

# Foreign Direct Investment in the Mexican Petroleum Sector: Is it time to Reform the Constitution?

## Annotated Bibliography

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The following annotated bibliography is part of the research for my LL.M. major research project. My research objective is to determine whether the Mexican Constitution has to be reformed to allow major oil and gas companies to enter into exploration and production agreements in the Mexico's petroleum industry to produce the desirable result of increasing Foreign Direct Investment (FDI) into its petroleum sector.

I will study the Mexican petroleum framework approach regarding FDI, paying special attention to its Constitution's provisions and compare it to the Brazilian and Colombian petroleum regimes and their Constitution's provisions. I will examine the transitions endured by the Brazilian and the Colombian Constitutions to obtain their current petroleum regimes and the Constitutional reform processes of these countries and of Mexico. I will also study the Mexican Constitution's petroleum provisions effects on the North American Free Trade Agreement (NAFTA) and the consequences that Constitutional reform would have on NAFTA.

## BIBLIOGRAPHY

### PRIMARY MATERIAL: INTERNATIONAL TREATIES AND CONVENTIONS

*North American Free Trade Agreement Between the Government of Canada, the Government of Mexico and the Government of the United States*, 17 December 1992, Can TS 1994 No 2, 32 ILM 289 (entered into force 1 January 1994) [NAFTA], online: Foreign Affairs and International Trade Canada <<http://www.international.gc.ca>>.

### PRIMARY MATERIAL: LEGISLATION

*Constituição da República Federativa do Brasil, de 5 de outubro de 1988*, D.O.U., 6 October 1988, online: WorldLII <<http://www.worldlii.org/br/legis/const/1993>>.

*Constitución Política de Colombia, de 5 de Julio de 1991*, G.C., 5 July 1991, online: <<http://pdba.georgetown.edu>>.

*Constitución Política de los Estados Unidos Mexicanos, de 5 de febrero de 1917*, D.O.F., 5 February 1917, online: <<http://www.scjn.gob.mx>>.

*Lei N° 9.478 de 6 agosto de 1997*, D.O.U., 07 August 1997.

*Ley Reglamentaria del Artículo 27 Constitucional en el Ramo del Petróleo, de 29 de noviembre de 1958*, D.O.F., 29 November 1958, online: <<http://www.scjn.gob.mx>>.

#### SECONDARY MATERIAL: MONOGRAPHS

Elass, Jareer & Amy Myers Jaffe. *Critical Issues in Brazil's Energy Sector* (Houston: James A. Baker III Institute for Public Policy Rice University, 2004).

This study approaches the critical issues in Brazil's energy sector; it provides a legal, political and economic background of the sector. The monograph studies the history and results of Brazilian Energy Policy, and reviews the Brazilian efforts to achieve energy self-sufficiency. It addresses the steps towards oil sector privatization and identifies the key constitutional amendment driver. It reviews the oil supply and demand, and the role of the Petroleum Law (1997) that ended Petrobras' monopoly. As well, the monograph presents an assessment of Petrobras, its conclusions and recommendations to Brazil. This article is focused on a legal, politic and economic audience. The scope of the monograph is covered in a descriptive manner; near the end of the study the writer provides some opinions and personal contribution. This study will be useful when comparing Mexico's legal petroleum framework to Brazil, particularly in assessing possible consequences if Mexico was to proceed with constitutional reform and Pemex privatization. The monograph illustrates possible lessons that Mexico could learn from Brazil through the energy reform process.

#### SECONDARY MATERIAL: CHAPTERS IN BOOKS

Ayllón González, María Estela. *Manual del Derecho Constitucional Mexicano*, 1st ed (Mexico: Editorial Porrúa: 2010).

Burgoa Orihuela, Ignacio. *Derecho Constitucional Mexicano*, 15th ed (Mexico: Editorial Porrúa: 2002).

De Vega, Pedro. *El Problema del Poder Constituyente y la Reforma Constitucional*, 1st ed (Madrid: Tecnos: 1985).

Olano García, Hernán Alejandro. *Constitución Política de Colombia e Historia Constitucional*, 7th ed (Bogota: Ediciones Doctrina y Ley: 2000).

Tena Ramírez, Felipe. *Derecho Constitucional Mexicano*, 32nd ed (Mexico: Editorial Porrúa: 1998).

Torres Estrada, Pedro Ruben & Michael Núñez Torres. *La Reforma Constitucional sus Implicaciones Jurídicas y Políticas en el Contexto Comparado*, 1st ed (Mexico: Editorial Porrúa: 2010).

## SECONDARY MATERIAL: ARTICLES

Allen, Mark E. “An Overview of Mineral Development Law in Mexico” (1996) 25:1 Col Law 57 (LegalTrac).

The author explains how the Mexican policy on Foreign Direct Investment (FDI) has changed from promoting the policy, to restricting it and vice versa in different mineral sectors. Allen mentions that the Foreign Investment Law (FIL) of 1993 eliminates the restrictions to most sectors but excludes oil, gas and radioactive minerals. Allen also mentions that Mexico has taken several measures to increase mining investment such as: a) allowing foreign investors to hold mining concessions through participation in Mexican corporations; and b) offering financial benefits and fast concession approvals as incentives. The author’s arguments and conclusions are persuasive and helpful to understand Mexican policy on FDI. This article will be useful for my research when evaluating whether a Constitution amendment might not be necessary to increase FDI in sectors excluded by the constitution, but that this could be achieved through amendments to the FIL.

Anonymous. “Change Sweeping South American Oil Sector” (1991) 89:2 Oil & Gas J 33 (ABI/Inform Global).

———. “Pemex Grappling with New Woes as Privatization Inches Ahead” (1996) 94:37 Oil & Gas J 25 (ABI/Inform Global).

This article briefly reviews the Mexican government’s efforts to liberalize investment in the country’s energy sector. The article stresses that Mexicans are questioning the country’s faith in Pemex. It concisely reviews Pemex’s contribution to the Mexican economy and the abandonment of the oil industry in terms of investigation, exploration and maintenance activities. The article also stresses the interest of international oil companies (IOCs) to participate in Pemex’s modernization. This is a brief and concise article, however the conclusions arrived by the author are informative and eye opening especially concerning the abandonment of Pemex, regarding the interest of IOCs to participate in Pemex’s modernization and regarding the impediment of the uneven risk – benefit that the IOCs have to tolerate if they want to invest in Mexico. This article was intended for a business oriented audience.

———. “Privatization of Brazil’s Petroleum Sector on Track Despite Scandal” (1992) 90:27 Oil & Gas J 52 (ABI/Inform Global).

Baker, George. “The Oil Reform in Mexico” (2008) 229:12 World Oil 71 (Petroleum Abstracts Tulsa).

In this article the author comments on the oil reform package agreed upon by the Mexican Congress in 2008, reviews the benefits of the terms included and the downside of the terms excluded. The author briefly examines three topics: a) the origin of the current upstream controversy in Mexico; b) the oil reform package; and c) the management of exploration by Pemex. I consider the structure of the author’s arguments valuable due to the fact that the article effortlessly states what was included and excluded from the latest Mexican energy reforms, and the positives and negatives of the reforms. This article is helpful since it provides understanding into the missing components of the 2008 reforms, which will be taken into consideration in my research project while address recommendations towards Mexico’s next reform process.

———. “Mexico’s Presidential Elections Trigger Oil Policy Debate” (2005) 103:42 Oil & Gas J 20 (ABI/Inform Global).

The author comments on Pemex’s situation regarding deepwater exploration which he mentions is not a problem of technology deficiency but of lack of technical skills. The author identifies the offshore Cantarell field production declination as a key reform driver. The author also outlines the latest constitutional reform proposals and discusses the challenges regarding Mexican oil sector privatization. The author’s conclusions are of value, as he identifies the key reform driver and states that the reform of the petroleum regime is a necessity in order to continue exploration activities and to keep production levels high. This article is oriented towards a business audience.

Battendieri, Fred & Priscilla Lafeldt. “Latin America Tax Review: Brazil Removes Obstruction to Foreign Investment” (2003) 32:5 Tax Notes International 469 (LegalTrac).

Dabinovic, Tomislavo E J P. “Petroleum Service Contracts in Argentina, Brazil and Colombia: Issues Arising from their Legal Nature” (1987) 5:1 J Energy & Nat Resources L 15 (HeinOnline).

In this article the author studies the nature of the petroleum service contracts and the issues that derived from them in Argentina, Brazil and Colombia until the late 1980s. The author studies the legal nature of the service contracts, the “change in circumstances” doctrine as a means to change the terms of the contract by the host country, and the issue of unilateral cancellation of the contract and its compensation to IOCs. At the time of this article’s publication, the author was an authority in the area, attorney at law in Buenos Aires, former Professor of Political Economy at the University of Buenos Aires, and President of the Argentine Association of Energy Law and Mineral Rights. Brazil and Colombia have modified their petroleum legal

regimes regarding FDI but Mexico maintains it. Considering that I will closely study and compare the afore mentioned countries to Mexico, this article will be useful for my research.

