

A study

THE GWICH'IN VIEWS OF THE MACKENZIE GAS PROJECT

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ABSTRACT

The Mackenzie Gas Project proposes to develop three natural gas fields in the Northwest Territories, Canada, and to transport the gas through a pipeline to southern markets. The pipeline route is planned to go through four native areas in the Northwest Territories, one of them being the Gwich'in Settlement Area. This study examined Gwich'in views in the communities of Aklavik, Fort McPherson, Inuvik and Tsiigehtchic on sustainable development in the project. The study was conducted with the help of a survey (n=216).

This study shows that close to half of the Gwich'in were in favour of the Mackenzie Gas Project in 2005, though less than one fifth believed that their communities were ready for the project and assessed that the public consultation had been sufficient. The main hope that the Gwich'in had concerning the project was that the Mackenzie Gas Project would bring employment, business, education and training possibilities for their people in the area. The Gwich'in had concerns related to the project's possible negative cultural, environmental and socio-economic impacts. The main concerns identified by the Gwich'in were an increase in substance abuse and violence; an increase on the cost of living; the loss of traditional lifestyle and culture; and negative effects on wildlife and the subsistence economy.

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Acronyms

APG	Aboriginal Pipeline Group
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
GSA	Gwich'in Settlement Area
GRRB	Gwich'in Renewable Resource Board
GTC	Gwich'in Tribal Council
GDC	Gwich'in Development Corporation
JRP	Joint Review Panel
MGP	Mackenzie Gas Project
MVLWB	Mackenzie Valley Land and Water Board
NEB	National Energy Board
NWT	Northwest Territories
SEIA	Socio-Economic Impact Assessment

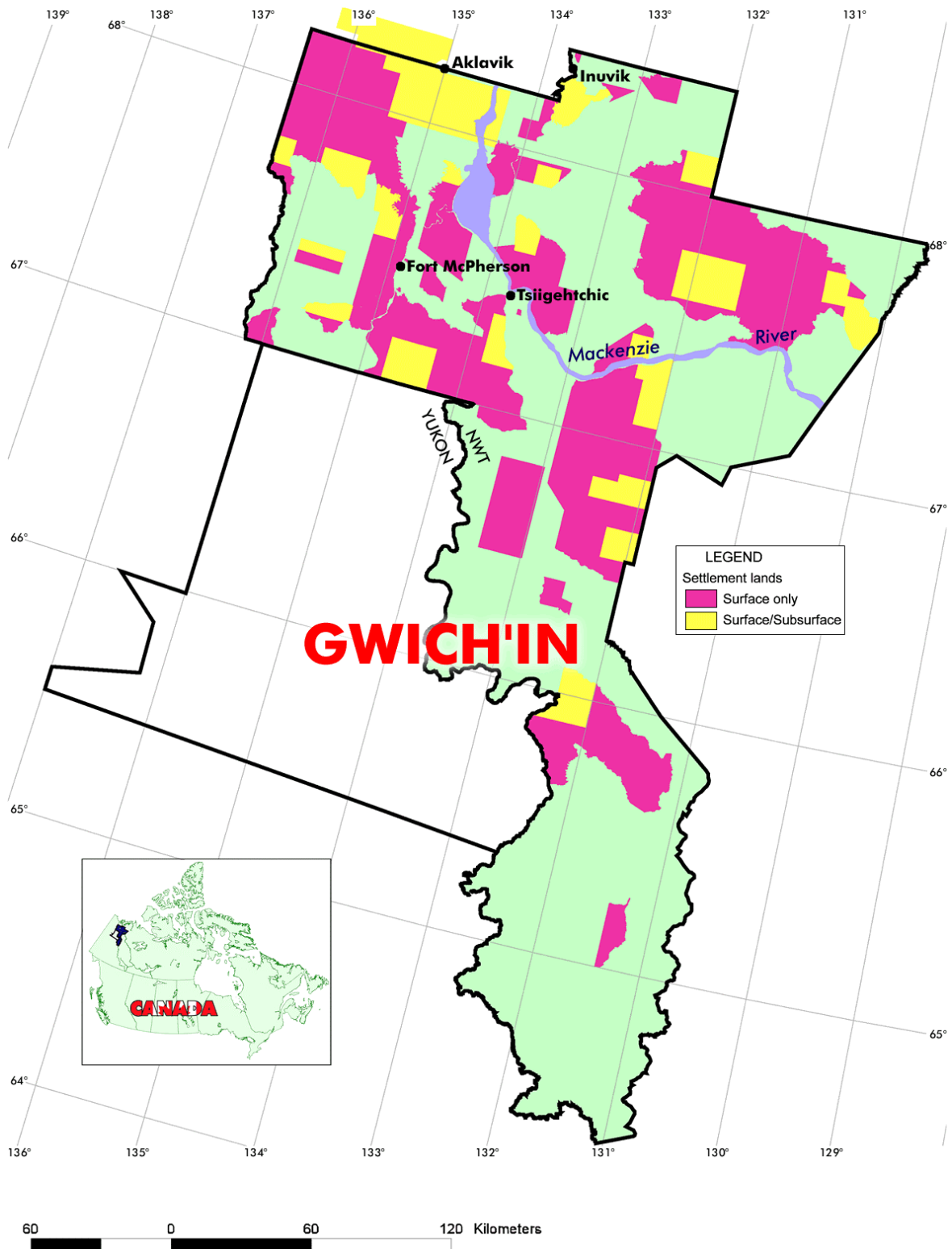
1. INTRODUCTION

In the early 1970s, gas fields were discovered in the now called Inuvialuit Settlement Region, Northwest Territories, Canada. Plans were made to carry the gas from three gas fields; Niglintgak, Taglu and Parsons Lake, through a pipeline corridor to southern markets. In the future more gas from along the pipeline route was planned to be transported through the pipeline and an oil pipeline was to be built alongside the gas pipeline. It was recognized that the development of these gas fields, building of pipelines, and development of oil and gas fields along the pipeline corridor could produce significant changes in the foundation of many of the communities that bordered the proposed pipeline routes. One of the native groups that bordered the proposed route and was believed to be affected by it was the Gwich'in. An inquiry was done on how a pipeline would affect the ecology and the people living in the area. The Report of the Mackenzie Valley Pipeline Inquiry (Berger, 1977) recommended a 10-year moratorium on building a pipeline through the Mackenzie Valley. The main reasons for the moratorium were unsettled land claims in the Mackenzie Valley and possible negative environmental and social impacts that the project might have had on the lives of the local people.

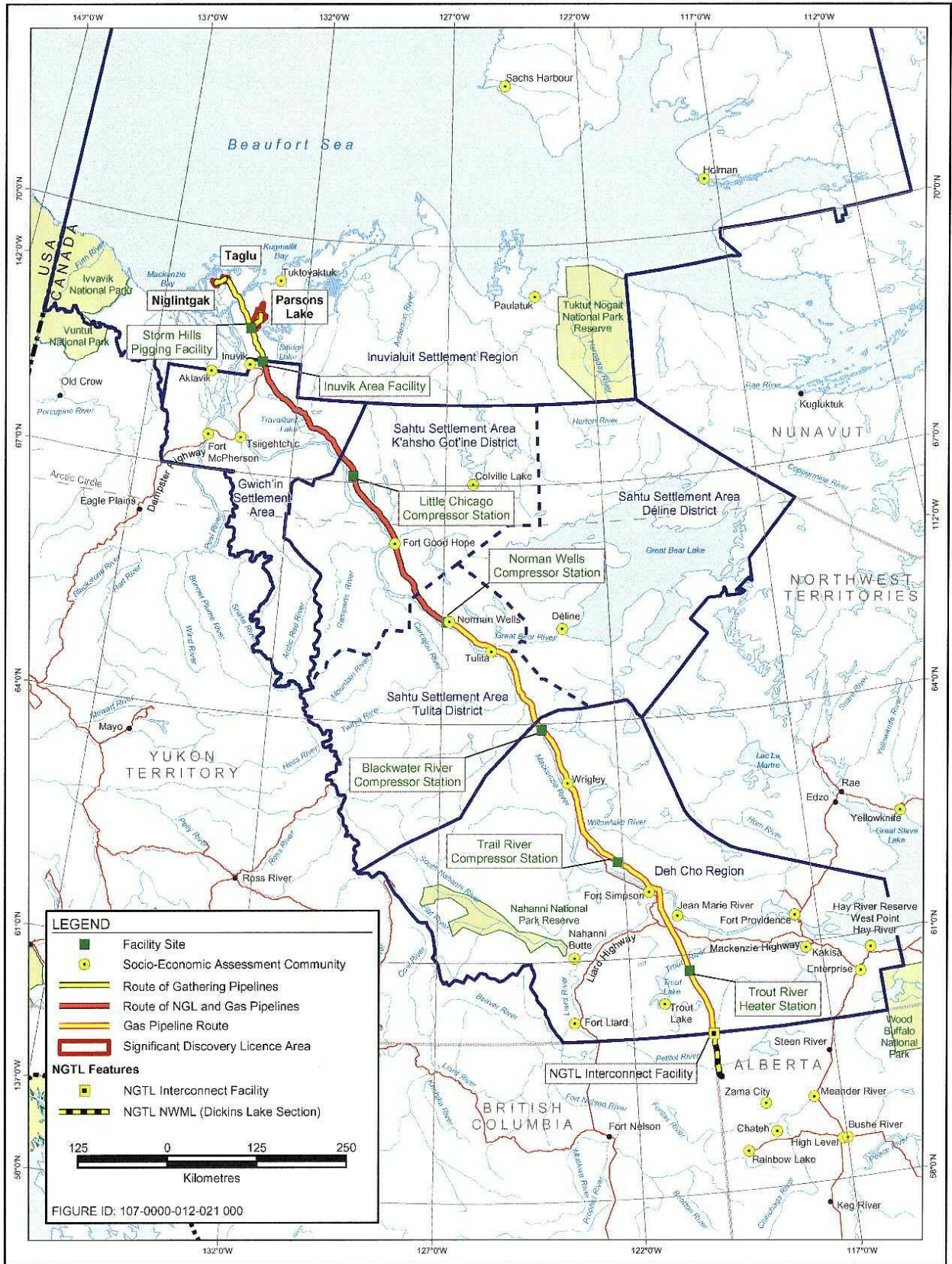
In 1992, the Gwich'in Tribal Council, the Government of the Northwest Territories, and the Government of Canada signed the Gwich'in Comprehensive Land Claim Agreement. Gwich'in beneficiaries became the owners of 22,422 square kilometres of land in the Northwest Territories and 1,554 square kilometres of land in Yukon and received \$75 million. (Indian and Northern Affairs Canada, 1998)

In 2005, the Mackenzie Gas Project (in this study also referred to as the MGP or the project) proposes to develop these three natural gas fields and deliver the natural gas to southern markets through a pipeline system built along the Mackenzie Valley (map 2.). Lots of workshops and public meetings have been held along the proposed pipeline corridor and people have had opportunities to express their views and opinions in those meetings. However, not all people go to these public meetings and often the same people seem to attend most of the meetings. This raises a concern that the views and opinions that have been documented from the public meetings may not represent views and opinions of the general public at large. The aim of this study was to document the

opinions of the larger public, also the people that do not attend the meetings, with a help of a door to door survey.



Map 1. Gwich'in Settlement Area (GSA). (Aurora Research Institute, Aurora College, 2002)



Map 2. The proposed MGP pipeline route. (Mackenzie Gas Project, 2004a, p. 1-3) The map has been reprinted with the permission by the Mackenzie Gas Project.

2. AIMS AND SCOPE OF THE STUDY

The main aims of this study were: 1) to gather and analyze views and opinions of the Mackenzie Gas Project and its possible impacts on the culture, socio-economics and environment from the Gwich'in beneficiaries living in Aklavik, Inuvik, Fort McPherson and Tsiigehtchic, and 2) to disseminate this information back to communities.

3. METHODS

Gwich'in beneficiaries were interviewed to find out their views on sustainable development related to the Mackenzie Gas Project. The study concentrated on Gwich'in hopes and concerns related to the project's potential socio-economic and environmental impacts. The survey was conducted in Aklavik, Inuvik, Fort McPherson and Tsiigehtchic from May to July 2005 by Raila Salokangas and research assistants based from the Gwich'in Renewable Resource Board, Inuvik. A community assistant was hired in each community to introduce the researcher and help with the survey. Interviews were done using a questionnaire and semi-directed questions.

3.1. Questionnaire survey

The questionnaire used in this survey (Appendix 1) was originally developed for a similar study done with the Inuvialuit in 2004 (Salokangas, 2005). The questionnaire was influenced by the proceedings from the first and second regional Inuvialuit Settlement Region and Gwich'in Settlement Area EIS technical workshops (Mackenzie Project Environment Group, 2003; AMEC Earth & Environmental, 2004) done for the Mackenzie Gas Project to identify some of the concerns that the Inuvialuit and the Gwich'in had in relation to sustainable development in the MGP. Many of the alternative questions were developed using the topics and alternatives identified during the two workshops. The original questionnaire was altered for this study as little as possible so a comparison between the views of the Inuvialuit and the Gwich'in could be done in the future.

The questionnaire (Appendix 1.) was formed so that most of the questions would be fixed, which has the advantage of permitting relatively easy tabulation of the responses from many participants. This made it easier to find out the differences between the four communities, gender and age groups. When appropriate, the option of "other, specify", (see for example Appendix 1. – questionnaire; question 19 a), question 20 b) and 21 b)) where the participant was able to write his / her own replies, was added and the option "I do not know" was added to the alternatives whenever it was seen appropriate (see for example Appendix 1 – questionnaire; question 18 a) and question 19 a)). Also extra notes were often made to give insight to participants' answers. In the last page of the questionnaire the participants were able to write their own replies on other comments and suggestions related

to the MGP, the interview and questions that should have been asked for but were not (see Appendix 1. – questionnaire; question 28, 29 and 30). Some participants that had more to say continued their answers on separate papers.

The questionnaire was designed to find out participants' opinions of the proposed Mackenzie Gas Project. Were participants interested in the project? Did the participants think that the project would go through? Did they want the project to go through? How the participants thought the MGP would affect their life, their children's life, and the life of the Gwich'in? Were the participants' communities ready for the MGP? Would the project have cultural, socio-economic, and environmental impacts? What kind of socio-economic impacts did the participants think that the project might have, and how concerned were the participants about specific environmental impacts? Participants were also asked how familiar they were with the EIA and the SEIA of the MGP, whether they were getting information on the EIS, and how satisfied they were in the amount of public consultation related to the project.

The survey was conducted in two months between May and July 2005. The survey was done using volunteer sampling by asking for volunteers. The interviewers went randomly to people's homes in Aklavik, Fort McPherson, Inuvik and Tsiigehtchic, explained the study and asked whether the people were Gwich'in and willing to talk to the interviewers. If the person was interested in participating in the study, the interviewer would usually explain more about the study (who is it for, who is funding it, who will be getting the information) and what was happening with the MGP at that time. It was explained that participation in the survey was anonymous. The participants were given a pamphlet about the study that explained who the study is for; where people can get a hold of the study (when ready); when it will be ready; which organizations have sponsored the study; and information on how to reach the interviewers for further information. Also maps were used e.g. to show the participants where the gas fields were and what was the planned pipeline route.

In all cases the questionnaire was filled out by the participant or by the interviewer according to the responses by the participant. Usually only the participant and the interviewer were present during the survey, but there were situations when the whole family or family, relatives and friends filled out the survey at the same time. Also there was

a possibility for the participant to fill out the questionnaire later when they had more time and return the filled questionnaire to the interviewer when appropriate. Filling the questionnaire took anywhere from 30 minutes to three hours.

It was noticed that sometimes the seven page questionnaire scared people away. If the participant preferred not to answer the survey, but rather have a discussion about the MGP, then only notes were taken of the conversation. When some participants were more interested in talking about e.g. social concerns, extra notes were taken, that way the participants' responses often gave deeper insight to the topics. The participants were able to explain why they answered the certain way and that way it was possible to get reasoning for the participants' answers. This approach also brought up relevant points that were not asked about in the questionnaire.

3.2. Criteria for the participant

There were two criteria for the participant. The first criterion was that the participant was a Gwich'in beneficiary. Exceptions were made when the participant's other parent was a Gwich'in, but the participant themselves had taken the status of, for example an Inuvialuit beneficiary. The other criterion was that the person was above the age 16 so that permission to participate in the study from the parents would not have been needed.

The aim was to involve participants from different working backgrounds; students, people working on a wage economy, land-based people, unemployed, and people working for a family business. There was intent to involve close to as many female as male participants. As explained before, an effort was also made to include people who did not attend public meetings concerning the project.

3.3. Statistical analyses

The statistical analyses were conducted by using a statistical program SPSS 11.5 for Windows. Differences between distributions of variables were tested with Chi-square tests (chi-square) and the differences between means were tested with Analysis of Variance (ANOVA). Associations between variables were analyzed by calculating correlations. Pearson's correlation coefficients (r) were calculated when the variables were scale and

Spearman's correlation coefficients (r_s) when the variables were ordinal. The correlation coefficient values $|r_s| < 0.3$ were estimated having a slight association between the variables, values between $0.3 \leq |r_s| < 0.7$ were estimated to have moderate association and values $0.7 \leq |r_s|$ were estimated to have high association. Contingency coefficients (C) were calculated between nominal variables. The Contingency coefficient value $|C| < 0.3$ was estimated having a slight association between the variables, value between $0.3 \leq |C| < 0.6$ was estimated to have moderate association and value $0.6 \leq |C|$ was estimated to have high association. The statistical significance of the result was determined by the p-value. p-values below 0.05 (2-sided) were considered statistically significant.

4. RESULTS

The main objective of the study was to provide current information to the local communities of Aklavik, Fort McPherson, Inuvik and Tsiigehtchic on their peoples' views of the socio-economic and environmental impacts that might occur in the GSA due to the Mackenzie Gas Project. In the survey, 216 individual responses were received.

4.1. How to read the results

The results of this study are presented so that the analyzed survey data, form the basis of the results. The extra comments that were gathered during the survey are used to bring a deeper understanding of the views and opinions and are selected so that they enlighten some of the reasons for the answers.

The results of the survey are presented in four stages. First, total distributions of each question are presented. Second, findings of the four communities where the survey was conducted are compared between each other. Also the results are presented according to gender and age differences between the answers.

Participant quotations are printed in *italic* and at the end of the quote the participant's number /p/, gender, age and community are shown. An example of a participant's quotation: "*I want the project to go through because it will create jobs for the native people.*" (/p6/ - male, age 22, Inuvik)

4.2. Participation and refusals in different communities

In July 2005, there were a total of 3017 Gwich'in beneficiaries. There were 1223 Gwich'in living in the GSA over 16 years of age. (Gwich'in Enrollment Board, 2005) The survey was conducted with 213 (17%) of the Gwich'in population in the age range (16-90) in the GSA. Total number of participants was 216, one participant lived in Yellowknife and two participants did not answer where they were from. Because the number of participants who were not at the time of the survey residents of the GSA, or who did not respond where they lived was so small, these participants' answers were also included in the analysis.

The total number of Gwich'in asked to participate in the survey was 285, from them 76% participated, 24% people refused to participate in the study. In Aklavik, 31% Gwich'in out of 130 took part in the survey. For men, the corresponding figure was 26% and for women 37%. In Aklavik, 6 people refused to participate in the survey; the response rate was 87%. In Fort McPherson, 11% Gwich'in out of 527 took part in the survey. For men, the corresponding figure was 10% and for women 12%. In Fort McPherson, 17 people refused to participate in the survey; the response rate was 78%. In Inuvik, 16% Gwich'in out of 463 took part in the survey. For men, the corresponding figure was 16% and for women 17%. In Inuvik, 37 people refused to participate in the survey; the response rate was 67%. In Tsiigehtchic, 37% Gwich'in out of 103 took part in the survey. For men, the corresponding figure was 34% and for women 42%. In Tsiigehtchic, there were 10 that refused to participate in the survey; the response rate was 79%.

From the 216 survey participants, 18% were Aklavik residents, 27% Fort McPherson residents, 35% Inuvik residents and 18% Tsiigehtchic residents. Also one participant from Yellowknife took part in the survey and two participants did not answer where they were from, which make up 2% of the participants.

Reasons that people gave for not participating in the survey were: too busy working at home, too busy looking after children, having dinner, just going out, going out on the land, having guests, not interested in the study, bad timing or intoxicated. Some people felt that they did not know enough about the MGP to take part in the study. If a person said that they did not know enough about the study to take part in it, it was clarified that participating in the study did not mean that one had to be an expert on the MGP. Some of the people that were busy for some reason or another were met at a more appropriate time. Also some people did not want to fill out the questionnaire, but were happy to talk about the project, at those occasions no notes were made. This happened with a few of the elders.

4.3. Validity and generalization of the results

Due to the non-random selection, the results can not be statistically assessed for representativeness, though the study was done with the goal of representativeness in mind. The survey response rate was 75%, 31% of Gwich'in in Aklavik (n=40), 11% of Gwich'in in Fort McPherson (n=59), 16% of Gwich'in in Inuvik (n=76), and 38% of Gwich'in in

Tsiigehtchic (n=38) in the age range (16-90) took part in the survey. Given that these participants' backgrounds met the requirements set in the research plan, it can be concluded that the results do represent the general opinions of the Gwich'in above the age 16 in the GSA in the summer 2005.

4.4. Participant' background

Nearly all participants (95%) were Gwich'in beneficiaries. From the 5% of the participants that were not Gwich'in beneficiaries either the participant's mother or father was a Gwich'in beneficiary. Most of the participants (75%) had lived all their life in the Gwich'in Settlement Area and 93% of the participants' had lived most of their lives in the GSA.

4.4.1. Gender

From the participants, 48% were male and 52% were female (table 1). In two cases gender remained unknown. One female participant was from Yellowknife. There was no significant gender difference between communities.

Table 1. Participants' gender and community.

	Participants					
	Male		Female		Total	
	N	%	N	%	N	%
Aklavik	20	50 %	20	50 %	40	100 %
Fort McPherson	29	49 %	30	51 %	59	100 %
Inuvik	33	43%	43	57%	76	100%
Tsiigehtchic	20	47%	18	53%	38	100%
Other / unknown	1	25%	2	75%	3	100%
Total	103	48%	113	52%	216	100%

4.4.2. Age

The participants' age range was from 16 to 90. The reason why people under the age 16 were not approached was that permission from the children's parents would have been needed. The mean age of the participants' in Fort McPherson, Inuvik and Tsiigehtchic was

41 and in Aklavik it was 37. (Table 2) There was no significant age difference between communities.

Table 2. Participants' ages in categories (%).

		Community					Total n=216
		Aklavik n=40	Fort McPherson n=59	Inuvik n=76	Tsiigehtchic n=38	Unknown / Other n=3	
Age	16-24	35	20	15	23	33	22
	25-39	32	34	34	19	33	31
	40-54	13	15	30	32	34	23
	55-90	20	31	21	24	0	23
	Unknown	0	0	0	2	0	1
Total		100	100	100	100	100	100
Mean Age (SD)		37 (19.8)	41 (17.7)	41 (15.0)	41 (17.3)	41 (16.3)	40 (17.0)

4.4.3. Education

Nearly half (47%) of the participants had less than high school education, about one tenth had high school education only, 16% had some post-secondary education, more than one fifth had a trades or college diploma, and 5% university certificate or diploma. (Fig. 1) Participants with some post-secondary education had taken one or more courses, but did not have a certificate or a diploma.

