

Indigenous Cosmology in Global Contexts: A Remediation of the Paradigm of Sustainable Development in Natural Resource Extraction Policies

The discourse of development, and its reinvention as sustainable development, has been a guiding principle in international economic and political relations. Though promising progress and the eradication of poverty, while securing the environment, the development project “has come at a price: global warming, ozone depletion, loss of biodiversity, soil erosion, and water pollution are all global problems with wide-ranging impacts on human populations” (Banerjee 2003, 144). These consequences of the project of sustainable development, within the realm of natural resource extraction, implore us to ask two questions, which the paper will seek to answer concomitantly. Firstly, the paper will investigate if the Western sustainable development paradigm, applied to natural resource extraction policies, is premised upon environmental, or economic, security. Following an examination of why the model is dedicated to economic growth rather than ecological welfare (though it postulates to conflate both interests), the paper will seek to answer if there is an alternative model of natural resources extraction which values environmental sustainability above all, which it denotes indigenous cosmology to be. First, the paper will delve into the development discourse, and its reiteration within sustainable development, examining its historical foundations and the effects of the discourse in governing the mentalities of the self and other, notably populations within the global South. The neo-liberal nature of the discourse elucidated, the paper will then delve into the strengths of incorporating indigenous cosmology into natural resource extraction policies, which it deems to be a crucial juncture in undertaking environmentally sustainable natural resource extraction.

The Creation of Poverty: The History of the Development Project

The notion of development has been central to the realm of international relations since its diffusion at the end of the Second World War. Following the dénouement of the war, the discourse regarding the threat of fascism retreated and powerful Western actors found a new referent threat of security: the problematization of poverty. Statements and proposals of Western political actors began to eschew the “recognition of the chronic conditions of poverty and the social unrest existing in poor countries and the threat they posed for more developed countries” (Escobar 2012, 22). The discourse thus rendered the world unsafe not only for the populations in the global South, but moreover for those within the global North. Though the creation of the development project suggests a foundation of cosmopolitan interests, the paper suggests that the efforts emerged from American imperialistic objectives. The intensification of the cold war, the spread of communism and the increased call for liberation from colonial ties amongst populations in the global South necessitated of the United States a strategy to both hinder the spread of the conflicting ideology and political model espoused by the USSR as well as subdue populations seeking independence (Veltmeyer 2005, 90). The provision of economic assistance, it was believed, would subvert insecurity in the international realm by spreading liberal democracy and bring the underdeveloped into the modern.

However, in addition to the amelioration of the feared insecurity created by these occurrences, the establishment of the development project was contributory to discernible

objectives within American foreign policy. Seeking to secure its position as the unquestioned leader of the Western world, global development would contribute to America achieving four crucial imperatives: the creation of the United States as the metropole, the embedment of capitalism internationally, the expansion of overseas markets for American manufacturing and American control over raw material extraction (Escobar 2012, 84). The recognition of the strategic value of proposing development strategies for the global South created new priorities and goals to be achieved through the project of development.

Importantly, the discourse of development did not espouse American interests. Instead, it operated on the perception of action being in the general interest of humanity. President Harry Truman's inaugural address in 1949 demarks the nature of the development project. President Truman ostensibly appealed to the masses for international cooperation in facilitating the development of the global South in cosmopolitan interests. He stated, "more than half the people of the world are living in conditions approaching misery. Their food is inadequate. They are victims of disease. Their economic life is primitive and stagnant. Their poverty is a handicap and a threat both to them and to more prosperous areas" (Truman, 1949). The solution presented was to restructure the 'primitive' societies through the project of development. Engrained with universalistic pretensions, development measured underdeveloped nations against Western standards and certainties, such as economic growth, capitalist consumption, technological and scientific advancement, industrialization, and market integration (Escobar 2012, 83). The achievement of these characteristics were suggested to elevate the poor out of the traditional into the modern and facilitate security within the international realm.

The development discourse that emerged following World War II molded the international realm and fabricated the social reality within which international politics resides. The concept of development invoked a certain "narrative of [Western] history (progressive, teleological and continually deferred) [which] then becomes housed, is framed as the inside of 'our' space, 'our' time, 'our' contemporaneity of the 'West', the 'modern', the 'developed' nations, distanced and deferred according to a spatial and temporal lag between developed, un(der)developed and developing" (Biccum 2005, 1011).

There is a significant link between the development discourse and practice, as the reality that is created from the above narrative becomes mobilized within institutions which engrain it in the global South. The power of the discourse "contribute[s] to producing and formalizing social relations, divisions of labour, and cultural forms" through interactions in political and economic structures at both the macro and micro levels (Escobar 2012, 105). Such projects are undertaken through international financial institutions such as the World Bank and the International Monetary Fund, regional development institutions such as the Inter-American Development Bank as well as multilateral and bilateral agreements. The ventures of these entities impose conditions "involving the liberalisation of market forces (such as abolishing price controls and trade barriers), currency devaluation, institutional reform (such as privatization and the promotion of foreign investment), and stabilization (especially reducing government deficits)" (Storey 2000, 361). Such powerful agents influence the project of development through the codification of mechanisms which alter the political and economic structures from states in the global South to Northern constructions. As such, actors within the South such as those in the political or corporate sector are afforded less power to influence the system. Civilian life is further regulated through micro-development projects which target specific communities and geographic spaces. One example of such a project is the Nepal Rural Microfinance Project, undertaken by the Asian Development Bank. The project is a market-oriented development

