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Berkeley Planning Journal

Title
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Permalink
https://escholarship.org/uc/item/55n7j6s9

Journal
Berkeley Planning Journal, 2(1)

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Publication Date
1985

DOI
10.5070/BP32113196

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SOCIAL THEORY, IMPACT ASSESSMENT AND NORTHERN NATIVE COMMUNITIES

Clyde Weaver and Alain M. Cunningham

I. Introduction

Many of Canada's native Indian and Inuit communities are located in northern areas experiencing increasing pressures for resource extraction.[1] Various analyses of the probable consequences of major northern projects have disclosed fundamental conflicts between the hinterland native population and Canada's majority society, as represented by metropolitan business and government interests.[2] These conflicts derive in part from disagreements over resource ownership and the proper beneficiaries of economic rents, as well as from widely disparate social values placed on the resource base. In this article we review the historical evolution of social impact assessment (SIA) as it has developed in response to such resource related conflicts. Then we go on to propose a general conceptual model of social and economic relations which could help provide a more adequate theoretical basis for SIA practice. While the approach suggested here focuses on the needs of native Canadian communities, it may also be relevant for other fourth world peoples and regional minorities.

Social impact assessment grew out of the concerns of the late 1960s. Politicians, planners and others in public life became aware that a growing number of people were apprehensive about the impact of public decisions on their life styles and living standards. The official response over the next decade or so was a new series of evaluation techniques and reporting procedures meant to assess the likely outcomes of government decisions. Such information was supposed to improve the capability of federal, provincial, and municipal officials to weigh the implications of their actions. The methods applied have ranged from highly technical benefit/cost studies of individual projects to attempts at understanding public attitudes towards whole developmental strategies, such as the eventual outcome of the Berger Inquiry into construction of the Mackenzie Valley pipeline.[3]

The inability of benefit/cost analysis to look beyond narrowly defined economic impacts prodded this evolution.[4] In 1969 the National Environmental Protection Act (NEPA) was passed in the United States, requiring measurement and reporting of the impacts of major projects on the biophysical environment. The need for social impact assessment was clearly expounded under NEPA, although there were numerous references to the role of the social sciences in impact assessment and the place of social impacts in decision-making.[5] SIA was given further momentum then in 1973 by the U.S. Water Resources Council, which

mandated a four-account system to assess water development plans in terms of national economic development, regional development, environmental quality effects and "social well-being".[6]

In Canada, a decision was made by the federal cabinet in December 1973 to institute an Environmental Assessment and Review Process (EARP) for any projects initiated by federal departments and agencies, or those in which federal funds or property were involved.[7] The cabinet also directed that all proposed "federal" projects be screened to identify any potentially significant impacts that would require further study. For this purpose two screening matrices were developed by the Federal Environmental Assessment Office, one intended as a broad screening evaluation and another focusing on more specific impact areas.[8] Both matrices were to consider the impacts of various project activities on areas of potential environmental and "socioeconomic" effects. The level-two matrix broke down socioeconomic effects into five categories: demography; economic and manpower; regional transportation, housing and community infrastructure; health, education and social services; and life style and quality of life. This basic approach is still in use today, a decade later.

Because SIA is included under EARP it usually follows the same general procedure of (1) profiling the environment as it exists prior to the new development, (2) describing the activities involved in the construction and operation of the new project, (3) relating these activities and their products to the features of the existing environment, and (4) predicting how the environment will be changed as a consequence of those activities. From a methodological point of view, however, the emphasis of SIA on social variables derives from attempts to establish a system of accounts, and more particularly, from the social indicators movement.

II. Approaches to Social Impact Assessment

A. Social Accounting

The earliest approach to impact assessment may be characterized as *social accounting.* Drawing on the national accounting concepts of the 1940s, social accounting concentrated on economic measures.[9] The most common had to do with economic indicators for per capita income, employment, taxation levels, and public expenditures. Later, cost-of-living came to be considered as well. The fundamental idea underlying social accounting was that economic indicators like employment and income provided a straightforward measure of people's standard of living, and that by projecting the changes which could be anticipated in such accounts due to a particular project or programme, citizens' groups and elected officials could gauge the pros and cons of a given decision.

Without becoming involved in the debate among technicians, it can be argued that conventional social accounting enjoyed only relatively short-lived popularity. Besides the inherent problems involved in all attempts to forecast detailed future conditions, social accounting was too narrow and required too many simplistic assumptions. It presumed that the only really important measures of social well-being could be accounted for by changing incomes. Other things like access to services and amenities were typically overlooked. And perhaps most importantly, cultural values were assumed to be the same for everyone: increased or diminished earnings showed officials how different people's participation in consumer society would be impacted by a particular action. It was seldom acknowledged that various social groups such as traditionally-oriented Indian and Inuit people in the Canadian North might measure their quality of life along other material and cultural dimensions, or that deeper structural changes could be affected by a particular decision which might alter basic relationships and patterns in a group's way of life.

Social accounting fit well with Canadian Prime Minister Diefenbaker's "Northern Vision", exemplified by the notion of rapid industrial development. Subsequent programmes included attempts to integrate native peoples into the national economy by moving them into towns and sending their children to be socialized in boarding schools where they could learn modern urban values. In the Canadian North as elsewhere, however, many well-intentioned government officials and technicians came to feel that looking at employment and income statistics simply missed something--something fundamental--in the dynamics of northern life. Changing income levels and labour participation rates didn't seem to get at the heart of what was going on.

