



Issues and Recommendations for Social and Economic Impact Assessment in the Mackenzie Valley

Non-Technical Summary

*Delivering on the Mackenzie Valley
Environmental Impact Review Board's
Mandate to Assess
the Socio-Economic Impacts of
Proposed Developments*

Prepared by the MVEIRB, with assistance from Consilium and Gartner Lee Limited



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ISSUES AND RECOMMENDATIONS FOR SOCIAL AND ECONOMIC IMPACT ASSESSMENT (SEIA) IN THE MACKENZIE VALLEY

DRAFT FINAL NON-TECHNICAL SUMMARY*

1. INTRODUCTION

The Mackenzie Valley Environmental Impact Review Board (the Review Board) is an institution of public government created by Part 5 of the Mackenzie Valley Resources Management Act (MVRMA). It conducts environmental assessments and environmental impact reviews of proposed developments in the Mackenzie Valley. The assessment of environmental impacts includes social, cultural and economic impacts, as well as ecological ones. The Review Board is required to consider "*the protection of the social, cultural and economic well-being of residents and communities in the Mackenzie Valley*"². It may set guidelines for how to carry out social and economic impact assessment (SEIA) of proposed developments.

1.1. PURPOSE AND ORGANIZATION

The purpose of this paper is to look at how SEIA can help social and economic **sustainability** in the Mackenzie Valley- *to help make sure that development meets the social and economic needs of people today while still ensuring that people in the future can meet their social and economic needs as well*. This paper highlights the need to put into practice sound, high-quality SEIA processes in the Mackenzie Valley, which are based on sustainability principles and approaches, and provides suggested improvements and action items.

The discussion paper will be used to consult with stakeholders in the Mackenzie Valley, including regulatory boards and agencies that are, or could become, involved in SEIA. These will include the GNWT, and the Mackenzie Valley Land and Water Board, DIAND and others. These consultations will form the basis for SEIA guidelines.

This non-technical summary is divided into five sections: (1) Introduction; (2) Non-Renewable Resource Development, Socio-Economic Sustainability and the Role of SEIA; (3) Operational Structure for SEIA in the Mackenzie Valley; (4) Issues and Recommendations for SEIA in the Mackenzie Valley; and (5) Conclusion and Next Steps.

* This non-technical summary provides a general overview of the discussion paper *Issues and Recommendations for Social and Economic Impact Assessment in the Mackenzie Valley*. For a copy of the discussion paper, please contact the Mackenzie Valley Environmental Impact Review Board at (867) 766-7050.

² particularly MVRMA section 115

2. NON-RENEWABLE RESOURCE DEVELOPMENT, SOCIO-ECONOMIC SUSTAINABILITY AND THE ROLE OF SEIA

This section outlines the need for sustainable approaches to resource management and provides an overview of what social and economic impact assessment (SEIA) is, including the challenges SEIA it faces.

2.1. CHALLENGES OF NON-RENEWABLE RESOURCE DEVELOPMENT

The Mackenzie Valley is once again experiencing major mining and oil and gas activity. These are all types of *non-renewable resource* development- once these resources are removed from the land, they are gone and will not return. Diamond mining and oil and gas developments provide a variety of economic and social benefits including increased employment, training and increased government revenues from taxes and royalties. However, there are also serious problems that can arise, including social disruption and stresses on community infrastructure and services³.

Non-renewable resource development, therefore, raises important questions in the Mackenzie Valley, including:

- ? How are the social, cultural and economic impacts of major developments on communities to be managed?
- ? How should we make sure that non-renewable resource development activity produces steady social and economic benefits?
- ? How can we to ensure that governments can meet the true costs of development (whether these are the overall costs of development falling on the territorial government or the increased costs of infrastructure and services that fall on municipalities)?
- ? How can we promote development that is sustainable for the long-term, ensuring that opportunities for community development are taken advantage of?

2.2. THE NEED FOR SUSTAINABLE DEVELOPMENT APPROACHES

In recent years, environmental assessment has been identified as an important instrument for assessing long-term sustainability in public and private decision-making. People who carry out environmental assessment increasingly support the idea that long-term views must be built into their processes and decisions.

