The Role of Indigenous Communities in Environmental Assessment of Hydro Projects: North or South, It's All the Same?

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Abstract

Despite the growing recognition of the role of indigenous communities in regulatory environmental impact assessment (EIA) internationally, practice seems not to have reached its full potential. At present, it could be argued that the consultation of indigenous communities in EIA processes is still largely seen as an appeasement mechanism than a credible and transparent opportunity to achieve environmentally responsible development choices. This paper presents two cases – Bipole III Transmission Line Project (Manitoba, Canada) and Bui Hydropower Project (Ghana) – to represent practice in the developed and developing nations respectively, where indigenous communities are to shoulder the environmental burdens of hydropower projects. We observe in both cases the unidirectional nature of consultation, where proponents tolerate rather than incorporate local perceptions into the EIA studies. We conclude that current practices offer little difference between the developed and developing nations in approaches to indigenous communities' consultation in project EIAs, thereby prompting the need to advance discourse in this area.

Keywords: environmental impact assessment, community engagement, hydropower

1. Introduction

Indigenous paradigm is often positioned against western science in many decisionmaking processes related to marginalized people: land and natural resource management, approaches to environmental conservation, sustainable development, or assessing impacts of development projects on the environment. Indeed, the extent of the emphasis is more dichotomous than finding a nexus for integration and transformative decision-making, leading to calls for increased role for indigenous people in environmental decision-making. The United Nations' (UN) Declaration on the Rights of Indigenous Peoples asserts the need for indigenous communities' involvement in environmental policy regarding resource developments affecting their territories (United Nations 1992). Similarly, the International Finance Co-operation's (IFC) performance standards and the United Nations Development Group emphasize the requirement by resource sector clients to consult and obtain free consented approval of indigenous communities for projects that impact their lands and resources (UNDG 2009; IFC 2012).

Despite this important and strong emphasis on the role of indigenous people in resource development and environmental decision-making, literature suggests politics and power relations still dominate practice, especially in environmental impact assessment (EIA) processes (see O'Faircheallaigh and Corbett 2005; Stevenson 1996; Westman 2006). Further, state agencies around the world have opposed indigenous interests in EIA processes in order to accelerate resource developments on indigenous territories (Blaser et al. 2004; O'Faircheallaigh 2013). In the same vein, resource developers often view their compliance

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with EIA laws as charitable, with indigenous communities' serving as their information tools for achieving their goals (Westman 2006). At present, it could be argued that the consultation of indigenous communities in EIA is at best tokenistic and more as an appeasement tool than a rational instrument for advancing impact assessment processes.

The central aim of this paper is to evaluate the extent to which the views of indigenous people have been incorporated into EIA decision-making processes based on a review of two cases that represent the global North and South: (i) the Bipole III Hydropower Transmission Line Project (Manitoba, Canada), and Bui Hydropower Project in northwest of Ghana. There are two major objectives in carrying out this study: one is to review the indigenous communities' experience with the hydropower projects in order to identify its strengths and weaknesses as well as identifying threats and opportunities for indigenous people participation in EIA; and the other is to draw attention to fundamental research issue which investigation can help to advance the role of indigenous people in EIA and other environmental decision-making processes.

2. Literature Review

Recent works have discussed extensively the potential benefits of indigenous peoples' involvement in the decision-making process for EIA projects (see Usher 2000; Lertzman and Vredenburg 2005; O'Faircheallaigh and Corbett 2005; Angell and Parkins 2011; Ogwuche 2012; O'Faircheallaigh 2013). These sources provide a wealth of background information on international perspectives on the challenges of indigenous people with respect to resource development projects. The renewed focus on sustainable development suggests that modern societies can learn from indigenous peoples in resource management and the need to incorporate their perception into the policy-making processes related to resource development in their area (WCED 1987). Lertzman and Vredenburg (2005) also acknowledge lessons to be learned from indigenous people that would lead to global sustainable development. Stevenson (1996) similarly noted that people that inhabit a land and harvest its resources have first-hand information about its resource distribution and function, and also possess sound knowledge of their culture and environmental management approaches. These arguments encapsulate the immense benefits of indigenous people's participation in environmentally responsible decision-making.