English, Richard D. "Energy in the NAFTA: Free Trade Confronts Mexico's Constitution" (1993) 1:1 *Tulsa J Comp & Int'l L* 1 (HeinOnline).

In this article, the author studies the NAFTA's provisions on energy. First he provides a background of the importance of energy in North America and then focuses on Mexico and its petroleum history, the Mexican Constitution and energy, and the negotiations between Mexico and the United States and Canada for its accession to the GATT. The focus of the article is analyzing the NAFTA's provisions on energy, including: the North American Free Trade; the principles for the energy sector; the scope of the energy provisions; and the Mexican reservations as to scope and coverage. In his conclusions while reviewing the NAFTA in perspective, the author states that free trade can not truly exist in the energy sector until the Mexican government relinquishes control over foreign trade in petroleum and privatizes Petroleos Mexicanos. The author's conclusion agree with the vast majority of the articles annotated on this specific topic, but also provides an additional value, considering it comes from the NAFTA's perspective. This article will be useful when studying the implications of a possible Mexican Constitutional reform on the NAFTA.

Hernandez-Perez, Adriana. "Economics of Oil Regulation and the Brazilian Reform: Some Issues" (2011) 39 *Energy Policy* 57 (ABI/Inform Global).

McQuaid, Kristina A. & Steven P. Otilar. "Recent Developments in Brazil's Oil & Gas Industry: Brazil Appears to be Stemming the Tide of Resource Nationalism" (2008) 30:2 *Hous J Int'l L* 259 (LegalTrac).

This article provides background into the Brazilian energy sector and states that since opening its oil and gas market to foreign participation Brazil has become one of the most attractive countries for FDI in South America. The authors review the bid processes, the likelihood of complicated offshore reservoir unitization and the potential constitutional challenges. The authors examine a tax dispute and its possible impact on IOCs exploration program structure. The authors conclude that despite the growth in the market significant challenges remain in the mentioned topics. The arguments provided in this article will be valuable for my research by using the comparative method on Brazil, studied in comparison to Mexico. The authors' conclusions are useful to comprehend the challenges that Brazil is currently facing following the privatization of their energy sector and promote the visualization of potential risks by illustrating the reasons and effects of oil privatization that countries with similar legal and political characteristics, such as Mexico, could experience if following the same energy framework reform path.

Miranda, Martin. "The Legal Obstacles to Foreign Direct Investment in Mexico's Oil Sector" (2009) 33:1 *Fordham Int'l LJ* 206 (LegalTrac).

The author presents arguments for and against FDI; he describes the legal and political framework of Pemex and Mexico's energy sector and studies constitutional provisions and the Pemex legislation. The author presents two models for energy reform: a) Mexico's electric power deregulatory scheme; and 2) the Brazilian oil sector's gradual privatization. The author also considers the dangers of expropriation and explores how NAFTA mitigates the risk. Finally, the author recommends a reform model and concludes that the Mexican government must allow either: a) foreign companies to renovate Pemex's facilities through concession contracts; or b) produce oil under a restructured Mexican regulatory regime. The author's conclusions and notes on the two models for energy reform are of great value since they provide different solutions to the Pemex situation: privatization or deregulation. The article will be helpful for my research project when discussing amendments of the Mexican Constitution as the only way of attracting FDI into Mexico's oil sector and also when studying NAFTA in the Mexican energy sector.

Puyana, Alicia. "¿Qué Pasa con el Petróleo Colombiano?" (2009) 53 *América Latina Hoy* 15, online: <<http://redalyc.uaemex.mx/src/inicio/ArtPdfRed.jsp?iCve=30812173002>>.

This article explains how Colombia transitioned from risk sharing contracts to concessions to privatization of part of the state oil company Ecopetrol. The author measures the impact of the concession in terms of increased investments in exploration, production and reserves. The author mentions that small increases in production did take place and that some reserves were discovered but concludes that is unclear if this new strategy will satisfy the Colombian domestic energy demands. The author also concludes that the reasons behind privatization were neither for the benefit of Ecopetrol nor the maximization of the national resources. The author's expertise arrives from her background and experience as she is a professor at the Facultad Latinoamericana de Ciencias Sociales, Mexico and has been an adviser to both the Colombian and the Mexican governments on international and domestic economic issues. This article is helpful to understand the experiences of Colombia transitioning from one FDI type of contract to another, and the author's conclusions allow drawing possible lessons that Mexico could learn from Colombia if it chooses to encourage FDI in the oil sector.

———. "Mexican Oil Policy and Energy Security Within NAFTA". (2006) 35:2 *Intl. Journal of Political Economy* 72, online: <<http://mesharpe.metapress.com/link.asp?target=contribution&id=U663277422661NP4>>.

This article provides a view of Mexican oil policy and economy, and studies energy security within NAFTA. The author studies internal and external factors limiting Mexico's energy policy and identifies as internal factors: a) that Mexico's oil is a development promoting and federalism strengthening tool; and b) the recent concern of securing a guaranteed energy supply for the domestic market. The author comments on these factors' consequences, two of them being the taxation of Pemex and the low revenues to reinvest in the later. As for the external factors, the author focuses on NAFTA's oil market, the role of Mexican oil in the agreement and the special provisions provided for it in the later. The arguments and conclusions presented in this article

make it helpful to understand the interconnection of NAFTA and the Mexican Constitution's provisions regarding FDI in the Mexican petroleum framework. According to the legal hierarchy established by the Mexican Constitution, NAFTA is placed right below the Constitution, above all national laws. The article will be useful in my research project when addressing the consequences of a possible amendment to the Constitution, particularly having to contemplate modifications to the germane section of NAFTA as one of the possible amendments.

Quintanilla M, Juan & Mariano Bauer E. "Mexican Oil and Energy Policy" (1995) 38:3 Challenge 22 (ABI/Inform Global).

Reitz, John C. "How to Do Comparative Law" (1998) 46 Am J Comp L 617 (HeinOnline).

The author claims that there is a comparative method, that the method offers strong benefits for the study of law and that it is indispensable in our interconnected world. The author shares nine principles that he considers essential for this method. Among them he states that a comparative study should include the law and its relationship with history, politics, economy and any other relevant fields. The author suggests organizing the work by breaking the subject into units and describing and comparing immediately within the unit, instead of doing it in blocks. I will use the comparative method in my major research project as these principles will contribute to the better organization of my comparative study and will be helpful to avoid repetitiveness, as well as to achieve conciseness thorough the study and reach stronger conclusions.

Sandrino, Gloria L. "The Nafta Investment Chapter and Foreign Direct Investment in Mexico: A Third World Perspective" (1994) 27:2 Vand J Transnat'l L 259 (HeinOnline).

In this article the author reviews the investment provisions of NAFTA examining the significance of Mexico's shift to welcoming FDI, excepting in the energy sector. The author explores Mexico's historical "love-hate" relationship, as she calls it, with FDI and Mexico's role as guidance of its own economy and as the leading proponent of the Third World cautionary approach to FDI. The article includes a note from the editor mentioning that this article was authored prior to Mexico's passage of the FDI Law (on December 27, 1993), which implemented NAFTA's investment principles. Regardless of the fact that the author's conclusions are not current, this article will be useful while reviewing the impact of a possible Mexican Constitution reform on NAFTA's provisions and framework and while studying the Mexican FDI approach throughout the research project.

Shields, David. "Despite Falling Output, Mexican Politics Keep Foreign Operators Out" *Offshore* (September 2006) 28, online: Offshore-mag.com <<http://www.offshore-mag.com>>.

This article mentions the difficulties to achieve consensus on energy reforms in Mexico's congress and reviews the Cantarell field production decline acceleration. The article also recognizes Pemex's deepwater exploration efforts and stresses the low interest of IOCs in service contracts for drilling offered by Pemex due to the restrictive legal framework. The author

mentions that the ideal scenario would be to achieve constitutional and legal amendments to allow IOCs to receive concessions or production-sharing and profit-sharing contracts for deepwater exploration, providing IOCs with a risk-reward balance. This article is intended for a business oriented audience rather than for legal scholars; however, due to the nature of the author's arguments and conclusions regarding the IOCs interest to participate in Mexico's exploration and the necessity of a constitutional reform to allow the Mexican government to attract FDI by providing IOCs with a stable and fair framework, this article will undoubtedly be relevant for my research project.

Universidad Autonoma del Estado de Mexico. "La reforma energética, un paso fundamental para fortalecer a PEMEX" (2009) 12:24 *Espacios Publicos* 242, online:  
<<http://redalyc.uaemex.mx/src/inicio/ArtPdfRed.jsp?iCve=67611167017>>.

