

**American Bar Association
Section of Environment, Energy, and Resources**

Around the World in 80 Minutes (+10)

Quick stop in Mexico during a journey around the world in 80 minutes (+10)

**Daniel Basurto-González
Lexcorp Abogados/Basurto y Arguijo S.C.
Mexico City, Mexico**

**36th Annual Conference on Environmental Law
Keystone, CO
March 8-11, 2007**

Mexico has started a new era with the government of President Felipe Calderon who has focused his environmental policy in what is known as Sustainable Development. Not in vain, Mexico has been recognizing the importance of the topics that involve this concept; unfortunately, Fox administration did not follow this line, since the environment was not a priority and the relations with the Mexican Congress were not as good as we expected, resulting more than 150 environmental bills proposed. We have to say that many of them were not effective and did not follow the basic premise of any law: the common good.

Moreover, we cannot forget that public safety, employment generation and the fight against poverty depend on sustainable development, which must be enforced with a very strong and serious environmental policy. Too good to be true? Only time will answer this question.

During this quick stop in Mexico, we will present the topics concerning climate change, chemicals, extended producer responsibility and product regulation, environmental disclosure, clean-up liability and director/officer liability, within the framework of the 36th Annual Conference on Environmental Law organized by the American Bar association.

Regarding **climate change**, Mexico has been doing many efforts for developing Clean Development Mechanisms (CDM) in order to face global warming. There are some groups in our country such as CESPEDDES (Center of Studies of the Private Sector for Sustainable Development) that are trying to influence in this topic, however CDM cannot be developed at all. Currently, approximately 3 projects of CDM have been approved in the country, without considering those projects related to farms.

On the other hand, Mexico has signed and is an active member of many international treaties, such as the Rotterdam Convention (regulates some of the most relevant hazardous chemicals and pesticides), the Montreal Protocol (international agreement designed to protect the stratospheric ozone layer), and the Stockholm Agreement (safety elimination, production and use of Persistent Organic Pollutants (POP's) "Dirty Dozen", which are harmful substances for human health and the environment). It is worth mentioning, that Mexico is in process of implementing the activities related to this Agreement.

In addition, Mexico belongs to the Organization for Economic Cooperation and Development (OECD), which has several publications regarding the **Extended Producer Responsibility**. Although this concept is not regulated in the General Law for the Prevention and Integral Management of Wastes, (actually, this law states the concept of “shared responsibility”), our country will have to search mechanisms for developing the three main principles regulated by the Waste Law: Valorization/Assessment, Integral Management and Shared Responsibility.

Likewise, the topic of **environmental disclosure** is turning into a very important issue for many corporations that operate in the country. Mexico has worked hard in the process of implementing the transparency. Proof of that, is that during the Fox administration the Federal Law of Transparency and Access to Public Information was published in the Federal Official Gazette. Moreover, Mexico has created consultation counsels in order to bring access to information to all sectors (social, academic, economic, business etc).

In relation to **clean-up liability**, corporations are aware of the importance of complying with the environmental legislation; however for them it is more important to avoid the possible sanctions derived from the non-compliance. For this purpose, the Secretariat of Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales – SEMARNAT*) has published a guide called “Technical guide for orienting the elaboration of studies regarding environmental risk evaluation of pollutant sites”¹. Even though this document does not have a legal connotation, it will help to unify criteria in order to bring certainty. Moreover, this topic has turned into a big concern for those who own or hold real states, taking into consideration the gaps and the lack of knowledge present in the Mexican legislation. However, what is true is that everybody in Mexico is learning.

I. CLIMATE CHANGE

The International Community has assumed some commitments in order to face climate change. These commitments derive essentially from the United Nations Convention on Climate Change, its Kyoto Protocol² and the European Parliament Directive 2003/87/CE. These international instruments establish economic mechanisms to face climate change, one of which is the Clean Development Mechanism (CDM) through which investment opportunities in developing countries will be created.

The CDM is a tool included in the Kyoto Protocol, through which a country listed in Annex 1 of such Protocol (developed countries, generally) can make investments in activities that will reduce the generation of greenhouse gases (GHG) in those countries not listed in Annex 1 (developing countries, generally). The investor would receive a “GHG reduction certificate” that could be commercialized in a market created worldwide for that purpose.

Opportunities for developing CDM in Mexico

The following projects may be considered great opportunities for the development of CDM in Mexico:

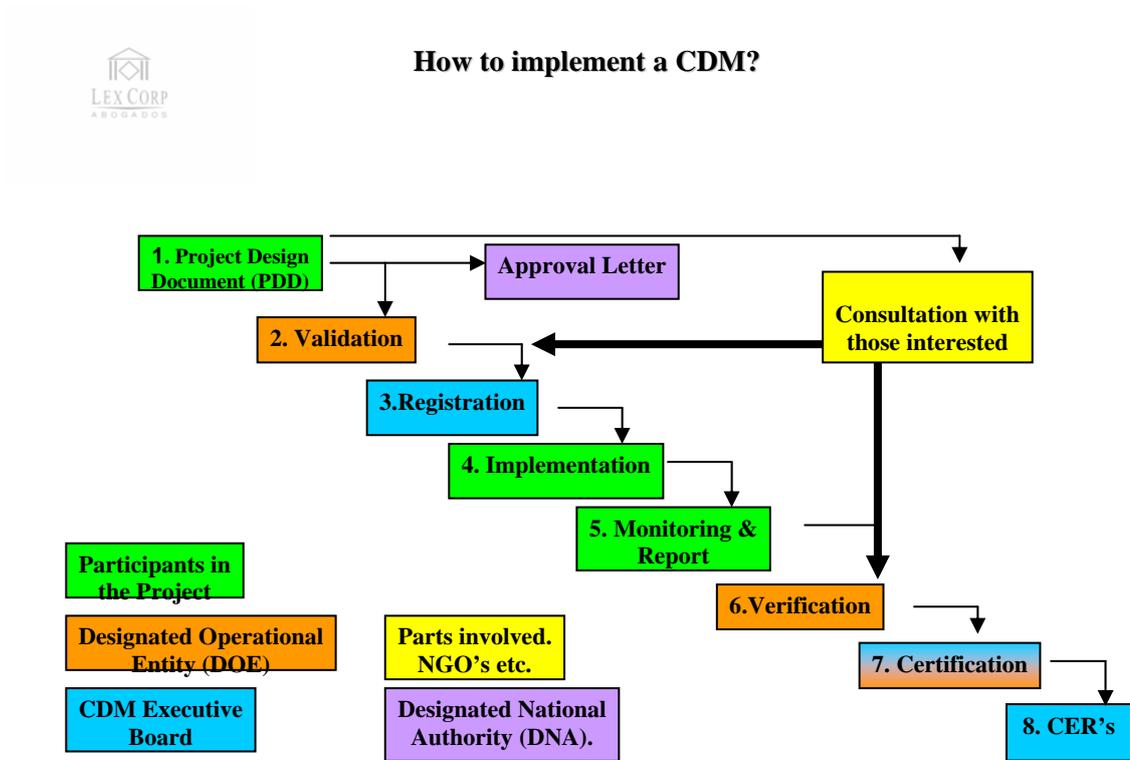
- Improvement in energy efficiency.
- Fuel quality improvement.
- Electric generation and transmission.
- Renewable energy sources.

¹ Guía Técnica para orientar la elaboración de estudios de evaluación de riesgo ambiental de sitios contaminados”. Secretaría de Medio Ambiente y Recursos Naturales – Dirección General de Gestión Integral de Materiales y Actividades Riesgosas. 2006.

² The Kyoto Protocol entered into force on February 16, 2005.

- Oil and Gas.

Clean Development Mechanisms Implementation



Source: www.semarnat.gob.mx

The implementation of CDM projects requires a deep knowledge of all the rules issued. The following is a brief exposition of the different stages regarding the implementation of CDM projects:

<p><i>a) Project Design Document:</i> The first part of this stage is the definition of the “idea” of the project and the purpose is to evaluate if the project fulfills the requisites of the CDM project. Once the requisites have been established in the “CDM Executive Board”³ (“the Board”). In case the project is developed, the first activity will be to complete the so-called “Project Design Document” which will include the project description and the methodology proposed for the measurement and monitoring of GHG reduction.</p>
<p><i>b) Approval letter:</i> Right after having the PDD, the promoter of the project, must require the Approval Letter issued by the Intersecretarial Commission on Climate Change⁴. This Commission evaluates the project based in its specific criteria⁵.</p>
<p><i>c) Project Validation:</i> A Designated Operational Entity (DOE) will be hired by the promoter. The DOE will evaluate the PDD with the purpose of verifying that the project contains all requisites required for the project to be eligible for CDM.</p>

³ Article 12 of the Kyoto Protocol.

⁴ The Accord that created this Commission was published in the Federal Official Gazette on April 25, 2005.

⁵ These criteria were published in the Federal Official Gazette on October 27, 2005.

⁶ Some of these requisites are the evaluation of environmental impacts, dispositions concerning monitoring, verification and report for the reduction of greenhouse gases emissions.

d) Registration: Once the project has been validated as CDM by the DOE, this entity will inform the Board the registration of the Project, unless three members of the CDM Executive Board review regarding the compliance of the requisites mentioned above.

e) Monitoring: Once the project is registered, it will be necessary to collect all information regarding the GHG reduction achieved.

f) Verification and Certification: The DOE will review and certify the GHG reduction period. The DOE must certify that the project fulfills with what is described in the PDD and with all rules and procedures of CDM established by the board. Then, the DOE will fill out a “verification report” in order to certify the project, and a “certification report”, establishing the exact amount of GHG reduction.

g) Certificates of Emission Reduction (CERs): Once the certification report is presented, the DOE will have 15 days for issuing the CERs through an electronic register created for this purpose.

Each project must fulfill specific requirements in order to be qualified as CDM. The process is not easy and requires specialized assistance for guarantee the success of the project.

Estimation of Greenhouse Gases Emissions

On August 25, 2004, the SEMARNAT signed an agreement with the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). The main purpose of this agreement is to establish the fundamentals for the implementation of a program of calculation regarding greenhouse gases emissions in Mexico. The outline is called “The Greenhouse Gas Protocol” and was elaborated by the WRI and the WBCSD.

Although the main target of this agreement is not exactly the implementation of CDM projects, it is considered a suitable method of calculation and report of these emissions.

