

Community Socio-Economic Development From a Plains Indian Perspective: A Proposed Social Indicator System and Planning Tool

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Introduction

In mid-1989 representatives of both the federal government and First Nations gathered near Calgary for the announcement of a new initiative in the area of Aboriginal economic development. The Canadian Aboriginal Economic Development Strategy, or CAEDS, was considered an important advance in Aboriginal economic programming over past initiatives, such as the 1983 Native Economic Development Program (which expired in 1989) and various other ongoing Indian and Northern Affairs development and financing programs. It promised to provide Indian peoples more flexibility, more money (\$867 million over five years) and more control with respect to financial resources and decision-making. The initiative also implied a definite change in the role of the federal government—particularly the Indian and Northern Affairs Canada department (INAC)—which, according to the initiative's scenario, has to remove itself even more from any direct involvement in program delivery than in the past (Government of Canada 1989).

INAC's new role is to assist First Nations' economic development organizations to develop and expand the capacity to direct and deliver development programs and services themselves, things long controlled by INAC. The department's old focus on control, structure, rules and procedures will have to be replaced with an emphasis on collaboration, learning, networking and innovation. CAEDS calls for INAC to change from being a direct supplier of services into an "assistant" for Indian communities; the focus of economic development thus has to shift from being funder-oriented to being community-oriented.

For all intents and purposes, then, the federal government's initiative has returned the responsibility for community economic development planning directly onto the shoulders of Native communities. This initiative was taken partly in recognition of the fact that increased funding is not always a solution to what is not always necessarily a funding shortage. The initiative was also taken in view of the fact that economic

development policies originating from outside Indian communities have seldom made the best use of locally available human and natural resources (Hanson 1985, p. 62).¹

In response to CAEDS and the slow transformation of INAC, Indian communities are becoming, of necessity, increasingly involved in the process of "capacity-building" to plan and formulate their own strategies for economic development. According to Hanson (1985, p. 41), "the strategy and programs to serve the needs of the Indian people/Native people ... is [sic] relatively simple because most, if not all, elements are already in place." This is not to suggest that their implementation is simple, but rather that the attitudes and interests are, if Hanson's optimism is justified (and notwithstanding significant internal divisions of interest and concerns), "in place." Hanson suggests (p. 49) that, more than anything else, the needs of Indian/Native peoples are "for [an] opportunity to *revitalize* and *strengthen* the social, cultural and economic aspects of a way of life which are at the very core of their continuing existence as a collectivity" (added emphasis).

Put simply, there is a need to revitalize the Native community, rather than to integrate Native society into mainstream society or to further intensify its dependency. The related ideas of decolonization and alternative economic development—"reversing the theft of human history," as it were—have been thoroughly explored in relation to Aboriginal as well as rural-based communities over the past several years (Puxley 1977; Watkins 1977; Blishen et al. 1979; Hanson 1985; Ponting 1986; Ross and Usher 1986; Robinson and Ghostkeeper 1987, 1988; Usher 1989). The consensus is that there is indeed something there to revitalize.

Notwithstanding INAC's slow devolution and its gradual withdrawal from what is perceived by some as its more traditional role, in late 1989 and early 1990 Indian and Northern Affairs Canada initiated the Development Indicators Project (DIP).² One of the purposes of the DIP as envisioned by the department was to develop a particular type of socio-economic planning tool—the socio-economic development indicator—that would support, but not interfere with, First Nations communities' capacity and ability to manage their own development and, in the process, to revitalize the social and cultural foundations of community life.

The over-all significance of development indicators for First Nations communities is three-fold. First, it might be suggested that the cornerstone for Indian self-government is the gathering, processing and use of timely information on development trends and conditions. Second, given the globalization of the economy, the necessary openness of Native communities to the rest of the world and the complexity of the

interrelationships between communities and their environments, there is a need for a more sophisticated information system that serves to assess the internal and external forces that impact on a community's and a people's well-being. Third, and finally, economic development is really *human* development; socio-economic development indicators must therefore be Native value-based and must reflect a community's social and cultural life in a holistic sense. This article describes the Development Indicators Project and details an indicator system that the author developed under the auspices of the DIP.

The Rationale for the Project

The idea behind the Development Indicators Project was to develop a tool that Indian communities could use in the process of managing their own socio-economic and cultural revitalization. Revitalization is defined in the dictionary as "to give new life or vigor to [something]," or to "revive" [something]; reference here can be made to the existing values, structures, organizations and certain ways of doing things in the Native community. "Existing" might, optimistically, refer to traditional systems of governance, subsistence, dispute resolution, family and kinship life, spirituality and so forth that might have survived culture contact and efforts at acculturation. "Existing" might, more realistically, refer to the structures that historically have been imposed on Natives peoples and that are the outcome of an adaptive process that has taken place since contact times.

In the course of Native-EuroCanadian relations, traditional systems have been replaced with foreign-imposed ones, or they have been eroded to the point where they are in danger of being lost altogether. Native political structures, Native languages, systems of religious beliefs and practices—including the family and kinship structure—have suffered both oppression as well as transformations. Part of the revitalization process may therefore involve reconstructing and reviving traditional ways of doing things, or at the very least, the process can involve gaining control over, modifying or imbuing existing imposed structures with a sense of local ownership and local values.