B. Social Indicators: Quality of Life and Social Pathology

Politicians and planners were pushed into this realization by the growing resistance of native groups to the very developments which were supposed to improve their standard of living. In the face of such contradictory evidence as rising incomes and increasing social discontent, planners suggested that the categories of social indicators to be monitored were much broader than originally assumed. A wide spectrum of factors needed to be looked at: demographic characteristics, education levels, health statistics, availability of public services, occupancy rates of housing, stability of households, family characteristics, and a whole host of others. The idea here was to describe social life through a range of indicators which could give a full picture of how well people lived. While these measures tended at first to reflect the norms and standards of mainstream middle-class life, they were soon opened to broader interpretations. Quality of life would be measured from the perspective of different *life styles.*

As well as providing a mechanism for describing supposed life style choices, social indicators also came to be recognized as reflecting various *social pathologies.* Information on inhabitants per dwelling unit, family stability, educational attainment, and personal health brought to light chronic social disabilities, such as family disruption, school drop-out rates, venereal disease and alcoholism. The bad and the good were both arrayed in a variety of behavioural conditions. Social impact analysis could now judge the merits of a proposed line of public decisions by estimating its effects on a large number of variables.

How were these measures to be interpreted? The practice adopted at first was to look for correlations between different groups of people and different characteristic sets of social indicators. It was thought that if one knew how various people were likely to react to particular changes, the impact of a programme or project could be anticipated in advance. It quickly became apparent, however, that some people seemed to react positively to improvements in crucial social indicators (still mainly income and employment related), and others displayed a tendency towards increasing social pathology. How could this be understood? The first reaction was to blame the victims.[10] If people reacted in the wrong way it must be their own fault. If whites and Indians or Inuits display different levels of achievement in the face of similar opportunities, it must be because native peoples are unprepared to cope with the rates of change characteristic of modern society.

This form of ethnocentrism also suffered growing defections over time, based primarily on a liberal reinterpretation of the life styles idea and growing minority group militancy. During the 70s various upper middle-class groups in southern Canada began to deal with their own alienation by adopting new and different ways of life--choices laid open by the counter-culture. They came to recognize that varying indices of achievement in material consumption and other conventional social indicators might be open to choice. Perhaps personal growth or social contacts, for example, might be more important than income levels and housing density. Although a fairly naive view of life style choice and class standing tended to be presumed, many professionals wanted to extend the opportunity for free choice to others. Indeed, this idea of choosing how one lives had infiltrated popular culture rather profoundly by the mid-70s. Many people were demanding the right to liberate themselves and choose their own life styles. By the end of the decade, however, the impact of increasing economic hardships--stagflation, runaway energy costs, unemployment, etc.--began to take its toll on such thinking.

Native political activists also began demanding a more pluralistic approach to social choices during the 1960s. At first they only asked for equal recognition of subgroup cultural values. In recent years this has frequently come to an assertion of independence or

at least increased autonomy.[11] "Only we can understand and interpret our own culture. Only we can guide our own destiny. So only we should exercise judgment over ourselves." Political sovereignty has become the by-word.

One of the best examples of professional liberalism and minority group militancy coming together in a formal social impact assessment was the Berger Inquiry, mentioned above. Recognizing that evaluation and choice most reasonably should be made by the people affected by change, Berger's public-forum style analysis represents a northern Canadian application of an increasingly popular form of social assessment: freedom of choice and pluralism, informed by a complex set of technical evaluation procedures. Decisions in the end were openly thrown back into the political arena, with the feelings of various interest groups and the likely outcomes of choosing different development paths made increasingly transparent.

Berger's analytic format was the exception, however, *not* the rule, and a major problem still remains. Social pathologies seem as persistent as ever (i.e., alcoholism, crime and family breakdown), and mere correlation of social indicators with various social groups throws little light on the origins of such problems. In evaluating the social impact of development on various peoples it offers no direction for judging alternative strategies. All too frequently the victim is still held to blame, in private at least.

III. A Theoretical Approach to Impact Assessment

In trying to analyze varying social responses to development many people have begun to adopt a healthy intuitive approach. This has been helped along by continuing minority group militancy and increasingly competent political organization among native peoples. Many professionals and politicians are being forced to look at the world through other peoples' eyes, and in so doing they are coming to recognize that social reactions to development cannot be understood outside the context of a particular group's social and economic history. The way people live, their manner of gaining a livelihood, their relations with the physical environment, their social ordering, their culture; all these things fit together. Change one, and unavoidably the seeds are planted for changing them all.

If social impact assessment is to provide a useful guide for political decision-making, the increasingly sophisticated use of statistical indicators must be augmented by a systematic interpretive framework. In the field of environmental impact analysis this kind of theoretical base has been provided increasingly by *ecology,* buttressed where necessary by specific models and theories drawn from the biological and physical sciences. So far, the behaviourally-oriented social sciences have failed to provide

similar conceptual underpinnings for social impact assessment. A more historical and structural approach to understanding socioeconomic change and the impact of planning decisions seems to be required.[12]

K. Scott Wood's 1977 report on social accounting in the Canadian North for the Department of Indian Affairs and Northern Development draws attention to three conceptual problems:

1) the absence of a general social theory on which an integrated social accounts model can be built;

2) in the absence of a theory, the partial and subjective nature of any system which might be devised for social accounting; and,

3) the difficulty of producing a normative interpretation of the resultant social statistics.[13]

L.T. D'Amore and S. Rittenburg have made a similar plea:

> "An essential requirement for successful SIA is the evolution of a theoretical framework which can guide all dimensions of assessment throughout the course of a study. This framework should be grounded in a better understanding of the community as a dynamic process of inter-related systems and sub-systems."[14]

In the next section we suggest a conceptual scheme for integrating social theory with S.I.A. techniques.