This article presents a summary of the 2008 Mexican energy sector reform, as stated in the summarized reform bulletin No. 185. It discusses how that hydrocarbons ownership, exploration and production are still restricted to Pemex and that service contracts remain as the only participation option for private investors in the sector. This article is merely a summary of the energy reform bulletin No. 185. The article is relevant due to the descriptive nature of its content and it clarifies any doubts concerning the participation options for private investors in the new legal energy framework in Mexico. This article will be useful in my research project when addressing how Mexican energy reform did not go as far as to modify the oil sector private investment options.

Valera, Jose L. "Changing Oil and Gas Fiscal and Regulatory Regimes in Latin America" (2007) 105:45 *Oil & Gas J* 20 (*ABI/Inform Global*).

This article provides a brief country-by-country review of what has transpired in the oil and gas fiscal and regulatory regimes in Latin American in the last ten to fifteen years. The author studies Argentina, Bolivia, Brazil, Colombia, Ecuador, Mexico, Peru and Venezuela. He stresses the fact that most countries have changed their policy from restrictive to open to FDI in the oil sector and vice versa. The author highlights that the only country that has remained always closed to FDI is Mexico. This article does not study the fiscal and regulatory regimes of the mentioned countries in great depth, nor does it apply the comparative method; however it does provide a complete foreign law study that offers materials and grounds to proceed towards a comparative study of the afore mentioned countries. This article will be helpful for my major research project due to the information it provides, considering it will be used to apply the comparative method.

## SECONDARY MATERIAL: ELECTRONIC SOURCES

Ecopetrol <<http://ecopetrol.com.co>>.

Petróleo Brasileiro (PetroBras) <<http://petrobras.com.br>>.

Petróleos Mexicanos (Pemex) <<http://pemex.com.mx>>.

World Bank <<http://worldbank.org>>.

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**A LEGAL AND REGULATORY FRAMEWORK FOR SUSTAINABLE  
APICULTURE IN NORTH AMERICA**

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**JULIA C. LONEY**

The following presents my annotated bibliography for my thesis as an LL.M. candidate at the University of Calgary. It is a work in progress and I note that I am continuing to add new sources regularly.

In recent years, the population of Western honeybees, *Apis mellifera*, has been declining due to colony collapse disorder. Regulation of beekeeping activities is a crucial means of maintaining productive honeybees for pollination. My research question seeks to answer whether the recent decline in sustainable honeybee populations is, in part or in whole, related to a defunct legislative and regulatory framework that does not adequately address the multi-factorial ecological and agricultural threats facing honeybees. The parameters of my research question are: (a) the overuse of pesticides and (b) various practices used in commercial beekeeping.

#### **PRIMARY SOURCES: LEGISLATION**

*Animal Health and Protection Act* (Prince Edward Island), RSPEI C. A-11.1.

*Animal Health Protection Act* (Quebec), RSQ, c P 42.

*Apiary Inspection Act* (New Brunswick), RSNB 2011, c A9.

*Bee Act* (Alberta), RSA 2000, c B-2.

*Bee Act* (British Columbia), RSBC 1996, c 29.

*Bees Act* (Ontario), RSO 1990, c B-6.

*Bee Industry Act* (Nova Scotia) SNS 2005, c 3.

*Canada Agricultural Products Act*, RSC 1985 (4th Supp), c 20.

*Florida Honey Certification and Honeybee Law*, § 586, Fla. Stat. (2010).

*Food and Agriculture Code* (California), CCR § 29000- 29190.

*Food and Drugs Act*, RSC 1985, c F-27.

*Health of Animals Act*, SC 1990, c 21.

*North Carolina Bee and Honey Act*, 106 NCAC § 55.

*Animals and Animal Husbandry Code, Tennessee Apiary Act of 1995*, 44 Tenn Code Ann § 15.

*The Apiaries Act* (Saskatchewan), RSS 2005, c A-22.01.

*The Bee Act* (Manitoba), RSM 1987, c B-15.

*The Georgia Bee Law*, OCGA § 2-14-40.

*The Honeybee Act*, 7USCS § 281.

#### **SECONDARY SOURCES: MONOGRAPHS AND ARTICLES**

Aizen, Macelo A. et al. “The Global Stock of Domesticated Honey Bees is Growing Slower than Agricultural Demand for Pollination” (2009) 19 *Current Biology* 1.

American Honey Producers' League. *A Treatise on the Law Pertaining to the Honeybee* (Madison: The American Honey Producers' League, 1924).

This is an amazing resource, I can only wish that the American Honey Producers' League published a follow-up or revised edition. The Treatise has been prepared by the Legal Department of the American Honey Producers' League in cooperation with the American Bee Journal and Gleanings in Bee Culture. The Treatise brings together all of the law of the English speaking world which relates to the honeybee. This includes the United States, Canada, New Zealand, and New South Wales. It includes reports of all Courts, acts of Parliament, and Congress and Legislative acts respecting the honeybee. It is a complete work in that there appears to have nothing left out. I note that the Honey Producers' League is now known as the American Honey Producers Association. The American Bee Journal was established in 1861 and is considered the oldest English language publication and the finest publication about bees and beekeeping in the world. Gleanings in Bee Culture (now called Bee Culture) is a journal devoted to bees, honey and home interests. It has been published since 1875 by the A. I Root Co. To further my research, I have subscribed to both Journals.

Anderson, Jeff. "Pesticides, Labels and Honey Bees. Let's Be Clear..." (2005) 8 Bee Culture 11.

Angelo, Mary Jane. "Killing Fields: Reducing the Casualties in the Battle Between U.S. Species Protection Law and U.S. Pesticide Law" (2008) 32 Harv Envtl L Rev 95.

Mary Jane Angelo is an Associate Professor of Law at the University of Florida, Fredric G. Levin College of Law. This article focuses on pesticide use, specifically those employed since the 1970s and 1980s in the absence of DDT and other bio-accumulating pesticides. She examines the conflict between the laws governing pesticides and the laws designed to protect wildlife. According to the article, the United States Environmental Protection Agency is in a position of regulatory paralysis resulting from the tension between species protection and pesticide laws. The article provides an overview of the relevant statutes, examines the sources of tension between the statutes, and concludes with suggested legislative reforms intended to eliminate or alleviate the conflict. This article will provide useful for me because it not only provides a similar methodology as the one I intend to use; but it also focuses on the overuse of pesticides, which is one of my research problems. This article will help shed light on where the problems stem from, and provide ideas of legislative reforms that may be compatible with my proposed legislative and regulatory framework.

Balayiannis, George et al. "Bee Honey as an Environmental Bioindicator of Pesticides' Occurrence in Six Agricultural Areas of Greece" (2008) 55 Archives of Environmental Contamination and Toxicology 462.

Benjamin, Alison et al. *A World Without Bees* (London: Guardian Books, 2009).

Alison Benjamin is the editor of the Guardian's Society section and has written many articles for the Guardian regarding bees and environmental affairs. Brian McCallum is studying to become an apiarist. This book was very good in that its message was alarming. One particularly startling quotation from the book was from Albert Einstein, who said that "If the bee disappeared off the surface of the globe then man would only have four years of life left. No more pollination, no more plants, no more animals, no

more man.” The stories in this book really made the problem hit home for me and were quite frankly distressing. For example, in Sichuan, China, every year farmers collect pollen from the anthers (male part) of their trees and then, using long feather dusters, apply the pollen to the flowers’ stigmas (female part). They must do this because the overuse of pesticides eradicated the regions’ honeybee population. Consequently, the farmers must do their own pollination. I think that the strength of this book is in its explanation of the challenges facing bees and the intensiveness and commercialism of modern beekeeping. After reading this book, I came to the conclusion that bees are in essence exploited workers. This will be a very useful resource for me in researching the second parameter of my research problem, being practices used in modern beekeeping.

Bishop, Holley. *Robbing the Bees: A Biography of Honey – The Sweet Liquid that Seduced the World* (New York: Free Press, 2005).

Holley Bishop is a novice beekeeper and first time book author. This book reads very well and is a rather lovely read. Holley Bishop’s focuses on three primary themes: her personal experiences with being a novice beekeeper, Donald Smiley and his large professional beekeeping operation in Florida, and a history on honey, bees and beeswax. While this book is a fascinating read, I do not think it will be an important resource for my research. This is because it only nurtured my curiosity. It was not particularly insightful and did not have the scholarly material that I will require for the body of my thesis. As such, I think it is very good background reading but not the depth of material I require for my thesis.

Boynton, Bruce. “A (Re)Introduction to the National Honey Board” (2011) 4 Bee Culture 45.

Burns, Loree Griffin Burns. *The Hive Detectives: Chronicle of a Honey Bee Catastrophe* (New York: Houghton Mifflin Harcourt Publishing Company 2010).