The objectives of the agreement signed by SEMARNAT are the following:

- a. To develop an account for the emissions of greenhouse gases and a corporate voluntary report program in Mexico.
- b. To Identify efficient and energy conservation methods associated with the benefits of the emissions of greenhouse gases.
- c. To Identify and develop projects of mitigation of greenhouse gases.

With these objectives SEMARNAT hopes to help companies to prepare inventories of emissions of greenhouse gases and identify opportunities to reduce them. At the same time it is expected to protect their profits, reduce the atmospheric local pollutants and diminish the global climate change. These objectives will help in the implementation of CDM projects in the country as well as the foreign investment.

Financial resources and legal assistance

Likewise, there are many financial sources, such as the World Bank and the Bank of Japan that have specific programs for CDM projects, as well as other investors in different countries. Mexico has signed cooperation agreements with several countries such as France, Netherlands, Spain, and Canada for the implementation and financing of CDM projects.

As we have mentioned before, the implementation of CDM projects is not easy and requires a deep knowledge. Consequently, it is necessary to count on expert consultancy in all the stages of the implementation of CDM projects.

First, it is necessary to count on a global assistance and a clear strategy to achieve the objectives. Moreover, a legal consultancy regarding specific legal dispositions

(environmental, energetic, tax and international legal dispositions) is required.

The assistance will include aspects regarding intellectual property, contracts, technology transference; legal aspects that must be satisfied in the implementation of CDM; actions, authorizations and permits for the operation of the projects, the way in which the CERs will be commercialized, determination of responsibilities in case the verification and certification is not carried out in a suitable way and may cause damages.

The Greenhouse Gas Protocol Initiative

The Greenhouse Gas Protocol Initiative, created in 1998, is an international coalition of businesses, non-governmental organizations (NGOs), government and inter-governmental organizations. It operates under the umbrella of the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI), bringing together leading experts on greenhouse gas emissions to develop internationally accepted accounting and reporting standards.⁷

The Initiative consists of two standards:

- ❖ *The Corporate GHG Accounting and Reporting Standard* which helps companies and other organizations to identify, calculate, and report GHG emissions.
- ❖ *The Project GHG Accounting and Reporting Standard* which helps developing accounting and reporting standards as well as general guidance for emission reductions derived from specific projects.

Methodology established by the Corporate GHG Accounting and Reporting Standard

First, it is important to mention that although this standard is designed from the perspective of companies involved in GHG inventories, it applies to other types of organizations such as NGO`s, universities and government agencies engaged with GHG emissions.

The Standard establishes the following issues:

A. Establishing GHG Accounting and Reporting Principles: The purpose of these principles is to guide GHG accounting and reporting in order to ensure that the information is true. All companies must be very clear in relation to these principles.

B. Establishing Business Goals, Inventory Design, Organizational and Operational Boundaries: Companies must have business goals and design inventories with the objective of improve their GHG emissions, as well as establish their organizational boundaries selecting an approach for consolidating GHG emissions. Likewise, companies must establish their operational boundaries, identifying emissions associated with their operations, classifying them as **direct** and **indirect**, and choosing the scope of accounting and reporting for indirect emissions.

According to the Corporate GHG Accounting and Reporting Standard, **direct** GHG emissions occurred from sources that are owned or controlled by the company. For example emissions from combustion in boilers, furnaces or vehicles. This type of emissions is known as Scope 1.

On the other hand, **indirect** GHG emissions may be of scope 1 or 2. GHG emissions of scope

⁷ It is worth mentioning that the GHG Protocol and the Corporate GHG Standard are different instruments from the CDM projects, being another option for reducing GHG emissions.

2 are those emissions coming from the generation of purchased electricity consumed by the company.⁸ Indirect GHG emissions of scope 3 are an optional reporting category and are consequence of the activities of the company but occur from sources not owned or controlled by the company.⁹

C. Following up emissions over time: Following the methodology established, companies must follow up their GHG emissions because they experience significant and important changes throughout the years. For this reason, it is very important to update data.

D. Identifying and Calculating GHG Emissions : Once the inventory boundary has been established, companies generally calculate their emissions in this way: Identifying GHG emission sources; choosing a calculation method of GHG emissions; collecting data regarding their activities; applying calculation tools¹⁰; sending emission data to corporate level. However, this is not enough, because companies must verify their inventory quality by means of identifying their opportunities of improvement. The Standard establishes the definition of inventory quality and the inventory program framework.

E. Accounting GHG Reductions: It is very important for a company to account GHG emissions changes over time, as well as account credits or offsets that result from GHG reduction projects.

F. Reporting GHG Emissions: A company must elaborate a GHG emissions report which contains relevant, complete, precise and true information. It is recommended that this report is based on the best available information at the moment of its publication. In addition, it is worth mentioning that the report must include the company's gross emissions for its chosen inventory boundary. This report must be verified with the purpose of making a precise valorization of the information reported. The Corporate GHG Accounting and Reporting Standard is a tool that may help in the verification of GHG emissions.

What are the benefits for a company or organization that follows this instrument?

This Standard is a complete guide that may result useful for those companies and organizations that want to follow its recommendations. It is worth mentioning that this instrument is different from the CDM mentioned above.

