Health Impact Assessment in Development Policy and Planning

Report of an Informal WHO Consultative Meeting

Cartagena, Colombia
28 May 2001

World Health Organization

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Preface

Various types of impact assessment exist, for example, Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA), Social Impact Assessment (SIA), Sustainability Impact Assessment and Health Impact Assessment (HIA). Health Impact Assessment has been defined as "a combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of these effects within the population".

The process of HIA requires broad participation of all stakeholders involved in order to adequately identify the potential health impacts. Concerned also with the distribution of impacts within the population, HIA is a means of addressing inequities in health.

While existing systems for EIA vary from country to country, indications are that health issues are normally given little attention or are assessed only superficially in EIA frameworks. Health issues, when considered, tend to focus mainly on the physical aspects of environment and on pollution-related health hazards or communicable diseases, but often fail to address the broader determinants of health.

Health impact assessment can be carried out after, during or before the implementation of a development proposal, referred to respectively as: retrospective, concurrent or prospective HIA. Being conducted after implementation, retrospective assessment is only evaluative in nature, nevertheless, it is useful for monitoring purposes. Concurrent impact assessment, which assesses the impacts on health in parallel with the implementation of a proposal, is useful where impacts on health are anticipated, but their nature and magnitude are uncertain. Prospective HIA precedes implementation of a proposal and therefore, has both elements of evaluation and planning which makes it better suited for policy - and decision-making purposes.

This consultative meeting organized by the Department of Health and Development was held to maximize the opportunities for health impacts to be considered in the context of various impact assessment processes in use. Health in the context of SEA and EIA was considered, as well as Sustainability Impact Appraisal and Social Impact Assessment. Presentations on HIA, and of HIA in the Canadian context were given, followed by a short presentation on a forthcoming WHO document on HIA under preparation. It is hoped that the issues highlighted in the course of the discussions and presentations will contribute to clarifying and strengthening the role of HIA in development policy and planning.

Yasmin von Schirnding
Focal Point: Agenda 21

Proceedings of the Meeting

1 | Welcome and Introduction

Dr Yasmin von Schirnding, Focal Point: Agenda 21, WHO, welcomed the participants and highlighted the need to place HIA higher on the development agenda. This was for two main reasons: firstly, there is growing international interest in health and development issues, with considerable resources being allocated accordingly; and secondly, the "Rio +10" (World Summit for Sustainable Development) meeting taking place in 2002 provides an opportunity to make HIA and its role in development policies and strategies more visible.

Agenda 21, the global programme of action on sustainable development, made specific reference to the need for impact assessment to be carried out, including HIA. Despite many advances in the field of HIA over the last decade, in comparison with other impact assessment processes such as EIA, HIA is still at a relatively early stage of development. There is a need, therefore, to strengthen the role of health in various impact assessment processes, such as EIA and SIA, as well as to encourage the development of HIA as a policy tool of importance in its own right.

Dr von Schirnding then introduced the programme and outlined the key themes for discussion, namely:

1. The role of health in the context of EIA, SIA and Strategic Assessment.

2. Current experiences with HIA procedures and methodologies.

3. Outline of a WHO document on HIA.

II | HEALTH IN THE CONTEXT OF IMPACT ASSESSMENT PROCESSES

2.1 Environmental Impact Assessment and Strategic Environmental Assessment

Dr Aleg Cherp, Assistant Professor in the Department of Environmental Sciences and Policy, Central European University, Budapest, Hungary, introduced the topic of EIA and SEA, emphasizing the different perspectives prevailing in these fields.

2.1.1 *History and development of EIA and SEA*

In the USA, the National Environmental Policy Act (NEPA), introduced in 1969-1970, required elaboration of an Environmental Impact Statement (EIS) of "any major federal action significantly affecting the quality of the environment". The Council on Environmental Quality interpreted this statement as applying to policies, plans and programmes, in addition to projects. Thus, in principle, if not in practice, NEPA made provision for both EIA and SEA.

Project-level EIA developed more quickly, however, than strategic-level SEA, and gained worldwide application. In the early years of EIA, attention focused primarily on assessing impacts of individual projects; later on, the limitations of EIA began to be realized, for example, its inability to assess cumulative impacts, or to consider a range of alternatives to project proposals under consideration.

