Foreword

Thomas R. Berger

As I write this introduction the world is in the midst of the COVID-19 crisis. In almost every country people have agreed to shelter in place, to wear masks, and to socially distance to curtail the spread of the virus. They are listening to physicians, scientists, and medical researchers because they realize their lives and those of their neighbours may depend on it. As we also know, lying beyond the virus, in the middle distance, remains the fact of climate change. There, too, scientists and researchers have spoken to us, but it has so far not been at all certain or even likely that we can be persuaded to do what is necessary before we are overtaken by events whose impacts may not be possible to mitigate.

If examples were sought of the difficulty of measuring and mitigating impact, these serve *par excellence*; one naturally occurring, and the other, it is now agreed, caused by the activities of humankind. What seems to be clear enough in both cases is that there is already, and will undoubtedly continue to be, an especially severe impact on Indigenous peoples around the world.

In 1977, when I wrote *Northern Frontier, Northern Homeland*, the report of the Mackenzie Valley Pipeline Inquiry, my mandate was to assess the social, economic, and environmental impact of a pipeline to bring natural gas from gas fields in the Arctic and sub-Arctic regions of Canada and the United States to the mid-continent. Such a mandate was, in those days, a very broad one. The Mackenzie Valley gas pipeline, at that time projected to be longer than any pipeline in the world, would lead to further exploration and development. An oil pipeline might well follow, as the Government of Canada intended. The impact of nine construction spreads, 6000 workers, heavy equipment, 20 wharf sites, and 20 air strips and permanent pumping stations through Arctic and sub-Arctic terrain – much of it permafrost – would provide access to frontier and wilderness areas. The impact would be especially severe on critical habitat for caribou, snow geese, and many other species. Feeder lines and the expansion of offshore drilling from artificial islands would impact beluga populations. Moreover, it was obvious that there would be a threat to the way of life of the mainly Indigenous people in 35 towns and villages in the Mackenzie Valley (Berger, 1977), who are often dependent on vulnerable species. For them, environmental impact and social impact would be cumulative. At the time, the project represented the epitome of cumulative impact.

It has been my experience that the main impact of these mega-projects in far off forests and frontiers is mainly on Indigenous people. The Inquiry held hearings in every town and village along the route in the Northwest Territories and Yukon. It became apparent that the Indigenous people of the region were opposed to the pipeline. In the Mackenzie Valley the Dene and the Inuvialuit insisted their land claims should be settled before any major project might be undertaken. In northern Yukon, the Gwich'in sought a land claims settlement; moreover, they opposed the construction of a pipeline at any time across the Arctic Coastal Plain, believing that the calving grounds of the Porcupine caribou herd should remain inviolate.

In the end I recommended that there should be no pipeline at any time from Alaska across the coastal plain of Yukon,¹ that it should be protected as wilderness, and that there should be no major pipeline project in the Mackenzie Valley until land claims were settled. I did, however, indicate a route along the valley where, once land claims were settled, a gas pipeline could safely be built to bring gas from the Mackenzie Delta. That was over 40 years ago.

Almost 30 years ago, in 1991/92, I served as deputy chairman of the World Bank's Independent Review of the Sardar Sarovar Project.² The Project was a high dam, 535 feet, in Gujarat, on the Narmada River in western India, impounding water to a full reservoir level of 455 feet, and diverting 9.5 million acre feet of water from the Narmada River into a canal and irrigation system extending 450 km to the border between Gujarat and Rajasthan. The reservoir would submerge 37 000 hectares of land, mainly in Madhya Pradesh and Maharashtra. The canal and distribution network would require 80 000 hectares of land.³

The Sardar Sarovar Project was already well under way when the Independent Review was established. The gains to India were clear: electrical power, relief to drought-stricken areas, and flood control. But local protests, petitions and lobbying by non-governmental organizations (NGOs) in India, Europe, and the United States had led the Bank, which was funding the Project, to appoint the Bank's first independent review of any of its projects. Our mandate was to assess the measures taken for resettlement and rehabilitation of the population displaced by the Project and the measures taken to ameliorate the environmental impact of the Project. One hundred thousand people living in 245 villages would be displaced by submergence. These were mainly Indigenous people, the tribal people known as Adivasi, living in the forests, raising crops, and grazing cattle. Since they had no formal title to their land, they were regarded by India as 'encroachers' and treated for purposes of resettlement as landless labourers. Many thousands of others, both tribal people and Hindu villagers, would be displaced or otherwise affected by the Project.

