



Arctic Development

ASSESSING THE IMPACT OF INDUSTRY IN THE BEAUFORT SEA REGION

**NWT OIL INDUSTRY
Mining/Oil/Energy
Analysis/Review**

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PETER USHER

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by

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ASSESSING THE IMPACT OF INDUSTRY IN
THE BEAUFORT SEA REGION

A Report Prepared for

BEAU FORT SEA ALLIANCE

by
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Introduction

In the eyes of Canadian public policy makers, the North stands out as an underdeveloped region. The local population is underemployed, per capita income there is low by national standards, and too much of that income is derived from transfer payments and subsidies. The chief remedy is seen to be wage employment, because it brings higher incomes and new skills to individuals. As well, a growing wage economy is a sure index of modernization and development. Training native northerners for wage employment, and creating job opportunities in the North, have therefore been the foundations of northern development policy for many years now. Major resource development projects in the North will greatly expand the local opportunities for wage employment. Hence these projects are seen as the means by which both national and northern development objectives will be fulfilled.

It should not be surprising, then, that the assessment of the regional impacts of northern development projects has been preoccupied with verifying their proponents' claims about the volume of employment and income they will generate locally. There is an

underlying assumption, rarely **tested**, that the more local employment generated, the better, and if the project is deficient in this regard, steps should be taken to correct it.

One of the chief criticisms of this perspective is that it equates the lack of wage employment with the lack of **economic** activity. Consequently it fails to consider the possibility that the assumption of wage employment by individuals might constitute a shift of economic activity, rather than new activity. Another criticism is that this perspective focuses narrowly on the issue of wage employment, whereas in fact such employment is only a part of a much larger shift to an industrialized economy. It is the impact of this larger process which should be assessed, the critics argue, not simply wage employment in isolation.

In Chapter One of this report, I will attempt to provide this larger perspective on both the existing economy and society of the Beaufort Sea region, and the trends in industrial society that can be expected to have major effects upon the region. In doing so, I will point out the substantial deficiencies in our current knowledge of the region which limit our ability to predict impacts. Where necessary, due to this lack of knowledge, I will deduce some probable outcomes on the basis of analogous experience and theory. Since much of this chapter

constitutes a critique of conventional modernization theory, I include as an appendix, a brief statement of that theory and its application in the Canadian North.

Not all those who extol the benefits of wage employment to native northerners have ignored their critics, however. Some now acknowledge the local importance of non-industrial economic activities such as hunting, fishing and trapping. They argue, however, that these activities have become dependent on growing capital inputs which are most readily financed by income from industrial wage employment, and that systems of rotational employment will allow native people to participate in both wage employment and traditional activities, as they choose. As well, the income and skills derived from wage employment will reduce the dependence of native northerners on government programmed and subsidies. By being full participants in the Canadian economy, they will increase their self-reliance and independence. These ideas are subjected to critical assessment in the second chapter of this report.

Finally, in Chapter Three, I will examine the implications of this discussion for social impact assessment. SIA conventionally measures personal and social well-being on the basis of indices of consumption. A more balanced view requires a consideration of

well-being based on a perspective of production, and on the nature of social relations engendered by the process of production, distribution and exchange. It is concluded that the regional economy is not inevitably converging with the southern industrial economy, and that SIA must take into account both the locally desired and the probable futures of the regional socio-economic system. This expanded view of SIA could provide us with a means toward the rational, conscious and democratic direction of our future.

Chapter One

Economy and Society in the Beaufort Sea Region

The Beaufort Sea Production Environmental Impact Assessment, (Volume 5 - Socio-economic Effects), hereafter referred to as the Industry EIS, includes ten communities in the region of the most direct impact. Their total population in 1980 was approximately 7000. Excluding Inuvik, the population of the other nine was about 4100, of which about 90% was Inuit or Dene. Four of these other communities had populations ranging from about 760 to 820, and the remainder ranged from about 100 to 300 people in size (see table 1). These two community size ranges also exhibit, as we shall see, some distinctive social and economic characteristics. The exception, to some extent, is Tuktoyaktuk, which has felt the brunt of industrial impact in recent years due to the location of several industrial (and earlier, military) installations close to the community.

Two lines of analysis will be pursued in this section. First, I will examine native employment and

income, and secondly, the social organization and ideology of economic activity among native people.

1.1 Native Employment and Income

Because the benefits of development are seen to be so closely linked to rising levels of personal income, one might expect the assessment process to proceed on a foundation of reliable and comprehensive baseline data on employment and income. In fact there is very little reliable information on these matters. The Industry EIS provides no new data, nor even makes full use of what is available. Since no agency, public or private, routinely generates income data by source at the community level, one can only make estimates based on a variety of sources each of differing completeness and reliability. Fortunately, there are some historical estimates of community income which serve as a basis for comparison.

I have selected three sets of data on which to base a profile of the economy at the community level: employment and income in the hydrocarbon industry, total community and per capita income by source, and social assistance payments (tables 3-6). All of these data refer to the native population of each community, insofar as it is possible to disaggregate or otherwise attribute available economic data by ethnic status. Since that is virtually impossible in the case of Inuyik, that

community is largely omitted from further consideration in this discussion, although perhaps 20% of the region's native population reside there.

As in other parts of the North, native people engage in two major types of economic activity for their income. One is industrial activity, consisting chiefly of wage employment but also, to a limited extent, of business activity. The other is traditional or harvesting activity, consisting of the production of commodities for domestic use or for sale.¹ Income from these activities may be supplemented by transfer payments. Personal income is derived from five major sources, as indicated in table 2. Since there is virtually no information on native business income, this category is omitted from further consideration. It is significant, as a proportion of community income, only in Tuktoyaktuk, and then only in recent years. Available data for that community tend to include it in employment income.

Table 3 provides some indication of native employment in the oil industry between 1974 and 1980. Those were years of unprecedented oil activity in the Western Arctic, and of an unprecedented level of job opportunities for local people. Using an index of man-months of employment per capita, it appears that the people in the larger communities were much more likely to

take on wage **employment** in the industry than were people in the smaller communities. This is not explained solely by proximity (i.e. Tuktoyaktuk), or of a special employment programme (i.e. **Coppermine**), because the indices for **Aklavik** and Fort McPherson are also much higher than for the smaller communities. The 1980 income figures are based solely on **Canmar** data, and hence do not reveal as much, even though it is apparently the largest single employer (accounting for over 20% of cash income at Tuktoyaktuk).

Table 4 indicates total personal income in the two communities most highly involved with the oil industry. It includes gross income in kind from domestic production, valued at replacement cost. Table 5 compares cash income (i.e. excluding the imputed value of domestic production) for four communities between the early 1960s and the early 1980s. Comparing income data from single years is problematic, because of short term variation in both the amount and the mix of community income. Nonetheless, the data appear to be broadly representative.

These data, in conjunction with GNWT fur and big game harvest records, suggest the following differences between the larger and smaller centres, currently. Per capita income from all sources tends to be higher in the larger communities. per capita harvests

of country food, by' volume, tend to be higher in the smaller communities. Income from fur production tends to be more important, relative to wages, in the smaller communities. For example, wages received from Dome/Canmar employment by residents of the smaller communities in 1980 were substantially lower than the average income from fur production between 1976 and 1981. Such wages accounted for about three times the income from fur production in the larger communities for the same period, however.² In the larger communities, wages appear to account for a substantially higher proportion of income than in the smaller ones. In the case of transfer payments as a whole, there is no clear difference in per capita income receipts according to community size, nor even according to the type of payment (i.e. UI benefits, social assistance). According to table 5, and other available data, these differences between larger and smaller communities are not a recent development, having been more or less evident in the early 1960s as well.

With respect to cash income, and inferentially to employment, Table 5 suggests the following specific tendencies over the 20 year period. In Tuktoyaktuk and Coppermine, real income³ is up over four times, whereas in Sachs Harbour and Paulatuk it has roughly doubled. Wages have increased in almost every community as a

percentage of income, and probably account for the major part of real income growth. In Coppermine and Tuktoyaktuk, oil industry employment has accounted for most of this increase, but in other communities, oil and government employment may account for more equal shares. There is a tendency for government employment to provide steady local jobs, especially in the small communities, whereas oil industry employment supplies the bulk of seasonal employment, most of which is away from the communities.

Income from harvesting has generally increased over the period, although it has almost everywhere declined as a proportion of income. The value of commodity sales has not kept pace with inflation, although the imputed value of domestic production has probably exceeded it. In some communities, renewable resource-based income has diversified, and now includes guiding and commercial food production as well as trapping and handicrafts. This diversification is essentially unrelated to hydrocarbon development. It is the result of initiatives taken by some of the native communities, with support chiefly from COPE and certain government agencies. The oil industry is apparently not at present a significant purchaser of country food (personal communication, B. Delury and T. Beaudoin, COPE, Inuvik) .

Although there are no clear trends in transfer payments as a proportion of total income over time, there have been some major changes in the composition of transfer payments. The child tax credit, which did not exist in the early 1960s, can in some instances amount to over \$1000 annually per family, if children are numerous and taxable income low. It is received as a lump sum, making it attractive as a means of purchasing larger durables.⁴ Unemployment insurance is now widely available in the region, which was not the case in the 1960s, or even in the early 1970s. Estimates of total payments in the region vary widely, but they amounted to an absolute minimum of \$100,000 in 1980 (not including Inuvik and Old Crow). It appears that not all who are eligible to claim benefits actually do so, perhaps because the system is not yet widely understood in the region. A considerable amount of the seasonal employment offshore does not last long enough to qualify employees for benefits, however (personal communication, H. Crozier, CEIC, Inuvik).

Table 6 indicates the trend in social assistance payments. Considering that unemployment insurance benefits now constitute a partial substitute for needs which the state formerly met solely by means of social assistance, it would appear that even accounting

for inflation and population growth, the very substantial rise in personal income in the region has not led to an absolute decline in per capita income from transfer payments. While in most communities, social assistance payments now go primarily to widows, single mothers, and the infirm, it is precisely in the community with the most wage employment, Tuktoyaktuk, that the highest proportion of these payments go to employable persons. The situation in Coppermine appears to be similar. The case of Tuktoyaktuk is particularly interesting, however, because of all the Beaufort Sea communities (excluding Inuvik) , wage employment there has grown perhaps the most steadily over the last twenty years, and certainly the most spectacularly over the last five. Yet both transfer payments as a whole, and social assistance payments in particular, seem to have risen more or less steadily as well. I will return to this point in Chapter Two.