Moreover, we consider that this instrument have many advantages that contribute to a better performance of companies. In addition, the Standard helps companies and organizations to decrease damages caused to environment and health, as well as avoiding them in a near future. On the other hand, this instrument represents more organization in companies, helping them to be more competitive and successful. Having established operational and organizational boundaries, companies will be aware of their reality and the risks that may face if they do not reduce their GHG emissions.

In the same sense, companies will find opportunities for reduction of GHG emissions, and as a consequence will avoid problems with environmental authorities not being sanctioned with fees or closures, obtaining more benefits and acknowledgments, Therefore, the goals

⁸ According to the Corporate GHG Accounting and Reporting Standard purchased electricity is defined as the one that is purchased or otherwise brought into the organizational boundary of the company.

⁹ Examples of scope 3 GHG emissions are extraction and production of purchased materials and transportation of purchased fuels and the use of sold products and services.

¹⁰ Calculation tools are available at the website: www.ghgprotocol.org.

accomplished by the companies that follow the recommendations of this Standard, will make them to cross borders and expand, being more competitive. There is no doubt that the relation cost-benefit is huge.

II. CHEMICALS

The Stockholm Agreement on Persistent Organic Pollutants (POPs)

The Stockholm Agreement about the Persistent Organic Pollutants (POP's) brings a framework which objective is to guarantee the safety elimination and product reduction in the use of these harmful substances for human health and the environment.

The POP's are chemical products that have certain toxic properties, resulting harmful for human health and the environment, since they are resistant to degradation. The POP's travel by air, water and migratory species and accumulate in terrestrial and aquatic ecosystems.

The global POP's agreement initially covers the "dirty dozen", which includes nine pesticides (aldrin, chlordane, DDT, deldrin, endrin, heptachlor, hexachlorobenzene, mirex, and toxaphene), and three industrial chemicals (PCBs) and unintentional by-products (dioxins and furans) of industrial and combustion processes.¹¹

The agreement requires all Parties to:

- Stop production and new uses of intentionally produced POP's, with limited exceptions.
- Implement strong controls on sources of by-product POP's to reduce emissions.

Importation and Exportation

The Agreement states the interruption of the importation and exportation of the POP's that are prohibited. However, chemical substances classified as POP's may be imported under some circumstances:

- ❖ When there is a rational environmental elimination of the existing POP's. (For example waste elimination).
- ❖ For those substances which production and use is authorized.

Exportation is authorized in the following cases:

- ❖ When there is a rational environmental elimination of the existing POP's. (For example waste elimination).
- ❖ When a Party has an exemption for the use of the substance.
- ❖ Towards an Estate that has not signed the Agreement.

It is worth mentioning, that the purpose is to reduce, and when possible, to eliminate the intentional production of POP's. Therefore, the Parties in the Agreement must elaborate an action plan that can be national, regional or subregional. The plan must contain an evaluation of the liberations, an evaluation regarding the efficiency of the existing legislation and policy, as well as the elaboration of strategies in order to follow the objectives of the Agreement.

¹¹ For more information, see the web page:
<http://www.epa.gov/oppfead1/international/agreements.htm>

Mexico has signed the Stockholm Agreement and as we mentioned above, it is in process of implementing the activities related to this instrument.

The Montreal Protocol

The Montreal protocol is an international agreement designed to protect the stratospheric ozone layer. The treaty was originally signed in 1987 and amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere--chlorofluorocarbons (CFCs), carbon tetrachloride, and methyl chloroform--are to be phased out by 2000 (2005 for methyl chloroform).

Some theories suggest that, once emitted to the atmosphere, these compounds could significantly deplete the stratospheric ozone layer that shields the planet from damaging UV-B radiation. The United Nations Environment Program (UNEP) has prepared a Montreal Protocol Handbook that provides additional detail and explanation of the provisions.

The Rotterdam Convention

The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC) establishes that countries are only allowed to export certain hazardous chemicals following the importing party's prior consent.

Chemical Precursor Management and Essential Chemical Products

These figures are regulated by Mexico's Law of Chemical Precursors, and its objective is to control the production, preparation, acquisition, distribution, importation, exportation, transport and storage of chemical precursors, essential chemical products and machines for elaborating capsules and tablets, in order to avoid the illegal production of narcotics.

Obligations in charge of all individuals that perform some of the activities regulated by the Law of Chemical Precursors

1) Inform to the Secretariat of Health:

- ❖ Name, domicile and Federal Taxpayer Register of those individuals that will perform the activities regulated by the Law of Chemical Precursors.
- ❖ Amount and volume of those chemical precursors and essential chemical products subject to each activity regulated by the Law.

2) Carry out a registry of each activity regulated. This registry will contain:

- ❖ Date.
- ❖ Identification data of the individual who perform the activity.
- ❖ Description, volume, origin, transportation and destination of the chemical precursors and the essential chemical precursors.

3) Obtain (just once) from those persons with whom the activities are performed:

- ❖ Sanitary authorizations or announcements, according to the Law.
- ❖ In case of legal entities, the documentation accrediting their legal constitution.
- ❖ In the event that the persons do not count with any domicile in Mexico, the documents certifying that they are authorized or registered by the competent authorities of their countries for carrying out the correspondent operation.

4) Communicate the Secretariat of Health any activity that involves:

- ❖ An extraordinary volume of chemical precursors or essential chemical precursors.
- ❖ An unusual method of payment.
- ❖ An unusual delivering method.
- ❖ Any circumstance that may imply a detour.

