Étude internationale sur l'efficacité de l'évaluation enoironnementale

International Study of the Effectiveness of Environmental Assessment

# TOWARDS A RESEARCH AND DEVELOPMENT AGENDA FOR ENVIRONMENTAL ASSESSMENT IN CANADA: A WORKSHOP

***Tuesday, February 20, 1996***

***-- REPORT--***

*Submitted to:*

**Canadian Environmental Assessment Agency**
**Government of Canada**

*Submitted by:*

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# 1. INTRODUCTION

In **1993,** the Canadian Environmental Assessment Agency, in collaboration with the International Association of Impact Assessment (IAIA), launched the *International Study* of *the Effectiveness of Environmental Assessment* (Study). Contributions to the Study have been in the form of case studies, research papers, company and country status reports, and workshops in a number of countries. Canada's contributions have been developing case studies, reporting on the environmental assessment regimes in Canada (federal and provincial/territorial) and by hosting this workshop.

## 1.1 OBJECTIVES OF THE WORKSHOP

The objectives of the workshop were to:

- Discuss trends and challenges in environmental assessment in Canada today; and
- Work towards developing a national environmental assessment research and development agenda.

The workshop was designed to draw on the experience of experts who collectively represent a range of interests in, and responsibilities for, environmental assessment in Canada. The workshop:

- Supplied workshop, participants with background information about environmental assessment research and development issues
- Involved participants in an extended "brainstorming" session to identify possible elements of a research and development agenda, and
- Identified priorities to guide future work in developing a national research and development agenda.

(The agenda for the workshop is set out in Appendix A.)

## 1.2 PARTICIPANTS

The workshop included representatives of the Department of the Environment, Department of Indian Affairs and Northern Development, Department of Fisheries, Canadian Environmental Assessment Agency (the Agency), provincial governments, academe, consultants, industry and environmental assessment professional organizations. (Appendix B sets out names and addresses of workshop participants.) Stephen Hazel1 (Marbek Resource Consultants) served as facilitator.

## 1.3 PRESENTATIONS

Michel Dorais, President of the Agency, welcomed participants with some introductory remarks concerning the future of environmental assessment in Canada. He observed that a number of provincial EA initiatives and environmental assessment processes being developed under aboriginal self-government and land claims negotiations will have important consequences for environmental assessment practice, policy and procedures in Canada.

Mr. Dorais also drew attention to the challenges posed by the federal government's new cost-recovery policies and requirements. In particular, he stressed the importance of finding ways to increase the efficiency of environmental assessment activities, to respond to pressures from industry to come up with an efficient system and to meet calls for a greater range of environmental assessment instruments. At the same time, Mr. Dorais urged participants to examine how criteria for "sustainability" can be integrated into environmental assessments and better understood by decision-makers.

Mr. Dorais concluded his comments with the observation that a new national research and development agenda is key to refining and reforming Canadian environmental assessment practice. He pointed out that the Canadian *Environmental Assessment Act* is due for review in 1998, a timely stage to redefine federal environmental assessment to reflect advances in environmental assessment research and development.

On behalf of Sylvie Dupuis, Stephen Hazel1 provided a synopsis of the discussion paper ("Looking Ahead - Toward an R & D Agenda for EA in Canada") that had been supplied to workshop participants in advance. Mr. Hazell highlighted key points raised in the paper, including:

- The importance of "new" concepts, such as "sustainability " in relation to environmental assessment
- Needs of environmental assessment core processes
- Role of strategic environmental assessment
- Emerging jurisdictional challenges (including international harmonization, transboundary environmental assessment, global issues)

Requirements for building capacity and better information resources.

Peter Morrison and Bob Milko, workshop participants who had submitted written comments on the discussion paper prior to the workshop, then presented these comments orally.

# 2. CHALLENGES FOR ENVIRONMENTAL ASSESSMENT IN CANADA

## 2.1 OVERVIEW

Mr. Hazel1 opened this segment of the proceedings with a proposal to "brainstorm", inviting participants to describe the challenges they see for environmental assessment that are relevant to a Canadian research and development agenda. Drawing on their experiences and expertise, participants identified research and development challenges relating to:

- How environmental assessments are being carried out
- New approaches and institutional developments that are changing practice, procedures and policies
- Availability of tools and professional resources to meet these challenges.