Reviewing the trends in all income components over the last twenty years, it is evident that wage employment has indeed provided an increasing proportion of personal income. Wage employment probably also now occupies more time on the part of more people. Yet what is also evident is that, on the one hand, wages were already the major component of income in most communities twenty years ago, and that on the other, wage employment

today still accounts for a significantly lower proportion of total income than is typical elsewhere in Canada.

There is a long history of wage employment in the Beaufort Sea region. Casual employment in the service of the trading companies and missions dates back to the turn of the century, and the widespread (although shortlived) availability of employment in the construction of the DEWline and of Inuvik occurred nearly thirty years ago.

What the income data over time seem to show is that, relative to the other sectors of the local economy, even small amounts of wage employment can be a major addition to total cash income. That was already the situation in the early 1960s, a time when the native economy was considered to be in desperate straits, and local industrial employment opportunities were very few. What is remarkable after twenty years is not that wage employment now constitutes a greater proportion of personal income, but that the increase since the early 1960s is not rather more spectacular, especially since wage employment is now so widely available.

If we include imputed income from domestic production, it would appear that, on a community basis, nowhere, even in Inuvik or Tuktoyaktuk, does wage employment account for as much as 70% of native

personal income, and this ranges down to perhaps 35% in the smaller communities.

This is not what one would expect to find in a typical wage based economy, although there are substantial difficulties in making comparisons to national averages. In the four communities in table 5, an estimated 300 households⁵ had an average cash income of nearly \$27,000 (ranging from over \$40,000 in Tuktoyaktuk to about \$10,000 in Paulatuk). The national average for families in 1980 was \$27,398. Wages accounted for 77.1% of this amount, despite a much higher proportion of business, professional and investment income than in the North. If we excluded these forms of income from the national figures, wage income would account for 85 to 90% of family income, and transfer payments would account for over 10%.⁶ As well, if we were to add the imputed value of domestically produced food to the national average, it would make very little difference, whereas in the North, it might add up to \$5000 per family. The low proportion of wage income in the North is not simply counterbalanced by greater levels of transfer payments, for in most cases these account for only a few percentage points of personal income above the national average.

So far we have considered personal income

before taxes. Comparisons of disposable or after tax income over time would have to take into account the fact that in the **early** 1960s, hardly any native people in the region filed income tax **returns**, whereas now almost all do. Wages and salaries are the most readily and the most highly taxed form of income, and when they increase as a proportion of income, so does tax liability. In practical terms, a dollar lost in income from commodity production, domestic production, or transfer payments must be replaced by more than a dollar in income from wage employment in order for the recipient to maintain the same level of after tax income. Nationally, after tax income per **family** in 1979 (the **last** year for which data are **available**) was \$20,554, or roughly 75% of total cash income (Statistics Canada 1982b).

As the North becomes more and more absorbed into the mainstream of national economic life, the greater is the practical liability for taxation on all forms of income, and the greater is the probability of the imposition of local taxes. Taxation problems specific to harvesting activities are further discussed below.

The above conclusions about income trends must be considered tentative, because the data on which they are based are incomplete, and unevenly reliable. Time

budget studies, indicating how people in the region allocate their time, would certainly augment the picture. But if our knowledge of community income composition is weak, our knowledge of household income and expenditure patterns is much more so. We know very little about who gets employment, how that affects their own and **their** household's time allocations, and how income is used. There has been no sound documentation of these matters in any of the Beaufort Sea communities, save to a limited extent in Coppermine, for over a decade. Yet this information is highly significant, not least in order to test the **industry's** contention that income from employment is critical to financing the harvesting sector. This question is discussed in Chapter Two of this report.

A further important question is the pattern of male and female employment. Although this is nowhere documented in the Beaufort Sea region, casual observation suggests that seasonal, blue collar employment goes almost entirely to males, while females account for a higher proportion of regular (or regular part-time) employment, especially of the white collar variety. This has been shown among the Inupiat of northern Alaska (Kleinfeld 1981) and it also appears to be the case in northern Labrador (Usher 1982a).

White collar or service employment is available chiefly where there are government or corporate offices, or large base camps. In the Beaufort Sea region, such facilities are located almost exclusively at Inuvik or Tuktoyaktuk. The employment situation at Tuktoyaktuk thus far differs from that in all the other native communities, because there are much greater opportunities for female employment there. This will have major implications for employment patterns, and looking ahead, possibly for marriage, family formation, and migration patterns. Unfortunately there is almost no systematic evidence about these matters in the Beaufort Sea region, nor are they discussed in the Industry EIS.

The economy of the Beaufort Sea communities appears to have certain distinctive and enduring features, based on the structure of employment and income. It is neither an aboriginal or an industrial economy. Households, and indeed many individuals, derive their income from a strategic mix of land-based activities, wage employment (often seasonal rather than permanent), and transfer payments. Those engaged in non-industrial forms of production are not unemployed, they may in fact be making entirely rational decisions about how best to gain a living.

Wages have been an important component of

income for many years, yet they have risen only moderately as a proportion of income, despite the very great rise in both the availability of wage employment and in real wages. This pattern does not appear to be unique to the Beaufort Sea region (see for example Usher 1982a for income patterns in northern Labrador). Although native people commonly stress the economic importance of country food, their continued reliance on it in spite of very significant rises in real income suggests that the mere affordability of alternatives is by no means the sole issue. There must be some "non-economic" reasons for continuing to engage in land-based activities.

While there is no doubt of the importance of wage employment in the local economy, there is a question about whether it is the primary focus of economic life there, or rather a means to another end. If the latter is true, then we should expect to see a strong preference for part-time or seasonal **wage** employment, or for full-time employment in the home community which allows adequate opportunity for land-based activity. There will be a preference for employment which does not require relocation, and hence relatively little interest in career employment, especially that which requires years of training away from home, and high residential mobility

for its continuation. There will be a tendency to depend on employment income for specific purposes -- as a seasonal bridge between other activities, or as a means of achieving a targeted amount of money -- rather than as the basis of week to week or month to month subsistence for a whole lifetime. Or if one member of a household adopts full-time employment, there will be a concern that others can assume responsibility for domestic production. There will be a concern that both employment and training for it not interfere unduly with the socialization of children for land-based activities. There will be a tendency to use a substantial proportion of income from employment for the purchase of productive inputs for land-based activities. And there will be a tendency to view wage employment opportunistically in comparison with self-employment or transfer payments, as means to achieving these various ends. I believe there is evidence for all of these tendencies in most if not all of the Beaufort Sea communities, although it is not well documented in the social scientific literature. They have been documented in recent studies in Alaska, (e.g. Kruse, in press) and similar research in Canada might well result in similar findings.

In such an economy, there is certainly a need for continued employment, and almost everyone has an

interest in seeing that employment opportunities do not go below a certain level. At the same time, however, there is an interest in seeing that wage employment does not interfere with other aspects of life, and in particular, the ability to obtain a substantial proportion of household income from the land. There is a strong suggestion here that what might be the most desirable outcome, from the local point of view, is not a dramatic increase in employment opportunities or inducements, but rather the stable provision of existing levels of employment, or only gradual increases.

Rather than seeing such an economy as sadly lacking in sufficient employment opportunities, those in it may value their alternative means of livelihood -- self employment -- not only for their intrinsic merits but also because the viability of these alternatives means that they can have more choice about what kind of wage employment they do assume, when, and for how long.

There is a possibility that present levels of employment are not far removed from a more or less ideal level, in terms of the existing economic structure of the region. We could hypothesize, for example, a situation in which increasing wage employment is locally beneficial only up to a certain point, after which benefits decrease or become negative. This ideal point would apparently

be lower for the smaller communities than for the larger ones. We can be fairly certain, however, that conventional industrial measures of employment and unemployment have very little relevance to the local situation.

1.2 Social Relations and Ideology

An enduring and distinctive structure of employment and income is only partial evidence of a fundamentally different economy. The compelling evidence must lie in the social relations on which economic activity is **organized**, and in peoples' ideas about those relations. Baseline data on these matters should consist of an accurate account of the social organization of work and of the system of property rights: who owns what? who has the right or authority to do or use what (or get others to do what)? and at the end of the day, who gets what? And what are the prevailing conceptions or ideology about these matters, and about distribution and exchange? What are the rights and obligations among members of the social unit towards each other? It is in these spheres of life that peoples' sense of community and security are rooted.

While there is a fair amount of anthropological evidence about these matters in some Beaufort Sea

communities, as well as in reasonably analagous situations outside the region, the issue for contemporary impact assessment is the degree to which these systems and institutions still exist, and the conceptions about them which still prevail among native people. For when we speak of cultural change, in the context of economic development, these are its core features, not the visible evidence of material culture which are popularly associated with the notion of culture. Yet we have very little sound contemporary documentation of these phenomena in the Beaufort Sea region.

It is certainly possible to obtain evidence with respect to these questions (see, for example, Langdon and Worl 1981, and Kruse, in press, for some recent evidence from Alaska) . It would require extensive field research, however, including participant observation. Unfortunately those research techniques are not normally associated with impact assessment, which tends instead to rely for information on surveys, questionnaires, or comments at public meetings. More intensive research can only be undertaken with the support and cooperation of the affected population. They would therefore have to be persuaded that something of value to them would come of it, for example, that it would effectively influence the outcome of an assessment

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process and of policy making.

The alternative to proceeding from an empirical account of the current situation in the Beaufort Sea is to deduce a hypothetical account from theory and by analogy, and see if there is any evidence to support it. I will at the same time indicate the probable nature of fully industrialized relations of production that might come to prevail in the region, by way of contrast and to suggest the significant areas of impact.

Here is a somewhat simplified account of the recent social relations of production in the Inuit and Dene communities around the Beaufort Sea. These communities consist of recently urbanized foraging bands which continue to have ties to specific areas of land. Although wage employment is an important means of earning cash in every community, there remains a strong basis of foraging -- hunting, fishing and trapping -- in the local economy. The economic structure of those activities is in many ways similar to that of small scale fisheries and agriculture in other parts of Canada. Typically, most people engage in simple commodity production, that is, of commodities that are relatively unsophisticated and can be produced by individuals or small groups such as households, using their own tools, labour and knowledge. The resource base is typically held in common, with the

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band or similar social structure allocating and regulating the access of individuals to it, based on customary concepts and rules. The external relations of trade are essentially merchant capitalist.

