

#### **4.0 The Human Dimension in Project Reviews: Keynote Address by the Honourable Thomas Berger**

HONOURABLE THOMAS BERGER: Thank you, Lindsay and friends. It is always a delight to come back to the Yukon where I have many friends who are turning grey, but they're still with us. So, it's always a pleasure to be here.

Let me congratulate you on the enactment of YESAA; and since I come from Vancouver, believe it or not, I hadn't heard about it until I was asked to come to this conference, but listening to Kirk and Ed and Lindsay this morning I have a pretty good idea of the major undertaking that it represents here in the Yukon and the scope of its jurisdiction over development here in years to come.

I've been asked to speak on the human dimension of socio-economic and environmental assessment, and my view is that the human dimension is paramount in this area; because, of course, you have to consider the impact of projects on the human beings who live in the vicinity. Then, in fairness, you have to give those people an opportunity to be heard. That's absolutely vital. The third reason is that I have discovered that if you listen to what local people have to say, the people who actually are standing in the way of the project and want maybe to see it go ahead, maybe they want to modify it maybe they want to cancel it; but if you listen to them and what they have to say, you get better projects.

Lindsay mentioned that I was a judge for a decade in British Columbia. I remember that when I was sworn in as a judge, I was only 38, which in those days was relatively youthful to become a judge; and my father was at the swearing in, and everyone said a lot of wonderful things about me and we went to lunch afterward. He was a retired RCMP officer, who had been with the RCMP on the prairies in the old days. He said, "Well now, look, I know you have a law degree and you're a judge now, but remember there's a lot that can be learned from people on the street and on the farm and in the bush. He told me a story about a new judge on the prairies, years ago, who, newly minted, came to this farming community on the prairies and he was to try a case where a young man in the community had been charged with stealing a horse. The jury was a jury of prairie farmers. The evidence against the young man was pretty strong. It looked as if in fact he had stolen the horse, but the farmers on the jury were reluctant to convict. They knew him well and didn't want to see him in trouble. Anyway, the judge summed up the law, and he sent the jury back to the jury room and said, "I want you to consider your verdict."

They came back and the foreman said, "Your Honour, we've reached a verdict."

The judge said, "What is your verdict?"

And the foreman said, "Well, Your Honour, we find the defendant not guilty but we think he should give the horse back."

The judge, preening himself on his knowledge of the law, said in a patronizing way, "Well, Mr. Foreman, members of the jury, that's what we call an inconsistent verdict. I'll have to send you back to the jury room to reconsider your verdict."

They went back, returned a few minutes later, and the judge said, "Have you reached a verdict?"

"Yes, Your Honour."

"What is your verdict?"

"Well," the foreman said, "we find the defendant not guilty and we've decided that he can keep the horse."

Well, I want to talk a little bit about some of the things I've done in this field of social, economic and environmental impact assessment; and most of them were so long ago and so far away that, as I came up on the plane yesterday, I thought that no one will comprehend that I really don't know what I'm talking about. But now that I'm here, I realize that all of these things are still current, and I'll have to do the best I can.

My experience has been with megaprojects in rural, wilderness and frontier areas of Canada and other parts of the world and of course, they've inevitably involved the condition and the claims of the indigenous people of those areas, because they are, in most parts of the world, the people who live in those rural frontier and wilderness areas. They often involve two ways of looking at the world, and I've tried to reconcile those two on the footing that the one, which most of us in this room represent, the world of industrial advance and technological achievement, does not destroy the other more traditional way of life, based on the notion of collective ownership of land and hunting and fishing and trapping and gathering. All of these ideas are in transition, and the ideas and the concerns of indigenous people are in transition; but wherever I've gone, I find that when you finally try to decide what to do, you have those two particular ways of looking at the world.

Now, I see that on the third day of this meeting, you're going to hear a presentation from the Mackenzie Valley Impact Review Board, and for me it has a familiar ring, since I conducted the Mackenzie Valley Pipeline Inquiry back in the '70s. I was appointed in 1974. I completed the work of the inquiry in 1977 and 1978; and let me just refer to that inquiry for a moment, because it had, I think, a very real influence on events here in the north and indeed, as Lindsay suggested, in other parts of Canada.