The key to successful revitalization/development lies in a unified (holistic) and dynamic approach that must take into account the social, cultural, political as well as the environmental/ecological aspects of Native community life—not just the "economic" aspect. One of the characteristics that distinguishes Aboriginal development from mainstream community development as the concept is usually defined in the literature is the significance of a non-market or subsistence orientation (Coffey and Polese, 1985; Hanson 1985; Four Worlds Development Project 1985; Robinson and Ghostkeeper 1987, 1988; Usher 1989). This unified

approach thus includes local authority over economic decisions; the revival of traditional community structures; the creation of an economic mix that may include a combination of a subsistence, industrial, market and retail orientation; cultural enrichment; and even the promotion of greater ecological harmony.

The idea of holistic development further includes all elements of human life that contribute to human welfare, such as nutrition, health, shelter, work and employment, the physical environment and the socio-cultural environment. Participation in decision-making processes, a sense of human dignity, of belonging—anything pertaining to the "style" or pattern of development that is appropriate to Native people's values and circumstances—must likewise be part of a development strategy. In short, a holistic and unified approach to community development, or revitalization, calls for a renewed focus on people, not solely on the "product" or "project."

The rationale for generating Indian-based socio-economic development indicators is based on the presumption that there are other kinds of development that are not based solely on the values and norms of an industrial society and on a market economy (see the essays in Watkins 1977). There is a serious questioning of why an industrial and market-based economy that is the basis for development should entail, among some of its consequences, environmental degradation, the squandering of non-renewable resources, the diminution of human dignity and the alienation of the individual from social and cultural life. Thomas Berger (1977, 1985), for example, has dealt in detail with the effects of industrial development on Native cultures with strong continuing ties to the land-based or bush economy. Berger (1977, p. 123) argues that

It is self-deception to believe that large-scale industrial development would end unemployment and underemployment of Native people in the North. In the first place, we have always overestimated the extent to which Native people are unemployed and underemployed by under-stating their continued reliance on the land. Secondly, we have never fully recognized that industrial development has, in itself, contributed to social, economic, and geographic dislocation among Native people.

Despite the fact that Berger's arguments were developed in a northern Canadian context, I believe they are nevertheless applicable to other regions of the country that reflect a hinterland/metropolis or a dominant/subordinate dependency relationship. Berger (1985) continued developing ideas for the promotion of regional diversification by talking

about strengthening the renewable resource sector. In the promotion of traditional strengths, Berger (1985, p. 55) wrote that the economy of subsistence lies at the heart of Native culture and "enables the Native peoples to feel at one with their ancestors, at home in the present, confident of the future."

Community revitalization/development could, realistically, be considered in the context of both a hinterland economic adaptation and a so-called multi-sectoral approach. In place of the dependency that accompanies external cash transfers to local Indian (and even non-Native) economies, for example, options for development should be balanced, pragmatic and locally controlled. One flexible and adaptable option may be a revitalized domestic economy, involving home or local production and household self-reliance, in combination with occupations that are based on the rhythm of a seasonal lifestyle. Unfortunately, "mainstream" socio-economic development has always regarded these factors as barriers, yet it might be precisely this option that could be the most viable for many Indian communities in the face of their continued marginalization from metropolitan centres and relative geographical (and social) isolation (Usher 1989).

Another option, in combination with the previous one, might be a mixed and multi-sectoral economic base, a kind of hybrid economy if you will. Such an economic base might consist of mixing primary resource extraction, cultural industries, light manufacturing and service industries into one sustainable economy. Such a "mixture" would include the features of a subsistence/bush as well as an industrial/market-based economy. Going further, Robinson and Ghostkeeper (1987, 1988) have argued that there may even be emerging structural parallels between a traditional bush economy and a post-industrial, or "next," economy (one that focuses on information and services). Features shared by both types of economy might be exploited by (Native) entrepreneurs, and become the basis for community development that does not have to depend on specialization, competition, hierarchy or environmental degradation for success and viability.

Given the kinds of economic development that Native (Indian or otherwise) communities might opt for, conventional socio-economic indicators based solely on an industrial and market model need to be revised or, as appropriate, applied in a different way. There is clearly an absence of a framework suited to Native community needs. A new one may need to be created that will be more effective in the context of Native community life and that would fit with development choices based on local concerns.

INAC's Development Indicators Project has a number of goals: (1) to

identify and generate a list of Indian value-based indicators that could be used by Indian peoples themselves to collect information on community life from a holistic perspective; (2) to test or validate this list of indicators in several communities (by way of workshops) in order to see if they adequately reflect the value systems of Indian communities, as well as to look for consistent themes emerging across communities; and finally, (3) to design a "template," or *socio-economic indicator system*, based on the findings and meaningful to community members, that could be used to describe a community's socio-economic profile. This template or indicator system would be used by economic development officers, band councillors and others as a planning tool to gather and organize information that can support comprehensive community-based planning.

The process was begun, at the behest of INAC and with INAC and other funding, when an organization in Edmonton called the First Nations Resource Council organized a symposium in the spring of 1990.³ Entitled "Socio-Economic/Quality of Life Indicators Symposium," the purpose was to talk about social and economic development from a quality of life perspective (First Nations Resource Council 1990). The meeting was attended by Indian and Métis peoples, social scientists, community development practitioners and several INAC officials. It was recognized by the participants that any sort of planning and development that is not imposed from the outside, but that comes from within, has ultimately to be guided by a people's values and vision of what they consider enabling (the strengths) and constraining (the weaknesses) in the community-building and development process.