A. The Organization of Productive Activities

Figure 1 sketches in the broad outlines of such a framework. From this perspective a community's socioeconomic structure rests primarily on the manner in which productive economic activities are organized (see a. in Fig. 1).[15] Two fundamental aspects of economic organization are the predominant patterns of ownership of resources and tools and the level of technological development. Together these result in a specific way of conducting economic life.

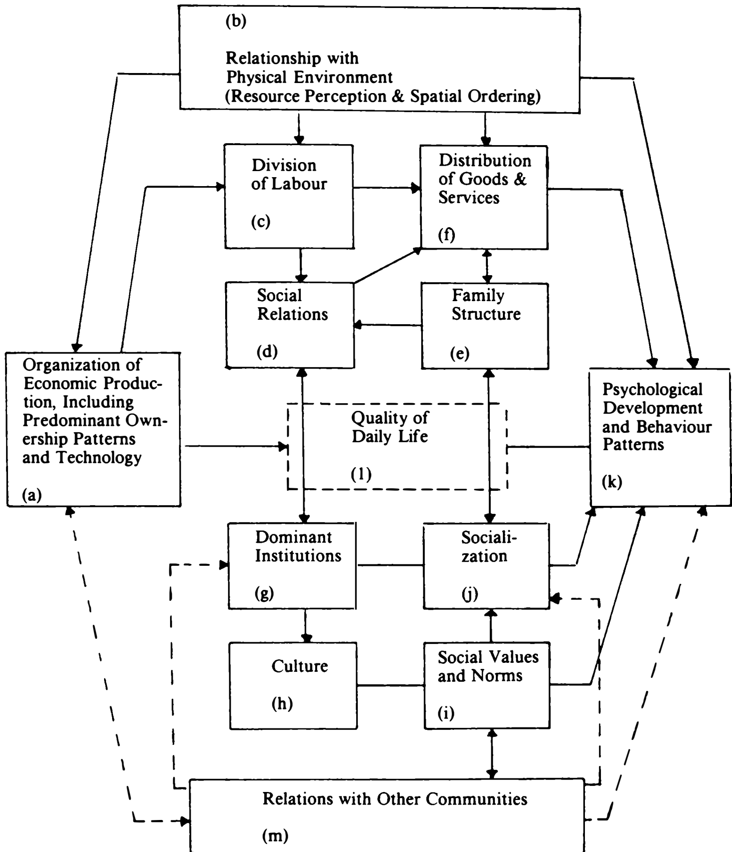
Known historical modes of organizing economic production are listed in Table 1. Indian and Inuit peoples at the time of Euro-Canadian contact typically fell some place between "Hunting and Collecting" and "Nomadic Animal Husbandry"; although they may have continued to practice more advanced technologies which had been carried with them from Asia, such as the use of harnessed animal power. An important characteristic of this system was that people produced things primarily for their own use, and what trading did go on occurred outside the framework of what today would be called a price-fixing market.

B. Environmental Relations

Relationships between a social group and its physical environment (b. in Fig. 1) are highly influenced by the manner in which

Figure 1

The Broad Outlines of Community Socioeconomic Structure



economic production is organized. Environmental relations have three distinct components: cosmology, resource perception, and spatial ordering. The first of these, cosmology, need not concern us here. It must be noted in passing, however, that the world view of a particular society--their vision of where and how they fit into their physical/metaphysical environment--is largely structured by the way they *use* their environment. It is also the use to which natural materials are to be put that defines *their* place in human activities.[16] That is to say, whether or not materials are defined as resources depends upon whether they are put to work in the production process. The things that are made and the way they are made become crucial. Indigenous northern people in the 18th century defined wildlife and some plants and minerals as resources. As different Indian groups came into contact with Royal trading companies these definitions changed. In the latter part of the 20th century the role of fish, forest products and certain nonferrous metal and hydro-carbons has been completely redefined because of the changing demands of and intensified contact with southern Canadian society.

Indian and Inuit peoples had developed particular ways of organizing and using space which were based upon their economic way of life. Depending on the particular band in question, land uses tended to be of relatively low intensity, and to meet the needs of a necessarily migratory life. Feelings of group territoriality were diffused over a whole landscape of cyclically occupied places. Truly sedentary residential sites were frequently unknown, let alone anything which actually resembled a permanent village or town.

These patterns of spatial ordering were unsuited to the new economic system into which indigenous northern peoples have been increasingly integrated since the 18th century. And because infrastructure development was not capital intensive under traditional production modes, it has proven very fragile. This has allowed for flexibility, but it has also provided less resistance to change than might have been the case in other situations. The most conspicuous attempt to rearrange these structures to date was Ottawa's programme of settling Inuits and Indians in towns. Interestingly, the primarily economic role of such a policy was recognized quite explicitly; permanent settlement was meant to integrate indigenous people into the national labour market.

C. The Division of Labour

There are few human situations in which individuals are called upon to produce everything necessary to sustain themselves. Specialization is an almost universal feature of economic life. At the most voluntaristic level, a *division of labour* (c. in Fig. 1) may take place according to the natural proclivities of different people or it may reflect specific skills and training. This breakdown of tasks

