

Progress of environmental impact assessment and its methods in Colombia

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ABSTRACT

The following paper is developed in two parts, the first of which is an overview of the history of environmental impact assessment in Colombia, from its beginnings in 1974 to the present. The second part is a critical review of nine Environmental Statements produced in Colombia between 1997 and 1999, focusing on the following new elements of analysis: Environmental Risk Assessment (ERA); Regional Development Environmental Impact Assessment (RDEIA); and Social Impact Assessment (SIA). Additionally, a search was carried out to locate studies on Strategic Environmental Assessment (SEA).

EIA HISTORY IN COLOMBIA

Colombia has a 25 year experience in applying environmental assessments to development proposals which are potentially harmful to the environment. It became the first country in Latin America to face the environmental movement of the 70s by issuing, in 1974, the Law 2811/1974: 'Code for the Renewable Natural Resources and Environmental Protection'.

Among many other things, this Law, with its 340 Articles, established basic concepts about the environment as a common property of society, established an environmental policy, defined regulations for the management of all natural renewable resources and established what was called the *Declaration of Environmental Effect*. This Declaration implied that investment projects should be subjected to an ecological and environmental study, which included economic and social aspects, in order to be awarded a Licence that would allow their final development.

Although the approval of this law was very important for the country, some major restrictions affected the EIA implementation process. Three of the most important obstacles were:

- the lack of well-trained professionals in the new area of expertise;
- the generalized social belief that environmental matters were not important; and
- the fact that Inderena, the decentralized institution responsible for environmental matters and the implementation of the new law, was

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nevertheless a dependant branch of the Ministry of Agriculture and thus limited in its sphere of action. This means that important sectors of the national economy such as health, infrastructure, industry, oil, mining, urban problems, etc., all independent ministries, would often question Inderena's authority and undermine the impact of the its actions.