5) Communicate the Secretariat of Health:

- ❖ The proposal for performing any activity regulated by the Law, by those individuals whom description or characteristics coincide with information previously given by the authorities.
- ❖ The disappearance or unusual reduction in chemical precursors or essential chemical precursors.

6) Importation and Exportation of chemical precursors or essential chemical precursors:

The importation or exportation of chemical precursors or essential chemical precursors that does not require authorization, will require an “announcement” to the Secretariat of Health, 5(five) days before the operation date. The importation or exportation will be carried out only by the customs authorized by the Secretariat of Health.

Management of Pesticides and Toxic Substances

- ❖ Toxic substance: Element or compound, or the chemical mixture of both of them that may cause effects to the organism by any way such as inhalation, ingestion or contact to the skin or mucous.
- ❖ Pesticide: Any substance or mixture of substances designed for controlling plagues included the vectors that transmit health and animal diseases.
- ❖ Pesticide of industrial use: Pesticide used in the elaboration of products such as paints, paper, nail polish, cellulose or cardboard, and the pesticide employed in water treatment of industrial processes.

The activities regulated are the process, use, importation, exportation, commercialization, application and final disposition. The authorities in charge of supervising the activities related to pesticides and toxic substances are the Secretariat of health, the SEMARNAT and the Secretariat of Agriculture (SAGARPA).

Obligations in charge of the individuals who perform activities related to pesticides and toxic substances:

- ❖ Obtain the sanitary license or submit the announcement required by the General Law of Health.
- ❖ Obtain the Sanitary Register of the product, previous its commercialization.
- ❖ Obtain the permits regarding the importation of pesticides and toxic substances.
- ❖ Label the products according to the Official Mexican Standards.¹²

Non Environmental Aspects that affect the environment: Safety and Hygiene, Health

¹² Official Mexican Standards are technical mandatory requirements issued by the Executive Branch.

and Official Mexican Standards

Management of hazardous chemical substances: They are regulated under the Official Mexican Standard (NOM-005-STPS-1998):

Main aspects:

- Analysis of the possible risks of dangerous chemical substances.
- Procedure manual for their management, transportation and storage.
- Count o the installations, equipment or necessary materials for spills.
- Count on a program for preventive and corrective maintenance.
- Identification and communication of risks.
- Provide medical exams to the employees.

Chemical pollutant Substances: They are regulated under the Official Mexican Standard (NOM-010-STPS-1999).

Main aspects:

- Study of the pollutants that affect the labor environment.
- Elaborate a specific program of safety and hygiene.
- Provide medical exams to the employee for each pollutant.

Other non environmental dispositions that may affect the environment:

- Transportation of materials and hazardous wastes: characteristics, packaging, safety conditions and responsibilities.
- Explosives.
- Pesticides and toxic substances.
- Chemical weapons.
- Food and beverages.
- Cleaning products.
- Narcotics.
- Beauty products.
- Perfumes.
- Tobacco.
- Medicines.
- Radiation sources.

III. EXTENDED PRODUCER RESPONSIBILITY AND PRODUCT REGULATION

Who is the Producer?

Some studies carried out in European countries that belong to the Organization for Economic Cooperation and Development (OECD)¹³ indicate that the producers are the most appropriate people for assuming the main responsibility and leadership for implementing programs for waste management, since they have the knowledge about their products.

¹³ www.oecd.org

What is Extended Producer Responsibility (EPR)?

The OCDE defines EPR as “an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of the product's life cycle.”

According to the Environmental Protection Agency (EPA)¹⁴ the Extended Producer Responsibility (EPR) is a relatively new tool designed to reduce waste from consumer goods and its impact on the environment. This type of responsibility is based on the premise that the responsibility of the producers does not end with the sale of their products.

Some countries have developed certain policies, affecting the use and final disposition of some products, making companies responsible. According to a publication of the National Institute of Ecology (Instituto Nacional de Ecología - INE), a good example of this situation is the disposition of the European Union for those who are producing electronic devices. They have the obligation of recovering their products after their useful life for recycling or final disposition.¹⁵

Likewise, the OECD has published several documents describing experiences related to the application of the EPR related to the management of those products that turn into wastes once they have finished their life cycle.

The purpose of the OECD countries that take into consideration the EPR, was to extend the responsibility to those products that are in the post-consumption stage and reduce the charges to Municipalities as well as the consumers¹⁶. In the case of Mexico, it is important to consider that the environmental legislation in our country establishes the obligation to follow the “Shared Responsibility” regulated by the General Law for the Prevention and Integral Management of Wastes (the Waste Law) as one of the main principles of this Law.

The Waste Law was published in Mexico's Federal Official Gazette on October 8, 2003 and went into effect on January 6, 2004. It defines in article 5, section XXXIV the concept of shared responsibility as “*principle through which it is recognized that urban solid wastes, and wastes requiring special management after the performance of activities that satisfy necessities of society, through value chains of production, process, packaging, distribution, consumption of product types, and that in consequence, their integral management is a joint social liability and requires the joint, coordinated and differentiated participation of producers, distributors, consumers, users of byproducts, and of the three branches of government*”. Moreover, the “shared responsibility” of the producers, importers, exporters, distributors, consumers and services companies for waste management is essential for achieving environmental efficiency in waste management. (Article 2, section V of the Waste Law).