scheme which aims to reduce poverty through capital loans employing the Grameen Bank model, a group based lending technique wherein peer-pressure by other recipients is utilized as social collateral for the loan (Ziai 2009, 192). The loans inherently possess a regulation of social relations, altering the dynamics within the collective as esteem and reputation become instrumentalized. In addition, through denoting female empowerment as attainable through market participation, it teaches borrowers “to act as the rational economic agents envisioned by neo-liberal economic theory” (Ziai 2009, 192). In so doing, the program regulates behaviour and imposes rules which ultimately indoctrinates the South into the narrative of development. The program promulgates the notion that advancement is attainable through economic progress and reproduces neo-liberal modernity within the lives of people within the South. The above discussed programs are dependent upon the truth claims of the narrative of development which requires two discursive creations, the subjects and objects of development which power is exerted upon and moved through.

The development discourse creates the subjects of which it acts upon, both the recipient and the benefactor. The process is largely facilitated through the construction of actors in binary logic, which is inherent to the discourse. Binary oppositions reiterate power and are “hierarchical inasmuch as the former pole in each of these dichotomous constructions is an ideal figuration of the hegemonic knowing subject, so that each becomes one with a privileged Self... The Other is thus the corruption or negation of the self – an object to be variously feared, resisted or assailed” (Beier 2005, 18). The development discourse functions using binaries such as modern/traditional, progress/stagnation, and center/periphery. In so doing, the binaries of the discourse defined both ourselves and the ‘other’, privileging the systems and ideals of the North while concurrently denigrating the knowledge systems within the South. The process generates a singular reality within which action occurs as the binaries are not merely descriptive, but rather, prescribe and legitimize certain types of political and economic orders (Six 2009, 1104). Through the construction of difference, the discourse demarcates the space all actors within the international realm may act. It “provide[s] the rationale and justification for the practice of some people intervening to develop others and thus also shape those who give assistance and those who must be grateful for it” (Six 2009, 1106). The temporal and geographic space solidified within the binaries creates space for intervention of the global North. In other words, the discourse creates the subject to be acted upon, presupposing the identities of those in the global South as destitute and longing for guidance into the superior modernity of the North. Furthermore, the creation of subjects prohibits the South from taking account of their own position and excludes their knowledge, as ‘truth’ lies within the former binary which Southern academics, social groups, and individuals are assumed to lack.

The framing of the subject in relation to the narrative of modernity creates a limited realm of possibilities for relations between the global South and North. In addition, the privileging of Western knowledge, including its integral notion of linear development and capitalist accumulation, restricts the possible practices to be undertaken. These constructions limit the solutions to the economic realm and development economics as the response to the threat of poverty and underdevelopment (Escobar 2012, 73). Development economics has been vastly influenced by a multitude of theorists and differing central notions throughout history, resulting in multiple alternative development schemes. Importantly, development policies have been shaped by dominant paradigms of the global North. For example, the Harrod-Domar model which emerged post-WWII advocated the necessity of state intervention in order to regulate the economy and target domestic growth through a given interest rate (Herath 2009, 1452). As

adherence to models of state intervention and Keynesian economics began to decline in the North, so too did such models in the South. In reflection of policies undertaken in the North, the development discourse began to recommend neo-liberal solutions, such as privatization, free trade, and deregulation, though it has often been suggested that many states require state intervention in order to inform development (Herath 2009, 1454). Development theory in all variations entailed the formulation of strategy to reform societies in the image of the North. Importantly, the theories operate under the guise of universality and a pretention of existence as a natural law (Bracarense 2012, 379). Such a position allows those who intervene to operate under an assumption of objectivity, though in reality their perspective is grounded within subjective reasoning. Their objective truth does not “challenge the supposed superiority of capitalist society and replicate[s] the binary opposition between the ‘rational public’ and ‘traditional private’ spheres through its centre–periphery dichotomy” (Herath 2009, 1455).

Traditionally, the development discourse has been understood and assessed through a critical realist lens. The perspective posits that truth corresponds to fact and emphasizes “the importance of the external, mind-independent, structured and emergent reality as the source and foundation of our truth claims and social scientific knowledge” (Käpylä and Mikkola 2010, 3). Applied, it suggests that development theory operates from truth claims which conform to objective reality. Poverty and the search for modernity are the independent variables, facts distinct and isolated from our intersubjective interpretations. The paper evidently contends such a position is false and instead finds value in Foucault’s proposition that “(T)ruth is a thing of this world: it is produced only by virtue of multiple forms of constraint. And it induces regular effects of power” (Foucault 1980, 131). The perspective repudiates the notion of a universal truth as held within the critical realist camp, as truths are produced and best understood as intersubjective truth claims. He continues, “(E)ach society has its regime of truth, its ‘general politics’ of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true” (Foucault 1980, 131). Thus, there is an intrinsic link between knowledge and power. Those who speak truth possess the power to create reality that is in turn produced and reproduced in the apparatuses of society. In effect, it becomes crucial to evaluate the discursive formation of any truth claim, including those of development theory and evaluate how knowledge, power and action are linked in the practice of development.