This section summarizes the challenges discussed according to the following categories:

- Current practices
- Expanding responsibilities
- Assuring quality.

## 2.2 CURRENT PRACTICES

Participants raised the following research and development (R&D) challenges regarding current environmental assessment practices relating to projects:

### "New" Concepts and Legislative Requirements

Participants identified a number of concepts that environmental assessment practitioners are finding difficult to apply. Some of these concepts have come into use fairly recently, others are prescribed by legislation (e.g., *Canadian Environmental Assessment Act).* These include:

- Scoping (e.g., what is/ is not "the project"? Scoping is not merely the geographic extent of the project, nor the effects of the project. Scoping affects government decisions regarding an appropriate environmental assessment instrument, e.g., negotiation, mediation, comprehensive study, which in turn depends on such factors as cost, time and amount of information required).
- Cumulative effects (e.g., what are credible methods for determining cumulative assessments?).

- Sustainability (e.g., what are the criteria; how should these criteria be incorporated into environmental assessments and the decision-making processes that environmental assessments feed?)

- No net loss of habitat (e.g., does this approach support environmentally acceptable options? With economic constraints and short time lines, there may be a shift to financial compensation away from sound mitigation and the principles of sustainability. )

- Adaptive management strategies (e.g., do these, in effect, undermine environmental assessment judgments? With these strategies, will the appropriate level of environmental assessment work be carried out?)

- Traditional knowledge of aboriginal peoples (e.g., how can such knowledge be best brought into assessments? With shorter time lines, it may be difficult to integrate traditional knowledge into environmental assessment.).

**Follow-Up and Monitoring**

Many participants expressed concerns regarding the efficacy of follow-up and monitoring activities since the results of follow-up or monitoring programs are not usually evaluated. One participant observed that evaluations would provide valuable information about the effectiveness of mitigative measures and enhance the credibility of environmental assessment generally.

**Effectiveness**

Participants discussed the importance of examining the "effectiveness" of environmental assessment efforts. "Effectiveness" was discussed in relation to:

- The extent to which environmental assessment processes and recommendations support environmental goals

- The use decision-makers make of information generated by environmental assessments

- Whether or not the public is being adequately engaged and served by the consultation processes used.

## 2.3 EXPANDING RESPONSIBILITIES

Participants viewed the responsibilities of environmental assessment institutions and professionals as expanding with the increasing importance of

## · Strategic Environmental Assessment

Participants reviewed the important role that strategic environmental assessment (i.e., the environmental assessment of policies and programs) could play in governments whose focus is shifting away from project development and land management to policy and program intervention. Areas discussed for consideration included linking strategic environmental assessment to:

- Other methodologies, such as life-cycle assessment, economic assessment and risk assessment
- Scientific work on environmental issues, such as climate change and biodiversity, and their links to environmental assessment initiatives
- Various land and resource planning processes within and between jurisdictions and sectors (e.g., within the federal government, between the federal, provincial, municipal and aboriginal governments and industries)
- Environmental assessment of policies, and programs
- "On the ground" environmental effects of policy and programs.

Since there is a substantial lack of awareness about strategic environmental assessment, participants suggested:

- Developing easily comprehensible methods or analytical frameworks for use by non-specialists
- Producing case studies illustrating costs and benefits
- Building skills in scenario planning
- Exploring successful models in other jurisdictions, provincial governments and utilities (e.g., Denmark).

## Cost-Effectiveness and Cost Recovery

Participants saw the need to address the fact that governments are increasingly being required to recover costs where possible and increase efficiencies. This has consequences for all aspects of environmental assessment, for the services that governments will be able to deliver and the responsibilities that proponents and public/volunteer sectors will be expected to shoulder.

Participants observed that new creative approaches are required to increase efficiencies at the same time as good environmental assessment practices and public involvement are protected, and that industry and industrial associations, universities and practitioners need to be involved in developing more efficient processes and programs.

- **New Institutional Arrangements for Managing Environmental Assessment Responsibilities**

Participants remarked that as government downsizes and privatises more programs and services, the resources for (and expectations about) conducting environmental assessments will be called into question. It was also noted that industry too is downsizing, reducing commitments/involvements in many areas, and increasing efficiencies. There was general concern that these institutional changes will have an impact on the resources available for carrying out environmental assessments.