Loree Griffin Burns is a writer of books about science for children. This book is part of a very reputable series called Scientists in the Field. In this book she profiles scientists who are working to understand colony collapse disorder. While the book is aimed at children and is heavy on pictures, I found the narrative nonfiction style informative and engaging. This book really emphasized how critical the threat of colony collapse disorder is to our food supply. I think that this book will provide statistics and facts that I can use in my thesis to show the importance of my research problem.

Byrne, Andrew et al. “Bee Conservation Policy at the Global, Regional and National Levels” (2009) 40 Apidologie 194.

Andrew Byrne is a PhD researcher with the National Biodiversity Data Centre, located in Carriganore, WIT West Campus, Waterford. He conducts extensive fieldwork on bees. Dr. Una Fitzpatrick is a researcher with the National Biodiversity Data Centre and a member of the Department of Zoology, School of Natural sciences, Trinity College Dublin, Ireland. Dr. Fitzpatrick has written extensively on the subject of honeybee decline in Ireland. This article provides a good overview of global policy framework, and provides explanation on streamlining bees into regional, national or sub-national conservation policy and practice. It will be a useful research in the section of my paper that focuses on suggestions to improve the current legislative and regulatory framework. This is because it outlines a number of global policy frameworks and evaluates their

potential impact on bee conservation. Moreover, this article along with the other articles I have read by Dr. Fitzpatrick, provide a comprehensive overview of the status of bee populations in Ireland. This will prove useful for my comparative analysis.

Carson, Rachel. *Silent Spring* (Boston: Mariner Books, Houghton Mifflin Company 1962).

Chauzat, Marie-Pierre et al. "Pesticide Residues in Beeswax Samples Collected from Honey Bee Colonies (*Apis Mellifera* L.) in France" (2007) 63 *Pest Management Science* 1100.

Cheung, Steven N. S. "The Fable of the Bees: An Economic Investigation" (1973) 16 *The Journal of Law and Economics* 11.

Stephen N.S. Cheung is with the University of Washington and the investigation was part of a proposed research in the general area of contracts supported by the National Science Foundation. This article is rather out-dated, but it provides an economic analysis of beekeeping, including an analysis of the number of bee hives per acre needed for pollinating various crops. It then provides an analysis of pricing and contractual behavior. While not entirely relevant to the discussion of my research questions, the article is insightful into apiculture economics and is a rather interesting read.

Coenen-Davis, Ann N. "The Mystery of the Disappearing Honeybee: Will Government Funding and Regulation Save this Important Pollinator" (2009) 14 *Drake Journal of Agricultural Law* 175.

Cornell University, *Abuzz About Bees: 400 Years of Bees and Beekeeping*, online: Mann Library, Cornell University <<http://exhibits.mannlib.cornell.edu/beekeeping/phillips/index.html>>.

Cornell University, *The Hive and the Honeybee: Selections from the E.F Phillips Beekeeping Collection at Mann Library*, online: Mann Library, Cornell University <<http://bees.library.cornell.edu/>>.

This website is incredible. The E. F. Phillips Beekeeping Collection was established in 1925 by Everett Franklin Phillips, a Professor of Apiculture at Cornell. Today, the collection is the largest and most valuable library on bees and beekeeping in the world. In addition to books, the collection includes complete runs of beekeeping journals from around the world and artifacts of apiculture history, such as L. L. Langstroth's personal journals. A number of materials, including 35 books, are available on the website. I would really like to visit the Collection, and the Exhibit listed above, *Abuzz About Bees: 400 Years of Bees and Beekeeping*, in the near future. At this time, I am not sure which exact books will be useful for my research, however considering the comprehensiveness of the collection, I am sure there will be many resources of interest.

Cunningham-Parker, Keith. "A Poisoned Field: Farmworkers, Pesticide Exposure, and Tort Recovery in an Era of Regulatory Failure" (2003-2004) 28 *New York University Review of Law & Social Change* 431.

Currie, Robert W. et al. "Honey Bee Colony Losses in Canada" (2010) 49 *Journal of Apicultural Research* 104.

The authors of this article are with the Department of Entomology at the University of Manitoba, the Department of Agriculture and Agr-Food Canada, and the Department of Environmental Biology at the University of Guelph, respectively. This article does not have a legal focus, but it will be helpful in providing an overview of my research

problem: notably that the honeybee populations are declining. The article explains some of the causes and uses statistics and charts to explain the data. It also has a Canadian focus, which makes it more relevant to my topic than articles from other jurisdictions.

Delaplane, Keith S. et al. *Crop Pollination by Bees* (New York: CABI Publishing, 2000).

Dr. Keith Delaplane is a Professor of Entomology at the University of Georgia. His research and teaching interests are focused in bee management and crop pollination. Dr. Daniel Mayer is a Research Entomologist at the Irrigated Agriculture Research Center (IAREC) at Washington State University. His research is directed at crop pollination and the effect of pesticides on pollinators. This book is a very comprehensive resource for explaining how bee pollination improves the yield and quality of cultured plants. One really fascinating thing about this book is that there were nearly four dozen chapters each focusing on a crop requiring bee pollination, such as cotton, canola, clover, blueberries, tomatoes and soybeans. Though outside the scope of my research, these chapters really emphasized the importance of bees to so many of our crops. In chapter 7, the discussion focuses on the different agendas that crop growers and bee-keepers have. For this reason, I think that it will be a very useful resource for the second parameter of the research problem, being practices used in modern beekeeping. Chapter 14 focuses on pesticide use and helps to explain why bees are poisoned, Consequently, I will use this chapter for the second parameter of my research problem, pesticide use.

Dunning, Harrison C. "Pests, Poisons, and the Living Law: The Control of Pesticides in California's Imperial Valley" (1972) 2 *Ecology Law Quarterly* 633.

Ewing, James F. "Agricultural Biotechnology: Is the International Regulation of Transgenic Agricultural Plants for the Birds (and the Bees)?" (2002) 25 *Suffolk Transnational Law Review* 617.

Halter, Reese. *The Incomparable Honeybee and the Economics of Pollination* (Victoria, Rocky Mountain Books, 2011).

Heinrich, Bernd. *Bumblebee Economics* (Cambridge, Massachusetts: Harvard University Press, 1979).

Bernd Heinrich is a Professor Emeritus of Biology at the University of Vermont. This book is interesting because it takes a different focus- that of theoretical biology to analyze the role of energy as an organizing force in the biology of honeybees. I was hoping that the book would be more on the economics of honeybees and beekeeping. Rather, it focuses on honeybee economics, explaining how energy is captured and used by organisms and how it cycles through ecosystems. The chapters include flying, heating the colony and heat transfer, foraging optimization, pollination and energetics and competition between species. It was an interesting book nonetheless.

Higes, Mariano et al. "How Natural Infection by *Nosema Ceranae* Causes Honeybee Colony Collapse" (2008) 10 *Environmental Microbiology* 2659.

Hori, Sayaka et al. "Associative Visual Learning. Color Discrimination, and Chromatic Adaption in the Harnessed Honeybee *Apis Mellifera L*" (2006) 192 *Journal of Comparative Physiology A* 691.

Horn, Tammy. *Bees in America: How the Honey Bee Shaped a Nation* (Lexington, Kentucky: The University Press of Kentucky 2005).

Tammy Horn is a professor at Berea College and a beekeeper in Kentucky. As NEH Chair of Appalachian Studies, her current research project focuses on the relationship between coal mine reclamation sites and honeybees. The book is a social history of the honeybee in America, beginning with the colonial America up to the intensely managed and politically volatile contemporary times of today. The book will be very useful for my research because it considers the history of the bee from a social perspective. I especially like that it includes economic and social aspects. While the book lacks a legal focus, it will be useful background reading.

Jacobsen, Rowan. *Fruitless Fall: The Collapse of the Honey Bee and the Coming Agricultural Crisis* (New York, Bloomsbury, 2008).

Rowan Jacobsen is an environmental writer. He has written various books and contributes to the *New York Times*, *Harper's*, and *Newsweek*. I really enjoyed this book because it is an enlightening and engaging examination of colony collapse disorder. It also assesses the implications of the disorder to our food supply, which really speaks to the importance of my research problem. I also like how Rowan Jacobsen addresses the many factors of colony collapse disorder. This will assist me in deciding how to focus my research questions to address specific factors. I had hoped that there would be a chapter on regulation, however unfortunately this book does not have any legal focus.

Johnson, David B. "Meade, Bees, and Externalities" (1973) 16 *Journal of Law & Economics* 35.

Jones, Richard A. et al. *The Beekeeper's Bible* (New York: Stewart, Tabori & Chang, 2011).

Richard A. Jones is a writer, ecologist and expert on insects. He contributes to *BBC Wildlife Magazine* and *New Scientist*. Sharon Sweeney-Lynch is a freelance writer for various magazines including the *Guardian*, the *Independent*, and the *Times Higher Education Supplement*. This book is both a practical guide to the essentials of beekeeping and an almanac. While a lot of the information in this book is beyond the scope of my research, I am excited about the currency of this book, as well as the comprehensive historic information on beekeeping. I also think that it will provide a useful reference tool as I go about my research.