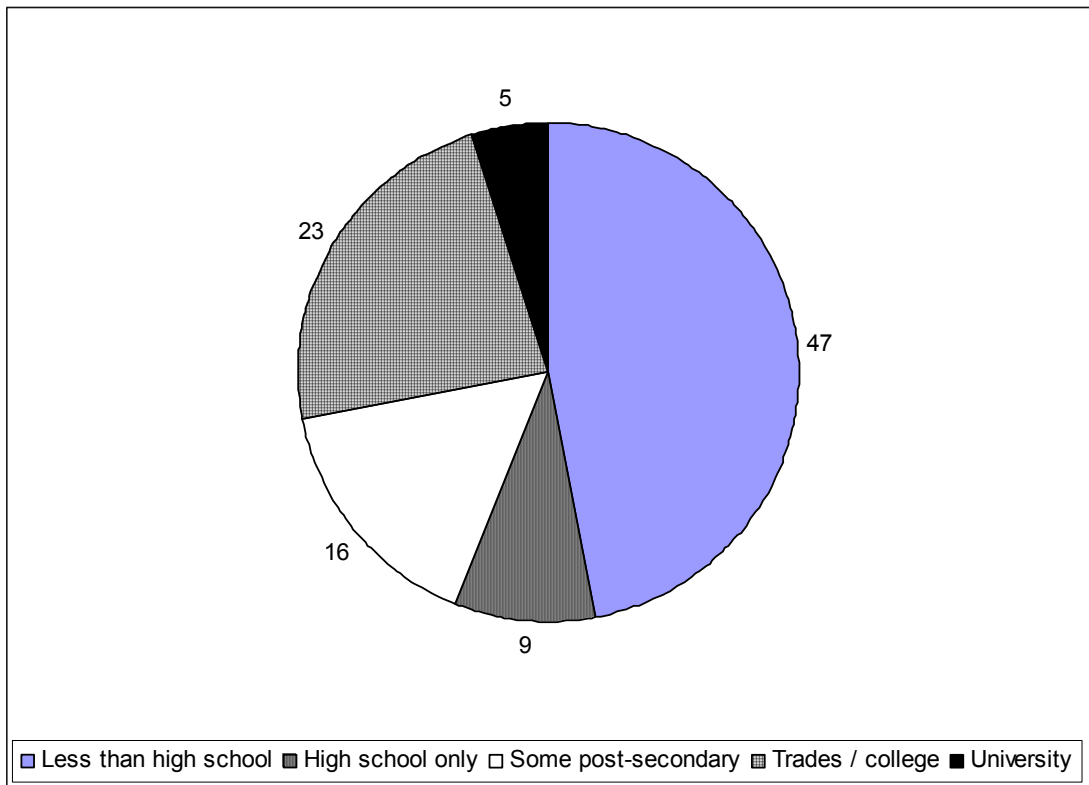


Figure 1. Participants’ level of education (%).

There were significant differences in the level of education between living places (Chi-square=30.226, df=6, p=0.000). Participants in Inuvik had the highest level of education and Fort McPherson the lowest. (Fig. 2) Many of the participants talked about their dissatisfaction in the level of education. *“We’ve got 4 teachers for 9 grades, so don’t tell me the leaders care about the education. They talk about capacity building but nobody is doing nothing for it. Our kids go to Inuvik and they are 2 years behind in reading and schooling and then they graduate year 12 and they are 2 years behind students down south when they go to university and it’s just frustrating. They should concentrate on teaching the lower grade kids to read. Then when they’ve got the basics right then combine classes, but not before grade 3. There should be on the job training instead of university degree. You’ve got to have a university degree to get a job. These concerns have been brought up so many times but nothing is done.”* (/p150/ - male, age 58, Tsiigehtchic) *“We need counsellors for the young people to encourage them to further their education.”* (/p178/ - female, age 70, Aklavik) *“Kids don’t further their education, we should talk about it in the community. I hope that our young people could get training, so that our people could get hired. We need a place to train our people in the community. People should be educated, so that they could benefit from it (the MGP).”* (/p67/ - female, age 56, Fort McPherson)

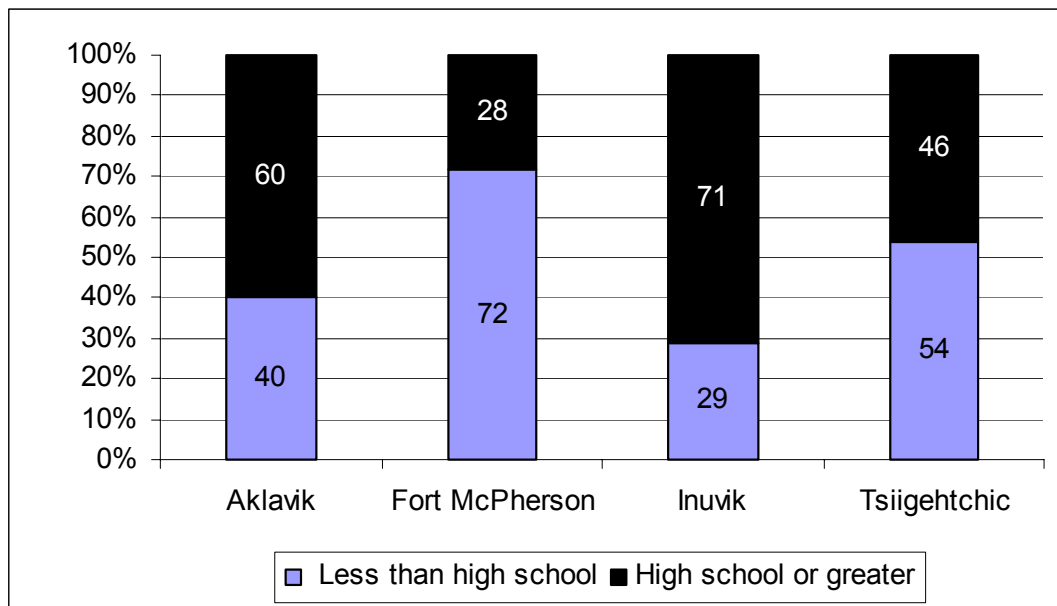


Figure 2. Participants’ level of education (%) by to community.

Though the level of education was higher among the participants in Inuvik compared to the smaller communities, some people in Inuvik were also unsatisfied in the quality of education. *“The federal government has put money to education, which it wouldn't have done if the oil and gas wasn't here. We should be looking at early childhood programmes and have programs that work for the kids. For example the high school concentrates only on academics, we need more practical programs. Men between 15-30 are uneducated, we have a problem with that. How to motivate the young men to go back and get the skills they need?”* (/p14/ - female, age 56, Inuvik) *“We need more educational programs; funded the way the Nunavut Government funded their 6 or 8 graduating layers. Get commitments for funding early childhood programs, a building for day-care, preschool and head start.”* (/p55/ - female, age 37, Inuvik)

When comparing the participants’ level of education to the overall level of education in Aklavik, Fort McPherson, Inuvik and Tsiigehtchic, participants’ level of education in Inuvik and Tsiigehtchic represented well the overall education level of those communities. Participants from Fort McPherson had a lower level of education than the general public in Fort McPherson and participants in Aklavik had a higher level of education than the general public in Aklavik. (NWT Bureau of Statistics, 2004a, b, c, d)

Though the women that participated in the study had a higher education level than the men, there was no significant difference between gender and education. But, there was a

significant difference between age groups and the level of education (Chi-square=39.396, df=6, p=0.000). Participants under the age 24 and above the age 55 had a lower level of education compared to the participants between the ages 25-54.

4.5. How did people make a living

In the past fifty years, the Gwich'in have adapted to wage economy, but still many people go out on the land and depend on game for subsistence. This chapter concentrates on how the participants made a living; what percentage of time did people spend on wage economy and what percentage of time did people spend on the land hunting, guiding, picking berries, cutting wood, etc.

Nearly half (45%) of the participants estimated that they spent all their time on wage economy and did not depend the land to provide them with subsistence economy, 39% spent 1-20%, 11% spent 21-50% and 5% spent 51-100% of their time on the land. There was close to a significant dependency between communities and how much people spent time on the land (ANOVA p=0.051). The participants in Fort McPherson and Tsiigehtchic spent more of their time on the land than the participants in Aklavik and Inuvik. (Fig. 3)

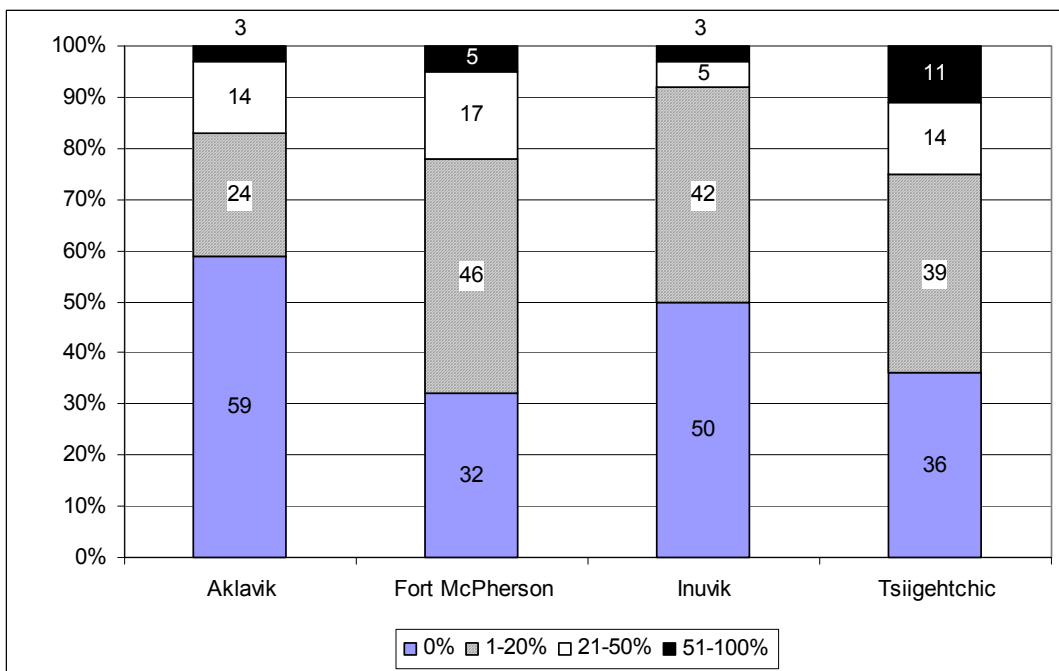


Figure 3. Amount of time spent on the land (%).

There was a clear gender difference in how much people spent time on the land (ANOVA $p=0.001$). Men spent more time on the land than women. Men spent approximately 58 days out of the year on the land when women spent only 22 days. Of men, over one third (37%) spent no time on the land when the corresponding figure for women was 52%.

The participants were also asked how often per year did they go out on the land. (Table 3)

Table 3. Frequency of going out on the land. (%)

	Community								Total	
	Aklavik		Fort McPherson		Inuvik		Tsiigehtchic			
I do not go out on the land	7	17%	11	19%	13	17%	5	13%	36	17%
Less than 5 times a year	16	40%	16	28%	23	30%	12	32%	67	32%
5-10 times a year	6	15%	9	15%	16	21%	10	26%	41	19%
11-20 times a year	4	10%	3	5%	14	19%	6	16%	27	13%
More than 20 times a year	7	18%	19	33%	10	13%	5	13%	41	19%
Total	40	100%	58	100%	76	100%	38	100%	212	100%

As expected, there was a strong correlation ($r_s=0.544$, $p=0.000$) in how much time participants spent on the land and how often people went out on the land. The participants that spent more time on the land also went more often. There was no significant difference between communities and the frequency of going on the land. There was an association ($r_s=0.446$, $p=0.000$) between having own equipment for going on the land and the frequency how many times per year participants went on the land. There was also an association between having own equipment and how much time people spent on the land ($r_s=0.278$, $p=0.000$). The participants that had their own equipment to use spent more time on the land than the participants that did not have their own equipment (fig. 4).

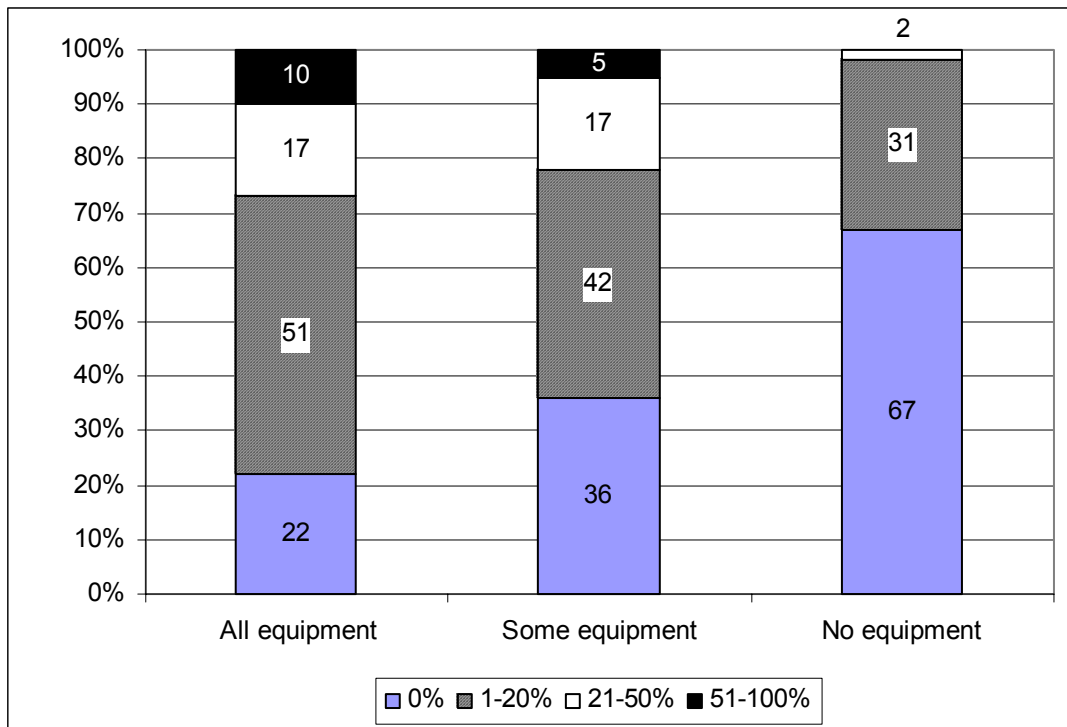


Figure 4. The amount (%) of time the participants spent on the land in association with having their own equipment.

Over half (55%) of the participants did not have all the necessary equipment that they needed to go on the land. The lack of equipment might have influenced people to spend less time on the land especially when most (69%) of the participants that did not have their own equipment found it not that easy or hard to access the necessary equipment. (Fig. 5)

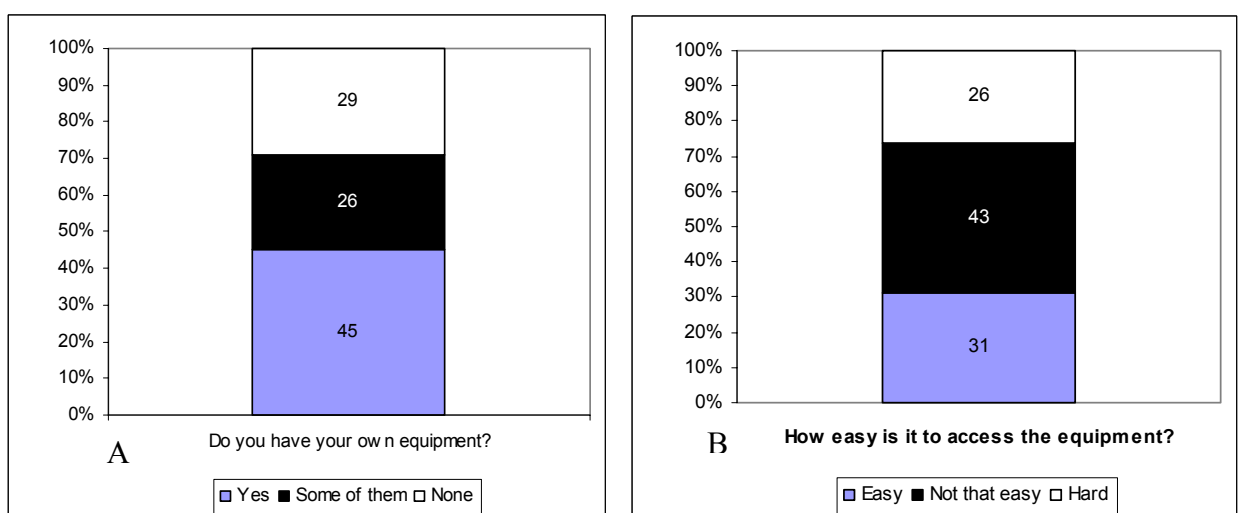


Figure 5. (A) Amount of people (%) that had their own equipment to use (n=200) and (B) how easy it was for those who did not have the equipment to get a hold of some (n=105).

Also the high price of gas influenced some people not to go out on the land. *“The price of gas is way too much. I don't even feel like hunting, better to go and buy sardines. They should lower the price of gas.”* (/p210/ - male, age 73, Aklavik)

There was no association between age groups and how much they spent time on the land and this was a concern amongst some of the elders. *“I am worried about the young people because they don't go out on the land. They just stay in town and they don't want to butcher the caribou. They don't want to touch anything. They are proud.”* (/p177/ - female, age 90, Aklavik)

The clear majority (86%) of the people who went on the land used the meat for only personal usage.

4.6. Current work situation

One third of the participants had fulltime jobs, one fifth were unemployed, less than one fifth worked part-time or had seasonal jobs, and over one tenth were students and retired. (Fig. 6)

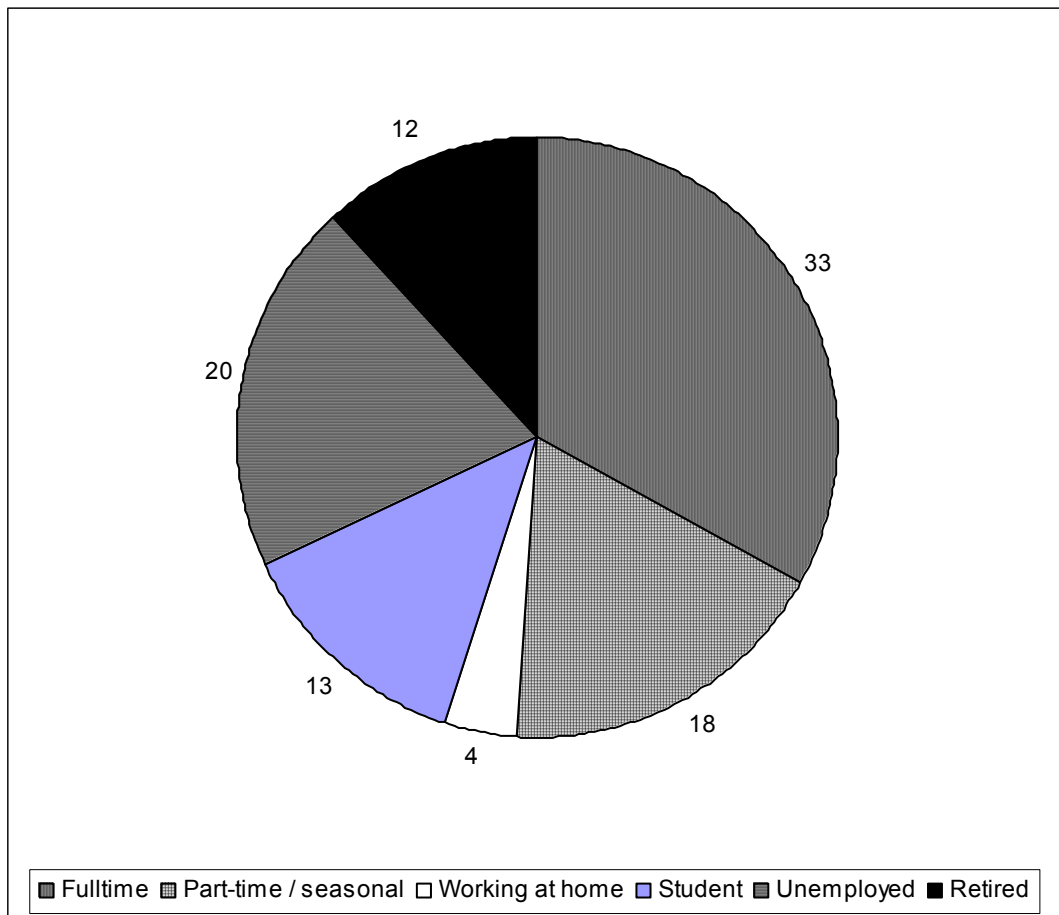


Figure 6. Current work situation. (%)

Wage employment was more common amongst the participants in Inuvik and Tsiigehtchic than in Aklavik and Fort McPherson. More retired people took part in the survey in Aklavik and Fort McPherson (18%) than in Inuvik (5%) and Tsiigehtchic (11%). Unemployment was the highest amongst the participants in Fort McPherson. (Fig. 7) *“There’s no jobs and education. If they build the pipeline once it’s down it (employment) will drop like in the 80s, then people will be out of jobs again.”* (/p108/ - male, age 33, Fort McPherson) *“So much are not working, half of us on EI. I’m hoping for training and jobs. A lot of young people should be told about jobs and money. There should be more jobs out there, I’ve got all those applications out there, but my phone don’t ring.”* (/p89/ - female, age 42, Fort McPherson)

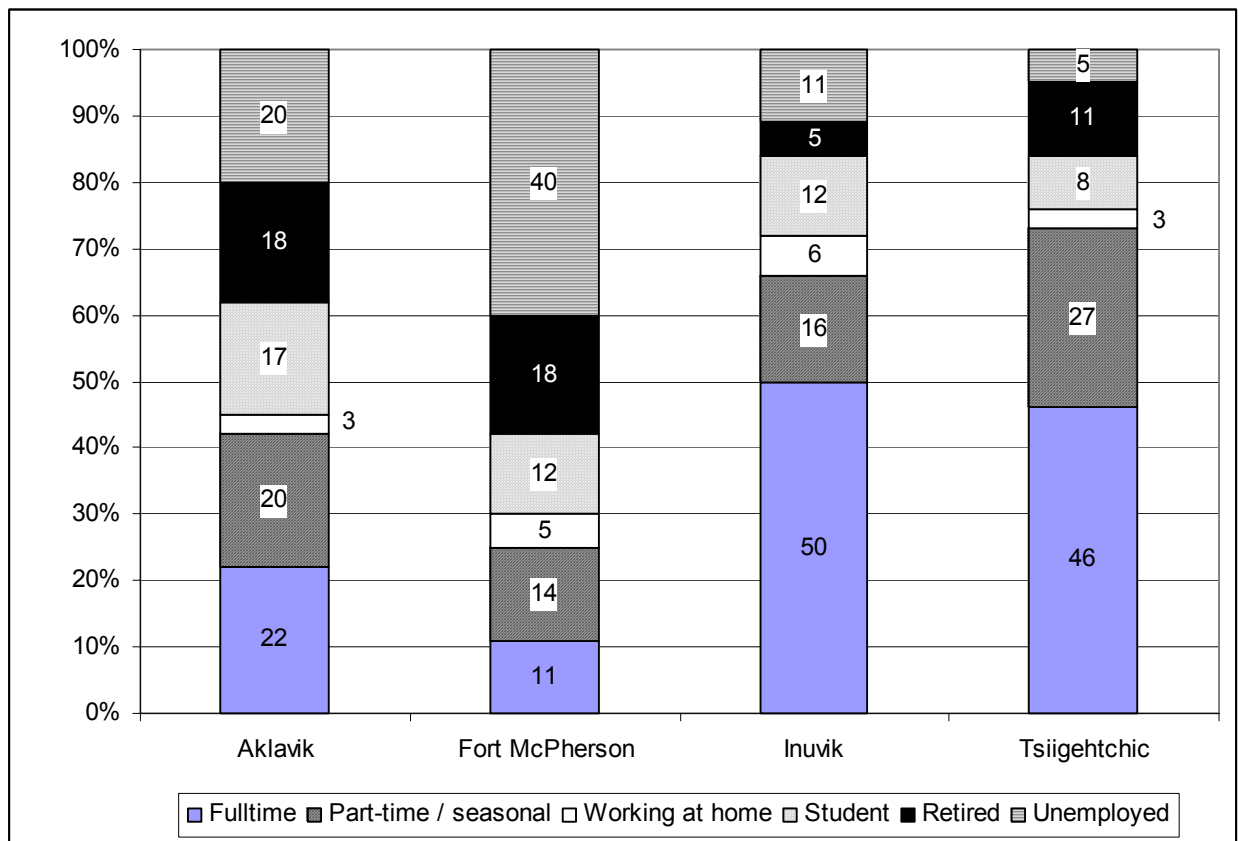


Figure 7. Current work situation (%) by community.

