

Cursed by Oil? Institutions and Environmental Impacts in Alberta's Tar Sands

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Abstract

This paper begins by surveying the transformations in resource curse literature, a body of research demonstrating that resource dependence, especially dependence on oil, results in slower or poorer political and economic development. I argue the standard literature is incomplete given that it misses environmental outcomes, a crucial point in evaluating development projects, and works from a limited body of cases at an overly broad level of analysis. Responding to these gaps in the literature, the rest of the paper focuses on the institutional decision making processes surrounding Alberta's tar sands developments and suggests how these prevent a thorough consideration of environmental impacts. This text represents the theoretical framework and initial empirical results of my current dissertation research comparing North American resource curse experiences and policy responses to them in four strongly oil-dependent, subnational governments: Alberta, Newfoundland and Labrador, Alaska, and Louisiana.

“Oil is fantastic and induces fantasies. [...] it created, in practice, a culture of miracles... Oil wealth had the power of a myth.” José Ignacio Cabrujas, Venezuelan writer, director and actor

“All in all, I wish we had discovered water.”
Sheikh Ahmed Zaki Yamani, former Saudi Arabian Minister of Oil

Resource curse theory acknowledges a basic paradox: contrary to long-held assumptions, countries strongly dependent on natural resource exports experience slower or poorer economic and political development. The origins of this work can be traced to the late 1970s and currently there is a strong resurgence of this research, perhaps encouraged by Ross' lucid 1999 *World Politics* review essay, “The Political Economy of the Resource Curse,” and other contributions in this vein.¹ Also, multiple institutes² engage with this theoretical concept and are producing a great deal of new research, for example, the *Escaping the Resource Curse* volume edited by Humphreys, Sachs, and Stiglitz scheduled for release this month. Researchers are now both making sense of past work and challenging old boundaries in the research to open new spaces for future work.

¹ For example, see Steven's (2003) and Rosser's (2006) resource curse review essays.

² Examples include research projects at the Open Society Institute, the Worldwatch Institute, and Columbia's Earth Institute and Initiative for Policy Dialogue.

Joining these recent efforts, my doctoral research is rooted in the resource curse theoretical frame while also critically analyzing and addressing its blind spots and pragmatically studying the related policies and politics. Note that although researchers have studied the effect of dependence on resources from diamonds to opium and from logs to food crops, oil is the most prominent resource in resource curse literature as well as the central focus in my work.

In what follows, I survey the development in resource curse theory, analyze its gaps (the absence of environmental considerations as well as developed case analysis at the subnational level), and attempt to respond to these criticisms through a new research agenda. For the moment, I present the preliminary findings from my current research on the institutional structures leading to environmental outcomes in Alberta's tar sands developments.

I. Resource Curse Theory

Resource curse theories responded to modernization theorists who suggested natural resource exports would bring economic development. In direct confrontation to this claim, early resource curse literature (originating from economics) demonstrated that as dependence on natural resource exports increased, economic growth (commonly measured in terms of GDP) stagnated or declined. More recently, a sub-literature has developed linking natural resource dependence to the commencement, intensity, or duration of civil war. A new third sub-literature now links natural resource dependence with negative political outcomes such as corruption, authoritarianism, weakened state capacity, and weakened democracy. Within this third sub-literature, what I call the political turn in resource curse literature, there is a growing consensus on the basic relationship between resource dependence, development outcomes, and *institutions*: the resource curse is not due to resource dependence alone but to the institutions mediating the relationship between resource dependence and political economy outcomes.

i. Early Modernization Theories

Prior to the 1980s, modernization theorists argued that natural resource exports would result in great economic development. For example, "big push" theorists like Rosenstein-Rodan (1943; 1961) suggested developing countries would successfully industrialize based on natural resource windfalls. Viner (1952) and Lewis (1955) similarly claimed resource abundance (and hence dependence) would help states develop by gaining foreign capital through exports. Likewise, staples theorists asserted natural resource booms would develop the economies of poorer areas by leading to local investments and economic diversification. But perhaps the most famous of this modernization theory group was Rostow (1961) who argued natural resource abundance would allow developing nations to "take off," following Britain's path to development.

ii. Early Resource Curse Literature

These modernization theories were challenged by what would become known as the resource curse theory,³ a theory first developed by economists who demonstrated that dependence on natural resources often resulted in *slowed* economic growth. Here I should clarify that researchers typically measure resource dependence in terms of the resource's contribution to

³ Of course, modernization theories were challenged before this period by early dependency theorists like Prebisch (1950) and Singer (1950) who thought developing nations were disadvantaged in international commodity markets by dependence on natural resources.

total GDP or resource exports as a percentage of total exports.⁴ A typical dependence cut-off is when the resource in question constitutes approximately one-third of total GDP or exports. Another measure important in later political analyses is the relative contribution of natural resource revenues to government budgets—that is, the percentage of government revenues coming from the resource (for instance, Goldberg et. al. note that a “common cut-off” for rentier-stateness is when natural resource revenues are “making up at least 40 percent of the budget” (2005, 9).)⁵

Nankani’s (1979) research, is an early example of resource curse work, demonstrated the slow growth of hard rock mineral exporters in the developing world, findings which were then echoed in Wheeler’s (1984) work on Africa as well as in Gelb’s (1988) World Bank study on oil and hard rock exporters. Auty’s (1993) study of iron-ore exporters confirmed these findings and summarized many economic problems (as well as political challenges, addressed below) associated with resource exporters including tendencies toward capital intensity rather than labour intensity, the lack of local linkages to other parts of the economy, the exportation of development benefits out of the country, the risks to other sectors, and “boom and bust” market volatility.