2.2.1. Sustainability Principles

To bring about the idea of long-term sustainability, people have identified some ways that it can fit into Environmental Assessment, but this is still quite general. One principle that is having a practical impact on environmental assessment is the **precautionary principle**. It says that even though we might not be able to prove for certain that there is a serious

³ For a detailed overview of economic prospects and impacts on communities, please see section 2 of the Discussion Paper.

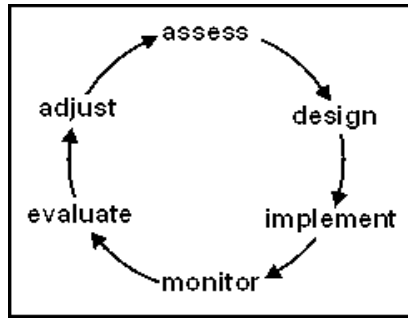
risk, we should still make cautious decisions. (That is: when in doubt, and the stakes are high, do not proceed).

2.2.2. Essential Aspects for Assessing Sustainability

The International Institute for Sustainable Development (IISD) has identified four essential aspects for the assessment of progress towards long-term sustainability:

- ✓ **Clear vision and goals:** Agree on the goals that are desired (for example, reducing dangerous gaps between rich and poor; protecting health);
- ✓ **Participation and Communication:** Communicate clearly, and involve a cross section of people, including:
 - Women;
 - Youth;
 - Traditional Knowledge holders;
 - Business owners and industry representatives; and,
 - Decision-makers.
- ✓ **Doing Assessment:** Assessment processes must:
 - Be holistic, looking at the whole big picture;
 - Consider fairness and inequality between current and future generations;
 - Consider long-term cumulative effects⁴, how much change is acceptable, and where the line for this change is drawn (thresholds);
 - Connect goals to things that can be measured, to keep track of changes.
 - Be open, making clear what assumptions and judgments were used.
- ✓ **Continuing Capacity:** Assessment processes must:
 - Be ongoing,
 - Be adaptive, clearly assigning responsibility and support in decision-making,
 - Provide capacity (\$) for the appropriate organizations to collect, maintain and keep records and support development of local assessment capacity.

⁴ Cumulative effects are combined effects of different developments. For example, one diamond mine in a region will bring certain effects. If two additional mines are developed in the same region over the next 10 years, there will be a combined effect on the physical and human environments of the region.



Adaptive Management: Source ESSA Inc.

2.2.3. Measuring Progress

Measuring sustainability also requires alternative and new ways of measuring progress. Most economists focus on official, conventional measures of national progress such as as Gross Domestic Product (GDP)⁵. These are based only on economics and can ignore or hide social costs. As a result, different attempts have been made to complement and even replace GDP as the main measure of well-being.

These alternatives include:

- *Progress indicator models*, such as the **Genuine Progress Indicators (GPI)**⁶, which considers the value of people's contributions even though they are not measured in money. This provides a way of measuring progress that does not leave out the contributions that homemakers and volunteers, for example, add to the economy. It also subtract negative factors such as crime, pollution, and family breakdown.
- *Full-cost accounting* approaches, which consider all financial costs of development, by adding in the internal costs to an organization to the outside costs due to the impacts of activities on the environment (such as the costs of pollution and workplace accidents).

These alternatives are on the cutting edge. Many people involved in social development and environmental management believe that these are steps in the right direction but practical results have been slow in coming.

2.2.4. Harnessing Long-Term Benefits

Another key part of long-term sustainable development is ensuring that communities and regions that depend on resource-based economies are able to take advantage of the longer-term benefits of mining, oil and gas development. This is particularly true where large multi-national companies are taking away the wealth and leaving behind environmental consequences that may overshadow the short-term benefits, like employment. There are many examples of communities, industry and government working together to lessen project

⁵ Gross Domestic Product (GDP) is a measure of economic growth based on assumptions of economic (\$) contributions

⁶ For more information on GPI, please see section 3.3 and Appendix B of the Discussion Paper.

impacts and improve benefits including: community joint ventures; small business development programs; benefits plans; and, impact and benefit agreements (IBAs)⁷. Other creative options that could be considered in the NWT, especially if a natural gas pipeline and additional diamond mines are developed, include:

- A large territorial heritage fund, similar to Alberta's Heritage Fund; and,
- Project-specific royalty based funds, similar to those recommended during the environmental assessment of a proposed mine development on Taku River Tlingit traditional territory in British Columbia⁸.

