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Participatory methodologies for rapid urban environmental diagnoses

Sergio A. Mazzucchelli

SUMMARY: *There is an increasing interest in participatory environmental assessment and this paper describes such an exercise in two cities in Argentina, San Fernando and San Nicolas. The author discusses the process and outcome of these initiatives.*

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I. INTRODUCTION

DURING THE 20 years between the Stockholm Conference (1972) and the Earth Summit in Rio de Janeiro (1992), efforts to support management and research with respect to urban environmental problems in the South have been scarce and inadequate. Few projects have been implemented and there has been no direct action aimed at alleviating the circumstances of low-income households. In Argentina, where most studies and projects have focused on rural problems, there is a low level of analysis and understanding of urban environmental problems, especially at municipal level. However, there is now a difficult social and environmental situation deriving from the rapid expansion of cities both in the major conurbations (Buenos Aires, Cordoba, Rosario) and in intermediate centres (San Nicolás, Neuquén, San Carlos de Bariloche).

In view of this situation, IIED-Latin America has been working, since 1992, in the field of participatory environmental assessment in urban areas. The purpose of these studies is to analyze the socio-economic and environmental situation in municipalities in metropolitan areas and medium-sized urban and suburban municipalities, using participatory tools and methods and involving the community, government and business sectors. These "tools and methods" are used to identify the main environmental problems and causes, to consider the present and future effects on the population, and to determine

an urban environmental agenda at various levels of intervention (national; district or city; neighbourhood and household). To be effective, this also implies defining strategies and activities at the various levels to bring about the future development of the area and improve the quality of life of its inhabitants, and identifying key institutions and players, both public and private, who can direct and carry out such activities.

The assessment is intended to foster coordinated and joint activities by the various groups. It is anticipated that this strategy has a higher social return than isolated changes. The positive interaction will maximize complementarities in a positive, organized manner to achieve one or several objectives simultaneously. It is intended to establish a process of integration and participation between sectors and disciplines with a high learning potential for those who take part. The main objective of this document is to analyze our experience of using these integrated, participatory mechanisms to develop urban environmental assessment.

II. WHY PARTICIPATORY URBAN ENVIRONMENTAL ASSESSMENT?

THERE IS A general acceptance of the need for an assessment of the current status of the national, regional and international environment both to raise the awareness of the public and private sectors and to ensure that activities are well-informed. However, very little has been done in terms of conducting such an assessment on a municipal or city-wide scale.

There are various ways of conducting an urban environmental assessment. One possibility is extensive studies and assessments which include the collection of the missing primary information (taking field samples, ecological studies on specific aspects, etc.). An alternative approach is to review existing information and the experience of different groups in the community. It is possible to conduct a purely technical assessment, using professionals and technicians. A third approach is to conduct an integrated assessment, managed in a participatory manner, involving all relevant sectors of the community and local government in the exercise.

Assessments based on existing information and personal enquiries may result in a collection of isolated problems, with a poor interpretation of the problems and unrealistic goals. Generally speaking, existing environmental information about a municipality is scattered and most of the social actors and sectors do not have access to it, except where it is strictly of interest to their sector.

Extensive, lengthy and expensive assessments are not appropriate to Latin American towns which usually have little income and urgent needs. Even if the resources can be obtained in one case, there is no guarantee that there will be the funds to replicate such methodologies in other municipalities. Purely technical assessments provide no guarantee that the priorities will reflect those of the people nor do they enable us to understand

the real training needs of the sectors involved. It is for this reason that we have tried to follow an intermediate path which allows for the systematization and technical analysis of existing information, the collection of the missing information, and incorporation of the views of the public and private sectors of the town concerned.

III. METHODOLOGICAL ASPECTS

DURING 1992 AND 1993, IIED-Latin America developed a methodology that has been used in two case studies, in San Fernando and San Nicolás municipalities. Prior to beginning the first case study (San Fernando Municipality, Buenos Aires Province), a preliminary approach had been planned and a tentative work plan was put forward:

1. **Preparing a basic discussion document:** including existing information, the main elements relating to the operation of the municipal system, the rules applicable, identification of the environmental problems plus an initial analysis of their causes and effects, and a preliminary list of priorities.
2. **Joint participatory seminars/workshop:** once the basic document was available, municipal officials and technicians and representatives of the various sectors of the local community would be invited to the seminar.
3. **Adjustment and writing up of the final document:** this would involve integrating the information contained in the basic document with the workshop findings.

a. San Fernando

The municipality of San Fernando is part of the metropolitan area of Buenos Aires, located within the first ring of urban development around the federal capital, on the right bank of the Paraná river. More than 95 per cent of the area is a floodplain dotted with islands of the (delta of) the Paraná river, which is sparsely populated (about 3,000 people) and barely developed in socio-economic terms. The remaining 5 per cent, with a population of 144,763 inhabitants in an area of approximately 24 square kilometres, has one of the highest population densities in the whole metropolitan area. The San Fernando municipality is an interesting case study for a number of reasons. It has a high level of discharge of untreated industrial effluent on its land and that of neighbouring municipalities. Its location means that it is a "funnel" for the whole drainage network of the Reconquista river. There are also a number of other factors such as the scale of the effects produced by periodic flooding within its territory; the deficiencies in the drinking water supply and sanitation system; the deficiencies in waste collection, treatment and disposal; and the existence of numerous precarious settlements or shanty towns which suffer the direct conse-

quences of the environmental problems.

