

Education, Training, Employment, and Procurement

Submission to the Joint Review Panel for the Mackenzie Gas Project

Alternatives North

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EXECUTIVE SUMMARY

This submission proposes a framework for assessing employment, training, education and procurement policies and programs related to the Mackenzie Gas Project. It differs from the implicit framework underlying the Proponent's Environmental Impact Statement. I believe that the alternative analytical framework proposed here provides a better way to approach the mitigation of cumulative impacts of major developments.

The general purpose of the analysis is to identify steps that will enhance the long-term health and wellbeing of the people and communities of the NWT, to the greatest degree possible. Specifically this involves, at least:

- ensuring that training programs and educational measures associated with the project contribute to the long-term employability of people who participate in the programs;
- ensuring equitable access for all northern residents to the full range of jobs;
- by various means, counteracting the aspects of the Project that exacerbate the uneven development of the territorial economy;
- adapting measures related to training, employment and procurement so that these strengthen, rather than weaken, the stable economic base in all regions of the territorial economy.

Here are the main lines of the argument:

1. The Mackenzie Gas Project is an important driver of the massive changes now underway in the Northwest Territories economy. One of the most important tendencies in the kind of development that is occurring is *accelerated uneven development*, in which the smaller communities are relatively impoverished while a few wage centres boom. This kind of uneven development has many undesirable social consequences.

2. Along with many environmental effects, the direct impact of the Mackenzie Gas Project on how people may make their livings –where they work, or don't, and what they are able to do— will probably be its most lasting legacy.

3. Labour force and procurement measures must take into account the fact that people are living in two different economic situations. Those in the wage centres of Yellowknife, Hay River, Inuvik, Enterprise and Norman Wells live in high employment, expanding cities and towns where business and employment opportunities abound. In most of the other communities of the Northwest Territories, different economic conditions prevail, and many people earn their livings in a specific version of what has been called the northern "mixed economy" – a form of local or regional economy that distributes risk and permits adaptation to economic uncertainty.

4. The mixed economy (household-based production in which income is pooled from wage and on-the-land activity) is resilient and adaptable, a means for people to cooperate in responding to opportunities and compensating for setbacks and shortages. It has an important role in sustaining the Dene, Metis and Inuvialuit traditions which are now being built into the new institutions of self- and public government in the Northwest Territories. It also acts as a supplementary or second social safety net, complementing the public educational, health and social welfare system.

5. An analysis of the mixed economy and its relationship to the greater economy of the Northwest Territories is an essential basis for successful policies and programs in education, employment, training and procurement. Such an analysis is presented in this submission. On the basis of the analysis, some recommendations are offered. These are intended to result in improved conditions for the entire labour force and small business sector in the Northwest Territories.

6. Policy based on an analysis of the mixed economy and its role in the larger economy is necessarily complex. It integrates a number of interacting factors, not all of which can be quantified. There are gaps in knowledge. There is a need for further research.

7. Some might argue that the mixed economy is already dead or on life support, and that people living in small communities should be considered unemployed potential workers and occasional hunters -- not participants in a different, functional local economy.

There is no incontrovertible, empirical proof of the continued vitality of the mixed economy. But there is no proof of its demise, either. In light of this, and the costs of holding a premature funeral, a *precautionary principle* should be applied.

Policies should be developed *as if* the mixed economy were still operating fully. If the mixed economy is faltering, perhaps these policies will strengthen it sufficiently. If it is healthy, its overall value to the NWT social and economic wellbeing is great and warrants support.

8. While it is necessary to analytically isolate different factors and trends in order to understand social processes, analysis of one factor in permanent isolation from others can be dangerously misleading. This is the case in the Proponent's analysis of what is referred to as "Traditional Culture". In this analysis, the mixed economy is reduced to a system of preferences and needs. The primary relevant expression of traditional culture is identified as hunting. This is a misleading description and it underestimates the possible impacts on community economies of the Mackenzie Gas Project.

9. Successful management of the Project's risks and opportunities requires an integrated, coordinated and consistent program. Models such as that developed by government, industry and the non-governmental sector in northern Saskatchewan, through the Multi-Party Training Plan, should be emulated. Such an approach permits: coordination to realize economies of scale and approach; strengthened capacity for evaluation and

learning from experience; and consistent, steady program development to create a reliable structure of opportunity for potential workers.

10. The Proponent's Environmental Impact Statement proposes a basket of unconnected measures related to education, employment, training and procurement. While many of these are good and necessary measures, they are not sufficient. What is needed is an institutional innovation that will ensure:

- stable *links* among the various initiatives, so that they can be made to “add up” for individuals who would like to overcome barriers and gain regular employment;
- a coordinated planning and implementation process that would permit the refinement of employment and training practices –and the identification of the best practices for this area;
- a forum for public discussion and monitoring, linked to a system that can respond to problems;
- firm and evaluable commitments by the Proponent concerning making all forms of employment and training accessible to men and women, wherever in the NWT they may live.

11. Assertive programs are needed to tackle the serious problem of generally low levels of educational attainment in the greater part of the population in the Northwest Territories who are available to meet the labour force demands of the Project. Some measures are proposed in the report.

12. Women remain a significant, untapped source of skilled labour. The Proponent must develop work and training opportunities that ensure that women have a realistic chance to qualify for and remain in the permanent jobs that will be created directly and indirectly by the Mackenzie Gas Project. Specific measures and examples are proposed.

Introduction

This submission proposes a policy framework and specific measures for the Mackenzie Gas Project concerning education, training, employment and procurement.

It argues that all education, training, employment and procurement related to the project should be arranged to ensure the long-term health and wellbeing of the people and communities of the NWT, to the greatest degree possible. Specifically this involves, at least:

- ensuring that training programs and educational measures associated with the project contribute to the *long-term employability* of people who participate in the programs;
- ensuring *equitable access* for all northern residents to the full range of jobs;
- by various means, *counteracting* the aspects of the Project that exacerbate the *uneven development* of the territorial economy;
- adapting measures related to training, employment and procurement so that these *strengthen, rather than weaken, the stable economic base in all regions of the territorial economy.*

General Approach

In keeping with the principles of the report on sustainability-based assessment prepared by Robert Gibson for the Joint Review Panel, this report emphasizes the interaction among measures related to employment, training, education and procurement, and their likely longer term impact. Two requirements of a “serious sustainability assessment” mentioned by Gibson (2006) are particularly pertinent here:

(1) “efforts [are made] to achieve multiple, mutually reinforcing gains in all the interrelated areas of sustainability concern in addition to serving core project purposes” and

(2) “assessment [is treated] as an approach to decision-making (in the conceptualization, planning, design, evaluation, approval, implementation and monitoring and eventual decommissioning of undertakings), not just a review at a particular stage.” (p. 3-4).

