

A Summary of the Results of the Study

**THE GWICH'IN VIEWS OF THE MACKENZIE GAS PROJECT**

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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**

This summary of the results of the study the Gwich'in Views of the Mackenzie gas Project (Salokangas, 2005) presents the main findings of the study. If you wish to see or get a copy of the complete study report, please contact the Aurora Research Institute or the Gwich'in Renewable Resource Board in Inuvik, Northwest Territories, Canada (contact information can be found from page 35).

In 2005, the Mackenzie Gas Project (also referred to as the MGP or the project) proposes to develop three natural gas fields and deliver the natural gas to southern markets through a pipeline system built along the Mackenzie Valley. 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.

This study was a partnership between the Gwich'in Renewable Resource Board and the Aurora Research Institute. The study focused on the Gwich'in opinions of the impacts the proposed Mackenzie Gas Project might have on the Gwich'in. The study concentrated on Gwich'in hopes and concerns related to the project's potential social, economic and environmental impacts. A survey was conducted in Aklavik, Fort McPherson, Inuvik and Tsiigehtchic from May to July 2005.

## **2. METHODS**

Gwich'in residents of Aklavik, Inuvik, Fort McPherson and Tsiigehtchic were interviewed to find out their views related to the MGP. The interviews were done by the researcher, Raila Salokangas, and local research assistants in each community. 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 agreed to take part in the survey she/he became a participant in the study.

### 3. RESULTS

#### 3.1. Participants' background

A total of 213 of the Gwich'in people in the age range (16-90) were surveyed in the summer 2005 in the Gwich'in Settlement Area (GSA). This amounts to nearly one fifth of the Gwich'in in the age range (16-90) in the GSA in 2005. Total number of participants was 216, one participant lived in Yellowknife and two participants did not answer where they were from. The total number of Gwich'in asked to participate in the survey was 285, from them three fourths participated while one fourth refused to participate in the study. In Aklavik, nearly one third of the Gwich'in out of 130 took part in the survey. In Fort McPherson, one tenth of the Gwich'in out of 527 took part in the survey. In Inuvik, one fourth of the Gwich'in out of 463 took part in the survey. In Tsiigehtchic, one third of the Gwich'in out of 103 took part in the survey.

##### 3.1.1. Gender

From the participants, nearly half were male and nearly half were female (table 1). In two cases gender was not recorded. One female participant was from Yellowknife.

**Table 1.** Participants' gender and community.

	Participants					
	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
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%

### 3.1.2. 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)

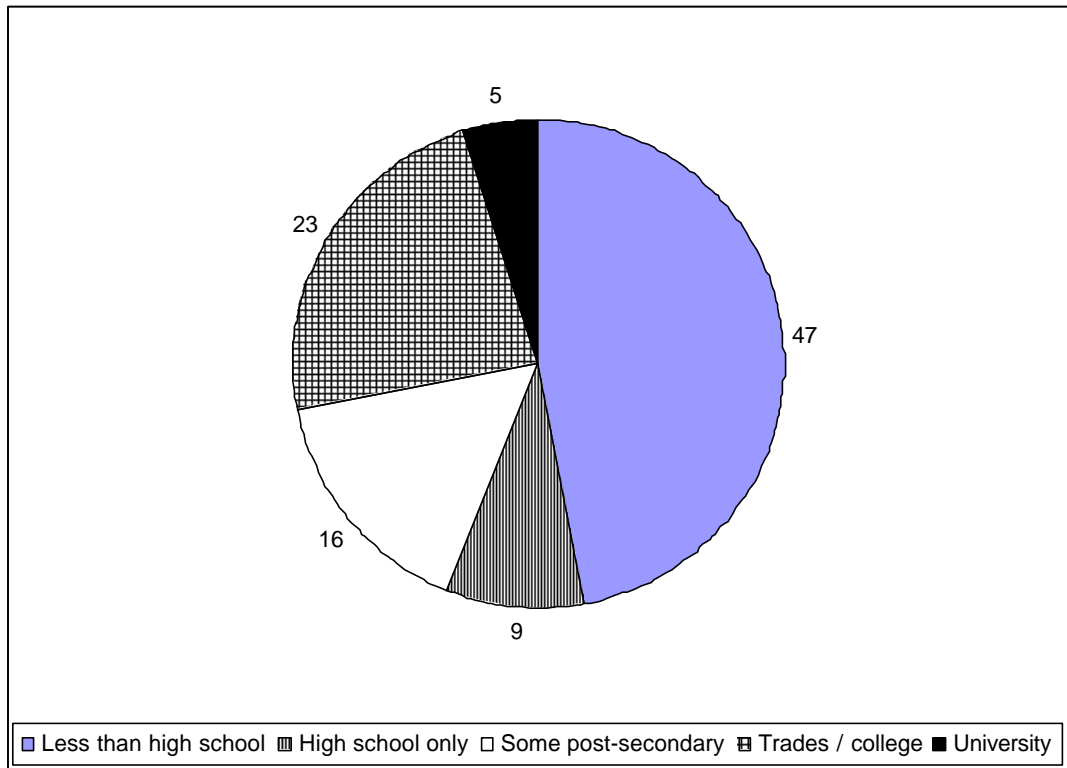
**Table 2.** Participants' ages in categories (%). N in the table means number of participants.