Consequently, more attention was given to the concept of SEA. In general SEA lags around 15 years behind EIA; this trend is also observed in Europe; for example, the European Union EIA Directive was passed in 1985, whereas its SEA Directive has only recently been approved.

In the European Region, three events, in particular, facilitated the rapid development of SEA:

- **The European Union Directive**, which only applies to specific types of strategic action, that is to say to plans and to programmes, setting frameworks for future projects of certain types.

- **The Aarhus Convention**, adopted broadly within the United Nations Economic Commission for Europe. This Convention is concerned with access to information, public participation in decision-making and access to justice in environmental matters. It implies SEA must be exercised because it mandates the parties to inform the public about environmental implications of certain strategic decisions.

- **The International SEA Protocol**, an international agreement, developed under the framework of the Convention on EIA in a Transboundary Context (the Espoo Convention) which is currently under preparation and is likely to be significantly influenced by the EU SEA Directive and the Aarhus Convention. European environmental NGOs are interested in developing an effective SEA protocol with strong elements of public participation.

Overall, three main factors contributed to the emergence of SEA, namely: the limitations of EIA, the need to develop policy in a proactive manner rather than looking at its impacts (policy appraisal), and sustainability, interpreted to mean integration of environmental considerations into economic decision-making.

A key issue surrounding SEA is that its form depends on the type of strategic action being considered. It is relatively simple to define a "project" but rather more difficult to define a "strategic action". The latter encompasses a variety of decision-making levels: local, national, sectoral and a number of planning stages: policy, plan, and programme which are defined differently in various countries.

Among SEA practitioners, some come from an EIA background and/or perspective. In developing SEA, they adopt a similar approach while making an attempt to make up for EIA deficiencies. For example, as indicated, EIA falls short in considering alternatives, so these advocates attempt to solve the problem by applying the process to a policy proposal, but applying it earlier than they would apply the EIA to a project. In some cases, such as national energy policy, this approach might work, but in others such as a trade agreement, this SEA/EIA approach probably would not, falling short on the same issues as they would with EIA.

2.1.2 Key differences between EIA and SEA

Dr Cherp outlined the key differences between EIA and SEA. For example, EIA tends to focus on mitigation, while SEA focuses on environmental objectives and alternatives for policies and aims to best achieve them. Thus, EIA attempts to evaluate environmental impacts in order to reduce negative changes in the environment, while SEA attempts to influence development that is designed in accordance with environmental policy objectives.

Moreover, EIA is usually a more strict form of procedure with well defined stages, including a "beginning" and an "end". In particular, public participation in the EIA process is usually focused around one procedural stage, namely the public hearing. SEA, on the other hand, may have public participation at several stages in some cases, while in other cases even limited public participation may be deemed politically unacceptable.

Typical actors in EIA include private developers and environmental authorities, although in some developed countries, planning authorities have replaced environmental authorities. In the majority of countries, the Environment Ministry uses the EIA results and controls the EIA process; this is important to know for those who wish to incorporate health within an EIA system. On the contrary, as far as SEA is concerned, an Environment Ministry can hardly control the process of strategic decision-making in other ministries or agencies.

Environmental Impact Assessment focuses on the unintended negative impacts whereas SEA focuses on effects, issues and implications because it is difficult (and often unnecessary) to predict impacts for strategic actions. For example, when developing a transportation infrastructure for a country one can consider the increased accessibility of the rural population to health centres, however, it will be difficult to predict the change in mortality and morbidity rate. In SEA it is not important to measure this kind of change; SEA is thus more concerned with the direction of the change rather than its magnitude.

Environmental Impact Assessment focuses on a relatively narrow range of issues and requires higher level of detail. Strategic Environmental Assessment, on the other hand, focuses on broader determinants, broader territories, a broader range of stakeholders, but cannot analyse or predict impacts with the same level of precision.