Gibson’s principles support key aspects of the Panel’s Terms of Reference (Terms of Reference, Sec. 5). They are also in line with policy recommendations from key studies completed by the Government of the Northwest Territories, and independent northerners, over the last twenty years. These include *The SCONE Report: Building Our*

Economic Future (an extensive study completed by a Special Committee of the Legislative Assembly in 1989), *Common Ground: NWT Economic Strategy 2000* (the report of a citizen's panel established by the Minister of Resources, Wildlife and Economic Development), *Towards a Better Tomorrow: A Non-Renewable Resource Development Strategy for the Northwest Territories* (the Minister's response), the *West Kitikmeot/Slave Study Report* and associated research (prepared by a partnership of Aboriginal organizations, environmental groups, government and industry) and the federally-initiated *Cumulative Effects Assessment and Management (CEAM) Strategy and Framework* (a community-based and consultative project led in the north by regional staff of the Department of Indian Affairs and Northern Development).

While there are significant differences in emphasis in these various reports, they share a similar approach. All are based on the view that there must be positive, long-term, concerted economic planning –and strategic intervention-- in order for residents of the Northwest Territories to benefit from major projects. All would reject an approach to major project approval that isolates the benefits and impacts any particular project from other projects and economic influences. All acknowledge the value to northern political, social and economic life of the vitality of the smaller, pre-dominantly Aboriginal communities of the Northwest Territories.

My comments in this report are made in the same spirit, in the hope that despite its understandable project-specific mandate, the Panel will sustain the integrated and far-sighted focus that animate its terms of reference. It is helpful that both government and industry envision a long future for the Mackenzie Gas Project, which will last in the production phase at least until 2030 (Northwest Territories 2006a) and which taken together with other non-renewable resource development projects will have a lasting, long-term effect on the territorial economy and society.

The remainder of this report is organized in five sections:

- I. Uneven Development and the Mixed Economy
- II. Employment and Training for Long-Term Viability
- III. Education : What Benefits?
- IV. Procurement as a Vital Tool
- V. Summary of Recommendations

I. Uneven Development and the Mixed Economy

This section of the submission proposes a policy framework for understanding the benefits and impacts of the Mackenzie Gas Project in a way that takes into account the realities of both the regional wage centres and the smaller communities of the Northwest Territories.

For some time, residents of the Northwest Territories have recognized that they face a risk of accelerating uneven development (Legislative Assembly 1989; Northwest Territories 2006a). Uneven development has many important ill effects, but here I want to speak only about its effects on individuals and their ability to make a living.

Uneven economic and social development is a problem that confronts almost all developing countries and regions. Wage centres emerge and grow, often under boom conditions. The wage centres swell with a migrant population, not all of whom actually find work. They become the urban poor. Rural areas and smaller centres lose skilled people and income generating opportunities to the boom centres. The countryside is depopulated and impoverished, leading people to leave it. This swells the wage centre populations further. In the end, two economies and two societies exist, differentiated by extreme inequalities in opportunities for business development and stable means of making a living.

There are signs that uneven development is occurring in the Northwest Territories. In the wage-based communities, boom conditions prevail. Unemployment is extremely low, the populations are expanding, businesses are growing, prices are high. In the smaller, predominantly Aboriginal communities, unemployment rates are very high, annual incomes are lower, there is little business development, and prices are higher relative to those in the regional centres. The risk is that the disparity between these two ways of life will increase: the smaller, predominantly Aboriginal communities will become relatively impoverished (in terms of skilled people, healthy work settings, the vitality of the community economy) while the few wage centres boom and swell with migrant workforces drawn from the rural parts of the Northwest Territories as well as elsewhere.

To mitigate the potential of this project to accelerate uneven development, it is important that, the greatest extent possible, the provisions that the Joint Review Panel recommends concerning employment, training, education and procurement

(1) tend to moderate the boom (by distributing its effects in time and geographically), and

(2) tend to support the viability of the local economies¹ in the smaller communities.

These are challenging goals. A helpful way to approach these goals is to make use of the concept of the “mixed economy.” The “mixed economy” is found in many communities

¹ ‘Local economy’ in this context means the sum of productive and exchange activity centred in a particular community.

where a substantial proportion of food and other necessities of life are taken from the land. The “mixed economy” analysis is useful because it leads us to understand the patterns, practices and resources that sustain well-being in a particular place, from the perspective of the people who live there. It can be seen as a local adaptation to pressures and opportunities that emanate from powerful outside interests, including governments and corporations. The next section provides an explanation of the mixed economy concept.

Conceptual Model of the Mixed Economy

Our knowledge of the basic characteristics of the mixed economy has been developed over the last twenty years by a number of scholars (Asch 1977, Asch 1979, Quigley and McBride 1987, Usher and Weihs 1989, Nahanni 1992, Usher, Duhaime and Searles 2003, Jarvenpa 2004).

The mixed economy is found in a variety of forms in many places in the provincial and territorial north. It never exists autarkically –that is, in complete isolation from the rest of the economy. Rather, it is a place-specific feature of modern capitalism in modern day Canada. It can be seen as a successful adaptation by rural communities to the pressures and opportunities present in wage-based social welfare economies. Its dynamic is somewhat similar to that described by economists who study the family or the family farm and the “non-waged work” that sustains these important institutions.

In the heuristic model of the northern mixed economy, the basic unit of analysis is not the individual worker (as is the case in much economic theory) but rather the household. The household may consist of two or three generations of related people who tend to pool their income (particularly income-in-kind) and who may or may not share a single dwelling. Households exist as part of a network of kin and exchange relationships that order the sharing of, particularly, harvested food and the labour of harvest. Cash income is important in these households, because on-the-land production depends upon certain commodities that only money can buy: snow machines, outboard motors for boats, gasoline, and the like. In addition, cash is required to buy foodstuffs not available from the land, to pay rent or mortgages, to pay for utilities and for consumer goods. Sources of cash include wages, universal social transfer payments, small business income, and income from art or craft production and sales. Generally, all household members contribute their labour. While all members of the group are expected to be versatile and able to perform most essential tasks, there is customarily division of labour based on both gender and age.