Using the statistics for 2004 (NWT Bureau of Statistics, 2004a, b, c, d), it can be estimated that the participants' current work situation in Aklavik and Inuvik represented well the overall work situation of those communities in 2005. The participants' employment rate in Fort McPherson was lower and in Tsiigehtchic higher than the overall employment rate of those communities in 2005.

There was a clear gender difference in current work situation (Chi-square=19.490, df=5, p=0.002). Women held more fulltime jobs. Of women, 41% were working fulltime, while the corresponding figure for men was only 25%. Men (25%) possessed more part-time and seasonal jobs than women (13%). This might relate to men spending more time on the land. Men also worked more for the oil and gas industry (as explained in the next chapter) and that work is often seasonal. Only women worked at home (8%) looking after the family. There were more retired (16%) male participants than (8%) female. In the number of students (about 13%) there were no gender differences.

There was also a significant difference between age groups and current work situation (Chi-square=154.429, df=15, p=0.000). The age group (40-55) possessed more (65%) fulltime jobs than the younger and oldest age groups; 20% (16-24), 30% (25-39) and 18% (55-90). The age group (40-55) possessed less (8%) part-time and seasonal jobs than the younger and oldest age groups; 20% for (16-24), 25% for (25-39) and 18% for (55-90). The amount of students was naturally highest (42%) in the youngest age category, in other age categories; 9% for (25-39), 0% for (40-55) and 4% for (55-90). Unemployment was lowest (8%) in the oldest age group (55-90), in other age groups; 13% (16-24), 30% (25-39) and 23% (40-54).

4.7. People working for the oil and gas industry

At the time of survey, only 4% of all participants worked for the oil and gas industry, while 43% had worked for the oil and gas industry in the past. (Table 4) *“I loved working for the oil and gas companies. It was a change. You got a check in the bank.”* (/p1/ - female, age 73, Inuvik) *“They should make it easy for everybody. Now you've got to take a course. A few years back you could just work for them (the oil and gas industry), but now they've got all the new equipment. Doesn't matter me, I'm gona be dead and buried pretty soon.”* (/p142/ - male, age 71, Tsiigehtchic)

Table 4. Participants’ interest in working for the oil and gas industry (%).

	Do you work for the oil and gas industry? n=216	Have you worked for the oil and gas industry in the past? n=216	Would you like to work for the oil and gas industry? n=213
Yes	4	43	47
Maybe	-	-	31
No	96	57	22
Total	100	100	100

Of all participants, 47% would have liked to work for the oil and gas companies and 31% would have considered working for them. (Table 4) *“I would like to work for them if there were more benefits.”* (/p22/ - female, age 44, Inuvik) *“I like to work for the oil and gas industry because it beats doing nothing.”* (/p194/ - male, age 22, Aklavik) *“I'd like to work for them, because there's not much work in the community!”* (/p81/ - female, age 22, Fort McPherson) One fifth of the participants did not want to work for the oil and gas industry.

“I can't honestly say I support oil and gas development.” (/p200/ - female, age 48, Tsiigehtchic) *“I rather work for small contractors, too many politics with oil and gas.”* (/p186/ - male, age 38, Aklavik) Some participants felt that they were too old to work for the oil and gas industry. From people who had worked for the oil and gas industry in the past 57% would have wanted to work for them in the future.

There was no significant difference between communities and having had worked for the oil and gas industry in the past. But, there was a significant difference between gender and having had worked for the oil and gas industry in the past (Fisher’s exact, p=0.000). Of the male participants, 60% had worked for the oil and gas industry in the past. For women, the corresponding figure was 28%. (Table 5)

Table 5. Number of participants who had worked for the oil and gas industry (%).

	Community				Total n=212
	Aklavik n=40	Fort McPherson n=59	Inuvik n=76	Tsiigehtchic n=37	
Male	60	52	64	70	60
Female	55	13	36	28	28
*Both	58	32	43	50	43

*Both: the percentage for both male and female who had worked for the oil and gas industry. Note that *Both figures are not averages from the male and female figures, because the number of male and female participants varied in different communities.

There was a significant difference between communities and people wanting to work for the oil and gas industry (Chi-square=13.296, df=6, p=0.039). Most of the participants wanted to work for the oil and gas industry in Fort McPherson (59%) and Aklavik (55%), but only about one third in Inuvik (35%) and Tsiigehtchic (38%) were interested in working for the oil and gas industry. This might be due to the fact that participants in Inuvik and Tsiigehtchic held more full time jobs than participants in Fort McPherson and Aklavik (as shown in fig. 7).

There was no significant difference between gender and people wanting to work for the industry, though more male participants (54%) wanted to work for the oil and gas industry and (28%) would have considered it. For women, the corresponding figures were 40% and

34%. There was a significant difference between age groups and wanting to work for the oil and gas companies (Chi-square=27.304, df=6, p=0.000). Participants in the oldest age group were less interested in working for the industry than participants in the younger age groups (fig. 8). *“I’m too old. If I was younger, I would like to work.”* (/p96/ - male, age 68, Fort McPherson) *“This is good enough for me (janitor) 4 h work, not 12-16 h like in the oil and gas, I’ve done my share when I was young.”* (/p120/ - male, age 61, Inuvik)

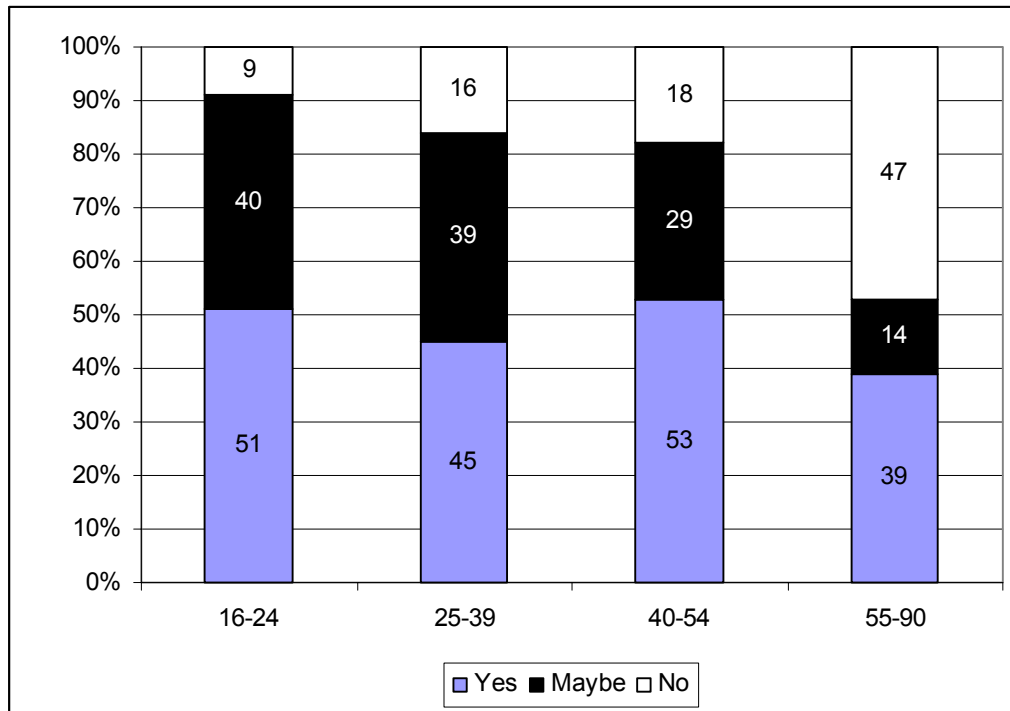


Figure 8. Number of participants (%) wanting to work for the oil and gas industry (n=176).

4.8. Opinions of the Mackenzie Gas Project

4.8.1. Knowledge and opinion about the Mackenzie Gas Project

The great majority (78%) of the participants’ felt that they knew what the Mackenzie Gas Project was. There was a difference between communities (Chi-square=17.970, df=3, p=0.000). In Aklavik, Inuvik and Tsiigehtchic, over 80% of the participants’ felt that they knew what the MGP was. In Fort McPherson, the corresponding figure was only 61% (fig. 9).

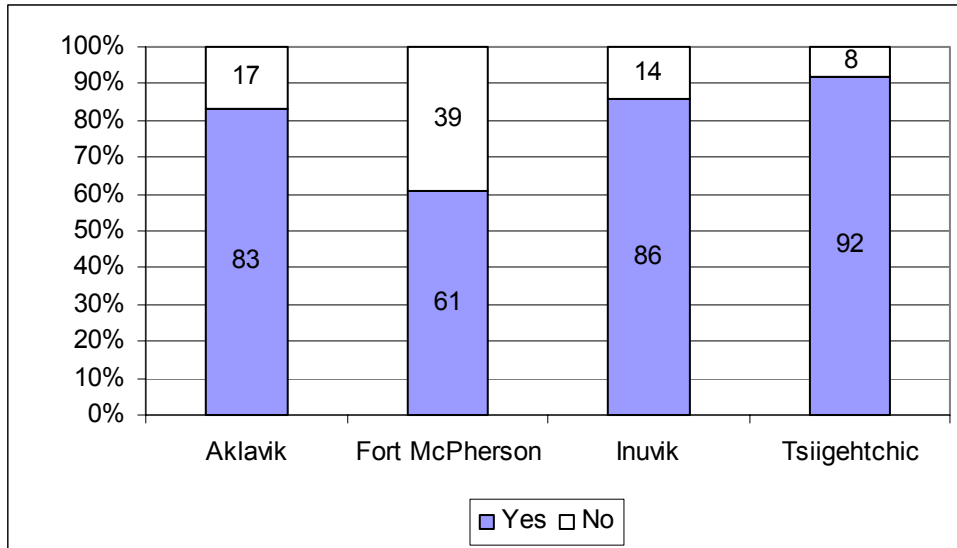


Figure 9. Participants’ belief in knowing what the MGP was by community. (%)

There was a slight association between gender and participants’ belief in knowing what the MGP was (Fisher’s exact, $p=0.016$). More men (87%) than women (73%) felt that they knew what the MGP was. There were differences between the age groups and participants’ beliefs in knowing what the MGP was (Chi-square=8.398, $df=3$, $p=0.032$). Participants between the ages 40-54 had the strongest belief that they knew what the project was. In the oldest age group (55-90), only 68% of the participants felt that they knew what the MGP was (fig. 10).

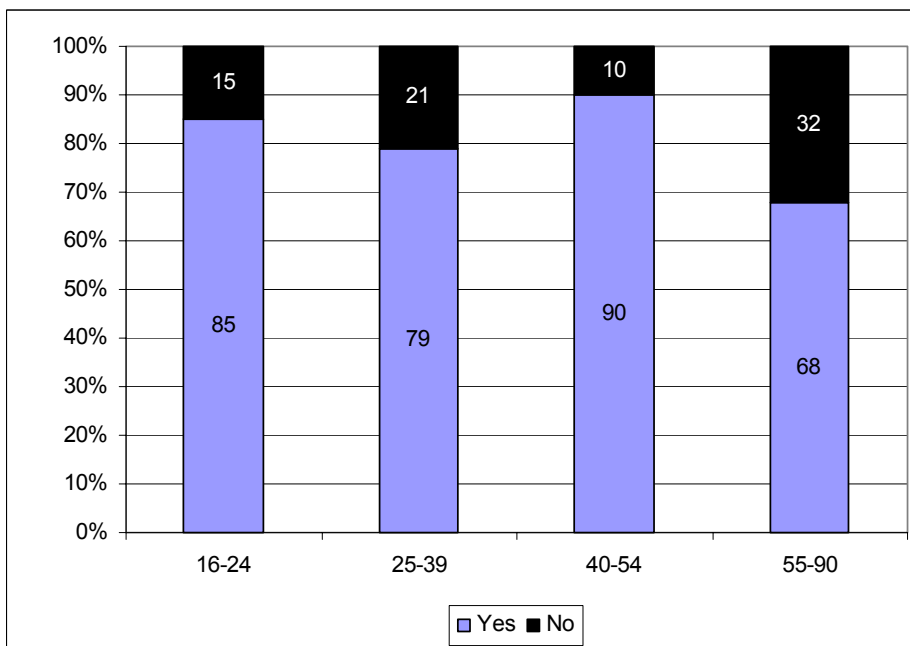


Figure 10. Participants’ opinion on knowing what the project was by age. (%)

The majority (58%) of the participants were interested in the MGP, less than one third (29%) were somewhat interested and 13% not interested. There was no significant difference between the communities and the participants' interest in the project. But, there was a significant difference between age groups and interest in the project (Chi-square= 12.627, df=6, p=0.049). Participants in the two oldest age groups (40-54 and 55-90) were more interested in the MGP than participants in the younger age groups (16-24 and 25-39). There was also a significant gender difference in people's interest in the MGP (Chi-square=7.696, df=2, p=0.021). Of men, 66% were interested, while the corresponding figure for women was 49%.

The participants' opinions about the project being approved (in the next 2 years) and wanting it to be built the next 5 years were divided. Less than half (42%) of the participants thought that the project would be approved in the next couple of years (from year 2005), about one in four (23%) said "no" and 35% "I do not know". (Table 6)

Table 6. Participants' opinions of the MGP (%).

		Community				Total n=201
		Aklavik n=37	Fort McPherson n=56	Inuvik n=73	Tsiigehtchic n=35	
Do you think that the MGP will be approved in the next 2 years?	Yes	35	36	50	40	42
	No	24	32	20	14	23
	I do not know	41	32	30	46	35
Total		100	100	100	100	100
		Aklavik n=39	Fort McPherson n=59	Inuvik n=74	Tsiigehtchic n=38	Total n=210
Do you want the MGP to be built in the next 5 years?	Yes	38	46	54	48	48
	No	26	25	27	26	26
	I do not know	36	29	19	26	26
Total		100	100	100	100	100

Also, less than half (48%) of the participants wanted the MGP to be built in the next 5 years, about one fourth (26%) answered “no” and (26%) “I do not know”. (Table 6)

The people that wanted the MGP to go through believed that the project would bring training and employment opportunities, and financial benefits. *“I hope that the young people will get educated and take part in the project.”* (/p9/ - female, age 57, Inuvik) *“I would want training from the project.”* (/p93/ - male, age 16, Fort McPherson) *“The kids are into it. The pipeline will be good for my grandkids. I would like to see it go through, so the young generation gets jobs. Lots go to college.”* (/p205/ - male, age 61, Aklavik) *“I want them to go through if we got financial compensation.”* (/p109/ - male, age 33, Fort McPherson)

The participants that did not want the Mackenzie Gas Project to be built were worried about the possible negative environmental and social impacts. Participants were also concerned that the low level of education and social problems would prevent the Gwich’in to benefit from the possible job and business opportunities. *“People and the communities are not ready to fill the professional jobs or they don't have enough money to start their own business.”* (/p154/ - male, age 46, Tsiigehtchic) *“I hope it (MGP) won't go through. I don't support it. There will be lots of work, but it will not be good for the land. There's not enough facilities and programs to help with health issues. Federal Government takes too much of the NWT's revenues don't really spend enough money back in the NWT.”* (/p100/ - male, age 29, Fort McPherson) *“I don't support it (the pipeline). The Government will make all the money, they don't care about us. I think it will be all very bad. Our young people are in too much alcohol, drugs and violence now. It will get worst. Everything will get ruined.”* (/p92/ - male, age 67, Fort McPherson)

Some people also felt that their opinion of the MGP being built would not matter. *“Whether the people want it or not they will build it anyway. Even if I don't like the pipeline to go through it will go through. Go ahead! What can we do about it?”* (/p147/ - male, age 71, Tsiigehtchic) *“If I say no, they will go through anyway.”* (/p85/ - female, age 75, Fort McPherson)

From the 26% of the participants that did not want the project to be built in the next 5 years, half (50%) wanted it to be built within the next 15 years, 5% answered “in the next

30 years”, 5% “in the next 50 years” and 40% “never”. *“Delay the pipeline as long as possible. Oil and gas will always be in the country. Gwich'in people not educated.”* (/p97/ - male, age 35, Fort McPherson) *“They should train our people before they do anything. I am an elder and I don't want our land and water to be ruined. We should keep it for our next generation. I don't really support the MGP. Hopefully they will never build the pipeline.”* (/p78/ - female, age 65, Fort McPherson)

There was no significant difference between the communities and did the participants think that the MGP would be approved in the next couple of years. There was also no significant difference between communities and the participants wanting the MGP to be built. But, there was a significant difference between age groups and did the participants think that the project would be approved in the next couple of years (Chi-square=18.519, df=6, p=0.005), and also age groups and participants wanting the MGP to be built in the next 5 years (Chi-square=15.794, df=6, p=0.015). Most of the people above the age 40 believed that the project would be approved in the next couple of years and wanted it to be built in the next 5 years. The participants in the younger age groups (16-24 and 25-39) were more divided in their opinions (fig. 11).

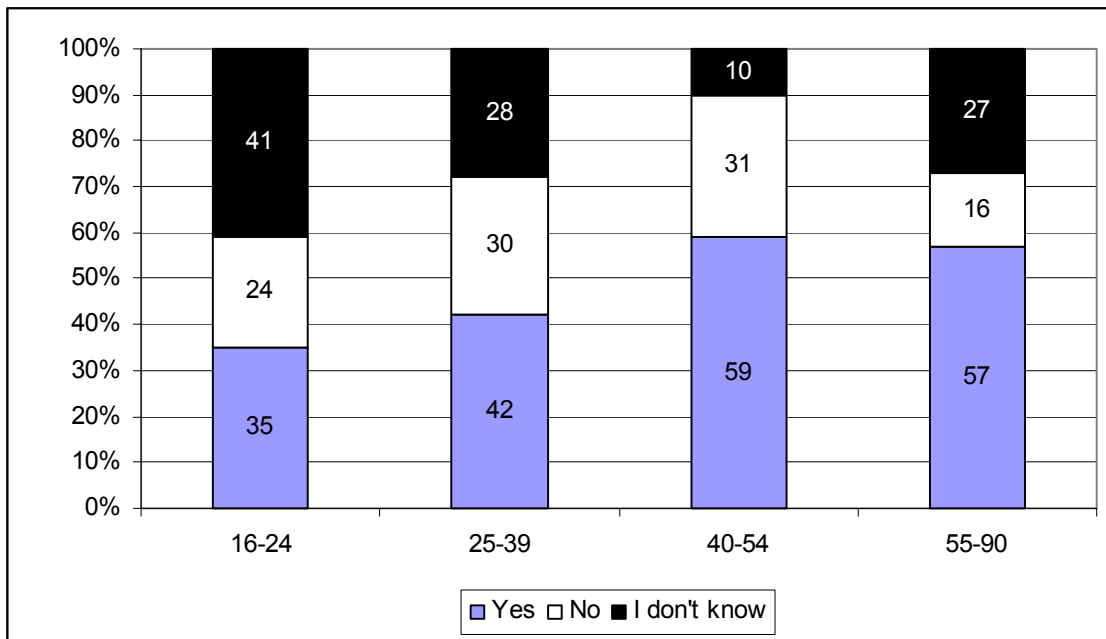


Figure 11. Participants’ opinions on wanting the MGP to be built by age (%).

There was also a gender difference in participants’ opinion about thinking that the project would go through in the next couple of years and wanting it to be built in the next 5 years.