	Community					Total N=216
	Aklavik N=40	Fort McPherson N=59	Inuvik N=76	Tsiigehtchic N=38	Unknown / Other N=3	
<b>Age</b> 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

### 3.1.3. Education

Nearly half of the participants had less than high school education, about one tenth had high school education only, nearly one in six had some post-secondary education, nearly one in four had a trades or college diploma, and one in twenty a 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.





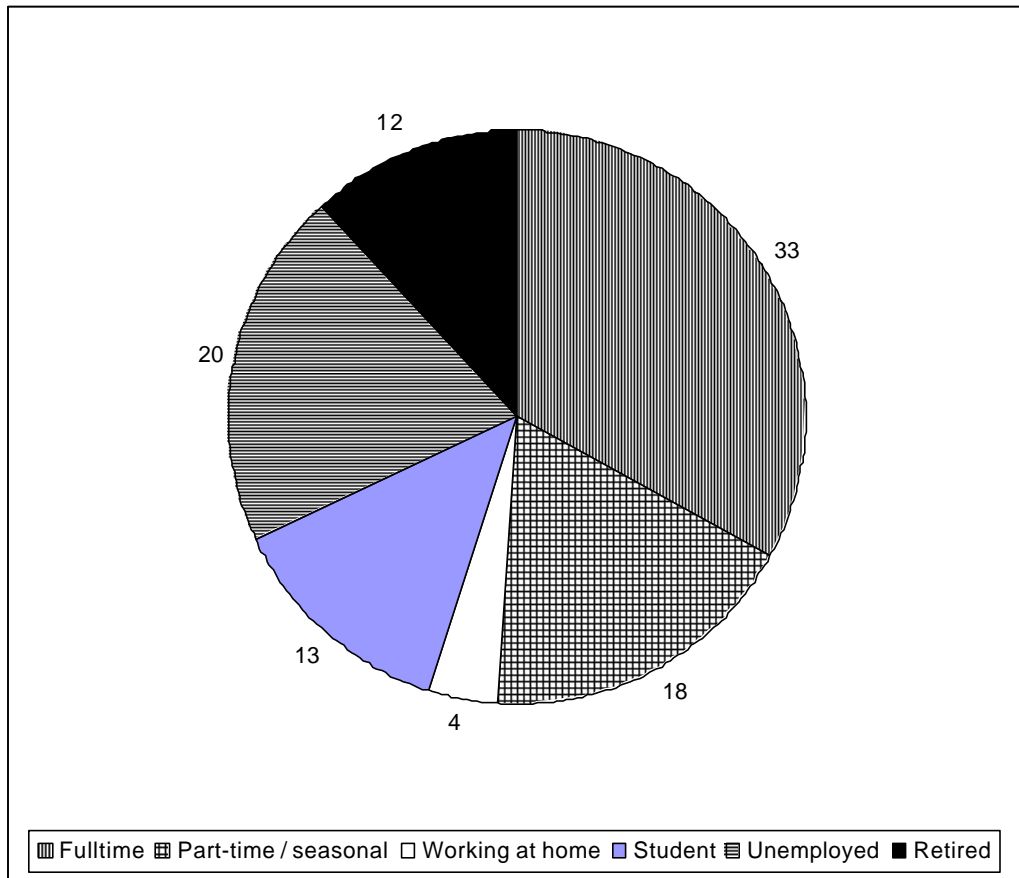
**Figure 1.** Participants' level of education (%).

### 3.2. How did people make a living

Nearly half of the participants estimated that they spent all their time on a paid job and did not depend on the land to provide them with a living, nearly two fifths spent 1-20%, nearly one tenth spent 21-50% and one in twenty spent 51-100% of their time on the land. The participants in Fort McPherson and Tsiigehtchic spent more of their time on the land than the participants in Aklavik and Inuvik.

### 3.3. 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. 2)



**Figure 2.** 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 (about one in five) than in Inuvik (one in twenty) and Tsiigehtchic (one in ten). Unemployment was the highest amongst the participants in Fort McPherson.