Historically, Canada has played a leading role in incorporating this dimension into its EIA processes. The Berger Inquiry of the mid-1970s on the Mackenzie Valley pipeline project marked the earliest beginning of indigenous voice in EIA decision making (Roue' and Nakashima 2002), and has become an integral part of EIA practice especially in northern resource communities where there have been land claim agreements between the indigenous communities and Canadian government (Fortin 2001). There has been extant works on the subject in international literature, but most recent studies have centred on practice in more industrialized societies. For instance, Stevenson (1996) and Usher (2000) studies focus on the Canadian EIA regulatory context; O'Faircheallaigh (2009) and Jones (2012) on Australia; and Stammler and Wilson (2006), and Semenova (2007) on experiences in Northern Russia. In contrast to the rapidly growing literature on the role of indigenous people in EIA, only a relatively small amount of materials has been published in developing nations' context (e.g. Showers and Malahleha, 1992; Appiah-Opoku, 2005; Ogwuche, 2012). Almost all is a response to Western conceptualization of 'development' that stimulates current global environmental crises and the preponderance of nature-culture dichotomies that views indigenous paradigm as archaic, backward, and synonymous with underdevelopment (Showers and Malahleha, 1992; Appiah-Opoku, 2005; Ogwuche, 2012). Despite this divide, indigenous people have the potential to play an important role both in EIA as well as broader environmental management processes.

Among the different resource development sectors that have attracted wide socioenvironmental concerns by indigenous communities, hydropower construction projects and related activities are the most controversial. Most hydropower projects are often located in areas that are inhabited primarily by indigenous communities or ethnic minorities with little power to challenge the existing power structures (Fortin 2001; Namy 2007). In the past, research has focused on the biophysical impacts associated with hydro dam construction. The areas generally considered included the disruption of natural variation in river flow patterns (Oud 2002; Warner 2012), adverse impacts on fisheries and fish migration (Rosenberg et al. 1997; Moriarty and Honnery 2011), and deterioration of freshwater ecosystems including scouring of river beds and loss of riverbanks (Bakis 2007; Moriarty and Honnery 2011). Those focusing on the social dimension highlight inundation of agricultural areas (Rosenberg et al. 1997; Oud 2002; Cermea 2004); resettlement needs and problems of those displaced by floods and earthquakes (Bohlen and Lewis 2009); social and cultural disruption as well as impact on indigenous people and livelihood (Rosenberg et al. 1997; Tilt et al. 2009); and the dangers of waterborne diseases (Oud 2002).

Both the biophysical and social effects of hydro dams interact in complex ways by significantly altering the level and nature of local economies, and bringing significant challenges to the day-to-day lives of people affected. As of 2000, the official number of displaced people related to hydro dam construction ranged from 40 to 80 million globally, although analysts believe that the actual number was much higher (Bratrich et al. 2004), many of which often occur in developing nations. Consequently, hydroelectric proposals are almost always characterized by massive social conflicts and stiff opposition especially at the planning stage (Bratrich et al. 2004; Tilt et al. 2009), leading to increasing calls for the involvement of the affected population in the decision-making process. With this growth in emphasis, the question, of course, remains whether state actors would allow this perspective to be considered in reality, as much as practice may favour such approach. However, our argument is that despite variations in institutional and regulatory contexts between the developed and developing nations, evidence seems to suggest that there is little or no difference in the way EIAs are carried out with respect to indigenous people involvement. As a result of the continuous massive investments in hydropower development globally, as well as the imbalance of power relations between state institutions and affected people, there is always a need for understanding the extent to which indigenous people have influenced the EIAs conducted as part of the approval process.