Where the mixed economy flourishes, cash income buys desirable consumer items, but it also, importantly, subsidizes hunting, fishing, gathering and trapping. The gifts of the land are shared, within the household and among households. This sharing distributes to many people the highest quality food available in the north, as well as fur, hides, bark and other useful items that may also be made into products that are sold for cash. Furthermore, while “going in the bush” is physically arduous, intellectually taxing and sometimes risky, it is not typically understood as “work,” but rather as a highly valuable

activity that enhances physical, emotional and mental well-being for the people who participate and for their community.

It is important to recognize that the above is a generalized description –it is a conceptual model of an economic form that knows many specific versions. The mixed economy has existed in some form in the Mackenzie Valley for at least the last two hundred years, since cash income became available. It has been adapted to many changes in the labour market and the greater economy. In specific locations today it sustains a different balance among various forms of productive activity, again adapted to the existing opportunities.

There is a need for current research investigating the dynamics of particular local mixed economies in Northwest Territories communities, as it is likely that the recent changes in the greater NWT economy (such as diamond mining) and perhaps other influences have had an impact. There is no question that harvesting food and other goods from the land remain important sources of income in the smaller communities (see, for example, NWT Bureau of Statistics, *2002 NWT Regional Employment and Harvesting Survey*). The information in this analysis is a valuable source of documentation. Surveys alone, however, cannot describe the *patterns* of production (waged and non-waged), exchange (sharing) and accumulation (storage of food and other goods) that sustain the mixed economy. This fact is significant for any recommendations the Panel may choose to make concerning socio-economic impact monitoring, and I will return to it later in my submission.

The Importance of the Mixed Economy

The essence of the mixed economy is that the individuals and households within do not rely upon a single source for their livelihood, but rather upon several. It may include small business activity, wage employment, gathering, hunting and trapping, domestic care of others, service to the community, and other activities. The characteristics of this economic model are resilience, adaptability, practicality and social stability, and it is able to nurture the spirit as well as the body.

In the Northwest Territories, the mixed economy can provide a number of concrete benefits:

1. Enhancement of the social safety net.

The mixed economy serves as a buffer that provides some protection to the people who have access to it from the boom-and-bust cycles of the resource frontier. Laid-off workers in urban centres of southern Canada may secure some support from their families, but usually personal savings and ultimately various state-provided social programs are the main sources of support between jobs. This can be a difficult and demoralizing situation in non-renewable resource dependent economies (Leadbeater 1998).

Where the mixed economy survives, people who lose or leave their jobs have another option: they may shift their productive effort to essential non-waged activities, such as hunting, fishing, gathering, food preservation and making products based on the gifts of the land.

2. Mitigation of the tendency to uneven development.

If a viable and meaningful way to earn a living is preserved in the small communities of the Northwest Territories, people will continue to have the choice of remaining in these communities.

In this regard, a rough analogy might be the role played by the family farm in Alberta and Saskatchewan. Few family farms now survive without supplementary wage income: often some members of a farm family work for wages full or part-time, returning to the farm for planting and harvesting and sometimes returning cash wages to the farm as well. Given the many pressures on farm producers today, this economic behaviour has tended to keep family farms in operation, and somewhat more people living in the countryside, than would otherwise have been the case.²

3. Cultural continuity.

The mixed economy plays a role in preserving northern cultural continuity. It provides a means for the continued exercise of traditional knowledge and skills and for the expression of traditional cultural values. It supports language retention. Very importantly, it provides an opportunity for intergenerational transmission of the place-specific knowledge upon which successful on-the-land production and living depends.

The adaptive, practical aspects of the mixed economy mean that the entrenchment of Aboriginal values in NWT political institutions and practices will not be an empty exercise. The continued need for knowledge and skills in the practice of the mixed economy means that Aboriginal ideas about human values, the cosmos and humankind's place in it will be less likely to be preserved in "freeze-dried" form –only in tapes and books. Instead, the persistence of the mixed economy can support a less abrupt evolution of social ideas, knitting the knowledge of the past into the new circumstances of each generation, and in this process sustaining a sense of meaning and vitality. The potential benefit here is great, and should be reason enough to draw attention to the sustenance and encouragement of the mixed economy.

² I would not press this analogy too far: most farmers no longer produce much of the food for their own tables, and to my knowledge there are few mechanisms for sharing non-cash production among farms. Furthermore, the primary economic goal of farming on the prairies today is large scale production of food for mass consumption in Canada and internationally, a feature not present in the mixed economies of the North.

The Importance of Public Sector Social Provision

All of the people who live in the Northwest Territories rely upon publicly funded education, health care and social welfare. The term “social provision” is often used to refer to these areas of publicly provided goods: the full set of universal programs that define Canada’s social welfare, education and health systems (Boychuk 2003).

Since the 1950s, universal social programs have been available in the Northwest Territories. There have been both positive and negative effects (see for example Snowshoe 1977), but there is no question now that all of the residents of the Northwest Territories rely upon the universal programs, as much as do Canadians in all parts of the country.

Specific elements of the system of social provision have a somewhat different direct effect in the two different economic situations that exist in the NWT. In communities where the mixed economy survives, the system of public social provision is at least partly integrated into it –through transfer payments and income from training opportunities. In the predominantly wage-income regional centres, the system of social provision is the means by which workers gain access to and sustain employment. In all cases, high quality education, health and social services are fundamental to well-being.

The Mackenzie Gas Project will place important incremental demands on the system of social provision. Some of the ways that this will happen have been identified by the Proponent in the Environmental Impact Statement. Specific costs and special measures have been further enumerated by the Government of the Northwest Territories in documents prepared for this Panel.

It is beyond my mandate to comment on most of this information, though before turning to my specific responsibilities, I note that in the end, all of the elements of the system of social provision have to be considered together. Weaknesses in the employment training system can lead to family distress or ill health, and a consequent need for more support in those areas. Absence of adequate child care or home care for dependent elders can reduce or eliminate (often female) care-givers’ ability to find adequate employment.

We often speak of the system of public provision as having to “respond” to the boom and bust cycle, or cope with its consequences. It does have to do this. But, in addition, public expenditures in this area, appropriately planned, can have a more active role in creating new, higher functioning institutions, spreading risk, capturing benefits, and even multiplying them. Some of the potential for realizing these benefits is explained in the sections that follow, which deal with the linked matters of employment and training, education, and procurement.

II. Employment and Training for Long-Term Viability

According to the Proponents, at the peak of the construction phase of the Mackenzie Gas Project there will be over 9,000 new, mostly temporary, full and part-time jobs available, directly created by the project. The Proponent calculates that in this two-year peak period, over 20,000 person-years of work will be indirectly created, and an additional 12,000 person-year jobs induced. These very large numbers of workers will be required during the peak years of the construction phase (year 2 and 3).³

Estimates of the enduring indirect and induced employment due to the Mackenzie Gas Project are more variable, in part due to uncertainties about future gas discoveries, the pace of exploration and development as affected by world prices, and probably, varying assumptions of the model developers. There is not much doubt, though, that the oil and gas sector alone will create thousands of jobs for the foreseeable future, in addition to those created in other mineral extraction ventures (Northwest Territories 2006a pp. 9-11).