Resource curse evidence continues to accumulate. More recently, Sachs and Warner reviewed the evidence to date showing an inverse relationship between natural resource “intensity” and “per-capita growth” (44). They then studied seven Latin American countries experiencing resource booms to find declining per-capita GDP, reinforcing the conclusion that “resource booms seem to have done little to generate long-term growth, and may in fact have hindered growth on average” (1999, 63). Their 2001 article continued to reflect on the strength of these findings. In their words, “Empirical support for the curse of natural resources is not bulletproof, but it is quite strong” (828).

iii. The Political Turn

Over time, these primarily economic analyses have been increasingly informed by or linked to political analyses. Here I focus on the literature linking natural resource dependence to political conservatism, authoritarianism, and weakened state capacity.⁶

A landmark example of the fully political focus is Karl’s *The Paradox of Plenty: Oil Booms and Petro-States* where she developed the concept of the “petro-state,” a state relying “on the progressive substitution of public spending for statecraft, thereby weakening state capacity” (1997, 16). Karl showed that economic growth based on resource dependence (oil in Venezuela, her major case) has institutional “inertia” effects that keep a country focused on oil rather than on working for diverse (and therefore more resilient) development.

⁴ See, for instance, Atkinson and Hamilton (2003, 1794-1797), Goldberg et al. (2005, 11), Ross (2001, 326), Sachs and Warner (1995, 1999, 2001), Weinthal and Jones Luong (2006, 36), and Wheeler (1984).

⁵ Of course, there are alternative measures to replace or supplement the standard ones, such as comparing states’ oil production per capita or oil reserves per capita (Humphreys (2005) uses both; Bulte et. al. call for measuring resource dependence via resource stocks to allow a concentration on actual resource dependence instead of just the effects of export (2005, 1039)). Another option is to calculate dependence or intensity based on the percentage of total employment based in the primary sector (Gylfason et al. 1999). We could also imagine measurements based on percentage of total capital attracted to the natural resource sector or measurements replacing GDP used in the standard measures with “Green GDP” or “Genuine Progress Indicator” calculations.

⁶ Note that an entire sub-literature has developed linking natural resource dependence to the commencement, intensity, or duration of civil war. On this topic, see Ballantine and Sherman (2003), Collier and Hoeffler (2005, 2002, 2004), Doyle and Sambanis (2000), Fearon (2004), Le Billon (2001), Reynol-Querol (2002), and Ross (2004).

More specifically, Leite and Weidmann (1999) studied “natural resource induced” corruption which, they argued, explains slow economic growth in resource dependent states, particularly in developing nations. Here they stressed the importance of strong institutions to manage this corruption. Another key contribution to the political resource curse debate came from Ross (2001) who analyzed the impact of oil on democracy in 113 states from 1971 to 1997. He found that “oil *does* hurt democracy,” particularly in poor states (356). Likewise, Jenson and Wantchekon (2004) turned regression analysis to the question of regimes (rather than economic development) in Africa to find that countries dependent on natural resources were “more likely to be authoritarian,” more likely to have “worse governance,” and more likely to experience a “breakdown in democracy after the third wave of democratic transitions in the 1990s” (817). Overall, they concluded that “From the period between 1970 and 1995, countries with higher levels of natural resource dependence tended to be more authoritarian than their less resource dependent counterparts” (836).

Moreover, beyond these specific findings, the political turn in the resource curse literature shows a lack of nuance in economically deterministic resource curse theories. While natural resource dependence does indeed pose clear difficulties for states, some resource dependent countries do manage the curse and reap the expected benefits from resources. In contrast to the “textbook” resource curse cases, such as Nigeria, countries like Botswana and Norway are frequently named as examples of states defying resource curse logic. Hence the conclusion that natural resource dependence does not determine slower growth; rather, policy and politics *mediate* how resource dependence affects growth.

As Rosser (2006) notes in his comprehensive review of the resource curse, this new but persistent emphasis on politics has changed the questions dominating the literature. Instead of asking why natural resource dependence leads to poor development, the more nuanced question now is how social and political conditions allow some resource dependent countries to overcome the resource curse while others cannot, or how states might intervene to turn a potential curse into a blessing. The curse might not be determined by actual resource intensity, but by how governments manage the economy in response to windfalls.

Yet at the same time, a statist perspective alone is incomplete. Most obviously, states are constrained by external conditions (such as world market prices), domestic conditions (such as social pressures and interest group pressures), as well as local political, economic, and cultural contexts in which oil development is embedded. States can influence the resource curse, but not completely autonomously.

II. Critical Analysis of the Theory (Starting Points for New Analyses)

This literature is not without significant blind spots and these are the starting points in my research. First, I study a crucial development outcome understated in this literature, environmental risks. Next, I pay explicit attention to developed states which are frequently understudied in this literature. Work on the resource curse focuses nearly entirely on the developing world yet, I would argue, there are clear applications beyond these cases. More precisely, I apply the theoretical concepts to two new country cases in this literature, Canada and the US. At the same time, I work at a new level of analysis for this literature, *subnational* cases, thereby engaging with federal-subnational relations and variations in development outcomes *within* nations.

i. Environmental Risks

A rather surprising blind spot in the resource curse literature relates to the lack of explicit comment on environmental constraints and outcomes. This is counter-intuitive, given that, on first view, the resource curse is obviously rooted in environmental considerations. Dependence on resources like oil offers particular benefits and poses particular problems to states. These resources are often naturally occurring, extremely valuable assets that may not require a great deal of extractive labour—indeed, as in the case of oil, they might bubble to the surface on their own. These resources are the fundamental raw materials, the building blocks, on which economies, political bodies, and communities become sometimes fully dependent. But establishing ownership of these resources is greatly contested and, sooner or later, these finite resources run out.