To summarize, there are many important aspects for assessing long-term sustainability of proposed developments, including: 1) identification of **principles and vision** that ensure adaptive management structures are in place; 2) **proper measurements** that can determine progress of society; and 3) **ensuring the longer-term benefits** from development projects are taken advantage of.

Social and economic impact assessment (SEIA), as part of overall environmental assessment, provides the primary mechanism for assessing long-term sustainability.

2.3. SOCIAL AND ECONOMIC IMPACT ASSESSMENT (SEIA)

Assessing social and economic impacts has been carried out through social and economic impact assessment (SEIA). This section summarizes how SEIA is done, the tools used to carry it out and challenges SEIA faces with respect to assessing long-term sustainability.

2.3.1. Goals and Process

SEIA is about how development projects affect people and their communities. The ultimate aim of SEIA is to make better decisions about what is an acceptable level of change to society in relation to a proposed development (physical project like a road or a mine), program, or policy.

Generally, socio-economic impacts are changes in the human condition. They are changes in the economic and social conditions of:

- Local communities, districts, provinces or possibly even the nation;
- Vulnerable groups (such as women, children or poor); and,
- Businesses and employees.

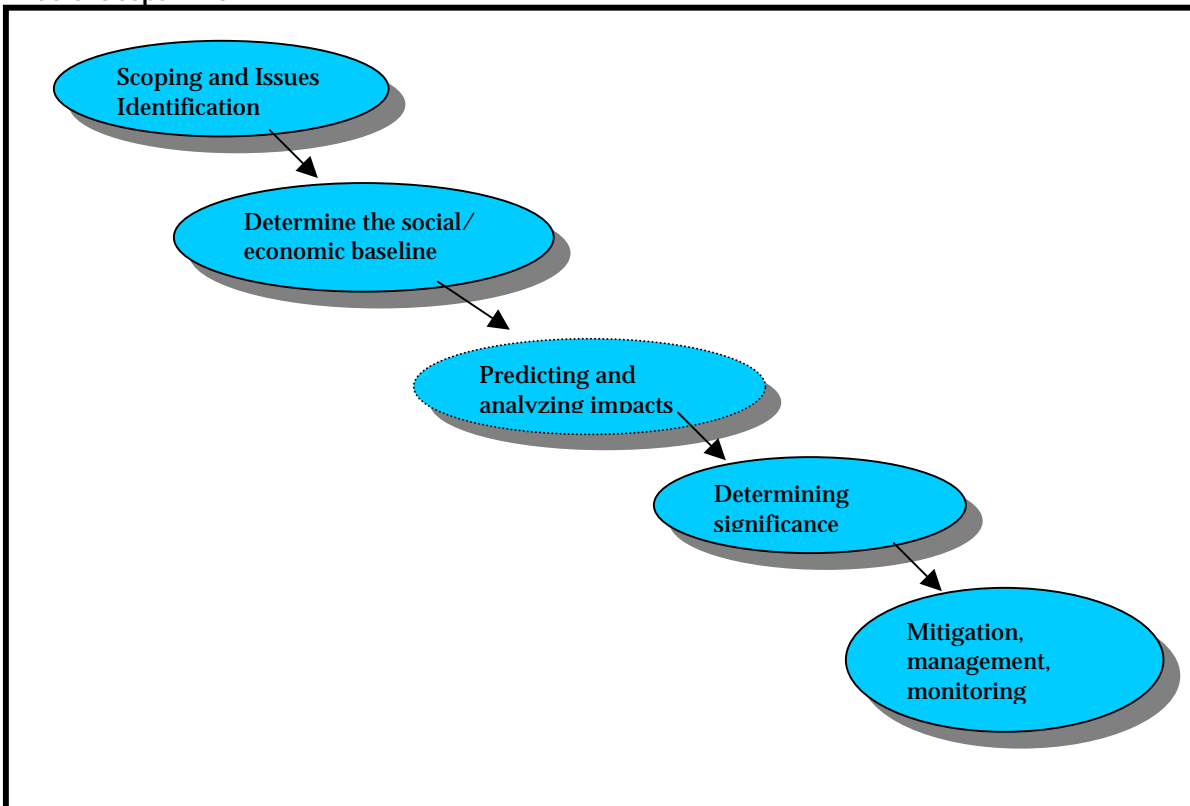
⁷ **Impact Benefit Agreements** are signed by mining companies and First Nations communities in Canada to establish formal relationships between them, to reduce the predicted impacts of mines and to ensure that communities benefit economically from mine development. In the past, IBAs were mostly negotiated between the government and mining companies to provide employment for local people. Today, they are commonly negotiated directly by First Nation parties and companies and address a wide range of issues, such as employment, training, royalties, environmental protection and reclamation, independent monitoring, social and housing programmes, the protection of burial and sacred sites, and cross-cultural training for non-aboriginal employees coming into town (Canadian Environmental Law Association).