- **New Environmental Assessment Regimes**

A need for directing research and development efforts towards the challenges of new environmental assessment regimes was discussed. Participants observed that:

- Land claim settlements are giving rise to a whole new layer of environmental management and assessment regimes, leading to greater institutional complexity and new uncertainties for proponents and interested publics
- Some provinces are actively working on harmonizing existing procedures to reduce procedural difficulties and inefficiencies
- Proposed and newly established international agreements (e.g., Espoo Convention) are giving rise to additional transboundary issues (e.g., notification requirements, criteria for determining "significance").

## 2.4 ENSURING QUALITY

An overarching concern was that of ensuring (or increasing) the quality of environmental assessment work carried out in Canada and abroad. To that end, participants agreed that research and development was needed in the following areas.

- **Standards**

Participants identified standards as means of ensuring quality work. (The panel review process usually generates high-quality information; however, these panel reviews account for a very small percentage of all environmental assessments.) The role for standards was discussed in relation to standards for: environmental assessment professionals (e.g., accreditation), data collection (e.g., amount, quality), environmental quality (e.g., water, air standards), and process and service delivery requirements (e.g., IS0 or CSA standards) . Defining terms used in environmental assessment, and attaining a consensus regarding these definitions remains a challenge.

### Appropriate Information Resources

Participants pointed out that a number of information resources could improve the environmental assessment services and products developed by governments, consultants, industry and academics. Suggestions included:

- Single windows for providing environmental assessment information from federal and provincial sources
- An inventory of socio-economic and biophysical data banks for use by practitioners
- A national data base of case studies and follow-up programs
- Additional decision-support tools
- Geographic Information Systems (GIS).

### Training and Capacity Building

Participants discussed how important building capacity was to maintaining the credibility of environmental assessment initiatives at home and abroad. Several participants noted that Canada's reputation as a leader in environmental assessment is flagging and that Canadian consultants could use training in order to provide services appropriate to the requirements of developing countries. One participant also urged that capacity building not be carried out in isolation -- that the links be clearly made between building capacity and benefiting the environment.

Ideas for building capacity included providing:

- More on-the-job training opportunities and tools for environmental assessment practitioners/consultants
- Better orientation for decision-makers (e.g., bureaucrats, Cabinet Ministers, panel members)
- Curricula designed to teach non-environmental specialists (e.g., engineers, economists) the fundamentals of environmental assessment.

### Alternative Approaches

Participants saw a need for considering alternative approaches to environmental assessment in order to ensure quality and relevance in a changing world. Throughout the session, a number of participants suggested looking at the innovations in other jurisdictions, such as those undertaken in Belgium, Denmark, European Union, Australia.

# 3. TOWARDS A RESEARCH AND DEVELOPMENT AGENDA

## 3.1 OVERVIEW

For the concluding portion of the workshop, Mr. Hazel1 directed participants towards the task of developing a national research and development agenda. Time did not allow for extensive debate, but a start was made towards clarifying issues and organizing priorities. The resulting approaches (set out below) incorporated all of the issues raised during the brainstorming portion of the workshop, but provided some consensus regarding priority.

## 3.2 PRIORITIES

Participants were agreed that there was a need to distinguish:

- Short- from long-term research and development agendas
- Priorities for specific research and development issues.

### **Priority Timeframes**

Participants agreed that a short-term agenda should deal with meeting legislative and administrative requirements in order to meet the challenges of doing a better job today.

A short-term agenda would include developing:

- Standards for environmental assessment practice
- Criteria for relevance, effectiveness and efficiency
- Ways of delivering environmental assessment services more effectively and efficiently.

By way of contrast, participants identified a longer term as appropriate for addressing "big picture changes". The changes contemplated included:

- The impact of downsizing within governments, universities and industries
- The devolution of federal responsibilities to provinces and aboriginal land claim institutions
- The privatizing of government programs, institutions and services.

Participants also saw a longer term time frame as essential for dealing with more complex research and development issues. Some of these issues are:

- The application (and consequences) of "new" concepts (e.g., biodiversity, sustainability, precautionary principle, safe minimum standards)

- International / global standards

- The application and impact of new approaches to environmental planning and management (e.g., adaptive management strategies, scenario constructions/planning).