3. Methodology

The study adopts a case study approach to investigate if significant variations exist in practices between developed and developing nations regarding the treatment of indigenous people in EIA processes. The two hydro projects were selected for in-depth review based on the following rationale; they were: (i) characterized by high-level public controversies related to livelihood sustainability of affected indigenous communities due to their scales and socio-environmental effects; (ii) representative of large-scale projects in the development geographies they represent; (iii) initiated within the last decade and relevant technical and project documents are accessible to the public. This rationale helps to ensure that as many materials as possible were explored in order to document the evolution of the cases, the assessment processes, methods, controversies, and other factors that characterized the two cases. Data were primarily gathered through a review of project reports, environmental impact statements; independent commentaries, and community studies. These sources were complemented by related peer reviewed works, newsletters, government publications and industry reports regarding the cases. A note-based analysis was used whereby important texts are extracted in the context they are documented, systematically stored, analyzed with

spreadsheet software, and integrated into relevant themes that explain the role played by communities in the assessment processes. This methodology was particularly helpful in gathering data on community perception of the EIA processes in order to understand factors that aided or impeded effective participation in the assessments and determine where capacity building is needed to advance practice.

4. Results: Insights from two hydropower projects

4.1 Bipole III Transmission Line Project, Northern Manitoba (Canada)

The Bipole III, a high voltage direct current (HVDC) transmission line which involves the construction of a 500-kilovolt HVDC transmission line, two new converter stations, and other supporting infrastructural developments has been proposed for completion by 2017 (Manitoba Hydro 2013a; Manitoba Hydro 2013b; Ross 2011). According to Manitoba Hydro (2013a), the Bipole III transmission line will improve overall system reliability and reduce dependency on the existing Dorsey Station. While this is supposedly true, the proposed hydropower project has been a subject of many public controversies, particularly regarding its route which affects about twenty-six First Nations communities including Fox Lake Cree Nation (FLCN) and the Manitoba Métis Federation (MMF). Ross (2011) observed that despite its final chosen route, the Keewatinoow Converter Station - the source of Bipole III transmission line - would be constructed within Fox Lake territory close to the existing Keeyask and Conawapa Stations. The FLCN believed that the Bipole III and its accompanying Keewatinoow Converter Station would compound the environmental impact on their territorial land, affect aquatic activities, and disturb their ancestral resting place (see figure 1 for an illustrated map of the existing and new proposed transmission lines).

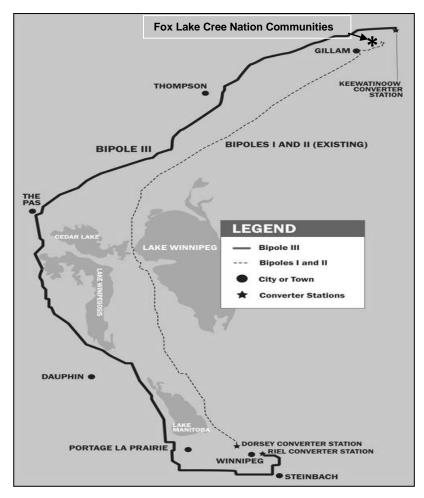


Figure 1: The Dorsey Converter Station and supporting Keewatinoow Converter Station routing [Source: Manitoba Hydro 2013a]

The Fox Lake people argued that hydropower development has socially impacted their livelihood, lifestyle, and environmental landscape when compared to earlier socioeconomic development, like the fur trade and railway activities. Before the emergence of hydropower development, the Kischi Sipi River was a major travel route for the regional traders, and provided rich food sources, medicine, and portable drinking water for the Fox Lake people (FLCNT 2012). The construction of Manitoba's three largest hydroelectric generating stations: the Kettle Generating Station, Long Spruce Generating Station, and Limestone Generating Station - in the 1960s obstructed traditional land use, destroyed the Kischi Sipi's natural flow, and flooded the Fox Lake landscape (FLCN 2012; Fox Lake Cree Negotiation Team (FLCNT) 2012; FLCN 2013; Ross 2011). In a bid to integrate the perception of the communities into the EIA process, Manitoba Hydro invited approximately forty-five First Nations and northern communities affected by the Bipole III project to participate in the indigenous knowledge workshop process between 2009 and 2010 (Manitoba Hydro 2013b:6). The FLCN acknowledged receipt of the letter, but declined participation claiming that they were not furnished with pertinent information with respect to the project (FLCN 2012).