During 1992 and the first half of 1993, IIED-Latin America's Environment Programme carried out a diagnosis of the environmental situation in the municipality of San Fernando. As this was the first case study, it explored and modified the initial framework outlined above. One major amendment was that it was not possible to conduct a joint participatory workshop at an early stage in the development of the work. Due to a lack of enthusiasm on the part of the municipality at the beginning of the project, discussions with the various sectors only took place when the activities had already reached a very advanced stage. The presentations during the workshop gave government officials a sense of guilt about the various environmental problems. Because of this, although the final product achieved a reasonable level of consensus (mainly amongst the educational and business sectors, NGOs and some local government departments), some conflicts delayed development of subsequent activities.

However, it was possible to go ahead with some specific areas of work. One activity which made a significant contribution was the organization of an all-day training session for teachers. In the morning, the IIED-Latin America team outlined the main aspects of the San Fernando environmental assessment which then led into an exchange of views and suggestions from the participants. In the afternoon, the latter split into two groups: one made up of teachers working in the island zone (rural teachers) and the other of teachers working in the mainland urban area. They were asked to identify the main environmental problems in each area (islands and mainland), draw up a list of environmental priorities and put forward the main characteristics of a pilot project to be carried out by themselves.

During the final plenary session, a rapporteur from each group presented their conclusions, as well as the rationale for and description of the pilot projects. These consisted of a "Waste Collection Programme" in the Islands, to be transported to the mainland area of the municipality for disposal or recycling, and an informal "Environmental Education Programme" for the San Fernando community.

At present, the San Fernando Island Waste Collection Programme is being implemented through local initiatives. Teachers, with contributions from local children and their families, collect and transport domestic waste for disposal and, in the case of plastics, recycling, on the mainland. Different groups in the community have drawn on the experiences of the workshop and had further contact with the professionals involved. However, there has been no consistent and integrated framework with the involvement of state officials and government departments.

b. San Nicolás

The municipality of San Nicolás is located 240 kilometres from Buenos Aires in the north-eastern region of Buenos Aires Province. Together with the neighbouring municipalities of Ramallo

and Villa Constitución (Santa Fe Province), it is one of the major industrial centres in the country. It has experienced rapid demographic and economic growth since 1950, when the establishment of SOMISA (Argentinian iron and steel joint venture) encouraged people to settle in the area. SOMISA has been important to the city for economic, financial and social development. In recent years, there have been drastic cutbacks in staff at the company, which was finally privatized in 1992. As a result, more than 6,500 workers (equivalent to about 50 per cent of the workforce) were made redundant. This had a severe impact on the local community.

During the second half of 1993, by means of a technical assistance agreement with the Rocca Foundation (Argentina) and the FUNDES Foundation for Sustainable Development (Switzerland), an assessment was made of the socio-economic and environmental situation of San Nicolás and its surrounding area. The aim was to obtain an overview of the current situation in the town, its main problems and their causes and effects. It was intended that this overview would involve the participation of public and private sectors and identify institutions and individuals able to initiate future development.

On this occasion, it was possible to conduct all the planned activities and develop some others. During a preliminary phase of general information-gathering and making contacts, summary information was collected and a basis assessment made to send out as background material prior to the workshop. This document also identified existing areas of conflict and consensus, leaving a broad margin both for interpreting causes and effects and for seeking solutions.

The seminar/workshop took place over a single day, with the following purposes:

- to identify and prioritize the relevant problems;
- to define proposals and lines of action on a consensus basis;
- to identify individuals and institutions interested in and able to carry forward such proposals and activities.

Participants included officials and technicians from the municipal government, national (Argentinian Naval Command) and international (ILO) agencies, together with representatives from neighbourhood committees, the educational sector, NGOs, local and regional research centres, businessmen, trade unions, banking institutions, industrial and commercial associations, journalists and citizens of San Nicolás (professionals, workers, retired workers from the former SOMISA company, etc.)

During the morning, the IIED-Latin America team explained the scope of the work and the results obtained so far. A plenary session of debate and exchange of views was then opened, which proved to be the beginning of extremely positive interaction between participants and the team. During the lunch break, the participants were separated into three working groups: a) protection of the environment and sanitation; b) education, health and housing; c) production and employment. Each group had a facilitator whose main function was to promote and guide the

discussion within the framework of the planned objectives, collect and summarize the contributions of the group members and identify interested individuals making substantial contributions who could, in future, take the lead in some of the proposals for action or projects arising during the seminar/workshop. Key people dealing with each of the three subject areas were assigned to appropriate workshops in order to generate and catalyze discussion. The contribution of the representatives from the educational sector in general was outstanding.