The Independent Review visited 65 tribal and peasant villages throughout the Narmada Valley and command area to hear from the local inhabitants. We were also able to contact 60 other villages, 20 of them in relocation sites. The issues the Review had to consider were intertwined. Every aspect of resettlement and rehabilitation depended upon assessment of our predictions regarding environmental impacts. The Bank's loan agreements had required India to enable those displaced 'to improve or at least regain the standard of living they were enjoying prior to their displacement'.⁴ The only way to protect the Adivasi was to acknowledge their traditional ownership of the land they occupied and to provide equivalent land to enable their

¹ I also recommended that the Government of the United States provide wilderness protection to the lands of the Arctic Coastal Plain in Alaska to which the calving grounds of the herd extended. I later testified on this subject before House and Senate Committees in Washington, DC. The question as to whether a full measure of protection should be provided to these lands is still contested in the United States. The future of the so-called 1002 lands within the Arctic National Wildlife Range is still in doubt: see William De Buys, A rush to drill, because we can, *New York Times*, 19 July 2019, p. A25.

² The chairman of the Independent Review was Bradford Morse, a distinguished American, who had served as president of the United Nations Development Program. Our report became known as the *Morse Report*.

³ It is not possible to adequately describe the scope and scale of these megaprojects in a few paragraphs. The Government of Canada considered that an oil pipeline might well follow the gas pipeline, creating an energy corridor. The Sardar Sarovar Dam was to be followed by the construction of a second high dam on the Narada, farther upstream.

⁴ As expressed in a letter to Lewis T. Preston, President, World Bank, p. xviii.

communities to survive. Classifying them as landless labourers did not qualify as resettlement and rehabilitation, falling far short of the Bank's requirements to which India had signed on.

Regarding the measures for protection of the environment, we were also very critical. No study of downstream impact had been done, though the dam was 140 miles from the Arabian Sea. It was apparent that the Hilsa fishery, the largest on the west coast, would suffer severe losses. The study of environmental impact was, in fact, being undertaken *pari passu*; that is, coincident with each phase of the construction of the Project. Thus, each step in the assessment could only take place at a time when the Project could not be altered. We found that there had been a systemic failure to observe the Bank's social and environmental requirements. We wrote: '[b]ut we cannot put together a list of recommendations to improve resettlement and rehabilitation or to ameliorate environmental impacts, when in so many areas no adequate measures are taken on the ground or are even under consideration'.⁵ We recommended that the Bank step back and cease funding the Project (Morse & Berger, 1992).⁶

We had been appointed to make recommendations to the World Bank, not the Government of India. The Bank adopted our recommendations and, in effect, withdrew funding. But India proceeded with the Project, though enmeshed in a swirl of controversy that preceded the Independent Review and followed it.⁷ Even so, the report of the Independent Review had ramifications: it led the Bank in 1993 to establish an Inspection Panel to which complaints might be made by local populations likely to be adversely affected when the Bank proposed to finance new projects.⁸ In March 2020, the Bank established a Dispute Resolution Service.

In the case of the Mackenzie Valley Pipeline, however, the Government of Canada over a period of years adopted the recommendations of the Inquiry in partnership with the Indigenous people. The Inuvialuit settled their land claim in 1984 and the settlement included establishment of a wilderness park in northern Yukon, jointly managed by Canada and the Inuvialuit, to protect the calving grounds of the Porcupine herd.⁹ Another Yukon wilderness park, jointly managed, emerged in 1995 from the settlement of the Gwich'in land claim farther to the south to protect the Old Crow Flats.¹⁰ The land claims in both territories have largely been settled, a process that has taken many years.

I want to bring the story down to the present.¹¹ Under the Umbrella Final Agreement signed in 1990 by Canada, Yukon, and the 14 First Nations of Yukon, it was agreed that the First Nations were to participate in all decisions with respect to regional land use planning. The Umbrella Final Agreement provided that in each of the regions of Yukon, a jointly appointed independent commission should be established to recommend a land use plan for the region.

⁵ As expressed in a letter to Lewis T. Preston, President, World Bank, p. xxiv.

⁶ In the work of the Review and the development of our Report we were greatly assisted by Don Gamble, our engineering advisor, and Hugh Brodie, our advisor on resettlement and rehabilitation.

⁷ The controversy over the Project was heightened by our report. See, for example, Arundhati Roy's *The Greater Common Good* (1999), India Book Distributors (Bombay) Ltd., and Bruce Rich's *Mortgaging the Earth* (1994), Beacon Press, Boston, p. 249 *et seq.* The subsequent history of the Project is too complicated to discuss here. But India pressed on, and the Project was completed in 2018.

⁸ The Inspection Panel could only examine a project with permission of the Board of Directors of the Bank.

⁹ Ivvavik National Park.

¹⁰ Vuntut National Park.