In August 2013, Manitoba Hydro was granted a Class 3 License, under the Manitoba Environment Act (MEA), permitting construction of the Bipole III Transmission project under specific license conditions (Manitoba Hydro 2013a). This was granted following submission of the project's environmental impact statement (EIS), an environmental assessment of the project detailing community and public consultations and participations, identification of potential impacts, and mitigation measures. The FLCN questioned the transparency of the EIS report, arguing that gaps exist in the EIA process as they received the report six months after its submission to Manitoba Conservation for approval without including their independent community-based studies on the Bipole III project (FLCN 2012). For Manitoba Hydro, the purpose of the project EIA was to provide effective implementation of mitigation measures, and attain environmental regulatory requirements through the integration of indigenous knowledge and public participants (Manitoba Hydro 2013b). However, FLCN argued that Manitoba Hydro focused more on community compensation and environmental mitigation measures rather than partnering with the Fox Lake people regarding the progress of hydro development in the area (FLCN 2012).

The community-based studies conducted by the FLCN on the significant environmental impacts of Bipole III project show cumulative habitat alteration, animal displacement, and mortality and negative impacts on both natural and built environments. In their summary, FLCN observe: (1) inadequate treatment of adaptation strategies for coping with the impact of transmission lines; (2) exclusion of FLCN from most of the EIS maps; and (3) classifying the FLCN indigenous studies and reports as "additional information in support of the Bipole III Transmission Project;" which suggests their perception was not mainstreamed into the EIS report (FLCN 2012:10). Gunn and Noble's study of the cumulative effects assessment of the project similarly observed that the Manitoba Hydro's study "falls short of good practice, and significantly short of the standard identified in the EIS Scoping Document" (2012:14). As a palliative measure, the Fox Lake communities entered into an agreement with Manitoba Hydro, part of which was to compensate the communities for the project's adverse effects, such that funding and benefits must be provided for health, housing, cultural values, community safety, education, and meaningful collaboration in regional and political programs (FLCN 2012). Also, the FLCN believed that since the Bipole III project was approved, it would continue on their territory despite their disapproval, however, they hoped for a period of power equality in hydro project negotiations in the future as a way of protecting their territory and their rights as indigenous people.

4.2 Bui Hydropower Project, Northwest Ghana

In 2006 the Ghanaian government decided that a new hydro dam would be constructed to complement power generation from the two existing dams – Akosombo and Kpong. Bui gorge at the southern end of the Bui National Park was identified as the most suitable location. The location was first conceived in the 1920s by Albert Kitson, a British-Australian geologist, who served as the Director of the Geological Survey in colonial Ghana (Kitson, 1925). His research led him to the conclusion that a commercially viable power production is feasible at that point. Historically, the region was central to both North African and British trade in Northern Ghana (Stahl 2004) and there is extensive evidence of indigenous people occupation of the shores of the river and surrounding forest centuries before colonial intervention (DeCorse, 2001). The presence of large numbers of historical burial sites and the natural landscape of the area and its environs are important components of its spiritual and cultural significance to the tribal people in the area (ERM, 2007). The affected communities are Agbegikuro, Bator, Brewohodi, Bui, Dam site, Dokokyina, and Lucene/Loga, which are predominantly fishing and farming communities (see figure 2 for the layout map of the project).

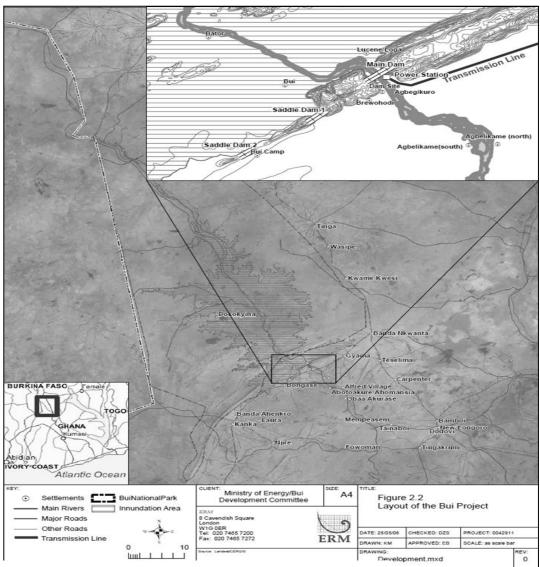


Figure 2: Layout of the Bui Hydropower Project [Source: ERM 2007]