All parties agree that the demand will far exceed the supply of northern workers, even if every unemployed person in the Northwest Territories were to choose to work in the mineral extraction sector or related industries and businesses. In June 2006, there were approximately 1,400 people in the NWT labour force who were seeking work, for an unemployment rate of 5.8%, the lowest in Canada.⁴ (In 2004, the unemployment rate was 10.4%, representing 2,454 people.)

Unemployment is not evenly distributed. In the wage centres of Yellowknife, Inuvik, Norman Wells and Hay River, there are very few unemployed people indeed. The need for jobs is greatest in the small, predominantly Aboriginal communities of the Northwest Territories.⁵ Employment tends to be seasonal.

The unemployment rate is far higher for Aboriginal people –and in particular for Aboriginal men. According to the 2004 NWT Community Survey, 25.6% of Aboriginal men were unemployed, compared to 4% of non-Aboriginal men, while 14.9% of Aboriginal women were unemployed, compared to 3.6% of non-Aboriginal women.

³ These figures are drawn from the Proponent's submission, *Mackenzie Gas Project: Joint Review Panel Technical Hearing, Topic 10: Proponents Written Submission*.

⁴ In June 2006, the labour force participation rate in the Northwest Territories was 78.4%, compared to a rate of 68.3% in Canada as a whole. The June 2006 unemployment rates for the Northwest Territories and Canada were 5.8% and 5.6% respectively. Since November 2005, the unemployment rate in the NWT reached a low of 4.6% in April 2006 (Canada as a whole, 5.6%) and a high in June 2006 of 5.8% (Canada, 7.2%). This suggests that while the unemployment rate in the NWT may fluctuate slightly, facing a major economic downturn, the unemployment rate in the NWT will not rise far above its current level. Data from NWT Bureau of Statistics, at www.stats.gov.nt.ca/indicators.otp, accessed on July 22, 2006. See also Appendix A.

⁵ Unemployment rates (2006) were reported as follows: Sahtu 16.7% (Norman Wells 4.7%; other communities 24.1%); Deh Cho 16.9% (Simpson 8%; other communities 23.5%), South Slave 11.5% (Hay River 9.2%, Fort Smith 10.4%, other communities 24.6%); Dogrib 23.6%. (NWT Bureau of Statistics)

Low educational attainment is strongly associated with unemployment. In 2005, just 36.8% of people with less than Grade 9, who were looking for work, were actually employed. For comparison, the overall employment rate was 72.3%, while the employment rate for those with a university degree was 92.7%.

The Proponent estimates that during the peak construction phase, approximately 1,500 jobs will be filled by Northwest Territories workers, a number that is close to the number of people who are currently unemployed and seeking work.

The following considerations arise:⁶

It is likely that some employed NWT workers may be drawn into pipeline-associated work by higher wages, the opportunity for further training or the nature of the work. It is also likely that some of these qualified workers will be drawn from the smaller communities of the NWT. To the extent that they are, a need is created for their replacement.

Considering the impact of educational attainment on employment prospects, it is extremely important that the opportunity for work on the Mackenzie Gas Project not lead to an increase in the number of people leaving school before completing Grade 12.

Effective education and training programs will be required to remove the barriers to employment currently facing many of the unemployed people in the Northwest Territories.

Linking Unemployed People to Jobs: Creating Programs that Work

The following categories of people are evidently most in need of positive measures to enhance the likelihood that they will benefit from the employment opportunities presented by the Mackenzie Gas Project:

- All people who have lower than necessary educational attainment, or who are not trained in the trades and skill required by the oil and gas industry;
- Women who seek “non-traditional” trades, technical or operational jobs;
- People who are living in smaller communities, outside of the booming wage centres.

The categories are not mutually exclusive. For example, unemployed people who are living in the smaller communities, but who want work, are statistically likely to have lower than average educational attainment and to be seeking further training in order to qualify for better paying jobs. Some people face specific barriers. Women who qualified

⁶ I exclude consideration of the impact of the migrant workforce from my presentation.

for trades training or trades employment may require suitably designed programs for child or elder care.⁷

In this section of my submission, I will discuss aspects of the training system that could be improved, the importance of training program design and consistency for the health of the mixed economy, and finally, some aspects of training delivery that might improve accessibility to the groups who are most in need of targeted support to gain access to jobs.

Over the years, the Northwest Territories has developed an infrastructure for training future workers, and a number of practices, curricula and teaching skills are collected in this infrastructure. In response to the Mackenzie Gas Project and the expanding economy, the Government of the Northwest Territories has adjusted this system.⁸ Cost-sharing with the federal government supports two initiatives, the NWT Mine Training Society (\$14.8 million) and the Aboriginal Futures Society (\$9.9 million), which provides pre-employment or employment readiness training such as basic skills and industrial skills development. In addition, regional oil and gas training is subsidized, and pre-employment training is provided at Aurora College.

The numbers of people involved in these programs is in absolute terms, small, but considering the population base, significant. For example, the Aboriginal Futures Society reports nearly 800 course completions during the last two years, with some data not yet reported. In 2005-6, 186 individuals participated in regional oil and gas training, while Aurora College reports that in the same period, 103 participants completed courses in such areas as driving, small engine repair, heavy equipment operation, among others.

The Proponent has developed a Human Resources and Training Database to identify people who seek either employment or training in connection with the Mackenzie Gas Project. The Proponent reports that since 2004, 851 people have registered, with 528 seeking training and 323 indicating that they were ready for employment opportunities. At this writing I have not learned what proportion of the people who indicated a readiness for training has received any.

The Pipeline Operations Training Committee has created two training programs, the Pipeline Operations and Production Training Program and the Pipeline Operations and Productive Apprenticeship Training Program. As POTC has reported to this panel, a small but steady number of people have enrolled in these programs since 2002 (Jacobson 2006). Eleven of the northern participants in the apprenticeship program have been hired to work at various southern locations.

⁷ The number of lone parent families in the NWT has been increasing at a rate greater than has been the case for Canada in general. In 1981, about 13% of families in the NWT were headed by a lone parent, compared to 12.5% for Canada. In 2001, 21% of NWT families were headed by a lone parent, compared to 16% for Canada.