We, stumbling along to do the best job we could, inadvertently, I suppose, were pioneering in the whole area of social and economic and environmental impact assessment in Canada. You will recall that the idea was to bring oil from Prudoe Bay across the north slope of Alaska and across the north coast of the Yukon to the Mackenzie Delta and there to pick up the Canadian oil from the delta, and then, build the pipeline south along the Mackenzie River to Alberta, where it would join up with the Alberta system, and the oil from Prudoe Bay and from the Mackenzie Delta would be used to serve the metropolitan centres of Canada and the U.S. It was, at the time, a project that was financed by the largest aggregation of private capital ever assembled, and of course, involved an energy corridor, construction sites, helipads, pumping stations and all the indicia of industrial advance.

I was asked by the Federal Government to conduct the inquiry and to consider the impact on the north. Now, we didn't get started for about a year, because everyone wanted time to get ready; but we arranged with the Minister of Indian Affairs and Northern Development, Jean Chrétien at the time, to finance the work of the indigenous people, and, as I recall, we obtained about a million dollars for them to participate on something like an equal footing with the oil and gas industry, which, of course, had already spent 50 million in getting ready for the hearings. We obtained about 500,000 -- perhaps more, I can't remember now -- for the environmental groups. There were about 14 of them that wanted to participate, and I said, "If you will, by tomorrow morning, agree to bring yourselves under one umbrella group, I'll get some money for the umbrella group," and I can still remember that the next day they announced they had formed an umbrella group and there would be only one participant at the inquiry representing the environmental interest.

We heard from 300 experts in engineering and economics and sociology, and everything else you can think of at the hearings that were held at the Explorer Hotel in Yellowknife; I went to the communities, all 35 towns and villages in the Mackenzie Valley and the western Arctic. In fact, I was here, as well as in Old Crow, and visited the north coast of the Yukon to see the calving grounds of the Porcupine caribou herd. At the end of the day, after listening to all of these folks, and the hearings took about two years, then I sat down with some very outstanding folks. Lindsay has mentioned some of them. Some of them were witnesses, and I was much assisted by their evidence. Some were on my staff. One of them who should be remembered was an outstanding public servant named John Files, of that institution -- I can never remember its name -- that did all the mapping of Canada and the geological....

Anyway, I wrote this report; and you might be interested that when I sat down to write it, I said to the Minister of Indian Affairs and his deputy, "It will take me about six months to complete this."

And they said, "Oh my God, it'll have to be translated into French after that, and that'll take another six months."

And I said, "Well," and I think this is my major contribution to the way the Federal Government operates, I said "Why not have the French editor and his staff sit down with me now, and as I write a draft, they can translate it into French." And that they did. As a matter of fact, the French editor would come down the hallway to my office once in awhile and say, "Tom, I can't translate this. I don't know what you're saying."

And I would look at it and I'd say, "Yes, I don't know what I'm saying. I'd better revise that." But it did take me six months, and at the end of the six months, when I put down my pen, an hour later the French editor put down his pen in his office down the hallway. The report was printed in both languages and tabled in the House of Commons very soon thereafter.

The recommendations I made, and maybe I could just remind you what they were: I recommended that there should never be a pipeline built across the coastal plain of the Yukon, that the calving grounds of the Porcupine caribou herd should be protected for all time and that we should establish a wilderness park there. I recommended the outlines of a park; and I urged, as well, that the contiguous area of northeastern Alaska, then known as the Arctic National Wildlife Range, should be

set aside as wilderness under U.S. legislation, and indeed I appeared before two congressional committees at the time, one in the Senate and one in the House of Representatives to make that argument.

In the U.S., the Arctic National Wildlife Range became a refuge under their wilderness legislation in 1980, and of course, we have two parks in the northern Yukon established under the Inuvialuit Agreement in 1984 and the Old Crow Gwitchin Agreement in 1995. They, by and large, represent the wilderness area that I had urged be protected.