The idea was to generate a list of community development indicators that could identify and somehow "measure" different aspects of a quality of life that would be meaningful in the context of Indian communities. Efforts to measure community and Native development have often meant assessing social dependency or economic disparity. Symposium participants recognized that community development is an evolutionary, dynamic process that must be understood in both its quantitative and qualitative dimensions, something that "snapshot" statistics do not capture very well. The consensus that emerged from the meeting was that there is a need to extend measures of development beyond traditional (i.e., mainstream) indicators of disparity. As well, it was understood that the needs and specific requirements of any Aboriginal (Indian or otherwise) community means that the tools traditionally used for monitoring community development may not suffice. Aboriginal development is a *particular* form of community development which requires its own unique framework of analysis and its own set of measurement tools.

In July 1990, in the capacity of research consultant hired by the First

Nations Resource Council, I organized a workshop (funded by INAC) in Edmonton, the purpose of which was a follow-up and elaboration of what emerged from the May symposium. Some of the previous symposium participants were selected because of their familiarity with and expertise on the topic. Collectively, the participants of the workshop came to form a "steering committee," which consulted at different times during the course of the project.

An important goal of the workshop was to decide upon a framework that would set out key areas of concern directly relevant to any discussion of Indian community quality of life, the development/revitalization process and the connection between the two. A significant portion of workshop time was devoted to an involved discussion of the relation between values and community development. It was at this workshop, too, that it was agreed that the now Alberta-based project could be called the "Revitalization Indicators" project, since it was felt that the term "development" seemed to somehow imply, true or not, that Indian communities have to be reorganized according to some external set of "correct" values and assumptions, or that successful development can only be initiated from outside the community. The next section discusses the framework that was agreed upon.

Towards an Indian Value-Based Indicator System

Put simply, indicators are combined, interpreted and refined sets of statistics (Land 1971; Land and Spilerman 1975; Rossi and Gilmartin 1980). This type of information can provide a glimpse of the "state" or condition of a community, region, country etc. at a point in time (for case studies of their application, see Corporation for Enterprise Development 1987; Lamontagne and Tremblay 1989; Lane 1989). *Development* indicators, more specifically, are statistics that measure socio-economic conditions and changes over time for various segments of a population, an entire community, a region or a country (Hicks et al. 1979). Socio-economic conditions means both the external ("objective," social, economic, physical) and the internal ("subjective," perceptual) contexts of human existence.

Indicators are also an important means by which information on the relative success or failure of individual development projects, programs and policies can be gathered (Carley 1981; Lane 1989; Miles 1985). The impact of development projects on the emotional, spiritual and mental health of communities and its members can likewise be measured, assessed and monitored by the use of socio-economic indicators (Campbell et al. 1976; Kennedy et al. 1978). Thus, the information that is collected can be used to plan, influence and inform the decision making process with

regards to development planning even on a national scale (UNESCO 1981, 1984). Still, information on the over-all process of community revitalization, or holistic development, and resulting changes (both positive and negative) in a people's emotional, spiritual and mental well-being is by no means easy to collect (see Brodhead 1990, pp. 4-15, for a useful review of the literature and methodology of development indicator research).

From the point of view of Indian communities, however, many existing "mainstream" indicators fall short of being effective data-gathering tools. Mainstream indicators have often been developed in a predominantly urban and industrial context. Because they are externally created and imposed, they are also culturally biased. Quite often they are economic (disparity) indicators and so are very limited in their ability to help gather data related to the social, cultural and spiritual aspects of community life. Many indicators may either not be valid in Native communities or they appeal to standards that are inappropriate (PJS Geach and Associates 1985; Blishen et al. 1979). The study by Blishen et al., (1979) on socio-economic impact modelling suggests it is essential to ensure that the relevant variables of a model of Aboriginal development, rather than some "alien criteria," are selected. Indeed, data such as the number of libraries, television sets or telephones per household, crime rates, social assistance recipients, suicides, infant mortalities or unemployment and education levels per unit population give, at best, a one-dimensional view of life.

As desirable as it may be to increase or decrease these numbers, the "typical" indicators listed above do not always allow for a holistic measure or assessment of individual and/or community quality of life. Not only is it necessary to use these numbers in different ways, but the reasons underlying the statistics and the behaviours should themselves be identified and are information that should become a part of a quality of life assessment. Thus, like "appropriate technology," appropriate revitalization-development indicators (i.e., those that are Indian value-based) should be identified and validated at the community level and should, ideally, reflect both the underlying value system and the holistic nature of a community's social and cultural life.⁴

An outcome of the First Nations Resource Council's May symposium—which was confirmed by the steering committee at my July workshop—was agreement that there exists a mutually reinforcing set of relationships between development, values and a people's quality of life, or wellness. The question was how to articulate that set of relationships. A framework based on the Plains Indian "medicine wheel" (or sacred hoop) was adopted by participants, and became the basis for my discussions and workshops in several Indian communities (see also Four

Worlds Development Project 1985, pp. 1-18, 24ff; 1988, p. 22ff; n.d., pp. 3-7, 12ff). Four areas of personal and community life were defined, corresponding to the four quadrants of the medicine wheel (First Nations Resource Council 1990, pp. vi-viii; see Figure 1 and Table 1 below).