Of men, most (52%) thought that the MGP would go through in the next couple of years, 22% that it would not and 26% did not know. Of women, the corresponding figures were 33%, 25% and 42% (Chi-square=8.027, df=2, p=0.018). Concerning the question “did the participants want the MGP to be built in the next 5 years”, the same figures for men were 62%, 22% and 16% and for women 35%, 29% and 36% (Chi-square=17.670, df=2, p=0.000) (fig. 12). In both questions, men had higher numbers in “yes”-answers than women, while women were more often uncertain of their opinion than men. *“I need to go to more meetings to understand the process, before I can say anything.”* (/p175/ - female, age 26, Aklavik) *“I’m not sure if I support it. We need more information, workshops and meetings.”* (/p69/ - female, age 36, Fort McPherson)

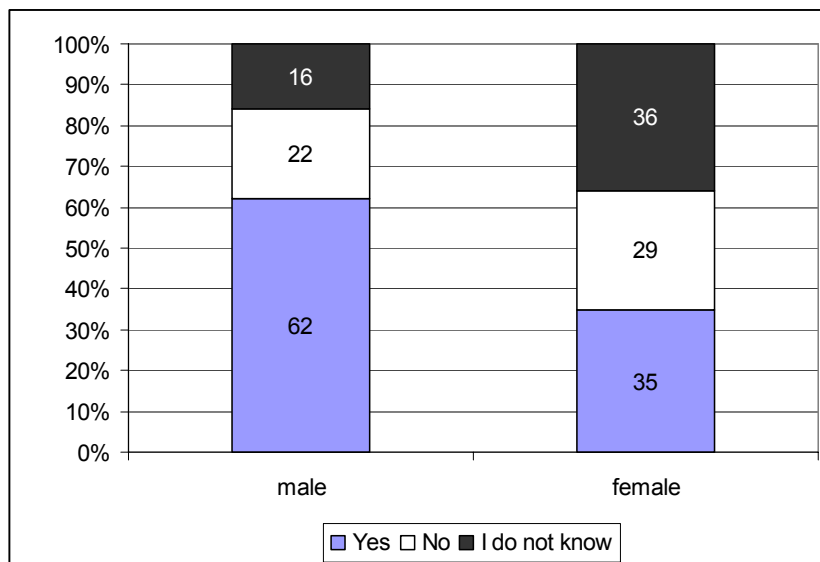


Figure 12. Participants’ opinion on wanting the project to be built according to gender. (%)

4.8.2. How the Mackenzie Gas Project would affect people’s lives

The majority of the participants thought that the project would have both positive and negative effects or no effects on their own lives and the lives of the Gwich’in in their community. (Fig. 13) *“I know how to handle it, but it’s up to each individual. For jobs wise, each individual can make it better for themselves.”* (/p104/ - male, age 55, Fort McPherson) *“The project might have both good and bad effects. In Hobema it went bad. Big projects might be good for jobs, but bad because of all the alcohol and drugs.”* (/p7/ -

female, age 29, Inuvik) *“There will be both good and bad effects. There will be a lot of drinking. I know that because I used to work with them earlier. 2 weeks in 2 weeks out, it's still like that. When they come out they drink all their money. It's too late to help them now, it's a routine. If they get someone to do counselling, but it's pretty hard to change their lifestyle.”* (/p18/ - male, age 59, Inuvik) More participants believed that the project would make their own lives better instead of worse, but assessed that the lives of the Gwich'in in their communities would get worse instead of better (fig. 13). *“It will benefit me financially, but as a community... there will be too much money too fast, lots of people have alcohol problems and social problems.”* (/p113/ - male, age 29, Fort McPherson) *“Because people around here mostly eat caribou and if the project goes through it might not be good.”* (/p101/ - male, age 17, Fort McPherson)

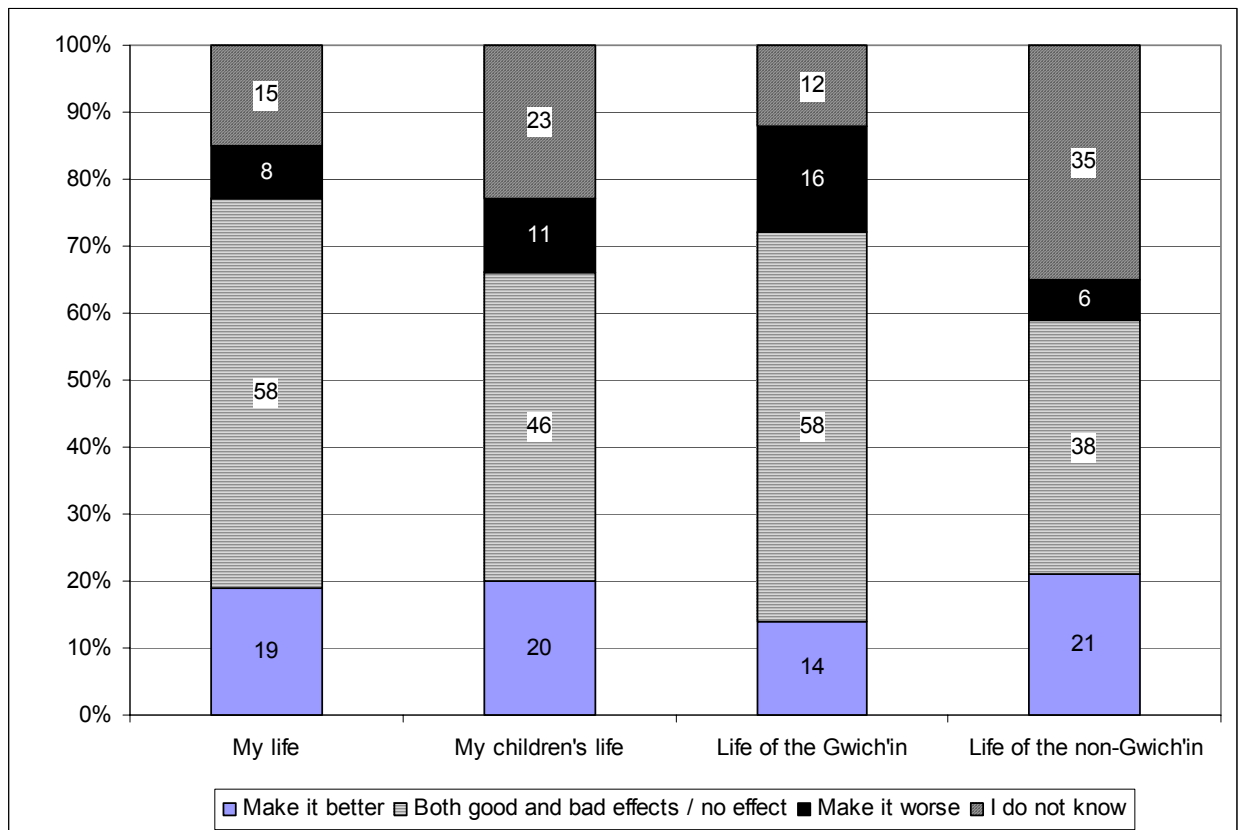


Figure 13. How the participants thought that the MGP would affect their lives (%).

When participants were asked how they thought the project might affect their children's lives over one fifth of the participants were unsure of their opinion, 46% answered both good and bad effects or no effect. (Fig. 13) *“They'll be able to get work, but if they get too much money they'll get into trouble.”* (/p18/ - male, age 59, Inuvik) *“It will be tougher on*

them. They will see all the drugs, etc., but it will benefit them too. The pipeline could do a youth centre, to sponsor a baseball team or soccer. So they would have more positive things for the children, for their self esteem.” (/p113/ - male, age 29, Fort McPherson)
“Depends on how you bring them up.” (/p156/ - male, age 58, Tsiigehtchic) *“Might be good for the young people, if they bank their money, it will be good. If alcohol, it's bad. What will those young people do with those checks? They won't build a house; they will just drink and do other bad stuff. Don't look good to me.”* (/p177/ - female, age 90, Aklavik)

When asked how the MGP would affect the non-Gwich'in over one third (38%) answered both good and bad effects or no effects and over one third (35%) answered “I do not know”. (Fig. 13) *“They will get jobs.”* (/p157/ - male, age 67, Tsiigehtchic) *“They are smart. They can start their own business.”* (/p113/ - male, age 29, Fort McPherson) *“They are not here for a long time anyway.”* (/p108/ - male, age 33, Fort McPherson)

There was no difference between gender and what kind of an effect the participants thought that the MGP might have. But, there was a significant difference between age groups and how the participants thought that the project would affect their children's lives (Chi-square=18.178, df=9, p=0.033). Participants of middle age (40-54) believed in more positive effects than other age groups and had the lowest percent in answer “I do not know” (11%). The youngest participants (16-24) seemed to be most uncertain on how the project might affect their children. Of the youngest age group, 41% answered “I do not know”. (Fig. 14)

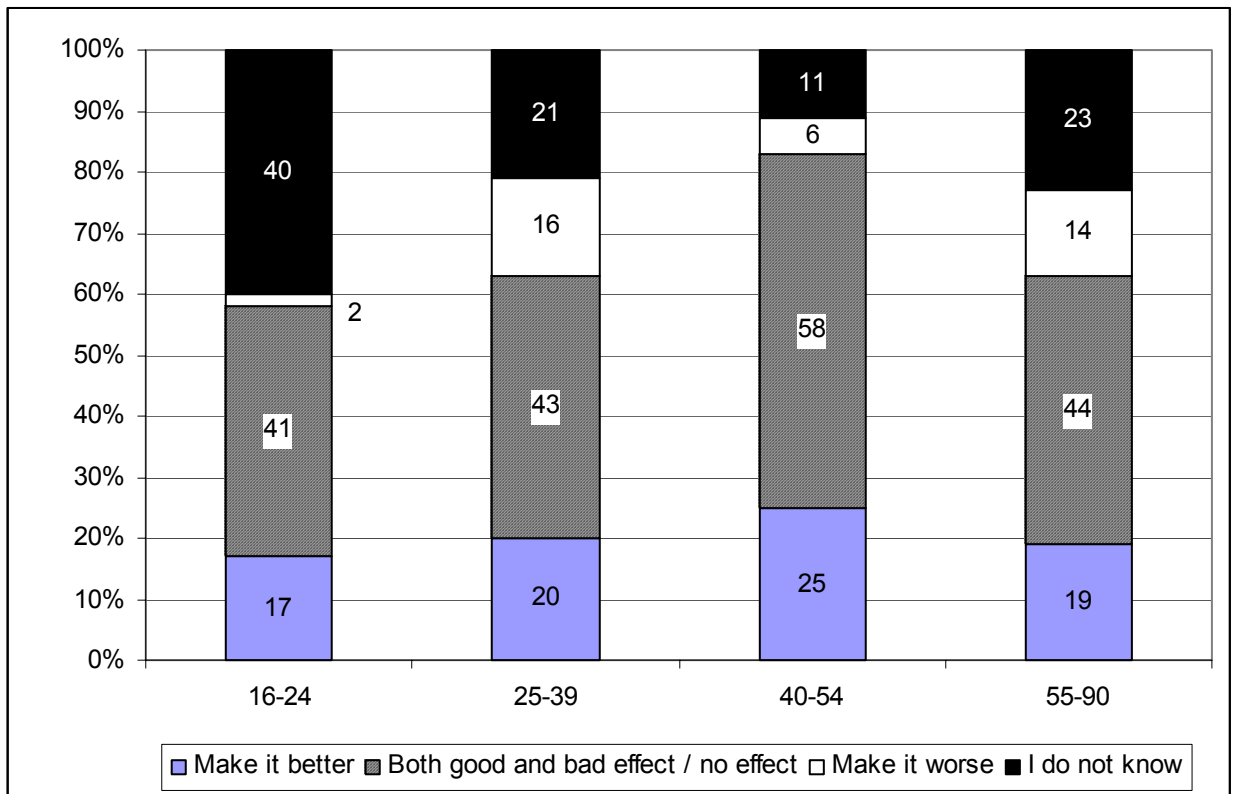


Figure 14. Participants’ opinions on how the MGP would affect their children’s lives (%).

For statistical analyses, the question “how participants thought the MGP would affect the life of the Gwich’in” was re-classified so that the options “both good and bad effects” and “make it better” were given a value 1 (some good) and all other options value 0 (no good). Of all participants, 70% thought that the MGP would have “some good effects” on the lives of the Gwich’in. The corresponding figures were 74% in Aklavik, 52% in Fort McPherson, 87% in Inuvik and 63% in Tsiigehtchic (Chi-square=20.532, df=3, C =0.300, p=0.000) (fig. 15). The participants in Aklavik and Inuvik also believed in more positive affects from the MGP on their own lives (Chi-square=11.794, df=3, C =0.231, p=0.008) and the lives of their children (Chi-square=17.081, df=3, C =0.281, p=0.001) than the participants in Fort McPherson and Tsiigehtchic. Concerning participants’ personal life, 82% of the participants in Aklavik and 77% of the participants in Inuvik believed that the project would bring some good effects on their personal life, while the corresponding figure for Fort McPherson was 61% and for Tsiigehtchic 53%.

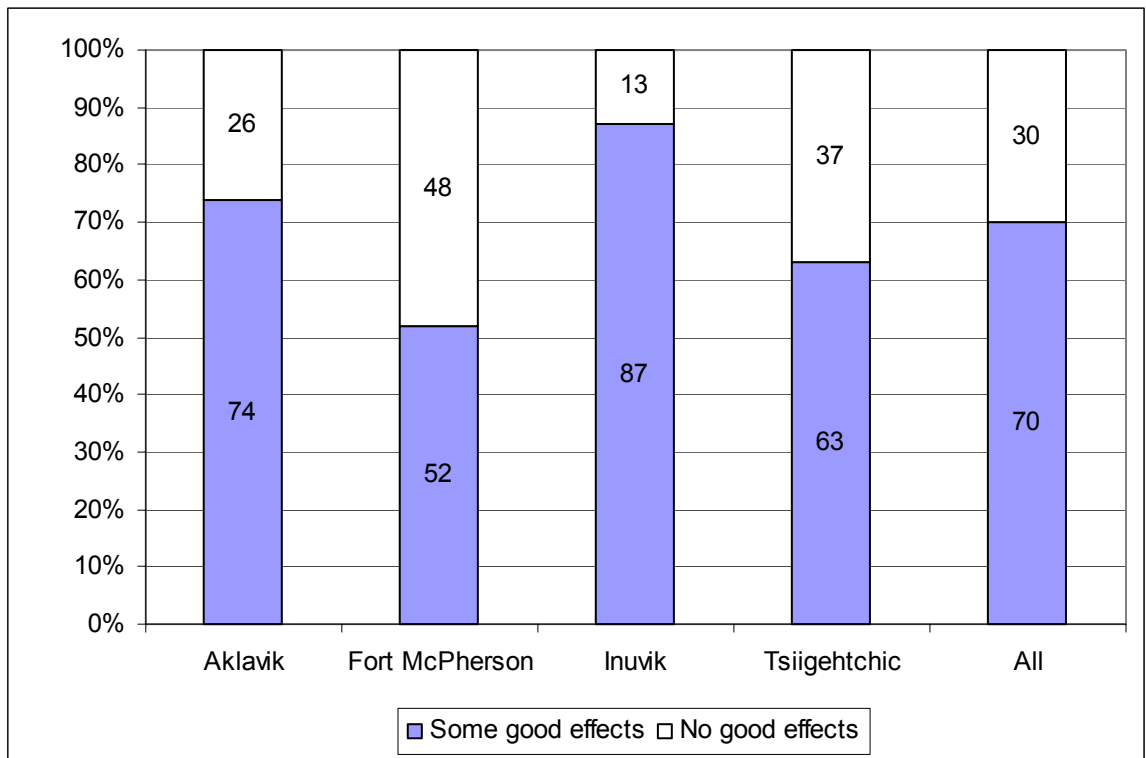


Figure 15. Proportion of participants who thought that the MGP would have some good effects on the lives of the Gwich'in (%).

4.8.3. Who would benefit from the project

Most of the participants thought that the multinational oil and gas companies would benefit from the MGP. (Fig. 16) *“Oil and gas companies get more than their share.”* (/p113/ - male, age 29, Fort McPherson) *“Some people in the GSA and NWT would benefit, but it’s the oil and gas companies that will mostly benefit.”* (/p162/ - male, age 36, Inuvik) *“Ultimately it is the companies that will benefit the most.”* (/p178/ - female, age 70, Aklavik)

Nearly half of the participants believed that the Government of Canada (48%) and the Government of NWT (47%) would benefit from the project. (Fig. 16) *“The Government will make all the money, they don't care about us.”* (/p92/ - male, age 57, Fort McPherson) *“The Government of the NWT will benefit lots and the Government of Canada will get big bucks.”* (/p155/ - male, age 38, Tsiigehtchic)

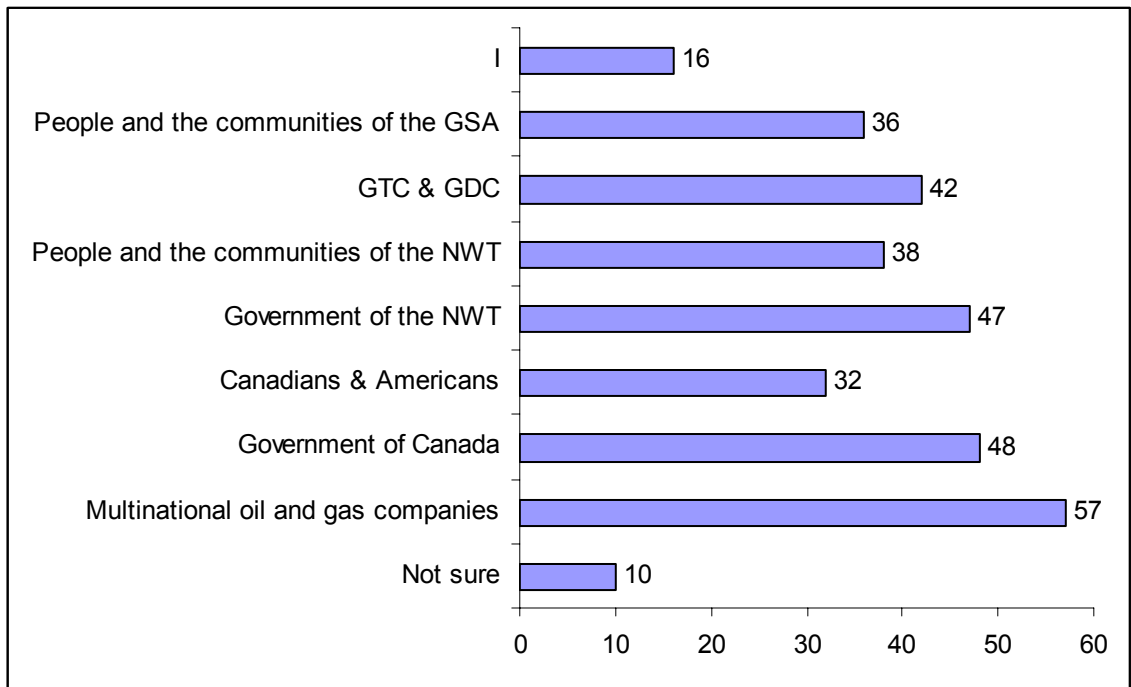


Figure 16. Participants’ opinions on who would benefit from the project (n=207) (%).

Only 16% of the participants themselves believed they would benefit from the project. *“We’re not going to get rich out of this. Talk to the people in Alaska. They didn’t get rich. We’re not going to get anything. You’re not going to see them building cabins or houses for us.”* (/p43/ - female, age 63, Inuvik) *“I don’t think that any Gwich’in will benefit from this, they can’t handle their money.”* (/p86/ -female, age 81, Fort McPherson) *“I am not sure about me personally, people and the communities of the GSA or NWT or the GTC and GDC. If the gas reaches America then the Americans will benefit. If they use it to develop Alberta Oil Sands then they won’t benefit.”* (/p158/ - male, age 35, Tsiigehtchic)

More than one third of the participants believed that the Gwich’in Tribal Council (GTC) and the Gwich’in Development Corporation (GDC) (42%), and the people and the communities of the GSA (36%) and the NWT (38%) would benefit. (Fig. 16) *“The first agreement should be that the Gwich’in get 50% of all agreements. The Gwich’in will benefit if they have a good agreement. GTC and GDC will benefit if they have long term agreements and short term agreements.”* (/p113/ - male, age 29, Fort McPherson) *“The GTC and GDC will benefit more because they don’t give out the contracts.”* (/p155/ - male, age 38, Tsiigehtchic) *“If people in the communities train and get work they will benefit.”* (/p157/ - male, age 67, Tsiigehtchic) Less than one third believed that the Canadians and

Americans would benefit from the project. *“Canadians and Americans will benefit - there will be jobs.”* (p2/ - female, age 25, Inuvik)

There was no significant difference between communities and who the participants thought would benefit from the project except in the case of the Government of Canada (Chi-square=8.224, df=3, p=0.042) and the Gwich'in Tribal Council and the Gwich'in Development Corporation (Chi-square=8.363, df=3, p=0.039). Most of the participants in Tsiigehtchic (60%) and Inuvik (57%) believed that the Government of Canada would benefit, but the corresponding figures for Aklavik (32%) and Fort McPherson (48%) were lower. Also in the case of the GTC and the GDC the differences were not as great; Aklavik (45%), Fort McPherson (25%), Inuvik (48%) and Tsiigehtchic (57%).

There was a nearly significant gender difference in participants' opinion on would they themselves benefit from the project (Chi-square=3.629, df=1, p=0.057). More men (22%) than women (12%) thought that they would benefit from the MGP. Otherwise there were no differences between gender and who the participants thought might benefit from the MGP.

There was no significant difference between age groups and opinion on who would benefit from the project except in the case of multinational oil and gas companies (Chi-square=11.201, df=3, p=0.011) and the Government of Canada (Chi-square=8.292, df=3, p=0.040). In both cases the participants in the older age groups believed them to benefit more than the participants in the youngest age group (16-24). In the question of the Government of Canada, the majority of the participants above the age 25 believed that it would benefit, but only 31% under the age 25 assessed that. In the question of multinational oil and gas companies, more than 60% of the participants above the age 25 believed that they would benefit, but only 48% of the participants under the age 25.

4.8.4. Socio-economic and cultural impacts

“The good thing is that there will be benefits for the settlement area and more employment. But the bad thing is that people won't be trained for the right jobs, they'll only get the labour jobs. There will be businesses coming from left and right, but we won't have enough trained personnel. The young people will benefit. Education is the key.”

Hopefully they'll be educated by then and there should be more training programs then.”
 (/p215/ - male, age 33, Inuvik)

From all of the participants, 94% believed that the project would have social, economic and cultural impacts and 6% answered “I do not know”.

In the questionnaire the question on what kind of socio-economic impacts did the participants think that the project would have on the Gwich'in in the GSA (Appendix 1. q.20b) was sometimes found difficult, time consuming and too long. That is why about 10% (n=22) of the participants who assessed that the project would have socio-economic impacts did not answer the question. The answers from q.20b are shown in table 7 below and explained in more detail in the following chapters.

Table 7. The socio-economic and cultural impacts that the MGP might have and how positive the participants thought that those impacts would be (%).