Table 1

HISTORIC MODES OF ORGANIZING ECONOMIC PRODUCTION

Category	Ownership Patterns	Technology
1. Hunting and Collecting	resources held in common, most tools used privately	simple stone, bone, wood and metal implements, fire
2. Nomadic Animal Husbandry	communal and/or family use of resources	simple stone, bone, wood and metal implements
3. Communalist Agriculture or Mixed Farming	communal or family land tenure and herds, privately held tools	natural and metal implements, use of lever and harnessed animal power
4. Feudalism	land most tools owned by a few families and individuals	more extensive agric., crop rotation
5. Collectivist Despotism	state ownership of land and most tools	mathematics, accounting, large-scale human organization, urban development
6. Mercantile Capitalism	private ownership of secondary industrial tools and output	advanced handicraft techniques, long-distance transport, accumulation of free capital
7. Industrial Capitalism	private individual and corporate ownership of tools, resources and output	factory system, derived energy, metal engineering
8. State Capitalism	state ownership of tools, resources and output	industrial technology collective agriculture
9. Multinational Capitalism	private corporate ownership of tools, resources and output at an international scale	advanced industrial technology, e.g., plastics, electrical engineering, computer technology, atomic energy

according to a person's fitness for the job can be called a technical division of labour. Taking a broader view, any specialization of productive economic activities infers (1) a technical division of labour, and (2) the need for some form of economic exchange. Exchange--trade--may or may not result in creation of a market economy, but the technical division of productive tasks almost always brings about a more permanent social division of labour or class structure which is initiated, reinforced and transformed over time by political power and tradition.

Among the various historic modes of organizing economic production listed in Table 1 the technical division of labour tends to go from less differentiated to more differentiated when moving down the columns. This is by no means a cumulative, linear relationship, however, as will be attested to by the complexity of economic specialization in many feudal and collectivist-despotic societies. The rigidity of class structure seems to be more closely related to a society's longevity and the established nature of a given mode of production than the technology involved, although its degree of complexity and fragmentation may reflect the technical division of work. Ownership patterns, ease of entry into different productive activities, and the rate of change and innovation in a particular situation are also important to an understanding of the division of labour within a culture. In the Canadian North at the time of European contact there was a relatively simple technical division of labour in existence among Indian and Inuit groups, based primarily on perceived sexual roles, stage in the life cycle, and specific cultural adaptations to different physical habitats. Social and political classes were only weakly developed, tending roughly to follow these same lines. As native northerners were gradually integrated into the European economy--first into the fur trade and then into other forms of resource extraction--the kinds of work available, the work-roles of individuals, and the nature of social stratification underwent profound disruptions and change.

D. Social Relations and Family Structure

These changes may best be understood in terms of the radical transformation of inherited social relations and family structure. Individuals are integrated into a social group by geographic proximity, their functional role in economic production, kinship ties, and a vast framework of cultural beliefs and institutions. These relationships, in turn, largely determine the distribution of available goods and services within the group.

Geographic location and feelings of territoriality tend to set the broad limits of group membership. The actual physical area involved is bounded by communication and transport technology, as well as climate, topography and historic geopolitical patterns, but a territorial base is the first requisite of human community.

While traditionally some indigenous northerners ranged over large tracts of countryside, the effective living space defining group membership at any one time was comparatively small, in relation, say, to a contemporary Canadian province or the country as a whole.

Social relations (d. in Fig. 1) within a geographic area, meaning the patterning of intercourse among different individuals and groups, are shaped fairly directly by the role various people play in meeting society's economic needs. Because adult Indians and Inuits had direct access to the tools necessary for earning a living, before Euro-Canadian contact the vast majority of people took an active role in economic production and related to one another on a basis of producer equality. Most individuals of the same sex did approximately the same kinds of things. Relationships between individuals--helping, sharing, competition, conflict--were set within a hierarchy characterized by reciprocal obligations. These were determined by age, individual strength and productivity, and merit in other spheres of life, especially success and bravery in war. But most importantly, they were a reflection of kinship and *family structure* (e. in Fig. 1).

While the family is a biological phenomenon, its organization and functioning are almost entirely social in origin. In the absence of other institutions, the family must ensure the integrity of the whole reproductive process, and this includes quite different requirements under different modes of organizing economic life. In a society with little physical infrastructure to be preserved and passed on from one generation to the next, concepts of ownership are poorly developed. This means that problems of inheritance are negligible, and while much depends on somewhat random historical developments, it also means that parentage is probably relatively unimportant; especially when there are no political privileges to safeguard for one's offspring. In some circumstances this has led to institutional promiscuity, grading into polygamy, and matrilineal kinship groupings.

At the same time, in conditions such as prevailed in the pre-contact North, returns to productive effort were modest and there was no manner of storing a social surplus to be called upon in hard times. Co-operative labour was necessary so that what was produced by each individual could be multiplied many-fold and made available to everyone who contributed to its production. This meant that families, whether tracing their ancestry through mother or father, stayed together as large, multi-generational living units which acted as a reservoir of labour power and a social security system. Bands and tribes were typically aggregates of such family groups.

Nowhere in the Canadian North did a separate government or state emerge capable of forming an identifiable ruling class, of controlling distribution of the social surplus (f. in Fig. 1) and of

limiting access to the means of production. The surplus was just too small, and the tools required to earn a living and protect one's self could be made by hand. Division of labour was mostly technical and patterns of distribution closely followed patterns of production. Everyone worked and everyone got a share. Relative equality was possible in such circumstances.

E. Dominant Institutions, Culture, Social Values and Socialization

The northern family was the most important of a wider set of *dominant institutions* (g. in Fig. 1) which helped to provide the *culture* and *social values and norms* of indigenous northerners (h. and i. in Fig. 1). As in all mature societies these institutions tended to support the economic system of which they were a part. Man as Hunter, inter-tribal warfare, potlatch, life portrayed in ivory, the many faces of the raven--these all played decisive roles in northern life. In a very fundamental way they prepared individuals for their vocation as part of the social group, expanded the communal territory, redistributed goods, settled conflicts, established dominance, and symbolized human society in its relationship with nature.