These environmentally-rooted ideas are at least implicitly present throughout much of the resource curse literature. However, one crucial environmental aspect is missing from the literature: the environmental costs of this resource extraction. In the case of oil developments, the entire process is environmentally risky. Exploring for and extracting oil cause multiple forms of local environmental pollution and degradation. Transporting oil risks other serious environmental catastrophes. Refining oil means still other negative environmental consequences (inefficient use of other energies; air and water pollution). Consuming oil represents more global and longer-term costs we are just beginning to acknowledge. So while the resource curse literature emphasizes the economic benefit of resource “windfalls” and studies some of the negative economic outcomes of dependence on them, the more obvious costs—the local to global, short- and long-term environmental costs—are seldom acknowledged.

Only the seeds of this idea are currently present in the literature. For example, in 1993 Auty explained the risks of basing an economy on depleting resources:

the economic staple is a fund (non-renewable) resource, unlike most soft commodities which may be regarded as flow (renewable) resources. Sustainable development therefore requires that mineral economies should adopt safeguards to ensure that future generations are not disadvantaged by the present generation’s depletion of the mineral asset.

He suggested, therefore, a “pattern of resource extraction which substitutes alternative wealth-creating assets for the depleting natural resource” (176).

New work has not gone much farther. Le Billon’s “Political Ecology of War” (2001) re-centers the debate around geography but “political ecology” is ambiguous throughout his article. Likewise, Stevens (2003) notes that one dimension of the resource curse is the “regional impact” which includes local environmental damage (9) but he focuses only on the traditional outcomes (like “Dutch disease”) and does not elaborate on the environmental aspects. Humphreys et. al. (2007) also mention the resource curse risk of haphazardly draining a finite environmental asset, but without further elaboration.

What is needed here? I would argue that we put environmental costs front and center, as a crucial variable in the cost-benefit analysis of resource development, one on par with the standard economic costs noted in the literature.⁷

ii. Developed, Subnational Case Analyses

Beyond these two missing development outcomes, there are significant gaps in the scope of the resource curse literature: it has always focused on developing states with only passing

⁷ This is no longer a far-fetched or unusual aim. Consider, for example, the “Stern Review on the Economics of Climate Change” published in fall 2006 for the UK government.

comment on developed cases. And when such cases are mentioned, they are assumed to follow a different logic than the developing cases—they are assumed to have the institutional strength to overcome resource curse tendencies—yet these assumptions are not explored to any detail. Throughout the literature state cases are treated as coherent wholes with very little discussion of variation *within* the states.

But Goldberg et. al. (2005) do provide one rare example of applying resource curse theory to subnational entities of a developed case, the United States. Concerned with the effect of resource dependence on political regimes, they studied American states over seventy-three years to demonstrate that natural resource wealth has a political effect even in developed states: it “serves to preserve underlying political dynamics at the time natural resources began to contribute to state finances.” The results are telling and significant in great part because they indicate that resource curse concepts do indeed travel to developed cases. Although the American institutional settings are vastly different from the Nigerias of the world, there might be similar patterns at work. Perhaps even more interesting, the implicit point here is that we might not be able to see resource curse in certain states unless we look below the level of the nation state.

Responding to these blindspots in the resource curse literature, my research analyzes two Canadian and two American oil-dependent cases (Newfoundland and Labrador, Alberta, Alaska, Louisiana) to ask: what are the trends in how oil-dependent subnational governments manage (or do not manage) the environmental costs of oil development and what explains these trends?

For the rest of this paper, I present my initial findings on the environmental outcomes, policies, and institutions in the Alberta case. Note that I focus on the tar sands developments, the newest and arguably most environmentally intensive type of oil extraction in the province, and the one most likely to increase greatly over the next years. First, I briefly describe the scope of the developments and their environmental impact. Next, I explain the institutional processes surrounding these developments and then analyze how these institutional structures are environmentally problematic. I close by suggesting some provincial and international trends influencing these institutional structures.

III. Environmental Institutions in Alberta’s Tar Sands⁸

i. Scope of Tar Sands Developments

Alberta’s tar sands reserves (the Peace River, Athabasca, and Cold Lake deposits) are one of the largest hydrocarbon reserves in the world, spread under nearly 149,000 square kilometres of boreal forest, an area larger than Florida (Woynillowicz et al. 2005, 1). To date, 49,973 square kilometres have been leased for tar sands developments; 15,424 square kilometres were leased in 2006 alone (Holroyd et al. 2007, 6).