⁸ For an overview of the Alberta Heritage Fund and the Taku River Tlingit Fund see section 3.4.2 of the Discussion Paper.

The key challenge in SEIA is to predict the nature of social or economic impacts. An impact is a change in conditions caused by a development (for example increased family breakdown due to worker rotations or an increase in rate of social disruption due to an increase in transient workers). Generally, health and cultural impacts (such as language loss) are also looked at in SEIA, but are not always covered in depth, as they may need special study.

As a process, SEIA needs to adequately cover five items as demonstrated in the figure below.

Basic Steps in SEIA



One of the toughest challenges in SEIA is determining whether social and economic impacts are a result of a particular development, or are caused by other independent actions (such as policies or programs). In order to identify and measure social and economic impacts of projects, it is necessary to understand the chain of causes and effects, and decide how far back to trace these effects.

Economic issues are given a lot of emphasis in SEIA. Study of economic issues usually includes looking at the contribution a project will make to different sectors of the economy and potential revenues it may offer to different levels of government (through resource royalties and taxes). **For larger projects, SEIA can be used to carry study a project to determine the overall value of a project to society, including the cost effectiveness of mitigation and, where possible, environmental and social costs of things that are**

important to people but hard to measure (for example, quality of life, value of country food or health costs of pollution). The tools used are sophisticated (for example Cost-Benefit Analysis) and can be costly, so they are often carried out by government agencies.

2.3.2. Tools for Social and Economic Analysis

There are many different ways to approach SEIA⁹. Different tools from the social and economic fields need to be used in SEIA, depending on the nature of the proposed project.

Tools that are often used to identify social concerns include:

- ✓ Surveys / Questionnaires
- ✓ Focus Groups / Workshops
- ✓ Community Meetings
- ✓ Networks / Technical Advisory Committees
- ✓ Checklists
- ✓ Ethnographic / Ethnohistoric Studies¹⁰
- ✓ Risk Assessment

Economic tools include:

- ✓ Fiscal Analysis
- ✓ Input/output analysis
- ✓ Cost Benefit Analysis (CBA)

Analysis of economic impacts is quite technical and quantitative, requires fiscal and technical capacity. It often uses one or more of the specialized methods listed above.

2.3.3. Sustainability Challenges

Although most people agree that SEIA is a good idea, they face a number of challenges from a long-term sustainability perspective. These challenges include::

- Some SEIA processes are only applicable to physical developments, like dams, mines, and pipelines, and not to policies or programs. They are not always combined properly with other resource management functions, like permitting or land use planning. This makes it hard to use public policy to determine the how desirable a proposed project is. These challenges limit the ability of SEIA to see the big picture.
- Under many processes, SEIA is done by the developer, which leaves it to industry to set the tone for the identification of issues and concerns, the prediction of impacts and the proposal of mitigation measures.
- SEIA's are often biased due to a narrow view of issues and concerns. Identifying issues and predicting impacts are strengthened when, for example, traditional

⁹ For a more detailed overview of social and economic tools, please see section 4.3 of the Discussion Paper.

¹⁰ Focused study of social organization and change of traditional societies, often with the initiation of development impacts.