Application of the EPR in the OECD Countries

The objective of the EPR is to prevent waste generation and minimize environmental impacts through the life cycle of those products that finally turn into wastes.

Cristina Cortinas de Nava in her document titled “*Ideas para reglamentar la responsabilidad compartida en el manejo de productos de consumo que al desecharse se convierten en residuos*”. (In English: “Ideas for the Implementation of Shared Responsibility for

¹⁴ <http://www.epa.nsw.gov.au/waste/epr.htm>

¹⁵ National Institute of Ecology. www.ine.gob.mx/ueajei/publicaciones/libros/259/introd.html

¹⁶ “Definición de responsabilidades en relación con planes de manejo de productos de consume que se convierten residuos”. See the web page: www.cristinacortinas.com.

Management of Consumption Products that turn into Wastes”),¹⁷ describes some of the basic aspects to consider in the EPR are:

A- EPR and their obligations

❖ The elimination of monopoly behaviors and other possible effects that may affect trading.
❖ Minimization of “evaders”.
❖ Clear and consistent communication with all interested and affected parts.
❖ Consideration of the necessities of the small and medium companies.

B- Instruments for establishing the programs of EPR

❖ Requisites for returning products: They may follow the objectives through the establishment of the responsibility associated to manage those products at the end of their life cycle.
❖ Economic Instruments: These instruments are based on incentives that may give flexibility to private sector in order to establish the ways for the programs implementation.
❖ Norms regarding the performance: They may be established for specifying a particular percentage of recyclable materials once they are incorporated in the products.

C-Transaction Costs

These costs are related to those caused by the producer for gathering, transport and process of the products that are returned by the consumer. There are other costs, such as those resulting from the obligations imposed by the authorities. For those authorities involved in the verification of the compliance of legal dispositions concerning the development of the programs, there are transaction costs related to activities that follow the performance of such programs.

D- Establishment of the programs

The successful of these programs consist of the good planning in their development, since it takes time for the involved parts to understand their responsibilities and the establishment of the programs and required systems. The elaboration of these programs may be an effective way for their design and operation as well as the establishment of consensus of all interested in the products chain.

E- Evaluation of the programs

The periodic evaluation of these programs will allow determining whether they follow the objectives established. Cristina Cortinas de Nava establishes some examples of the criteria used for evaluating the effectiveness of those programs for management products that once

¹⁷ “Ideas para reglamentar la responsabilidad compartida en el manejo de productos de consumo que al desecharse se convierten en residuos”. See the web page: www.cristinacortinas.com.

discarded, turn into wastes. The following chart illustrates these examples: ¹⁸

F- Criteria

❖ Environmental Effectiveness: This is the main objective of the EPR. These objectives will be achieved if the program follows its objectives and goals.
❖ Economic Efficiency: In order to evaluate this efficiency, it is necessary to count on data regarding the costs of the programs implementation for producers and the correspondent authorities.
❖ Innovation: This criterion is evaluated considering the advances and improvements of the programs.
❖ Political acceptance: This criterion implies the necessity to know the public participation, the acceptance of the society and the transparency in their operation.
❖ Administration: The evaluation of this criterion means to know if the producers were correctly informed about their legal responsibilities in the programs implementation, if their implementation was easy or difficult and what were the cost of executing these programs and verifying their performance.

General Law for the Prevention and Integral Management of Wastes and its Regulations

The Waste Law establishes certain definitions that we consider relevant in the management of products that once discarded, they turn into wastes. Those definitions are:

- ❖ Best Utilization of Wastes: Combination of actions whose objective is to recover the economic value of the wastes through their reutilization, redesign, recycling and recovery of secondary materials or energy.
- ❖ Integral Management: The activities for reduction at the source, separation, reutilization, recycling, co processing, biological, chemical, physical or thermal treatment, collection, storage, transport and final disposition of wastes, individually performed or combined in an appropriate manner, in order to adapt to the conditions and necessities of each place, complying with objectives of evaluation, sanitary, environmental, technological, economical and social efficiency.
- ❖ Management Plan: Instrument whose objective is to minimize the generation and maximize the evaluation of urban solid wastes, special management wastes and specific hazardous wastes, under criteria of environmental, technological, economical and social efficiency, designed under the principles of **shared responsibility** and integral management, involving producers, importers, exporters, distributors, businessmen, consumers, users of byproducts and large generators of wastes.
- ❖ Productive Process: Group of activities related to the extraction, beneficiation, manufacturing, processing, and/or realization of materials for producing goods and services.
- ❖ Programs: Organized activities and operations that result necessary for reaching the objectives of the waste Law.

¹⁸ “Ideas para reglamentar la responsabilidad compartida en el manejo de productos de consumo que al desecharse se convierten en residuos” .See the web page: www.cristinacortinas.com.

- ❖ Waste: Material or product whose owner or holder discards, and that it is found in a solid or semi solid state, or is a liquid or gas contained in containers or tanks, which requires treatment or final disposition.
- ❖ Recycling: Transformation of wastes through different processes that allow returning economic value, avoiding their final disposition, helping to save energy and raw materials.
- ❖ Reutilization: The employment of material or waste previously used, without an additional manufacturing process.
- ❖ Valorization /Assessment: Principle and group of associated actions which objective is to recover the remaining value or the calorific power of the materials that compose wastes, through their reincorporation into productive processes, under criteria of shared responsibility, integral management and environmental and technological efficiency.