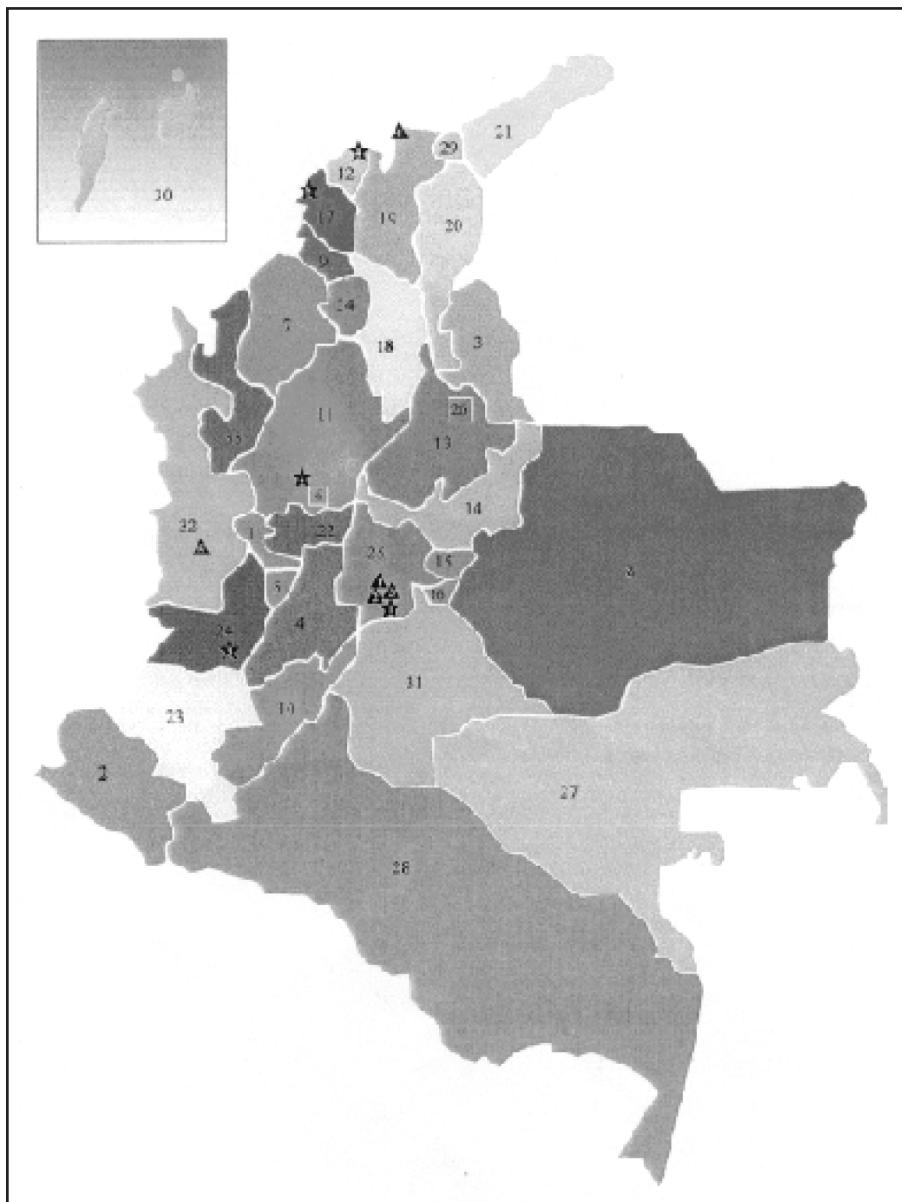


Figure 1: Colombia – Regional Autonomous Corporations

After several years of discussions, consultations and political debate, and with pressure originating in the results of 'The Earth Summit', Rio 1992, the

Ministry of the Environment of Colombia was created through Law 99 of 1993, with sustainable development as the fundamental basis for the new environmental legislation.

Beside the many different aspects of sustainable development, environmental processes and public involvement, the Law clearly defined the EIA process, the requirements for obtaining the environmental license to build and operate projects and, if so required, the submission of an environmental alternatives analysis of the proposed project.

This Law defined 31 geographical areas called Regional Autonomous Corporations (see Figure 1) and established that the administration of the environment and the natural renewable resources in the national territory will be managed by these Corporations. At the same time, the Law defined the type of projects that, due to their characteristics and magnitude, must carry out all formalities required to obtain the environmental license directly with the Ministry and those who must do it with the Regional Autonomous Corporations.

EIA-RELATED ACTIVITIES OF THE MINISTRY

As has been described, many different – and independent – authorities take part in the EIA decision-making process in Colombia. For this reason, one of the principal fields of action of the Ministry has been the preparation of procedures, guidelines, handbooks, and even ToR's for some specific types of projects. Consultation with private sector has been used to produce most of the new norms, a positive feature since the developers themselves have been active participants in defining the compromises to which they will comply later on. Other fields of action of the Ministry have been the training of Corporation personnel and the design of guidelines for their EIA work.

From January 1994, when it began activities, to March 1999, the Ministry has received 1536 environmental statements for analysis and consideration for awarding of Environmental Licences, distributed by sectors as follows:

Infrastructure	493
Hydrocarbons	753
Agrochemicals	104
Mining	49
Electrical	137

There are no statistics about the number of Environmental Statements received by the Regional Autonomous Corporations.

One crucial issue in the working relationship between Ministry and Corporations has to do with quality control of the EIA process. The Ministry has enough experts in different areas to integrate teams for the review and evaluation of Statements, to determine whether or not these were adequate

and whether or not the quality and quantity of information is sufficient. This does not happen in most of the Corporations, largely due to the permanent budget problems that cause a lack of proper personnel, both in number and in training.

CRITICAL REVIEW OF RECENT ENVIRONMENTAL STATEMENTS

Taking into account that environmental assessment practice and theory keeps growing and new methodologies are proposed and implemented in the process, it was decided to specifically review how and to what extent the following techniques are being introduced in Colombia's environmental assessment studies:

- Environmental risk assessment (ERA)
- Regional development environmental impact assessment (RDEIA)
- Social impact assessment (SIA)
- Strategic environmental assessment (SEA).

Nine recent (January 1997 - February 1999) environmental assessment studies presented to the Ministry of the Environment were reviewed, all of which correspond to major projects in Colombia: oil exploration (3); mining (2); electrical sector (2); roads (2).