- knowledge of local resource users and women's views are properly identified and when a broad cross-section of the public can participate on an ongoing basis.
- Standard tools used in SEIA for measuring economic baseline (e.g. labour force surveys, census, and regional GDP accounts) have left much of the Northern economy under-measured and forgotten (for example, value of the mixed economy that includes traditional harvesting). Without enough information, predicting impacts is very difficult.
 - Thresholds are required to tell which impacts matter (determining significance) but most often social and economic thresholds are not well understood, given the active nature of our global society and economy.
 - SEIA processes are designed for larger projects, and are not appropriate for the assessment of smaller ones (like culverts, roads, etc.), which are much more common
 - Access to Impact Benefit Agreements (IBAs) is not coordinated with SEIA. The result is that mitigation plans in the IBA and in the SEIA cannot be considered together, and do not benefit from one another.

The goals, issues and challenges summarized above are important for everyone involved in SEIA in the Mackenzie Valley. Social, cultural and economic impacts of major developments on communities must be identified and managed, considering the vulnerability of communities and the Mackenzie Valley as a whole. However, several clear challenges face the practice of SEIA including:

- Ensuring that the long-term idea of sustainable development can be met through the SEIA process and that long-term benefits are harnessed from all development;
- Developing territorial and community-based ways to indicate and measure changes;
- Accessing appropriate baseline data, particularly with respect to the mixed economy (including activities like traditional harvesting);
- Identifying appropriate mitigation measures to ensure communities are benefiting from development; and
- Understanding the full costs of development to community and regional government, the environment and social well-being.

What structures exist for social and economic impact assessment in the Mackenzie Valley, and how can these help us consider long-term sustainability in environmental decision-making? The next section provides a brief overview of existing structures and some of the key accomplishments, gaps and challenges for SEIA.

3. OPERATIONAL STRUCTURE FOR SEIA IN THE MACKENZIE VALLEY

In the Mackenzie Valley, the Review Board has the primary responsibility for SEIA, but the Government of the Northwest Territories, Canada, industry and communities also have specific functions. Roles and initiatives of these agencies and groups are outlined below.

3.1. ROLES AND RESPONSIBILITIES

The *Mackenzie Valley Resource Management Act* (MVRMA) sets a legal process for managing the environment, including an inter-connected decision-making system for land use

planning, land and water regulation, environmental assessment and review, cumulative impact monitoring and environmental auditing. Public Boards, whose members are chosen equally by First Nations and government, carry out responsibilities for land use planning, land and water regulation and environmental impact assessment. The MVRMA has a clear requirement to consider the direct social and economic impacts from developments (s.115) where before there was only a requirement to consider the indirect effects. Each board is required to implement guiding principles similar to those in section 115¹¹.

3.1.1. Mackenzie Valley Environmental Impact Review Board

Under the MVRMA, the Review Board is responsible for environmental assessment and environmental impact review. It does this when a development has been referred for reasons of public concern or the possibility of environmental impacts. Where an environmental assessment is triggered, there is a requirement to identify and examine social and economic impacts under sections 115 and 117.

3.1.2. Government of the NWT

Government of the Northwest Territories' (GNWT) departments and agencies¹² play a very important role in the SEIA process. This is due to the GNWT's legal responsibility for delivering programs and services for most aspects of health, social services, education, training, cultural well-being and economic development in the NWT. GNWT initiatives that have a *direct* impact on *SEIA* include:

- Provision of social and economic baseline data to developers;
- Monitoring of Socio-Economic Agreements; and,
- Development and tracking of socio-economic indicators (e.g. Social Agenda and socio-economic monitoring agreements).

3.1.3. Government of Canada

The Government of Canada also plays a key role. The Department of Indian Affairs and Northern Development (DIAND) has a large resource management and conservation mandate and is responsible for the implementation of the MVRMA. Two federal initiatives important for the conduct of SEIA are:

- Approval of Benefits Plans under the *Canadian Oil and Gas Operations Act (COGOA)*; and,
- Cumulative Effects Assessment and Monitoring under the Cumulative Impacts Monitoring Program (CIMP) and Cumulative Effects Assessment Framework (CEAMF).