Fitzpatrick, Una et al. "Building on IUCN Regional Red Lists to Produce Lists of Species of Conservation Priority: a Model with Irish Bees" (2007) 21 *Conservation Biology* 1324.

Fitzpatrick, Una et al. "Rarity and Decline in Bumblebees - A Test of Causes and Correlates in the Irish Fauna" (2007) 136 *Biological Conservation* 185.

Kearns, Carol A. et al, "Endangered Mutualisms: The Conservation of Plant-Pollinator Interactions" (1998) 29 *Annual Review of Ecology and Systematics* 83.

Kirsch, Ray. "What's the Buzz? Common Law for the Commons in *Anderson v. State Department of Natural Resources*" (2006) 29 *Hamline Law Review* 337.

At the time of writing this article, Ray Kirsch was a candidate for Juris Doctor at the Hamline University School of Law. The article provides a case comment on the decision *Anderson v. State Department of Natural Resources*, 674 N.W.2d 748, 752 (Minn.Ct. App. 2004). The case involved the use of pesticides to the detriment of bees; more

specifically, allied Minnesota commercial beekeepers pursued an action that challenged the duty owed to beekeepers by a landowner who knows that honeybees are present. The Court ultimately found that a common law duty of reasonable care was owed to beekeepers. The article discusses the case and argues that the Court afforded an opportunity for society to explore the tension between property rights and ecological interdependence.

Klass, Alexandra B. "Bees, Trees, Preemption, and Nuisance: A New Path to Resolving Pesticide Land Use Disputes" (2005) 32 Ecology Law Quarterly 763.

Kosek, Jake. "Ecologies of Empire: On the New Uses of the Honeybee" (2010) 25 Cultural Anthropology 650.

Langstroth, L. L. *Langstroth's Hive and the Honey-Bee: The Classic Beekeeper's Manual* (Mineola, New York: Dover Publications, Inc. 2004) (Republication of the fourth edition of *A Practical Treatise on the Hive and the Honey-Bee* (Philadelphia: J. B. Lippincott & CO., 1878)).

This is a classic. Reverend Langstroth's work was originally published in 1853 under the title *A Practical Treatise on the Hive and the Honey-Bee*. Reverend Langstroth was known as "The Father of Modern Beekeeping." His work constitutes the first descriptive treatise on modern bee management. This innovation allowed people to engage in apiculture, whereas previously people only extracted the honey from wild hives. Among other things, Reverend Langstroth developed the movable frame hive that is commonly used around the world. This book will be useful because it presents a reader-friendly manual on all aspects of bees, including physiology, diseases, feeding, life-cycles, handling, maintenance of the apiary, and production of honey. This book is a very comprehensive resource for understanding bees and apiculture.

Litchman, Lori. "Urban Bees" (2010) 9 Bee Culture 63.

Mitchell, Laurie A. "Attack of the Killer Bees: Will Regulation Save Us?" (1998) 8 San Joaquin Agricultural Law Review 103.

Longgood, William. *The Queen Must Die: And Other Affairs of Bees and Men* (New York: W. W. Norton & Company, Inc. 1988).

In this book, William Longgood does not present a scientific analysis or a technical manual of beekeeping. Rather, this book presents Longgood's experiences and observations gained from his time tending to his bees. While not entirely relevant to the topic of my thesis, this book has a perspective that is very fascinating and beneficial to understanding bees and their "personalities". I found the informal nature of this book charming and the subject matter quite touching.

Muth, Mary K. et al. "The Fable of the Bees Revisited: Causes and Consequences of the U.S. Honey Program" (2003) 46 Journal of Law & Economics 479.

Oldroyd, Benjamin P. and Wongsiri, Siriwat. *Asian Honey Bees: Biology, Conservation and Human Interactions* (Cambridge, Massachusetts: Harvard University Press, 2006).

Benjamin Oldroyd is an Associate Professor of Biological Sciences at the University of Sydney and is well-known for his research in the area of honeybee genetics and evolution. Siriwat Wongsiri is a Professor of Science at Chulalongkorn University in

Thailand is the preeminent researcher of bees in Thailand. This is a very thorough and well-written book. Benjamin Oldroyd and Siriwat Wongsiri have written numerous articles on Asian honeybees in various ecological and apiculture journals and this book synthesizes all of their knowledge. While the focus of my research is the Western honeybee, or *apis mellifera*, this book integrates their research on Asian honeybees with knowledge of the Western honeybee. While I do not think that this will be an essential resource for my research, the discussions on pathogens and conservation will be particularly useful.

Packer, Laurence. *Keeping the Bees: Why all Bees are at Risk and What We Can Do to Save Them* (Toronto: HarperCollins Publishers Ltd., 2010).

Pimentel, David et al. "Environmental and Economic Costs of Pesticide Use" (1992) 42 *BioScience* 750.

Pimentel, David. "Environmental and Economic Costs of the Application of Pesticides Primarily in the United States" (2005) 7 *Environment, Development and Sustainability* 229.

Pimentel, David. "Ethical Issues of Global Corporatization: Agriculture and Beyond" (2004) 83 *Poultry Science* 321.

Phillips, Kathleen. "Honeybee Nice to Your Neighbors: Solutions to the Dispute Between Beekeepers and Citrus Growers in California's San Joaquin Valley" (2007) 17 *San Joaquin Agricultural Law Review* 227.

Riedl, Helmut et al. *How to Reduce Bee Poisoning from Pesticides* (Corvallis, Oregon: Oregon State University 2006).

Root, Amos Ives et al. *The ABC & XYZ of Bee Culture: An Encyclopedia Pertaining to the Scientific and Practical Culture of Honeybees* (Medina, Ohio: A. I Root Company, 2007).

This is the definitive encyclopedia of beekeeping. Dr. Shimanuki is the retired Research Leader of the USDA Honeybee Research Lab in Maryland. He is considered a world authority on honeybee diseases and pests. Ann Harman is a research chemist, master beekeeper, honey judge, and contributor to various beekeeping magazines. Kim Flottum has been the editor of *Bee Culture Magazine* for 25 years, which is the largest circulation beekeeping magazine in America. This edition marks the 41<sup>st</sup> edition of this book. This book has a lot of depth and valuable information on honeybees in general. I hoped that it would have information on colony collapse disorder and the recent problems facing bees, however this was not the case. This book represents a compendium of experience, representing decades of acquired experience and wisdom. I will find it useful as a general reference for fact-checking purposes.

Schacker, Michael. *A Spring Without Bees: How Colony Collapse Disorder has Endangered Our Food Supply*. (Guilford, Connecticut: The Lyons Press, 2008).

Michael Schacker is an investigative science writer and the founder of the New Earth Institute. He has served as a strategic consultant and contract writer in the field of regenerative agriculture. This is an important book in that it provides an authoritative account of colony collapse disorder and how it threatens our food crops. It also considers political and commercial factors and positions. I especially appreciate that the book

discusses conclusions reached by scientists in Europe and then suggests how the principles can be applied in North America. This aspect of the book will be very useful to my research. The book does come across as somewhat amateur-ish, in that Michael Schacker's arguments do not always seem convincing. Instead he presents his ideas with few opposing viewpoints which makes the book less scholarly in its approach.

Skerl, Maka Ivana Smodis et al. "Residues of Pesticides in Honeybee (*Apis Mellifera Carnica*) Bee Bread and in Pollen Loads from Treated Apple Orchards. (2009) 83 Bulletin of Environmental Contamination and Toxicology 374.

Spaeth, Frederick Andrew. "Genetic Engineering Research: An Analysis of the Government's Role in Regulation" (1986) 7 University of Bridgeport Law Review 71.

Tang, Jennifer et al, "Assessment of Canadian Federal and Provincial Legislation to Conserve Native and Managed Populations" (2007) 3 International Journal of Biodiversity Science and Management 46.

The authors of this article are with the Department of Integrative Biology, College of Biological Science and the Department of Environmental Biology, Ontario Agricultural College, at the University of Guelph, Ontario. The article addresses whether Canada has the capacity to manage native pollinators by focusing on hard legislation. An assessment of both federal and provincial legislation is given. The article does not have the depth that I would hope for; however, it will still be a beneficial article for my research because it is focused on Canadian laws. As of date, I have not found other research that has a Canadian focus.

Temple, Truman. "Pesticides and Bees" (1978) 4 Environmental Protection Agency Journal 15.

Triplett, Melanie. "Case Note: Torts – Buzz Off! Expanding the Scope of Landowner's Duty to Honey Bees Flying Along the Fine Line of Trespassing in *Anderson v. State Department of Natural Resources*" (2005) 32 William Mitchell Law Review 1489.