Under merchant capitalist relations, the actual production of commodities is controlled and managed by the producers, as individuals or in association with each other. The producer is, in effect, self-employed. The producer may meet end-product specifications laid down by prospective producers (whether they are consumers or merchants) , but the actual process of production is self-directed. The self-employed producer owns his tools, and owns or purchases his own land, buildings or raw materials, alone or in association with his fellow producers. The market, in merchant relations, provides a means for the producer to assemble the necessary tools and raw materials, and to sell the commodities he produces. Typically, the producer has a choice between consuming what he produces, using what he produces as an input to further production, or selling what he produces. For example, a farmer can eat his grain, feed it to his livestock, plant it the next year, or sell it. These are, in a sense, entrepreneurial or managerial decisions at a small scale. Also, typically, the producer does not sell the bulk of his production directly to consumers,

but rather to a merchant who plays an intermediary role in distribution. Importantly, this merchant may also provide credit to the producer, for further production.

Although merchant capital seeks to direct the focus of productive effort towards particular commodities, chiefly by encouraging dependence on trade goods, it did not, in the Canadian North, seek to interfere directly with local systems of land tenure, resource access, and the organization of work. The merchant system can effectively incorporate certain amounts of production for domestic use, and of wage labour, as well as some welfare state programmed which serve in effect as a substitute for the merchant as a source of capital.

A fully industrialized system of production and markets is quite different. Industrial employment involves selling one's own labour power at a price to a firm or a bureaucracy which then directs and supervises that labour. This productive unit -- firm or bureaucracy -- owns the means of production, purchases the raw materials and the labour power, and directs the production process which combines these elements. Unlike self-employment, industrial employment involves the separation of the conception and the execution of tasks, that is, a separation of functions between managerial

and technical personnel on the one hand, and manual and clerical personnel on the other. The former categories have certain dominant rights, which are delegated to them by the owners of the firm, or by the state. These rights include:

1. the determination of what will be produced, when, by whom and for whom.
2. the determination of the technical process of production, and how and when new technology and equipment will be introduced.
3. the determination of what constitutes safe, healthy and desirable working conditions.
4. the organization, direction and supervision of manual and clerical labour.

These are legal rights which flow from ownership (or from state authority) , and are circumscribed only to a limited extent by trade unions, collective bargaining, public opinion, and state regulation.

This implies that manual and clerical employees , as well as the lower rungs of the technical and managerial staff, forfeit their right to direct and regulate their own activities when they are at work. They are no longer entitled to decide for themselves, or among themselves, how fast or how much to work, when to

work, how best to do the job, what constitutes a safe and healthy working environment or work procedure, or what are the most congenial working conditions. It is for these reasons, perhaps, that economists conventionally consider work (by which they really mean labour) as a "disutility" , for which compensation must be paid.

The function of the market in industrial capitalism is much broader than in merchant capitalism. Not only is it the means of assembling raw materials and exchanging commodities, it also becomes a means for assembling land and selling labour power. It is not the phenomenon of the market as such which is novel about industrial capitalism for markets date back to man's antiquity. It is their scope which is novel. Once it becomes the function of entrepreneurs to assemble land, labour and capital for the purpose of production, all of these things must become exchangeable in the market -- for practical purposes exchangeable for money.

A market for labour must be established, and labour must become mobile. A market for land must also be established, and so pre-existing systems of land tenure that impede the free exchange of land must be terminated. People, as the embodiment of labour, must become separable from their ties to the land, and from their ties to kin and community. These have been the

essential conditions, not incidental, avoidable, or mitigatable consequences, "of the development of industrial capitalism in western nations. It is this rendering of land and labour into commodities, and the social consequences of that process, that Karl Polanyi (1957) referred to as "the great transformation" in the modern history of Europe.

It is that same commoditization of land and labour in the North which constitutes the parallel "great transformation" for native people in northern Canada. For the transformation from merchant capitalism to industrial capitalism in northern Canada is not an event shrouded in the mists of history. It is only just now occurring, and major projects are playing a central role in that process. The critical question for social impact assessment is not the so-called modernization of a traditional economy. It is, instead, the nature and consequences of the transition from a predominantly merchant set of socio-economic relations to a predominantly industrial set, and what elements or features of those relations are significant or incidental with respect to impact. In the present day Canadian context, here are some of the things that will come about as the northern economy is transformed.

The nature and organization of work will

change, as has already been suggested above. There will be a shift from flexibility, egalitarianism and consensus among producers to rigidity, hierarchy and dominance. Whereas the self-employed producer can transmit his tools, skills and knowledge to the next generation of producers through apprenticeship and inheritance, under an industrial system the state must assume these functions. The school becomes the institution in which children are trained, not for specific skills and occupations, but to become members of the labour force -- to compete in the labour market. Competition replaces solidarity as a virtue. Cooperation is given new meaning -- no longer is it the mutual aid recognized as a necessity among co-producers, but self-denial for a purpose not one's own in a process directed from above.

Industrial activity also rewards or "compensates" work differently than does self-employment. Average income normally rises,⁷ but so does the disparity of income between persons and between households. This can be expected to have shock impacts on social structure, and on the general sense of perceived well-being based on existing concepts of rights and obligations among members of the community. For, and this is a related consideration, the reward to producers accrues not solely as income in cash or kind, but also

as status and prestige within the community. There cannot occur a transformation in the mode of production without a transformation in the rules of production and distribution.

An important consequence of widespread industrial employment is that household production declines, as a proportion of total production, and that households must therefore obtain a greater proportion of their needs through market exchange rather than domestic production. This occurs in two ways: first, there is a tendency to specialize in commodity production for market exchange, at the expense of domestic production, and second, to exchange labour power for cash and abandon household production altogether. As well, both persons and households become less interdependent economically. Mutual aid and sharing networks atrophy. Income, and especially cash income, is viewed more as an individual resource and is less likely to be pooled on a household basis (viz. Asch 1977) , although gambling may continue to be a means of circulating resources. These tendencies accentuate the growing differences among household incomes.

While personal and household incomes rise, so does vulnerability to social forces uncontrollable at the local level, although the latter tendency is less easily and less rapidly recognized. As wage employment becomes the dominant, indeed nearly exclusive means by which the

average household derives its income, not only must its members adopt the appropriate attitudes and discipline described earlier, they must also adopt different patterns of consumption and investment. Income now accrues on a regular and frequent basis, but in smaller amounts, rather than sporadically in large amounts. For the ordinary wage earner, almost all of this regular income is required for daily subsistence. The purchase of large items must therefore be financed on a long and sustained basis of savings, or of debt repayment rather than obtained opportunistically on the basis of occasional large pulses of income. People must commit themselves to a long and costly education process, largely outside their control, for their children. Their tax liability will increase. With the decline of social solidarity at the community level, they must now avert the risk of household economic catastrophe by investing in pensions and insurance. All of these things amount to continuing financial obligations on a regular basis: monthly payments on mortgages, loans, consumer finance, welfare state programmes, and so on. These obligations are, of course, quite at odds with the dominant pattern of seasonal activity and irregular income which typifies a simple commodity economy based on self-employment (and in which households tend to meet their daily subsistence

needs at least in part by domestic production) .

The issue here is that the difference in outcome between industrial employment, i.e. the more or less continuous dependence on exchanging one's labour power for money, as a means of making a living, and other types of productive activity, cannot simply be measured in dollars, because it involves changes in the social order as well as in money income. Consequently it is inappropriate to focus solely on output, i.e. the cash (or even cash-equivalent) return, as a means of comparing the "benefits" accruing from different categories of productive activity.

There are, between the traditional, mercantile Beaufort Sea economy, and the impending industrial economy, differing rationales and motivations for production and distribution. At the risk of simplification, the first tends to be more organic in nature, which is to say, the collective interest of the local group is likely to transcend individualism, and this will be demonstrated by such things as the nature of mutual aid and sharing, the means of socializing children, the content of that socialization, and the system of property rights. In an industrial economy, however, possessive individualism is a dominant characteristic, and the bonds of social structure and obligation are seen as restricting the operation of a free market in which individuals can

maximize their own self-interest.

In practical terms, in traditional societies, no member of the group was allowed to starve. Although a certain proportion of households in any traditional society do not make ends meet, their welfare is seen to be provided by the group. That is why generosity, and the ability to provide for others, were requisite qualities for leadership in aboriginal society. The ascension of the free market as the central economic institution, and of personal gain as the central motivation, means that in industrial society, he who does not work can indeed starve, save to the extent that the state provides a welfare net. It is this possibility of starvation (if not literally, then some modern equivalent deprivation) which is seen as the chief inducement for people to enter the labour market and to meet its requirements. The establishment of a labour market, and its attendant discipline, has inescapably required the destruction of local social solidarity, because that is seen as a barrier to the free operation of such a market.

It follows that there is a fundamental difference in the rationality of the two systems, which is reflected in the world view of individuals, and in the operation of the basic units of production in each -- the household in the one and the firm in the other. In a

preindustrial society there is no inherent logic of accumulation among producers. Instead, the maintenance and survival of the group is the paramount end. The evidence of success is the ability of the social system to reproduce itself generation after generation. Growth, accumulation and change may occur, but they are instruments to an end, or byproducts of an end. Certainly they are not articulated as ends in themselves. In an industrial economy, however, growth, accumulation and change are neither instruments nor byproducts, they are paramount ends. At the level of the firm and the bureaucracy, those are the tests and the hallmarks of success, and without them, survival is not possible. Consequently the social priorities with respect to the organization of production and distribution are inevitably different.

These local social priorities, however, are not formed in vacuum, but in the context of a changing institutional environment. The Canadian North has witnessed dramatic developments in both the state and financial infrastructure in the last decade or so, in anticipation of major projects as well as in response to them. The state has developed an apparatus capable of administering not only these projects and their impacts, but also the entire land and resource base of the

territory in which they are occurring. The state has also provided a public infrastructure of energy supply, transport, and communication along with community facilities, and programmed for social security, health, education, job creation and law enforcement. Planning and management extend to many spheres of life in the North until recently untouched in this way.

Industrialization, in the form of major projects, is also necessarily accompanied by the local establishment of an appropriate financial infrastructure. This infrastructure includes the systems for banking, insurance, mortgages, public and corporate finance, markets, trade, and their legal and administrative accoutrements, all of which must now be in place at the local level.