The central truth claim of the discourse of development is, as abovementioned, the problematization of poverty. The unsophisticated economic life of the global South, as elucidated by Truman, is a truth claim of an individual empowered to form social reality. The project of development is rooted within the truth claim and the construction of subjects and objects. The assertion and its constructs inform the institutions of the development project. At the micro and macro levels, the discourse of development governs the South as to how to assume effective management and organization of both political and economic structures. In so doing, the discourse indoctrinates the South into its own regime of truth and, importantly, excludes and marginalizes alternative knowledge systems.

The Reiterations of Reality: The Birth of the Sustainable Development Discourse

The development discourse, as conceived within a Foucaultian framework, is not a stagnant being. The reliance upon the power of actors in discursively creating truth necessitates

that the regime of truth is fluid and amenable. It is, as such, unsurprising that the discourse of development has assumed multiple reiterations, entailing new goals and mechanisms. One iteration of the development project was the creation of the Millennium Development Goals (MDGs), which developed from the United Nations Millennium Declaration in 2000. The goals range significantly and include the provision of universal primary education, the promotion of gender equality and the creation of a global partnership for development (UN Department of Economic and Social Affairs and the UN Department of Public Information 2005, 1-3). Importantly, the paper does not contend that such goals are not laudable. In fact, the creation of the Declaration and the norm entrepreneurs involved reveals ideational and ethical commitments to broader values such as human development and social justice (Fukuda-Parr and Hulme 2011, 22). However, the MDGs are commensurable with the dominant narrative of development and are a manifestation of the reproduction of the narrative. The message entrepreneurs, those charged with the creation of the Goals, “accepted that global capitalism should be the engine for achieving poverty reduction; failed to recognize the need for redistribution (both materially and in terms of political power); and conceptualized poverty reduction as a lack of goods and services rather than a relational problem” (Fukuda-Parr and Hulme 2011, 31). Their indoctrination into the regime of truth facilitated the manifestation of the MDGs as a site in which the regime of truth is produced, regulated, circulated, and reproduced. As a result, the MDGs promulgate the overarching truth claim of development, the problematization of poverty and the favorable path of market-based, neo-liberal development.

The project discourse of sustainable development is another reiteration of the development discourse which merits evaluation through a Foucaultian framework. The concept itself grew out of the development debates as a response to the limits-to-growth hypothesis, put forth in 1972. The theory questioned the value of pursuing economic development due to the resultant strain on the economic system of exponential growth of human populations, necessitating increased food production and natural resource extraction, as well as increased industrialization and pollutant production, population growth or consumption patterns (Meadows et al., 1974). The central idea of the theory, that economic development globally should be limited due to ecological limitations, was inherently consistent with the North’s narrative and its value of neo-liberal growth.

The concept of sustainable development appeared as an attempt to reconcile the environmental movement with the monetary aims of the North. There are multiple definitions and conceptualizations of ‘sustainable development’, however, the concept as defined by the United Nations in the report *Our Common Future* (also known as the Brundtland Report) offers insight as to its meaning within the international community. It defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development 1987, 37). More concretely, the sustainable development seeks to ensure the provision of basic needs globally through economic development and the amelioration of ecological degradation through the use of scientific and technological innovations (World Commission on Environment and Development 1987, 37). The report thus appeared to promote an alternative, innovative model of development which would allow humanities progression through careful, rational planning and management.

Similar to the MDGs, the notion of sustainable development reproduces the overall discourse of development, involving the same subjects, objects and solutions. The report problematizes poverty and identifies the poor populations of the global South as requiring

assistance in the pursuit of progress (World Commission on Environment and Development 1987, 27). The discourse ignores a multitude of alternative causes of underdevelopment, including a lack of access to the political realm and social inequalities caused by colonization and neo-colonization, thereby maintaining the truth claim of the development discourse as a whole. The construction of the South, through the inherent hierarchical binaries associated with the discourse, conceptualizes the North as the benevolent saviors. The report explicitly casts the North in this role, suggesting that “developing countries have sought, for many years, fundamental changes in international economic arrangements so as to make them more equitable, particularly with regard to financial flows, trade, transnational investment, and technology transfer” (World Commission on Environment and Development 1987, 59). The discourse, as such, maintains the status quo in its conceptualization of both the object and subjects of development. It defines the South as those to be assisted and the North as the benevolent givers. In so doing, it produces and reproduces the narrow conceptualization of development wherein the progress, modernity and capitalist relations are valued and, importantly, contribute to the eradication of global poverty.

The reproduction of the narrative development is significant in the operationalization of natural resource extraction management policies within the Brundtland Report. The report recreates the subjects of development, marginalizing the power of the South and constructing the North as the benevolent donors. The report states, “(T)he heaviest burden in international economic adjustment has been carried by the world's poorest people. The consequence has been a considerable increase in human distress and the overexploitation of land and natural resources to ensure survival in the short term” (World Commission on Environment and Development 1987, 32). The Report, thus, finds fault in Southern methodologies of resource extraction and planning models, and, in so doing, places blame for environmental degradation therein. Furthermore, it legitimizes the power of the North to intervene in Southern natural resource extraction and supplant Northern knowledge systems in the name of environmental security. Consequently, natural resource conservation policies have reflected neo-liberal economic philosophy. The management policies have promoted the creation of capitalist markets for exchange, the privatization and commodification of natural resources and the withdrawal of state intervention in the financial system (Fletcher 2010, 172).