The following diagram illustrates certain differences between EIA and SEA:

```
                    ┌──────────────────┐
                    │   DEVELOPMENT    │
                    └──────────────────┘
                     ↙               ↖
         ┌────────────┐         ┌────────────┐
         │    EIA     │         │    SEA     │
         └────────────┘         └────────────┘
              ↓                       ↖
   ┌────────────────────┐   ┌────────────────────┐
   │  CHANGE IN THE     │   │      POLICY        │
   │   ENVIRONMENT      │   │    OBJECTIVES      │
   └────────────────────┘   └────────────────────┘
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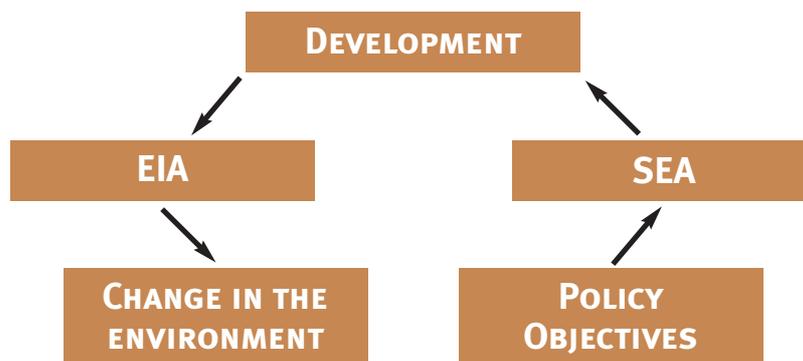
Table 1. Differences between EIA and SEA

EIA	SEA
• Institutionalised in more than 100 countries	• Not many countries have institutionalized it
• Relatively reactive	• Proactive
• Strict formal procedures with a "beginning" and an "end"	• Flexible and continuous procedures
• Involves private developers and environmental authorities	• Involves diverse public authorities
• Focus on unintended negative impacts	• Focus on issues and implications
• Narrow but higher level of detail	• Broader but lower level of detail

2.1.3   *Health impact assessment in environmental impact assessment and in strategic environmental assessment*

The experience of attempting to incorporate HIA within the National Environmental Health Action Plans (NEHAP) process in Europe has shown that sometimes, the process of integrating HIA in EIA or SEA may involve dealing with very well-entrenched organizations and institutions. Therefore, creative approaches might be required for the successful incorporation of health within the existing systems.

Environmental Impact Assessment involves a set of procedural stages, i.e., screening, scoping, analysis and evaluation of impacts, consultations, review of document, decision-making and sometimes monitoring. Therefore, in incorporating HIA into the EIA system, it is important to involve health stakeholders at every stage of the process. It is most crucial to analyse health implications of environmental impacts, which is rarely done in EIAs. Normally a range of environmental hazards is looked at in a functioning EIA system, but those hazards are not analysed to the point where one could actually say what their health impacts are.

Integration of health into SEA would probably be different. The focus would not be on integrating existing procedures and institutions, but rather on trying to shape the emerging procedures and institutions of SEA so that health has a place in it. Rather than merely looking at environmental health impacts, the option of actually incorporating health objectives into planning for strategic actions through SEA-like procedures would be explored, since as mentioned previously, SEA is concerned more with issues and implications rather than with impacts per se.

Two major elements/actions facilitate inclusion of health in environmental planning:

• **A functional EIA system:** currently many of the developing and the transitional countries do not have functional EIA systems. Since health considerations cannot be incorporated in a dysfunctional system, in such cases, action must be geared towards making the existing systems more functional at the outset.

• **Broadening the definition of environment and highlighting linkages with health** is also needed to incorporate health in EIA because every EIA law or provision has a definition of what "environment" or "environmental impact" means. Whether health is included in the EIA or not, depends also on the definition of the "environment" used within that system.

In conclusion, Dr Cherp stressed the fact that the integration of health into EIA or SEA may be achieved through different means, and that project level HIA and strategic level HIA should probably assume different forms and different approaches.

Table 2. HIA within EIA and SEA

HIA in EIA	HIA in SEA
• Modification of existing procedures and institutions • Consulting health stakeholders at different procedural stages • Analysing health implications of negative environmental impacts	• Shaping emerging procedures and institutions • Incorporating health considerations into, and consulting health stakeholders, during the process of strategic decision-making

2.1.4 Questions and comments

Question: Is SEA developed/used in other regions and in developing countries?
Response: Besides Europe, SEA is applied in Australia, Canada, New Zealand, South Africa and the USA. The World Bank is the leader among the multi-lateral aid agencies that work on SEA, in developing countries.

Question: Could you tell us more about your experience with National Environment and Health Action Plans (NEHAP)?
Response: In the NEHAPs, the cooperation between environment and health ministries is institutionalized; this helps them work together. Improving the incorporation of health into EIA procedures is part of the NEHAP process in a number of Central and Eastern European countries.

Question: Does SEA allow for consideration of social and health issues?
Response: SEA differs according to various jurisdictions, thus this is very much dependent on the jurisdiction in question.