Now the two sets of productive relations I have described, merchant and industrial, are not mutually exclusive, polar opposites. We know that there are many arrangements in real life that lie somewhere in between, and which have elements of each. Between the autonomous self-employed producer and the industrial wage labourer, lie those in franchised, licenced **or** contract production, as well as those bound by debt. These and other arrangements serve both legally and practically to reduce the autonomy of the producer. We also know that there

are great differences among people and over time in how these productive relations are perceived, and in what is viewed positively and negatively about them.

Historically, merchant capitalism preceded industrial capitalism, gave birth to it, and became it. In the contemporary North we will not find pure examples of these contrasting types, although we will find important tendencies in one or another direction. The industrial organization of production is now coming to dominate, but merchant forms continue to exist and develop, sometimes separately and sometimes in association. In the transformation from one to the other, it is essential to identify the milestones that mark the important stages in the process, and to understand how cumulative and synergistic events and decisions set a course not easily altered or reversed.

What evidence is there that native people continue to adhere to the ideology and rationale of a non-industrial economy, even while assuming wage employment to some extent? A complete literature review is far beyond the scope of this report. Consider, however, the major requirements for industrialization: the making of land and labour into commodities which can be exchanged in the market.

We know, chiefly from the land use and

occupancy studies of the 1970s (viz. Freeman 1976, Nahanni 1977, Berger 1977a), that the overwhelming majority of native people in the region do not view land as a marketable commodity but rather as an inalienable element of their collective existence. It is this profoundly different conception of land that underlies the claims issue, and which is jeopardized by contemporary Canadian systems of land tenure and management.

The question of **labour** is less clear. If, however, people have not fully accepted the obligations and the discipline involved, and do not see the rewards as appropriate or adequate compensation for doing so, then they have not yet embraced the rationality of industrial employment even though they may go to work for wages. The fact that there are many special government and industry programmes geared to encouraging native employment suggests that there must be a substantial number of people who have not yet internalized this rationality. The problem is no longer seen as a matter of manual or technical skills. Many responsible officials refer to the need to inculcate a "work culture" among native people, by which seems to be meant the appropriate attitudes toward industrial employment. A list of these attitudes would generally include

loyalty to the employer, willingness to follow instructions, punctuality, the work ethic, willingness to defer gratification, and consumerism.⁸ Whether "official" perceptions are correct is a matter for empirical verification. But if native people have really already adopted this industrial "work culture", one wonders why it is still considered necessary to so assiduously induce them to do so.

Over the long term, we can expect that private employers, and perhaps even public ones, will become less willing to make special exceptions and accommodations to native people in their hiring and employment practices. Underlying all of the special programmed that have been put in place is, I believe, a belief in their temporary or transitional rather than permanent nature. In the end, those who assume industrial employment will be expected to have the "right attitudes" which consist, essentially, of internalizing and accepting the bargain of wage employment as outlined at the beginning of this section.

Those who argue that the organization of work and the system of property rights are not important issues, rest their case on the idea that people choose, as rational, individual decision makers, to obtain the "goodies" which industrial civilization brings. It is

indeed true that people like the goodies. Very rarely do we observe individuals, let alone whole communities, consciously rejecting them. It does not follow, however, that people have fully understood and accepted the obligations they have incurred in the eyes of the society that provides those goodies. We would need evidence that people have made, either individually or collectively, some decision about the social contract which is allegedly required to perpetuate these material benefits. I would suggest that there is much evidence that they have not. While seeking the benefits, they appear to reject, in considerable measure, the necessary social obligations which these entail, and this is a contradiction which has by no means been resolved in the Beaufort Sea region.

Chapter Two

Wage Employment, Harvesting Activities, and Social Expenditures

The previous chapter provided a general description of what I consider to be the key aspects of the economy and society of the Beaufort Sea communities, as well as of the trends in industrial society most likely to affect the region in the course of large-scale resource development. In this chapter, I propose to examine the probable effects of change in two specific economic spheres: harvesting activities and social expenditures. In each case, I begin by examining the validity of what appear to be the prevailing views on the issue, and then, using the analysis in Chapter One as a background, propose some alternative or additional hypotheses .

2.1 The Impact of Wage Employment on Harvesting

One of the advantages of industrial wage employment is said to be that it is the best means of generating the cash now necessary for the operation of the traditional sector. Logically, we can break this argument into three parts: first, is income from

) industrial wage employment actually used to finance harvesting activities; second, are there alternative means of financing these activities which might better suit the needs and aspirations of harvesters; and third, would the outcome of a continuing strategy of substituting capital for labour in the harvesting sector, especially in the context of an industrial milieu, be viable or beneficial?

The hypothesis that wage employment provides a means of financing the harvesting sector is grounded in the income and expenditure estimates developed in the course of the Mackenzie Valley Pipeline Inquiry (viz. Berger 1977b, Usher 1978), which demonstrated on the one hand a growing need for capital input, and on the other, the current inability of the harvesting sector to generate the necessary capital. Further, as a general observation, rising employment and income over the last decade in the North has been accompanied by rising rather than falling harvests, both commercial and domestic. This tendency has been documented in more detail for the community of Coppermine (viz. Hobart 1982, Hobart, Walsh and Associates 1980).

) Despite the general association of rising wage income and rising harvests, however, we have very little evidence about the actual dynamic of this relationship at

the household level. Asch (1977, 1980) argues that industry employment goes chiefly to unattached, younger males who use a substantial proportion of their income for personal rather than household objectives -- the purchase of alcohol, travel, non-productive consumer goods , and so on. Consequently, although there is a rise in per capita income, there is no concomitant rise in productive investment or household well-being. Instead, there is an increased tension between household and community obligations and expectations on the one hand, and personal satisfaction on the other.

My own discussions with individuals in the Beaufort Sea area (in February 1982) indicated that this was indeed a problem. The view was expressed, for example, that a young person earning \$5.00 per hour at a job in the community made a greater contribution to household well-being than a person earning \$15.00 per hour on an offshore rig, because virtually none of the latter money gets back to the family or the community. Several people indicated that most equipment purchases are made by older men with steady employment, or by people who have a good income from harvesting activities or guiding, not by young men who work on the rigs seasonally. They suggested that much of the income earned by young men in industry employment was spent on

non-productive travel and activity in Inuvik.

Some also claim that the imbalance between oil industry wages and those paid locally has resulted in a dual labour market, in which those who earn high wages tend not to be available for lower paying work in the community even in the off-season. In communities like Paulatuk, Sachs Harbour and Aklavik, it would appear that the bulk of offshore, seasonal employment does go to younger men. On the other hand, there is some indication that although this employment is often now the first job experience for many young single men, those who continue with it eventually assume family responsibilities and their expenditure patterns do change.

The hypothesis that wage income from industrial employment is increasingly what finances the harvesting sector thus remains to be tested. While it is certainly possible to use industrial wage income for that purpose, it has not been shown that people or households actually do so. And that leads to the second question, which is whether wage income is the only or the best source of these investment funds.

If the objective is to finance the harvesting sector, then the following alternatives merit consideration:

1. Direct payments to individuals or households.

One example is the Income Support Programme which the James Bay Cree obtained as a part of their claims settlement. Periodic lump sum payments are issued to households on the basis of length of time in the bush, family **size, and** certain other factors (see, for example, La Rusic 1978). Another example is government transfer payments, especially lump sums such as the child tax credit (see above) or even unemployment insurance benefits.

2. Production subsidies or price supports. The GNWT Wildlife Service operates several programmed which, on a small scale, serve to raise producers' incomes based on their output. Such programmed could be expanded.
3. Rents. The settlement of native claims could mean that native people are entitled to income as a consequence of resource development. This income might take the form of compensation payments for damages incurred or anticipated, or royalties based on beneficial use. The transfer would occur at a collective level, between the state or the resource corporations on the one hand, and native communities or corporations on the other (although this need

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not exclude payments to individuals based on damages or expropriation). A native corporation might choose to support harvesting activities in a way which the conventional financial system would not.

4. Taxation. The North Slope Borough in Alaska is able to tax the surface facilities of oil company operations on the North Slope because the Borough includes the entire region. It is like a regional municipality in Canada, on a large scale. Through this very substantial source of revenue, the Borough is able to finance municipal works, construction, and a variety of activities which provide, among other things, a very important source of local employment to native people (see, for example, Morehouse and Leask 1980). Such taxation revenues could also be used in support of harvesting activities.

These are by no means the only methods of supporting the harvesting sector (see, for example, Berger 1977b: 35-43). It is not the purpose of this report to comment on the relative merits of these alternatives. Nor do I suggest that any of these alternatives might not themselves entail certain disbenefits, perhaps

even the very same ones that industrial employment does. That evaluation is one of the tasks of social impact assessment. One advantage does stand out, however, which is that none of these alternatives require the individual harvester to trade off his time to finance his activities. That tradeoff is intrinsically necessary with wage employment, even rotational wage employment.

Still unanswered is the question of whether heavy cash injections are truly necessary to the long term survival of the traditional sector, or whether they merely provide a surface appearance of health and prosperity, while simultaneously entraining tendencies which would undermine its long term viability. Here I will simply review some trends that have emerged in comparable situations, chiefly small-scale agriculture and fisheries, and explore the extent to which we might expect similar developments in the North.

The benefits of rotational employment will obviously be the greatest when employment earnings are high per unit of time expended, relative to the returns from alternative pursuits, and relative to the input costs of commodity production. This is indeed the case at present, but what of the future? The prospect for the middle 1980s appears to indicate a declining rate of increase in wages, possibly even absolute reductions. The

oil industry is probably not exempt from this trend. At the same time, capital input requirements are likely to increase, due not only to costs which may rise faster than wages, but also to tendencies toward overinvestment which no single producer can easily resist.

The problem of time allocation, whether on an individual or a household basis, between wage labour and commodity production, can be a matter of delicate balance. One must be able to spend not only enough time, but the right time, at the latter. Otherwise one risks falling behind, becoming less productive, and making less efficient use of one's capital investments. This last problem becomes more acute the greater and more specialized these investments are. Moving in and out of wage labour, assuming that it is available, is relatively easy. Moving in and out of harvesting is not easy -- the season must be right, the equipment must be on hand, prepared and maintained, and so on. Consequently wage labour can all too easily become a means of facilitating exit from rather than entry into harvesting activity. As a consequence of an unfavorable year, in which due to low commodity production or prices, disability, seasonal unemployment, or other misfortune, the individual may be forced to devote more time, or the wrong time, to wage labour, the balance may be tipped, and the ability to

hunt, fish and trap" decreased.