Trusler, Harry R. "The Law of Bees" (1926) 5 The North Carolina Law Review 46.

At the time of publication, Harry Trusler was a Professor of Law and Dean of the College of Law of the University of Florida. The article is rather outdated, but it provides a very good overview of the law of bees, including their character, ownership, rights of finders of bee trees, injuries by bees, and bees as a nuisance.

Wilkins, Selwyn. et al. "The Incidence of Honey Bee Pests and Diseases in England and Wales." (2007) 63 Pest Management Science 1062.

Wossink, Grada A. et al. "Pesticide Policies in the European Union" (2000) 5 Drake Journal of Agricultural Law 223.

## **Draft Annotated Bibliography**

This draft annotated bibliography was prepared for Law 703 (Legal Research and Methodology) at the Faculty of Law at the University of Calgary. It is a work in progress for a major paper by Bob Jensen entitled “Shuswap Lake Environmental Challenges - Is the Law Part of the Solution or Part of the Problem?”

### LEGISLATION

*Constitution Act, 1867* (UK), 30 & 31 Vict, c 3.

*Environmental Management Act*, SBC 2003, c 53.

*Fisheries Act*, RSC 1985, c F-14.

*Fish Protection Act*, SBC 1997, c 21.

*Local Government Act*, RSBC 1996, c 323.

*Riparian Areas Regulation*, BC Reg 376/2004

### JURISPRUDENCE

*Fowler v. The Queen*, 1980, 2 SCR 213.

*Friends of the Oldman River Society v. Canada (Minister of Transport)* (1992), 1 SCR 3 (SCC).

*Multiple Access Ltd. V. McCutcheon*, 1982, 2 SCR 161 (SCC).

*Northwest Falling Contractors v. The Queen*, 1980, 2 SCR 292.

*Yanke v. Salmon Arm (City)*, 2011 BCCA 309.

### SECONDARY MATERIALS: MONOGRAPHS

Hogg, Peter. *Constitutional Law of Canada*, 5<sup>th</sup> ed supplemented (Toronto, Ont; Carswell).

This is considered the leading constitutional resource (loose-leaf) in Canada, written by an individual considered by many to be the foremost authority on constitutional law in Canada. The text, and prior editions, is cited in legions of decisions and relied upon as an authority by the courts. The two-volume set begins with a detailed history of the constitution of Canada, an explanation of the Canadian system of government, an explanation of the court system, and detailed discussion on aspects of the Crown,

sovereignty and delegation. Following that is an extensive commentary on the division of between the federal Parliament and the provinces, as well as analysis of each particular power and the cases relating to them. The table of contents is well organized and easy to follow and locate areas of interest. The audience is primarily the judiciary, practicing lawyers, drafters of legislation, and law students. The book contributes to the research project insofar as it provides a foundation and analysis for what is becoming a tri- level approach to environmental regulation in Canada.

Macklem, Patrick. *Canadian Constitutional Law*. 4th ed (Toronto, Ont: Edmond Montgomery, 2010).

This text is written and edited by fifteen constitutional experts from different law schools in Canada. The approach is to analyse the constitutional law of Canada by theme, utilizing excerpts from articles and judicial decisions. The text also includes notes questions for thought at the end of many sections, which piques the thinking process of the reader. The audience is primarily teaching faculty, practicing lawyers and law students. The book contributes to the research project insofar as it provides a forward-looking approach and analysis to the constitution, which is certainly appropriate as the law adapts to the increasing demands of the environmental challenges and problems facing Canada.

Bakker, Karen. *Eau Canada – The Future of Canada’s Water* (Vancouver: UBC Press).

The editor, Karen Bakker, has compiled a series of chapters that are very thought provoking and insightful. All of the authors are very strong advocates for Canada’s water resources, and make a compelling case for the need for much more proactive and effective steps in the management and protection of water resources in Canada. The chapter written by Paul Muldoon and Theresa McClenaghan, entitled “*A Tangled Web: Reworking Canada’s Water Laws,*” is the one of most application to the research project. The statement on page 246 “No one level of government can provide a complete framework for protecting water resources. Not unlike other areas of environmental law and policy, this fragmentation of jurisdiction has led to regulatory gaps, policy vacuums, and management by crisis. The stresses over water resources, along with the importance of water to all aspects of human and ecological systems, demand a new approach to water

governance.” Insofar as the chapter advocates for more interjurisdictional governance mechanisms, and details a model of how they should work, it is a helpful resource for the research paper in the analysis of cooperation and consultation agreements. The audience is all members of the legal profession that are interested in the area of environmental regulation.

Regimbald, Guy. *Canadian Administrative Law* (Markham, Ont: LexisNexis Canada 2008)

This first edition text is an excellent introduction to administrative law in Canada.

Written by a practicing lawyer, it provides a brief history of administrative law principles in Canada as well as a description and explanation of the principles. The intended audience is lawyers and law students. The book contributes to the research project insofar as it provides a helpful commentary and introductory analysis of delegation, regulation making, and use of discretion. All of these are germane to the analysis and drafting of environmental bylaws at a regional or municipal level.

Richardson, Benjamin and Stepan Wood. *Environmental Law for Sustainability* (Oxford: Hart Publishing, 2006).

The authors, Benjamin Richardson and Stepan Wood, are both professors at Osgoode Hall Law School and both are considered experts in environmental law. The book is a series of articles from experts in the area written about, all with a focus on sustainability. Carolyn Abbot is a contributor of the chapter “Environmental Command Regulation” that provides a useful analysis of different models for environmental regulation, from direct regulation prohibiting activity to self-regulation and voluntary initiatives. The audience is all members of the legal profession that are interested in the area of environmental regulation. The article contributes to the research project insofar as it outlines different possible approaches for environmental regulation at all levels of government.

Salembier, J. Paul. *Regulatory Law and Practice in Canada* (Toronto, Ont: Butterworths)

Guy Regimbald cites this book in his text, *Canadian Administrative Law*, as an advanced resource on regulation making in Canada. Mr. Salembier is a General Counsel with the Department of Justice, and he has more than two decades in government, of which more than a decade consisted of drafting regulations and statutes in the Legislative Services

branch of the Department of Justice. He has also taught regulatory law and statutory interpretation at the University of Ottawa's Faculty of Law, and has written several articles in those fields. The book provides the methodology for analyzing regulations and bylaws to find flaws, or from a drafting perspective, how to draft legally sound regulations. The intended audience is advanced practitioners of regulatory and municipal law, as well as draftsman of regulations and bylaws. All of these are germane to the analysis and drafting of environmental bylaws at a regional or municipal level.

Sullivan, Ruth. *Sullivan on the Construction of Statutes*, 5<sup>th</sup> ed (Markham, Ont: LexisNexis).

This is a leading text on the interpretation of Canadian legislation. The theme of the text is the progressive nature of the interpretation of statutes, and the evolving approaches to interpreting legislation. Although the Supreme Court of Canada in *Re Rizzo & Rizzo Shoes Ltd.* [1998] did not accept the author's reformulation of Driedger's modern principle of interpretation, as stated in the first edition of the text, the text provides detailed and thoughtful analysis of the principles and rules of interpretation and the jurisprudence relating thereto. The text, and predecessor editions by Ruth Sullivan and Elmer Driedger, are often cited in Canadian jurisprudence. The audience is primarily the judiciary, practicing lawyers, and drafters of legislation. The book contributes to the research project insofar as it is a useful resource for the interpretation of existing environmental legislation, as well as a guide to drafting new bylaws at the Columbia Shuswap Regional District level.

## SECONDARY MATERIALS: ARTICLES

Adkins, Mark & Len Griffiths & Shauna Parr. "The Hudson Decision: An Over-Precautionary Approach" (2002) 51 UNBLJ 231.

Mark Adkins and Len Griffiths were environmental lawyers, and Shauna Parr, an articling student at Torys LLP at the time the article was written. The article is a commentary on the precedent setting *Spraytech v. Town of Hudson* decision of the Supreme Court of Canada, where the court decided that the Town of Hudson had the authority to pass a by-law controlling the use of pesticides. The article provides a commentary on the powers municipalities may have, depending on the wording of their

enabling legislation and by-laws, to regulate environmental matters. They pose the question whether municipalities should be permitted to pass environmental by-laws that overlap with or even supersede federal and provincial environmental laws. The article also comments on the Court's application of the precautionary principle, and suggests guiding principles for the application of the principle across Canada. The audience is all members of the legal profession that are interested in the area of municipal and environmental law. The article contributes to the research project insofar as it helps frame the drafting enforceable bylaws for the Columbia Shuswap Regional District.

Emond, D. Paul. "The Greening of Environmental Law" (1991) 36 McGill LJ 742.

