by dividends
- Either have a department or sales agent to foster this activity in the company

## FINAL ASSESSMENT

Hernandez Print Shop, in 2004, decided to expand its quality management system, and make it an Integrated Quality and Environmental Management System. The project developed granted it technical assistance and training to pursue this objective.

It is up to the company's management to revise and approve the handbooks, procedures, programs, matrixes, developed controls for the Integrated Management System.

To organize the implementation of the improvement measures, the Management will have the action plans generated during the project in the following areas: Strategy, Environment, Health and Safety in the Economic Dimension. These aim at the Hernandez' Print Shop sustainable development while taking advantage of developed strengths and environment opportunities.

## ENTREPERNURIAL PHRASE

*"At Hernandez Print Shop we improve our processes to take care of the environment." In regards to CEGESTI's participation, we feel happy for the received orientation by the consultants who visited us. They have the skills to perceive and acquire the information they needed. They have the abilities to transmit their knowledge and experiences. The attained benefits through the Cleaner Production Program have been significant"*

**Víctor Fernández Miranda**  
General Manager