The experience of DEWline construction was that whether employment was initially taken on as a novelty or as a necessity (and it came at a time of extraordinarily low commodity prices), more people gradually lost their productive capacity than accumulated the savings which allowed them to gain it. This was a time when entry costs were much less than at present. While present circumstances make the option of wage employment, including rotational employment, economically attractive, the overall shift towards the industrialization of the North, i.e. the universalization of wage employment and the shift from merchant to industrial capitalist relations, could alter the situation.

The problem of balance between wage employment and commodity production is rooted not only in the relative returns from alternative activities, but also in the costs of engaging in them. There has been a rapid increase in the capitalization of harvesting activities. Whereas a typical outfit twenty years ago might have been worth hundreds of dollars, today it is worth thousands. This has resulted from a number of factors, only one of which is the greatly increased availability of cash derived chiefly from wage employment. People can indeed afford more and "better" equipment, and such equipment

has also helped to solve one of the chief problems created by the urbanization of recent decades, namely that of mobility. The level of capitalization is now much greater than would have been possible without widespread wage employment opportunities. At the same time, it is a response to wage employment in the sense that increased mobility means less time required for harvesting and more time available for wage employment.

Yet this capitalization entails certain risks. The recent round of capitalization -- consisting mostly of high-powered snowmobiles and outboards, has been largely financed from current earnings. It appears to be extremely rare for people to obtain bank or other loans to purchase productive equipment. But a new round of capitalization, **or** even a period of declining wage rates and commodity prices coupled with cost increases? however, could tip the balance for some people. Growing indebtedness leads to the possibility of the loss of ownership of productive factors and hence exclusion from production. Although this process has hardly begun in the North, it is one familiar to small farmers and fishermen further south.

Whether banks or other local financial institutions would provide loans for harvesting equipment is another matter. One of the features of the shift from

merchant to industrial capitalist relations is the introduction of interest, and of different criteria and conditions for loans. In the merchant system, when people kept accounts at the local trading posts or even with outside fur buyers, credit was extended on the basis of anticipated harvesting capability. The creditor made money on the spread between costs and prices, not on interest, which was in fact never charged. The relationship between creditor and producer was also more personal, and hence there was a greater willingness to tide the producer over in hard times. The modern financial system does not operate in this fashion. Few local merchants any longer extend credit in the old way, and banks are likely to look on outfitting costs as a consumer rather than a business proposition (if indeed they would look at them at all). Whatever the nature of the loan, regular interest payments would be expected on it, and the lender might well attach conditions to it which are at odds with prevailing harvesting practices. Matters of collateral, security, title, and insurance would become much more formalized. Certainly credit worthiness will be based on wage earning ability rather than on harvesting capability.

Looking ahead, there is every possibility that household expenditure and debt patterns which typically

arise from protracted dependence on wage employment will become increasingly incompatible with traditional harvesting activities. The concern here is not simply with debt arising from the purchase of productive equipment, but also the assumption of long term debt such as mortgages and consumer finance. Although the N.W.T. Housing Corporation has no plan to alter the principles of housing finance, native housing in Labrador has already been shifted from a rental to a mortgage basis. As wage employment becomes the dominant mode in the Beaufort Sea region, one cannot rule out increased pressure to make similar changes with respect to native housing there. The need to make substantial payments on a regular, monthly basis is of course quite at odds with the irregular patterns of activity and income that now prevail among native northerners.

Taxation will also become a burden on harvesting activities. Even a decade ago in native communities, only those who received a T4 slip indicating deductions from wage income bothered to file an income tax return. Such individuals were in the minority, and almost never did they provide additional information relating to harvest income or expenditure. Neither were there any clear guidelines for doing so. Revenue Canada, perhaps still administering the North in the "almost

continuing state of absence of mind" that Louis St. Laurent once referred to, seemed content to ignore most economic life there.

Today it is different. Not only is there much more employment income among native people, the system of payment has become more formalized, and both deductions and T4 slips are now routine. As well, obtaining the child tax credit now requires the filing of a return, even where there is no taxable income. Thus there is a much greater requirement for disclosure of personal income and expenses even for those who have little or no income from wage employment. In the last year or so, Revenue Canada has made specific requests of many individual N.W.T. trappers, including some from Beaufort Sea communities, for documentation of income and expenses with respect to their income tax records. Most trappers keep neither books nor receipts. The obligation to, do so, and to file information with respect to harvesting activities, might lead to reduced activity, tax avoidance, and failure to apply for grants and subsidies for which the producer is eligible, but must disclose financial information subsequently available to Revenue Canada or some other government department. Whether producers do any of these things, or simply hire an accountant, file their return, and pay their tax, their

) net income from harvesting will be reduced accordingly, and the incentive to continue, in marginal situations at least, could be diminished. This is another example of how the general economic and institutional environment created by industrialization is at odds with traditional practice.

) Increasing capitalization may lead to more effective but less efficient harvesting of resources. Capital is after all a substitute for labour and skill. The decline of personal skills -- the detailed knowledge of animal behaviour and of harvesting and traveling techniques -- is already occurring. Also declining, with the use of high-powered and noisy equipment, is the opportunity to observe and watch for the signs of many other features of the environment, not least those of species other than that being sought at the moment. There is probably already a tendency to stop, search and observe for limited periods of time at predetermined destinations, between highspeed travel periods, rather than continuously en route.

) So far, capital equipment has not greatly reduced flexibility. Snowmobiles, rifles and outboards can be used in a variety of harvesting applications, so that capitalization has not yet led to specialization in the way that it has in agriculture and fisheries. Even

so, there may already be grounds for testing the hypothesis that as capital inputs rise, the variety of species harvested declines, both on any given trip and in general. It appears that there is already a greater concentration on big game, especially herding and migratory species like caribou and whales, and a decline in the harvest of small game or scattered species, even though they might be quite abundant. A new round of capitalization, for example toward large boats, enclosed snow vehicles or ATVS, and the use of airplanes, might accelerate this trend towards specialization. This , together with the decline of skills, would lead to a significant decline in diversity and flexibility of action -- traditionally the hallmarks of the northern hunter. It would also lead to overdependence on a steady and predictable supply of one or a few resources, which is unfortunately an exceptional rather than common characteristic of northern species and populations . This increasing dependence on a few species will also be the result of a growing integration of wage employment and harvesting. Although blocks of time will be available for hunting on a rotational basis, there will still be less flexibility. Within these set time blocks, and especially if capital inputs are greater, it will be both easier and more economical to go after either

populations which are more highly concentrated at predictable locations, or individual animals whose products are extraordinarily valuable. The price of failure or even decline in the harvest of one or a few species is catastrophic to the harvester who has invested a lot capital in (or who has little time for) their pursuit. The hunter who is not so committed, merely goes after something else.

Labour intensive foraging is liable to harvest biomass on a broad and opportunistic basis. Capital intensive foraging is liable to skim off biomass where it is concentrated spatially and temporally. Consequently we might consider a further hypothesis, which is that a continuing rise in capital inputs can lead to improved harvest levels only up to a certain point, after which there will occur both a declining marginal success rate per dollar invested, and eventually an absolute decline in harvesting success.

There have been suggestions from many quarters about placing harvesting on a more industrialized footing. This too, however, involves specialization and capitalization, with the same implications for the maintenance of wildlife stocks. There will be a greater impetus for predictability, control and manipulation, which are of course inseparable features of

industrialization. An increasingly technical management regime must follow.

There are several other factors, arising directly from the larger process of industrialization, which are already placing native peoples' traditional access to and control over fish and wildlife resources in question. There will be inevitable demands by non-native immigrants and visitors for access to these resources for recreational, commercial and subsistence purposes. Native harvesters are being reduced to one of several competing "user groups" whose activities must be increasingly regulated by the state. The consequent management strategies can be expected to result in major alterations in the concepts and systems of land tenure and resource access. Already, there is much talk of regional land use planning, which means allocating specific blocks or types of land to specific uses and users, whose performance will be monitored and evaluated according to criteria of productivity and efficiency. Already, the wildlife management system in the North is moving towards the techniques typically based on the concept of a common property resource. Devices for limiting entry, as through licence restrictions in fisheries and quota allocations in agriculture, can be expected to follow. These too will lead to a loss of flexibility and diversity in hunting capacity. They also spell the demise of universal access regulated by

local custom, which has been the sine qua non of the traditional harvesting system.

The cumulative effect of all of these processes could well be to drive out the small producer. Depending on the species or population, harvesting will either be eliminated in anything resembling its present form, or be reorganized on an industrial basis. The industrialization of the north will thus lead, through many complex direct and indirect processes, to the elimination of fur, fish and game harvesting as a practical alternative to wage employment for most native northerners.

2.2. The Impact of Wage Employment on Social Expenditures

There is, in northern development policy as in other spheres of public policy, an abiding faith that the greater the output of the industrial system, the less will be the need for social security expenditures. The extreme form of this view is that if only markets were free, productivity greater, and industrialization better integrated on a world-wide basis, then social problems, and the need to spend money on them, would decrease. The less extreme form of this view is that to the extent that social expenditures are desirable, the realization of

these same ends would better enable us to pay for them. Most industrialized nations -- eastern or western -- are now promoting greater productivity and reduced social expenditures .

In the case of the Beaufort Sea region, there is a prevailing assumption that its economy is sick, because there is an inordinately high level of social welfare expenditures and relatively low productivity. Major projects are therefore seen as the means of remedying this situation, and in particular of reducing reliance on public expenditures. In support of this end, there is considerable concern at the regional level to inculcate the "work ethic" and implant a "work culture". Several federal and territorial government agencies -- those concerned with employment, education, economic development, and social services, for example -- are all concerned that this social transformation should take place without delay. It is well recognized in these agencies that the local labour force must not only be able, but willing, which means that native people must have the right attitudes towards wage employment. This is seen as especially urgent because it is thought that the oil industry will tighten up its hiring procedures in future and be less willing to rehire those who do not have a good employment record.