Paul Emond was at the time a professor of law at Osgoode Hall. The article describes the evolution of environmental law through three stages, starting with prescriptive regulation, then environmental assessment, and finally cooperative problem solving. He suggests, rightly in my opinion, that society needs a new model to manage environmental protection that is based on cooperative problem solving between all stakeholders. In fact this has been happening in British Columbia with the establishment of the Shuswap Lake Integrated Planning Process and the signing of the Intergovernmental Cooperation Agreement Respecting the Implementation of British Columbia's Riparian Areas Regulation. The audience is all members of the legal profession that are interested in the evolution of environmental law. Although an older article, it is timeless in that it provides excellent suggestions on how the cooperative problem-solving model should work, including the role of lawyers. The article will be helpful in the analysis of Cooperation Agreements in the research paper.

Epstein, Howard. "Case Comment: *Spraytech v. Town of Hudson*" (2001) 19 MPLR (3d) 56.

Howard Epstein is an MLA for Nova Scotia as well as a professor at the Schulich School of Law at Dalhousie University. In this case commentary on the *Spraytech* decision, the author provides an analysis that suggests the application of the decision may be more limited than other authors have suggested. The audience is all members of the legal profession that are interested in understanding the scope, limitations and application of the *Spraytech* decision. The article contributes to the research project insofar as it provides another perspective on the precedent setting *Spraytech* decision.

Godsoe, Craig. "The Increasing Importance in British Columbia of Local Governments in Environmental Regulation" 9 J. Envtl L & Prac 55.

Craig Godsoe, is currently in-house counsel with BC Hydro. He was formerly a partner with lawyer with Borden Ladner Gervais LLP in Vancouver. He summarizes the powers afforded to municipalities and regional districts in British Columbia to pass by-laws relating to environmental management. He summarizes the amendments to the British Columbia *Municipal Act*. The audience is members of the legal profession in British Columbia that practice in the municipal law arena. Although the article is dated and written before the *Spraytech* decision, it does provide a useful historical perspective on the British Columbia *Municipal Act*.

Valiante, Marcia. "Turf War: Municipal Powers, the Regulation of Pesticides and the Hudson Decision" (2001) 11 J. Envtl L & Prac 327.

Marcia Valiante is a law professor at the University of Windsor Law School. She is a prolific writer on environmental matters, sits on the International Joint Commission's Great Lakes Science Advisory Board, and is a part-time member of the Ontario Environmental Review Tribunal. The article is another thorough analysis of the *Spraytech* decision, a decision she describes as a "turning point in Canadian Municipal law." The author summarizes how fundamental the decision is for municipal law and environmental law, especially now with a greater desire on the part of municipalities to have more of a role in protecting the environment. She states "[t]he Court in the *Hudson* decision does take municipalities seriously and modifies a number of doctrines that have long hampered the governing flexibility of local governments." The author suggests "[t]his will soon be the norm in many major cities and smaller municipalities across Canada. By giving this ultimate choice to local governments, the Supreme Court has avoided the most difficult issues in the continuing debate over regulatory reform." The audience is all members of the legal profession that are interested in the area of municipal and environmental law. The book contributes to the research project insofar as it provides a perspective on the affect of this decision on the evolution and reform of environmental law at the municipal/regional level in Canada.

## OTHER MATERIALS

Columbia Shuswap Regional District Strategic Plan (2008-2012)

Cooperation Agreement between Fisheries and Oceans Canada, The Ministry of the Environment (British Columbia), and the Union of British Columbia Municipalities dated July 16, 2008.

Riparian Areas Regulation Implementation Guidebook, January 2006.

Shuswap Lake 2010 Environmental Impact Study.

## Annotated Bibliography

Cheryl Rea (LLM Student)

ID: 10071533

Law 703: Legal Research and Methodology

Prof: Jonnette Watson Hamilton

December 16, 2011

## References

### Legislation

*Alberta Land Stewardship Act*, SA 2009, c. A-26.8  
*Energy Resources Conservation Act*, RSA 2000, c. E-10  
*Environmental Protection and Enhancement Act*, RSA 2000, c. E-12  
*Mines and Minerals Act*, RSA 2000, c. M-17  
*Oil and Gas Conservation Act*, RSA 2000 c. O-06  
*Oil Sands Conservation Act*, RSA 2000, c. O-7

### Secondary Material: Articles

Carter, Angela V. "Regulating the Environmental Impacts of Alberta's Tar Sands" (Buffett Center for International and Comparative Studies Working Paper: Energy Series, August 2010)

Carter is an assistant professor of Environmental Studies and Political Science at Grenfell College, Memorial University. The article as a whole examines the environmental regulatory scheme related to the Alberta oil sands with reference to the larger economic and political context. For the purposes of the proposed research, the article analyzes the environmental regulatory trends in relation to the development of the oil sands in Alberta from 2007 and identifies a number of regulatory gaps in the existing regulatory framework. Further the article identifies and looks at the gaps in the current regulatory framework in relation to the consideration, or lack thereof, of the cumulative effects of development in the region when individual projects or permits are being granted. While there is a definite socio-political slant to the article, the information related to the regulatory framework and the gaps related thereto provides a good starting point.

Denstedt, Shawn H.T. & Ryan Rodier "What Happens When Developers Can't Develop: Can and Should Resource Developers be Compensated When They Can't Develop Their Assets? (2010) 48: Alta L Rev 331.

Denstedt is a partner at Osler, Hoskin, Harcourt LLP in Calgary focusing on environmental, regulatory and aboriginal law issues and Rodier is an associated with the Calgary office of Osler, Hoskin, Harcourt LLP specializing in regulatory matters concerning natural resource development including the project approval and environmental assessment process and Aboriginal law issues. The article deals with the issue of "de facto expropriation," which occurs when government regulation effectively sterilizes a developer's ability to exercise its rights and whether developers are protected from this type of government action and entitled to compensation when such de facto expropriation occurs. The legal principles related to de facto expropriation are discussed, including how such principles have been applied in Canada, the U.K., the U.S., and Australia, and how courts have considered entitlement to compensation in the context of de facto expropriation, and the determination of the quantum of compensation. The article ultimately concludes that, as the rights held by natural resource developers have value,

and the parties have a reasonable expectation that such rights will be exercisable, compensation claims arising from the sterilization of natural resource interests due to government regulation should be supported by the legal principles related to de facto expropriation. Although this article does not deal with the *ALSA* in particular, it does provide important background on the principles related to compensation for de facto expropriation, which may be important if the *ALSA* prevents the development of mineral rights.

Harvie, Alan & Trent Mercier. “The Alberta Land Stewardship Act and its Impact on Alberta’s Oil and Gas Industry” (2010) 48:2 *Alta L Rev* 296.

Harvie is a partner at Macleod Dixon in Calgary with practice specialties in energy and resources and environment. Mercier is an associate at Macleod Dixon in Calgary focusing on energy and resources. The article looks at the *Alberta Land Stewardship Act (ALSA)* and Alberta Land-use Framework (*Framework*) with a view to considering how the implementation of both may affect how oil and gas and oil sands projects are reviewed and approved. The article provides a comprehensive review of the provisions of the *ALSA* which are likely to impact oil and gas projects in Alberta and discusses the implications of the enactment of the regional plans contemplated thereunder. The article then focuses on how the *ALSA* and the regional plans may potentially affect or change the mineral acquisition and regulatory approval aspects of the oil and gas development process in Alberta. The article ultimately concludes that there are reasonable inferences, which can be drawn from the *ALSA* and the *Framework*, that existing and future oil and gas development will be subject to a balancing of interests and that existing leases may be amended or cancelled to ensure the goals are met. While this article provides an interesting analysis of the *ALSA*, the focus is mainly on the use of conservation and stewardship tools and the related potential for compensation in respect of such tools rather than on the more general issues which may effect development. However, the article does provide a detailed analysis of the appeal process and the effect of amending and extinguishing rights pursuant to the *ALSA* which will have broader application.

Rayner, Jeremy & Michael Howlett. “Implementing Integrated Land Management in Western Canada: Policy Reform and the Resilience of Clientelism” (2009) 1:4 *Journal of Natural Resources Policy Research* 321.

Rayner was a professor in the Department of Political Science at the University of Regina and focused on the area of resource and environmental policy. Howlett is a professor in the Department of Political Science at Simon Fraser University, specializing in public policy analysis, political economy, and resource and environmental policy. The article looks generally at the application of integrated land use management and the theoretical background of integrated strategies before focusing on four case studies. The article mainly focuses on these case studies which illustrate integrated land use management experiences in the four western Canadian provinces (B.C., Alberta, Saskatchewan and Manitoba) and compares and contrasts the experiences in each jurisdiction. Overall, the article appears to be a concise and practical overview of integrated land use management, particularly in Western Canada. However, as this article was published prior to the enactment and coming into force of the *Alberta Land Stewardship Act*, the relevance of the discussion of integrated land management in Alberta is likely limited to a historical context.