The initial amount of recoverable oil from the tar sands was 315 billion barrels. As of March 2007, there were 310 billion barrels remaining (compare this to the remaining 4.3 billion

⁸ This analysis is based on policy documents on tar sands development in Alberta as well as on interviews conducted in the province. I interviewed representatives from environmental non-governmental organizations (NGOs) (Pembina Institute, Sierra Club of Canada Prairie Chapter), social justice NGOs (Edmonton Social Planning Council, Council of Canadians Prairies Organizing Office, Public Interest Alberta, Alberta Federation of Labour, and Alberta Quality of Life Commission), research and law institutes (Parkland Institute, Polaris Institute, Environmental Law Centre, and Canadian Institute of Resource Law), academics working on this topic, as well as policy makers at the central government departments or boards. As most of these interviews were conducted in confidentiality, I withhold the names of interviewees and instead refer generally to their positions.

barrels of conventional oil reserves) (Alberta Government 2007). Current daily tar sands production is 1,066,000 bbl/d (Alberta Government 2007). This rate of production has exceeded all expectations: production estimates for 2020 made in 1995 were exceeded in 2004, sixteen years ahead of schedule (Woynillowicz et al. 2005, 1). Today, Alberta Energy predicts that by 2020, tar sands production will be 3 million barrels per day and 5 million by 2030 (Alberta Energy 2007 *Oil Sands*). In terms of Canadian output, Alberta's tar sands currently account for 39.44% of Canada's "total crude oil and equivalent production" (Alberta Government 2007).

While 97%⁹ of the tar sands area is owned by the provincial Crown,¹⁰ the developments are fully private endeavours with enormous capital investments (CA\$10.4 billion was invested in tar sands developments in 2005 (Alberta Government 2006)). As of March 2007, there were 58 producing projects, 14 proposed projects, and 3 under construction within the three major deposits.¹¹

ii. Environmental Impacts¹²

The environmental impacts of these developments are serious and multiple. Oil is extracted from the tar sands by either surface (strip) mining or "in situ" (also called steam assisted gravity drainage or "SAGD") processes. Both methods represent long term risks to as much as 3000 square kilometres of boreal forest and the species dependent on it with little hope for reclamation. At the same time, both methods mean intensive greenhouse gas and other polluting emissions, intensive freshwater use and pollution, and intensive energy use (natural gas, coal, and perhaps nuclear).

iii. Synopsis of Institutional Decision Making Process on Alberta Tar Sands

There is no coherent institutional structure or policy framework specifically addressing these environmental impacts or generally directing tar sands developments in Alberta. An energy policy was promised to be delivered in spring 2004 by former Premier Ralph Klein but Alberta is still waiting on this document which has been newly promised by Premier Stelmach as part of his proposal to manage Alberta's growth pressures. So in the absence of a coherent energy policy, the oil and gas industry is managed by policies scattered over 750 documents which are implemented in a highly fragmented way by four provincial government bodies: Alberta Energy, the Energy and Utilities Board (EUB), Sustainable Resource Development (SRD),¹³ and Alberta Environment (AENV).

⁹ The other 3% is owned by "federal Crown within Indian reserves, by successors in title to the Hudson's Bay Company, by the national railway companies and by the descendants of original homesteaders through rights granted by the federal Crown before 1887" (Alberta Energy 2005, 3).

¹⁰ See Wenig (2004) on this questionable slippage between "Crown" lands and "public" lands, and hence the confusion as to who really owns Alberta's land—and for what purpose.

¹¹ The seven highest producing companies in the tar sands in 2005 were Suncor (with 214,644 barrels per day), Imperial Oil (204,318 bpd), Canadian Natural Resources (121,090 bpd), Shell Canada (110,020 bpd), Canadian Oil Sands Trust (96,406 bpd), Encana (60,945 bpd), and Petro-Canada (52,785 bpd) (Alberta Energy 2005).

¹² Here I depend greatly on the Pembina Institute's research, the most thorough work on this question, in particular Holroyd et al. (2007), Schneider and Dyer (2006), and Woynillowicz et al. (2005).

¹³ Note that I do not elaborate on SRD's role in this paper. I am still researching this department's precise place in the institutional dynamics.

Energy companies initiate tar sands developments by asking Alberta Energy for particular parcels of land to be posted for auction.¹⁴ Energy, the issuer of development rights, then manages the tar sands development process. The department is required to “Optimize the sustained contribution from Alberta’s energy and mineral resources in the interests of Albertans.” Hence Energy’s role is interpreted as to promote and manage Alberta’s energy and mineral resources by granting exploration and development rights and collecting royalties and other funds.

After corporate requests for land parcels, Energy conducts an internal review through the Crown Mineral Disposition Review Committee (CMDRC), an interdepartmental committee responsible for assessing concerns relating to the land, including environmental and social impacts. Based on advice from the CMDRC, Energy then decides if the parcel will be posted for auction, sometimes with conditions placed on the lease if environmental or other concerns are considered important.

Land auctions occur every two weeks through a fully electronic system. Bids are taken from anywhere in the world and rights are assigned to the highest bidder. Once companies buy rights, they must show activity on the leased land within a stated time frame or risk losing those rights. Since 2000, rents also increase on leases that “do not meet a minimum of production” (Holroyd et al. 2007).

After a lease has been granted, the EUB is the key regulator responsible for reviewing, regulating and enforcing projects proposed to produce, process, or transport oil and gas. It is an independent and quasi-judicial¹⁵ board reporting to Alberta Energy and it is mandated to “regulate the safe, responsible, and efficient development of Alberta’s energy resources.” The EUB’s mission is “To ensure that the discovery, development and delivery of Alberta’s energy resources and utility services take place in a manner that is fair, responsible and in the public interest,”¹⁶ an interest understood to include social, economic, and environmental project effects at a local and provincial scale.

Informing EUB decisions is Alberta Environment whose general role is to “Steward and protect Alberta’s environment to sustain diverse ecosystems, healthy Albertans, strong communities and a prosperous economy.” In this, the department manages environmental impact assessments (EIAs) and administers policies such as the *Environmental Protection and Enhancement Act (EPEA)*, and the *Water Act*.