Each succeeding generation was schooled into the group's way of life and taught their mutual responsibilities and privileges through a traditional process of observation, training and socialization (j. in Fig. 1). In this way the necessary skills were passed on from mother to daughter and father or uncle to son. Children were taught their relationship to other individuals and other social groups, and a world view was instilled which incorporated society's everyday culture and social values and prompted respect for its dominant institutions. Society reproduced itself by ensuring a specific type of *psychological development* and engendering expected, useful *behaviour patterns* (k. in Fig. 1).

F. Relations with Other Communities

Indigenous northern modes of earning a living and organizing social life have undergone radical change over the last 200 years because of enforced contact with Euro-Canadian society. This has been a matter of economic absorption and military and political control. Politico-military subordination, sanctioned by treaties and European-based laws, has created *relations with other communities* (m. in Fig. 1) which have gradually introduced a new set of dominant political and social institutions, a new mode of organizing economic production, and new social values and norms. These institutions have formalized a process of socialization and education which reinforces imported social values and makes significant inroads into traditional northern culture. In turn, these changes have had a profound impact on individuals' psychological development and patterns of behaviour; many of them now showing signs of extreme alienation and anomie.

G. The Quality of Daily Life

It is through this complicated web of economic, environmental, social and cultural relationships that the quality of daily life (1. in Fig. 1) is created and experienced. This should be understood as quality in its most complete sense, meaning the experienced texture and meaningfulness of life. This involves some measure of physical comfort and security of possessions, but such values must be seen within the context of which they are a part. It is the nature of people's work, their relationship with other people, their place within the institutions which create and order their world, *and* some expected standard of material well-being that determine the social parameters of the quality of life.

Social impact assessment which has attempted to gauge changes in dollar income and differences in culturally defined standards of material success and physical comfort are simply too narrow to give a believable image of the quality of life. They are of questionable utility in understanding the value judgments and reactions of southern Canadians, who were socialized to accept many of the norms and cultural assumptions such measures are based upon. When facing a society with profound collective memories of an entirely different way of life, shaped by entirely different social institutions and cultural values, reductionist accounting of purely monetary benefits and costs are quite meaningless as measures of the quality of life.

IV. Impact Assessment in a Theoretical Context

A. An Historical Perspective

The contemporary situation among native groups in the Canadian North can be understood from one perspective, then, within the context of the structural relationships outlined in the last section. Historical changes varied from one tribal group and band to the next, but a general pattern can be sketched which seems representative of many northerners' experience and circumstances.

In the 18th century a hunting and collecting society, with many of the characteristics discussed above, came into contact with mercantile trading companies from the United Kingdom. At first this was a windfall for both parties, because the economic interests of the capitalist traders and the hunting skills of native Canadians meshed together well. As long as trading remained a marginal activity for native hunters it provided opportunities to obtain better tools for earning a living at the cost of only little extra effort. It might be argued that within limits the new European tools made possible a marginal increase in the productivity of labour that allowed native hunters to increase their take of furs without a substantial increase in the amount of work performed. From a European point of view the Indians provided highly skilled labour for a relatively low return.

Unbeknownst to native peoples, however, this symbiotic relationship could not last. An increasing dependence on European tools and markets brought with it an ever-widening circle of dependency. In a growing number of instances Indian hunters came to forfeit their role as free traders for a more formalized arrangement in which they exchanged their labour for what amounted to a barter or in-kind wage. Effectively, many Indians became part-time employees for the Royal trading companies, and the companies exercised an absolute monopoly over demand, fixing prices enforced by British military power and political sovereignty. And under such circumstances it became increasingly difficult for native institutions to maintain their integrity. At the margins of Indian society the means of earning a living was changing, along with the division of labour and its resultant social relations.

With the spread of Euro-Canadian settlement this process of change was accelerated. A new concept of society's relationship with the physical environment was introduced which struck at the very heart of the indigenous economy. The European economic system was founded on the notion of individual production for private gain. This idea of private property required that land be divided up for sedentary occupation and use. And since investment to increase the productiveness of land required exclusive possession, land tenure rights had to be protected by law. Privatization was accompanied by a significant increase in the stock of productive capital and a broad redefinition of the exploitable resource base, but this was mutually exclusive of the needs of an itinerant hunting and collecting economy. The imperial British state became the guarantor of property rights, deciding what belonged to whom and who could live and work where. By right of conquest Indian peoples were subordinated under this system and allowed access to a gradually dwindling share of Canadian land resources. At critical junctures this process of land acquisition was formalized by the Crown through a series of treaty agreements.

The outcome of European land alienation was the creation of a group of Indian tribal reserves. These areas effectively bounded the territory in which the traditional hunting and collecting economy could be practised, and this in turn put severe limitations on the number of people that could be supported by such a productive system without a substantial drop in their material standard of living. The net effect of all this was that Indian bands were forced over a period of decades to seek a higher degree of integration into the Euro-Canadian market economy, selling the marketable resources on their assigned reservations to buy an increasing number of the necessities of life. And of course the list of necessities grew longer and longer as a result of continued contact with European culture.

In such an environment the whole matrix of Indian society was altered. Traditional work roles, family structure, cultural values, all became increasingly anachronistic. The inherited world view of Indian society seemed unsuited to the experienced realities, and individuals found themselves cut adrift between two worlds. By the time the Diefenbaker government turned a serious eye towards northern development at the end of the 1950s Indian society stood perilously close to slipping into oblivion. Because of improving money incomes and a growing number of Ottawa-sponsored welfare safeguards, survival became a matter of individual adaptation to southern Canadian society, and federal institutions were quickly replacing their fading traditional counterparts.