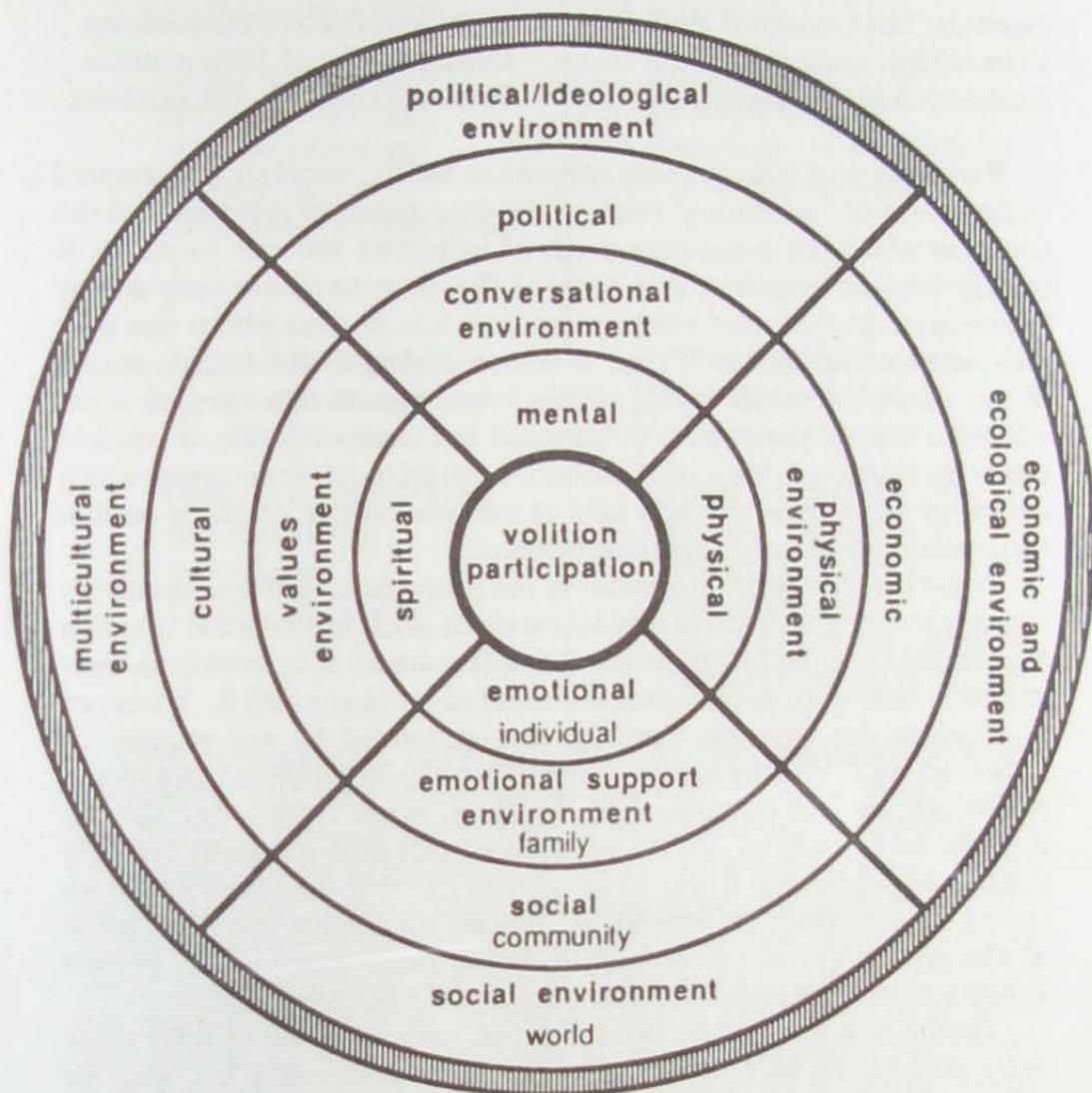


Figure 1. Integrated and Holistic Human and Community Development: The Hoop of Life, or Medicine Wheel [Four Worlds Development Project n.d., p. 12]

Table 1. Four Areas of Human and Community Development
Derived from the Medicine Wheel Concept

4 Areas of Personal and Community Life	4 Quadrants of Medicine Wheel
Family Stability/Community Support Psychological/Emotional Well-Being Cultural/Spirituality Economy/Self-Determination	Mental/Political Potentialities Emotional/Social Potentialities Cultural/Spiritual Potentialities Physical/Economic Potentialities

Participants of both the May symposium and July workshop attempted to find ways of "measuring" each of the four areas, or quadrants of the medicine wheel, by generating pools of indicators relevant to each. It quickly became apparent that each of the four areas are very closely interrelated, to the point where sometimes it is unclear where one area ends and another begins. (This, of course, highlights the holistic nature of the wheel and of life itself.) While it was agreed that the four areas offered a holistic perspective of personal and community life, it was less clear—particularly in view of the extent of overlap between areas—which indicators would yield the best kind of information that could be used in socio-economic planning and development.

While the framework suggested by the symposium participants and the author's steering committee was an excellent start, in the sense that it is meaningful from the Indian point of view (because it is derived from their culture), there were nevertheless a number of problems with it. It was not at all clear, for example, that the data generated by any number of indicators could directly measure something like "spirituality," "emotional well-being" or "self-determination."⁵ These areas (which can also be referred to as "indices," in the parlance of indicator research) are very difficult to define, and it should be pointed out that indicators are by no means a replacement for definitions. Indeed, no attempt was really made at the symposium and workshop to define these four indices, beyond listing a number of indicators that purported to describe them.