The consequences of neo-liberal conservation practices at the local levels are destructive. For example, as a result of increased international corporate entities, local communities experience a decreased influence over natural resources management and, further, may experience human rights violations (such as displacement) that often follow international resource extraction programs (Fletcher 2010, 172). There are also macro consequences of the operationalization of sustainable natural resource extraction policies in reflection of neo-liberal conservation practices. Most significantly, the discourse of sustainable development governs mentalities. Through the discourse and the dissemination of its truth-claims, the conduct of actors within the North and South are shaped and controlled through a multitude of technologies of power. These mechanisms are founded upon Northern ideologies which uphold economic security above environmental concerns and alter perceptions of what is to be secured through sustainable development practices in the area of natural resource extraction.

Creating Neo-Liberal Subjectivities

Governmentality

To begin, the concept of governmentality as understood must be deconstructed and elucidated upon. In *The Birth of Biopolitics*, which holds the 1978-1979 lectures, Foucault analyzes the development of power relations within the modern state and how power is exercised through governmental rationalities and technologies. Following a discussion of the genealogy of governance, Foucault claims that the modern state “is a governmental state, i.e., a complex of centralizing governing relationships that aims at governing people” (Simons and Masschelein 2006, 419). Crucial to an understanding of the modern state and the governing relationship therein is an understanding of what Foucault understands of government, described as “the conduct of conduct... This formula expresses that the object of government is not a passive pole (outside) but people who are governing themselves in a specific way. Government is thus acting upon the self-government or ‘conduct’ of people” (Simons and Masschelein 2006, 419). Importantly, government is not explicitly of the political realm, but a site in which ‘conduct of conduct’ is produced in order to govern modes of thought. The definition is, evidently, broad – the act of governing modes of thought can be undertaken through numerous methods and institutions and indoctrinate subjects into a plethora of ideological underpinnings. Governmentality is linked to regimes of truth and the dynamic of power/knowledge: it is in various sites of power that “modern governmental rationalities and technologies seek to promote a kind of self-government or subjectivity that is of strategic importance for its operations” (Simons and Masschelein 2006, 419). Power is conceived as the ability to guide the discourse and shape the subjects to self-governance as necessary to the framework. To govern is not to direct subjects to the correct way of being, rather, it is to create a reality in which that way of being is ‘the’ way of being. From this, governmentality can be understood as the process by which the modern state is able to create subjectivity amongst those within it to govern themselves in accordance to its doctrine.

The conceptualization affords power to numerous types of governmentality, due to its intersubjective nature. A significant shift in modes of government occurred with the shift to liberal governmentality, as “liberalism breaks with the ‘raison d’état’ that, from the end of the sixteenth century, sought in the existence and strengthening of the state the end which could justify an expanding governmentality and regulate its development” (Foucault 2008, 318). The pre-modern state existed to “arrange things so that the state becomes sturdy and permanent, so that it becomes wealthy, and so that it becomes strong in the face of everything that may destroy it” (Foucault 2008, 4). The rationality of government within the pre-modern state was of management and construction of itself in various facets, including economically. However, the modern state differs greatly from its predecessor in this regard, premising itself on a wholly different rationality. “Neo-liberalism inverts the early model of the state as a limiting, external principle supervising the market to make the market itself form the regulative principle underlying the state” (Dean 2008, 48). The *raison d’état* of the modern state, or its rationality, is reversed as the primary responsibility becomes the maintenance of the economic order and the conduct of conduct according to “the internal rule of maximum economy” (Foucault 2008, 318). The market, therein, becomes the central method which governmentality is exercised through.

Neo-liberal governmentality functions to discipline individuals into its dogma. As power is shifted from the state to the economy, so too is the freedom of the subject. As opposed to the classical liberal notion of the individual as the foundation of the legitimate governance, the subject becomes that which acts and reacts according to the economic inducements and according to the neo-liberal economic philosophy (Dean 2008, 49). Neo-liberal governmentality seeks to construct a polity which produces and reproduces neo-liberal ways of being, or, the

creation of a neo-liberal reality. The disciplining of the individual is achieved through technologies of power, known as biopower, which “compel individuals to internalize the social values and norms by means of which they will self-regulate their behavior in ways consistent with the state’s goals vis-à-vis the overarching population” (Fletcher 2010, 175). The exertion of biopower inscribes the truth-claims of the discourse upon the population and integrates individuals into the regime of truth. The function of biopower within neo-liberal governmentality constructs and governs people’s mentalities to adhere to, and operate within, the neo-liberal complex. The human becomes a subject of neo-liberalism in all facets of life, as all activities become understood in cost-benefit terms, or indoctrinated into economic positivism (Foucault 2008, 247). Subsequently, the ethos behind actions become unimportant as economic growth becomes the principal function of action. Neo-liberal governmentality thereby alters modes of thought and within the polity, exerting power over the populations to self-govern according to the neo-liberal dogma, presupposing the primacy of the economic over other values.