2.2 Sustainability Impact Assessment (Appraisal)

Dr Cherp introduced the concept of Sustainability Impact Assessment (Appraisal). A distinction was made between "integrated assessment" and "sustainability assessment"; which are often used interchangeably. Integrated assessment simply means, "a structured process of dealing with complex issues, using knowledge from various scientific disciplines and/or stakeholders, such that integrated insights are made available to decision-makers". Other definitions and interpretations circulate as well. As to Sustainability Impact Assessment, there is a lack of standard/defined terminology in this area. It consists of social, environmental and economic assessments. Sustainability Impact Assessment or appraisal lags behind SEA and it is institutionalized in very few jurisdictions. The EIA community is making efforts to institutionalize it. However, in many cases, there is a lack of political will to do so.

Sustainability impact assessment is not institutionalized partially because there are a number of unresolved issues. The only institutionalization of sustainable impact assessment is "Sustainability Appraisal" in the UK which is applied to land use and regional development planning (however, it is not mandatory). The UK government's position regarding sustainable

development is set out in the UK Strategy for Sustainable Development "A Better Quality of Life" and states that local authorities should assess the sustainability implications of their development plan policies through sustainability appraisal. As stated by Dr Cherp, this is quite logical in transparent systems, and good planning systems inevitably look at social, economic and environmental aspects of the plans.

Sustainability appraisal underlines the significance of embedding the principles of sustainable development from the beginning into the development of all strategies. The sustainability appraisal is intended to become an integral component of the process of developing any strategy. It has been defined as:

"A systematic and iterative process undertaken during the preparation of a plan or strategy which identifies and reports on the extent to which the implementation of the plan or strategy would achieve the environmental, economic and social objectives by which sustainable development can be defined in order that the performance of the strategy and policies is improved"

Box 1. Key steps in the sustainability appraisal process

- Assess the sustainable development objectives of the strategy
- Scope the strategy
- Appraise the options
- Appraise the policies
- Check policy compatibility
- Set indicators and targets
- Set up monitoring and evaluation
- Record and report findings

Generally speaking, the process of sustainability appraisal is intended to encourage development of policies linked to clear objectives and in this sense it is used to:

- Make better strategies by improving policy making;
- Assess and compare alternative policy options;
- Mitigate the potential negative impacts of policies;
- Enhance identified beneficial impacts.

Sustainability appraisal is a process that continues throughout the strategy life-cycle and thus should not be considered as an end in itself.

An Example of Sustainability Impact Appraisal

An example of Sustainability Impact Appraisal, presented at the 2001 Annual Conference of the International Association for Impact Assessment (IAIA), is the assessment of the European Union position at World Trade Organization (WTO) negotiations; this is a typical example of where sustainability appraisal may be applied, that is to say at an extremely strategic decision-making level. The University of Manchester in UK was commissioned to conduct this assessment. They used nine indicators (three economic indicators, three social indicators, and three environmental indicators); and with these they created three scenarios:

(1) no action; (2) liberalized fully; (3) European Union position. Finally, they used three groups of countries: European Union countries; least developed countries; and developing countries. Therefore, 81 variables were analyzed (nine indicators x 3 countries x 3 scenarios = 81 variables) (see Box 2).

> **Box 2: Indicators and criteria in sustainable impact appraisal of the European Union position at the WTO negotiations**
>
> *Nine indicators*
> • Average real income; net fixed capital information; employment
> • Equity and poverty; health and education; gender inequalities
> • Environmental quality (air, water, land)
>
> *Significance criteria*
> • Extent of existing economic, social and environmental stress in affected areas
> • Direction of changes to base-line conditions
> • Nature, order of magnitude, geographic extent and duration of changes

Issues that apply to SEA may be relevant to sustainability impact assessment.

At this point a comment was raised regarding the "sustainability" concept in this context. Sustainability may include many issues. From the health point of view one is interested in the health component of sustainability. Therefore, if a policy, plan or project does not consider health, it would not be sustainable. Dr Cherp emphasized that the objective of sustainability appraisal is not to determine whether or not a proposal is sustainable, rather it aims to identify its impacts on key aspects of sustainability: environmental, economic, social, health etc.

