



TOGETHER
for a sustainable future

OCCASION

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RECP Experiences at Bajío Cleaner Production Center (2014-2015)

The efficient and environmentally sound use of materials, energy and water - coupled with the minimization of waste and emissions - makes good business sense. Resource Efficient and Cleaner Production (RECP) is a way to achieve this in a holistic and systematic manner. RECP covers the application of preventive management strategies that increase the productive use of natural resources, minimize generation of waste and emissions, and foster safe and responsible production. Benefits are eminent in many enterprises, regardless of sector, location or size, as demonstrated by the experiences of BAJIO CLEANER PRODUCTION CENTER OF GUANAJUATO, MEXICO.

Today Mexico and the state of Guanajuato recognize that currently applied science, innovation and sustainability are the tools to improve both social and corporate welfare at the national and state levels. Therefore, the BCPC has been working on these three strategic lines. The projects has differents ways, training and implementation of projects of productive efficiency and pollution prevention

Business Breakfast Conference

One of the activities we have done is to organize breakfast conference, by which employers and audience were discussing topics of general interest and development. These breakfasts take place in a time of 3 hours and 3 specialists talking about a central theme but from different perspectives and areas of expertise involved.

The issues we have discussed in these two years are:

- a) Expectations Mexico free trade agreement with North America
- b) Integration of production chains with fiscal reform
- c) Entrepreneurship
- d) Promote the internationalization of your company
- e) Technology and effective decision making
- f) The drivers of growth industrial parks
- g) Environmental Liability Act

Benefits: participation of expert speakers from companies such as TIBA, VITRADE, PIRELLI, Kansas City Southern de Mexico, COFOCE, Buffete International, Guanajuato state government, Goodrich Riquelme, Puerto Interior. Breakfast attendance is 50 people, above 350 people have participated in these activities.





Training

An essential part of the activities of CPLB to be in the "state of the art" in terms of innovation, production efficiency and sustainability. For this reason, we share what we learn and do this through providing training for entrepreneurs, students and the general public.

The training we have given in these two years is

- a) Course of Corporate Social Responsibility
- b) Sales Training
- c) Exporter's guide
- d) The art of negotiation
- e) Cleaner Production and Energy Efficiency with a focus on Socia Responsibility
- f) Innovation and sustainability
- g) Integrated waste management

The benefits achieved include:

- 1) trained 280 people
- 2) government subsidy for teaching courses for \$ 20,000 USD
- 3) Recognition participants with curricular value



Forum Sustainability and Social Responsibility, factors that drive profitability in the organizations

In 2014 the BCPC organized and conducted the first forum on Sustainability and Social Responsibility. The goal of the Forum was to present to attendees tools and actions regarding Sustainability and Social Responsibility that can be implemented in business process and services to make them more profitable economically, technically more efficient, more environmentally friendly and that generate better quality of life for its employees and the community.

The Forum was held in the city of Leon, Guanajuato, under the dynamic 4 conferences, 2 panel discussions and a space for the exchange of ideas among participants. With an attendance of just over 100 participants, 16 sponsors and top-level speakers from Guatemala, Miami, Mexico City and the state of Guanajuato (belonging to the business sector and government) issues were discussed; State for Social Responsibility (RS) in Mexico, living the experience of being sustainable (two case studies), State of the RS in the hotel industry, global standards of sustainability in the service industry, cleaner production and energy efficiency and business adoption program hectares for conservation of protected natural areas.

The commitment of the Chamber Guanajuato Chapter and CPLB now is to make this Forum a reference in the state of Guanajuato, annually and useful and interesting for the business and social sector. This 2015, on July 22 will be held the Second International Forum on Sustainability and RS. This year we will have the participation of 160 attendees and 20 sponsors.



Projects

The backbone of CPLB is the implementation and development of strategic projects in production efficiency and pollution prevention. With these projects CPLB links with business and government and contributes to the development of strategies, tools and mechanisms that provide benefits in the economic, technical, environmental and social.