Under *EPEA*, an EIA is always mandatory for proposed tar sands projects. The assessment process determines if a project meets technical requirements, for instance emissions regulations, and can have up to three stages: the initial review, the screening report, and the EIA report (which includes the development of the terms of reference and the actual report). It is AENV’s role to ensure the EIA report (a document prepared by the operator proposing the project), is completed and transmitted to the EUB. Once at the EUB, the EIA report becomes part of the EUB’s final decision on a project. After the EIA process, projects might need specific approvals or licenses from AENV, such as licenses to use water as defined under the *Water Act*.

¹⁴ Energy seems to be reconsidering this approach. Debate is happening right now on whether what is available for sale should be based on a more coherent framework than individual corporate requests (Interview with Alberta Energy policy maker (Policy, Planning, and External Relations), April 27, 2007).

¹⁵ EUB decisions are considered final but the EUB may review its own decisions.

¹⁶ The EUB’s powers are defined in *Directive 56 – Energy Development Applications and Schedules* which deals with impacts affecting air, water, and soil and relating to noise, waste, and emergency issues. Major regulations administered by the EUB include the *Energy Resources Conservation Act*, *Oil and Gas Conservation Act*, and *Oil Sands and Bitumen Conservation Act*.

iv. Analysis of the Institutional Structure: Obstacles to Environmental Regulation

There are several trends within the above institutional structure that are problematic with regards to environmental outcomes. In most general terms, I explain how the institutional consideration of environmental impacts in Alberta is ineffective, delayed, or without real power in decision making on the tar sands. I also note the absence of institutional processes to address *cumulative* environment impacts, a current significant policy gap. I explain these tendencies in reference to the development bias evident in the departments dominating this process, although I argue this dominance is obscured by departments' reluctance to claim decision-making responsibility for tar sands developments. A final point relates to the lack of public input throughout this process.

a. Ineffective, Delayed or Low-Impact Consideration of Environmental Effects

There is a notable ineffective positioning of environmental considerations in this institutional structure: early in the regulation process, environmental effects are not pointedly or effectively considered and when there is significant attention to environmental effects, it is very late in the process and with little real impact on development decisions.

Environmental effects are considered at the early stages of the CMDRC review of companies' requests for land auction. As Holroyd et. al. note, this is "the one and only opportunity during the tenure process to consider the environmental and social impacts of granting oil sands rights." However, this process is too narrowly focused (there is no room for a consideration of cumulative impacts), too rapid, poorly informed, and has no "formalized" environmental assessment process (Holroyd et al. 2007, 21-22). Even if the environmental analysis was better here, the CMDRC is merely making recommendations for Energy to use at its discretion. Energy ultimately decides if land requested for auction will be posted. One explanation for the cursory attention to environmental impacts at the rights issuance stage is that thorough environmental analysis is not yet appropriate because, at this point, there are no specific projects to judge.

Environmental effects are considered again through the EUB's public interest test. Yet this test, as Vlavianos explains, is "highly discretionary" with no particular prioritizing of environmental effects over, for example, expected economic benefits (2006, 57). Indeed, many non-governmental organizations (NGOs) question the narrowness of the definition of public interest and the trend of economic interests continually trumping environmental considerations in EUB decisions.

It is only at AENV where we find an institutional body specifically concerned with the environmental impacts of tar sands developments. Yet this department has been generally weakened by its "shared governance" or "shared management"¹⁷ approach to policy. Whether due to the pressures of budget cuts to the department in the 1990s, the pressures from government and industry to "streamline" the regulatory process,¹⁸ or a real ideological shift in policy making, there has been a shift in AENV's approach to doing policy. One AENV

¹⁷ The official institutional definition of "shared environmental management" is that "Alberta Environment is moving from its traditional command-and-control role to one of shared environmental management working together and taking joint responsibility with other departments, industry, municipalities and stakeholders to achieve agreed-upon natural resource and environmental management outcomes" (Alberta Environment 2007).

¹⁸ Connections could be made here to the federal governments' interest in "smart regulation," as elaborated in Wenig (2005).

policymaker described it as a transition from “command and control” methods and “over-regulation” toward focusing on results achieved through motivating industry to self-govern or to act responsibly voluntarily.¹⁹ This means that AENV has outsourced work previously done within the public service to industry or consultants. It has transitioned from having in-house expertise to conduct hands on enforcement and inspection in the field to being more of an auditor of information collected by industry itself or by private consultants hired by industry (although apparently even some of the auditing work is now outsourced as well). The concern here is that AENV is now unable to enforce its regulations (although AENV policies look strong on paper but there is a “chronic problem of enforcement”²⁰) or that industry’s self-monitoring might not be objective or in the public interest.