Thus, it was felt that an important first step would be to offer some definitions of the four indices of personal and community life, with no attempt made to actually "measure" them. To ensure the validity of the indices, part of this crucial first step had to be the participation of communities and their members in the definition process itself. Accordingly, some of the definitions that were arrived at during (validation) workshops and discussions held in a number of Indian communities in Alberta are as follows (see Table 2):

Table 2. Community-Based Definitions of the Four Indices of Personal and Community Development

Family Stability & Community Supports [Mental/Political] Household integration Economic viability Member cohesion Kinship loyalty Cross-kinship co-operation	Culture/Spirituality [Cultural/Spiritual] Pride in one's culture Sense of Identity Knowledge of tradition and of traditional values
[Emotional/Social] Psychological/Emotional Well-being General mental health Self-confidence Self-esteem Positive self-image	[Physical/Economic] Economy/Self- Determination Control over one's own destiny and resources Creating/managing own opportunities Solving one's own problems Personal/community control

Certain indicators were suggested by the symposium/workshop participants that they thought described each of these indices. They included such things as the number of monogamous relationships, levels of trust and sharing within and between families and community members, the number and kinds of clubs and associations, scholastic achievement levels, leisure activities, number and kinds of cultural events, extent and use of Indian languages, the role of elders and so forth. The difficulty that the participants faced, of course, was that any number of indicators they thought up seemed applicable across several indices, while at the same time the pool of indicators never seemed to be comprehensive enough. Thus, a more disciplined framework was still lacking whereby it would be possible to see how different aspects of social and community life would be affected—positively and negatively—by economic development. The question remained: what do things like the "number of monogamous relationships" or "extent and use of Indian languages" actually indicate or mean?

One of the outcomes of my community workshops was the proposal that it was best to identify a social indicator system that could be used to generate information that would gauge the extent to which economic development *enhances* or *revitalizes* each of the indices, for example, Family Stability or Spirituality—or whether development detracts from them. What is important, then, is not so much variables or indicators that define the indices, but rather how an organized system of variables and accompanying indicators could be used to somehow evaluate or anticipate the impact of development projects, programs, practices and policies on each of the four indices of personal and community life from the point of view of individuals and from the perspective of the community (see Figure 2 below).

The logic of the proposed social indicator system would be as follows: How, as a result of an anticipated or actual economic development project or program, might Family Stability (one of four *indices*) be impacted upon by accompanying changes in such *variables* (or social concerns; total of ten) as Demographics, Work and Employment, Housing etc., as measured by such *indicators* as male/female life expectancy, the presence of volunteer organizations, unemployment rates, levels of formal education, traditional learning opportunities, role of elders, persons per household, etc.? The same could be asked about Psychological/Emotional Well-Being: What kind of an effect will changes in community demographics, income and wealth distribution, or in the environment (or any other variable), as a result of an anticipated or actual development/revitalization project, have on a person's mental health, self-confidence, or self-esteem? Will the project enhance these or detract from them, and if so, in what ways?

That socio-economic development will have an effect, in one way or another, on community demographics, the health and nutrition of community members, housing and so forth, is obvious. Ideally, it should be possible for an Indian community to "plan" and "control" the kinds of changes it desires, such as those that are compatible with the values of its people, by monitoring or anticipating change in the particular indicators believed to have an effect on the four aspects of individual and community life, namely family stability, emotional well-being, spirituality or self-determination. Community members themselves will determine, in whatever ways are appropriate and by whatever process they agree upon, those variables and related indicators that they feel are best associated with promoting or contributing to the things they value most, such as family stability or emotional well-being, in their own community setting.

INDICES

Family Stability/Community Supports
Culture/Spirituality
Psychological/Emotional Well-Being
Economy/Self-Determination



VARIABLES

Demographics
Social and Cultural Groups
Learning Opportunities
Work and Employment
Income and Wealth Distribution
Health, Safety and Nutrition
Housing
Environment and Resources
Leisure, Culture and Use of Time
Conflict and Dispute Resolution



INDICATORS

List of indicators associated with each variable above



DEVELOPMENT PROJECTS & PROGRAMS

Figure 2. A Proposed Social Indicator System

The following is the list of ten variables and their accompanying indicators:

1. **Demographics**
 - male/female ratio
 - age structure
 - infant mortality
 - male/female life expectancy
 - death rate
 - disability
 - causes of death
 - household type
2. **Social & Cultural Groups**
 - clubs and associations
 - interest groups
 - degree of involvement in group (cross-kinship) activities
 - daycare
 - volunteer groups for the elderly
 - youth groups
 - organized sports/games
3. **Learning Opportunities**
 - available education services
 - level of mainstream education
 - literacy rate
 - school completion rate
 - use of language
 - role of elders
 - availability of teachers
 - mainstream vs. traditional learning
 - availability of library/books
4. **Work and Employment**
 - types of wage employment
 - seasonal vs. regular work
 - locally-owned shops and businesses
 - creating/managing own employment
 - employment of community members
 - unemployment rate
 - unemployment spell
 - kinds of subsistence work
5. **Income & Wealth**
 - Distribution**
 - income growth
 - band taxation rate
 - % social assistance recipients
 - time spent on assistance
 - loans/assets ratio
 - investment income per capita
 - transfer payment (amount/kind)
 - earned income levels
 - barter system?
6. **Health, Safety & Nutrition**
 - violent crimes
 - number of suicides
 - alcohol abuse
 - levels and causes of disability
 - accidents and causes
 - food/water quality
 - number of smokers
 - children fully immunized?
 - cases of cardiovascular disease
 - cases of anxiety and depression
 - prescription drug use
 - incidence of hospitalizations