The Waste Law establishes in article 27 the purposes to be followed by management plans of those products that once discarded, turn into wastes:

- a. Promote the prevention of the generation and the evaluation of wastes, as well as their integral management, through measures that reduce the costs.
- b. Establish the methods of management that respond to the characteristics of wastes and the materials that compose them
- c. Attend the specific necessities of certain generators that present particular characteristics.
- d. Establish management plans in which the principle of shared responsibility of the different sectors involved is applied.
- e. Encourage the innovation of processes, methods and technologies, for achieving an integral management of wastes that are economically feasible.

Aspects to be considered when establishing management plans for products that when discarded, turn into wastes. (Article 29 of the Waste Law).

Management plans applicable to consumer products that when discarded become hazardous wastes, must consider:

- a. The procedures for collection centers, storage, transport and shipment to recycling, treatment or final disposition centers.
- b. The strategies through which the actions that consumers must perform to return the products on the list to the suppliers or to collection centers designed for that purpose.
- c. The procedures through which the precautions will be made known to the consumers.
- d. The responsible parties and the parties that are involved in their formulation and execution.

On the other hand, the Regulations of the Waste Law published in Mexico's Federal official Gazette on November 30, 2006, states the categories for management plans and their content.

Article 16 of the Regulations establishes the following categories to be observed in management plans:

- I. According to the individuals that participate in them:

- ❖ Private: Instrumented by those people that according to the law, are obligated to elaborate, formulate, and implement management plans.
 - ❖ Mixed: Instrumented with the intervention of both authorities and people that participate in private management plans.
- II. Considering the possibility of people's association, obligated to formulate and execute management plans:
- ❖ Individual: Those plans in which only one generator establishes a unique integral management plan for one or more than one wastes generated.
 - ❖ Collective: Those plans that determine the integral management given to one or more specific waste. This type of plans may be elaborated or applied by many generators.
- III. According to their scope of application:
- ❖ National: Those plans applied nationwide.
 - ❖ Regional: Those plans applied in the territory of two or more states or the Federal District, or the territory of two or more municipalities of one state or different states.
 - ❖ Local: Those plans applied in one municipality or the Federal District.
- IV. According to the waste current.

In accordance to article 17 of the Regulations on Waste Law, people obliged to formulate and execute a management plan, may be able to do it, in terms of the Regulations or the correspondent Official Mexican Standards, or adhere to those management plans already established.

Content of Management Plans

Management plans will contain:

- ❖ Wastes subject to management plans, as well as the amount estimated to be managed.
- ❖ The way in which waste minimization and valorization/assessment will be done.
- ❖ The mechanisms of management plans evaluation and improvement.

IV. ENVIRONMENTAL DISCLOSURE

The Federal Law of Transparency and Access to Public Information and its Regulations

In general, all information is public, since one of the main instruments of environmental policy consists of the examination of the status of a company and its environmental performance. Nevertheless, this fact has created situations of disclosure; in order to bring legal certainty, we are working on keeping the secret of the companies.

The purpose of the Federal Law of Transparency and Access to Public Information (published on January 11, 2002 in the Federal Official Gazette) is to guarantee the access to information held by any federal entity such as the Executive, Legislative and Judicial branch, autonomous constitutional organisms such as the Federal Electoral Institute (*Instituto Federal Electoral - IFE*), the Bank of Mexico, Universities and the National Commission of Human Rights (*Comision Nacional de Derechos Humanos – CNDH*).

On the other hand, the Federal Institute of Access to information (*Instituto Federal de Acceso*

a la Informacion – IFAI) is a decentralized organism, that is in charge of guarantee the right to access the information, protect the personal data and solve about the negative decisions of access the information.

It is worth mentioning that this Law establishes the difference between reserved information and confidential information:

Reserved information is the information that: (article 13)

❖ May affect national safety.
❖ May harm the economic stability of the country.
❖ May affect negotiations, international affairs or any other international organizations.
❖ Put in risk life, safety or health of any person.
❖ Cause prejudice to activities related to the verification of the compliance of laws, prevention or persecution of crimes, contributions, migratory operations, administrative and judicial procedures.
❖ It is considered confidential or reserved.
❖ It is related to commercial, industrial, tax and banking secrets.

Confidential information is the information that: (article 18).

❖ It is given as “confidential” by the private individuals.
❖ It is related to personal data that requires authorization from the individuals for its diffusion, distribution or commercialization.

** The information concerning public registers and sources of public access, are not considered as confidential.*

Confidential Information and Environmental Authorities

In accordance to article 38 and 38 Bis of the General Law of Ecological Equilibrium and Environmental Protection, environmental audits are those instruments through which private individuals are able to carry out voluntary procedures of self regulation, with the purpose of improve their environmental performance.

The objective of a voluntary program is to generate a different situation from the administrative procedure. In other words, the authority has full access to personal information, opposite to any other situation of an administrative procedure, in which information is provided only when the authority requires it.