The Environmental Statement Review package (Lee and Colley, 1990), with some adjustments, was used as a guideline to carry out this exercise. Four review areas were included:

- Description of the development, local environment and base line conditions
- Social impact assessment
- Environmental risk assessment
- Regional development environmental impact assessment.

The assessment symbols used were:

- A. Relevant tasks well performed, no important tasks left incomplete
 - B. Generally satisfactory and complete, only minor omissions
 - C. Just satisfactory despite omissions and /or inadequacies
 - D. Parts are well attempted but must, as a whole be considered unsatisfactory because of omissions and/or inadequacies
 - E. Not satisfactory, significant omissions or inadequacies
 - F. Very unsatisfactory, important tasks poorly done or not attempted
- NA Not applicable– the review topic is not included in the context of this statement.

Assessment	Review Areas			
	1	2	3	4
A	1	0	3	NA
B	7	0	2	NA
C	1	0	1	NA
D	0	9	2	NA
E	0	0	0	NA
F	0	0	1	NA
Total	9	9	9	9

The overall assessment of the quality of the nine statements in relation to the four review areas is shown in the table above. The findings clearly show that enough expertise is available to describe the development, purposes and objectives, its size and appearance within the receiving environment, the site description, types and quantities of residuals and/or waste matter, the geographical extent of the affected environment and its description, and baseline conditions.

A social component was included in all statements in a descriptive way presenting general and specific data, but without developing a process of identification of impacts and effects of the proposed project on individuals and the social system around the area of direct influence of the project. For this reason, no analysis oriented towards identification and evaluation of key impacts and alternatives and mitigation measures was undertaken.

Risk assessments were found to be quite satisfactory, developed with clear methodologies and reaching conclusions that afforded good recommendations for the environmental management plan, a component that all studies should present to the Ministry of the Environment.

Regarding the fourth review area, Regional Development Environmental Impact Assessment, it is a source of some concern that none of the statements even try to make a general presentation of this topic in relation to the project. As practice has proven, the project-based methods of EIA alone cannot meet the requirement of controlling the total amount of pollutants and rational industrial location; furthermore, the project-based approach cannot deal effectively with the cumulative effects induced by the interaction between projects.

The last element evaluated was the Strategic Environmental Assessment. Knowing that strategies and policies are essential for economic growth and environmental protection, and that ineffective public policies could contribute to environmental pollution and deficient levels of sustainable development, studies, guidelines or standards were ineffectively sought. Although it is clear that the Ministry recognizes the importance and urgency of establishing this new type of environmental assessment, it has not defined an immediate course of action toward this goal.

CONCLUSIONS

Important advances are continually being carried out in Colombia under the leadership of the Ministry of the Environment, the availability of guidelines

and procedures by sectors and for specific projects, being the fundamental tool for the consolidation of an efficient EIA process.

The environmental administrative structure, with over 30 autonomous environmental authorities, requires continuing efforts on the part of the Ministry of the Environment to promote and maintain the quality of the EIA process.

Environmental Risk Assessment is methodologically well handled within the environmental statements in the larger projects under the direct control of the Ministry. It is necessary that the Ministry divulge these experiences to the Corporations.

Social Impact Assessment is not being addressed. As its name would indicate; the topic is always touched upon in the Statements, but merely in a descriptive way and without developing a process of identification of impacts and effects. The Ministry should prepare and distribute detailed guidelines and train EIA practitioners on this matter, using the vast amount of information already available on this topic.

Except some general comments found in one of the reviewed Statements, the topic of Regional Development Environmental Assessment is not developed in the studies. The Ministry must carry out similar actions as those suggested for SIA.

Finally, although the importance and advances in the field of Strategic Environmental Assessment are recognized, it is necessary that the environmental authority begins as soon as possible to train practitioners and from there begins a process of preparation of procedures and guidelines on the subject.

LIST OF RELEVANT PUBLISHED PAPERS AND OTHER SOURCE MATERIAL

Lee, N. and R. Colley. 1990. *Reviewing the quality of environmental statements*. EIA Centre, University of Manchester.

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