### 3.4. People working for the oil and gas industry

At the time of survey, only one in twenty of all participants worked for the oil and gas industry, while more than two fifths had worked for the oil and gas industry in the past. (Table 3)

**Table 3.** Participants’ interest in working for the oil and gas industry (%).

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

### **3.5. Opinions of the MGP**

#### **3.5.1. Interest in the MGP**

The great majority (78%) of the participants’ felt that they knew what the Mackenzie Gas Project was. In Aklavik, Inuvik and Tsiigehtchic, more than eight in ten of the participants’ felt that they knew what the MGP was. In Fort McPherson, only six in ten felt that they knew what the MGP was. The majority (58%) of the participants were interested in the MGP, less than one third were somewhat interested and one seventh not interested.

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 of the participants thought that the project would be approved in the next couple of years (from year 2005), about one fourth said “no” and more than one third “I do not know”. Also, less than half of the participants wanted the MGP to be built in the next 5 years, about one fourth answered “no” and “I do not know”. (Table 6)

**Table 4.** Participants’ opinions of the MGP (%).

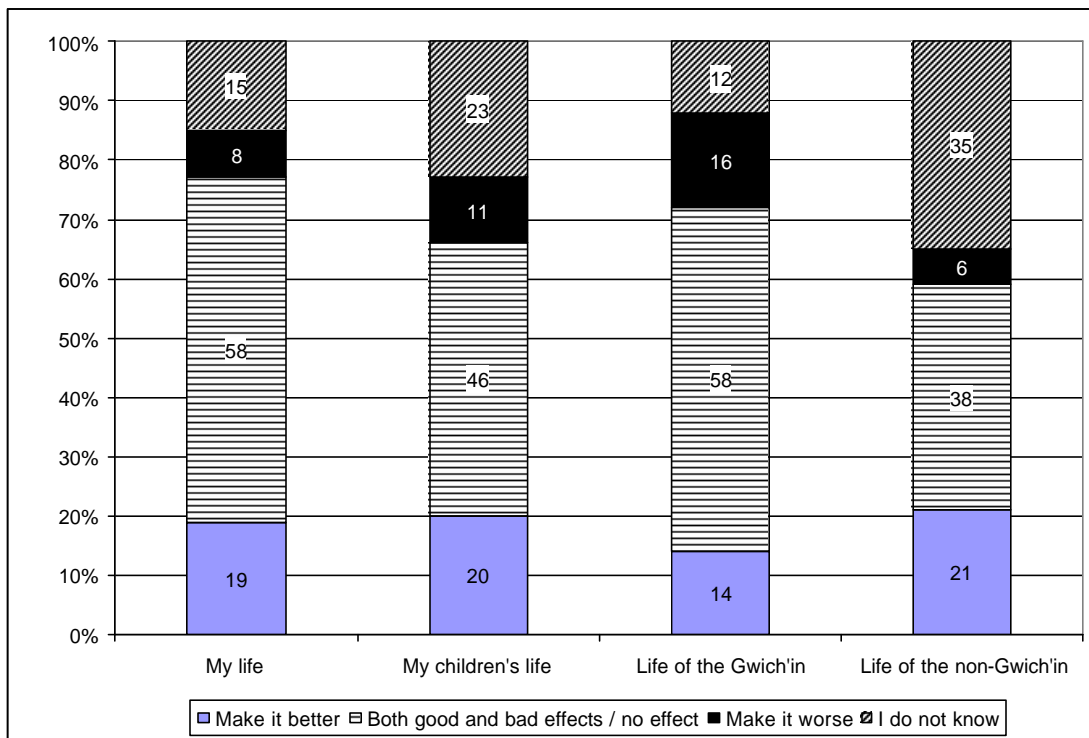
		Community				Total N=201
		Aklavik N=37	Fort McPherson N=56	Inuvik N=73	Tsiigehtchic N=35	
<b>Do you think that the MGP will be approved in the next 2 years?</b>	Yes	35	36	50	40	42
	No	24	32	20	14	23
	I do not know	41	32	30	46	35
Total		100	100	100	100	100
		Aklavik N=39	Fort McPherson N=59	Inuvik N=74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

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 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)

From the one fourth 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, one in twenty answered “in the next 30 years”, one in twenty “in the next 50 years” and two in five “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)