Inuit people, who until the post World War II era had been protected by their isolation, were now also drawn into Euro-Canadian society. Security and resource needs made the Far North a matter of national concern. Indians and Inuits were both encouraged by official policy to settle down in urban settlements and adapt themselves to working in industrial society. Their children were sent to schools to make them proper Canadians. Following World War II the alienation of the traditional resource base and the passing of indigenous economic pursuits has led to a widespread dependence on the welfare state. Although there are some important exceptions, on many reserves the operations of the welfare state is the economic base upon which the native superstructure is founded. In other cases, natives have been forced to participate in non-traditional pursuits of the majority society's economic system. This has been associated with the privatization of many community resources and the stratification of Band members into different economic classes.

The economic leverage inherent in controlling northern forestry, mining, fishing, and, above all, petroleum development, soon became apparent to indigenous northerners. During the last two decades this has served as a major force behind Indian and Inuit political organization and militancy.[17] The outcome of contemporary legal battles over land claims may ultimately be more significant in terms of controlling economic rents than aiding the back-to-the-land movement among Inuits, or Indian attempts to stop hydro development. While this is yet to be seen, it is clear that increasing incomes from resource sales and government transfer payments will continue to produce disheartening results as long as individuals are left to flounder outside the locus of a functioning social group, without legitimated work roles, contemporarily defined social relations, or a credible set of self-guiding institutions.

B. A Framework for Analysis

The above scenario provides only a generalized overview of social and economic changes among indigenous northerners since

European contact. It may be quite misleading in many instances. The starting point of meaningful social impact assessment must be a concrete social and economic history of the people to be affected by proposed development, as suggested in Stage 1 of Table 2. This should go back in time as far as practical, drawing when possible on oral history traditions among the people themselves and making use of whatever scholarly studies may be available. The important thing is not to provide a colourful narrative concerning local personalities and important events, but rather to understand the historical transformations of a people's productive economic activities and the social relations and institutions which have accompanied them. Such history sets the basis for a survey of current conditions. It is only through understanding how things came to the present juncture that a realistic evaluation of a contemporary society can be made.

The *description of current conditions* (2 in Table 2) is meant to provide a detailed sketch of daily life at the present time. It incorporates much of the information traditionally associated with social accounting, but it is much more structured and goes into more depth. Beginning with the way the community earns a living, it addresses itself to the important aspects of economic structure, including the nature of production, the technology used, ownership patterns and markets (when applicable). Dominant social relationships are specified and the prevailing class structure of the community is described. From this follows a description of the distribution of goods and services, including major consumer items such as housing, which has normally taken up the bulk of social and economic impact studies. These characteristics should then be contextualized by indicating the dominant institutions and values within the community, and assessing other crucial social characteristics such as education, health, family stability, etc.

From this fund of information an *evaluation of community vitality* (3 in Table 2) can be made. The purpose of such an evaluation is to determine the extent to which existing productive activities, social relations and institutions provide the basis for ongoing community life. This is an extremely subjective judgment. According to B.R. Blishen, *et al.*, community vitality can be measured along the three continuums of social vitality, economic vitality, and political efficacy.[18] The level of vitality determines how well Indian communities are able to adapt to change, or indeed their ability to turn impacts to their own advantage. Because the measurement of community vitality is extremely subjective, the importance of strong representative community participation becomes paramount, as re-emphasized below. Despite its controversial nature, however, such a determination is absolutely essential because it is from this perspective that a normative framework for judging the impact of proposed developments must be drawn.

Table 2

A FRAMEWORK FOR SOCIAL IMPACT ASSESSMENT

Stage	Objectives and Characteristics
1. Historical Analysis	This first step is meant to provide an understanding of *historical changes* in a community's organization of economic activities, social relations and institutions, and culture. It should draw upon oral history traditions, scholarly analyses, and and available primary and secondary data sources.
2. Description of Current Conditions	Such a description should contain an up-to-date account of the various productive activities and occupations, social stratification and integration mechanisms, level and distribution of goods and services, and the existing institutional structure. It should be based on first-hand knowledge, site visits, survey research, and the use of standard social indicators.
3. Evaluation of Community Vitality	Based on the information and understanding gained in the first two stages, this analysis of a community's health and vitality would analyze the degree to which traditional socioeconomic roles, institutions, and values have been transformed. It would then attempt to assess their continuing success in providing structure and meaning for community life.
4. Alternative Scenarios and Project Appraisal	Alternative images of the future, envisioning no new developments and entirely different approaches to change also need to be considered at this point. Once a decision, in principle, to proceed with a project has been made, a project appraisal should be conducted to consider in iterative increasing detail where and how a particular development proposal would impact community life. Its objective is to understand in specific terms what the development would mean to the community and how the community would probably react to it.
5. Social Impact Statement	As a final output of the impact evaluation process, this written report would provide a clear summary of the considerations and judgments arrived upon. It should be made available in the working languages of all interested parties, and would be meant to serve as a focus of community debate and education.

It is impossible to analyze the effects of changing work opportunities or environmental conditions unless the health and vigour of existing arrangements are confronted in a straightforward manner. A social group which has preserved a healthy traditional economy will react very differently to change, say, than a group which has successfully made the transition into industrial society, or a community which is foundering in social pathologies and institutional decay.

A community with greater political efficacy will be in a better position to bargain with the proponents of resource development projects. The goals which are important to achieve and the problems which are critical to avoid will be different from one situation to the next. It is imperative to know where these strengths and weaknesses lie if substantially rational choices are to be made about a future course of action.