Yet far from there being an inverse relationship between wage employment and social welfare expenditures, there seems to be a direct one. Consider the evidence in table 5 with respect to social assistance payments. Consider also the increases in family allowances, old age pensions, child tax credits, and the extension of unemployment insurance to the North. Consider also the enormous expansion of the public service at the federal, territorial and municipal levels in the North. All of these things have occurred while real income from wages has risen threefold, fivefold or even more in some communities.

There should be no mystery in this. The destruction of individual and household self-sufficiency, and of the institutions of community solidarity and mutual aid, which is an essential precondition of industrialization, can lead to no other result. As individual and household incomes become private resources, and as sharing and mutual aid networks decline, the traditional mechanisms whereby no household was allowed to starve are lost. Where before, those households which could not meet their needs were taken care of as a matter of course by community networks, they are now necessarily a state responsibility. And as the disparity among household incomes grows, so does the

financial obligation of the state, unless all pretence of egalitarianism and democracy is abandoned in favour of elitism. Once well-being is measured against such general standards as **GNP** and per capita income, and there is an expectation that in a healthy society these things must automatically rise, then so must social welfare expenditures also rise. The citizen, having neither the property nor the community (in its more traditional sense) to assure his own subsistence, must rely on some larger organization. If the corporation cannot support him, then the state must, or in practice, some combination of the two must. Social security is the essential support system of a modern market economy in an industrialized society. It is part of the social contract, or the social wage. If there is a rise in the standard of living, then so must there be a rise in the security net below it.

As well, the better the market system works, so must the large institutions of society, public or private, devote a growing part of their attention and expenditure to functions other than direct production and distribution -- functions such as control, security, mediation, liaison, regulation, monitoring, planning, and public relations. At all levels, new forms of risk avoidance or risk spreading must replace those

traditionally provided by the community. Both public and private expenditures on pensions, insurance, security of persons and property, and the institutional care of non-producers, must increase. These increases are required not to improve on, but simply to maintain preexisting levels. The larger and more complex the organizational structure, and the more impersonal the relations within it, the greater the proportion of total energy is required simply to administer it. Not only are public expenditures required to protect those for whom the system does not work, then, but as the production process becomes more complex, more public expenditure is required to make it work. Thus the rising emphasis on job training and retraining, job creation, economic development programmes, outright public subsidization of the production process, and the like.

If these are the general trends in industrial society, then what are the implications for the North? For if the great transformation to a market society has not yet occurred among native northerners (and the concern of government agencies with respect to employment suggests that indeed it has not) , then the major changes are still to come. And if there is an overriding imperative in both government and corporate planning to

move the region to an industrial footing, then we must consider the possibility that such concessions to the harvesting sector as rotational employment are merely temporary. Unless redirected, the policy trend would appear to lead towards the destruction of traditional community social organization, and the expropriation of its economic base, which rests on the principle of free and universal access to the land.

All of this suggests that social welfare expenditures will rise in at least three ways. Certainly there will be, for the foreseeable future, a rise in the cost of coping with the casualties of change. Although there were (as of early 1982) no recent studies on social impact in general, or on the impact of development on the delivery of social services, it seems generally recognized that the problems are not so much in the smaller communities, where incomes are lower and wage employment less abundant, but in places like Inuvik and Tuktoyaktuk where the opposite is true. This is not a new situation. The same observations were made by local government officials twenty years ago. So we can certainly look forward to increasing expenditures on problems like drug and alcohol abuse, child neglect and abuse, family breakdowns, crimes against both persons and property, and so on. Some will argue that these are but

the temporary costs" of change, and once people have adjusted, the incidence of social pathology will decline. A comparative analysis of social indicators among the Beaufort Sea communities over a twenty or thirty year period, however, might well suggest that temporary is a relative term in this regard.

Secondly, quite apart from those people who, for reasons commonly ascribed to personal and psychological maladjustment, become the casualties of social change, there will be the costs of coping with the inevitable periodic downturns in the economy. As people become less and less able to turn to harvesting activities, and what remains of traditional social structure and ideology, in these downturns, the greater will be the costs of social assistance unemployment benefits, retraining, and the like.

Thirdly, as the local economy becomes more formalized and industrialized, we can expect an expansion of public expenditures whether the times are good or bad. The destruction of community solidarity, and the rising restrictions on traditional land use, must necessarily lead to new local perceptions of well-being, based on national industrial standards. Consequently there will be a need for the state and the major corporations to

the maintenance of "those standards, whether they involve unemployment insurance, day care, physical and mental health care, old age homes, or municipal services. This will be no less complex a problem in the North than elsewhere, and the rise of both public and private bureaucracies seems inevitable. The subsidization, direct and indirect, of the corporate entities that will be responsible for major projects, may also prove to be a permanent rather than a temporary phenomenon.

Chapter Three

Implications for Social Impact Assessment

What I have tried to indicate is that industrial employment, and industrialization, must be seen as historical processes rather than as single events. The description of the conditions of employment, and of the compensation for it, without reference to the general trends in industrial society, will not be very helpful in predicting the impact of industrial employment. When we board an aircraft we are, after all, more concerned with the destination than the appearance of the seats.

The process of industrialization in the North is sometimes referred to as a process of "acculturation", which is popularly understood to mean the loss of a distinctive set of cultural traits and their replacement by (or the adoption of) new ones. Underlying the visible evidence of change in language, material culture, and folkways, however, is the transformation of the mode of production: the entire system of social and economic organization, and the prevailing ideas about rights and obligations among members of society. For it is when these institutions and ideas are undermined that people perceive their security and well-being to be at risk.

It is therefore essential to consider not simply the nature and impact of a specific industrial development project, even one so complex as the Beaufort Sea producers' proposal. These projects must be seen as part of a larger, overarching project of the industrialization of the North itself. That is why we must consider the impact not only of wage employment income, immigration and infrastructure generated by the project itself, but also the whole array of associated public and private developments that are inseparably linked to such a project.

Consider, however, the categories in which we are normally invited to think about social impact assessment. First, despite the term "social", comes a list of economic categories: income, employment, business activity, public revenue and finance, and the value of public and private capital stock -- housing, public facilities, and so on (see, for example, Lang and Armour 1981). All of these can be measured in dollars, and changes in them easily compared.

Next is a list of social phenomena, starting with demographics and proceeding through a set of indicators such as health, housing, leisure, **political** participation, deviance or criminal behaviour, cultural opportunities, and physical environment (see, for

) example, Wood 1974)'. These too can be quantified and compared over time, although there is less agreement about the effectiveness and significance of these measures by comparison with that simple and universal yardstick, the dollar.

Finally, almost as an afterthought with which few charged with assessment responsibilities seem to feel comfortable, are such categories as "lifestyle", "community cohesiveness", "social well-being" and "quality of life". These can only be described and analyzed, because we do not have any satisfactory means of quantifying them, although some psychologists and psychiatrists have attempted to assess the manifestations of these phenomena in individual behaviour.

The most important common attribute of all of these indicators, whether they can be quantified or not, is that they equate human happiness and well-being (or at least utility, the satisfaction of wants) with consumption. The image is of man the consumer. The key economic indicators are the ability to consume, either privately (personal income) or publicly (public revenue), or the means to get that ability (employment, sales). The social indicators tend to refer to the ability to gain employment as a means to consume (education, skills, health), or are taken as proxy indicators of the lack of

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the means to consume (deviance, social pathology, non-participation) . Even the unquantifiable notions like quality of life, or lifestyle, refer in effect to consumer satisfaction -- the satisfaction of personal wants through commodities. Underlying this image is the idea that work and leisure (or personal life) are separate spheres of existence. Work is a "disutility" , and leisure and the opportunity for self-expression (through the consumption of commodities) are compensation for it. This consumer image of man is a fundamental part of the economic religion of modern industrial society.

Suppose, however, that we look at impact assessment with the image of man as a producer. Imagine that work and leisure are not neatly separable, that personal identity is realized primarily through production in cooperation with others, and that the social organization of work is intimately related to the social organization of society as a whole as well as to the individual's perception of his or her own well-being and self-esteem. If social well-being is perceived as being tied primarily to production rather than consumption, then community solidarity will take precedence over possessive individualism as the primary value to be considered in assessing change. A whole new

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set of categories would be generated by which to think about impact. They would include the maintenance of the local resource base, the systems of land tenure and resource access, and the social organization of work, especially as these things serve to reinforce and maintain the solidarity of the community and to socialize the young. They would include the degree of economic integration of the local community and the participation of its members, and the maintenance of the producer's economic and social viability, including the ability of individuals and groups to determine their own method and pace of work, and their own safety, health and comfort.

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A balanced view of individual and social well-being, I submit, must be based on a perception of people as both producers and consumers. Change must be assessed not only in terms of its impact on the ability of people to satisfy themselves as consumers? but also in terms of its impact on their sense of personal satisfaction and autonomy as creative, skilled, self-motivated and self-directed **producers**, and their sense of integration as valued and productive members of society. To put the "social" into **social** impact assessment, we must know something about the social relations, social institutions, and social values of the affected community. **We must** know, in other words, not

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only the ability of people to consume as individuals, but also the structural basis of their behaviour towards each other, and the norms, standards and expectations by which that behaviour is judged in the community. Those things, I would argue, are strongly informed by existing productive relations, and by the historical process of change.

How people perceive of their interaction with their society, especially the local society (i.e. the community) of which they are a part, is a crucial element of their overall sense of well-being. Indeed, if we examine the transcripts of community hearings from a wide variety of impact assessments, we will see that it is very often these seemingly intangible elements of community and social well-being that are of greatest concern to the ordinary citizen. Governments and corporations may talk about employment, income, new public facilities and the like, but aside from a rather generalized notion of prosperity, community concerns revolve in significant measure around "quality of life" issues, and especially, how people will behave towards each other in future. The concern with disruption and change in the community is based on the prospects for long term security and well-being which derive from one's status as a member of a society with known norms and

) rules, rather than immediate gratification and the affirmation of one's status as an atomistic consumer. The problem is that modern economics, based on the notion of economic man as constantly striving to maximize individual utility but inherently incapable of fully satisfying it, has no conceptual framework with which to deal with community and solidarity. So impact assessment, to the extent that it chooses to rest on conventional economic premises, has little alternative but to ignore them, except perhaps as afterthoughts to the "real" business of estimating and comparing the sums of individual utilities over a range of outcomes.