2.3 Social Impact Assessment

Professor Rabel Burdge, of the Department of Sociology and Environmental Studies, Western Washington University, USA, started his presentation with a brief overview of some of the key elements of SIA. Social impact assessment is systematic analysis, in advance, of likely impacts a development event (or project) has on the day-to-day life (environment) of a community or persons within a community. It differs from other types of social science analysis or biophysical analysis in that it is anticipatory. The goal is, thus, to measure the consequences of a proposed action before the event actually takes place. The SIA process helps individuals, communities as well as government and private sector organizations understand and anticipate the possible social consequences for human populations and communities of a proposed action (project development or policy changes) and allows people to understand, in advance, the consequences of a proposed action. Based on measurable indicators, SIA provides a realistic appraisal of possible social ramifications and suggestions for project alternatives to include mitigation, enhancement and monitoring.

As indicated previously by Dr Cherp, the concept of EIA was introduced in 1969-1970 when the National Environmental Policy Act (NEPA) was enacted. The NEPA process was intended for large-scale projects that had obvious environmental consequences. A few months after

NEPA was signed, the US Bureau of Land Management submitted a short Environmental Impact Statement (EIS) to accompany the application for the Trans-Alaska pipeline, but the permit was denied on the grounds that biophysical aspects were inadequately addressed. Three years later the permit was issued; more work had gone into the process and it included impacts on biophysical environment. One Inuit Chief then made the comment "...now that we have dealt with the problem of the permafrost and the caribou and what to do with hot oil, what about changes in the customs and ways of my people". Thus, the concept of "Social Impact Assessment" was introduced.

Guidelines and Principles for SIA were developed for US Federal agencies in 1994, under revision for publication in December 2001. The World Bank is again considering SIA guidelines and IAIA has established a working committee on International Guidelines and Principles for SIA.

2.3.1 A conceptual approach to social impact assessment

A basic Social Assessment Model was described by Professor Burdge. Referred to as a "Comparative Diachronic Model", this model of SIA studies the course of events in a community where planned change has occurred, and extrapolates from that analysis to another community where a similar change is planned (the study of the same phenomenon at two points in time). In other words, this comparative model predicts future events by looking at the past events. Likely social impacts are identified based on past research and assessments of similar project and policy changes.

Guidelines and principles for SIA are organized around certain basic steps in planning, assessment and evaluation.

> **Box 3. Generic steps: guidelines and principles for SIA**
>
> 1. Identification of alternatives: describe the proposed action or policy change and reasonable alternatives
> 2. History and baseline conditions: describe the relevant human environment/zone of influence and baseline conditions
> 3. Scoping: after obtaining a technical understanding of the proposal, identify the full range of probable social impacts that will be addressed based on discussions and/or interviews with all potentially affected parties
> 4. Projection of estimated effects: investigate/understand the probable impacts (effects)
> 5. Projecting responses to project/policy effects (impacts): determine the significance of the identified social impacts (once the issues are identified, the most important ones are selected through a ranking scheme since not all issues and indicators can be analyzed at all times)
> 6. Second order and cumulative impacts: estimate subsequent impacts and cumulative impacts
> 7. Changes in alternatives: recommend new or changed alternatives and estimate or project their consequences
> 8. Mitigation/enhancement activity: develop a mitigation plan
> 9. Monitoring: develop a monitoring programme

Public involvement is a component of this process, which should be included from the very beginning.

Variables/Indicators

Social impact assessment variables point to measurable change in human populations, communities, and social relationships resulting from a development project or policy change. Drawing upon previously completed environmental and social impact assessments and from social science research on rural and urban communities (research on local community change, rural industrialization, reservoir and highway development, natural resource development, and social change in general), Professor Burdge has delineated a list of 28 social variables. These variables require data that should be available at the county, shire and municipality level. As part of the assessment, data must be collected in advance.