7. Housing

- # of homeless families
- dwelling standards
- availability of water/electricity
- # of owners vs. renters
- # of persons per house/
household
- # of housing starts and finishes
- \$\$ spent on housing/renovations
- inside/outside toilets

8. Environment and Resources

- noise levels
- smells and odours
- levels of cleanliness
- sanitation facilities
- water quality
- waste management

**9. Leisure, Culture
& Use of Time**

- use of language
- ceremonies and cultural events
- feelings of loneliness
- role of elders
- craft production for domestic
use or for sale
- cultural/recreational facilities

**10. Conflict and Dispute
Resolution**

- violent crimes
- crime rate
- incidence of vandalism
- incidence of child/sexual abuse
- # of incarcerations
- kinds/levels of substance abuse
- police or peacekeepers
- dispute settlement forum or
techniques
- traditional modes of discipline
- role of elders

Appendix 1, at the end of this article, shows how the indices, variables and indicators can be set up as a planning tool. Also shown are various data sources from which important information and statistics can be obtained, as well as some data collection methods that can be used to gather and compile information.

As far as the indicators, or data items, are concerned, they can be further disaggregated according to the kind of information that is sought and the use to which it might be put. Disaggregations can be as "coarse" or as "fine" in scale as circumstances allow or require. Age structure as an indicator within the variable "demographics," for example, can have as many or as few year-intervals as necessary; household type (demographics), literacy rate (learning opportunities), types of employment (work and employment) etc. might be similarly disaggregated to fit local circumstances and to suit local needs. The number of indicators within each variable can, of course, be increased, decreased, prioritized or left out, and new ones can be added according to the goals, priorities and

requirements of community members. It should be noted here that many of the indicators, or data items, listed above, were actually suggested by the participants at the community validation workshops that I conducted. Both "mainstream" as well as "traditional" data items were included. Mainstream indicators can, of course, be interpreted according to Native Indian values, and so need not be accepted without question—nor be rejected simply because they are mainstream.

Discussion

The ten variables were adapted in part from social reporting or accounting systems used in both the United Kingdom and in the United States (Carley 1981, pp. 114-20). In those systems, variables (or areas of social concern) are referred to as programmatic divisions. The information generated by both systems are strictly descriptive and there are no attempts to explain how or why the conditions described came about; an argument can be made that they are therefore, by definition, not really social indicators. Their primary usefulness, however, lies in their attempt to delineate areas of social life that are of concern to citizens, interest groups, business people, educators and elected officials/policymakers. In providing descriptive statistics they therefore provide background information for a *social indicator system*. By this is meant a "group of social indicators organized around component parts of the social system" (Carley 1981, p. 47). According to Carley, the term usually implies consideration of a number of the diverse parts, or domains, that make up individual as well as community well-being.

The key, then, is that any given social indicator system must have a determined structure for the information derived from this system to be of any use. Social indicator systems can be organized along a number of different lines (Miles 1985, pp. 114ff). For example, a system can be organized programmatically on the basis of geography (national, regional, local), institutional arrangements of society (housing, health services, law, transportation, education), agency, program, or service type (welfare, housing, employment, education), and even on the basis of an individual's life-cycle (learning, working, retirement). None of these is necessarily mutually exclusive, of course.

One method of structuring a social indicator system is to work from the general to the specific, that is, to identify community or social goals, refine them to generate more specific objectives, and eventually to arrive at some indicators of the achievement of that goal (called the "goal-to-indicator" system; UNESCO 1981, 1984; Carley 1981, p. 54; this method was also favoured by those community members who participated in my validation workshops). Here, there is an explicit internal logical

consistency in the process of indicator development. The logical structure means that any particular indicator is related back to some goal or objective by the members of the community themselves. The making of it "explicit" is clearly valuable for several reasons. First, it facilitates the building of some sort of causal models between goals and indicators. Secondly, and perhaps most importantly from the perspective of the Indian community, it brings to the fore the value system of community members who themselves are actively structuring the system. It is a very good way of ensuring that the values of the community are articulated and reflected in the indicator system; it is also a good way of ensuring the participation of community members in this process.

It is suggested that the logical structure between the four indices, the ten variables and their accompanying indicators, as set out above, qualifies as a social indicator system as defined by social indicator researchers (e.g., Rossi and Gilmartin 1980). In contrast with existing socio-economic indicator models developed in the context of Indian development planning (e.g., PJS Geach and Associates 1985), however, the system advocated here is indeed "organized around component parts of the social system." Furthermore, I proposed using a goal-to-indicator system, (loosely) basing this structuring on the OECD (Organization for Economic Co-Operation and Development) model (OECD 1973, 1974, 1976, 1982). The OECD, which is comprised of twenty-four western (first world) member countries, has developed a program intended to guide member governments in the preparation of social indicators.

Built on several years of developmental work, the model is comprised of eight goal areas ("indices"), disaggregated into twenty-four fundamental social concerns ("variables") and accompanied by a total of thirty-three social indicators. The basic starting point of the program was the identification of goal areas and social concerns related to individual and community well-being. It was subsequently shown that the components of well-being were similar across space (national boundaries) as well as over time. While I did not adopt the OECD model in its entirety, I would like to argue—following OECD logic—that the system of four indices and ten variables is "universally" applicable across a range of communities dissimilar in economic prosperity, geography and population size. I would like to suggest that, despite expected differences in the weighting and ordering of indicators within variables (reflecting different value orientations, priorities, etc.), the system of variables and indices themselves should be applicable across different Indian communities.