I also urged that there be a sanctuary for belugas in Mackenzie Bay, because that is where the whales of that region come to calve. That was never done, but there hasn't been any oil and gas exploration activity there. So, we still have a de facto refuge there.

I recommended, as I guess everyone will remember, that land claims in the Mackenzie Valley, the western Arctic, had to be settled before we could embark on the construction of a pipeline down the valley, and I said, "This will take 10 years."

Everybody said, "Oh my God, 10 years."

Well, of course, those recommendations were accepted, and the negotiations took place; and now, more than two decades later, there are land claims agreements in the Mackenzie Valley and the western Arctic, except I think for the Deh Cho in the middle of the corridor.

Now, because my friends — I hope they will be friendly — from the Mackenzie Valley Impact Review Board are here, I should remind them, not many people remember this, that after I finished that report in 1977, I sat down with my staff and wrote volume two, which was this: It said, "Look, if you do all these things, set aside the wilderness area in the northern Yukon, a sanctuary for belugas in Mackenzie Bay, settle land claims agreements in the Mackenzie Valley, then go ahead and build a pipeline; because aboriginal people can be owners. They can be skilled workers on the pipeline. These are matters for all of you to decide when the time comes and when all of this has been done; but I said, "And here are the conditions", and I set out a whole volume of conditions. Now, that is 26 years old, I guess, and you folks on the Mackenzie Valley Impact Review Board may have picked it up. It may be as dog-eared as the first volume that Lindsay held up here, but that was the first cut, what you nail the first board to, and I'm sure you can improve very much on that.

Well, in the '80s I went to Alaska, and what occurred in Alaska is fascinating. I won't go through it all; but I spent two years there, from 1983-to-1985, conducting a review of the *Alaska Native Claims Settlement Act* of 1971. I conducted the review for the Inuit Circumpolar Conference, which is an international organization of Inuit from Alaska, Canada and Greenland. The settlement of 1971 was imposed on Alaska native people by Congress. It arose out of the discovery of oil at Prudoe Bay and the necessity, as Congress saw it, to settle aboriginal claims so that development could proceed in Alaska. You may recall that the Alaska natives, who are about 30 or 40 percent of the population of Alaska and live in rural Alaska in 200 villages, that they received 10 percent of the land of Alaska, mainly around their villages, and 900 million dollars. That was the first of the modern land claims that really provided for substantial sums of money to go to aboriginal people and for substantial areas of land.

Now, the State of Alaska, in the share-out of all the land under ANLCA in 1980, received about 30 percent of the land, and the Federal Government, that is the Government of the United States, retained about 60 percent in oil reserves and national parks and so on.

Well, the interesting thing about the *Alaska Native Claims Settlement Act*, and it's a hellishly complicated statute and I can tell you that I visited about 60 villages in Alaska and held hearings and heard from experts at round tables that we held at Anchorage, and I concluded that it had been, by and large, a failure, and the reason is this: It reflected the tendency of those holding office and representing the ideas, which we all have bred in us, of industrial advance. It reflected their ideas of what the future ought to be for Alaska natives, so they set up these corporations, 200 village corporations and 13 regional corporations. The 900 million was doled out among them. They made the villagers shareholders and they said, "Now you can get on with it and become businessmen," because that was the American paradigm, just as they had in the Lower 48 in 1887, when the Government of the United States decided that the Indians ought to become farmers, because that was what you did in those days, and they passed the *General Allotment Act*, which led to the parcelling out of Indian land; and by 1933, when Roosevelt came into office, two-thirds of their land had been lost through tax sales and alienations. The Roosevelt Administration put an end to the dispersal of Indian land, but it reflected the same notion of people like us deciding what would be best for aboriginal people that appeared again in 1971.

I'll just give you one or two problems that this created. First of all, the people in the villages had no business experience. I would go to a village and say, "How is your corporation doing?"