	Greater / more	No change	Smaller / less	Positive	Positive & negative / neutral	Negative
Employment	83	10	7	58	36	6
Education	75	19	6	65	29	6
Financial benefits	80	15	5	59	36	5
Infrastructure	73	23	4	45	46	9
New oil and gas development	84	11	5	36	46	18
New natural resources development	66	29	5	32	53	15
New business opportunities	87	8	5	64	30	6
Influx of people	88	11	1	17	50	33
Cost of living	85	10	5	8	23	69
Substance abuse	88	11	1	3	17	80
Health of the people				10	61	29
Community well-being				12	58	30
Culture				4	45	51
Traditional lifestyle				9	45	46
Money management				10	50	40

4.8.4.1. Employment opportunities

The great majority of the participants (83%) believed that there would be more employment opportunities due to the MGP. Most of the participants (58%) thought that these opportunities would have only positive impacts and 36% answered both good and bad or neutral impacts. (Table 7) *“It will be good for young people, they’ll get jobs.”* (/p96/ - male, age 68, Fort McPherson) *“The kids are into it. The pipeline will be good for my grandkids. I would like to see it go through, so the young generation gets jobs.”* (/p205/ - male, age 61, Aklavik) *“The employment opportunities will be good and bad, bad because there will be high paid jobs for a while and then well paid jobs will come as an expectation. I tend to think in the long term.”* (/p11/ - female, age 47, Inuvik) *“Employment opportunities will be bigger, but I see it as neutral. It depends on employment opportunities, what quality is the employment and are they long term.”* (/p31/ - male, age 35, Inuvik)

Many participants were also concerned that the local people were not educated enough to get the jobs available and that the jobs would go to southerners. Some participants were concerned that the youth might drop out of school to go and work for the project. *“There will be no change in employment opportunities, not many have qualification. More southerners will benefit.”* (/p67/ - female, age 56, Fort McPherson) *“I don't think a lot of our people really understand what this project is all about, nor are our younger people prepared to take advantage of the opportunities job wise due to the lack of education. More than likely a lot of them will get only entry-level jobs. Some may even drop out of school to go to work only to discover later that it would have been more rewarding to continue with their education.”* (/p200/ - male, age 48, Tsiigehtchic) *“They are not bothering with us. They are in our territory, but they are far from us. The Mackenzie Construction never hired anyone from Tsiigehtchic though we have people with truck driving licence. They only hired those Irishmen who came to drive taxi.”* (/p151/ - male, age 63, Tsiigehtchic)

Participants were also concerned for the welfare of the children if the parents would work for the MGP. *“People that work for the oil companies might leave offspring behind.”* (/p4/ - female, age 45, Inuvik) *“If one spouse goes to work and children are left with only one parent it's not good.”* (/p11/ - female, age 47, Inuvik) There was also a concern raised that some people might rather depend on social welfare than try to get work. *“I'm sure they'll*

hire lots of people, but will the Gwich'in want to work? Look at it now; they can't even get the garbage out.” (/p49/ - female, age 80, Inuvik)

4.8.4.2. Education opportunities

Most (75%) participants assessed that there would be more education opportunities due to the project. The increase in education opportunities was seen as the most positive impact that the MGP could offer. Most of the participants (65%) assessed that increase in education opportunities would be only positive. (Table 7) *“Education opportunities are already bigger. They are taking young boys for training.” (/p133/ - female, age 20, Tsiigehtchic)* *“Education opportunities will be bigger and good. Arctic College (Aurora College) is good. Lots of people go back to school.” (/p49/ - female, age 80, Inuvik)*

Many participants believed that the opportunities were there if the people would take advantage of them. *“Education opportunities depend on the teenagers.” (/p133/ - female, age 20, Tsiigehtchic)* *“Those who take advantage of our training and education that is available to us will advance.” (/p105/ - female, age 46, Fort McPherson)* But there was also a concern amongst the smaller communities that not enough programs are delivered at the community level. *“Education is the key to understanding. More education programs are needed at community level. People are not prepared to move to a larger place with a large family.” (/p173/ - female, age 29, Aklavik)* *“We should have education programs here in our local education learning centre. Nothing ever happens there.” (/p167/ - female, age 35, Aklavik)* *“There should be more programs offered in the community. More people getting their grade 12 and then go to college. They should educate our people first and then build the pipeline.” (/p87/ - female, age 32, Fort McPherson)*

4.8.4.3. Financial benefits

The great majority (80%) believed that financial benefits would increase due to the MGP. The increase in financial benefits was seen as the third most positive impact that the MGP could offer. Most of the participants (59%) assessed that increase in financial benefits would be only positive. (Table 7) *“The best part is the financial benefits.” (/p210/ - male, age 73, Aklavik)* *“The Gwich'in should get financial benefits if it's (the pipeline) on our land.” (/p49/ - female, age 80, Inuvik)* *“The Gwich'in better get financial benefits,*

otherwise that pipeline better not go through. The benefits should go for bigger school, bigger store and better gym, also trails and picnic areas are needed.” (/p133/ - female, age 20, Tsiigehtchic)

Over one third believed that the benefits would have both good and bad or no effects and 5% that the effects would be negative. *“They (MGP) make it sound juicy when they say we get royalties. Where is all this money going to? They are just sending it down the pipeline. The money that they give for us is just going to go to attend meetings on this MGP.” (/p195/ - female, age 60, Inuvik)*

4.7.4.4. Infrastructure

The majority (73%) of the participants thought that there would be more infrastructure due to the project. Of all participants, less than half (46%) believed that the impacts would be both positive and negative or neutral and 45% that the impacts would be positive. (Table 7) *“There should be more housing, municipal services, water and sewage, garbage pick up and garbage dump.” (/p213/ - male, age 49, Inuvik) “Infrastructure will be good work wise. New business opportunities would be good work wise.” (/p104/ - male, age 55, Fort McPherson)*

Some participants had a concern that the infrastructure for the MGP might not benefit the local people. *“The housing is the worst thing up here. Look at the houses in the NWT and Nunavut. We’ve only got matchbox houses. In Aklavik there is 50 empty houses, but the people are in line and don’t get those houses. Those houses are old and full of bugs. The Eskimo Inn has a bunch of units too for their employers and businesses like the GTC and contractors have apartments in town and they don’t rent those empty apartments to people that need them. They rent them only for people that work for them. They need to start giving us decent housing and offices. They keep on putting up hotels and bars - that’s where the money will be going.” (/p195/ - female, age 60, Inuvik) “There will be still crappy roads, even if the MGP goes through.” (/p108/ - male, age 33, Fort McPherson)*

About one tenth (9%) believed that increase in infrastructure would have negative effects. *“There might be more infrastructure which I see as bad. More roads make it easier to go hunting and that might impact the caribou and waters.” (/p31/ - male, age 35, Inuvik)*

“Infrastructure is bad, because we don't have healthy people who want to keep the land clean.” (/p132/ - female, age 40, Tsiigehtchic) “There will be more infrastructure - more pipeline, so it's bad.” (/p210/ - male, age 73, Aklavik)

Some participants were hoping for more and better roads from the communities to down south. *“I want a highway from Tsiigehtchic to Good Hope to Norman Wells - Tulita - Wrigley.” (/p55/ - female, age 37, Inuvik)*

4.7.4.5. New natural resources development

The great majority (84%) thought that the MGP would increase oil and gas development and the majority (66%) that it would also increase other natural resources development than oil and gas. Most participants believed that new natural resources development would have either good and bad effects or neutral effects on the people in their communities. (Table 7) *“New natural resources development will be good if there are proper benefits agreements, if not I don't think it will be good, the land needs to be protected.” (/p11/ - female, age 47, Inuvik) “New natural resources development would be good. What ever puts the people to work is good.” (/p6/ - male, age 22, Inuvik) “From new natural resources development we might get royalties.” (/p176/ - female, age 50, Aklavik) Nearly half of the participants (46%) believed that new oil and gas development would have both good and bad effects. *“New oil and gas development will be big, once they get it in they will want to do more for sure. Development is good as long as it is controlled, that's why they have monitors.” (/p120/ - male, age 61, Inuvik)**

There were also participants who were afraid that there could be too much new development coming to the GSA due the MGP. *“The oil and gas development is going to be bigger than what they're saying now. It's going to be too fast.” (/p131/ - female, age 40, Tsiigehtchic) “New oil and gas development is bad. The other countries that let them drill all over and all the mess that can happen here if we don't control it.” (/p155/ - male, age 38, Tsiigehtchic)*

4.7.4.6. New business opportunities

Most participants (87%) felt that there would be more business opportunities. Increase in business opportunities was seen as the second most positive impact that the MGP could offer. The majority (64%) assessed that increase in business opportunities would be only positive and 30% that the impacts would be both positive and negative or neutral. (Table 7) *“New business opportunities will be bigger and good, because they are training people.”* (/p131/ - female, age 40, Tsiigehtchic)

Participants were also concerned that locals might not be ready for the business opportunities that could develop from the MGP. *“I don't think anybody is qualified here on the business side.”* (/p151/ - male, age 63, Tsiigehtchic) *“Most of the businesses in town are non-Gwich'in, but the businesses will do very well.”* (/p11/ - female, age 47, Inuvik)

Participants had suggestions on how to better involve the Gwich'in in the business opportunities. *“Make sure aboriginal people are notified about private business opportunities. Suggestions and recommendations on business opportunities should be given to community-based people. The people should be assisted with proposal writing and the CIBC should be more open to funding aboriginal businesses. Provide funding for interpreters to explain businesses available. And please don't hire buddies.”* (/p164/ - female, age 61, Inuvik) *“They should follow through with hiring also small businesses, but they only hire big companies.”* (/p207/ - male, age 67, Aklavik) *“They should look at the smaller businesses and companies, so that they would be also hired instead of going with the bigger mainstream companies.”* (/p122/ - male, age 40, Inuvik)

4.7.4.7. Influx of people

The great majority (88%) assessed that influx of people would be greater due to the project. (Table 7) Half of the participants felt that the impacts of influx of people would be both positive and negative or neutral, more people assessed that the impacts would be negative (33%) than positive (17%). *“Influx of people is bad. Is there enough resources to handle the influx and if they bring more alcohol and drugs?”* (/p31/ - male, age 35, Inuvik) *“More workers from south, so there will be bad effects. Now that there has been a lot of oil and gas the workers from down south they brought crack to Inuvik and my friends got into that,*

friends that I thought would never get into that.” (/p99/ - male, age 29, Fort McPherson)

“People should be shown examples of what the social impacts of the project would do. For example if there is a camp outside a small town - Tsiigehtchic or even Fort Good Hope. How are they able to take care of the services, if they are not able to take care of them now for their community? That's what happened in Colville Lake. The oil companies came, they built a road and a lot more booze and violence came.” (/p123/ - male, age 50, Inuvik)

4.7.4.8. Cost of living

The increase in the cost of living was seen as the second biggest negative socio-economic impact. (Table 7) *“Cost of living has already gone up.” (/p131/ - female, age 40, Tsiigehtchic)* *“We don't have running water up here in the communities. It's \$50 to get a full tank. It's so expensive for food and trips down south. I still can't own my own vehicle.” (/p195/ - female, age 60, Inuvik)* *“We don't have access to the highway, so we need more help with food so the prices are not too expensive.” (/p201/ - male, age 28, Aklavik)*

In Aklavik, the people who were for an all year road believed that the cost of living would be cheaper if the road was built and hoped that the project would help the community in building one. *“I recommend that they build a road to Aklavik to use the most of the possible advantages.” (/p190/ - male, age 19, Aklavik)* *“I think you should connect Aklavik to the highway, so it is easier travelling to the other communities.” (/p189/ - male, age 18, Aklavik)*

A number of participants hoped that some of the gas from the MGP could be used in the GSA the communities. *“The cost of living will go down if the communities could access the gas for personal use.” (/p140/ - male, age 28, Tsiigehtchic)*

4.7.4.9. Substance abuse

The great majority of the participants (78%) thought that the project would increase substance abuse (drugs, alcohol and violence), this was seen as the most negative (80%) social impact that the project could bring. (Table 7) *“I am worried about all the drug and alcohol abuse, it will only get worse. It is so bad already. More younger and younger children are drinking. It is terrible.” (/p85/ - female, age 75, Fort McPherson)* *“I don't*

know how many bootleggers they have in town, lots. They are just waiting for the youngsters' money, the money they get from working for oil and gas.” (/p180/ - female, age 44, Aklavik) “We are dealing with residential school stuff, low self esteem, alcohol and family violence. All of the communities are still struggling with alcohol and drugs. Everybody in my family were into drinking, some still are. I've been going to counselling for so many years and still need to go. Lots of families are affected NOW, someone's got to do something about it. We need detox. It's not just the pipeline! The gambling is a big problem. In Aklavik I was wondering why there were no people on the main street at night, just quiet, because of Bingo is on every night except Tuesday. And after Bingo they go to gamble at someone's house. Why are they shutting down Turning Point? They were using the Turning Point building already in the 70s. I want to see a brand new Turning Point like the hospital (Inuvik Regional Hospital). I want treatment centres all in same building. Instead of these guys going to jail I want the people to get treatment. Get to the people before they get to jails. They're spending so much money to keep us people behind bars. Our people don't need to be in zoos.” (/p195/ - female, age 60, Inuvik)

Participants had clear suggestions on how to tackle the problem of substance abuse; more money should be put into alcohol and drug programs and a treatment centre is needed. *“We need a treatment centre in Inuvik or where our Tsiigehtchic sign is. All the nations need that, one for the Beaufort Delta, one for Sahtu and one for Deh Cho. When we ask for something they threaten to shut down. What can we do to make our people better? I don't give a shit where the money comes for a treatment centre if it comes from the Government or the oil companies, but build it for 20 years. If the gas is flowing for 20 years they should treat us for the same time too. We need the treatment centre to better our people. We've got drugs and alcohol and people still suffer from residential schools. They will be making the money, \$ 10 billion / day. They will never go broke, yet they complain about a simple thing - a treatment centre.” (/p150/ - male, age 58, Tsiigehtchic) “We have a major need for a treatment centre. They should mitigate the negative impacts by starting with a treatment centre, it should be ready in 2007 with facility and staff in place. That is the main goal for Inuvik region.” (/p64/ - female, age 40, Inuvik) “Get AA counsellors in town. Why the Government spends money on building jails and not treatment centres? That's what they should do.” (/p156/ - male, age 58, Tsiigehtchic) “Prepare the Gwich'in. We need more healing programs so we are ready spiritually and mentally. We need more workshops and*

qualified facilitators for alcohol and drug treatment.” (/p113/ - male, age 23, Fort McPherson)

Participants also suggested that more efforts should be done to stop the drug trafficking and bootleggers. *“Drugs is the main concern, there should be check points on the highway for drugs.” (/p7/ - female, age 29, Inuvik) “Use more drug dogs and stop people on highways. Leaders should give police the authority to stop people on demand. We should stop crack and cocaine use before the project starts.” (/p204/ - male, age 45, Aklavik) “The police should be on the road to check bootleggers and drugs.” (/p83/ - female, age 55, Fort McPherson)*

4.7.4.10. Health

The majority (61%) of the participants assessed that the project would have both positive and negative or neutral impacts on the health of the people. (Table 7) *“Health of the people might have both good and bad effects, bad because of alcohol, drugs and violence.” (/p9/ - female, age 57, Inuvik) More participants assessed that the impacts would be negative (29%) than positive (10%). “Health of the people will get worse, because it will be more polluted.” (/p101/ - male, age 17, Fort McPherson) “Health of the people will get worse because of alcohol and bad health choices.” (/p153/ - female, age 50, Aklavik) As explained in the previous chapter, the participants wished for treatment centres to help people with health issues. “There's not enough facilities and programs to help with health issues.” (/p100/ - male, age 29, Fort McPherson)*

4.7.4.11. Individual and community wellness

As explained earlier (in chapter 4.8.2. How the MGP would affect people’s lives) most participants felt that the project would have both good and bad effects or no effects on their own lives and the lives of the Gwich’in. Most participants (58%) felt that the project would have both good and bad or neutral effects on community well-being, more people assessed that the impacts would be negative (30%) than positive (12%). (Table 7)

Participants explained how the individual and community well-beings are connected to the influx of people, time spent on the land, management of money, substance abuse and

violence. And again participants stressed that importance of treatment in the communities. *“My main concern is community well-being. There will be more money and more drinking.”* (/p6/ - male, age 22, Inuvik) *“The substance abuse will be bigger off the start. It's what the families are teaching already. We're going to have to work hard with the community well-being. People with lots of money will have to figure out what to do.”* (/p131/ - female, age 40, Tsiigehtchic) *“Influx of people will contribute to the community well-being. Now I recognize 50 people on the streets in 10 years time I'll only recognize two, it'll be like Yellowknife. In Inuvik we will get more people. We'll lose our tradition more or less. Less people are going out to do traditional things. They stay in town doing nothing.”* (/p33/ - male, age 33, Inuvik) *“Government has money for post-efforts like jail and hospital but not money to prevent problems like for wellness centre.”* (/p204/ - male, age 45, Aklavik) *“There should be talk about elder abuse. A lot of kids are brought up by elders. We need a lot of counsellors, now we have only 4, we need 4 more. Don't know what will happen, there might be more suicide.”* (/p89/ - female, age 42, Fort McPherson) *“They are shutting down alcohol and drug programs though they should be doing more of that. A lot of young people are suffering and losing their children.”* (/p90/ - female, age 69, Fort McPherson)

Some participants were also worried about the bad influences of the work camps outside communities. *“Lot of people get hurt up here (at the oil and gas camps). One boy from our community got killed because of drugs on the camp, suicide. There is a lot of anger. They bring lots of anger into the community.”* (/p63/ - female, age 66, fort McPherson)

4.7.4.12. Culture and traditional lifestyle

More participants assessed that the impacts on the culture and traditional lifestyle would be negative rather than positive due to the MGP. (Table 7) *“The project will have a bad impact on the culture. There will be more people moving up, there will be more bad options, so people will be lured to western society.”* (/p31/ - male, age 35, Inuvik) *“In the past it has been because of a large influx of people that we have witnessed cultural and traditional erosion.”* (/p158/ - male, age 35, Tsiigehtchic) *“Impacts on the culture will be bad because they will be using up all the land.”* (/p6/ - male, age 22, Inuvik) *“I feel the people are not properly educated on this upcoming oil and gas. We've been through this before and it didn't do a whole lot of good for us and our culture. The communities and*

families were greatly effected and not for the good. The oil and gas companies only coming to tear up our beautiful land, and we don't know what long term damage this will do. We won't see things right away, but when it's all over and done with and oil and gas are gone. But we are here to stay." (/p40/ - female, age 44, Inuvik)

Of all participants, 45% assessed that the impacts on the culture and traditional lifestyle would be both negative and positive or neutral. (Table 7) *"Impacts on the culture and traditional lifestyle might be both good and bad. There might be more money to buy equipment, but if the development hurts hunting grounds then bad."* (/p131/ - female, age 40, Tsiigehtchic)

Participants were hoping for assistance so that the communities could afford to promote the Gwich'in culture. There was also a suggestion raised that the industry and the government people would spend time on the land so they would better understand people's concerns related to the land. *"Provide funding for youth and elders to keep alive culture i.e. trips on the land, language... It would be good for the elders because they hardly get out on the land. Industry representatives can go out on the land to see our cultural way of life!"* (/p140/ - female, age 28, Tsiigehtchic)

4.7.4.13. Money management

Half of the participants assessed that the project would have both bad and good or neutral effects on money management. Two fifths of the participants believed that the effects would be negative and one tenth that they would be positive. (Table 7) *"I don't think that any Gwich'in will benefit from this, they can't handle their money."* (/p86/ - female, age 81, Fort McPherson) *"When they're going to be making big money, it will be worse. Now we have a drug problem, the young people are fighting. When we were young we were afraid of RCMP, now the young people are not even scared of nothing."* (/p119/ - male, age 65, Fort McPherson) *"It will be bad because of social effects. Lot's of money means drinking and drugs."* (/p120/ - male, age 61, Inuvik)

The participants believed that there is a strong connection between money being mismanaged and substance abuse and that the people need help in overcoming that problem. *"Management of money won't get any better unless they take a course."* (/p156/ -

male, age 58, Tsiigehtchic) *“The people don't know how to handle their money; they spend it all in one time. They should have courses on that. The Tribal Council is aware of it and working on it.”* (/p123/ - male, age 50, Inuvik) *“With management of money we need workshops.”* (/p176/ - female, age 50, Aklavik)

4.7.4.14. Statistical differences in socio-economic opinions

For statistical analyses, the results from table 7 were re-classified so that the option “greater / more” was given a value 1 (greater / more) and the opinions “no change” and “smaller / less” 0 (not greater / more). Using the re-classified results concerning the questions on socio-economic impacts, there was a significant differences between communities and infrastructure (Chi-square=21.337, df=3, p=0.000) and a nearly significant difference in the case of cost of living (Chi-square=7.609, df=3, p=0.055). A higher amount of participants in Aklavik (88%) and Inuvik (86%) believed there would be more infrastructure due to the MGP than participants in Fort McPherson (50%) and Tsiigehtchic (65%). More participants assessed that the cost of living would be higher in Aklavik (84%), Inuvik (94%) and Tsiigehtchic (84%) than in Fort McPherson (74%).

Again for statistical analyses, the results from table 7 were re-classified so that the option “positive” was given a value 1 (positive) and the opinions “positive and negative / no change” and “negative” 0 (not entirely positive). Using the re-classified results concerning the questions on socio-economic impacts, there were no other significant differences between communities and expectations on socio-economic impacts except in the question of infrastructure (Chi-square=8.632, df=3, p=0.032) and future oil and gas development (Chi-square=10.111, df=3, p=0.018). Most participants in Inuvik and Tsiigehtchic felt that new infrastructure would be a positive change, but in Aklavik and Fort McPherson most participants felt that new infrastructure would not be entirely positive. In the case of new oil and gas development, participants in Fort McPherson were most positive about new oil and gas development. More than half (55%) of the participants in Fort McPherson assessed the impacts of oil and gas to be entirely positive, when in Aklavik (29%), Inuvik (26%) and Tsiigehtchic (39%) the percentages were much lower.

There were no significant gender differences in expectations on the magnitude of socio-economic impacts. However, there was a significant gender difference concerning the

positive effects of financial benefits. More men assessed that the financial benefits would be positive than the women did (Fisher’s exact, $p=0.044$). There were no significant differences between age groups except in the question of management of money. Participants aged 25-54 had a less positive opinion on the management of money than younger and older participants (Chi-square=8.793, $df=2$, $p=0.012$).

4.8.5. Environmental impacts

The great majority (88%) believed that the project would have environmental impacts (on the land, water, air, etc.) in the GSA. Only 5% did not expect any environmental impacts and 7% did not know. The participants were most concerned about spills, wildlife and water. Noise posed the smallest concern, but still 52% were very concerned and 33% concerned (fig. 17).

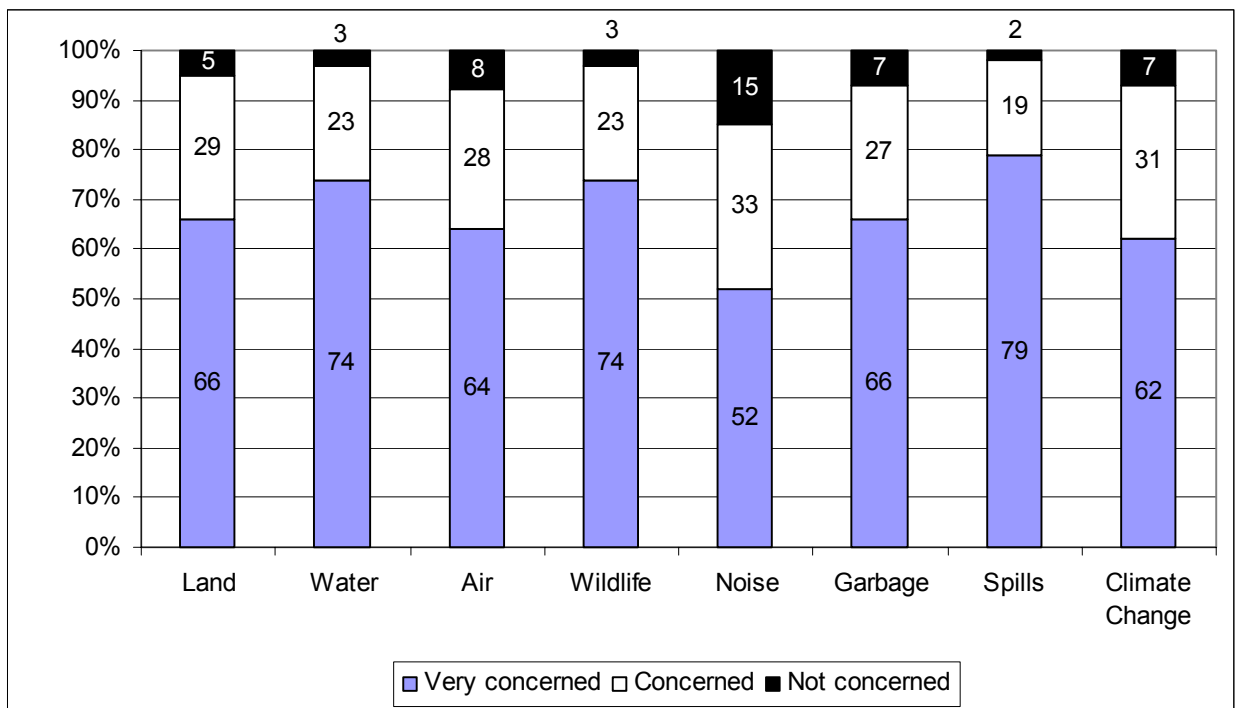


Figure 17. Participants’ level of concern for different environmental impacts (%).