Barriers to public consideration of social impacts in the planning process

A number of barriers to consideration of social impacts in the planning process were highlighted. These include the following:

• Many people feel that understanding social impacts requires only common sense: after all, we are humans and therefore should know all about social impacts.
• Social impacts cannot be measured and, therefore, should be ignored.
• Social impacts seldom occur; therefore, it is a waste of time to consider them.
• Social impacts always deal with costs, not benefits, and are, therefore, always used to slow up or stop development projects.
• Social impact assessment generally increases the cost of the project.

2.3.2 Questions and comments

Question: Could you provide examples of where SIA is practiced and whether it is within the framework of EIA?
Response: In the USA, agencies are responsible for deciding their own regulations and procedures for EIA and SIA, and almost all of them have procedures in place at the moment. In the USA, SIA is developed within the EIA framework, but in some places where there are controversial issues, it is not a part of EIA. Social Impact Assessment is also practiced in Australia and New Zealand where it is performed on a regulatory basis.

Question: Given the historical background of EIA and SIA, why did SIA not follow the course of EIA, spreading quickly around the world?
Response: There are a few explanations for this diverging pathway. First of all, there is minimal consensus as to what SIA is. For example, public involvement became a substitute for SIA and many agencies found it easier not to go through an assessment process. They only involved the public and received input and information from them without analyzing the information. Many agencies think merely involving the public is SIA. Secondly, there is little consensus on the relationship between SIA and EIA. There are questions on whether or not they should be done collectively or separately.

Question: Do you think EIA makes adequate provision for SIA?

Response: It depends on the agency, on the country and on the regulatory environment. As regards the NEPA of 1969, a social scientist reading the Act would pick out Section 2, calling for…"a national policy which will encourage productive and enjoyable harmony between man and his environment… and stimulate the health and welfare of man". Further in Section 102 (A), the NEPA legislation calls for the utilization of "…a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment". Other readers would note that less than one half of a page in the Act is devoted to discussing the impact of projects on people. Rather, the concern and central thrust of the legislation is clearly on the physical environment and what projects may do to harm it. Nevertheless, the social scientists involved in the preparation of a environmental impact statement, must follow the same guidelines as other disciplines in discussing probable impacts of projects.

Question: Is it not mandatory to cover social issues in the term of reference of EIA if it is to be a component of the same system?

Response: In the USA, development of terms of reference is a part of scoping in the ideal situation, and ideally inclusion of social issues should be a part of terms of reference.

III | CURRENT EXPERIENCES WITH HIA PROCEDURES AND METHODOLOGIES

3.1 Current Experiences with Health Impact Assessment

Dr Martin Birley, Co-Director of the International Health Impact Assessment Consortium at the Liverpool School of Tropical Medicine, UK, gave a presentation on HIA. There are several definitions of HIA. For example, one developed by the WHO European Centre for Health Policy (ECHP):

"A combination of procedures, methods, and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population" (ECHP).

3.1.1 Incorporation of HIA in SEA and in EIA

Regarding the incorporation of HIA in SEA, Dr Birley did not see how it would be different from incorporating it into EIA, as one model of SEA is an extension of EIA. In other words, in this extension model, ideas are taken from EIA and applied to a larger scale. Dr Birley made reference to a meeting held last year in Europe, involving EIA stakeholders and a few HIA stakeholders, to see how best health could fit into EIA. It emerged that EIA and HIA stakeholders did not agree on words, procedures, and on what it meant to include health in EIA. The EIA stakeholders were interested primarily to include those health issues that had to do with the biophysical environment.

3.1.2 Global trends in HIA

Dr Birley indicated that HIA is a large subject and there are many different global trends, with two strands dominating the field:

- The "Healthy Public Policy"/health promotion strand is concerned with HIA of public policy and inequality impact assessment.
- The EIA-based strand promotes the incorporation of health within project EIA. This approach has also been referred to as Environmental Health Impact Assessment.

The method of assessment used by Dr Birley and his collaborators is based on a model that emphasizes the broader determinants of health that could be impacted on by a project, programme, or policy. Some determinants change in positive and others in negative direction. The consequence will be a change in the risk of some health outcome.