More specifically, AENV’s main input to the tar sands decision making, the EIA reports, has little impact on the process. The reports are simply transferred to the EUB where environmental considerations are continuously trumped by other issues, like economic benefit. According to Vlavianos, “it is clear that the EIA process under EPEA is not a central feature of the oil and gas development process in the province.” The EIA “simply provides the EUB with environmental information,” then it is the EUB “who will make the final determination about whether a project is in the public interest or not, and environmental impacts are only one consideration in the EUB’s decision” (2006, 46). AENV has no power to reject projects on environmental grounds. Even the results of Environmental Appeals Board (the quasi-judicial tribunal of AENV) hearings are weak, given that their results are non-binding and dependent on the Minister’s discretion.

b. Absence of Cumulative Environment Impact Considerations

Regardless of the timing or varying efficacy of environmental impact considerations throughout this institutional structure, one point is constant: to date, there is little attention to cumulative environmental impacts. All major departments involved in tar sands developments currently make decisions on a project by project basis. Although concern for cumulative effects is building within the public service—in fact, policy makers at AENV wonder if cumulative environmental thresholds have already been crossed in the tar sands²¹—the current institutional approach is piecemeal.²²

Energy and its CMDRC only deal with individual leases and have no broad development plan for Alberta’s resources. The EUB only deals with individual projects, also without broader planning. Likewise, AENV’s EIA reports address individual proposals with no ability to address cumulative environmental effects of tar sands developments. AENV’s recently created Oil Sands Environmental Management division is an effort to develop strategic policy to deal with this gap, but it is so new that it has not yet been staffed.

There have been multiple institutional integration attempts to address cumulative environmental impacts and to overcome the policy absences and the fragmented nature of tar sands development decision making. These include Sustainable Resource and Environmental Management (SREM), the Regional Sustainable Development Strategy (RSDS) for Athabasca

¹⁹ Interview with AENV policy maker (Environmental Policy Branch), April 23, 2007.

²⁰ Interview with Environmental Law Centre representative, April 23, 2007.

²¹ Interview with AENV policy makers (Oil and Gas Policy Sector and Electricity / Minerals Sector), April 23, 2007.

²² In Kennett et. al.’s (2006) formulation, it is a “fragmented and incremental” institutional framework that permits development without cumulative considerations.

Oil Sands Area, and the Mineable Oil Sands Strategy (MOSS). But to date, have all failed. There have been continual delays in each group due to deliberate “foot-dragging” as well as general difficulties developing a consensus. So far, there have been no tangible recommendations on development trade offs and no clear framework for departments to address cumulative effects. Overall, these policy integration attempts on the tar sands have become, as NGOs often note, “parking lots” for complex issues while tar sands developments continue on as before through admittedly outdated processes which risk great environmental impacts. Even if these integration efforts were functioning, there is concern that they would be mere illusions of integration with Energy’s interests continuing to dominate the regulatory process.

c. Institutionalized Development Bias

What can explain the ineffective, delayed, or narrowly construed character of environmental regulation in Alberta’s tar sands? I would argue that the institutional dynamics show a dominant, institutionalized bias toward development.

Current policies on tar sands developments have their origins in 1970s approaches to the industry. During these times, the Alberta Government worked to help companies develop the risky new industry by, for example, providing tax breaks, subsidies, and low royalties. But Alberta is now “the victim of [its] own success”²³ in developing the tar sands: the industry has taken off and the unprecedented industrial growth has created multiple new governance problems for the province. The original approach to the tar sands is clearly outmoded but the policy environment has yet to break free of the old development-promotion policy position.

The major department still promoting tar sands development is Energy which is specifically mandated to encourage tar sands development, in fact *rapid* development, without regard for environmental impacts (Holroyd et al. 2007). Although there is more discussion on Energy incorporating environmental outcomes in its decision making process, it is simply not in the business of making or implementing environmental policy.²⁴ Instead, the department is closely aligned with the oil industry which it considers as its “principal stakeholder”;²⁵ indeed, as noted above, industry sets the entire tenure process in motion.

This pro-development commitment of Energy and its relationship to industry might not be terribly problematic except that Energy’s interests consistently trump other interests in decision making on the tar sands from the very beginning of the development process—this is common knowledge both inside and outside the public service. As AENV policy makers note, even in interdepartmental initiatives that are supposed to offer a “level playing field” for all ministries, energy interests “typically carry the day.”²⁶

In addition, the EUB is admittedly under political pressure to approve the projects for which Energy has already sold rights²⁷ and this pressure can be easily applied given the EUB staff: the board is now a politicized entity because its nine board members are appointed by Cabinet through non-debated orders-in-council.

Even AENV has its own subtle development bias. When asked about AENV’s apparent reluctance to slow or reject projects due to environmental impacts, AENV policymakers noted

²³ Interview with AENV policy makers.

²⁴ Energy policy makers frankly point out that until the very recent incorporation of renewable energy into the department’s portfolio, to talk of “sustainable development” at Energy was an “oxymoron” because it was totally focused on promoting the development of non-renewable energy (Interview with Alberta Energy policy maker).

²⁵ *Ibid.*

²⁶ Interview with AENV policy makers.

²⁷ Interview with EUB policy maker (Business Operations and Development), April 24, 2007.

that “When things are good, you want to reap all the benefits you can. You don’t want to stand in the way of that.”²⁸ Another argued that *not* permitting a development to occur is “stranding” resource potential from Albertans.²⁹

d. Buck-Passing on Decision Making Responsibility

Above I argued that Energy, biased toward promoting development, dominates the decision making process on the tar sands. However, I should note that this dominance is hidden, given the continuous shuttling of ultimate responsibility for development decisions among departments.

When asked about Energy’s dominance, Energy policy makers argue that if their department dominates the process, it is the will of Albertans. In the words of an Energy policy maker, “The success of Energy in getting what it wants is entirely dependent on the policy regime in which it operates” and this policy regime is directed by a government and legislature that is responding and accountable to voters. Currently, it is argued, Energy is mandated by government from the public to optimize natural resource development. Furthermore, since “energy is the premier force in Alberta’s economy,” naturally Energy would have considerable political influence.³⁰ Yet, as I describe below, the government is also heavily influenced by the oil industry and public opposition to tar sands developments is muted by multiple problems captured in the concept of “democratic deficit.”