4.8.5.1. Land

The majority (66%) of the participants were very concerned about the impacts that the MGP might have on the land and 29% were concerned. (Fig. 17) “My biggest concern is

the contamination of the land.” (/p47/ - female, age 47, Inuvik) “People have to clearly and fully understand that their total way of life will be affected for this and the next generation and that the land will never be the same after the pipeline is built - never!” (/p50/ - male, age 50, Inuvik)

People were concerned on how the construction, accidents, or spills might effect the vegetation and the food chain. *“Look at the land out there, they're going to cut all those willows like out there, it's going to be pretty sad.” (/p43/ - female, age 68, Inuvik) “My biggest concern is if the project goes through and our food is out there on the land - the caribou, the fish, the birds and the berries.” (/p9/ - female, age 57, Inuvik) “Seeds not native to the Arctic or Mackenzie Valley can inadvertently be transported by equipment typically used in the south. In the future (years / decades) this could cause erosion or mutation of local plants and vegetation.” (/p158/ - male, age 35, Tsiigehtchic)*

Concerns were also raised about building the pipe underground. *“My main concern is the land. The Norman Welles pipeline popped up at a few places.” (/p31/ - male, age 35, Inuvik) “I'm worried about permafrost thaw.” (/p157/ - male, age 67, Tsiigehtchic) “In Siberia where they have a gas pipeline, they have experienced frost heaves which has displaced their pipe(s) by a distance up to 30m.” (/p158/ - male, age 35, Tsiigehtchic)*

Few participants were concerned about earthquakes and what an earthquake would do to the pipe. *“What about the earthquake, then the pipe will shift. We had earthquake once. First it wasn't that bad. It was spring time and all the ice was breaking and stones were falling off the mountains. Earthquake is strong and there are spills and it's hard to cleanup. The earth can crack up, when it cracks up will the pipe bend? We saw when the ground cracked and the permafrost and ice, it was steep. I've seen the island crack up.” (/p177/ - female, age 90, Aklavik)*

Participants expressed the value of conserving the land for the future generations. *“I'm concerned about the land and water, because we have to protect them for the future generations.” (/p113/ - male, age 29, Fort McPherson) “I am an elder and I don't want our land and water to be ruined. We should keep it for our next generation.” (/p78/ - male, age 65, Fort McPherson)*

4.8.5.2. Water

According to the responses, the second biggest environmental concern that the participants had was water and wildlife. The majority of the participants (74%) were very concerned about water. Participants talked about their concern about run-offs, stream crossings, changes in water flow rates and fish migration. (Fig. 17) *“Run-off from sumps can cause contaminants to seep into the water table perhaps killing fish or even destroying whole ecosystems. More comprehensive studies have yet to be conducted regarding flow rates and fish migration. Presently they are only studying 100m on either side of major stream crossings. They should study 1500m on either side of EVERY stream crossing.”* (/p158/ - male, age 35, Tsiigehtchic) *“They should go under all creek crossings, the only reason they don't do that is because of money, and they should go further from Caribou Lake.”* (/p150/ - male, age 58, Tsiigehtchic)

4.8.5.3. Air

Participants were not as concerned for air as for land and water, but still 64% were very concerned and 28% concerned. (Fig. 17) Participants expressed their concern for flaring causing pollution and air pollutants reaching the ground. *“Rain, fog and snow will bring the pollution to the ground.”* (/p157/ - male, age 67, Tsiigehtchic) *“Flaring or burn-off at the gas fields may cause pollution thus affecting bird migration as these fields are located in a bird sanctuary. A large influx of people vehicles and equipment as well as building development will add to the carbon emissions. More money means more people will be buying vehicles such as SUV's which have a history of being environmentally unfriendly.”* (/p158/ - male, age 35, Tsiigehtchic)

4.8.5.4. Wildlife

As for water, 74% of the participants were very concerned for wildlife. (Fig.17) Participants were concerned for wildlife (caribou, moose, fish, birds, muskrats, rabbits, beavers, ptarmigans and whales were mentioned), wildlife habitat and migration routes. The species that the participants mostly talked about were caribou, moose and fish. People were afraid that noise and traffic might make the wildlife change their migration routes. *“Caribou is my main concern, cause that's what we live on.”* (/p95/ - male, age 19, Fort

McPherson) *“My main environmental concern is the caribou migration and moose.”* (/p2/ - female, age 25, Inuvik) *“My main concern is that the caribou migration might change.”* (/p101/ - male, age 17, Fort McPherson) *“A large environmental footprint, especially with all the proposed feeder lines, may force the wildlife to adopt to totally different surroundings thus effecting migration. Pollution could destroy previous food sources.”* (/p158/ - male, age 35, Tsiigehtchic) *“I'm worried about caribou. Even I and my boyfriend work, we run out of money sometimes and that's when we depend on caribou.”* (/p197/ - female, age 30, Inuvik)

There was also a concern amongst the participants that spills would harm the wildlife and wildlife habitat. *“My main environmental concern is wildlife and water supply, if something gets spoiled. What's left if the caribou and our land are spoiled?”* (/p108/ - male, age 33, Fort McPherson) *“My biggest concern is wildlife and oil spills.”* (/p120/ - male, age 61, Inuvik)

Some participants were also concerned for trap lines. *“My main environmental concern is trap lines.”* (/p133/ - female, age 20, Tsiigehtchic) *“When they do seismic it's bad because they mess up muskrat lakes. In the 40s and 50s when I flew to Edmonton there were seismic lines down south. They said your country will be like this and for sure it happened. Before Berger in the 70s they had seismic lines going both ways from my camp and there were two creeks, one of them Willow Creek and a smaller one and they got dried out. The lakes got dried out and no more lake just willows. It was where we were trapping.”* (/p177/ - female, age 90, Aklavik)

4.8.5.5. Noise

From the different environmental impacts presented in fig. 17, noise proposed the smallest environmental concern amongst the participants, but still half of the participants were very concerned (52%) and one third concerned. (Fig. 17) Participants, who were concerned about noise, related their concern to noise disturbing the wildlife and the wildlife ending up changing their migration routes. *“Wildlife may or may not cross, noise might disturb the wildlife.”* (/p157/ - male, age 67, Tsiigehtchic) *“Noise might affect the migration.”* (/p178/ - female, age 70, Aklavik) Some participants were also concerned that the pipes might make noise and thus disturb wildlife.

4.8.5.6. Garbage

Most of the participants were very concerned about garbage (66%) and 27% were concerned. (Fig.17) *“I'm mostly concerned about garbage and waste disposal.”* (/p122/ - male, age 45, Aklavik) *“Garbage, waste water and sewage has to be taken away.”* (/p157/ - male, age 67, Tsiigehtchic) There was a concern that the present infrastructure would not be enough to take care of the garbage that the project might produce. *“Garbage WILL accumulate over time, choking our landfills. Industry could put programs in place to help mitigate this factor. Garbage strewn in isolated places, even small pieces, can also accumulate thereby adding to the overall pollution in our environment.”* (/p158/ - male, age 35, Tsiigehtchic)

The rest of the participants (7%) were not concerned. (Fig. 17) Some participants felt that after the land claim settlement the garbage is well taken care of. *“Not that worried about the garbage, because they have environmental monitors.”* (/p197/ - female, age 30, Inuvik)

4.8.5.7. Spills and accidents

Spills were the main environmental concern that the participants had. Of all participants, 79% were very concerned. (Fig. 17) As explained earlier (in chapters 4.8.5.1. Land and 4.8.5.4. Wildlife) participants were concerned that spills would affect wildlife habitat and the food web. Some participants accepted that spills are a part of gas development, but had concerns that the cleanups would not be done at all, or would not be done early or efficiently enough. *“Will there be any maintenance person on hand all the time? How far will those stations be from each other, will it take a long time for them to get to the accident area? Our people - the Gwich'in, are dependent on the river and the lakes where we get our fish. And we eat the caribou. And all the berries and the plants we use them.”* (/p85/ - female, age 75, Fort McPherson) *“They never cleaned up at Caribou River and now the fish aint the same no more. The fish is soft now, can't make dry fish anymore, it's not hard like before. I have to get fish from Arctic Red now.”* (/p63/ - female, age 66, Fort McPherson) *“There is no way to make it 100% safe. The north fluctuates, they won't last. If there is a spill it will get into everything. Everybody I know are happy it's not going through. It will F up somewhere down the road.”* (/p99/ - male, age 29, Fort McPherson)

Participants suggested burning of the spilled fuels, and double walled and double bermed tanks to reduce the negative impacts of the spills to the land and water bodies. *“Spills can and will occur. These need to be reported immediately to the site supervisor or environmental monitor. Unreported spills can be hazardous to people, wildlife and / or ecosystems. Fuel tanks need to be double walled and double bermed.”* (/p158/ - male, age 35, Tsiigehtchic) *“They should burn out all fuel they've spilled otherwise they will build up and in the spring melt in the lakes.”* (/p151/ - male, age 63, Tsiigehtchic)

4.8.5.8. Climate change

Climate change proposed the second smallest concern amongst the participants, but still 62% were very concerned. *“Although industry representatives extol their virtues of clean burning gas, industry consultants suggest using the gas to develop the Alberta Oil Sands thereby increasing greenhouse gas emissions ten fold. This to me seems patronizing. Do they think I'm stupid? I feel global warming is a reality. Permafrost erosion will have a huge impact on a pipeline. What then will come of our investment? We have a responsibility to Canada and the world to ensure we meet the standards set-out in the Kyoto Accord. Industry should be working to help develop technology to measure greenhouse gas emissions at its source. The route they've chosen though will only worsen matters.”* (/p158/ - male, age 35, Tsiigehtchic)

4.8.5.9. Environmental and wildlife monitoring

Some of the participants were concerned on the quality of environmental monitoring in the GSA. *“I'm very concerned about the environmental impacts. A lot of the environmental monitors are passive. They've got to have strict guidelines for the environmental monitors.”* (/p113/ - male, age 29, Fort McPherson) *“They should have really good environmental monitors and wildlife monitors, because all of the guys don't care how they will be filling up their tanks. They should have really good monitors.”* (/p151/ - male, age 63, Tsiigehtchic) *“Industry has to follow our rules and it needs to be more thorough. They try to fire the good monitors. Hire only people that live on the land to be monitors because they know what to look for.”* (/p140/ - male, age 28, Tsiigehtchic)

4.8.5.10. Statistical differences on concern for the environment

There was a clear trend in participants' concerns related to the environment. Fort McPherson had the highest percentage of answers in the category very concerned, Aklavik or Tsiigehtchic had the second highest and Inuvik the lowest. But, there was an exception in the case of wildlife and spills. More participants in Inuvik assessed that they were very concerned about wildlife than participants in Tsiigehtchic, and participants in Aklavik were more concerned about spills than the participants in other communities. (Table 8)

Table 8. The level of concerned of possible environmental impacts in communities (%).

		Aklavik	Fort McPherson	Inuvik	Tsiigehtchic	Total
Land	Not concerned	0	4	6	13	5
	Concerned	30	19	37	27	29
	Very concerned	70	77	57	60	66
Water	Not concerned	0	0	9	3	3
	Concerned	33	14	27	19	23
	Very concerned	67	86	64	78	74
Air	Not concerned	6	4	11	9	8
	Concerned	31	23	34	25	28
	Very concerned	63	73	55	66	64
Wildlife	Not concerned	0	2	3	7	3
	Concerned	19	12	31	32	23
	Very concerned	81	86	66	61	74
Noise	Not concerned	13	16	13	13	15
	Concerned	34	19	39	34	33
	Very concerned	53	65	48	53	52
Garbage	Not concerned	3	8	5	13	7
	Concerned	28	18	40	16	27
	Very concerned	69	74	55	71	66
Spills	Not concerned	0	2	3	3	2
	Concerned	12	14	25	23	19
	Very concerned	88	84	72	74	79
Climate change	Not concerned	3	4	9	9	7
	Concerned	23	20	42	38	31
	Very concerned	74	76	49	53	62

For further analyses, a sum score of concern was calculated by adding together values (3=very concerned, 2=concerned, 1=not concerned) of all the questions showed in fig. 17 and table 8. In analysing the cases, values 0 (they had not given answer to any question) were omitted. Again people living in Fort McPherson, were generally most concerned, next concerned were participants from Aklavik (fig. 18).

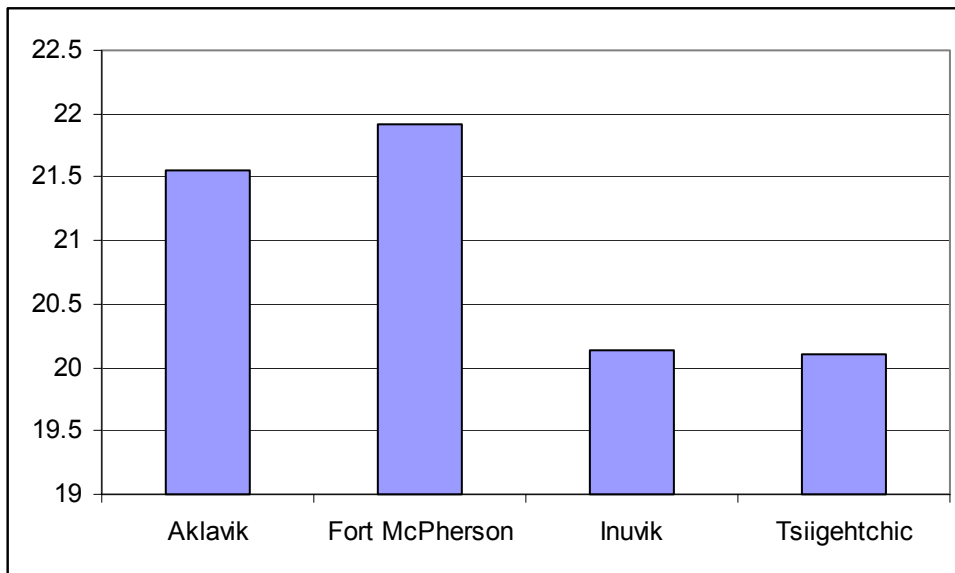


Figure 18. Sum score of concern that the participants had for the environment.

In individual questions, differences were significant in concern for water (ANOVA $p=0.019$), wildlife (ANOVA $p=0.022$) and climate change (ANOVA $p=0.012$). In all cases, the participants from Fort McPherson were most concerned. Participants in Inuvik were least concerned about water and climate change. Participants in Tsiigehtchic were least concerned for wildlife. The older people were generally more concerned than the younger people for the environmental impacts ($r=0.156$, $p=0.040$). In the individual questions, the association were not significant except in the question of noise ($r_s=0.194$, $p=0.008$) and climate change ($r_s=0.209$, $p=0.005$). Older people were more concerned about noise and climate change than younger people. There were no gender differences and how concerned the participants were they for the environment.

4.8.6. The EIA and the SEIA

The words Environmental Impact Assessment (EIA), Socio-economic Impact Assessment (SEIA) and Environmental Impact Statement (EIS) were not familiar to a lot of the participants. If the participants were not sure what the EIA, the SEIA and the EIS meant, the interviewers explained how they related to the studies that had to be done to assess how the MGP would impact the environment and the people in the region. After which the project could continue to public hearings and to a decision whether the project would be approved or not. Following the explanation, most of the participants felt that they had heard about these studies being done in their region. The interviewers also had with them the “Environmental Impact Statement in Brief” booklet (Mackenzie Gas Project, 2004b) and tapes on the “Environmental Impact Statement in Brief” which interviewees showed (and left with the participant if the participant wished to have them). The interviewers asked if the participants had seen them before and if they were familiar with what the Environmental Impact Statement proclaims.

Most participants (61%) were interested in the Environmental Impact Assessment (EIA) and the Socio-economic Impact Assessment (SEIA) of the MGP, but did not know how they work. Most participants were accessing information on the Environmental Impact Statement (EIS). (Table 9)

Table 9 How familiar were the participants with the EIA and the SEIA of the MGP (%).

	Are you interested in how the EIA and the SEIA of the project work?	Do you know how the EIA and the SEIA of the project work?	Are you accessing information on the EIS of the project?
Yes	61	25	55
Somewhat	28	34	-
No	11	41	45
Total	100	100	100

There was a dependency between participants being interested how the EIA and the SEIA work and knowing how the EIA and the SEIA work (Chi-square=32.626, df=4, C=0.374, p=0.000). Participants that were interested in the EIA and the SEIA of the project were also more confident about how they work. Most of the participants that were interested in them

felt that they knew or somewhat knew how the EIA and the SEIA of the project worked and 91% of the participants that were not interested felt that they did not know how the EIA and the SEIA worked. There was a dependency between participants' interest in the EIA and the SEIA and accessing information on the EIS (Chi-square=10.859, df=2, C=0.227, p=0.004). The participants that were interested in the EIA and the SEIA were more likely to access information on the EIS than the participants that were not interested. There was also a dependency between participants' knowing how the EIA and the SEIA work and accessing information on the EIS (Chi-square=30.099, df=2, C=0.363, p=0.000). From the participants that were accessing information most (76%) assessed that they knew (38%) or somewhat knew (38%) how the EIA and the SEIA worked. Most of the participants that were not accessing information assessed that they did not know how the EIA and the SEIA worked (60%). So, participants that were interested in the EIA and the SEIA of the project felt more confident about their knowledge about the project's EIA and the SEIA and were more often accessing information on the EIS compared to participants that were not interested in the EIA and the SEIA.

There were no differences between communities and how interested the participants were in the EIA and the SEIA of the project, but there was a significant difference between communities and were the participants accessing information on the EIS of the MGP (Chi-square=9.628, df=3, p=0.022). There was also a nearly significant difference between communities and participants' belief in knowing how the EIA and the SEIA work (Chi-square=12.278, df=6, p=0.056). Most of the participants in Aklavik, Tsiigehtchic and Inuvik were accessing information on the EIS, but in Fort McPherson they were not. Also, most of the participants in Aklavik, Tsiigehtchic and Inuvik assessed that they knew or somewhat knew how the EIA and the SEIA of the project work, while over half of the participants in Fort McPherson assessed that they did not know.

There were no dependencies between gender and how interested the participants were in the EIA and the SEIA and were the participants accessing information on the EIS of the project. But, there was a close to a significant dependency in gender and how well the participants felt that they knew how the EIA and SEIA of the project work (Chi-square=5.966, df=2, p=0.051). More men than women assessed that they knew (men: 30%, women: 18%) how the EIA and the SEIA of the MGP work. *"I need more information."* (/p164/ - female, age 61, Inuvik)

There was a difference between age groups and interest in the EIA and the SEIA of the project. Of the participants in the age group 15-24, only 36% expressed their interest, while the corresponding figure in older groups was 55% or more (Chi-square=27.391, df=6, p=0.000). Participants in the age group 40-54 were most confident in knowing how the EIA and the SEIA of the project work, only one fifth felt that they did not know. The corresponding figures for the other age groups were: 42% (16-24), 47% (25-39) and 55% (55-90) (Chi-square=25.969, df=6, C=0.337, p=0.000). More often the older age groups were accessing information on the EIS than the youngest age group (Chi-square=12.275, df=3, p=0.006). *"I did not receive any information on the MGP."* (/p72/ - female, age 16, Fort McPherson)

From the 55% (table 9) of the participants, who had access to information on the EIS of the project, most (65%) got the information from the Mackenzie Gas Project and the Gwich'in (53%) (Gwich'in Tribal Council, Gwich'in Band offices, Gwich'in Renewable Resource Board and Gwich'in Renewable Resource Councils). (Fig. 19) *"I listen to the tape (the EIS tape by the MGP)."* (/p142/ - male, age 71, Tsiigehtchic) *"I read pamphlets from the Band Office"* (/p107/ - male, age 42, Fort McPherson) *"Go to MGP meetings"* (/p61/ - female, age 26, Fort McPherson) The Northern Gas Project Secretariat, the Joint Review Panel and gas companies were more popular sources of information than the governments (fig. 19). Participants were also getting information from other sources, for example: friends, flyers and newsletters, and news from television, radio, internet and newspapers.

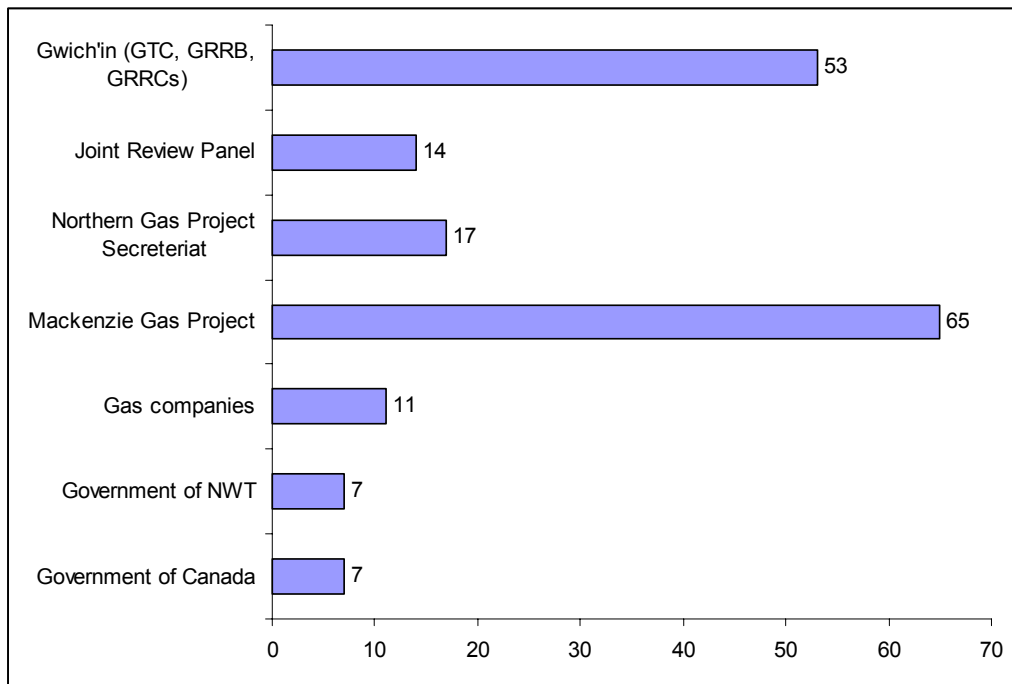


Figure 19. Source for the information on the EIS of the MGP (%).