⁸ Information provided by Department of Education, Culture and Employment, Government of the Northwest Territories.

Both the Proponent and various agencies of the Government of the Northwest Territories have identified specific measures that will be undertaken in association with the Mackenzie Gas Project. A possibly even more extensive array of measures has been introduced at the Diavik mine (Diavik Diamond Mine, 2005). At an informal and working level, it appears that there are some coordinating mechanisms and some degree of cooperation among the different private and public sector agencies responsible for employment and training.

What appear to be missing in the plans for the Mackenzie Gas Project employment training initiatives are:

(1) stable *links* among the various initiatives, so that they can be made to “add up” for individuals who would like to overcome barriers and gain regular employment;

(2) a fully *coordinated planning and implementation process* that would permit the refinement of employment and training practices –and the identification of the best practices for this area;

(3) a forum for *public discussion and monitoring* of training and employment provision, linked to a system that can respond to problems as they arise;

(4) *firm and evaluable commitments* by the Proponent concerning making all forms of employment and training accessible to women and men, wherever in the NWT they may live.

These features were poorly developed during the 1980s, when the Norman Wells Pipeline was constructed, and their absence hampered efforts to adapt programs on the basis of experience. Some members of the public were engaged in project monitoring, including monitoring of levels of northern employment in the project, but they had little power to improve practices in the course of the project, for reasons having to do with the pace of the construction phase, reporting practices, and with the design of the institutions themselves (Abele 1989).

Problems arising from the absence of coordinating mechanisms and consistent programming occur in “normal” as well as boom times. An example is the concern raised for a number of years by the Status of Women Council of the NWT about the small number of women working in trades. In 2005, among 299 registered apprentices in the NWT, nine were women. Various barriers no doubt contribute to the lack of increase in the proportion of women in trades, including education attainment, sexism encountered on the job, family responsibilities and consequent inability to relocate for work (Boland 2005, Tompkins 2006). In this case, however, the Council highlighted a general lack of continuity in available programming. The example provided concerned a welding exposure workshop held in a community. The workshop drew a good response from the relatively large number of young female attendees, but it remained an isolated initiative (Status of Women 2005).

In 2005, a coalition of governmental and non-governmental organizations launched a pilot project to offer various training programs for women. The pilot project was co-ordinated by the NWT Status of Women, delivered by Aurora College, the Kimberlite Trades and Technical Centre, the NWT Literacy Council and other non-governmental organizations. (Tompkins 2006). This initiative was promising. It mobilized existing resources in a common cause; and it is used a “pilot project” format, which suggests an interest in learning from experience to develop an enduring set of programs. To my knowledge, however, this initiative has not been continued.

It is possible to identify the generic characteristics of successful employment training programs (Fogwill 1989, Abele 1989, Tompkins 2006 p 8-9), but the general rules will only carry the initiative so far. Sometimes training programs fail to support people in gaining access to satisfying, meaningful work because they are badly designed, but often the problem lies in the context: funding is not sustained; formative evaluations are neglected; the context is ignored.

A potentially useful model that does provide continuity, a forum for cooperation, and a capacity for adaptation is the *Multi-Party Training Plan* developed by the province of Saskatchewan, the federal government, First Nation and Metis authorities, and the northern Saskatchewan mining industry since 1993.⁹ Many of the issues faced by this coalition are similar to those of importance in the Northwest Territories:

The most commonly identified barrier to participation of northerners in the mining industry is a lack of education and training. Northerners want jobs in the mining sector, but due to the education gap, they do not have the skills required to get the jobs. There are also other barriers of a cultural, social and life style nature, many of which have been successfully addressed by the mining industry. (Section 1.4)

The participants in the Multi-Party Training Plan have conducted extensive evaluations and comparative research, comparing their activities with similar initiatives in twelve other situations. The Panel would be well-advised to examine this experience in formulating its recommendations concerning labour force management. The Northwest Territories does have some positive examples of coordination, and some institutions upon which to build. Greater effectiveness will depend upon creating a resilient and responsive coordinating system that can provide more consistent support.

An unfortunate feature of the normal “boom and bust” resource development based economy is that labour market demand fluctuates with the boom and bust cycle. This hampers efforts to develop a consistent approach to labour force development based that builds upon and learns from experience to improve the effectiveness of programming. On the contrary, there is a tendency for fiscal fluctuations and for “program amnesia” –the repeated introduction of new programs to address persistent problems, but in a disjointed fashion. A much better approach has been developed by scholars of development

⁹ The Plan and other information about this venture are available at <http://www.collections.ic.gc.ca/training/frame/level2/body-backgr4.htm>.

administration, who advocate a conscious strategy of experimental administration, in which initiatives are designed, attempted and evaluated. “Failures” are not criticized, but rather are considered to be just as valuable as successes for what they can teach about the effectiveness of methods. This approach is particularly important in times of rapidly changing economic circumstances in which the fundamentals of the economy may be altered (Rondinelli 1983, Rondinelli and Cheema, 2003).

I would like to offer a final example that illustrates the problem with uncoordinated, episodic training provision that does not have the capacity to adapt to evolving needs, or to provide sufficiently continuous support. In the Northwest Territories, one of the most long-lasting problems has been low levels of adult literacy and numeracy in an important segment of the population. Many apprenticeship and other skilled work opportunities require entry level levels of literacy that are higher than what otherwise employable people have. Yet all too often, people who seek “adult upgrading” in order to qualify for these opportunities do not attend training for long enough to improve to a sufficient level. A link is missing –the link that would connect literacy education to job skills and employment, in a reliable way, for most diligent individuals (Fogwill 1989, Tompkins 2006). This problem, which cuts across many trades and professions, is an ideal candidate to be addressed using a ‘policy experiment’ or pilot project approach, such as those advocated by Rondinelli. Because by its nature it requires the coordination of educational institutions, non-governmental organizations, and employers, the policy experiment would require the establishment of functional partnerships, probably through a formal agreement. A proposal for such an initiative is made in Section III below.

Role of Unions

The construction trades unions will be involved in providing trained labour during pipeline construction and possibly in other phases of the Project. The Proponent has stated that

The proponents do not have agreements with any union regarding the project. Contractors with a unionized workforce are required to have a collective agreement with the union that has been certified as their employees’ bargaining agent. Any collective agreements between contracts and their signatory unions will be required to comply with the terms of any access and benefits agreements or related agreements, including any northern hiring preferences. (Response to JRP Intervenor Request for Information No. 1, Response Date: March 31, 2005)

This response, with the final crucial sentence written in the passive voice (“will be required”) does not make it clear that the Proponent will be responsible for compliance. The Proponent must ensure that the companies with whom they have contracts will in turn negotiate with the relevant unions, to ensure that these employers and unions respect the arrangements for maximizing northern training, employment and procurement benefits.