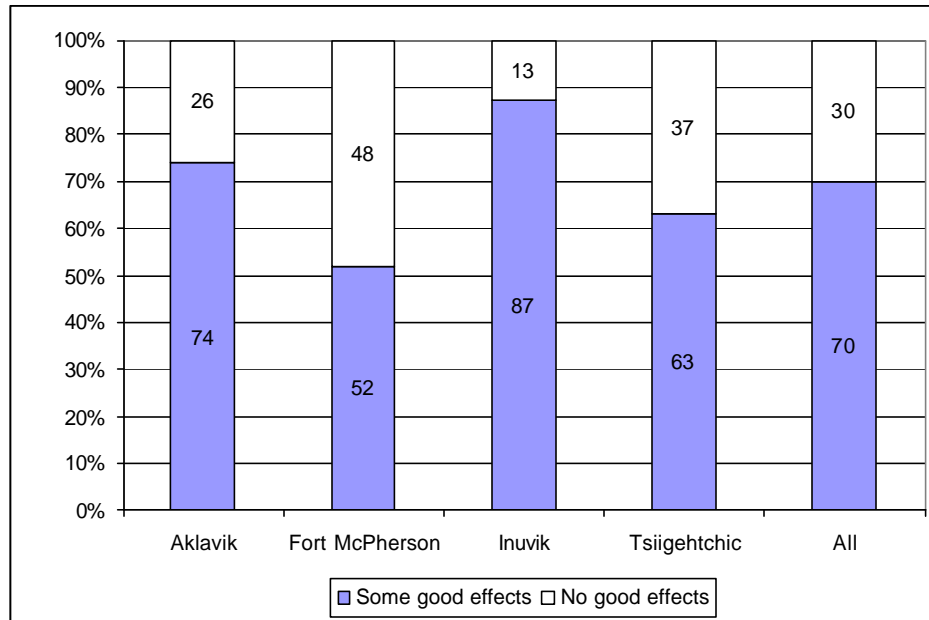
### 3.5.2. How the MGP would affect people's lives

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. 3) *"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) 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, nearly half (46%) answered both good and bad effects or no effect. (Fig. 3) *"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)



**Figure 3.** How the participants thought that the MGP would affect their lives (%).

Of all participants, the majority (70%) thought that the MGP would have “some good effects” on the lives of the Gwich’in. The corresponding figures were three fourths in Aklavik, nearly half in Fort McPherson, seven eighth in Inuvik and less than one third in Tsiigehtchic. (Fig. 4)

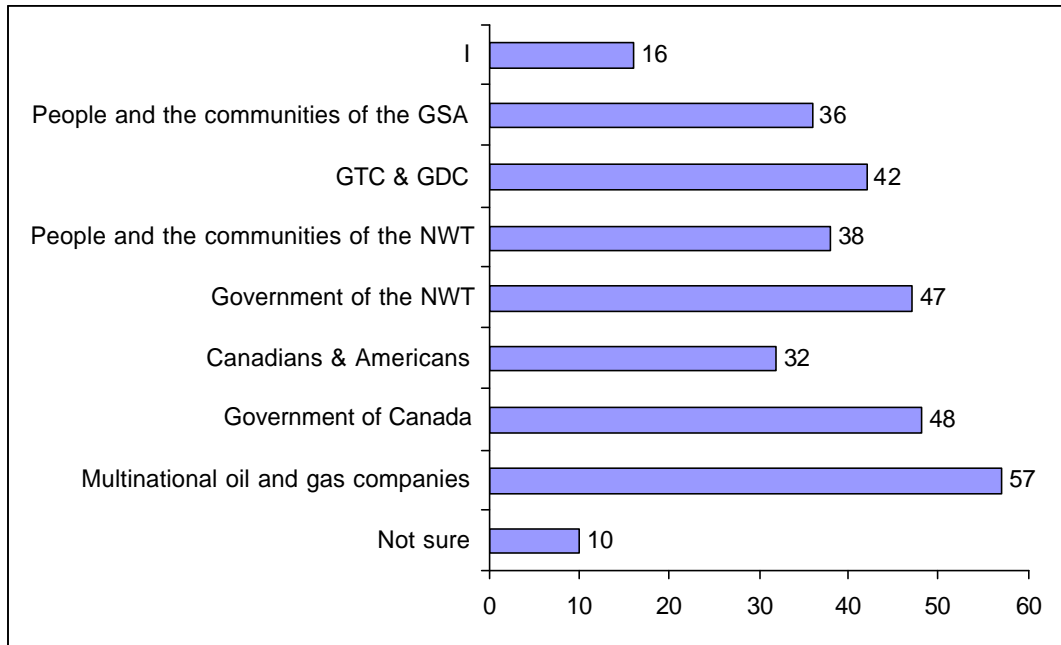


**Figure 4.** Participants who thought that the MGP would have some good effects on the lives of the Gwich’in (%).

### 3.5.3. Who would benefit from the project

Most of the participants thought that the multinational oil and gas companies would benefit from the MGP. (Fig. 5) *“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) Nearly half of the participants believed that the Government of Canada (48%) and the Government of NWT (47%) would benefit from the project. (Fig. 5) *“The Government will make all the money, they don’t care about us.”* (/p92/ - male, age 57, Fort McPherson) Only one sixth of the participants themselves believed they would benefit from the project. (Fig. 5) *“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), and the people and the communities of the

GSA and the NWT would benefit. (Fig. 5) *“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)



**Figure 5.** Participants’ opinions on who would benefit from the project (%).

### 3.5.4. Social, 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, the great majority (94%) believed that the project would have social, economic and cultural impacts and the rest answered “I do not know”.