The concept of governmentality and Foucault’s genealogy of the birth of the modern state exemplify how knowledge/power and truth claims transform social reality and human life. The conceptualization asks us to reconsider our notions of power as not hierarchical and driven by the state, rather, power as being decentered and embedded in various facets. Furthermore, power is found in the ability to exercise strategic activities, rather than a possession. For example, in tracing the genealogy of the neo-liberal modern state, power is identified as being held by the market. Neo-liberal governmentality produces certain knowledges and truth claims of the world which are disseminated through technologies of domination and become internalized within the individual, resulting in self-governing in accordance to the overriding paradigm of neo-liberalism. The subjectification of the individual entails the transformation of mentality, as modes of thought and social relations become indoctrinated into the overarching goals of the governing narrative as a whole. The concept of governmentality thus allows insight as to how strategy is embedded in the realm of the political and how the political disciplines bodies into subjecthood.

The concept of governmentality, specifically in the neo-liberal mode of governance, is crucial to an understanding of the discourse of development. It speaks to why neo-liberal tenets underlie the project of development rather than alternative methods, such as eco-socialism – individuals within the North have been, and continue to be, conditioned and disciplined by discursive instruments and technologies of domination which implore the understanding that the economy is the referent object under threat, rather than the ecological sphere. The understanding of the disciplining effects of governmentality have been applied to interactions with the natural world in what has been termed ‘eco-governmentality’, an exploration of which follows.

Eco-governmentality

The interaction of truth, power, knowledge and discipline as conceived within the concept of governmentality provide crucial insights into the discourse of sustainable development and its regulation of human interaction with the natural world. As previously discussed, governmentality examines how society is arranged and governed through knowledge dissemination and technologies of domination in order to achieve the goals of the regime of truth. As such, it asks us to examine the underlying power dimensions of discourses and the rationalities thereof and how they regulate our conduct. Eco-governmentality explores the power-relations which manage and regulate environmental governance mechanisms and, further, the reality they produce. Environmental governance refers to “the set of regulatory processes,

mechanisms and organizations through which political actors influence environmental actions and outcomes” (Lemos and Agrawal 2006, 298). It is through these governance mechanisms that our interaction with the natural realm is managed and regulated. Foucault’s insight on modes of neo-liberal governance implore us to question what actors are forming the truth-claims behind the governance techniques, through what mechanisms biopower is exerted upon the self and others, and how is life being regulated by the discourse of sustainable development within natural resource extraction.

Power within the sustainable development discourse with regards to natural resource extraction, as with neo-liberal modes of thought, is not solely emanated from the top-down through state apparatuses. In addition to national legislations, the truth-claims which found environmental governance are generated by a myriad of actors, including the International Monetary Fund, World Bank, as well as the United Nations and its commissions such as the Brundtland Commission. These regimes of power produce knowledge as to how the natural realm should be managed and regulated and through what mechanisms. Reports such the Brundtland Report organize and dictate environmental governance practices, according to the central truth-claim of the narrative which, in turn, informs environmental governance and thereby disciplines populations to its ways of being.

A prominent truth-claim within the narrative of sustainable development of natural resource extraction narrative is the need to protect biodiversity. Indeed, the Brundtland Report continuously refers to the need to improve natural resource extraction in order to defend biodiversity, through claims such as, “(T)he diversity of species is necessary for the normal functioning of ecosystems and the biosphere as a whole” (World Commission on Environment and Development 1987, 18). Another claim of the Brundtland Commission is that “(D)evelopment tends to simplify ecosystems and to reduce their diversity of species. And species, once extinct, are not renewable. The loss of plant and animal species can greatly limit the options of future generations; so sustainable development requires the conservation of plant and animal species” (World Commission on Environment and Development 1987, 38). Thus, as Southern states attempt to develop, new knowledge systems are necessary in order to protect biodiversity. The claim creates the impetus for Northern intervention into the natural resource extraction policies of the South. Adhering to this truth claim, the governing powers offer environmental governance prescriptions and establish what they posit to be necessary interventions in natural resource management, including altering judicial and legal institutions for the inclusion of property rights and the restructuring of state agencies in this light (Goldman 2001, 507). Essentially, the central truth claim of the need to protect biodiversity gives legitimacy to government intervention in resource management under the presupposition that assigning monetary value to resources and the incorporation of Northern technologies and management techniques, produce environmentally beneficial outcomes (McAfee 1999, 136). The overall narrative suggests that, so long as biodiversity is maintained, economic development founded upon natural resource extraction can continue unbridled and the South, assisted by the global North, may be brought into the modern. It is the management of capitalist production through market regulation in natural resource sectors that secures biodiversity, rather than assuming alternative, environmental, paradigms. The truth claim of biodiversity requires some careful consideration. Considering the power held by governing actors, who utilize the truth-claim of biodiversity to alter modes of production and intervene in natural resource extraction, of crucial importance is the question, is biodiversity a natural, objective ‘thing’ or rather a discursive construct? Biodiversity, the paper suggests, is not a natural being, but rather

the creation of a historical narrative which allows Northern societies to intervene in the economic affairs of the global South. The “(E)stablished definitions of biodiversity do not create a new object of study that is outside of the existing definitions in biology and ecology... Rather, it anchors a discourse that articulates a new relation between nature and society in global contexts of science, cultures, and economies” (Escobar 1998, 55). That is to say, biodiversity is a truth-claim of powerful agents within the international realm. Foucault asks us to examine such truth-claims and question “what rules of right are implemented by relations of power in the production of discourses of truth?” (Foucault 1980, 93). The rules of right facilitated by the construct of biodiversity are the imposition of technologies of power, namely neo-liberal conservation practices, in natural resource extraction. It allows for Northern economic philosophy to guide natural resource extraction policies, as the South is continually constructed as unable to sustain the environment with domestic knowledge and practices. In essence, the construct of biodiversity allows for the governing of ‘primitive’ Southern bodies, who in their supposed longing for modernity and development, denigrate the environment.