Despite some reservations about the applicability of the OECD model with respect to interpretation, comparability and applicability in the context of Aboriginal development (Brodhead 1990, p. 7), the authors of

the OECD model make it clear that the identification and ranking of social concerns as well as their indicators have to be an ongoing process over time. What makes the structure of their model attractive, I think, is that the goal-to-indicator system has to be negotiated among the participants; what this says is that the selection of indicators reflects the participants' own value judgments on the components of individual and community well-being. It is this aspect that distinguishes the OECD model from other social indicator systems and is something that critics (e.g., Brodhead 1990) have apparently overlooked.

Thus, what would otherwise be a static exercise of collecting information now becomes an *interactive* as well as an *interpretive* process of collecting information with particular purposes in mind. One purpose may be to monitor and evaluate the effects of actual development projects on any number of variables (as reflected by their indicators) and, indirectly, on any of the four indices of personal and community life. How a project may be perceived to affect family stability or spirituality, or, alternatively, how these may be enhanced by consciously choosing a particular revitalization/development strategy, must necessarily be a process that community members, chief-and-council and/or those responsible for economic development are involved in.

Conclusion

According to some of the community members with whom I spoke, a disadvantage of this goal-to-indicator approach is that it can be very time-consuming, since it directly involves the people concerned with socio-economic development. Another problem might be that the values and value system brought to bear on both social indicator development as well as the choice of economic development project or strategy might not be shared by those who are providing development assistance, be it financial or otherwise. It is recognized, for example, that the value system underlying Aboriginal development is strikingly different from that of "mainstream" economies. Fear was expressed that a clash of values may possibly result in some resistance on the part of "outsiders" to continue their assistance. A difficulty related to a clash of values may be that the data generated by an Aboriginal indicator system may be interpreted differently by outsiders; interpretation of the data that is collected and its communication to the "outside world" would have to be the responsibility of chief-and-council or whoever is involved in socio-economic planning. Yet the working out of these difficulties is an essential part of the process of achieving Aboriginal self-government.

It is clear from the current thrust of federal government policy-making and band/tribal council development initiatives that the emphasis is

increasingly being placed on self-reliance, self-government and the use and development of local resources. On the one hand, INAC's openness towards the promotion of Indian self-government (e.g., through the use of Alternative Funding Arrangements) may be seen as an implicit recognition of the need for a bottom-up approach to Indian development. On the other hand, there is growing evidence that many Indian communities are adopting a more entrepreneurial perspective on their common future. The creation, for example, of Indian-based development corporations is testimony to this trend (e.g., Canadian Indian Resource Corporation 1990). Many communities, however, are still inclined to pursue more traditional paths of development.

An Aboriginal community's value system is part of the total resources of the community that must be considered during the actual course of economic revitalization and development. To generate an Indian value-based list of indicators requires the identification of those aspects of the community and community life that residents desire to maintain, enhance or even to remove. Validating a list of indicators provides an opportunity to ascertain how ready community residents are for changes, which changes they feel are most desirable, urgent or wholly unacceptable, and which values they anticipate might be compromised as a result of development.

This is not to suggest that a community's values be reduced to a check list, but rather that people need to identify and discuss them in order to help them determine their development priorities. Community revitalization or development clearly rests on a strong value foundation, and it must be a conscious, selective, process. A development indicator system, while reflecting the value judgments and cultural views of those persons who construct and interpret them, is a tool useful in many ways. The system can be used to help collect and organize socio-economic data (including the values) in communities; a system gives those data shape and coherence. An indicator system, as a measure or description of community conditions in the broad sense, can aid in improving a community's planning capacity by making available information that planners can use.

As a tool for gathering specific kinds of information, a development indicator system such as the one I have proposed here should be able to provide Native community members and leaders with opportunities for greater participation in the planning process. In addition, the indicators that are an integral part of that system should readily provide the data by which problems and needs can be identified, goals formulated, alternatives generated and the progress of policies, programs or individual projects monitored and evaluated.

Thus, both the formulation and assessment of the effectiveness of holistic development strategies is going to be significantly enhanced by the use of an indicator system such as I have outlined in this article. Some "baseline" data are necessary in order to detect the effects of changes brought about by development, and provide the foundation for helping the direction of that change. Indicators—and an indicator system—are a means of building this kind of a data base.

Acknowledgements

This project was carried out between July and November 1990, under the auspices of First Nations Resource Council. Details of the social indicator system described in this article were first presented to INAC officials, consultants and Native community economic development practitioners at INAC's DIP conference in Kamloops, BC, in October 1990. This article was also presented in the form of a paper at the 1991 meetings of the Canadian Sociology and Anthropology Association, Kingston, Ontario. Funding from Indian and Northern Affairs Canada (for both presentations), the province of Alberta and office support from FNRC is gratefully acknowledged. I wish to thank the following individuals for their support and encouragement: Robert MacNeil (INAC, Edmonton), Jim Morrison (INAC, Vancouver), Dan Skarlicki (University of Toronto), Richard Hankinson (Blackfoot Band Tribal Administration, Siksika Nation), Russell Wright (Blackfoot Elder, Siksika Nation), Fabian Large (Saddle Lake Reserve), Rupert Arcand (Alexander Band), Leonard Young (Bigstone Cree Band), and Dr. Lenore Stiffarm (University of Lethbridge).