**Table 5.** The social, 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
<b>Employment</b>	83	10	7	58	36	6
<b>Education</b>	75	19	6	65	29	6
<b>Financial benefits</b>	80	15	5	59	36	5
<b>Infrastructure</b>	73	23	4	45	46	9
<b>New oil and gas development</b>	84	11	5	36	46	18
<b>New natural resources development</b>	66	29	5	32	53	15
<b>New business opportunities</b>	87	8	5	64	30	6
<b>Influx of people</b>	88	11	1	17	50	33
<b>Cost of living</b>	85	10	5	8	23	69
<b>Substance abuse</b>	88	11	1	3	17	80
<b>Health of the people</b>				10	61	29
<b>Community well-being</b>				12	58	30
<b>Culture</b>				4	45	51
<b>Traditional lifestyle</b>				9	45	46
<b>Money management</b>				10	50	40

### 3.5.4.1. Employment opportunities

The great majority of the participants believed that there would be more employment opportunities due to the MGP. Most of the participants thought that these opportunities would have only positive impacts and nearly one third answered both good and bad or neutral impacts. (Table 5) *“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) 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. *“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)*

#### **3.5.4.2. Education opportunities**

Most participants believed 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 believed that increase in education opportunities would be only positive. (Table 5) *“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. *“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. *“We should have education programs here in our local education learning centre. Nothing ever happens there.” (/p167/ - female, age 35, Aklavik)*

#### **3.5.4.3. Financial benefits**

The great majority 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 believed that increase in financial benefits would be only positive. (Table 5) *“The best part is the financial benefits.” (/p210/ - male, age 73, Aklavik)* *“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)

#### **3.5.4.4. Infrastructure**

The majority of the participants thought that there would be more infrastructure due to the project. Of all participants, less than half believed that the impacts would be both positive and negative or neutral and less than half that the impacts would be positive. (Table 5) *“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)

#### **3.5.4.5. New natural resources development**

The great majority thought that the MGP would increase oil and gas development and the majority 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 5) *“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) Nearly half of the participants 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)

#### **3.5.4.6. New business opportunities**

Most participants 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 believed that increase in business opportunities would be only positive and nearly one third that the impacts would be both positive and negative or neutral. (Table 5) *“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)

#### **3.5.4.7. Influx of people**

The great majority believed that influx of people would be greater due to the project. (Table 5) Half of the participants felt that the impacts of influx of people would be both positive and negative or neutral, more people believed that the impacts would be negative than positive. *“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)

#### **3.5.4.9. Cost of living**

The increase in the cost of living was seen as the second biggest negative social impact. (Table 5) *“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)

#### **3.5.4.10. Substance abuse**

The great majority of the participants thought that the project would increase substance abuse (drugs, alcohol and violence), this was seen as the most negative social impact that the project could bring. (Table 5) *“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 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)

#### **3.5.4.11. Health**

The majority of the participants believed that the project would have both positive and negative or neutral impacts on the health of the people. (Table 5) *“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 believed that the impacts would be negative than positive. *“Health of the people will get worse, because it will be more polluted.”* (/p101/ - male, age 17, Fort McPherson) 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)

#### **3.5.4.12. Individual and community wellness**

As explained earlier (in chapter 3.5.2. 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 felt that the project would have both good and bad or neutral effects on community well-being, more people believed that the impacts would be negative than positive. (Table 5)

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)

#### **3.5.4.13. Culture and traditional lifestyle**

More participants believed that the impacts on the culture and traditional lifestyle would be negative rather than positive due to the MGP. (Table 5) *“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) Of all participants, nearly half believed that the impacts on the culture and traditional lifestyle would be both negative and positive or neutral. (Table 5) *“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)