Some mistrust was seen related to the studies on the EIS. *“In the EIS they are not considering everything. MGP is going too fast for the people and doing only the minimum to go through.”* (/p31/ - male, age 35, Inuvik) *“They should be honest about the impacts.”* (/p48/ - female, age 51, Yellowknife) *“Why should I be interested? It's only lies to feed industry. More lies. Move in, destroy for 30 years and leave. I have no trust in their supposed disclaimers.”* (/p38/ - male, age 36, Inuvik) Some participants hoped for more research from independent sources. *“Resources should be made available for individual researchers.”* (/p31/ - male, age 35, Inuvik) *“There should be research on environmental concerns and enforce policies to protect such resources.”* (/p209/ - male, age 72, Aklavik)

Many participants appreciated that the MGP regional liaisons also make home visits. *“Grace Blake came to our house a lot, she gave me a Gwich'in tape (the EIS tape by the MGP).”* (/p142/ - male, age 71, Tsiigehtchic). But, some participants told that they had been given the EIS in Brief, but there could have been more explaining done on the content of the results. *“It should be more talked about (EIS), it wasn't. Should be more talked about what the project will do to those plants.”* (/p89/ - male, age 42, Fort McPherson) *“They just dropped off booklets without no explanation.”* (/p178/ - female, age 70, Aklavik) *“If they*

give out information it would be good if there would be someone to explain.” (/p67/ - female, age 56, Fort McPherson)

Participants were asked did they think that the information on the environmental and socio-economic impacts (EIS) of the project were understandable. From all participants, 40% assessed that the information was understandable, 15% assessed not understandable, 30% did not know and 15% did not answer the question. There were no significant differences between communities or gender and did the participants think that the information on the EIS of the project was understandable. There was a nearly significant difference between age groups and did the participants feel that the information was understandable (Chi-square=12.268, df=6, p=0.056). Most participants (57%) in the age group 40-54 felt that the information was understandable, while the corresponding figures for the other age groups were: 44% (16-24), 49% (25-39) and 38% (55-90). *“For people who have education the information is understandable, but it's not understandable for elders, because they didn't go to school.” (/p133/ - female, age 20, Tsiigehtchic) “I need more information. They should explain it over and over.” (/p157/ - male, age 67, Tsiigehtchic) “The Gwich'in language written in the EIS isn't written the way I was taught. It's written different.” (/p86/ - female, age 81, Fort McPherson) “Can't really read, I just look at the pictures to understand what's going on.” (/p116/ - male, age 67, Fort McPherson) “Most of the words are too hard to understand, they use big words.” (/p153/ - male, age 66, Tsiigehtchic)*

4.8.7. A say in environmental and socio-economic issues

Of all participants, 44% assessed that they had a say in how cultural, economic, environmental and social issues related to the project were dealt with. *“I go to meetings and ask.” (/p4/ -female, age 45, Inuvik) “I have a say, because our tribal leaders listen and they are able to influence decision making in the MGP.” (/p11/ - female, age 47, Inuvik) “I would talk at the TC (GTC).” (/p88/ - female, age 30, Fort McPherson) “I will voice my concern at the next MGP meeting.” (/p92/ - male, age 67, Fort McPherson) “We go to the chief.” (/p133/ - female, age 20, Tsiigehtchic) “I go to the band office.” (/p205/ - male, age 61, Aklavik)*

Over one third (37%) of the participants assessed that they had somewhat a say and 19% answered no say. *“Who is supposed to ask me? The leaders are questioned for those answers, not the little people.”* (/p25/ - female, age 26, Inuvik) *“Not for myself, because I’m not a politician, maybe at public hearings (I will have a say).”* (/p215/ - male, age 33, Inuvik) *“If the leadership is asking for concerns are they really acting on it?”* (/p178/ - female, age 70, Aklavik) *“If they go further with the pipeline from Caribou Lake then I know they have listened to my concern.”* (/p150/ - male, age 58, Tsiigehtchic) *“Our leaders have unilaterally made a decision to build a pipeline on our behalf. Community consultations with industry reps. are nothing more than a show of good faith. They are patronizing and degrading because I feel they don’t give our concerns serious consideration. The people that really have a say are our leaders, people sitting on JRP, MVLWB, NEB and various environmental groups such as the Sierra Club. None of which I am a part of. People at the bottom end of the spectrum have no say.”* (/p158/ - male, age 35, Tsiigehtchic)

There were no significant differences between communities and did the participants feel that they had a say in how cultural, economic and social issues related to the project were dealt with. Nor was there a significant difference between gender or age groups and did the participants feel that they had a say.

4.8.8. Public consultation

Of all participants, 52% had and 48% had not attended public meetings related to the MGP. There was a significant difference between communities and attending public meetings (Chi-square=9.420, df=3, p=0.024). Most participants in Aklavik (64%) and Tsiigehtchic (68%) had attended public meetings while in Inuvik (45%) and Fort McPherson (42%) most participants had not attended meetings. *“I’m not interested. You have to sit there and listen to the same old useless talks.”* (/p49/ - female, age 81, Inuvik) *“Because I am working on the land, don’t have time.”* (/p67/ - female, age 56, Fort McPherson) *“No public transportation.”* (/p86/ - female, age 81, Fort McPherson) *“Sometimes they come here to the community and people don’t want to go to their meetings.”* (/p116/ - male, age 67, Fort McPherson)

More men (62%) than women (42%) had attended public meetings (Fisher's exact, $p=0.006$). There was also a significant difference between age groups and attending meetings (Chi-square=16.031, $df=3$, $p=0.001$). Most of the participants in the younger age groups (16-24 and 25-39) had not attended public meeting concerning the project while most of the participants in the older age groups (40-54 and 55-90) had attended public meetings. There was a concern amongst participants that the young people and the elders were not taking part in the public participation. *"There should be more meetings for the elders so they would know what is going on for the future generations also."* (/p133/ - female, age 20, Tsiigehtchic) *"Have your meetings and workshops for lifelong community members and elders and especially for youth."* (/p28/ - female, age 37, Inuvik)

Of the participants, 42% thought that the amount of public consultation related to the MGP had not been sufficient (not enough). *"They should come from door to door and explain the EIS."* (/p180/ - female, age 44, Aklavik) Close to a one in five (19%) assessed that the public consultation had been sufficient (enough). *"There is enough information, I get it from our people, they talk about it."* (/p114/ - male, age 20, Fort McPherson) More than one in five (22%) did not know had there been enough public consultation and 17% expressed that the amount of information had been too much. *"There is too much public consulting, but they are not paying attention to what the people are saying. It's all talk and no action."* (/p23/ - female, age 34, Inuvik)

There was a difference between communities and opinion about the amount of public consultation (Chi-square=17.234, $df=9$, $p=0.045$). Most (57%) of the participants in Fort McPherson felt that there had not been enough public consultation related to the MGP. Participants' opinions about the amount of public consultation were quite equally divided in Inuvik and Tsiigehtchic (fig. 20).

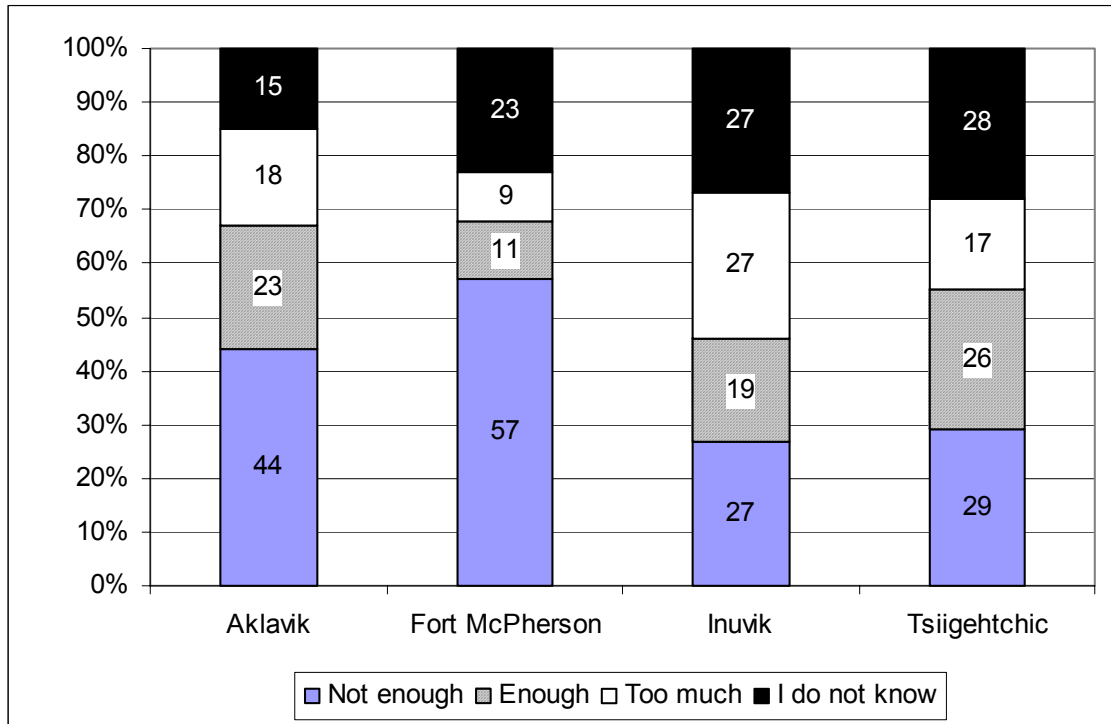


Figure 20. Participants’ opinions about the amount of public consultation (%).

There were no gender differences in how satisfied the participants were in the amount of public consultation. There was a significant difference between age groups and satisfaction in public consultation (Chi-square=17.555, df=9, p=0.041). The youngest age group (16-24) was more uncertain about the amount of public consultation than the older age groups. In the age group (16-24) 38% answered “I do not know”. (Fig. 21)

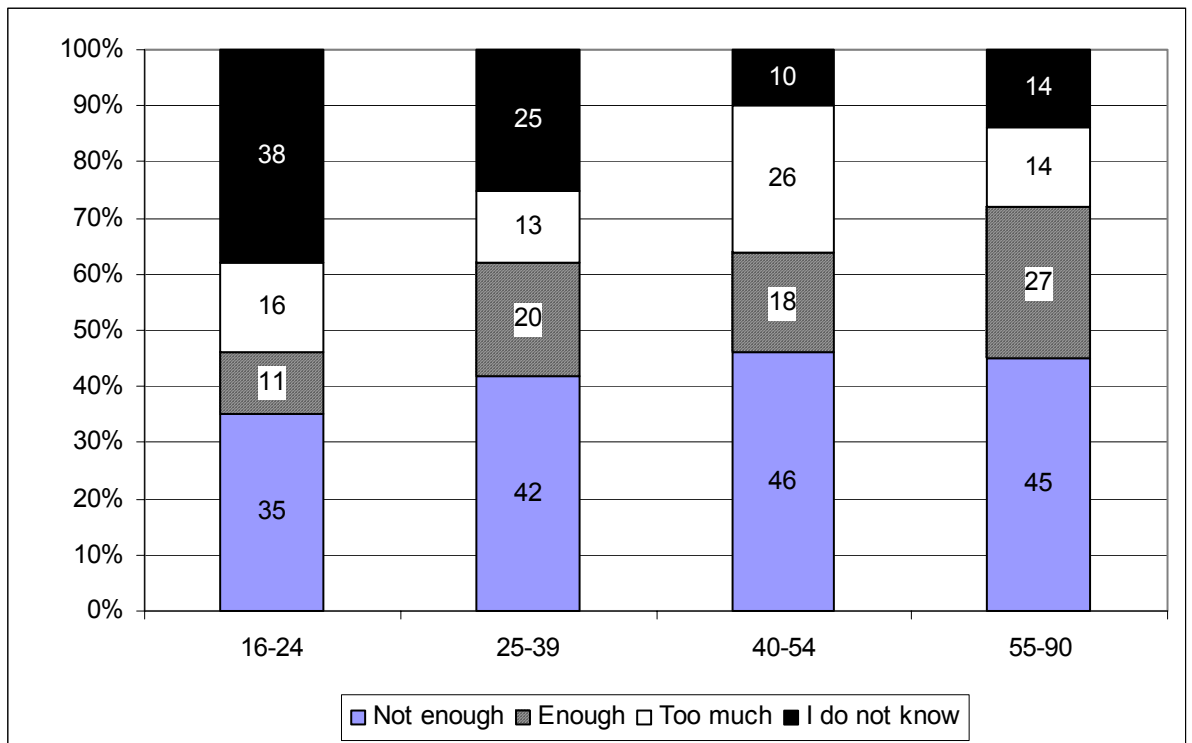


Figure 21. Participants’ satisfaction in the amount of public consultation. (%)

There was a dependency between participants’ belief in knowing on how the EIA and the SEIA work and had they attended public meetings concerning the project (Chi-square=12.917, df=2, C=0.224, p=0.002). Most participants that had attended public meetings assessed that they knew (34%) or somewhat knew (36%) how the EIA and the SEIA of the project worked and most participants that had not attended public meetings felt that they did not know (52%) how they worked.

Some participants were unsatisfied in the quality of public consultation related to the project. *“Same thing every time – they don't really explain what's going to happen they just want their money.”* (/p147/ - male, age 68, Tsiigehtchic) *“Don't like the quality of the consulting. There is a lot of consulting, but not a lot of info getting back, we don't get answers back later.”* (/p108/ - male, age 33, Fort McPherson) *“There's too much consulting. That's their way of doing things - to get people tired. Be honest that it will destroy the land and there will be pollution. Most people will be hired from down south, be honest about it. Make it (the information about the MGP) really plain English so everybody can understand it.”* (/p48/ - female, age 48, Yellowknife)

A number of participants felt that they had not received enough information from objective experts and their own organizations on the project. *“The GTC could have had their own membership meeting to get beneficiaries' views and feelings about the proposed pipeline. Interviewees could have been asked to agree / not agree / don't care (about the MGP) if such a public forum took place.”* (/p136/ - female, age 54, Tsiigehtchic) *“More should be done at a community level.”* (/p173/ - female, age 29, Aklavik) *“There should be more community meetings and explain the pros and the cons about the pipeline.”* (/p122/ - male, age 40, Inuvik) *“There is too much public consulting by the proponents, but not enough by the Gwich'in.”* (/p11/ - female, age 47, Inuvik) *“Be good if leadership could explain to people.”* (/p175/ - female, age 26, Aklavik) *“We need a liaison on our side to help us with questions and answers.”* (/p40/ - female, age 44, Inuvik)

Participants had recommendations for the public participation. *“They never invite me. They should offer rides to elders. Make sure all elders go they have to have a say on the future.”* (/p158/ - male, age 67, Tsiigehtchic) *“I think they have to go door to door to give information to all.”* (/p100/ - male, age 29, Fort McPherson) *“There's not enough advertising like posters and pamphlets.”* (/p162/ - male, age 36, Inuvik)

Some participants wished that the public would do their share and get involved in the MGP process. *“Residents need to go to meetings. Everyone's views are important.”* (/p169/ - female, age 34, Aklavik) *“I wish to see our own people doing more to get involved. You don't get anything if you don't get involved.”* (/p171/ - female, age 37, Aklavik)

4.8.9. Readiness

Of all participants, 44% felt that their community was not ready for the MGP, one fifth (21%) assessed “yes and no”, 18% thought their communities were ready and 18% were unsure of their opinion. “Yes and no” meant that in some areas the participants thought that their community was ready for the project and in other areas it was not. There was no significant difference between the communities and opinion on the readiness, though in Inuvik more participants thought that their community was ready than in the other communities and the proportion of unsure answers was the highest in Aklavik. (Table 10)

Table 10. Participants' (n=204) opinions about the readiness (%).

		Community				Total
		Aklavik	Inuvik	Fort McPherson	Tsiigehtchic	
In your opinion is your community ready for the MGP?	Yes	16	24	14	12	18
	Yes and no	16	25	17	23	21
	No	34	43	51	44	44
	I do not know	34	8	18	21	18
Total		100	100	100	100	100

There was no significant gender difference in the answers on readiness, but there were significant differences between age groups and their opinions on readiness (Chi-square=27.320, df=9, p=0.001). Most of the participants in the middle age groups, age groups (25-39) and (40-54), felt that their communities were not ready for the project, while only one in five of the participants in the youngest age group assessed that their communities were not ready. The youngest age group was most unsure of their answers, 29% answered “I do not know”. (Fig. 22)

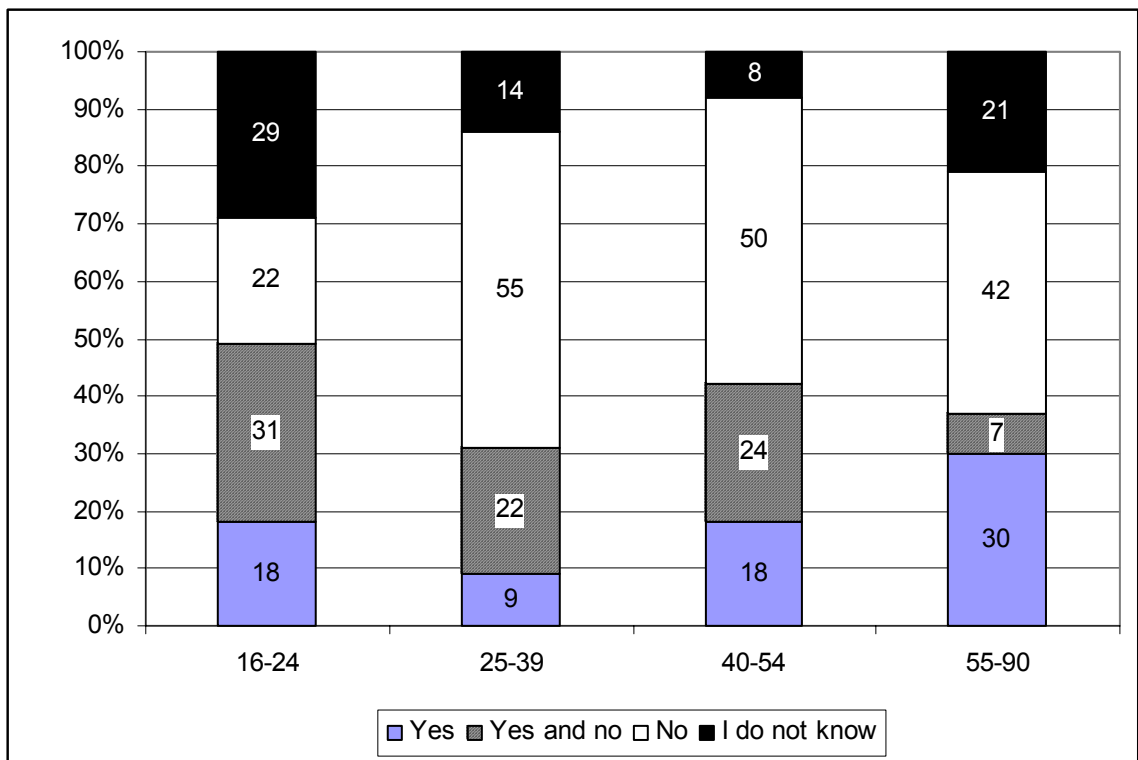


Figure 22. Opinion on readiness by age. (%)

The participants were asked reasons for their opinions on why did they thought their communities were ready / were not ready for the MGP. Over one third (38%) of the participants assessed that their communities were not ready because of negative social, environmental and cultural impacts. (Fig. 22) *“It would be good for employment, but then bad because of the social problems. There will be bad effects, because we are not that educated yet and we already have a lot of social problems right now. I strongly suggest that there be rules and regulations in place for the workers. If they want to work for the oil and gas industry, they should be alcohol and drug free, be educated - finish their grade 12, some college, and there should be short courses i.e. money management, life skills course... If all these courses happen, then I don't see any problem with the gas pipeline.”* (/p80/ - female, age 33, Fort McPherson)

Over one third (36%) assessed that their communities were ready because the Gwich'in land claim had been settled and the Gwich'in were able to influence decision making in the project. (Fig. 23) *“Before land claim they tore everything out. Now when anybody want to do anything they've got to go through chief”* (/p119/ - male, age 65, Fort McPherson)

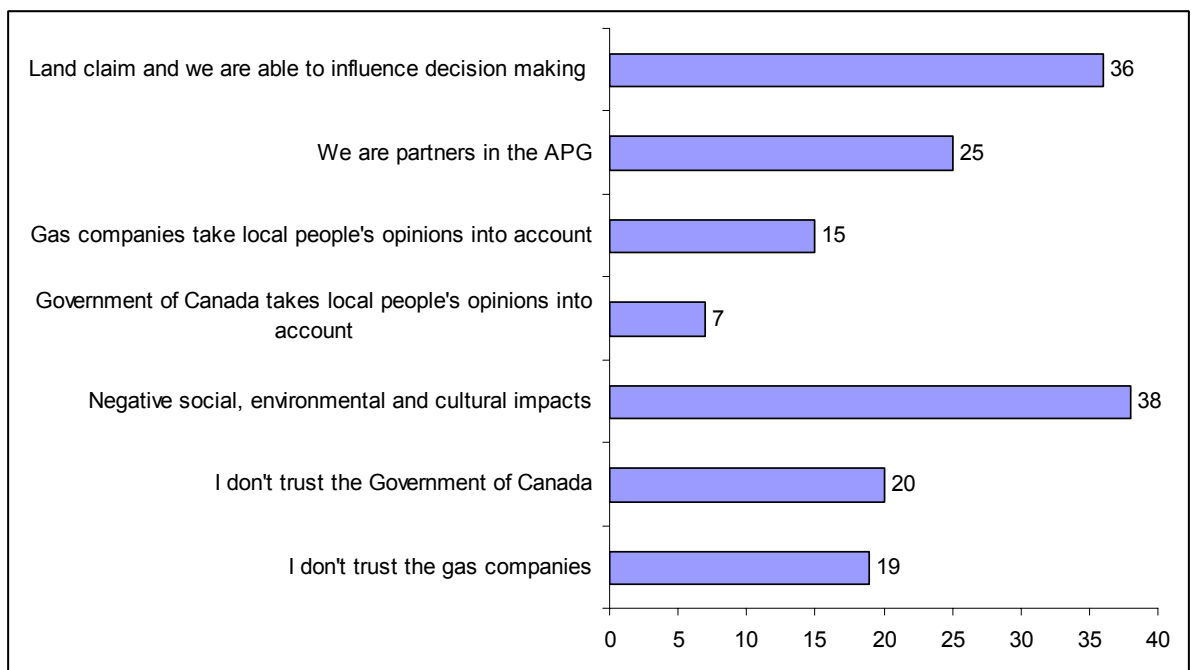


Figure 23. Participants’ opinions on why they thought their communities were or were not prepared for the MGP (%).