3.1.4. Developer and Communities

In the Mackenzie Valley, the developer is responsible for carrying out SEIA as part of the overall environmental impact statement submitted to the Review Board. This requires an understanding of:

¹¹ including the regional land use planning boards and the land and water boards established under the MVRMA

¹² Resources, Wildlife and Economic Development (RWED), Municipal and Community Affairs (MACA), the Bureau of Statistics, Department of Transport (DOT) and Health and Social Services (HSS)

- Existing economic and social environment of communities that could be expected to experience impacts, including employment, education and training, infrastructure, social and cultural resources;
- Government revenues and costs; and,
- Predicted impacts after mitigation (including cumulative impacts) on valued social, economic and cultural components, including human health (VSCs).

The law requires that the developer consult all impacted communities to identify their issues and concerns.

3.2. STATUS OF INITIATIVES IMPACTING SOCIAL AND ECONOMIC IMPACT ASSESSMENT IN THE MACKENZIE VALLEY

This section summarizes the status of initiatives being carried out that will promote good SEIA practice in the Mackenzie Valley. It is based on a review of existing policy and management program documents¹³.

- There are wide-ranging policy and strategy commitments in place by the GNWT relating to sustainable development, non-renewable resources and the balancing of social and economic development (*see GNWT Sustainable Development Policy, Non-Renewable Resources Development Strategy and the Social Agenda*). It is not clear at this time, however, whether broad inter-governmental strategies (federal, territorial, aboriginal) or mechanisms are in place that allow for adaptive management, and which tie the vision for sustainable development to community development, land use planning, assessment and monitoring¹⁴.
- Crucial parts of the MVRMA have not been implemented. For example, land use plans have not been approved under the Gwich'in or Sahtu agreements and the implementation of the Cumulative Impact Monitoring Program (CIMP) and audit is still incomplete.
- Many social and economic indicators are being identified, tracked and analyzed through the Diavik and BHP projects and through vital statistics (for example employment, education and health) collected by the GNWT and Canada. In the next year, the GNWT will be working on a more comprehensive socio-economic indicator program under the Social Agenda, which could prove useful for the purposes of SEIA.
- There has been little work done on social or economic thresholds in the NWT.

¹³ Main sources of data are from the NRTEE 2001; CARC 2002; NWT CEAMF and CIMP status reports (2001, 2002); MVEIRB, MVLWB, DIAND 2001.

¹⁴ See Discussion Paper developed for DIAND CEAMF Program 2001. "NWT CEAMF: Current Context, 'Lessons Learned', Gaps and Challenges, p.29.

4. RECOMMENDATIONS FOR IMPROVEMENTS TO SEIA UNDER THE MACKENZIE VALLEY RESOURCE MANAGEMENT ACT

This section summarizes improvements the Review Board is considering for SEIA in the Mackenzie Valley. It highlights key actions that can be done for each improvement.¹⁵

SEIA Improvement #1: Strengthen Inter-Agency Collaboration on SEIA

As follow-up to a recommendation provided by groups involved in environmental decision-making in the Mackenzie Valley,¹⁶ a **SEIA Technical Working Group** should be established to provide direction on the overall development of SEIA guidelines, and to work on the ongoing requirements for SEIA under the MVRMA.

SEIA Improvement #2: Develop Mechanisms for Adaptive Management

There is a need for a sustainable development approach to resource management that brings together public policy, research, monitoring, state-of-the environment reports, environmental assessment (including SEIA) and audits. To help with the development of mechanisms for making adaptive management decisions, the Review Board will:

- **enhance public and institutional participation** in the SEIA process through the enhancement of SEIA guidelines; and,
- **improve technical standards** for SEIA under the MVRMA.

Identifying how exactly to do this will require ongoing discussions between groups involved in environmental decision-making in the Mackenzie Valley.

SEIA Improvement #3: Expand SEIA Consultation Guidelines

To expand consultation, the Review Board is considering the development of **guidelines for broadening public participation**, including requirements for appropriate cross-cultural consultation and community-based licencing¹⁷.

SEIA Improvement #4: Standardize SEIA Terms of Reference Items

The Review Board is considering the development of certain standard SEIA Terms of Reference with consistent:

- Social, cultural and economic questions;
- Reporting requirements for projects with different scope and scale,
- Expectations for social and economic impact boundaries and,
- Structure for determining alternatives.