) No one doubts that massive changes have occurred in the North during the past century. The problem for assessment, however, is that we have two competing interpretations of these changes, and of their significance. One focuses on productivity and efficiency at the macroeconomic level, and individual utility and consumer satisfaction at the microeconomic level. Growth in the first leads to improvement in the second, and the ultimate yardstick is per capita GNP. The other focuses on the system of production as a key variable, and the nature and organization of work. Whereas the first interpretation draws our attention to the national economy on the one hand, and the welfare of the

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individual or household on the other, the second interpretation focuses on the local society, or community, as the nexus of significant human relationships and as the source of personal security and social well-being. Perhaps the most important, for our purpose, is that in the first view, the great transformation to industrial society has already occurred, while in the other, it has not.

Not only do these alternative interpretations draw on different sets of data, obtained by different methods, they also invite us to see the policy issues differently. For if industrialization is already more or less complete, and there is general agreement that this is a good thing, then the problem is simply to manage the details of the remaining transition, and to seek ways of mitigating whatever undesirable side effects might have been entrained. If it has not occurred, however, and if there is no local consensus as to its benefits, then the question is a much broader one. We should ask whether and under what conditions the present mode of production could best survive and evolve, if that is what people want. We should ask how that mode might best coexist with industrial development in the region, and what are the local implications of slowing down or speeding up the rate of social and economic change.

The question of what changes have actually occurred in the North, and therefore what mode of production actually prevails there now, is of course crucial to the assessment process. For changes which are designed to make one system work better, may when imposed on a different system, prove only disruptive. I believe that the alternative interpretations of northern development I have described each have sufficient standing in scientific convention that no public assessment of the impact of industrial development can afford to operate as though only one were valid, or worse, as though only one existed. The necessary course for any such inquiry is to examine the evidence before it in the light of both of these paradigms; to recognize these two interpretations explicitly and test them against the existing situation, case by case. The report of the Mackenzie Valley Pipeline Inquiry is exemplary in having done precisely that. I believe that every inquiry must do that, although with the passage of time, and the increase in frequency, less time and effort would be required in each case to elaborate these paradigms. We must, however, develop a common language and understanding to deal with these two interpretations (and perhaps others) in a comparative and constructive way, rather than simply a pejorative one.⁹

In fact, every inquiry into **social impact**, and every statement or assessment of **social impact**, makes a choice between these two paradigms. Those which choose the second usually do so explicitly, and state why. Those which choose the first usually do so implicitly, and do not find it necessary to explain or to justify their choice. They have nonetheless made a choice. Because there can be no "value-free": assessment of impact, however, it is necessary that whatever framework the inquirer chooses to work within be made clear, and the choice be justified.

Our present knowledge of the social and economic circumstances of Beaufort Sea communities leaves open at least two interpretations or hypotheses. One is that the local economy is simply in transition to industrialization, admittedly more slowly than had been earlier predicted but nonetheless well down that road. The other is that it is on a separate path which, although obviously affected by the wider process of industrialization, will not necessarily converge with it. It would be a hybrid economy, perhaps, but distinctive in the long run as well as the short.

I believe that the native economy of the North is not simply a poor or incomplete version of a modern industrial economy, but one that is developing (and could

continue to develop) along different and distinctive lines, although strongly influenced by the industrialization process. Because it relies on a mix of activity and income, it exhibits a fair degree of resilience and flexibility. Clearly this economy is presently benefiting from an infusion of cash derived from oil industry employment, and to some extent from industry purchases and contracts. There is also a trickle down effect, which appears to work better in the Beaufort Sea region than in most other situations, simply because the pyramid there is inverted. A large industry with phenomenal expenditures is operating in a region with a few, small communities. It does not take very much trickle down, in the form of purchases gifts, and scrounging (the ability of local people to obtain all manner of goods from food to heavy equipment which are simply being discarded by industry) to have a major beneficial impact on living standards. Unofficial and unrecorded transactions **probably** assume major importance.¹⁰ The imposition of a "work culture" will serve to formalize much activity, restrict unofficial sources of income, narrow the scope for unregulated and unmonitored activities, and render people much more exclusively dependent on wages for income.

Although there are many forces pushing the

Beaufort Sea region down the road to industrialization, those generated by large scale development projects are among the most important. If there exists a separate economy there, with the possibility of a separate future which is actually desired by native northerners, then strategies to maintain that separation, and the impacts of those strategies, must be evaluated alongside those which promote the opposite.

Social impact assessment requires us to know where we are, where we are going, and where we want to go. That means that we require a sound characterization of both the local economy and society, and of the major project as part of a larger social process. We must also understand the values and perspectives of the affected population, and how these values and perspectives relate to their situation and to the processes they are experiencing. Without these, we do not have a socio-economic impact statement before us, and we would not be able to formulate and test useful hypotheses about impact. Consequently we would not be able to assess or evaluate the social impact of the project.

The proponents of specific resource development projects will certainly argue that many of the trends I have identified or hypothesized are far beyond the scope

of their intended activities and of their corporate responsibilities. Yet these projects are the **centrepieces** of an already largely agreed on (in southern Canada) societal strategy of industrializing the North. Moreover, the proponents of these developments are neither ordinary citizens nor ordinary businesses. They are large corporate **entities**, and as such are the agents encouraged by, if not actually designated **by**, the state to lead this process. Both these large corporate agents, and the governments which encourage **them**, must therefore take responsibility for the processes they have promoted and entrained, whether deliberate or not.

Footnotes

¹ For further elaboration of these terms, none of which are entirely satisfactory, see Usher 1982b:419-421.

² Based on an analysis of GNWT fur production statistics, and Dome/Canmar employment data (Outcrop Ltd. 1981) for eight Beaufort Sea communities.

³ All income figures cited in this report are unadjusted for inflation. Local consumer price indices approximately doubled from the early 1960s to 1973, and doubled again by 1981. Thus only in those income categories where there was a greater than 400% increase over the entire period were there real gains.

⁴ There is some evidence that the child tax credit is used in this way in northern Labrador communities with similar economic orientations (Usher 1982a).

⁵ This estimate is based on NWT Housing Corporation statistics on the number of housing units in each community. This is the closest approximation, for comparative purposes, to families as defined for national income calculations. There is no readily available count of the number of families in the Beaufort Sea communities. The numbers of people per household there is larger than the number of persons per family nationally, so that while per household/family incomes are close, regionally and nationally per capita income in the Beaufort Sea region is lower.

⁶ Nationally, transfer payments accounted for 8.5% of personal income (i.e. to families and unattached individuals) in 1980, but this did not include the child tax credit (Statistics Canada 1982a:22). In Northern Labrador, the child tax credit was estimated to have accounted for over 10% of transfer payment income in 1979 (Usher 1982a:32,55).

⁷ Exceptions would occur where the pre-existing form of production was **unusually** remunerative, and if residents enter the new system at the lower end of an heirarchical reward structure.

⁸ It would require a separate report to do justice to the range of government and industry employment policies, and their origins, implementation and effectiveness, as well as to the differing views of those involved with them. My observations are based on public policy

statements and evidence given at public hearings, over the last ten years or so. They were reinforced during conversations with federal and territorial government officials in Inuvik in February 1982.

⁹ See, for example, the elaboration of these two paradigms in the context of social impact assessment in Lang and Armour 1981, and Torgerson 1980.

¹⁰ I have made inadequate reference, in the first part of Chapter Two, to the existence of the informal or unrecorded economy, except with reference to domestic food production, which constitutes a very large part of the imputed value of that economy. It is possible, however, that as industrialization encroaches, certain new opportunities for informal economic activity and income will arise as old ones disappear. There are no studies, however, of informal economic activity in the industrial economy of the North.

Table 1

Beaufort EIS communities grouped according to type, with estimated 1980 populations.

1. Major administrative centres, predominantly non-native

	Total Pop.	Native Pop.	Native as % of Total
Inuvik	2929	726*	25

2. Larger predominantly native communities

Aklavik	818	730	
Fort McPherson	793	720	
Coppermine	761	700	
Tuktoyaktuk	760	680	
Total:	3132	2830	90

3. Smaller predominantly native communities

Holman	310	280	
Old Crow	219	150*	
Sachs Harbour	172	155	
Paulatuk	169	165	
Arctic Red River	98	95	
Total:	968	845	87

Total all communities	7 0 2 9	4401	63
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*Probable underestimates

Source:
Industry EIS

Table 2

Sources of personal income in Beaufort Sea Communities

major category	specific sources	form of income	availability of data at community level
Employment	regular	cash	partial
	seasonal	cash	partial
Business	business proprietorship	cash and kind	almost none
	professional fees	cash	almost none'
	rentals and charters	cash	almost none
Commodity sales	furs	cash and credit	comprehensive
	meat and fish	cash	
	handicrafts	cash	
Domestic harvests	meat and fish	kind	partial
	clothing and bedding materials	kind	almost none
	firewood and building materials	kind	almost none
Transfer payments	family allowances	cash	comprehensive
	old age pensions	cash	comprehend ive
	child tax credits	cash	partial
	unemployment insurance benefits	cash	partial
	social assistance	cash	comprehensive

Table 3

Some indicators of northern resident employment and income in the oil industry

Community	avg. annual no. person-months 1974-78	avg. person ¹ -months per capita	Employment income, Canmar 1980 \$(000)	per capita Canmar incom 1980 (\$)
Inuvik	802	.274	980	335
Aklavik	125	.153	384	469 "
Fort McPherson	99	.125	272	343
Coppermine	181	.238	225	296
Tuktoyaktuk	350	.461	1100	1447
Holman	17	.055	68	219
Old Crow	-22	.100	n.d.	n.d.
Sachs Harbour	7	.041	94	547
Paulatuk	10	.059	49	290
Arctic Red River	8	.082	37	378

¹based on 1980 population.

n.d. - no data

Note - because of the high proportion of non-native resident northerners in Inuvik, the figures for that community cannot be directly compared with the others as an indicator of native involvement in the oil industry.

Sources:

Employment - Northern Resident Employment by the Oil Industry Working in the Yukon and Northwest Territories 1977-1978. Petroleum Industry Committee on the Employment of Northern Residents, n.p., n.d., p.5.

Income - Dome/Canmar Beaufort Sea Operations, an Economic Analysis, 1976-1980. Outcrop Ltd., Yellowknife, 1981, p. 19.