Notes

- 1 There is by now a well-known body of Canadian as well as international literature that discusses the inappropriateness of negative impact of direct outside involvement and interference in Aboriginal development. See, for example, Berger 1977; Watkins 1977; Bodley 1988; Frideres 1988; Miller 1991.
- 2 Development Indicators Project, Draft #3, May 29, 1990 (INAC), 7 pp, appendices. See also First Nations Resource Council 1990. The focus of this project was presumably only on Indian communities (none of the documents I have seen stated that the project meant to include other Aboriginal groups such as the Métis or Inuit).
- 3 First Nations Resource Council is an Alberta-based nationally-chartered organization set up as a non-profit body. Incorporated in late 1987, the council enjoys the support of most Alberta Indian bands (the directors of FNRC include the chiefs from Alberta's three treaty areas), two levels of government and a number of private foundations. The mission of the council is to expand the knowledge base and consciousness level of Native and other Canadians who deal first-hand with the development issues of "First Nations," their constituents, their lives, lands and future.
- 4 Brodhead (1990) repeatedly emphasizes this and comes tantalizingly close to actually suggesting that Native peoples *themselves* should participate in the formulation of development indicators (pp. 3, 6, 15ff). However, he stops short of doing so. While

the need for a "bottom-up approach to Native development" is clearly recognized, none of the work that Brodhead and his associates reviewed seems to have been based on consultations with Aboriginal peoples. Because of this, no study—including Brodhead's—seems to have given consideration to the social, cultural and spiritual dimensions of individual and community life. So long as these aspects of development are ignored, no indicators can be developed to "get at" these aspects of Native life, no direct Native input and involvement can occur, and any development indicator framework that is constructed would be incomplete and invalid. This would constitute yet another instance of interference and the imposition of an external value system.

- 5 Some of the difficulties that plague all social indicators research relate to the issues of objective/subjective measures, direct and indirect measurement, and, perhaps more important from a methodological standpoint, the problem of causality (i.e., the relation between measurements and what they actually represent).

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APPENDIX 1

A SOCIAL INDICATOR SYSTEM PLANNING TOOL

Index	Variable (Social Concern)	Indicator (Data Item)	Data Source	Data Collection Method
A. Family Stability	A1. Demographics	Age structure Male/Female ratio Infant mortality Male/Female life expectancy Death rate Causes of death Disability rate	Census StatsCan Band records Community survey	Survey Records
	A2. Social & Cultural Groups	Clubs and associations Community organizations Interest groups Organized sports/games Daycare Youth groups Volunteer groups for the elderly	Community survey	Survey Interviews

Index	Variable (Social Concern)	Indicator (Data Item)	Data Source	Data Collection Method
A3.	Learning Opportunities	Literacy rate	Census	Records
		School completion rate	StatsCan	Survey
		Available education services	Community	Interviews
		Use of Native language	survey	Observation
		Availability of Native teachers		
		Role of elders		
		Mainstream vs. traditional learning		
A4.	Work and Employment	Seasonal vs. regular	Census	Records
		Unemployment spell	StatsCan	Survey
		Types of employment	Band records	Observation
		Traditional subsistence	Community	Interviews
		Creation/management of own employment	survey	
		Locally-owned shops, etc.		
A5.	Income and Wealth Distribution	Income growth	StatsCan	Records
		% Social assistance recipients	Census	Survey
		Time spent on assistance	Band records	Interviews
		Loans/assets ratio	Community	
		Band taxation rate	survey	
		Investment income per capita		
		Transfer payment (amount/kind)		
		Earned income levels		
		Distribution of goods-in-kind		

Index	Variable (Social Concern)	Indicator (Data Item)	Data Source	Data Collection Method
A6.	Health, Safety and Nutrition	Incidence of violent crimes Suicide rate Levels of alcohol use Accidents (kind/frequency) Levels/causes of disability Food quality Drinking water quality Number of smokers (under aged?) Children fully immunized? Cases of cardiovascular disease Levels of anxiety and depression Prescription drug use Incidence of hospitalizations	StatsCan Community survey	Survey Interviews Observation
A7.	Housing	# of homeless families Dwelling standards Availability of water/electricity Owners vs. renters # of persons per house/household # of housing starts and finishes \$\$ spent on housing/renovations Inside/outside toilets	StatsCan Census (?) Community survey Band records	Records Survey Observation Interview

Index	Variable (Social Concern)	Indicator (Data Item)	Data Source	Data Collection Method
A8.	Environment and Resources	Noise levels Smells and odours Levels of cleanliness Sanitation facilities Water quality Waste management	Community survey	Observation Interview Likert-scale Survey
A9.	Leisure, Culture and Use of Time	Use of Native language Ceremonies and cultural events Feelings of loneliness Role of elders Craft production for domestic use or for sale Cultural/recreational facilities	Community survey	Observation Interview Likert-scale Survey
A10.	Conflict and Dispute Resolution	Violent crimes Crime rate Incidence of vandalism Incidence of child/sexual abuse # of incarcerations Kinds/levels of substance abuse Native police Native dispute settlement forum or techniques Traditional modes of discipline Role of elders	StatsCan Community survey Band records	Interview Observation Survey

Index	Variable (Social Concern)	Indicator (Data Item)	Data Source	Data Collection Method
B. Culture and Spirituality	B1. - B10.	(1....n)	----	----
C. Psychological & Emotional Well-being	C1. - C10.	(1....n)	----	----
D. Economy & Self- determination	D1. - D10.	(1....n)	----	----