Somebody would bring out a shoebox and say, "Well, these are the minutes of the corporation, and I think the last minutes recorded are about 10 years ago, and we don't know what happened to the money." Some of the regional corporations have been successful; but the village corporations, by and large, have been unsuccessful. The real problem is that the idea was that aboriginal land, the 10 percent of Alaska held by aboriginal people, would flow into the general ownership of land in Alaska; that is, it would cease to be collectively owned, a tribal asset that could be passed on to generations to come, and would become, like all the other land in Alaska, something that the owner can buy and sell as he wishes. So, these corporations were supposed to do that. The fact is that Congress had to amend the legislation in 1990 to make sure that the land wouldn't flow out of aboriginal ownership into the hands of non-aboriginal Alaskans.

The whole scheme I think has foundered because it just didn't fit. One example, perhaps, will do. They were made shareholders; all the people living in those villages, belonging to those tribes, were made shareholders in their village corporation and in their regional corporation. Well, then the first child was born after the settlement, let's say on January 1<sup>st</sup>, 1972. That child isn't a shareholder. So, now you have whole generations of Alaskan natives who aren't shareholders in their own corporations. They are heirs to their parents' shares, but of course, unless every set of parents had just two children and passed their two shares along to the two children, you wind up years later, generations later, with children holding fractions of shares. The scheme is one that isn't workable as long as the aboriginal people say, "Wait a minute. Our land is held collectively and if you are born into the tribe, you become, so to speak, a shareholder on the same basis as everybody else in the ownership of that land;" and it goes on from generation to generation.

That model, as I say, was the first modern land claims agreement, and it's a model that has been rejected in all the other land claims agreements reached in Canada, some in the U.S., and in Australia and in other parts of the world; because that corporate model just doesn't fit. Now, we have some native corporations, but they are not held by individual shareholders; they're held by the community.

I said that the *Alaska Native Claims Settlement Act* was spurred by the discovery of oil at Prudoe Bay, and of course, just as in the Mackenzie Valley we have come full circle, we are full circle again; because just coming up on the plane yesterday, I read about the proposed Alaska gas pipeline, of course, which will come right through the Yukon along the route, I believe, of the Alaska Highway. It will bring the natural gas from Alaska, which, of course, has been inserted in the ground ever since oil was discovered and first produced there back, I believe, in the late '60s.

Well, let me just go on to another project that I think bears some real resemblances to what we have been doing in Canada. In India, I was asked by the World Bank, in the early '90s, to be vice-chairman of a commission that was to look into a water project in India. The chairman was a gentleman named Bradford Morris, a former Undersecretary of the United Nations, an American, a very distinguished international public servant. He was the chairman, and I was the vice-chairman. This was really the World Bank's first international Royal Commission. For Canadians, that's how we would have described it. Mr. Morris, the chairman, was ill through much of the formative months of the commission, and I negotiated the terms on which we would do this with the president of the World Bank. Going on the strength of the need, as I saw it, for independence, I said, "Well, we have to be able to go where we want and talk to whom we want in India, and we have to have our own budget so that we're not coming back to you folks at the World Bank for money every couple of months." We worked out our budget at a million dollars and they agreed to all of these conditions, not without a certain amount of trepidation, because they had never had an independent commission.

The World Bank is the world's greatest source for funds for projects in the developing world; and so, there is a universe of consultants out there, for whom the World Bank is the mother lode. Mr. Morris was retired and living in Florida, and I was a lawyer in Vancouver, and neither of us cared if the World Bank ever phoned us again — and I should add, indeed they have not. So, we were independent. The project, at the time, was the world's largest water project. It has since been overtaken by the Three Gorges project in China; but there was a 455-foot dam to be built on the Narmada River, and as we started it was already under construction; and as well, I think a 400-kilometre-long canal that would take water to drought-stricken areas of western India. The dam was in Gujarat. The area that was to be flooded was, by and large, in a state called Madra Pradesh, and part of it as well in Maharashtra. These are states in western India. We went to visit what we would call "the premiers", they're called "chief ministers" there, of each state, and we would tell them about the project. Of course, they were interested, eager, to see it go ahead; and because we came from the World Bank, we were treated extremely well. They put on banquets for us and lauded the World Bank for financing the project, and so on.