SEIA Improvement #5 - Social and Economic Baseline Determination

To improve baseline reporting in SEIA statements, the Review Board, in consultation with other agencies, will suggest ways to improve baseline data collection. Key areas

¹⁵ For a more detailed description of improvements and related action items, please see section 6.2 and 6.3 in the full discussion paper.

¹⁶ Preliminary Screening and EA Workshop held in September 2001,

¹⁷ Based on existing rules under the NWT Scientists Act and guidelines for doing community-based research

to be addressed include information on the traditional economy, impacts on women, Traditional Knowledge¹⁸ and economic and fiscal baseline information related to royalties, payroll taxes, corporate taxes, and transfer payments.

SEIA Improvement #6 - Guidance on SEIA Prediction Methods and Tools

To improve the overall social and economic impact analysis of projects, the Review Board, will consult with appropriate agencies, and will develop a guideline supporting:

- The use of community-based socio-economic change research (that is, use of standard social science techniques alongside the long term surveys and ethnographic research that is done now);
- The use of appropriate tools for economic analysis and overall impact evaluation (For example, the government's use of specific tools like cost-benefit analysis which more accurately predict the overall economic impact of development); and,
- Valuation of things that are important to people but hard to measure (such as the market value of potential losses to traditional economic activities).

The Review Board will also provide guidance criteria on the type and consistent use of Valued Components and the indicator that for tracking changes in these.

SEIA Technical Improvement #7 - Strengthen Significance Determination for Social and Economic Impact Evaluation

To improve the outcomes of SEIA significance determination, the Review Board, in consultation with appropriate agencies, will:

- Determine best approaches exist for addressing factors such as magnitude, duration and frequency of the social and economic effects that remain after mitigation;
- Encourage government initiatives that develop social, cultural and economic benchmarks or thresholds appropriate for the Mackenzie Valley¹⁹; and,
- Develop a discussion paper and draft guideline on the use of the precautionary principle in the Mackenzie Valley for those circumstances where there is uncertainty about significance.

SEIA Technical Improvement #8: Linking Mitigation, Management and Monitoring to SEIA

To strengthen adaptive management related to SEIA within the context of mitigation monitoring, evaluation and management of project impacts, the Review Board will, in consultation with appropriate agencies:

¹⁸ The Review Board has held a workshop in November 2002 that considered TK and the environmental assessment process under the MVRMA. It has begun to develop guidelines for using TK in environmental assessment.

¹⁹ The Review Board will request, in the interim, government departments and agencies to provide their assumed thresholds if available in existing standards, as a reference point and explain why they feel this is an appropriate threshold

- Carry out research and consultations on the types of mitigation measures that are acceptable to help lessen or avoid undesirable impacts and maximize benefits to northerners;
- Develop a guideline requiring follow-up reporting on the success or failure of mitigation measures and whether they were implemented²⁰; and,
- Encourage developers and affected communities to conclude IBAs after conclusions of SEIA are made public.

5. CONCLUSION

This paper has described how the Review Board intends to do better SEIA. SEIA must be done according to principles that supporting sustainable development. This requires the support of other agencies that can give guidance on social and economic thresholds, how much social and economic change is acceptable, and how to really measure whether the Mackenzie Valley is moving towards its sustainable vision, goals and objectives. Most importantly, SEIA guidelines issued by the Review Board will be consistent with, and ultimately contribute to sustainable development. They will 1) aim to increase public participation, 2) strengthen the ability of the developer, impacted communities and government departments to adequately *predict* and *mitigate* adverse impacts, and 3) ensure that desirable effects of the project are harnessed over the long-term.

SEIA guidelines will only be successful with the support and partnership of other agencies responsible for developing, delivering and monitoring the required social and economic components. These agencies need to work together on SEIA approaches for the Mackenzie Valley. To initiate a partnership approach in this respect, the Review Board would like to engage stakeholders in further discussions on the issues and approaches raised in this paper. This will help to ensure that wise long-term social and decisions become a permanent part of environmental assessment and SEIA processes in the Mackenzie Valley.

²⁰ This will include a procedure for consultation with effected communities and other agencies on the success of failure of programs and related mitigation initiatives (e.g. follow-up with land use planning boards, community groups).