The above sections have sought to demonstrate that the sustainable development discourse within the realm of natural extraction represents not an alternative paradigm, but rather, a continuation of a neo-liberal governmentality which values the economic over the environmental. The rationalities of the discourse, individualism, rationality, and accumulation of things and capital, become produced and reproduced through multiple facets, including reports such as the Brundtland Report and the institutionalization of policies to preserve ‘biodiversity’ within natural resource extraction. The formulation governs both ourselves and the other into understanding natural resources as objects to be commodified and utilized to spur economic development. Their extraction may not occur domestically without international intervention, as the South is perceived as lacking knowledge systems to sustain ‘biodiversity’. Neo-liberal conservation practices and the truth-claims of the global North become naturalized as Southern actors lose a voice in natural resource management and are unable to participate within their own development. In the section which follows, the paper will demonstrate that indigenous cosmology and traditional knowledges about the natural world offer a significant alternative lens through which natural resources may be utilized while respecting the environment and sustaining life.

Speaking for the Other

Before explaining why the paper posits that indigenous cosmologies should inform alternative approaches to natural resource policies, it is crucial to discuss the author’s position and the dangers of speaking for the other. Born and raised in Canada, a state with a colonial past, and trained within Northern academic institutions, the opinions of the author have been molded by the reality of existing within a privileged position that is not one and the same for which the paper attempts to speak for, that being, indigenous subjects. “When we venture to speak for Others, even with the most nobly conceived emancipatory agenda at the fore, we unavoidably commit acts of violence... The voice of the Other is not present and so the Other’s knowledges and narratives can only be “brought in” through the mechanism of (re)presentation, with all the problems and pathologies that necessarily entails” (Beier 2005, 36). In the vein of academic integrity and honesty, and an attempt to lessen the inherent violence to the greatest extent possible, the author notes that the following is merely an interpretation of indigenous cosmologies and knowledges and an attempt to represent ‘indigenous populations’ (a binary construct of colonial relations) within the realm of international relations policies.

Marginalized Knowledges

Positioning indigenous knowledges and attempting to speak for indigenous people as a whole is a truly impossible, and unethical, task. The history and culture of the millions of indigenous peoples vary greatly worldwide, as do their epistemological, ontological and cosmological understandings. To attempt to speak in representation of all indigenous groups would cause violent erasures of knowledges and continue the colonization, and subjugation, of indigenous ways of being. However, the paper contends, the anthropological works of specific groups provide insights into alternative conceptualizations of central tenets of the sustainable development through natural resource extraction policies as implemented by Northern actors. A significant incommensurable conceptualization regards to understandings of nature and the environment, wherein the Northern discourse of sustainable development in natural resource extraction diverges significantly from indigenous cosmological conventions.

Understandings of Nature

The discourse of sustainable development within the realm of natural resource extraction is predicated upon a certain construction of nature and the environment. The principle of capital accumulation and capitalization of the truth-regime within the global North necessitates the “transformation of nature (depicted in European traditions as a ‘wild, untamed’, often hostile force) into environment (more ‘manageable’ and goal directed) [and] is one of the hallmarks of modernity, in which domination of nature becomes a key indicator of human progress rather than a transformation of the relationship between humans and nature” (Banerjee 2003, 152). The transformation is a process of governmentality, wherein the environment “is being made docile through a conceptual transformation that seeks to catch it “in a [new] system of subjection”, whereby its productive characteristics can be further “calculated, organized, technically thought” and “invested with power relations”. Like the human body, and the body-politic of populations, conserved nature as service provider and store of capital is “entering a machinery of power that explores it, breaks it down and rearranges it” to productively bend and release its immanent forces towards economic utility” (Sullivan 2013, 211). Understandings of these entities adopt the neo-liberal precepts of the discourse in its entirety and become objects to be managed (for example, the management of ‘biodiversity’ through the inclusion of neo-liberal conservation policies).

The managing of the natural realm has implicit effects upon our understandings of ourselves and the environment. One’s relationship with nature within Western understandings, is altered as the individual becomes the intervener, an entity authorized to dominate and construct the environment according to the truth-regimes need for economic control over, and gain from, the natural. The environment is likewise altered, and constructed as something outside our realm. “Contemporary cosmologies represent a hierarchical or vertical separation between human beings and the environment. The rational scientific individual detaches itself from land and nature and sees it as an object to be conquered, dominated, owned and developed. By doing so, this evolutionist mind, based on an unlimited notion of self-improvement, sees nature as a commodity susceptible to being sold in the market and does not care about the enormous costs that this action will have for future generations” (Roncallo 2013, 1148). Western cosmology thus sees the environment as not something of ‘our world’, but rather, an entity to be commercialized and disciplined in order to fulfill the goals of the reigning truth-regime, namely capitalist accumulation and production, individuality, and progress.