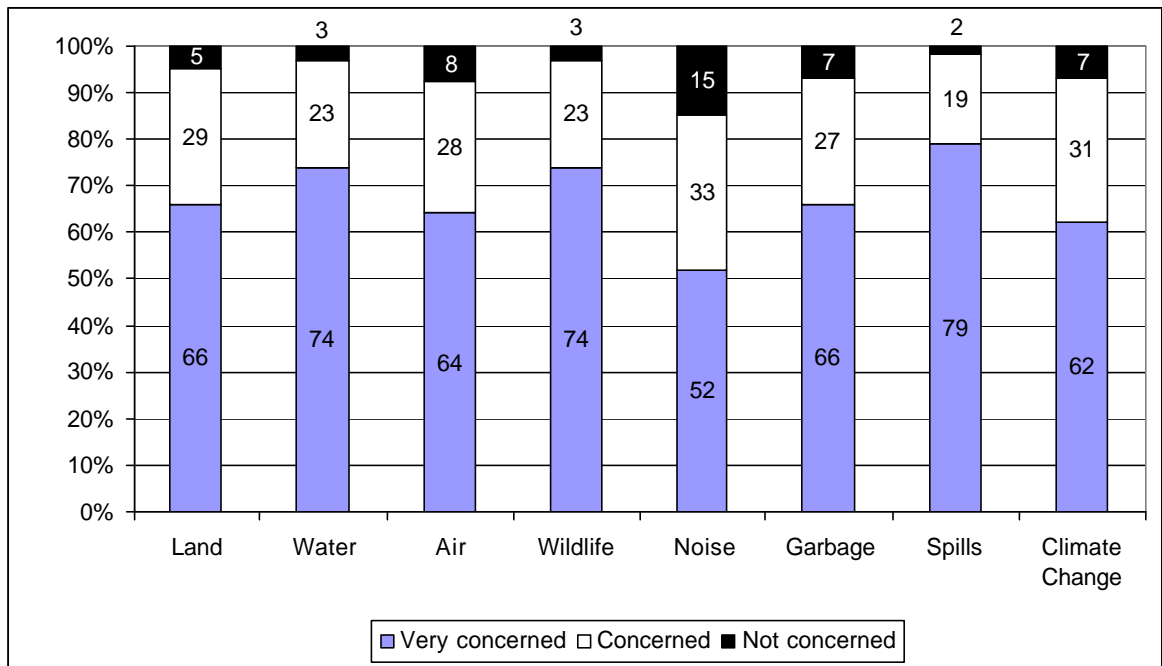
#### **3.5.4.14. Money management**

Half of the participants believed that the project would have both bad and good or neutral effects on money management. More participants believed that the effects to be negative than positive. (Table 5) *“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 mis-managed and substance abuse and that the people need help in overcoming that problem.

#### **3.5.5. Environmental impacts**

The great majority (88%) believed that the project would have environmental impacts (on the land, water, air, etc.) in the GSA. Only one in twenty did not expect any environmental impacts and one in fifteen did not know. The participants were most concerned about spills,

wildlife and water. Noise posed the smallest concern, but still most were very concerned and one third concerned (fig. 6).



**Figure 6.** Participants’ level of concern for different environmental impacts (%).

### 3.5.5.1. Land

The majority of the participants were very concerned about the impacts that the MGP might have on the land. (Fig. 6) *“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 affect the vegetation and the food chain. *“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)

### **3.5.5.2. Water**

According to the responses, the second biggest environmental concern that the participants had was toward water and wildlife. The majority of the participants (74%) were very concerned for water. Participants talked about their concern for run-offs, stream crossings, changes in water flow rates and fish migration. (Fig. 6) *"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)

### **3.5.5.3. Air**

Participants were not as concerned for air as for land and water, but still most were very concerned. (Fig. 6) 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)

### **3.5.5.4. Wildlife**

As for water, most (74%) of the participants were very concerned for wildlife. (Fig.6) 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) *“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))

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.

#### **3.5.5.5. Noise**

From the different environmental impacts presented in fig. 6, noise proposed the smallest environmental concern amongst the participants, but still half of the participants were very concerned and one third concerned. (Fig. 6) 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.

#### **3.5.5.6. Garbage**

Most of the participants were very concerned about garbage. (Fig.6) *“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)*

One in fifteen were not concerned for garbage. (Fig. 6) 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)*

### **3.5.5.7. Spills and accidents**

Spills were the main environmental concern that the participants had. Of all participants, most (79%) were very concerned. (Fig. 6) As explained earlier (in chapters 3.5.5.1. Land and 3.5.5.4. Wildlife) participants were concerned that spills would affect wildlife habitat and the food web. Some participants accepted that spills are a part of gas activity, but had concerns that the cleanups would not be done at all, or would not be done early or efficiently enough. *“If there is a spill it will impact the environment and the animals.” (/p6/ - male, age 22, Inuvik)* *“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)* *“I hope they don't leave a mess like Shell Canada did at Caribou River.” (/p116/ - male, age 67, 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)*

### **3.5.5.8. Climate change**

Climate change proposed the second smallest concern amongst the participants, but still most were very concerned. (Fig. 6) *“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 the 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)