Table 4

Total personal income by source in two communities, 1980

	Tuktoyaktuk	Coppermine
Wages and salaries	69% ¹	45%
Domestic production ²	17%	30%
Transfer payments ³	12%	14%
Commodity sales	2%	11%
Total community income ('000s)	\$6,050	\$3,307

¹Includes small business income

²I have estimated imputed gross income, based on recorded and estimated unrecorded harvest volumes, and cash equivalent values of \$3.00 to \$4.00 per pound.

³I have added the following estimates of my own to the Industry EIS data: family allowances, child tax credits, and old age pensions for Tuktoyaktuk, and unemployment insurance benefits for Coppermine, derived from CEIC data. Although I have used the Industry EIS figures for UI benefits in Tuktoyaktuk, I believe they are grossly overestimated, based on CEIC data I obtained in Inuvik.

Source:
Industry EIS, tables 4.2-7 and 4.5-3, unless otherwise specified.

Table 5

Some comparative cash income data,
Beaufort Sea communities, 1961-1981

<u>Tuktoyaktuk</u>			
Year	1961-62	1973	1980
Total(\$)	182,000	500,000	5,050,000
per capita(\$)	449	775	6,645
%wages	66	66	83
%commodities	19	10	2
%transfer	17	22	15

<u>Coppermine</u>		
Year	1962-63	1980
Total(\$)	137,000	2,137,000
per capita (\$)	384	2,808
%wages	45	64
%commodities	20	16
%transfer	36	20

<u>Sachs Harbour</u>		
Year	1964-65	1981
total(\$)	71,000	543,000
per capita(\$)	875	3,503
%wages	7	46
%commodities	84	37
%transfer	9	17

<u>Paulatuk</u>		
Year	1962-62	1981
total(\$)	26,000	275,000
per capita(\$)	317	1,667
%wages	47	45
%commodities	28	18
%transfer	25	36

Note: While the data generally refer to native income exclusively, the 1980 data for Tuktoyaktuk are known to include total community income. This may serve to slightly overestimate native income there in comparison with the other communities and time periods.

Sources:

1960s Area Economic Survey Reports prepared by the Industrial Division, Dept. Northern Affairs and National Resources, Tuktoyaktuk and Paulatuk - Abrahamson 1963, Coppermine - Abrahamson et al. 1964, Sachs Harbour - Usher 1966.

1973 Gemini North Impact Statement (percentage figures are my own estimates based on partial data in that report) .

1980-81 Coppermine and Tuktoyaktuk - Table 4. Sachs Harbour and Paulatuk - My estimates based on field survey for this report.

Table 6

Annual social assistance payments in six Beaufort Sea communities (\$000's)

Community	early 1960s	1972-73	1979-80
Aklavik	44	51	86
Fort McPherson	9	28	84
Coppermine	23	n.d.	199
Tuktoyaktuk	13	46	88
Sachs Harbour	3	n.d.	18
Paulatuk	2	n.d.	13
Total	94		488

n.d.=no data

Sources:

early 1960s - Area Economic Surveys (see table 5)
 1962-73 - Gemini North Impact Statement (see table 5)
 1979-80 - Dept. Social Services, G.N.W.T. , Yellowknife.

Appendix

Modernization Theory

The conventional theory of modernization sees economic and social development as universally and necessarily linked to industrialization. It recognizes that industrialization requires a breakdown and eventual replacement of the pre-existing social order -- that there must be profound ideological and institutional change for industrialization to occur, and a radical reordering of both the social organization of work and the prevailing conceptions of mutual obligations among people, or what political theorists might call the social contract. But out of such change is thought to emerge a higher standard of living, a better quality of life, and greater personal choice. Although fraught with transitional difficulties at certain stages, industrialization and its benefits are seen to meet certain fundamental and perhaps even innate human needs and wants. The evidence is simply that people seem to accept, rather than reject, the trappings of industrial development when these are made available. People like the material benefits, or the "goodies", people take wage employment , and they move to urban areas where these

jobs and material benefits are more readily available. The majority of people are thus alleged to be "voting with their feet", and their **behaviour**, which is seen to be essentially voluntary, and the result of purposeful, individual choice, thus confirms the essentially benign and beneficial nature of the transition.

When these changes are largely externally generated, as in the case of a small, foraging society coming into contact with a large, industrial society, acculturation is said to occur. The affected group adapts, in response to the models and incentives for change which are provided by both a free market economy and directed social change, the latter intended to ease the transition from the old to the new. There will be massive cultural replacement, particularly in the spheres of work, institutional life, and **social relations**, resulting in individual behaviour which is more functional to the modernized, industrialized economy.

This model of economic development and cultural change has dominated the social sciences since World War Two, and has informed much of the theory and practice of economic and social development in both the third world (see, for example, Riddell 1981) and the rural and remote parts of the developed world. Certainly this model has guided the ideas of the great majority of those

responsible for the' social and economic development of northern Canada during the post-war era. It is the intellectual foundation of the more popular view that simply sees industrialization as inevitable, desirable, and beneficial -- the more the better, and anyone not yet on the train should certainly hurry aboard. Indeed, this model is really the essence of what we conventionally call "development" .

When these ideas are applied to northern Canada, they lead naturally to the conclusion that major projects are in principle a good thing. In this view, economic change, modernization, and cultural replacement have already occurred on a massive scale in the Western Arctic. These processes, which began nearly a century ago, lead inevitably to a convergence with industrial society which must now be completed with one final step: the provision of universally available industrial employment. Most of the arch is already in place, what is needed now is but the keystone.

This argument has appeared in both major government policy statements over the years (e.g. Robertson 1961), and in influential social scientific studies (e.g. Honigmann and Honigmann 1965,1970; Jenness 1964). It is most thoroughly articulated, with respect to industrial employment in the Western Arctic, in the statements of

Dr. Charles Hobart to the Mackenzie Valley Pipeline Inquiry (1976 a,b,c). The basic theme, however, emerges in virtually all statements on northern development by project proponents (see for example, the Industry EIS) and governments alike, and is typically fleshed out as follows.

The argument cites the history and impact of the fur trade, the missions, government administration, the educational system, the media, urbanization and the associated provision of housing and municipal services, and the partial availability of wage employment (provided mostly by government) to date. Cumulatively, these events are seen to have irreversibly changed the social structure, ideology, economic orientation, and the aspirations of the people. To date, the consequences of these changes are admitted to have been negative in many respects, having created, by comparison with the more fully industrialized parts of Canada, lower standards of living, education and health, a dangerous dependence on subsidies and transfer **payments**, and a higher incidence of a wide range of social pathologies. The problem, however, is that the process of modernization is still incomplete, and the key to its completion lies primarily with the provision of employment opportunities which can fulfill the aspirations of the local population, which

are seen to be blocked at present.

Further, it is argued, even if people do prefer a more "traditional lifestyle", the resource base can no longer sustain it. The native population has not only grown, it has also become more youthful. Typically, half of the population is under the age of twenty, and in some cases under the age of seventeen. These are the people who will in the near future be looking for alternative ways of making a living, not only because the resource base will not sustain them all, but also because their aspirations apparently lie elsewhere. A number of studies in the last decade or so have suggested that young native northerners prefer an urban, industrial way of life to hunting, trapping and fishing in the smaller communities.

These young people, and indeed, it is said, many of their parents, aspire not only to the occupational trappings of the office, the drill rig, or the construction camp, but **also** to a material standard of living which only wage employment can bring. Having "bought in" to the industrial order, it is inappropriate that government money, whether in the form of subsidies, transfer payments or wages, should constitute such a large proportion of native peoples' incomes. If they produced their share of wealth along with other

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Canadians, by supporting and participating in industrial employment, their claim to self-determination would be enhanced, and at least one source of non-native bias and discrimination towards them -- the allegedly unequal distribution of society's benefits in relation to work performed, or wealth produced -- would be removed. As well, the provision of an urban, industrial "lifestyle" would be the best means of eliminating dysfunctional elements of "traditional" or "frontier" culture, by providing direct inducements and rewards to adopt more conventional values and modes of behaviour, especially with regard to work and to consumerism. Household income is already seen to be largely dependent on wages and transfer payments rather than hunting and trapping, hence the problem is to raise the proportion of cash income which is earned.

Although in earlier formulations of this view, the domestic and exchange components of household income were downgraded or ignored, there has in recent years been a much wider recognition of the importance of these two sectors to the household budget, especially in the smaller communities. The costs of domestic and exchange production are substantial, however, and cash income from these activities is not always sufficient to cover them, let alone the now conventional array of household

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expenses. Indeed it has been noted that those individuals with substantial wage income are often those most able to afford the best hunting and trapping gear. Wage employment, in this view, will improve rather than diminish success in hunting, fishing and trapping, especially if it is of a rotational nature which allows adequate blocks of time for these pursuits. The evidence for this case has been best summarized by Hobart (1981, 1982).

Thus traditional economic activities, although now acknowledged to be highly important for both economic and cultural reasons, are alleged to be no longer sustainable save through the provision of adequate levels of wage employment in the native communities. Advocates of industrial employment have recently tended to suggest that their objectives, far from undermining the basis of native life, actually provide essential support to it, and also enhance personal choice by enabling a greater array of "lifestyles" . Hunting and trapping, in this view, are seen not as the foundation of a system of production having a different mode of social and economic organization, but as occupations which one chooses on the basis of "lifestyle" preferences, but within an overarching framework of an industrially organized society.

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The essence of this case, then, is that the transformation from a primitive, foraging society to a modern industrial one has already occurred in the North. Both necessity and ambition have led most native people to accept the general societal project of the industrialization of the North, and the evidence for this is found in their economic **behaviour**, which constitutes the "real" expression of their preference. The North today is merely a problem case of modern industrial society -- a less developed or "disadvantaged" region, whose persistence points to failures of the market or of public policy, and which can be eliminated by the proper blend of private investment and government action.

Neither industry nor its specific development projects will, in this view, be the cause of major social change because that change has already occurred. Rather, these projects are the means by which full participation in industrial society can be assured. It remains only to work out the details. It is therefore entirely appropriate to limit social impact assessment to the relative capacity of one or another project to provide the conventional array of industrial benefits: jobs, job training, business opportunities, income, community infrastructure, and other amenities. Beyond this cost-benefit approach, the impact assessment need only

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recommend the most effective ways of mitigating locally undesirable effects. The question is simply, to what extent will the project in question raise the local standard of living?

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