¹¹ See the Indigenous Foundations website at the University of British Columbia, https://indigenousfoundations.arts.ubc.ca/berger_inquiry/.

In the region of the Peel River Watershed such a commission was appointed, known as the Peel Watershed Regional Planning Commission. The Peel River Watershed is an area as large as Scotland, but though it is used for hunting, fishing, and trapping, there are no permanent settlements. Six rivers flow into the Peel, which then flows into the Bering Sea. What would the impact of industrial development be over time? What lands should be protected? This was a matter of importance not only to Yukoners, but to people in many countries.¹²

After a five-year study, the Commission recommended in a 300-page report that 70 per cent of the area be set aside as wilderness or otherwise protected. That was in 2009. The Government of Yukon was bitterly opposed. It dismissed the Commission's report and sought to impose its own regional land use plan in which protected lands were to comprise only 30 per cent of the Peel Watershed. The First Nations sued. They had to take their case to the Supreme Court of Canada to vindicate the bargain they had made in 1990. In 2017, the Supreme Court of Canada set aside Yukon's regional plan, affirmed the provisions of the Umbrella Final Agreement, and effectively reinstated the Commission's plan.¹³ A new government had, in the meantime, been elected in Yukon, and on 22 August 2019, at a ceremony held at Mayo on the shores of the river, the Government of Yukon, together with the four First Nations who had brought the suit and the environmental groups that had supported them, celebrated the formal adoption of the Commission's Regional Plan for the Peel Watershed.

In both Yukon and the Narmada Valley, Indigenous peoples living far from the metropolis, their future closely tied to environmental protection, were able to make their case. These were major efforts undertaken by Indigenous people, on opposite sides of the world, together with social and environmental NGOs, to act to preserve their communities and their traditional territories.

I do not wish to make invidious comparisons between the outcomes in Canada and India. Mega projects in Arctic and sub-Arctic regions of North America are altogether different from those undertaken in populous India. What are seen as pressing needs in each country – the competing interests and the political considerations bearing on each project – are quite distinct. But the task of determining and considering cumulative impact is the same, though in quite different settings. And the singular impact on Indigenous people is apparent in each case.

This brings me back to COVID-19 and climate change. Many of us have grown up with a particular understanding of progress. In 1974, when the Mackenzie Valley Pipeline Inquiry was established, who did not believe that the exploitation of the resources of the Arctic and sub-Arctic ought to proceed apace? Construction of high dams was regarded as fulfilling the very idea of progress, and not only in India. Jawaharlal Nehru described high dams as 'secular temples'.¹⁴ Who did not, in some measure, agree? Yet, in cases where the cumulative impact of such ambitious projects has been properly studied and understood, we have been able to search for and sometimes find a way to moderate the impact. And when the impact of COVID-19 presented an immediate threat, we learned that most everyone can shelter in place, wear masks, and observe social distancing. We learned that we can act in our own collective interest.

¹² More than 10 000 submissions were received by the Commission, 2000 from Yukoners and the balance from other provinces and territories of Canada, and other parts of the world, mainly the United States of America and Europe.

¹³ *First Nation of Nacho Nyak Dun et al v. Government of Yukon* 2017 SCC 58.

¹⁴ Nehru laid the foundation stone of the Sardar Sarovar Project in 1961.

I think it is possible that we can deal with these great issues. I have discussed the progress made in northern Canada by listening to those who live there. Moreover, it was remarkable to observe the extent to which in India, in a democratic setting, given an adequate forum, the voices of Indigenous people could be heard.

As the result of COVID-19, there is the growing realization that collective action on a global scale is possible. The impact of the virus on our consciousness has been terrific; it is apparent that there is likely to be a reduction in global emissions in 2020. Although this is a quite unexpected outcome of the disruption of the world's economy, it has shown that it may be possible to reach the goals set by the Paris Accord for reduction of emissions; something we hardly believed until now.

We have demonstrated that we can take collective action to mitigate and subdue the virus. As people in every part of the world are affected by the virus, so too have people in every part of the world collaborated to check its spread. The lesson in respect of climate change is obvious.¹⁵ We have been seeking to comprehend the shape of the world when measures to mitigate the impact of climate change have been adopted. They may not track altogether the steps taken to contain the virus, but they may very well bear a resemblance. It may be that people will now see that it can be done.

I began this foreword with an observation that the advent of the COVID-19 virus has compelled us to turn to physicians, scientists, and scientific research for answers. In the case of climate change, it should now be plain to all that we will have to heed science to develop measures that will save our planet.

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¹⁵ Climate change in the Canadian Arctic and in Alaska has already altered the seasonal activities of Indigenous people, and in many cases encroaches on their villages and threatens to inundate them.