The procedural component of HIA is about ensuring that all new projects and policies are subject to a prospective assessment if required. This can be mandated by law. In some cases, as already discussed, health can be added to existing EIA procedures. According to Dr Birley, the procedural stages are similar for EIA and HIA, and can be considered inherent to good management practice.

Of importance is the fact that the HIA process must be embedded in a framework that consists of a policy for undertaking HIA, procedures by which the policy can be implemented, and methods and tools for doing the assessment itself. When an HIA is

first contemplated, it is natural to assume that methods and tools are the most important part. But experience suggests that policy and procedures are equally important.

Competing policies and the need for HIA

The need to conduct HIA of policies has been underscored in the lessons learned from the retrospective HIA of the European Common Agriculture Policy conducted in Europe. Existence of competing policies within different sectors was noted in this assessment. For example, under the Common Agriculture Policy, tobacco producers in parts of the EU receive a subsidy, while the EU health policy aims at reducing tobacco consumption and devotes funding to health promotion measures aimed at preventing the public from using tobacco. Another example of policies with competing objectives and interests concerns dairy fat; its production is subsidized on the one hand, yet incentives are also given to reduce its consumption. Such competing policies- in different sectors- could be detected and addressed by prospective HIA of policies.

3.2 Health Impact Assessment within the Canadian Context

Mr Roy Kwiatkowski, Chief, Office of Environmental Health Assessment, Health Canada, gave a presentation on HIA within the Canadian context where EIA, SIA, and HIA are applied. However, HIA is sometimes inadequately addressed within the EIA process, because of a lack of knowledge by EIA practitioners as to what HIA is. EIA practitioners were comfortable addressing some health determinants such as those arising from the physical environment. However, when broader health issues such as psycho-social effects were intro- duced into the process, environmental practitioners raised concerns about HIA. As a result, there has been a need to educate both sides.

In order to incorporate health within the EIA process in Canada, health practitioners and EIA practitioners need to understand their respective tasks within the process. The process of raising awareness began with introducing the concept of "health determinants"; this is the basis of the Canadian model. Every project, according to this model, must consider bio- physical, social and economic factors and their impacts on health.

3.2.1 The Canadian task force

In order to promote the concept of HIA in Canada and in order to intensify informa- tion sharing between EIA and HIA professionals, the Federal/Provincial/Territorial Committee on Environmental and Occupational Health established a Task Force in September 1992. The Task Force was asked to produce guidance material to help pro- ponents of projects, intervenors, government agencies, and EA practitioners identify valued components within environmental/human health assessment. Specific goals included the following:

- To help health professionals learn what they were to do within an EIA process as well as to clarify for the EIA professionals what health professionals could contribute to the EIA process.
- To provide advice, share information and foster communication among federal, provincial and territorial agencies, industry, universities and consultants on HIA.

- To encourage coordination and harmonization of approaches to HIA.
- To improve awareness of the linkages among environmental, socio-economic, cultural and human health effects.
- To carry out workshops to address specific information exchange needs on HIA.
- To assess the need for a registry of databases on HIA.

The principles followed by the Task Force included the following:

- The Task Force accepts WHO's definition of health.
- Environmental and human health are inextricably interlinked and, therefore, HIA is an integral part of EIA.
- A cornerstone of HIA is the recognition of the need for public participation in the definition and scoping of human health concerns, and in decision-making.
- HIA is required throughout the life-cycle of the project, and takes into consideration occupational health and safety.
- Development of a scientific approach to HIA will focus efforts and diminish resource requirements, providing a fair, effective and efficient process of information gathering for decision-makers and the public.
- Educational tools are required to promote or increase awareness of environmental/ human health assessment, risk assessment and communication, and the linkages among environmental, social, economic, cultural and human health effects.

Under the guidance of the Canadian Task Force, three volumes of Canadian Handbooks on HIA are being developed, which may be found at http://www.hc-sc.gc.ca/oeha/