While laying responsibility for its decisions on the legislature and voting Albertans, Energy also asserts that *real* decision making power on the tar sands happens at the EUB. According to one Energy policy maker, “in and of itself, it [Energy’s rights issuance process] doesn’t do anything.” The important decisions on projects are made at EUB which issues the specific licenses for development.³¹ But EUB, in its turn, argues that it cannot deny companies property rights they have already purchased from Energy. Such a right is a “very real property right” and it would be “illegal” to deny it to a company who had purchased it³²—hence Energy’s initial decision to lease land is said to drive the entire development process forward. This partly explains why the EUB seldom turns down a tar sands project.³³ But at the same time, like Energy, the EUB also passes on ultimate responsibility for its decision to the legislature which is assumed to be informed by public opinion.

e. Lack of Public Input

Energy and the EUB defer to the will of Albertans to explain their decision making on the tar sands, but in reality, citizens interested in voicing concern about these developments have great difficulty engaging with the process. There is simply no opening for public input during the rights issuance process. In Wenig’s (2004) appraisal, the CMDRC’s work is a “black box”: there is no public involvement at this stage and very little public information about what the committee does. As for Energy’s role, as the Environmental Law Centre Fact Sheet on Oil and

²⁸ Interview with AENV policy makers.

²⁹ Interview with AENV policy maker.

³⁰ Interview with Alberta Energy policy maker.

³¹ *Ibid.*

³² Interview with EUB policy maker.

³³ Two other reasons might also explain the low rate of tar sands project rejections. First, the approval process is interactive and the EUB works with the applicant to meet development requirements. Second, many companies simply withdraw their applications if they know they will be rejected by the EUB.

Gas Developments and Surface Rights explains, even for “potentially affected surface owners or occupiers,” there is “no direct notice” when rights to the land are offered for auction and leased.

With regards to the EUB, public involvement can happen in its processes, but only if the proposed project is brought to a hearing and a hearing is only triggered if people protest that they have been “directly and adversely affected” by an EUB decision. But if there are no landowners or occupants, then no one can trigger a hearing—there is no mechanism to commence hearings in “unoccupied” lands. Here “directly and adversely affected” refers narrowly to property owners within a stated radius from the development (ranging from 100 metres to 5.5 kilometres) who would suffer economic losses or negative public safety impacts from the proposed development. Other types of impacts, such as health and environmental effects, are difficult to prove. And again, public pressure on the EUB is only effective on an individual project basis because the board is not capable of dealing with cumulative, regional concerns.

Public involvement in AENV is greater than in Energy and the EUB, but it is still delayed in both the EIA and licensing processes. During the EIA process, public involvement is permitted in a limited way but only in the later stages. There is some room during AENV’s licence issuing processes for input from directly affected individuals and these licenses can be appealed through the EAB. But EAB decisions, like EIA reports, are non-binding and the Minister of the Environment has the ultimate decision on appealed issues (Environmental Law Centre fact sheets on environmental appeals boards (1-2) and environmental assessments (7-9)).

Given these institutional trends (ineffective or untimely environmental consideration, lack of cumulative environmental considerations, institutionalized development bias, responsibility buck-passing and lack of public input), proactive environment protection is a difficult task in Alberta. The environmental record of tar sands developments is therefore hardly surprising.

Of course, the institutional structure and problems noted above are not isolated from other levels of analysis. Below I reconsider the micro-level institutions as embedded in the broader political culture of Alberta as well as within a context of oil relations with the United States and beyond. For the moment, I will very briefly outline what I expect to be, based on research to date, the major elements of these broader contexts impacting on environmental regulation in Alberta.

v. Provincial Political Culture and International Petro-Politics

Although there can be no doubt as to Alberta’s great diversity in political culture, the institutional problems outlined above are informed by a specific dominant culture that is greatly influenced by the oil industry.

The power of the oil industry is now entrenched and institutionalized, in great part through oil industries’ donations to Progressive Conservative (and Liberal) political campaigns and their intense lobby of government, as well as due to the government’s great dependence on the energy sector (which represents 30% of government revenues). Anecdotes abound about the close professional and personal relationships between various levels of government and the oil industry as well as about the revolving door between government positions and oil industry appointments. Likewise, in the words of David Eggen, NDP member of Alberta’s Legislative Assembly and energy and environmental critic, the government has “retooled” itself around supporting this industry and spending its revenues. Hence the repeated analogy of Alberta as “company” province: what is good for the oil industry is considered good for Alberta.³⁴

³⁴ Interview, April 26, 2007.

Alberta's interaction with this industry is framed by its particularly intense version of market ideology. One major element of this ideology is the preference for a "small" state relegated to making the province good for business (of course, the government's promotion of the oil industry through subsidies, tax breaks, and so forth is a major exception to the small state rule). Deregulation or privatization accompanies this preference for a small state, as does low taxation.

This dominance of the oil industry is coupled with citizens' beliefs that most people are benefiting from the industry, hence the reluctance to challenge tar sands developments. Contrary to Inglehart's post-materialist theory, affluence in Alberta seems to have brought political *complacency*. Much is tolerated or ignored in exchange for (the semblance of) oil wealth.