Western notions of nature and the environment, and humans interactions therein, are drastically different than indigenous cosmologies of multiple indigenous groups globally. “Amid the endless variety of indigenous belief, there is striking unity on the sacredness of ecological systems... Traditional ecological knowledge is the culturally and spiritually based way in which indigenous peoples relate to their ecosystems. This knowledge is founded upon spiritual-cultural instructions from ‘time immemorial’ and on generations of careful observation within an ecosystem of continuous residence” (Brosius 2001, 128). Within traditional knowledges, the relationship between humans and the environment is perceived to be of a spiritual nature. Individuals relate to nature through observation and the transference of knowledge. Nature, within the conceptualization, is thus afforded autonomy. However, this is not to lay claim that there is no dependence upon nature and its products. Developing nature does, indeed, occur, but entails protecting nature through collective rights (rather than Western conceptions of property rights) to the environment, including land, water, and air, as a source of nourishment while protecting it for future generations (Roncallo 2013,1147). As such, indigenous cosmologies in general have often been understood as entailing a reciprocal relationship between social relations, production and the natural realm. The understanding evidently differs greatly from Western ideas of the natural as held by the development discourse, wherein the environment is conceived as an entity to be dominated and managed in order for individual gain. Rather, nature is a spiritual being which may be respectfully approached to give to both the individual and others its bounty in order for life to be sustained.

Buen Vivir: The Reclamation of Development by Indigenous Knowledges

Traditional knowledges and the respect for the environment as an autonomous, spiritual entity, informs the local environmental practices of multiple indigenous populations. Importantly, indigenous groups have been able to reconcile cosmological commitments and natural resource extraction operations. One such reformulation of the sustainable development discourse which challenges the dominant Western view of natural resource extraction has emerged from multiple Latin American indigenous groups with the concept of *buen vivir*. Grounded in the ethical and cosmological principles of ancient Andean-Amazonian cultures, *buen vivir* describes a way to construct a sustainable society of coexistence between humans and nature (Vanhulst and Beling 2014, 56). The central notion of the concept is respect for the autonomous entity that is nature and the environment. This formulation differs significantly from the Western notions of domination and management of the environment, instead choosing to see nature as inseparable from life. In addition, it does not adhere to the Western linear perception of progress to achievement. “It is rather a way of living the present in harmony, that is, assuming and respecting differences and complementarities (among humans and between humans and non-humans) from an ecological perspective that could be described as holistic and mutualistic” (Vanhulst and Beling 2014, 56). As such, the discourse of *buen vivir* rejects Western notions of linear development based on the ideals of accumulation, the domination of the environment and modernity. Instead, it establishes the relationship between the environment and humanity as mutually interdependent and the need for a reciprocal relationship between the two autonomous entities.

The framework and guiding assumptions of *buen vivir* and their application into the political and economic apparatuses of the development regime have offered a crucial alternative in the search for eco-friendly development. The alternative development practices offered by the institutionalization of the concept of *buen vivir* is exemplified by the local communities in Tungurahua, Ecuador, and their creation of the New Governance Model in response to watershed

management planning. “In the 1980s, international and Ecuadorian Non-Governmental Organizations (NGOs) began working with local communities to improve agricultural production in the upper Ambato River watershed, the principle water source for Tungurahua’s capital city, Ambato” (Kauffman and Martin 2014, 46). As a consequence of agricultural production wastes and soil erosion by the expansion of agricultural lands, the quality and quantity of water available to individuals downstream decreased significantly resulting in water shortages and conflicts (Kauffman and Martin 2014, 46). In an effort to ameliorate the issues, the NGOs, activists and communities made an effort to address these issues through community-based dispute resolutions and, in conjunction with the provincial government, utilized public assemblies for individuals to identify development needs and discuss strategies (Kauffman and Martin 2014, 46). The involvement of multiple community groups and councils suggests transparent, open and inclusive discussion of solutions. However, the result of the consultations were not wholly equitable. In replication of dominant international development norms, a market-based system of water taxation had been proposed, wherein a tax of two cents per cubic meter of water would be imposed in order to fund conservation and development (Kauffman and Martin 2014, 47). The neo-liberal taxation model exemplifies Western development practices and the governing and disciplining of the individual into the truth-claims of the governing regime of truth. The arrangement is premised upon Western notions of nature, wherein nature is constructed as ‘outside’ of our being, and can be controlled and commodified.