The major unions have some experience in northern Canada, gained for example during the Norman Wells Oilfield Expansion and Pipeline project. During the Norman Wells Project, the Labourers' International Union funded a business manager position in Yellowknife, established a target for the recruitment of new northern members, recruited members through community visits and outreach, and was in general successful in providing work to northerners (Abele 1989). This model should be emulated, as appropriate for the various trades.

Stewardship of the Mixed Economy

The reasons for sustaining the mixed economy were enumerated earlier in this report. In this section of my submission, I will assess whether the analysis and provisions provided in the EIS are likely to be adequate.

The Proponent has commented:

Survival by harvesting food resources nourished by the land is the ethos, the essential centre, of Aboriginal cultures. These cultures are sustained today by community influences that communicate preferences and needs, and encourage harvesting of traditional foods. Sustaining the knowledge, lore and skills necessary for harvesting these foods depends on motivation and the time to engage in these activities.

Harvesting and seasonal wage employment are now symbiotic, because low incomes from trapping necessitate wage employment to pay for the expensive equipment now needed for efficient harvesting. The project will provide wage employment that will support harvesting-equipment requirements. (EIS Vol 1 p 6-8)

This characterization of the mixed economy –and in general of the life style in the smaller, predominantly Aboriginal communities-- is weak and misleading. The first sentence focuses exclusively on “harvesting food resources” (and is there any food resource upon which humans depend that has not been “nourished by the land”?). Gathering, hunting, and fishing are indeed important aspects of the mixed economy, but going on the land provides a number of other material and spiritual benefits that are also important to community stability and well-being. Isolation of “harvesting” (and what is meant by this appears from the context to mean “hunting” only) from these other activities is possible analytically, but not practically. It leads to a simple mitigating measure (time off to go hunting) that may not at all address the deeper impacts of this project on life in the smaller communities.

The statement “[t]hese cultures are sustained today by community influences that communicate preferences and needs, and encourage harvesting of traditional foods,” is also confusing. What is meant by “community influences”? For that matter, in the next sentence, what is “lore” as distinct from knowledge and skills? The passage under scrutiny here is short, but it raises many questions.

What can be said about the possible impact of this project on the mixed economy?

Undoubtedly, as the Proponent notes, wage employment is integral to the mixed economy. Further, some research conducted during the Normal Wells project supports the contention that even ‘boom and bust’ wage employment and on-the-land production can be complementary (Bone 1985), though the response rate and duration of this study (small, and short) should make us cautious about generalization from it.

Even if cash income is essential to the stability of the mixed economy, it is not automatic that participation in the wage economy will enhance the mixed economy in a community. As the Proponent notes, time is an issue. Rotational shifts in and out of the community can be disruptive of people’s need to fulfill their responsibilities at home, and sometimes work schedules conflict with cycles of hunting, fishing or gathering (Abele 1989). Careful and consultative scheduling, coupled with a degree of built-in flexibility, can help with these problems (Business Advisory Services 1999). In this regard, the EIS makes the following commitment:

Elders are powerful influences for sustaining tradition. The project will support their efforts and help meet the traditional food requirements of communities by supporting hunting leaves to Aboriginal workers to secure important harvests, where practical. (EIS Volume 1 p. 6-29)

This is a confusing paragraph, and lacking in specific commitments. It is not clear what the influence of elders has to do with the Proponent’s decision to implement a program to permit hunting leaves, or why elders would even be mentioned in a paragraph that concerns the employers’ leave policies. Does the Proponent plan to hire elders to make the decision about when leaves will be granted? If so, this should be made explicit.

The employer in fact makes no specific commitment to support hunting leaves, since the statement is qualified by the words ‘important’ and ‘where practical.’ These would seem to emphasize employer discretion rather than a clearly developed policy outlining employee entitlements. No mention is made, either, of ensuring that subcontractors respect such a commitment. There should be a specific policy concerning leaves for various kinds of mixed economy activities, with reference to the responsibilities of both the main employers in the project and subcontractors.

The Proponent identifies the following additional possible effects of the Mackenzie Gas Project on “Traditional Culture”, which is the rubric under which the mixed economy is discussed:

Project employment could jeopardize harvester lore and disciplines by bringing Aboriginal and non-Aboriginal workers together on the job, and by pre-empting harvesting activities, because of time needed for long-rotation employment cycles. (EIS Volume 1 p 6-29)

Undoubtedly time away as a result of long-rotation employment cycles is likely to interfere with all aspects of mixed economy participation, except wage-earning. But how could the fact that Aboriginal and non-Aboriginal workers are brought together on the job “jeopardize” harvester “lore” and disciplines? No mechanism is specified, and I am at a loss to imagine how this might work.

In the remainder of this section in the EIS, a table is included that estimates the effects of project construction on traditional harvesting in various regions. Once again, attention is focused only on “traditional harvesting.” Also, this table displays what appear to be mainly subjective judgments, or surmises, about the direction, magnitude, geographic extent and duration of the impacts of the project. The reliance upon judgment rather than evidence is understandable: this is a forecast and there is, to my knowledge, little research upon which to base the forecast. But this fact should make us very cautious about building any conclusions upon this schema. The truth is, very little is known here.

What is known is that it is likely that various aspects of the project will converge in the large and small communities of the Northwest Territories, and that it is likely that effects will on occasion offset and on occasion reinforce each other. In its general submission, the Government of the Northwest Territories correctly insists:

The Proponents have not addressed whether any impacts in a community can combine to create a larger significant impact. The analysis of additive effects may be challenging, but it is not impossible and often the links between various effects are quite obvious. (Northwest Territories 2006b p 10)

There is reason to expect that there may also be some deeper and less obvious impacts of the Mackenzie Gas Project that deserve attention. Nahanni (1992) explored the shift in women’s roles and their sense of their purpose in life that came with a transition from primarily land-based production to wage employment. While she is careful not to generalize and stresses the need for more research, Nahanni was able to document a change in women’s roles from ‘nurturing’ (a broad range of actions and attitudes related to maintaining family balance and well-being) to ‘provision’ (earning cash to provide for material sustenance). Nahanni documents a secular shift in attitudes that she believes is part of a much larger cluster of subtle changes. These deserve some attention in connection with the present project, probably in the form of community-based research designed to document and consider the change, before any programmatic response is even considered.