### **3.5.5.9. 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)

### **3.5.6. The EIA and the SEIA**

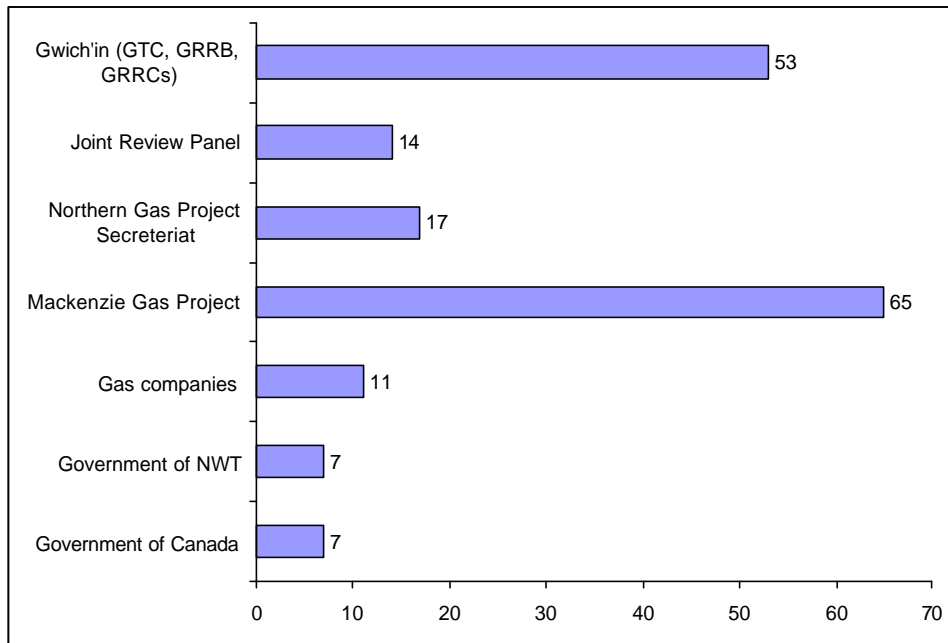
The words Environmental Impact Assessment (EIA), Socio-economic Impact Assessment (SEIA) and Environmental Impact Statement (EIS) were not familiar to a lot of the participants. If the participants were not sure what the EIA, the SEIA and the EIS meant, the interviewers explained how they related to 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, 2004) 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 6)

**Table 6.** 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?
<b>Yes</b>	61	25	55
<b>Somewhat</b>	28	34	-
<b>No</b>	11	41	45
<b>Total</b>	100	100	100

From the 55% (table 6) 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). (Fig. 7) *"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. 7). Participants were also getting information from other sources, for example: friends, flyers and newsletters, and news from television, radio, internet and newspapers.



**Figure 7.** Source for the information on the EIS of the MGP (%).

### 3.5.7. A say in environmental and social, economic and cultural issues

Of all participants, more than two out of five believed 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 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)

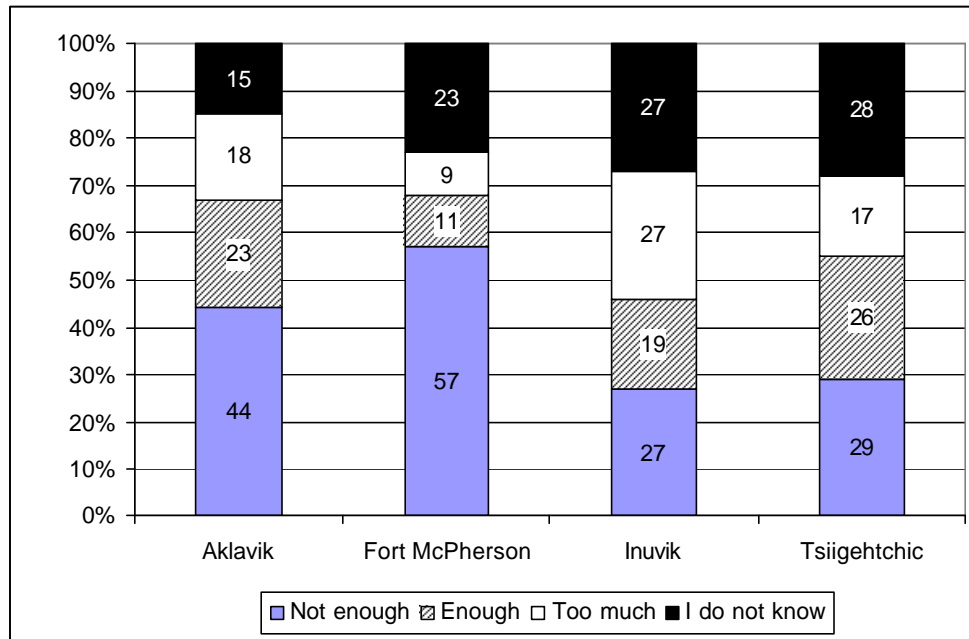
Over one third of the participants believed that they had somewhat a say and nearly one in five answered no say. *“Who is supposed to ask me? The leaders are questioned for those answers, not the little people.”* (/p25/ - female, age 26, Inuvik) *“Not for myself, because I’m not a politician, maybe at 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)

### 3.5.8. Public consultation

Of all participants, nearly half had and half had not attended public meetings related to the MGP. There was a significant difference between communities and attending public meetings. Most participants in Aklavik and Tsiigehtchic had attended public meetings while in Inuvik and Fort McPherson 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)

Of the participants, nearly two in five thought that the amount of public consultation related to the MGP had not been enough. *“They should come from door to door and explain the EIS.”* (/p180/ - female, age 44, Aklavik) Close to a one in five believed that the public consultation had been enough. *“There is enough information, I get it from our people, they talk about it.”* (/p114/ - male, age 20, Fort McPherson) More than one if five did not know had there been enough public consultation and less than one in five 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. Most 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. 8).