3.2.2 Particularities of the Canadian model

Public participation is very much valued within this Canadian context. Mr Kwiatkowski and his collaborators promote the approach of involving communities and letting them identify health issues. However, a major problem with getting the public involved is a lack of knowledge as to what does, and what does not, fall within the scope of an EIA. Over the past eight years, Mr Kwiatkowski and his team have been working to build on what health professionals consider to be "health issues" making that visible for the public so they are better equipped to deal with decision-makers and the proponents themselves.

Mr Kwiatkowski emphasized the significant need to build capacity in HIA, not only in developing, but also in developed countries. A crucial component to the development and promotion of HIA guidance material within Canada has been continued consultation with stakeholders, which sheds light on the need for mechanisms to provide practical training on demand to HIA/EIA practitioners.

3.2.3 *Legislation and policy frameworks in Canada*

Within the scope of the Canadian context it is imperative to enhance EIA activities by including HIA and SIA. Integrating EIA, HIA and SIA will undoubtedly lead to a more holistic assessment of the human impacts and benefits, and encourage development practices which are more broad, inclusive and sustainable. Integration will also help enhance the legitimacy and significance of the human dimensions of development activities.

Canadian environmental law indicates that the project manager has the authority to investigate any issue in a project. The Office of Environmental Health Impact Assessment in Health Canada uses this as the point of entry for health issues. Legislation regarding HIA at this point was regarded as premature and unnecessary, and according to Mr Kwiatkowski, guidance based on "policy" is far better than guidance based on legislation (at least for Canada), especially due to the transparent nature of the Canadian system and well-educated public.

3.2.4 *Questions and comments*

Question: Does the risk of the project manager dealing only with easily assessed issues exist?

Response: In Canada the process is a transparent one and the public is very actively involved. Being well educated, the Canadian public will manifest dissatisfaction if they think issues are not well addressed.

Comment: Every society has its own specific way of putting things in place. In some societies transparency might work, in others existing rules and procedures. So incorporating health in Canada is possible because scoping in Canada is transparent. In some EIA systems, scoping does not exist, or it is not transparent, or it does not allow for investigation of various types of issues.

IV | WHO Initiative in HIA

The session ended with a brief account, by Ms Ramesh Shademani, Technical Officer, Department of Health and Development, WHO, of a document on HIA under preparation at WHO Geneva. The document addresses, inter-alia, the following aspects:

Defining key concepts

This section addresses the importance of defining key concepts and terms and selecting an appropriate model, for the process and outcome of HIA. Definitions of "health" and "environment" as well as lists of "health determinants" are given.

Policy context

The significant role of policies and policy frameworks in protecting and promoting human health and in providing direction for future action is outlined, with examples given of policies that promote assessment of health impacts of development proposals. Examples include, at the international level; the Rio Declaration on Environment and Development and Agenda 21, the "Health for All in the 21 st Century" policy framework of WHO, and the Jakarta Declaration on Health Promotion into the 21 st Century.

Impact assessment approaches

This section discusses various impact assessments such as EIA, SIA, and sustainable development impact assessment.

Health impact assessment

Key issues in HIA such as the values underlying it; the concept of health determinants and holistic models of health are discussed, as well as issues such as intersectoral collaboration and the institutionalization of HIA.

The distinction between prospective vs. concurrent vs. retrospective impact assessment is highlighted. Different approaches to, and varying interpretations of HIA are identified and examples provided.

Specific impact assessment techniques (methods) are identified and discussed.

Case studies of HIA

Concrete examples and case studies of HIA at country level, including at the sectoral level are identified and presented in this section. Examples include: the use of HIA in Water Resources Development: A case study from Zimbabwe, HIA of school capitation allowances-in Sweden, health impact of the EU Common Agriculture Policy, a Prospective HIA of the Merseyside Integrated Transport Strategy (UK), HIA of Housing Forecast 2030 (the Netherlands) and others.

Initiatives at WHO

The document ends with a section on past and current initiatives relating to HIA at WHO.

ANNEX A - LIST OF PARTICIPANTS

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