To illustrate: Nahanni registered an important difficulty that arises in any efforts to document the value of non-commodified activity in the mixed economy:

What is difficult to calculate is the distribution value of the country food in the community (or how many people benefit from the harvest of one moose, for example), the value of finished products for domestic use, such as leather and fur goods, use of bones for tools and carvings, and so on. Furthermore it is difficult to quantify the time spent in travel, the expertise and knowledge in the assessment of

conditions of the environment, the preparation of the work place, and means of production. In all of these, the activities of women are prominent...The continued failure to recognize what cannot be quantified is a predicament for the Dene and the future of their traditional economy. (p 87)

Nahanni recommends that further research be done, to document the less obvious features of the community economy and to consider how all aspects of family life might change as waged work assumes a larger role in communities. Another case study (Bielawski 2004) delineates the ways in which the very process of negotiation and decision-making bring important changes to small communities. Studies conducted for the West Kitikmeot Slave Study Society (2001) indicate that insufficient research has been done concerning the impacts of various changes on communities, and especially in understanding not only what changes are underway, but *how* they are occurring. Such knowledge is necessary to support the development of policies that will support, or at least not damage, the mixed economy upon which so much well-being depends.

If such research were to be included as part of the monitoring budget for the Mackenzie Gas Project, the point made in the Government of the Northwest Territories about avoiding duplication of effort should be borne in mind. New research initiatives should be built upon and coordinated with existing cumulative effects research programs (Northwest Territories 2006b).

It is likely that research in this area will support the development of more effective literacy and vocational training programs, as these could be adapted to be more harmonious with the modern mixed economy (Tompkins 2006). In closing this section, I would like to offer just one practical suggestion in this regard, to give specific substance to what might seem to be a vague or overly idealistic point.

One of the ways in which advanced education and wage economy participation interferes with the mixed economy is by requiring people to be absent from their communities, in which they might have numerous responsibilities for family care, harvesting and other matters. It might be possible to use advanced approaches to distance education to ameliorate this impact (see Tompkins 2006). Distance delivery packages might be developed to provide the necessary training, especially since the appropriate information technology infrastructure (in particular broad band access in all communities) will be in place soon.

Several universities and colleges in various parts of Canada have been delivering a variety of degree programs using distance or hybrid delivery formats. 'Hybrid' delivery methods are those that combine delivery of curriculum using computer-based delivery methods such as educational website programs (WebCT is a commonly used program) with on-site coaching, tutoring or support, teleconferencing, recorded interviews and lectures, and video-streaming. The University of the Arctic (in whose development Aurora College have been involved, in partnership with the other northern colleges) provides one model of web-based course delivery. Another model is provided by the Certificate in Nunavut Public Service Studies, is offered by Carleton University in three

Nunavut communities using hybrid methods. In northern Alberta and northern Saskatchewan, there are well-established programs for the distance delivery of high school level courses, and in Alberta there is a vocational program serving women that is delivered in part by distance techniques (Tompkins 2006).

No particular model developed elsewhere is likely to be a perfect fit for needs in the NWT created by the Mackenzie Gas Project and related developments. Technical and trades training generally has a “hands on” and experiential aspect that probably requires some training at a site where appropriate equipment is available. It seems likely, though, from the variety of existing examples and their steady evolution, that distance delivery is a promising area for investigation in the search for economical and effective means to provide some aspects of literacy training and vocational education.

III. Education: What Benefits?

The Mackenzie Gas Project will have an important effect on the cost of primary and secondary education and adult education. The Government of the Northwest Territories has calculated forced growth costs. These are expenditures needed to maintain existing service levels in light of a change in the base, such as the population growth associated with economic development and major projects including the Mackenzie Gas Project. (Northwest Territories 2006a).

There has been to my knowledge no publication of a similarly comprehensive calculation of the cumulative cost of any strategic investments in education that the Government of the Northwest Territories (and other governments) may chose to make. (Strategic investments are additional expenditures necessary to maximize benefits or mitigate the negative impacts from development –expenditures for new ventures.)

It seems likely that strategic investments will be required. Proponents and the Government of the Northwest Territories are concerned about the impact of the Mackenzie Gas Project on overall educational attainment levels, which are already too low. The EIS states:

Education attainment and services in the study area will likely be affected by the project. Some adolescents will respond to employment opportunities by leaving school prematurely, and some former dropouts might return to qualify for more training. Children of immigrants could increase enrolment pressures. Some teachers might resign in favour of project employment. Thus enrolment pressures and project-related changes in education and training programs might increase or decrease.

The Proponent commits to a number of specific measures designed to encourage high school completion, all of which are likely to have some positive effect. The likelihood is, however, that a significant number of young people will leave school for Project-related employment before completing grade 12.

The Government of the Northwest Territories recommends:

That the Proponents work with Regional Career Centres, Aurora College and NWT schools on concrete measures to encourage youth to stay in school by participating in regional career fairs, working with the GNWT to distribute related labour market information, enhancing Jobs North and working with Skills Canada NWT. (Northwest Territories 2006b p 48)

These measures and the ones to which the Proponent commits are steps in the right direction, but more aggressive and more innovative measures should also be developed.

Two examples of more aggressive measures (which the employer could develop in collaboration with all of the parties mentioned above) include:

1. The provision of adult literacy and numeracy training to workers, on the job.

All parties recognize that the level of educational attainment among unemployed people is a barrier to their finding work on the Mackenzie Gas project. They also recognize that a significant number of students are likely to leave high school in favour of Project-related employment.¹⁰ People in both categories would benefit from an aggressive, workplace-based literacy program.

The employers' role should include development of a program through which a specific number of employees could qualify for a work-scholarship to enable them to upgrade their language and mathematical skills on the job. A workable time allocation formula might include some release time from work coupled with a requirement for after hours study. Workers would be required to complete a for-credit and academically tested educational program, in a specified period of time. A bonus would be paid on successful completion of the course.

Likely there is sufficient expertise in the Northwest Territories for the development of such a workplace-based adult educational program, but models from other jurisdictions are available, as is expertise at Frontier College.

2. Development of an integrated mentorship-scholarship program designed to encourage younger students in academic pursuits, and support their interests through to the end of post-secondary education.

Many excellent initiatives already exist to improve students' awareness of career opportunities in the mineral sector. There are in addition a number of valuable school-based and regional programs to develop and sustain interest in specific academic disciplines, such as science.