A rapporteur for each group presented the corresponding conclusions at a plenary session. Finally, there was a debate in plenary session on new contributions and considerations from a joint perspective. From this emerged major substantial proposals for the future development of the town.

The next step was to adapt the contents of the basic document, readjust the aims and scope of the work and detail the proposals. With this new draft, the coordinating team and local government called for a new workshop involving a wider range of community groups. The end product of this process, completed in less than six months, was a more comprehensive version, agreed by consensus, of the socio-economic and environmental assessment of San Nicolás. All sectors expected to be involved in further events would contribute towards implementing the plans, projects and ideas arising from the workshop.

In 1994, further activities took place on the basis of the previous findings and recommendations. New workshops resulted in an overall strategic plan for San Nicolás with specific objectives, activities, timetables, responsibilities and resources.

IV. CONCLUSIONS

WE HAVE LEARNED many lessons from these case studies. Below, we comment on the points which we consider most important and which could be useful for those teams who are using participatory methodologies in urban environmental projects.

1. In terms of developing methodologies which incorporate participatory mechanisms, there is nothing better **than gradual practical experience and interaction with the various social groups.**

2. It is very important to work with **open-ended general outlines**, which allow for restructuring of aims and scope while the work is in progress, while attempting not to deflect attention from the central objectives of the study. In this way, project implementation mechanisms can adapt in accordance with the specific features of the relationship established with each municipality once the activities have begun to develop.

3. **Participatory forums** (joint seminars etc.) **must be incorporated at an early stage.** In the municipality of San Fernando, a very high level of prior technical development was achieved. This meant that, at the end of an exhaustive series of interviews

and personal consultations with officials, technicians and other local actors, a very comprehensive initial document was achieved which had the structure of a final document but which generated a degree of resistance when presented at the above-mentioned discussion meeting with the different sectors. The latter analyzed this basic document as if it were a final diagnosis.

In San Nicolás, the joint seminar/workshop was conducted at the end of an initial stage of general information gathering and interviews. The basic document presented was a summary diagnosis, presenting the minimum information needed to provide each participant with an overview of all the socio-economic and environmental problems in the municipality. This prevented conflicts from arising prior to the discussion and acted as a catalyst for those attending to bring in their own experience and knowledge to improve the diagnosis of their town's situation.

4. Another important element was the organization of the seminar/workshop in a **single intensive working day**. For this reason, other mechanisms for participation and involvement, such as awareness-raising sessions, were not made part of the event as they would have meant extending its duration. The priority was to obtain participation from all groups from beginning to end. This is very difficult to achieve in events which last more than one day, because of the position of some of those involved (municipal officials and businessmen), who usually do not have or make the maximum amount of time available for this type of activity.

5. The seminar/workshop proved to be a fundamental tool in achieving the desired objectives, in that it enabled adjustments to be made and new information to be added to that produced so far. Furthermore, it gave rise to a large volume of proposals analyzed and agreed by consensus between various sectors of the community of San Nicolás itself. In turn, this helped the team coordinating the seminar to identify individuals or groups who were marked out by their interest and the lead they took in respect of the topic under discussion. We succeeded in bringing together, in one place, supposedly antagonistic sectors to hold a debate from a medium and long-term perspective. We, therefore, consider that the seminar/workshop stage was vital for the development of the whole proposed strategy.

Many lessons were drawn from the experience of San Fernando which were of major importance in approaching the next case study. The experience in San Nicolás enabled us to come up with a participatory assessment of the socio-economic and environmental situation, agreed by consensus, in which it is possible to determine the priority to be given to the various local problems, the players and sectors involved in each relevant situation and a set of appropriate proposals, and strategies and lines of action, not only using the technical knowledge built up in the area but also taking account of the feelings of the local community and their particular view of the problems which affect them.

It is important to emphasize that this participatory approach can be used at all stages of a local strategic planning process (from appraisal to implementation). The coordinating teams must encourage consensus-building and provide an appropriate framework for resolving conflicts. This will help to ensure that communities have a sense of "ownership" about the results and commitments emerging from each stage of the research and planning process. A participatory assessment presented in these terms makes it possible to plan the future development of programmes and activities in areas such as improving living conditions, environmental protection or new sources of employment and production which have the support and commitment of those for whom they are destined. The latter are, in the final analysis, the ones who can guarantee that activities will be sustainable and appropriate to local realities and cultural identity.

Beyond this, there is no doubt that using these types of participatory mechanisms and methods implies a permanent learning process, not only for project beneficiaries but also, to a large extent, for those who wish to direct and coordinate such activities.