There was seen both mistrust and trust in the Canadian Government (CG) and the gas companies (Fig. 23) *“The oil companies look after caribou and fish lakes.”* (/p1/ - female, age 72, Inuvik) *“Industry and the Government tend to concentrate on the positive impacts - not a lot of concern on the negative impacts. It's the residents who suffer in the long run.”* (/p200/ - female, age 48, Tsiigehtchic) *“I don't trust the gas companies because of clean-up issues.”* (/p80/ - female, age 35, Fort McPherson) *“When the oil companies came around again a few years ago the first thing they wanted to do was put a strip joint up. That was terrible. And they say they care for us, yeah sure! They don't care for us one bit.”* (/p16/ - female, age 24, Inuvik)

When the participants were asked for other reasons why they believed that their communities were or were not ready for the project, many participants answered that their communities were not ready because the Gwich'in were not educated enough to take advantage of the job and business opportunities. *“30 years ago they stopped this pipeline because people were not ready, because they weren't educated, but we're not ready now either, we're still not educated.”* (/p207/ - male, age 67, Aklavik) *“Education wise we're not ready. They should have training seminars and encourage people to do year 12.”* (/p215/ - male, age 33, Inuvik) *“Most of the community members in Tsiigehtchic and the rest of the communities are not trained as truck drivers, loader operators, welders, apprentice trades.”* (/p144/ - male, age 32, Tsiigehtchic) *“The Government and GTC should help our younger people get their education. The GTC say they have monies for young people, but then they change the rules. The young educated people who came back to their home town can't find jobs. Don't really want the pipeline; let our people get educated first.”* (/p102/ - male, age 59, Fort McPherson)

There was no significant difference between communities, gender, or age and reasons for the participants' opinion on did they think that their community was ready or not for the MGP.

4.9. Alternative suggestions for oil and gas

The participants had the opportunity to make recommendations and suggestions related to the Mackenzie Gas Project and this study (see Appendix 1. – questionnaire; question 28, question 29 and 30). Many of the suggestions and comments related to the MGP were

shown earlier (in chapter 4.8. Opinions of the Mackenzie Gas Project) as quotations explaining participants' answers.

In this chapter some recommendations are presented that a number of participants suggested which represent alternative solutions to non-renewable resources use. Some participants felt that their region was concentrating too much on the oil and gas industry and suggested alternative energy and economy solutions for the Gwich'in Settlement Area. *"What we should have is fisheries, a factory (e.g. furniture) or something that would last a bit longer, so we could have jobs. They should think outside the box and forget the oil and gas - the quick fix. The MGP is just two winter's work."* (/p99/ - male, age 29, Fort McPherson) *"Take a part of those non-renewable revenues and stick it into renewable resources. Like I see all this sun and wind power and we're not spending it. I really like that geothermal energy, they use it in Saskatchewan and it's growing. If the people would know what the gas is for I don't think they would be for the project. If the people here would know that it's going to be used for oil sands projects and all the environmental damage it's going to do in Alberta. I don't think they would like that."* (/p204/ - male, age 45, Aklavik) *"Other energy sources like solar panels should be tried out too. We could have picnic areas and tourism."* (/p201/ - male, age 28, Aklavik) One participant suggested that the GSA should be set aside as a development-free area. *"I would propose that Canada sets a world example and designates the NWT valley into a world heritage site or park. The area is primarily a boreal forest that is home to certain species of birds, animals and plants, and it is abundant with fresh water. This area could be designated as the only pristine place on earth and set aside as "development-free" zone for all Canadians and citizens of the earth. The boreal forest will be for naturalist, school children and a peaceful place to be with nature. The Gwich'in Tribal Council could proceed with such a nomination for designation at their 2005 annual assembly. The Gwich'in leaders, the Gwich'in assembly and the Gwich'in Nation will be world leaders in having the vision to recognize and confirm the cultural importance of their homeland that they wish to share this with future Gwich'in generations and the rest of world. At the basis of this designation is a world of opportunities that could be tapped with a pool of educated Gwich'in. The boreal forest designation and focusing or making education of our Gwich'in children a #1 priority go hand in hand that will bring our Gwich'in people, culture, land, and economy forward in a strong and powerful way. We do not need a pipeline, it will create a lot of*

damage to the land and the people - we do not need that!" (/p136/ - female, age 54, Tsiigehtchic)

5. DISCUSSION

5.1. Methodological considerations

The study was conducted with a questionnaire survey. In the questionnaire (Appendix 1.) most of the questions were fixed. Notes were also taken from participants' extra comments and many participants gave recommendations and suggestions related to the Mackenzie Gas Project. These recommendations and comments were valuable to enlighten the reasons behind participants' answers and to ensure that the participants were able to give their own replies even though that reply might not have been in the fixed set.

Some of the participants felt that the questionnaire was too long. As explained before (in chapter 4.8.4. Socio-economic and cultural impacts), in the questionnaire the question on what kind of socio-economic impacts did the participants think that the project would have on the Gwich'in in the GSA (Appendix 1. q.20b) was found difficult, time consuming and too long. Also question 12. How do you make a living (how many months in a year do you spend on a paid job and how many months / weeks on the land) (Appendix 1. q.12.), was not worded clearly enough and often needed some extra explaining. Some words, like socio-economic impacts, environmental impact assessment and socio-economic impact assessment, seemed too vague or undefined and needed some clarifying. Also the font of the questionnaire could have been bigger for the elderly people to see the questions better. And some participants felt that the questionnaire should have demonstrated just how much people really know about the MGP to see how well people are informed. Otherwise the participants seemed to respond well to the questions in the questionnaire.

Many participants expressed their gratitude that the study was being done. Many participants felt that the survey covered the main aspects that they had concerns about the MGP. But, the study did get some criticism too. Some elders felt that they should have been compensated for their time. There was also criticism that not all Canadians were interviewed. *"As a study funded by a public board - GRRB, all Canadian citizens / the public could have been allowed to participate in the study. It is not every day that a major mega project like the proposed MGP is proposed."* (/p136/ - female, age 54, Tsiigehtchic) Participants that had a lot to say wished that a tape recorder would have been used so that they could have talked more freely. Participants that were opposed to the Mackenzie Gas

Project wished that no more money would be spent on studies concerning the project. *“All this effort, energy and money spent on surveys such as this could be saved if we drop the pipeline scheme. Do I feel that the leaders will listen to the conclusions of this survey? Two words - Good luck!”* (/p158/ - male, age 35, Tsiigehtchic)

5.2. Implications for further studies

This survey was conducted with the Inuvialuit (Salokangas, 2005) during the summer 2004 and with the Gwich'in during the summer 2005. The MGP also affects other native areas (Sahtu Settlement Area and Deh Cho First Nation) along the pipeline route, and it would be important to know how the other nations feel about the sustainability of the project.

Participants that took part in this study also wished that there would be further studies done on specific impacts on the social and environmental effects of the MGP. For example: on wildlife, education needs, community needs, funds that community organizations get (what are the funds being used for and by who).

6. SUMMARY AND CONCLUSIONS

The study the Gwich'in Views on the Mackenzie Gas Project interviewed Gwich'in beneficiaries in the Gwich'in Settlement Area during the summer 2005. The study concentrated on Gwich'in hopes and concerns related to the project's potential social, cultural, economic and environmental impacts. The study presents the opinions and feelings the Gwich'in had related to the MGP in the summer 2005. This study did not measure the participants' knowledge of the project.

In the summer 2005, the great majority (78%) of the participants felt that they knew what the Mackenzie Gas Project was. The majority (58%) of the participants were interested in the MGP, less than one third was somewhat interested and 13% not interested. The study results show that in the summer 2005 the Gwich'in were divided in their opinions on whether it was the right time to go through with the Mackenzie Gas Project or not. Less than half (48%) of the participants wanted the MGP to be built in the next 5 years, about one fourth (26%) answered "no" and (26%) "I do not know". From the 26% of the participants that did not want the project to be built in the next 5 years half wanted it to be built within the next 15 years, 5% answered "in the next 30 years", 5% "in the next 50 years" and 40% "never". The people that wanted the MGP to go through believed that the project would bring employment and education opportunities, and financial benefits. The participants that did not want the Mackenzie Gas Project to be built were worried about the possible negative environmental and social impacts, and the low level of education preventing the Gwich'in to benefit from possible job and business opportunities. The majority of the participants thought that the project would have both positive and negative effects or no effects on their own lives and the lives of the Gwich'in in their community.

Most of the participants thought that the multinational oil and gas companies would benefit from the MGP and nearly half of the participants believed that the Government of Canada and the Government of the North West Territories would benefit from the project. More than one third of the participants believed that the Gwich'in Tribal Council and the Gwich'in Development Corporation, and the people and the communities of the GSA and the NWT would benefit, but only 16% of the participants believed that they would themselves benefit from the project.

What most of the participants agreed on was that there would be social and environmental impacts if the Mackenzie Gas Project was to be built. The great majority of the participants thought that the project would have social, economic and cultural impacts (94%) and environmental impacts (88%). According to the participants, increase in employment opportunities, education opportunities, new business opportunities and financial benefits were seen as the most positive changes that the project could offer. Clearly the participants believed that the most negative social impact of the project would be an increase in substance abuse. Increase in cost of living was seen as the second biggest negative social impact. More participants believed that the impacts on the traditional lifestyle, culture, health of the people, community well-being and money management would be negative rather than positive. The biggest environmental concern for the participants was spills. The participants were concerned that spills might affect wildlife habitat and the food web. The second biggest environmental concern was for water and wildlife (mostly caribou, moose and fish were mentioned).

The Environmental Impact Assessment (EIA) and the Socio-Economic Assessment (SEIA) of the project were not familiar to the participants. Only one fifth felt that they knew how the EIA and the SEIA of the project work, though most of the participants were interested in them and were getting information on the environmental and socio-economic impacts (EIS). Participants that were interested in the EIA and the SEIA of the project felt more often confident about their knowledge about the project's EIA and the SEIA and were more often accessing information on the EIS compared to participants that were not interested in the EIA and the SEIA. Of the participants who had access to information on the EIS of the project, most got the information from the Mackenzie Gas Project and the Gwich'in (Gwich'in Tribal Council, Gwich'in Band offices, Gwich'in Renewable Resource Board and Gwich'in Renewable Resource Councils). Of all participants, 40% assessed that the information on the EIS had been understandable and 15% answered not understandable.

Of all participants, 44% assessed that they had a say in how cultural, economic, environmental and social issues related to the project were dealt with, over one third (37%) assessed that they had somewhat a say and 19% answered no say. Most participants (52%) had attended public meetings concerning the MGP. Most participants that had attended public meetings felt that they knew (34%) or somewhat knew (36%) how the EIA and the SEIA of the project work on the contrary to participants that had not attended public

meetings. Of the participants, 42% thought that the amount of public consultation related to the MGP had not been sufficient, 19% thought it had been sufficient, 17% expressed that the amount of consultation had been too much and 22% did not know. Some participants were unsatisfied in the quality of public consultation related to the project and a concern on the objectivity and source of information was raised.

Of all participants, 44% felt that their community was not ready for the MGP, 21% assessed “yes and no”, 18% thought their communities were ready and 18% answered “I do not know”. Some of the reasons that made the participants believe their communities not to be ready for the MGP were: negative cultural, environmental and social impacts, mistrust in the Government of Canada and the oil and gas companies, and low level of education working as a barrier to take advantage of the business and job opportunities. Reasons that participants gave for their communities being ready for the MGP were: Land claim and the Gwich’in are able to influence decision making in the project, the Gwich’in are partners in the APG, people need the jobs, and the Government of Canada and the oil and gas companies take local peoples opinions into account.

7. REFERENCES

Literature

AMEC EARTH & ENVIRONMENT. Proceedings from the Second Regional Inuvialuit Settlement Region and Gwich'in Settlement Area EIS Technical Workshop – Inuvik, Northwest Territories. Mackenzie Gas Project. April 13, 2004. Calgary: AMEC Earth & Environmental, 2004. File Key Number 5.5.3. Document ID Number 001630-012-43-PUB.

BERGER, Thomas, R. Northern frontier, northern homeland, the report of the Mackenzie valley pipeline inquiry: volume 1 and 2. Minister of Supply and Services Canada, 1977. Catalogue number: English edition CP32-25/1977-1. ISBN: English edition 0-660-00775-4.

MACKENZIE GAS PROJECT. Environmental Impact Statement for the Mackenzie Gas Project. Volume 4: Socio-economic Baseline. IPRCC.PR.2004.07. Submitted to the National Energy Board and to the Joint Review Panel by the Imperial Oil resources Ventures Limited. August 2004.

MACKENZIE GAS PROJECT. Environmental Impact Statement in Brief. Mackenzie Gas Project. November, 2004b.

MACKENZIE PROJECT ENVIRONMENT GROUP. Application for Approval of the Mackenzie Gas Project. Proceedings from the First Regional Inuvialuit Settlement Region and Gwich'in Settlement Area EIS Technical Workshop – Inuvik, Northwest Territories. Mackenzie Gas Project. May, 2003. Calgary: AMEC Earth & Environmental, 2003.

SALOKANGAS, Raila. Views of the Inuvialuit on Sustainable Development on the Mackenzie Gas Project in the Inuvialuit Settlement Region, Northwest Territories, Canada. Tampere: Tampere Polytechnic, May 2005.

Online Documents

AURORA RESEARCH INSTITUTE, AURORA COLLEGE. Maps of the Northwest Territories. Gwich'in. [online] Inuvik: Aurora Research Institute, Aurora College, 2002. [cited 05.05.05] Available from World Wide Web: http://www.nwtresearch.com/images/gwich'in_map.gif

INDIAN AND NORTHERN AFFAIRS CANADA. Annual Report of the Implementation Committee. The Gwich'in Comprehensive land Claim Agreement. [online] Ottawa: Indian and Northern Affairs Canada, 1998. QS-5342-000-BB-A1. Catalogue No. R31-9/1998. ISBN 0-662-63944-8 [cited 20.07.05] Available from World Wide Web: http://www.gov.nt.ca/MAA/agreements/pdfs/arpt98_e.pdf

NWT BUREAU OF STATISTICS. Fort McPherson Statistical Profile. Statistics Canada. [online] NWT Bureau of Statistics, 2004a. [cited 20.07.05] Available from World Wide Web: <http://www.stats.gov.nt.ca/Profile/Profile%20PDF/Fort%20McPherson.pdf>

NWT BUREAU OF STATISTICS. Tsiigehtchic Statistical Profile. Statistics Canada. [online] NWT Bureau of Statistics, 2004b. [cited 20.07.05] Available from World Wide Web: <http://www.stats.gov.nt.ca/Profile/Profile%20PDF/Tsiigehtchic.pdf>

NWT BUREAU OF STATISTICS. Aklavik Statistical Profile. Statistics Canada. [online] NWT Bureau of Statistics, 2004c. [cited 20.07.05] Available from World Wide Web: <http://www.stats.gov.nt.ca/Profile/Profile%20PDF/Aklavik.pdf>

NWT BUREAU OF STATISTICS. Inuvik Statistical Profile. Statistics Canada. [online] NWT Bureau of Statistics, 2004d. [cited 20.07.05] Available from World Wide Web: <http://www.stats.gov.nt.ca/Profile/Profile%20PDF/Inuvik.pdf>

Personal conversations

GWICH'IN ENROLLMENT BOARD. A phone conversation with the Enrollment Officer Cheryl Wright. Inuvik: Gwich'in Enrollment Board, 27th July 2005.

8. APPENDICES

Appendix 1. Questionnaire

Appendix 2. Consultation

Appendix 1. Questionnaire

A Study on Gwich'in Views of the Mackenzie Gas Project

Background

This study has been designed to document current views among the Gwich'in living in Aklavik, Inuvik, Fort McPherson and Tsiigehtchic on the proposed Mackenzie Gas Project. The study is a partnership between the Gwich'in Renewable Resource Board and the Aurora College, Aurora Research Institute. The fieldwork is conducted by Raila Salokangas from the Gwich'in Renewable Resource Board and research assistants from each GSA community during the summer 2005. Hopefully the results of this study will be useful to the Gwich'in communities in giving current information on Gwich'in peoples' hopes and concerns on cultural, economic, environmental and social impacts that might occur due to the Mackenzie Gas Project.

This questionnaire has been developed to assist Raila and the research assistant to document information from the interview. The study is interested in your personal opinion. There are no right or wrong answers. The interview is anonymous. You may choose not to answer all the questions presented in this form. You may withdraw from the interview for any reason, at any time. If you withdraw from the interview, you may request that any data that you have contributed be returned or destroyed.

Questions

A: Interviewee Information

1. Date of interview |_|_|_|_|_|_|_|
DD MM YY
2. Place of the interview _____
3. Interviewee number (1-999) |_|_|_|_|_|

4. Interviewer _____

B. Socio-demographic background

5. Gender 1 male
2 female
6. Gwich'in beneficiary 1 yes
2 no
7. Age |_|_|_|

8. Living place (municipal community) _____
9. How long have you lived in the Gwich'in Settlement Area (years) |_|_|_|

16. a) If you go out on the land, do you have your own equipment to use? 1 Yes
2 Somewhat
3 No

- b) If you do not have your own equipment, how easy is it for you to access the necessary equipment?
1 Easy
2 Not that easy
3 Hard

C. Sustainable Development in the Mackenzie Gas Project Questions

17. a) Do you know what the Mackenzie Gas Project is? 1 Yes
2 No

- b) Are you interested in the Mackenzie Gas Project? 1 Yes
2 Somewhat
3 No

18. a) How do you think the Mackenzie Gas Project would affect your life?
1 Make it better
2 Make it worse
3 Both good & bad effects
4 No effect
5 I do not know

- b) How do you think the Mackenzie Gas Project would affect your children's life?
1 Make it better
2 Make it worse
3 Both good & bad effects
4 No effect
5 I do not know

- c) How do you think the Mackenzie Gas Project would affect the life of the Gwich'in in your community?
1 Make it better
2 Make it worse
3 Both good & bad effects
4 No effect
5 I do not know

- d) How do you think the Mackenzie Gas Project would affect the life of the non Gwich'in in your community?
1 Make it better
2 Make it worse
3 Both good & bad effects
4 No effect
5 I do not know

19. a) In your opinion, who would benefit from the Project? (you can select all appropriate answers)

- 1 Me personally
 - 2 People and the communities of the GSA
 - 3 Gwich'in Tribal Council & Gwich'in Development Corporation
 - 4 People and communities of the NWT
 - 5 Government of the NWT
 - 6 Government of Canada
 - 7 Canadians and Americans
 - 8 Multinational oil and gas companies
 - 9 Other, specify
-
- 10 Not sure / I do not know

Socio-economic Impacts

20. a) Do you think that the Project would have social, economic and cultural impacts?

- 1 Yes
- 2 No
- 3 I do not know

b) If yes, what kind of social, economic and cultural changes do you think that the Project would have on the Gwich'in in the GSA. Would these changes be 1. bigger or smaller due to the project and would these impacts be 2. good or bad? (select all appropriate answers)

	smaller	no change	bigger	good	neutral	good & bad	bad	
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Employment opportunities
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Education opportunities
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Financial benefits
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Infrastructure (roads, utilities, communication, buildings)
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	New oil and gas development
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	New natural resources development (e.g. mining)
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	New business opportunities
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Influx of people (more people moving to the GSA)
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Costs of living (rent, food)
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Substance abuse (drugs, alcohol, violence)
11				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Health of the people
12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Community well-being
13				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Impacts on the culture
14				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Traditional lifestyle
15				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Management of money
16							<input type="checkbox"/>	Other, specify

21. a) Do you think that the Project would have environmental impacts (impacts on the land, water, air...) in the GSA?

- 1 Yes
 2 No
 3 I do not know

b) If yes, how concerned are you about those impacts? (select all appropriate answers)

	not concerned	concerned	very concerned	
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Land (permafrost, soil, vegetation)
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water (lakes, rivers, sea)
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Air (air pollution, dust)
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wildlife and wildlife habitat
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Noise (from traffic, construction activities, compressor stations)
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Garbage (from camps, construction activities, influx of people)
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spills
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Climate Change
9				Other, specify

22. a) Are you interested in how the environmental impact assessment and the socio-economic assessment (the regulatory process) of the Project work?

- 1 Yes
 2 Somewhat
 3 No

b) Do you know how the environmental impact assessment and the socio-economic assessment (the regulatory process) of the Project work?

- 1 Yes
 2 Somewhat
 3 No

c) Are you accessing information on the environmental and socio-economic impacts of the Project?

- 1 Yes, if yes, where do you get it from?
 (you can select all appropriate answers)
 2 No

- a Joint Review Panel
 b Gwich'in (GTC, RRCs, GRRB)
 c Northern Gas Project Secretariat
 d Mackenzie Gas Project
 e Gas companies
 f Government of NWT
 g Government of Canada
 h Other, specify

d) Is the information on the environmental and socio-economic impact of the Project understandable?

- 1 Yes
 2 No
 3 I do not know

e) Do you feel that you have a say on how the cultural, economic, environmental and social issues related to the Project are dealt with?

- 1 Yes
 - 2 Somewhat
 - 3 No. If no, why not?
-
-

23. Have you attended public meetings concerning the Project? 1 Yes

2 No

24. Is there not enough/enough/too much public consulting related to the Project?

- 1 Not enough
- 2 Enough
- 3 Too much
- 4 I do not know

25. a) In your opinion is your community ready for the Mackenzie Gas Project?

- 1 Yes
- 2 No
- 3 Yes & No
- 4 I do not know

b) What are the reasons for your opinion? (you can select all appropriate answers)

- a Our land claim is settled and we are able to influence decision making in the Project
- b Gwich'in are partners in the Aboriginal Pipeline Group (APG)
- c Gas companies take local peoples (the people of GSA) opinions into account
- d Canadian government takes local peoples (the people of GSA) opinions into account
- e Negative social, environmental and cultural impacts
- f I don't trust the gas companies
- g I don't trust the Canadian government
- h other, specify _____

26. Do you think that the proposed Mackenzie Gas Project will be approved now (the next 2 yrs)?

- 1 Yes
- 2 No, if no, when do you think that it will be approved?
 - a in the next 15 years
 - b in the next 30 years
 - c in the next 50 years
- 3 I do not know

27. Do you want the proposed Mackenzie Gas Project to be built in the next 5 years?

- 1 Yes
- 2 No, if no, when would you like it to be built?
 - a in the next 15 years
 - b in the next 30 years
 - c in the next 50 years
 - d never
- 3 I do not know

D. Recommendations (You can continue your answer on the other side of the paper.)

28. Do you have any other comments or suggestions related to the Mackenzie Gas Project (e.g. on how to minimize the negative impacts, how to maximize the advantages of the project and how to distribute more information of the project and the regulatory review)?

29. Do you have any comments or questions about this interview?

30. Is there information that I should have asked but didn't?

Thank you

Thank you very much for your time. If you have any other questions or comments, feel free to come talk to Raila at the Gwich'in Renewable Resource Board office in Inuvik, phone: 777-6609

Appendix 2. Consultation

- Introducing the study at the GRRC meeting in Tsiigehtchic 20th April 2005
- Introducing the study at the ERRC meeting in Aklavik 4th May 2005
- Conversation with the chair of the NRRC in Inuvik 16th May 2005
- Introducing the study at the TRRC meeting in Fort McPherson 13th May 2005
- Introducing the study at the Gwich'in Tribal Council MGP Review Inuvik working group meeting May 19th 2005
- Presentation on the results 8th August 2005 in Inuvik
- Presentation of the results at the ERRC meeting in Aklavik 15th August 2005
- Presentation of the results at the GRRC meeting in Tsiigehtchic 16th August 2005