By the way, no one thinks of the Yukon as populous. I should say that in Maharashtra, the chief minister presides over a state, which includes Bombay, and has 90 million people. Gujarat has about 50 million and Madra Pradesh about 20 million, so that when you saw these chief ministers, you

thought, you know, “My God, how do they do it?” Of course, in India, a poorer country than ours, they do not provide the programs and services that we do, and there’s much more limited intervention by the state.

Anyway, the great thing about it was that most educated people in India speak English. In fact, it is the lingua franca of India, because Hindi may be spoken by 500 million people, but there are 400 million that don’t speak Hindi. Educated people in all of India speak English, so that was a great advantage to us, because we could listen to experts, and we could find out everything we needed to know about the project.

Now, the complaints about the project were many, and it is only because there was a people’s movement in the Narmada Valley opposing the dam that we had ever been appointed. The European Parliament and Congress of the United States had passed resolutions, urging the World Bank to establish an independent commission, and that’s how we came about.

We visited the chief ministers. We visited the officials of the Nigam. That’s what we would call a Crown corporation that was building the dam and the canal. And then, we told them that we were heading into the valley to meet the people who were going to lose their homes, and this led to a certain amount of consternation.

I should tell you that in the valley, people from the government were, by and large, not welcome in the places that were being flooded out; and people from the World Bank weren’t welcome, because they were financing the project. I headed into the valley. Mr. Morris, the chairman, who was absolutely a first class man, he’s dead now; but he and I got along famously. He was ill at the time and eventually, though we worked together to complete the commission, he died not long afterward.

I headed into the valley and held hearings in about, I can’t remember now, maybe 30 places and people would come from all over the countryside. This was rural India, and I held hearings in Hindu caste villages, which were lovely places where they took two crops a year off the land and people were very much opposed to the dam because, of course, they would lose their farms and lose their livelihood and have to be taken somewhere else and resettled. Then I went, as well, to what they called the Villages of the Adivasi, who are the indigenous people of India, who were there before the people of Aryan descent, who constitute the people of India in the majority today, arrived thousands of years ago. But the Adivasi, the tribal people as they are known in India, number 50 million. There are more indigenous people in India than there are in the whole of North and South America. I went to their villages, and they were lovely places. They were in the forest and on the banks of the Narmada River in land that no one else had used, and they grazed cattle, and they grew some crops, and they hunted and they fished. They didn’t speak Hindi; they had their own languages. They weren’t Muslims. They weren’t Hindus. They had their own religions. They were quite distinct from the general population of India; and in this valley, 250 villages were going to be drowned and at least 100,000 people uprooted; and along the route of the canal, because, of course, the canal is huge, it’s about 200 metres in width and 450 kilometres in length, another 150,000 people were to be uprooted.

India has had an unfortunate experience with dam projects. They have built more dams than any country in the world, including Canada or Russia. They divert more water than any country in the world, except Canada, and some of their dam projects have not worked out well. We found, Mr.

Morris and I found — and by the way, Hugh Brody came with us to India to serve as our senior advisor on resettlement; and Don Gamble, an engineer whom some of you may know, who specialized in environmental issues, was our senior advisor on environmental issues. We found that the project was a failure so far as measures to protect the environment are concerned. I'll just give you one example. I see that that map, on the left there's a star. I guess that's India. The dam was 100 miles upstream from the Arabian Sea on the western coast of India, and they had not considered the impact on the fishery downstream. There's a hilsa fishery on which about 100,000 people depend, and it would be destroyed by the loss of the flow below the dam. Everybody agreed to this, but nothing had been done about it, and they proposed not to do anything. We said to the World Bank, "Look, for this and a whole series of other reasons, we think that you should reconsider funding this project."

As far as the resettlement was concerned, India had signed loans from the World Bank for hundreds of millions of dollars, and the World Bank has its own standards that its policy people have put together for resettling people who are uprooted, and India had not observed these standards. In fact, the people who lived in the valley who were prosperous in the Hindu caste villages didn't want to be uprooted, because they knew that 10 million people had been flooded out by the creation of dams in India since Independence; that is, since 1947. You could find them on the streets of Bombay or Delhi, living on the sidewalk. They had been uprooted with no adequate compensation at all.