The Ministry of Energy commissioned an environmental and social impact assessment (ESIA) in support of the proposal using a Canadian consulting firm

(Environmental Resources Management). The ESIA identified that the construction and operation of the dam will have significant impacts upon Bui people and their cultural heritage (ERM, 2007) and that, together with the flooding of the dam, the operation phase will also have adverse impact on the surrounding environment, particularly Dokokyina village that will be surrounded on three sides by reservoirs which will submerge its entire land use. Both the proponents and consultants felt they had the duty to consult, even when this requirement is not clearly enshrined into the Ghanaian Environmental Protection Act. Public sittings and focus group meetings were held in Accra, approximately 500km away from the affected people. This in addition to poor road condition made it difficult for many of the affected communities to attend (Hensengerth, 2011).

Where community-based consultation took place, it was restricted to the chiefs and the purpose was to 'inform' the people of the plans of the government for the hydro development (ERM, 2007; Hensengerth, 2011). The outcomes of consultation are also not legally binding, and no real opportunities for issues to be aired and resolved. The way the resettlement plan was hatched was unidirectional; the resettled communities were expected to sign a consent letter for relocation without knowing where they are being moved to, how much compensation is being offered, and when the relocation will occur. As observed from an ecological perspective by Bennett (2001), the intention seems to ensure nothing challenges the assessment process despite that the project location is part of "the last fragment of pristine wilderness in the entire Volta system and harbors an exceptionally rich fauna and flora that is in imminent danger of being destroyed without ever being documented."

Despite frustrations arising from technical concepts and language as well as bureaucratic superimposition that characterized the process, the involvement of the local people in the ESIA and administration of the resettlement scheme was not in any way sensitive to their cultural identity and heritage. This is evident from many of the responses documented by Mettle (2011) while studying the new resettlement area. One elder remarked:

"I understand the government has acquired vast portions of land in this area including here but until now the lands have not been surveyed for us to know how much of our land has been acquired so that in the future we can get the due compensation. What I was told broadly is that it's being worked on but how it is being done we don't know and frankly we have been telling BPA [Bui Power Authority] officials that we are just living in the dark" (p.61).

The ESIA reflects Palerm's (1999) observation when applying Habermas' theory of communicative action to the Aarhus Convention; it fell short with respect to the engagement of indigenous people and their knowledge in four areas: (i) the need to ensure participation of cognitive and linguistically non-competent actors; (ii) the need to have a two-way communication process; (iii) the need to ensure normative and subjective claims are adequately recognized; and (iv) the need to establish conflict management procedures. O'Faircheallaigh and Howitt (2013:200) state: engagement "is of limited benefit to communities unless it provides them with a substantial capacity to shape decisions that affect their wellbeing".

The case of Bui project is a reflection of the existing pattern of power relations that is embedded in post-colonial Africa which maligns the inputs of indigenous people in major project decisions. The post-colonial tendencies have also expanded beyond the influences of the traditional western bloc (e.g. Britain, Germany etc.). The dominant role of the Chinese companies in the project has been well documented (e.g.: McDonald et al., 2009; D'auria and Sanwu, 2010; Hensengerth, 2011). D'auria and Sanwu (2010), for instance, while analysing earlier dam-related resettlement plan in Ghana describe the practice as "unsettling" and a "valuable indication of a persisting 'experimental' approach to the management and transformation of Sub-Saharan Africa's environment" (p.1). The ESIA reveals the need to strike a balance between foreign interests in Ghana, the development agenda of the federal governments, and socio-environmental impacts on local communities.