**Figure 8.** Participants' opinions about the amount of public consultation (%).

### 3.5.9. Readiness

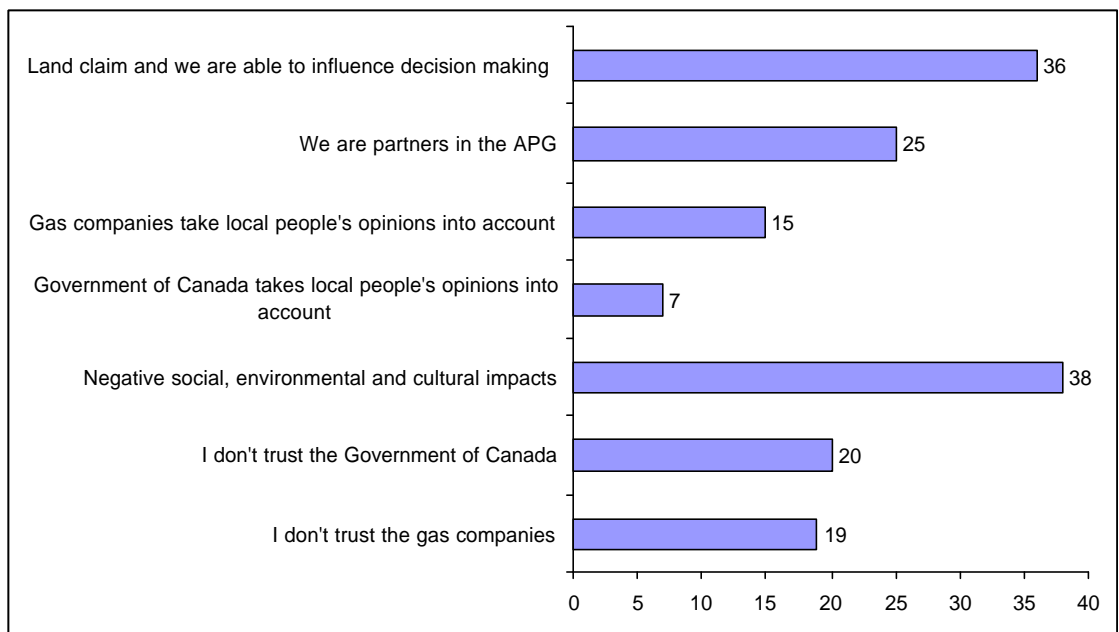
Of all participants, close to a half felt that their community was not ready for the MGP, nearly one fifth answered “yes and no”, less than one in five thought their communities were ready and nearly one fifth were unsure of their opinion. “Yes and no” meant that in some areas the participants thought that their community was ready for the project and in other areas it was not. In Inuvik more participants thought that their community was ready for the MGP than in the other communities and the proportion of unsure answers was the highest in Aklavik. (Table 7.)

**Table 7.** Participants' (n=204) opinions about the readiness (%).

		Community				Total
		Aklavik	Inuvik	Fort McPherson	Tsiigehtchic	
<b>In your opinion is your community ready for the MGP?</b>	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

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 believed that their communities were not ready because of negative social, environmental and cultural impacts. (Fig. 9) *“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 believed 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. 9) *“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 9.** 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)

#### **4. 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 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 one fourth (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 two fifths “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 cultural, social, economic and environmental 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 an 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, two

fifths believed that the information on the EIS had been understandable and less than one in six answered not understandable.

Of all participants, nearly half (44%) believed that they had a say in how cultural, economic, environmental and social issues related to the project were dealt with, two fifths (37%) believed that they had somewhat a say and nearly one fifth answered no say. Most participants (52%) had attended public meetings concerning the MGP. Most participants that had attended public meetings felt that they knew or somewhat knew how the EIA and the SEIA of the project work on the contrary to participants that had not attended public meetings. Of the participants, nearly two fifths thought that the amount of public consultation related to the MGP had not been sufficient, one fifth thought it had been sufficient, one sixth expressed that the amount of consultation had been too much and one fifth 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, nearly half (44%) felt that their community was not ready for the MGP, one fifth answered “yes and no”, one fifth thought their communities were ready and one fifth 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.

## **5. REFERENCES**

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## **6. CONTACTS**

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