Now, India had proposed to take measures for the people living in the villages in the valley, but they knew that they would not be compensated adequately in a way that would enable them to buy farms in an equivalent area. You might say that's the best you can do if the project has to go ahead, but one could sympathize with their concern. As far as the Adivasi were concerned, living in the hillsides and in the forest, the trouble was that they were going to resettle them as landless labourers.

I remember saying to the Deputy Minister of Water Resources in New Delhi, the federal deputy minister; we were about halfway through our work and I said, "Now, we're going back home for Christmas as it turned out to be. We're coming back but let me just tell you, sir, about some of the concerns we have. One of them," I said, "is that the Adivasi have lived on that land for hundreds of years under the British and then, of course, since Independence, under your own government, sir, and you have to, under the agreement you signed with the World Bank, to adopt their standards for resettlement, you have to resettle them in communities where they can farm; and all you've done is say that you will treat them as landless labourers and find them jobs somewhere, on somebody's farm, somewhere else in India." I said, "This doesn't live up to what you agreed."

He said, "Ah, but they don't own the land", and he was right: It was publicly owned land, Crown land under the British, owned by the Federal Government under India since Independence.

And I said, "Yes, that's true, but they've been there a long time."

He said, "They've only been there 500 years." This conversation took place in 1992, a date that some of you will recall.



And I said, “Well, where I come from, that pretty much takes us back to the year dot, 1492.” Anyway, we said to the World Bank, “This is absolutely unfair to these people and the Bank should reconsider funding.”

I’ve only given you — Lindsay actually has this report we did, and it’s hundreds of pages, but I’m only giving some of the things that make clear why we reached the conclusions they did. I should tell you that I went to the meeting of the directors of the World Bank to present our report, and Mr. Morris came with me. And he had been head of the UN Development fund, so he knew everybody in the developing countries and on the board of the World Bank, which consists of the borrowers and the lenders. Canada sits on the board of the World Bank as a lender, and the U.S. and Japan and Australia and the European countries; and they’re outnumbered by the borrowers, who are the representatives of the developing world, but votes are weighted by how much money you contribute, so the U.S. has 25 percent of the voting power. I don’t know how much Canada has — five percent — but the Japanese, Australia, North America and Western Europe control the thing, because that’s where the money comes from. As a matter of fact, it’s because of the U.S. contribution that Mr. Morris was chairman. An American always has to be president of the bank and chairman of any significant committee they establish.

At any rate, Mr. Morris was a wonderful guy, who made friends with everyone everywhere he went; but he had developed a habit of kind of a “good cop/bad cop” presentation. When we met the chief ministers, he would begin with a speech about Ghandi and the world’s largest democracy and how we all admired India so much, its role in the world as a neutral between east and west and so on, and he went on in this vein. Then he’d say, “Now, Mr. Berger has some questions.” He called me “Judge Berger”. He always said “Judge Berger”. Well, when we met with the directors of the World Bank, Brad opened with a wonderful speech, “So nice to meet so many old friends again and the wonderful work the bank is doing.” He said, “Now I’m going to ask Judge Berger to tell you about our findings and our recommendations.”

Well, anyway, the bank decided to adopt our recommendations and withdrew funding. India has sought to continue building the dam, but the Supreme Court of India held it up for 10 years. India is trying to raise the money itself and to complete the dam on its own, but it remains a subject of controversy with marches and counter-marches. One of the leaders of the anti-dam movement has been on many fasts. One of them even brought the Prime Minister to her bedside. This is protest in India. It’s done differently than we do it here, but it’s quite fascinating.

Now, just before I sit down, or invite your questions, and I don’t want to take up all the time here; but here’s a couple of footnotes that may be of interest to you. In 1997, I went to Chile for FIDH, the Fédération Internationale des Droits de l’Homme. It’s an international human rights federation based in Paris that is very active in Latin America and in Africa. Their job has been to obtain the release of political prisoners, and they were very active in Chile during the years of the dictator Pinochet in saving lives and sending petitions to governments and making representations on behalf of imprisoned persons. They phoned me and said they wanted me to go to Chile as part of a two-man committee they were establishing to look into a dam project called the “Ralco Dam” on the Biobio River, which is the dividing line between that part of Chile where the persons of Spanish and European descent live, and south of that is where the Mapuche Indians live. They’re the largest aboriginal group.