Building upon these, the Proponent should collaborate with teachers and Aurora College specialists, as well as with representatives of the southern university system (perhaps through the Association of Canadian Universities for Northern Studies), to create a program that would provide sustained mentoring and support to students who demonstrate ability and initiative. The program might begin by providing all students as young as Grade 6 or 7 with exposure to the different career opportunities and courses of advanced academic study associated with the minerals sector. Models exist of various such devices as essay or video contests, short assignments, and site visits to assist in this process. Students at the high school level, who demonstrate appropriate interests and skills, could then become eligible for supervised work-study assignments, and ultimately for scholarships to pursue post-secondary education.

The Government of the Northwest Territories has for many years had a variety of measures designed to support post-secondary studies and to ensure that students bring

¹⁰ See, for example, EIS Volume 4, Table 4-102.

their skills and energy back to the territory. Similar practices could be adopted for this program. The overriding goal should be to sustain continuity of support, including a support system that would be engaged when students falter in their academic progress.

A schematic example of how such a program might work can be described. The Proponent in alliance with major suppliers of labour to the Project should propose to support the development of a formal “co-op” education model directed at high school students. High school students could apply to qualify for a co-op program. After appropriate safety and other training, they would be eligible for a work term in a job associated with the Mackenzie Gas Project. By contract, they would be prohibited from applying for work on the project directly after the conclusion of their co-op term. On the contrary, the Proponent would pay the co-op student a bonus upon their return to school, and another bonus on graduation from high school. On graduation, students would become eligible for a scholarship competition, to fund their further education.

This example has some features in common with a successful initiative in Nunavut, the Akitsiraq Law School. A cohort of twenty Inuit who qualified for entrance to law school were provided full scholarships to complete a Bachelor of Law degree, delivered mainly in Iqaluit. Both the fact that the students completed their degrees as a cohort, and the full support provided by the scholarships, appears to have been important to their success and to the strong participation of women in the program.

IV. Procurement: A Vital Tool

It appears that a large amount of the work associated with the Mackenzie Gas Project will be contracted out to suppliers and subcontractors. These businesses should be seen as full participants in the Project, and they should be subject to all requirements related to employment, training and education. To a measure commensurate with their size and capacities, these many smaller employers, unions and large contracting companies must be part of the solutions that are developed.

Northern businesses and suppliers will probably require special accommodation in order to benefit from the short, steep rise in activity during the construction phase. They will have a much better chance of developing their businesses in the ensuing and much longer lasting exploration and development phase, and it is in this phase that they will be positioned so as to make a contribution to education, training and employment. The smaller businesses, in particular, will benefit from the existence of a collaborative planning mechanism in which they might find a way to benefit from the experience of other employers and trainers.

Limiting factors in the construction phase include:

1. The short burst of construction activity that is proposed reduces the potential for northern businesses that are not already doing the work to expand.
2. The short work season means that materials will be stockpiled instead of delivered on an as-needed basis. This makes it more difficult for northern firms with a smaller resource base to meet the procurement needs of the project.
3. Small northern businesses are unlikely to invest in new equipment that they might need for the short construction phase, being uncertain about its future usefulness.

These limitations are unlikely to be fully overcome.

The northern business sector is also likely to be affected by labour shortages during the high labour demand construction boom phase. Their employees may choose to move to jobs provided by the Mackenzie Gas Project, in search of varied experience, training, or higher wages. Vacancies will thus be created in this sector.

As the northern business sector is likely to be a long-term source of employment for northerners, consideration should be given to establishing work experience, training and employment programs directed specifically to this sector. Similar principles of coordination, formative evaluation, and continuity (as recommended for work directly related to the MGP) should be built into the program delivery arrangements.

V. Summary of Main Recommendations

1. The Panel should make recommendations concerning education, employment, training and procurement that

- ensure that training programs and educational measures associated with the project contribute to the *long-term employability* of people who participate in the programs;
- ensure *equitable access* for all northern residents to the full range of jobs;
- by various means, *counteract* the aspects of the Project that exacerbate the *uneven development* of the territorial economy;
- adapt measures related to training, employment and procurement so that these *strengthen, rather than weaken, the stable economic base in all regions of the territorial economy.*

2. Employment, training and education measures should be required that protect the viability of the mixed economy of the smaller communities in the Northwest Territories, and ensure that people living in the predominantly wage-earning regional centres realize the maximum benefit from the Project.

3. With respect to the mixed economy, given its importance to even development, as a precaution, the Panel should make recommendations likely to support its survival and future vitality.

4. An aspect of the monitoring program connected with the Mackenzie Gas Project, the Panel should require an independent research program through which communities could monitor the impact of the Project and other changes to the NWT economy upon the elements of the mixed economy that are locally important.

5. The results of this community-controlled research should be applied to on-going employment, training and procurement program development.

6. The Government of the Northwest Territories should continue its work in building partnerships with non-governmental organizations and across departmental and governmental lines to enable all organizations that are responsible for social provision to coordinate their efforts.

7. The Proponent should support, financially and by showing leadership, the development of a labour force training and employment collaboration mechanism, building upon those partial mechanisms that already exist.

8. The Proponent must establish and ensure the effectiveness of specific arrangements to open employment opportunities to women on an equitable basis with men, and in

particular those women who seek employment in “non-traditional” trades, technical or operational jobs. Examples are provided in this report.

9. The Proponent must ensure that unions, subcontractors and suppliers respect the goals for training and employment of northerners required by the Panel’s recommendations.

10. Working with schools, Aurora College, and the NWT Department of Education, the Proponent should develop incentive programs to raise the literacy levels of employees who wish to improve their literacy.

11. Working with schools and the NWT Department of Education, the Proponent should develop a comprehensive program for providing high school students with work experience and incentives to complete high school. Examples are provided in the report.

APPENDIX A: SELECTED STATISTICAL INDICATORS

Employment¹¹

For the last four years, the NWT employment rate has been above 70%, higher than historical rates.

The overall employment rate for people 15 years of age and older was 72.3% in 2005

The employment rate for men was higher than the rate for women. The gap between male and female employment rates was 3.1% (compared to a gender gap of 9.9% for the Canadian workforce as a whole).

In the past year, the employment rate in Yellowknife increased, and the rate in smaller NWT communities decreased.

The employment rate in Yellowknife in 2005 was 82%. The employment rate in smaller NWT communities in 2004 was 62.8%.

The employment rate for Aboriginal people in 2005 was 55.1%.
The employment rate for non-Aboriginal people was 83.4%.

The employment rate for people with educational attainment less than Grade 9 was 36.8%.

The employment rate for those with a university degree was 92.7%.

¹¹All data in this section from Government of the Northwest Territories, Strategic Planning Branch, 2006 *Socio-Economic Scan*. May 2006.

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