5. Discussion: Dealing with the status quo

The two cases reveal the shallow approach to engagement of indigenous communities in EIA, as well as the manipulative development politics that characterize project decisions globally. Observations from the Bui Hydropower case in particular, mirror situations in many other developing nations where affected people perceptions are relegated to the background in hydro project decisions and associated resettlement schemes (e.g. Mills-Tettey, 1986; Woube, 2005; Olawepo, 2008). For instance, Mills-Tettey (1986) observed in the case of Kainji hydro dam in Nigeria where Old Bussa was completely submerged and affected people relocated to an existing township with different traditions. It is however startling to observe that despite a rich history of EIA practice and the need to involve indigenous people in environmental decision-making, the Biopole III project performed below acceptable standard for consultation and inclusion of affected communities. It can be argued that the Biopole III is not a case in isolation but represents experience in other some other developed countries (e.g. O'Faircheallaigh 2006; Westman 2006; Carter and Hill 2007).

O'Faircheallaigh and Howitt (2013) in the case of Australia identified racism, emphasis on formal structure and processes, failure to acknowledge indigenous knowledge, and skewed allocation of resources between assessment of environmental and indigenous impacts. Westman (2013) identify a void between current practices and projected future scenarios in EIAs affecting indigenous communities in Canada. These gaps between theory and practice are also observed in the two cases studied. For example, while Manitoba Hydro (Bipole III project proponent) maintained that EIS documents submitted to the government attained environmental regulatory requirements, the community-based studies conducted by FLCN however showed significant environmental impacts of the Bipole III project on both the natural and built environments (FLCN 2012; Manitoba Hydro 2013b). Again, there seems to be a limitation to full community participation through the MEA framework developed for resource development in Manitoba (Lobe 2009) as well as in the approaches taken in Bui Hydro Project. The strength of Bipole III case however is the provision for independent, alternative studies by the FLCN which were helpful in negotiating compensation. This is evidently lacking in the Bui's case, an indication that more needs to be done in the developing nations' context.

Although theory favours engagement of indigenous people in EIA, we argue that in practice these ideals are rarely transparent and credible. The above challenge may not be divorced from current state of the literature investigating the role of indigenous people in EIA especially with respect to developing nations where debates around such are either trivial or non-existent. Despite attempts to adequately reflect such perceptions in EIA, our literature search founds no clear best-practice tools to guide practitioners and other stakeholders involved in the process. What has become clear from studying situations like these is that the environmental effects of development activities, combined with processes of natural change, are often much more complex, extensive, and pervasive than once perceived, and that decision-making cannot be holistic without the inputs of the affected people. This is a gap to which research must, as a matter of urgency, respond; particularly regarding framework for studying the effectiveness of indigenous communities' involvement in EIA process.

As a first step, we observe that the bulk of the available empirical research is built on different applied fields: resource conservation model, sustainable development, wildlife management, risk assessment, and political ecology. In other words, despite strong, steady and provocative arguments for indigenous communities' role in EIA, theoretical elaboration

has been largely left out of EIA literature. Habermas' theory of communicative action, for instance, has been used to study engagement of indigenous people in EIA (Palerm, 1999). Checker (2007) also mentions and defines "risk perception shadows" in her ethnographic study of an African-American community in the United States. However, little effort has been made to argue a discursive position that guides practitioners through a theoretical model that better explains how indigenous community perceptions are factored into EIA approval processes.

Wright (2004) suggests that the study of how "knowledge is generated, exchanged, transformed, consolidated, stored, retrieved, disseminated and utilized" (p.47) is a prerequisite to advancing the subject. The various applied fields related to EIA may help inform new ways of understanding the subject but we may need to ask which is most relevant to EIA among the existing frameworks or does another theoretical model better explain and predict the construct for this field given the political dynamics of development projects and EIA bestpractice concerns internationally.

6. Conclusion

We conclude, using these two hydropower cases, that current practice reveals little difference between the developed and developing countries, particularly in their approaches to the involvement of indigenous communities in large-scale project EIA processes. The hope is that in the near future such politically disadvantaged communities will take a central role in developmental decisions that threatens their environmental and livelihood sustainability. Theoretical thinking about the role of indigenous people in EIAs also needs to evolve beyond current tokenistic practice to mainstreaming the perceptions of affected communities, particularly in large-scale hydropower projects where significant adverse environmental impacts are easily registered. Lastly, it is important for research community to expand the purpose of EIA beyond a mere technical, regulatory-focused exercise to being a value-added tool to promote intra-generational equity principle of sustainable development, particularly with respect to livelihood sustainability of indigenous communities.

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