In the same sense, the information provided during an environmental audit is greater than the information obtained in an administrative process or inspection. Consequently, it is very important that the information given to the authorities – which is voluntary- is classified as “**confidential**” according to articles 26,27,37,40 and 41 of the Regulations of the Federal Law of Transparency and Access to Public Information, since the content of such information might affect safety or represent a competitive disadvantage, in case this information is received by third parties that may use it in a different way.

We may conclude that according to the Federal Law of Transparency and Access to Public Information, the data given to the authorities through an environmental audit are considered “**confidential**”, as long as the person bring information of this type, or ask the authority to classify the information as “**confidential**”.

V. CLEAN-UP LIABILITY

During the years 1995-2000 more than 60 polluted sites with hazardous wastes were identified in Mexico. Due to this circumstance, Mexico published the General Law for the Prevention and Integral Management of Wastes, mentioned above, which entered into force on January 6, 2004. Finally, and after three years, the Regulations for the Waste Law were finally published in Mexico’s Federal Official Gazette.

Clean-up liability has become an issue of great importance. However, there are many gaps in the Waste Law and its Regulations, which have produced conflicts between companies. With the purpose of solving these problems, the SEMARNAT published on July 2006, a “technical guide for orienting the elaboration of studies regarding environmental risk evaluation of pollutant sites”. The objective of this guide is to determine the risks caused by site pollution, where hazardous materials and wastes are involved. Regardless its legal connotation, this guide results a useful tool, helping to understand how environmental and/or human health risks are generated in polluted sites, their magnitudes and mechanisms of affectation.

The Waste Law states that remediation programs must be formulated in the event of site pollution arising from an environmental emergency or in case of environmental liability. An Environmental emergency is defined as “any event or circumstance that is undesirable or unexpected, resulting in fire or explosion of one or more hazardous wastes or materials, and adversely affects the environment and/or human health”. Moreover, the Regulations for the Waste Law establish site remediation proposals for emergencies and environmental pollution, which will contain specific requisites, including the techniques or remediation processes to be applied and equipment to be implemented. The requisites of remediation proposals are contained in article 143 of the regulations for the Waste Law.

Liability for polluted sites

With respect to soil pollution, the law requires the remediation of damage by those responsible for the pollution, aside from any criminal and administrative penalties that may also apply. In addition, the law has the unique and broad prohibition of the sale of land polluted by hazardous materials or waste, except when SEMARNAT grants special authorization. In cases where the site is abandoned and the owner or lease-holder is unknown, SEMARNAT, in conjunction with the state and municipality, is required to undertake the remediation actions necessary for site recovery and remediation. Note that the owners or occupiers of property, whose soils are polluted, are jointly liable for undertaking any necessary remediation actions, without prejudice to their right to assert liability against the person who caused the contamination.

Official Mexican Standards regarding soil pollution

- ❖ Official Mexican Standard NOM-138-SEMARNAT/SS-2003, which establishes the maximum allowable limits of hydrocarbons in soil and the specifications for the characterization and remediation.
- ❖ Draft of the Official Mexican Standard NOM 147-SEMARNAT/SSA1-2004, which establishes the criteria for determining the concentrations regarding site remediation

polluted with arsenic, cadmium, chrome, mercury, nickel, lead, selenium and vanadium.

VI. OFFICER/DIRECTOR LIABILITY

Regarding environmental damages, the legislation in Mexico states three types of liabilities:

- ❖ Administrative.
- ❖ Civil.
- ❖ Criminal.

In relation to *administrative* liability, the environmental protection regime in our country, establishes sanctions to any person who violate the dispositions of the General Law of Ecological Equilibrium and Environmental Protection. It is important to mention that these sanctions are applicable to both individuals and legal entities (companies). The sanctions established by this Law are: fines, closure and the confiscation of instruments or products. In addition, this Law states the administrative arrest up to 36 hours. However, in this case, the companies cannot be subject of this sanction due to its characteristic of being legal entities. Consequently, the legal representative of the company will be subject to administrative arrest or the person who ordered the action that cause the damage.

Regarding administrative liability of public officials, the Law establishes that "... public officials will be responsible according to the legislation in this matter (Art. 181)". In this sense, public officials will be responsible according to the "Federal Law of Administrative Liabilities of Public Officials" (*Ley Federal de Responsabilidades Administrativas de los Servidores Publicos.*)¹⁹

On the other hand, concerning criminal liability, the General Law of Ecological Equilibrium and Environmental Protection establishes that in the event the SEMARNAT knows about acts or omissions that might be crimes, it will have the obligation to report it before the competent authorities.

Finally, in reference to civil liability, the General Law of Ecological Equilibrium and Environmental Protection determines that "all of those who contaminate or cause any damage to the environment, will be responsible and it is obligated to repair the damages caused, according to the civil legislation (article 203)".

In conclusion, legal entities cannot be subject to civil and criminal liability, only individuals will respond for this type of liabilities. The same occurs in case of an administrative arrest, since it is essential to identify the person who caused the environmental damage.

This document is not intended to solve any particular problem, but rather is the author's personal opinion on the document described herein. Should you have any doubt or comment please contact Daniel Basurto at the e-mail address dbasurto@lexcorp.com.mx.

¹⁹ It is worth mentioning that the Chamber of Deputies proposed a bill regarding Administrative Liabilities of Public Officials.