Based on this judgment of community strengths and weaknesses *project appraisal and alternative scenarios* (4 in Table 2) can be undertaken. The essential characteristics of a proposed line of development must be laid out in detail, including the nature of the project, its proportions, timeframe, future requirements, lifespan, etc. Then referring back to Figure 1 (p. 10), a careful analysis should be made of exactly which components of the community's socioeconomic structure are likely to be affected and how. Will fundamental changes occur in the nature and organization of economic production? Are new technologies and patterns of ownership to be introduced? How extensive will such changes be? What will be their probable impact on environmental relations, the technical and social division of labour, social relationships, family structure, the distribution of goods and services?

Of equal importance, what impact, if any, will there be on the community's dominant institutions and cultural values? Will young people be encouraged to follow existing life styles, or will they be socialized into different expectations and behaviour patterns? How will interchange and dependence on other communities be affected? In short, how will the quality of daily life--in terms meaningful to the community--be impacted in the near future and in the longer run. These valuations can only be made with adequate information about the project in question and a forthright judgment concerning current community conditions.

Next, it is desirable to construct at least two alternative scenarios. One should depict possible future events if no specific new development projects are undertaken, and another that assumes radically different development objectives, such as encouraging positive reinforcement and transformation of traditional production methods and economic relationships. Such an exercise in futurology must also include a credible assessment of the probability of maintaining the status quo, and the likelihood of initiating other, alternative lines of development. These

evaluations must be equally as hardheaded and politically astute as the analysis of the immediate project under consideration.

The preceding four steps (i.e., historical analysis, description of current conditions, evaluation of community vitality, and project appraisal and alternative scenarios) provide the basis for preparation of a publishable *social impact statement* (5 in Table 2). This report should be written in layman's vocabulary and made available in the languages of the various parties concerned. It should be considered a document in the public realm. Care should be taken to make it as succinct as possible, and every effort should be made to lay out its basic assumptions, information sources, and the identity of the major contributors. A specific section should be set aside for presenting dissenting views.

The social impact statement should be published and disseminated as widely as possible. This means making it available to all interested parties, and attempting to establish it as a vehicle for community education and debate. Otherwise the entire undertaking is stillborn--a waste of time, effort and money for everyone honestly concerned with planned community development in the Canadian North.

V. The Evaluation Process and Community Participation

A social impact assessment as discussed here requires many sensitive subjective judgments. A detailed knowledge of local circumstances and history is imperative. And there is no means by which to lend "scientific" accuracy to the many choices and predictions which must be made. It seems only logical then, on practical as well as ethical grounds, that people living in the community immediately affected by the decisions to be made must be intimately involved. This is doubly true in northern Canada, where most development projects are initiated from outside the region and the majority of people living in the area share a different history than the typical promoters of the projects.

Successful social impact assessment, which acts as a focus of public debate and education, can *best be initiated and directed by the local community itself.* To be meaningful it must actively involve all other interested parties--developers, provincial and federal officials--but it should legitimately be native northerners who normally take the lead if they are to be satisfied with the results. Northern people can probably only hope to realize such a bottom-up social impact procedure through political organization and action. They must be able to bring pressure to bear on government to demand a pivotal role in the whole planning process, and then they must be willing to take much of the initiative and provide much of the money and technical expertise *themselves.* This can realistically be accomplished through the work of existing organizations like COPE (The Committee for Original

Peoples' Entitlement), and formation of new, locally-controlled regional planning bodies which could provide the necessary local expertise. Even if such planning groups begin life in informal opinion-making organizations, they can soon come to play a crucial role in official developmental decision making.

Once the necessary institutional structure is in place, social impact assessment should be organized as a learning process, where the various participants representing different interests and bringing different knowledge to the debate can argue their cases in full public view. The whole procedure, including staff work, should be done in or near the locality in question. When a development proposal comes to the attention of the regional planning council it should begin the evaluation procedure with a widely advertised public meeting at which the major actors and important local opinion leaders are properly represented. This should be a forum for laying out the essential characteristics of the proposed project. After a thorough public airing has been had to the satisfaction of all parties, a special impact assessment panel should be appointed. This body would probably also be responsible for questions of environmental impact as well. It should be composed of representatives of the different parties to the proceedings. With the help of the regional planning council's technical staff, and whatever help might be needed from government and industry personnel, the panel would be charged with carrying out the necessary evaluation. Actual procedures would vary from place to place and occasion to occasion, but two things would be essential.

First, active public involvement must not stop after the first meeting or series of meetings. Individuals living within the area will have important contributions to make, both in terms of information and valuations, at many critical junctures. If people are encouraged to participate knowing their opinions count for something, at least some active core of local residents will become involved. Experience in Canada and elsewhere has shown that under the right conditions these active participants tend to be drawn from across class, age and sex lines.

Secondly, in some general form, all the five steps listed in Table 2 and discussed above must be carried through seriously. There may be a tendency to treat the historical analysis, community evaluation and alternative scenario building in a rather perfunctory manner. In each instance this would be a grave mistake, for without a real understanding of past and current conditions and a reasonable grasp of available options, meaningful social impact assessment simply cannot be performed.

This brings us to one final point. Social impact assessment is the most passive planning strategy which can be adopted by native northerners to intervene in the development process. If carried out properly, it takes a step beyond ad hoc regulation and

provides some idea of the development alternatives which might be initiated in a particular area. At best, however, this is only a kind of *reactive*-planning. It attempts to limit the bad and hint towards the good. In the long run, if not the immediate future, though, such a strategy is bound for failure. If an *alternative development* is desired by the people who live in the North then they must develop it themselves. This will require an active, energetic process of northern self-management and planning--the undoubted intermediate objective of much northern political activity and organization.

ACKNOWLEDGEMENT

The authors would like to thank Peter Boothroyd and William Rees for their comments on earlier versions of this paper. We would also like to acknowledge Margaret Gibson's assistance in preparation of this revision.