The proposal was adamantly rejected by numerous community groups. Agricultural producers noted that “70 percent of the funds would come from the agricultural sector, while hydroelectric companies would provide 25 percent, and domestic, commercial, and industrial consumption combined would account for 5 percent” (Kauffman and Martin 2014, 48). As such, the tax was denoted as unfairly targeting the agricultural sector. In addition, indigenous groups rejected the proposal due to ethical grounds and the awareness that the system operated upon the commodification of nature, in direct violation of indigenous cosmology (Kauffman and Martin 2014, 48). The public outcry ultimately resulted in the abandonment of the market-based, neo-liberal, mechanism and the emergence of Tungurahua’s New Governance Model. The development of a strategic plan involved the incorporation of all groups, including the state, indigenous populations, agricultural producers, and so forth. In recognition of all voices, the model acknowledged the need to balance agro-ecological production with well-being of both individuals and nature, and the norms of *buen vivir* (Kauffman and Martin 2014, 50). Rather than emphasizing individualistic goals of economic growth and the protection of nature from human interaction, the program sought to facilitate community growth and the incorporation of nature into human life, thereby protecting its resources. Several projects emerged in accordance with *buen vivir*, including the creation of community plant nurseries to support reforestation, the creation of the Association of Agro-ecological Producers of Tungurahua to train farmers in ecologically sustainable practices, and the replacement of livestock which destroyed vegetation within water catchment areas by native species that did not damage vegetation or cause soil erosion (Kauffman and Martin 2014, 51). The multi-pronged approach allowed for the watershed management system and the economic wellbeing of agro-ecological to be safeguarded. Simultaneously, the New Governance Model successfully facilitated participatory governance while respecting nature and the environment. Tungurahua’s watershed management governance model illustrates how business, local government, and indigenous communities can cooperate to institutionalize a development model in reflection of local norms, and the sanctity of the environment, while pursuing a form of development that secures the well-being of communities.

The successes of the New Governance Model and the inculcation of indigenous cosmology into development policies gained national attention. In April 2007, Ecuadorians approved a referendum to rewrite the states constitution which ultimately resulted in the codification of *buen vivir*, and an intercultural approach to development entrenched with local knowledges and practices, within the constitution (Kauffman and Martin 2014, 54). The successes or failures of Ecuador's new governance model is highly contested. While some posit the model allowed for government manipulation of state apparatuses to suppress opposition voices, others suggest the new model has successfully guided planning and empowered communities to hold the government accountable in sustaining the environment (Kauffman and Martin 2014, 55). Regardless, the paper suggests, the inculcation of indigenous knowledges into Ecuador's constitution and the altering of development practices to respect the rights of nature represents a significant alternative to the Western, neo-liberal model of economic development.

The concept of *buen vivir* and its application to natural resource extraction policies is only one example of how indigenous cosmology can, and has, informed the development discourse. However, there are multiple traditional knowledges and cosmological commitments globally which, applied to natural resource extraction, offer an alternative to development rooted in Western economic philosophy and understandings of nature.

Globalizing Indigenous Knowledges

Tungurahua's New Governance Model exemplifies two important truths of the development discourse. Firstly, the history of the models creation and the institutionalization of an alternative approach to ecological security in natural resource extraction demonstrates that the institutionalization of neo-liberal conservation techniques is not a universalistic concept. There is a clear tension between the individualistic, linear path to economic development through natural resource extraction and the understanding of nature within traditional knowledges and indigenous cosmologies. The eco-governmentality that emanates from the discourse of sustainable development and the governing of bodies in reflection of its goals can be resisted. Through the opposition of local actors, the designers of the watershed management policies were pressed to resign the strategy in accordance to local norms and customs. The project of neo-liberal eco-governmentality within natural resource extraction, thus, does not solely create docile bodies but can be a site of resistance. Local communities can be empowered to resist the reigning truth-regime and create new strategies for development and natural resource extraction which better reflect local norms and institutionalize practices which respect nature.

Secondly, the New Governance Model and the adaption of watershed management system policies to local norms demonstrates that indigenous cosmology and spiritual connections with nature can be applied in political contexts and inform the discourse of development. The Model demonstrates that communities can improve their well-being and seek economic security while maintaining a reverence for, and interdependence with, nature through domestic channels. Importantly, Ecuador's alternative development model has gained prominence globally as an alternative conceptualization of sustainable development, as agencies such as the United Nations have begun to conceptualize the right to live within a healthy environment and the ability to frame development an alternative development path with co-dependence of humans and nature as the guiding value (Kauffman and Martin 2014, 55). The recognition of an alternative framework within a regime of power which disseminates the dominant discourse of neo-liberal sustainable development, the paper contends, is a crucial step in globalizing traditional

knowledges. This represents the beginnings of an increasing awareness of the need to incorporate multiple knowledge systems into modes of thought and the beneficial effects of so doing.

Conclusion

The goal of this paper has been to answer two questions. First, the paper has questioned if the sustainable development discourse within the realm of natural resource extraction is premised environmental, or economic, security. The exploration of the truth-claims and goals of the regime of power has demonstrated that the discourse is premised upon wholly economic values and the governing of mentalities in the vein of capital accumulation. The governing of mentalities causes violence upon Southern populations, disregarding traditional knowledges about the environment and the interdependency of humans and nature which, in answer to the second question (if there exists an alternative paradigm to inform natural resource extraction policies) offer a significant alternative to Western modes of thought. The incorporation of indigenous cosmologies to natural resource extraction policies, the paper has demonstrated, offer a significant alternative model of development, wherein nature is respected and the well-being of the community is held as paramount. The dissemination of such development models, or the incorporation of indigenous cosmology in global contexts, offers a key alternative paradigm to be institutionalized if environmental sustainability is to be secured while continuing to support economic goals through natural resource extraction.

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