The dam was a subject of very real controversy, and this was in 1997, and the dictator had gone. They were under civilian rule and there were protests about this dam. Our committee was, of course, privately financed. A lawyer from Paris named Charles Cates (phonetic) and I went. Now, he spoke Spanish and I didn't, and they had promised me an interpreter; and interpreters did turn up, but I certainly wished that I'd paid more attention in my high school Spanish classes. We were only there for two weeks. We did see something of the condition of the Mapuches and the Andean villages that were to be inundated. They only numbered in the hundreds, not in the hundreds of thousands, as in India. We made recommendations to ameliorate their condition, and they were given to the government and in some limited measure they were adopted; but let me just tell you the thing that I thought was significant. When they phoned me up and asked me to go, I said, "Well, look, you are like Amnesty, aren't you? You know, if someone's in jail in a dungeon in Borneo, you try to help them."

He said, "Yes, we deal with human rights, but we now realize that these large projects that may displace indigenous people really bear on the whole question of human rights: The right to live where your ancestors lived, the right to make a living there, the right to proper compensation if you're displaced." I thought that was an interesting broadening of the idea of human rights in our own time.

Finally, we're talking about the human dimension here, and I don't know whether you know, but Canada has established a nuclear waste management organization that has the job of figuring out what to do with Canada's nuclear waste. Canada's 20 reactors have produced spent fuel rods that are still radioactive that are stored near the nuclear power plants today, mostly in Ontario. These rods have accumulated to the point where they would now fill about five NHL hockey rinks up to the level of the boards. So, a lot of this stuff is accumulating, and nobody knows what to do with it; and the nuclear waste management organization appointed an international panel, of which I'm a member, to review what they're doing from an ethical and social point of view. The other members of the panel are Hans Blix, whom you will have heard of, who is the famous Swedish international public servant, and Gus Speth, who is the Dean of Forestry and Environment at Yale. It's called an "international panel", and I'm on it, but I guess I'm the local on the panel. Anyway, this work is just starting and nobody has figured out what to do; but when you talk about the human dimension, the spent fuel rods remain radioactive for thousands of years, and some elements remain radioactive for as long as a million years. So, the question that all of the countries with nuclear reactors are considering is, "What do we do with this stuff?" The Scandinavian countries are somewhat ahead of us and so is France, because about 80 percent of their electricity comes from nuclear power plants. The method of choice for disposing of the waste is to bury it. In Canada, the idea is to bury it in the Canadian Shield, perhaps two-to-four miles down, and seal it. Then we have discharged our duty to our descendants, who may be here 10,000, 20,000 years from now, because it won't do them any harm and they can't get at it and accidentally run across this radioactive material.

The other side of that -- this is just one little peek into this thing, and that's all I'm doing myself at the moment -- is to say, well, look, we should make it retrievable, even if we do bury it that deep; because the spent fuel rods can be used for energy in perhaps 100, 200, 1,000 years from now. Canada doesn't reprocess the spent fuel rods, because we have so much uranium we don't need to do it, but most European countries do reprocess the spent fuel rods. They still turn out radioactive waste. So, that's an option open to us. And of course the French are working on what's called "transmutation",

when they would by some method that resembles the alchemists' search for gold in the Middle Ages, would turn radioactive material into non-radioactive material. Well, all of this is being done, and it's being done around the world, because our notions of what to do with the waste have been far outrun by our capacity to produce the waste.

So, it's a fascinating issue; and if I may conclude on this note, it illustrates the human dimension because, of course, it isn't just our obligation to people living in villages in Carcross or in Old Crow, but our obligation to human beings who may be living on this planet thousands of years from now.

So, that's all I have to say, except to congratulate you on YESAA and to wish the Mackenzie Valley Impact Review Board the very best and to wish all of you the very best. Thanks very much.