The projects are:

Carbon neutral. This program aims to create alternatives to assist the problem of climate change by reducing pollutant emissions into the atmosphere through the use of sustainable practices, allowing the necessary adjustments to reduce and offset the carbon footprint of the state of Guanajuato and Leon municipality. They involved a total of 61 companies in the Carbon Neutral program. The participating companies were from various sectors (services, tanneries, footwear, chemical, government offices, hospitals, educational, etc.). Some of the results obtained by the participating companies were:

Initial value

Electric consumption (Kw/h)	Power consumption (l)	Gas consumption (l)	Fuel consumption (l)	Diesel consumption (l)	CO ₂ emissions (ton)
36,496,251		5,654,887	36,000	71,869	33,692

Ending value

Electric consumption (Kw/h)	Power consumption (l)	Gas consumption (l)	Fuel consumption (l)	Diesel consumption (l)	CO ₂ emissions (ton)
25,764,512		4,443,977	27,000	64,521	24,589

Annual savings:

Electric consumption (Kw/h)	Power consumption (l)	Gas consumption (l)	Fuel consumption (l)	Diesel consumption (l)	CO ₂ emissions (ton)
10,731,739		1,210,910	9,000	7,348	9,103

In the final data corresponding to companies in the Carbon Neutral program:

- The annual savings of Kw / h (29.5% of the original consumption)
-equivalen To supply energy to 3,699 families per year.
- Reduction in the total annual consumption of LP gas (21.5% of initial consumption).
- Reduction in the total annual consumption of gasoline (25% of the initial consumption).
- Reduction in the total annual consumption of diesel (10% of initial consumption).
- Reduced total annual Tons of CO₂ emitted into the atmosphere
(27% of total emissions) -equivale emissions to stop issuing 1,772 compact cars a distance of 30 000 km a year.

However, adopted more than 25,000m² of green areas in the city of Leon, Guanajuato., Today programs were implemented without car and more than 2,000 trees were reforested.

Environmental leadership. The objective of this program is to develop skills to improve competitiveness by increasing the efficiency of production processes in large enterprises (leaders or managers), medium and small, making better use of raw materials and energy, and a reduction of pollutant loads that these processes generate. This program is based on learning by doing methodology. Therefore, workgroups of 15 companies led by a tractor company comply. This project takes about three months and each participating company must generate at least a productive project. We work with 45 companies divided into three working groups and (2 Guanajuato and 1 in Mexico City).

Benefits:

- 1.- The total number of projects submitted by companies was 112.
2. The total investment for these projects is \$2,088,489.48 USD
3. The economic savings to the implementation of 112 projects is \$ 2,223,107.80 USD annually.
4. The Simple payback period is 11.3 months
5. With respect to environmental issues, we have:
 - a) 4,693,243.38 Kw / year (equivalent to stop emitting into the atmosphere 3,069 tons of CO₂ and energy bastecer 1,617 homes per year) will be saved.
 - b) Saving fuel (diesel) 2172.40 m³ / year (equivalent to stop emitting into the atmosphere of CO₂ 6026.40 TON)
 - c) fuel economy (gasoline) 7.63 m³ / year (equivalent to stop emitting into the atmosphere of CO₂ TON 18.43)
 - d) fuel economy (LPG) of 154.63 m³ / year (equivalent to stop emitting into the atmosphere of CO₂ TON 60.88)
 - e) drinking water saving 165.219 m³ / year (equivalent to supply water to 1,628 people in a year)
 - f) non-potable water savings of 88.894 m³ / year
 - g) Saving raw material 440.18 TON
 - h) Paper Saver 9.23 tonnes / year (equivalent to 166.14 not cut trees)
 - i) I am saving wood 333 tonnes / year
 - j) Saving plastic TON 92.67 / year
 - k) No generation of solid waste 1,453 tonnes / year (equivalent to 3,981 inhabitants do not generate waste in a year)
 - l) No generation of hazardous waste 90.49 TON / year.

Note: The total emissions of CO₂ left to issue -9174.71- (equivalent to the emissions to stop issuing 1,786 compact cars a distance of 30 000 km a year).

ABOUT RECP EXPERIENCES

Through the joint Resource Efficient and Cleaner Production (RECP) Programme, the United Nations Industrial Development Organization (UNIDO) and the United Nations Environment Programme (UNEP) cooperate to improve the resource productivity and environmental performance of businesses and other organizations in developing and transition countries. The Programme is implemented in partnership with the Global Network for Resource Efficient and Cleaner Production (RECPnet). This series of enterprise success stories documents the resource productivity, environmental and other benefits achieved by enterprises in developing and transition countries through the implementation of RECP methods and practices.

These successes were achieved with the assistance of the National Cleaner Production Centres, which are part of RECPnet established with support of the UNIDO and UNEP. The success stories employ the indicator set described in *Enterprise Level Indicators for Resource Productivity and Pollution Intensity*, UNIDO/UNEP, 2010. The primer with accompanying calculator tool and further case studies are available at www.recpnet.org, as well as on www.unido.org/cp and www.unep.fr/scp/cp.