Further, any opposition that does exist either to this governance or to the dominance of the oil industry is made difficult by the province's "democratic deficit" or "post-democratic" government (Dabbs 2006), another key marker of its political culture often credited to "King" Klein's fourteen years of leadership (Brownsey 2005; Soron 2005). Alberta is a one-party state more familiar with political dynasties than parliamentary governance—Dabbs (2006) considers elections in Alberta to be merely "ceremonial," the conservative vote is so deeply ingrained. That said, voter turnout is strikingly low and there is great concern regarding the unrepresentative character of electoral ridings (which favours rural voters). Conservative dominance is helped by a well-developed public relations machine (created by Klein) and what is often described as "compliant" media (Sampert 2005).

Power in this conservative government is excessively concentrated on the Conservatives and the premier. For instance, Brownsey (2005) documents the dwindling of debate in the legislature and the increase in non-debated orders-in-council. (Note also the exclusion of opposition MLAs from key legislative committees.) Stelmach's multiple public consultations appear to be improving on this closed system, but these consultations produce only recommendations that the government may or may not choose to implement. NGOs frequently worry that these consultations might be a mere illusion of participation capturing would-be activists' attention for a time while tar sands developments continue without change. Still, these consultations have brought groups together and allowed opposition to the government to crystallize. There is a "vaguely growing sense of disquiet" and a "groundswell of opposition brewing" that has the potential to be channelled into an effective opposition.³⁵

Even broader than the dominant political culture in Alberta is the North American political context of these oil developments. Tar sands projects can only be understood by looking through the lens of Alberta-U.S. relations. U.S. firms have had a long and steady involvement in the tar sands since the early 1900s (Chastko 2004) and today, 90% of Alberta's energy goes to the US,³⁶ with plans for an increase in exports through new pipeline projects.³⁷ There is currently pressure from the U.S. for a *five-fold* expansion in exports from Alberta's tar sands.³⁸ Of course,

³⁵ From interviews with, respectively, Pembina Institute representatives, April 11, 2007 and a Sierra Club of Canada Prairie Chapter representative, April 14, 2007.

³⁶ Interview with AENV policy maker.

³⁷ See recent news on how Alberta is giving "a little Texas town its future back" (Jaremko 2007).

³⁸ On this point, see the Oil Sands Experts Group Workshop document (2006) and *U.S. urges 'fivefold expansion' in Alberta oilsands production* (2007). Note also the Alberta Washington Office promoting tar sands production and Former Premier Klein's speech at the Smithsonian entitled "Alberta's central role in North American energy security" where he asserts that "Alberta supports the goals of energy integration right through to Central America and the Caribbean" (http://www.albertaindc.com/default.asp?V_ITEM_ID=1104). Also of value on the general question of Canada-U.S. tar sands relations is McCullum's (2005) *Fuelling Fortress America*.

U.S. demands for Alberta energy are due to the growing global difficulty in accessing international oil resources, with striking examples including conflict in West Africa and the Middle East. Alberta's oil, expensive as it is to extract, looks like a stable, secure, and geographically close supply for unchecked U.S. demand. More abstract again, of course, is the longer tale of a global and historical dependence, by both chance and deliberate action, on oil. These are some of the threads that will frame my continued analysis of these oil dependent cases.

IV. Conclusion

What does resource curse theory help us understand about the Alberta case? Most obviously, it draws attention to the costs associated with Alberta's dependence on oil that lead or may lead to future economic and political decline. Specifically, if we rethink the theory in terms of environmental risks, Alberta exemplifies the extreme environmental costs associated with economic growth, costs that will mostly likely burden those who did not benefit from the initial developments. Reclamation is a prominent example: of the 3000 square kilometres of boreal forest that will be severely disrupted by tar sands projects, it is doubtful that much will be reclaimed by industry. After forty years of these developments, "no operations have received a reclamation certificate" (although Suncor claims it has reclaimed 9% of the total land it has disturbed) (Woynillowicz et al. 2005, 38). Who will bear these costs and when?

Also, applying this theory might offer an explanation for the democratic deficit in Alberta. We might account for the current "political dynasty" effect in the province by the fact that oil revenues have been controlled and spent strategically by one dominant political faction (the Progressive Conservatives) over a long period of time (since 1971). Is Alberta one of Karl's inert "petro-states" where the spending of oil money is replacing accountable governance and resilient development?

And how does this case inform the theory? Resource curse literature sensitive to the political aspects of the "curse," noted above in point iii of section 1, suggest that cases dependent on oil revenues with underdeveloped policy institutions will experience great environmental degradation while cases with developed policy institutions will have the capacity to avoid the negative consequences of oil development and experience the political and economic development benefits traditionally expected from such a resource. Yet this does not seem to hold true in the case of Alberta. Here, policy institutions are indeed well developed but they are oriented toward either low intervention or the promotion of tar sands developments. Thus these institutions have helped to entrench Alberta in petro-statedoom rather than serving to diversify the economy; they seem to have exacerbated environmental problems as well as other social and economy issues. This perhaps indicates that strong institutions are *necessary* but *not sufficient* conditions to managing the resource curse. Strong institutions might provide the means to implement policies to manage the resource curse, but there is no guarantee this will happen. Rather, institutions might further cement resource curse tendencies, such as an over-specialized economy.

By reflecting on resource curse theory and studying the institutional interactions embedded in broader political contexts, I am currently studying three other cases (Newfoundland and Labrador, Alaska, and Louisiana). Ultimately, I seek to compare these cases to identify trends in governments' (mal)adaptation to oil dependence.

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