NOTES

1 The Resource Development Impact Branch of the Indian Affairs Program has recently completed a "Catalogue of Projects and Environmental Hazards Impacting Native Populations." Of the 108 listings, at least half are in northern areas.

For the purposes of this paper, *Indians* are any persons who would define themselves as members of the North American aboriginal race, whether or not they have official Indian "status" under the Canadian Indian Act. Inuit is the self-described name of those who in common parlance have been called "Eskimos" (which is a derogatory term meaning fish eaters, originally applied by North American Indians), and are a Mongoloid race indigenous not only to North American but also Greenland and N.E. Siberia.

2 See for instance, T.M.R. Berger, *Northern Frontier, Northern Homeland.* The Report of the Mackenzie Pipeline Inquiry. Ottawa: Supply and Services Canada, 1977; K.M. Lysyk, et al., *Alaska Highway Pipeline Inquiry.* Ottawa: Supply and Services Canada; W.W. Winston, *Forgotten Land, Forgotten People.* A report on the Alaska Highway Gas Pipeline Hearings in British Columbia. Ottawa, Calgary: Northern Pipeline Agency, 1980; R.T. Bowles, ed., *Little Communities and Big Industries.* Toronto: Butterworths, 1982; *Proceedings* of the Workshop on SIA, Resource Development and Native Peoples. Cornell University, Ithaca, New York, August 19-20, 1980.

3 The Berger Inquiry during the mid-1970s was a highly visible social impact assessment analyzing the probable socioeconomic

effects on northern people of building the Mackenzie Valley pipeline from the Beaufort Sea in the Northwest Territories to southern Canada. Thomas Berger, a Canadian Supreme Court justice, went far beyond his minimum legal mandate, involving northern people in a broad public discussion of northern development goals. See our further comments below and Berger (1977).

4 P. Boothroyd provides a useful list of 21 social impact categories in "Issues in Social Impact Assessment," *Plan Canada,* 18 (June 1978): 118-134.

5 J. McEnvoy and T. Dietz, *Handbook for Environmental Planning: The Social Consequences of Environmental Change.* New York: John Wiley & Sons, 1977, p. 53.

6 See, S.J. Fitzsimmons, et al., *Social Assessment Manual: A Guide to Preparation of the Social Well Being Account.* Denver, CO: Bureau of Reclamation, 1975.

7 Since EARP was first introduced in 1973 it has gone through two fairly significant revisions in 1977 and 1984 respectively. The latest Environmental Assessment and Review Process regulation is SOR/84-84-467, pursuant to *Government Organization Act, 1979,* S.C. 1978-79 C.13., *Canada Gazette,* July 11, 1984.

8 Federal Environmental Assessment and Review Office, *Federal Environmental Assessment and Review Process: Guide for Environmental Screening.* Ottawa: Minister of Supply and Services, 1978.

9 The earliest national accounts measures were proposed by C. Clark, *National Income and Outlay,* London: MacMillan, 1938; and S. Kuznets, *National Income and Its Composition 1919-1938,* New York: National Bureau of Economic Research, 1941. The "regional accounting" adaptation is perhaps best represented in W.Z. Hirsch, ed., *Elements of Regional Accounts,* Baltimore: Johns Hopkins University Press, 1964.

10 See, W. Ryan, *Blaming the Victim.* New York: Vintage Books, 1971.

11 R.T. Bowles, *Social Impact Assessment in Small Canadian Communities: An Integrated Review of Selected Literature.* Peterborough, Ontario: Department of Sociology, Trent University, 1980, pp. 36-7.

12 As Bowles notes, " . . . studies which build, in a cumulative manner, on previous work (as opposed to simply noting prior studies) or which rigorously analyze the impact of development on hinterland communities through all significant phases seem to be few indeed" *op. cit.,* p. 3.

13 K.S. Wood, *An Approach to Social Reporting in the Canadian North.* Halifax, Nova Scotia: Institute of Public Affairs, Dalhousie University, 1974, p. 38.

14 L.T. D'Amore and S. Rittenberg, "Social Impact Assessment: A State of the Art Review," *Urban Forum,* 3 (June 1978): 8-31.

15 The general interpretation presented here is drawn from L.H. Morgan, *Ancient Society,* London: Macmillan, 1877; F. Engels, *The Origin of the Family, Private Property and State,* London: 1884; V. Gordon Child, *Man Makes Himself,* New York: Mentor, 1951; M. Harris, *Cannibals and Kings, The Origins of Culture,*

New York: Vintage Books, 1978; and M. Harris, *Cultural Materialism,* New York: Random House, 1979. For a critical but analogous view, see, S. Amin, *Nations, Class and Power,* London: Heinemann, 1980.

16 Dixon Thompson, "The Frontier Defined", a paper presented to the International Federation of Landscape Architects XIXth World Congress, identifies problems that arise as a result of this definition, given the two value systems of northern and southern cultures.

17 George Mandel, *The Land is Our Culture.* Submission by the Union of British Columbia Indian Chiefs to the West Coast Oil Ports Inquiry, December 14, 1977.
"The claim in general is not to the land or water, but to the resource base traditionally exploited by tribal groups. The economic significance of the claim, I suggest, lies in the fact that there has been a gradual transfer of resources from Indian owners to non-Indian settlers . . . " (Sanders, Vol. 16, p. 2655).

18 B.R. Blishen, et al., *Socio-Economic Impact Model for Northern Development.* Ottawa: Department of Indian and Northern Affairs, 1977; see also A.M. Cunningham, "Community Economic Development Planning by Northern Communities: Strategies and Opportunities." Paper presented to the Western Regional Science Conference, San Diego, California, February 27-March 4, 1985.