## El Priority Issues

Participants agreed to assign priorities within particular sets of issues (as shown below).

The first two sets of issues concern the environmental assessment of projects. The priorities of the first set (described by one participant as being the unresolved problems of the 1970's) were:

- Determining scoping and related project-discipline requirements

- Assessing follow-up practices and results (e.g., learning from what has been done)

- Evaluating "significance" (e.g., what is/is not "acceptable")

- Developing performance indicators to indicate the usefulness of environmental assessment results for decision-makers.

The priorities of the second set of issues (the problems of the 1990's) were:

- Providing useful guidance on what is meant by new concepts such as "cumulative effects" (including links to scoping)

- Examining links with "sustainability" and developing a disciplined perspective (e.g., how do we make judgements about resource capacity?)

- Reviewing which "other factors" should be considered relevant (e.g., socio-economic, heritage issues)

- Investigating alternative ways of engaging public participation.

The third set concerned strategic environmental assessment, that is, the environmental assessment of policies and programs. This area was isolated as a distinct priority because of its potential for supporting environmental goals within governments that are more concerned with policy and regulatory functions rather than with project development; and because there is a substantial lack of awareness about how environmental assessment efforts can support responsible government.

### 3.3 IMPLEMENTATION

To take the development of a possible research and development agenda towards its next stage, participants recommended:

- Carrying out a needs assessment either through a quick survey of practitioners, or, by bringing together a multi-stakeholder "orientation" committee
- Broadly distributing the workshop report
- Developing greater specificity in describing the elements of a research and development agenda to ensure that it is meaningful, manageable and affordable.

With a view towards reducing (or sharing) costs, participants identified a number of existing fora that, with the addition of some additional stakeholders, could be used for a needs assessment initiative. The fora suggested included: the annual meeting of environmental assessment directors, regular meetings of the Agency's Regulatory Advisory Committee and EMAN.

In considering the means of managing a research and development agenda on an ongoing basis, the participants reflected on the advantages that the former Canadian Environmental Assessment Research Council had provided. In particular, the continuity and coherence that is afforded by a single national supervisory body were features noted as important in implementing a research and development agenda. However, the danger of relying on a single institution for managing a national research agenda (i.e.,"putting all your eggs in one basket") was also acknowledged.

As research institutes have become something of an endangered species, participants demonstrated interest in models where costs are shared and in investigating alternative approaches to meeting research needs. Suggestions included:

- Creating a national advisory group, including representatives of governments, industry, non-governmental organizations, and academics
- Supporting chairs for environmental assessment in universities
- Supporting research where its results are needed most (e.g., within universities, especially engineering faculties, provincial associations and governments)
- Sponsoring a series of conferences and workshops.

## 4. NEXT STEPS

The Agency will further review and discuss the issues raised in this report with internal, as well as, external stakeholders. The workshop discussions will also be considered in developing the Canada Status Report for the June meeting of the International Association of Impact Assessment in Lisbon.

# APPENDIX A

Agenda

**AGENDA FOR WORKSHOP**
**"FUTURE DIRECTIONS FOR EA IN CANADA"**
**Hosted by the Canadian Environmental Assessment Agency**

***Chaudiere Room, Citadel Inn and Convention Centre***
***101 Lyon Street, Ottawa (Lyon and Queen)***
***February 20, 1996, 8:30 a.m. to 4:30 p.m.***

*Workshop Facilitator:*
Stephen Hazell
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| | | |
|---|---|---|
| 1. | Welcome and Introduction | President, Michel Dorais |
| 2. | Overview of the Discussion Paper* | Sylvie Dupuis |
| 3. | Brainstorming Session - Identify Issues | Stephen Hazell/Participants |

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(cold buffet will be served)

| | | |
|---|---|---|
| 4. | Identify Priorities | Participants |
| 5. | Focussed Discussion | Stephen Hazell/Participants |
| 6. | Summary of the Workshop | Stephen Hazell |
| 7. | Closure of Workshop | Robert Connelly |

* *Discussion Paper: "Looking Ahead - Toward an R&D Agenda for EA in Canada", January 1996.*

# APPENDIX B

Workshop Participants

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