## Other Materials

Alberta, Lower Athabasca Regional Advisory Council, *Draft Lower Athabasca Regional Plan 2011-2021*, August 2011 available at:  
[https://landuse.alberta.ca/Documents/LARP\\_Draft\\_Lower\\_Athabasca\\_Regional\\_Plan-2011-08.pdf](https://landuse.alberta.ca/Documents/LARP_Draft_Lower_Athabasca_Regional_Plan-2011-08.pdf)

The Lower Athabasca Regional Advisory Council was made up of seventeen members comprising provincial and municipal government, industry, aboriginal and environmental groups. The Draft Lower Athabasca Regional Plan ("LARP") fulfills the legislative framework established by the *ALSA*, by establishing the details of the objectives, including thresholds for the purpose of achieving the objective, monitoring required, indicators and policies and the actions or measures to be taken to achieve or maintain the objectives, provided for by the broad, generalized policy goals for the integrated management of Alberta's resources under the *ALSA*. As the only regional plan to make it to the draft stage, the LARP provides an example by which to assess Alberta's current progress on integrated land management and the potential effects of the *ALSA* on the exercise of existing statutory approvals necessary for the development of oil and gas rights currently held by producers. As many of the terms of the draft LARP are vague and undefined, however, the potential effects of the LARP on the exercise of existing statutory approvals remain unclear and are subject to interpretation at this time.

Alberta, Regulatory Enhancement Task Force, *Enhancing Assurance: Report and Recommendations of the Regulatory Enhancement Task Force to the Minister of Energy*, December 2010 available at:  
<http://www.energy.alberta.ca/Org/pdfs/FinalEnhancingAssuranceReportREP.pdf>

The Regulatory Enhancement Task Force was made up of three MLA's who served as Parliamentary Assistants to the Ministers of Energy, Environment and Sustainable Resource Development. The report is based on a comprehensive review of the existing energy regulatory scheme and input gathered from various stakeholders in the Province. The report provides a brief overview of the existing regulatory framework before setting out the recommendations for the creation of an integrated regulatory body to oversee energy resources. The report is the starting point for the proposed creation of an integrated single regulatory authority. Due to the fact that the report was intended to provide recommendations to the Minister of Energy for the development of policy and ultimately legislation, it does not necessarily consider all the legal implications of the creation of a single regulator and does not expressly consider how such changes would integrate with the elements of the framework that would be outside the single regulator's purview. However, the report does provide a basic framework from which to consider the possible consequences the establishment of a single regulator may have on the development of oil and gas in Alberta, especially in light of the exiting *ALSA*.

—*Enhancing Assurance: Developing an Integrated Energy Resource Regulator*, May 2011 available at:  
<http://www.energy.alberta.ca/Org/pdfs/REPEnhancingAssuranceIntegratedRegulator.pdf>

Building on the Recommendations to the Minister of Energy, this Discussion Paper sets out to focus on the: i) Scope and Governance of the Regulator; ii) Application, Review and Authorization of Energy Activities; iii) Hearings and Participation in Hearings; iv) Compliance, Enforcement and Incident Response and Clean Up; and, v) Shut Down and Closure of Facilities. Within these specified categories the discussion paper considers the proposed legislative approach, how the proposed single regulator will work with respect to the particular issue and further issues to consider. With respect to the proposed legislative approach to the single regulator, the discussion paper indicates that it is merely intended to illustrate the anticipated structure of a single regulator. As with the Recommendations to the Minister, this discussion paper provides a framework for the development of a single regulator and provides a basis from which to consider the possible consequences the establishment of a single regulator may have on the development of oil and gas in Alberta. Nevertheless, as the discussion paper itself acknowledges, it is not intended to be draft legislation and is provided only for improved understanding and clarity of intent, therefore if and when a bill is introduced into the legislature, the details of the establishment of a single regulator could be vastly different.

Holroyd, Peggy, Simon Dyer & Dan Woynillowicz "Haste Makes Waste: the Need for a New Oil Sands Tenure Regime (The Pembina Foundation, April 2007)

The authors are Policy Analysts with the Pembina Institute, whose research focuses on various aspects of oil and gas projects. Peggy Holroyd focuses on the review of environmental assessments for new oil and gas projects; Simon Dyer concentrates on the environmental implications of oil sands development; and, Dan Woynillowicz specializes in proposed oil sands projects and initiatives involved in environmental management and monitoring in the Athabasca oil sands. In this publication the authors argue that the mineral tenure regime (pre-*ALSA*) limited the ability to effectively manage oil sands development due to the fact that mineral tenure decisions were not informed by a land use plan, did not include a "credible environmental assessment" and did not provide for public input or comment. The publication provides recommendations for the overhaul of the oil sands tenure regime to ensure social and environmental values are met in determining whether to grant leases for development of the oil sands. While this publication provides for a review of the mineral tenure regime and an analysis of the issues with its operation, it has a clear focus on environmental and social issues rather than legal issues, and, notwithstanding the recognized input of legal scholars none of the authors have legal backgrounds. Therefore, its use in terms of legal evaluation may be limited by this lack of expertise.

Kennett, Steven A. "Integrated Landscape Management in Canada: Getting From Here to There" (Calgary: Canadian Institute of Resources Law, 2006)

Steven Kennett is a Senior Policy Analyst with the Pembina Institute, focusing on environmental governance and natural resource policy, including the development of integrated planning and regulatory regimes for oil and gas development. He was previously a Research Associate with the Canadian Institute of Resources Law at the University of Calgary. In this publication, the author looks at the challenges for successful implementation of Integrated Landscape Management (ILM) based on the Canadian experience in relation to publicly owned land and resources. Following from this, the publication focuses on the legal, institutional and policy

attributes necessary to overcome these challenges and implement ILM throughout decision-making. Specifically the author looks at the necessary pre-conditions for implementing ILM in the context of sectorally fragmented decision-making which operates incrementally. The intention of the publication is to provide guidance for the reform of the decision-making process to incorporate ILM and to provide a basis for evaluating the extent to which ILM has been achieved in practice. This publication will provide valuable information to determine the possible pitfalls related to moving to ILM and form a basis for determining whether the challenges for implementing ILM have been overcome by the *ALSA* and the proposed creation of a single regulator and to evaluate the potential to achieve ILM through these legislative changes.

—— “Closing the Performance Gap: The Challenge for Cumulative Effects Management in Alberta’s Athabasca Oil Sands Region” (Calgary: Canadian Institute of Resources Law, 2007)

This paper looks at cumulative effects management in the oil sands and the gap between the expectations and the actual performance, specifically in relation to the Cumulative Environmental Management Association (CEMA) and Regional Sustainable Development Strategy (RSDS). The paper explores the legal context of the development of CEMA and RSDS (which is in some ways a predecessor to the Land-use Framework and the *ALSA* although limited to the Athabasca oil sands region.) Of particular value for the proposed research, the paper looks at the underlying obstacles to cumulative effects management and considers the legal and policy structure of resource development decisions in Alberta which make cumulative effects management difficult to implement. Specifically the paper addresses, to some extent, the issues related to the oil sands tenure regime and the existing project-by-project review undertaken by the ERCB (the EUB as it was at the time the paper was written). Given that the focus of this paper appears to be more on CEMA rather than the RSDS, its value may be limited to the more general discussion of the overall difficulties in implementing integrated land management given the mineral tenure regime and the ERCB mandate.

—— “The Law of the Land: A Legal Foundation for Alberta's Land-Use Framework (The Pembina Foundation, February 2009)

This publication looks at the Land-use Framework (which is supported by the enactment of the *Alberta Land Stewardship Act*) and the movement toward outcome-based management and integrated regional planning to manage cumulative impacts and ensure environmental limits are met when making land-use decisions. This includes a consideration of the challenges to integrated land-use management arising from the current legal structure (pre-*ALSA*) and the narrow regulated mandates of decision-makers. The main purpose of this publication is to provide suggestions for the development of a legal framework to implement and co-ordinate the objectives of the Land-use Framework. Although this publication was written prior to the enactment of the *ALSA*, due to the fact that it was intended to provide suggestions for the creation of such legislation and to avoid the potential pitfalls, this publication provides an important context against which the *ALSA* can be measured in order to better evaluate how the *ALSA*, as enacted, will meet the policy goals of the Land-use Framework.

Vlavianos, Nickie. “The Legislative and Regulatory Framework for Oil Sands Development in Alberta: A Detailed Review and Analysis” (Calgary: Canadian Institute of Resources Law, 2007)

Vlavianos is currently an assistant professor at the University of Calgary law school focusing in the areas of energy, natural resources, environmental, and property law. At the time this paper was written Vlavianos was a Research Associate at the Canadian Institute of Resources Law. The paper provides a detailed analysis of the current regulatory framework for oil sands development in Alberta, looking at three particular aspects of the development process: disposition of mineral rights; surface rights access on public lands and project review and approval. Additionally the paper looks at significant problems and issues that arise in each particular aspect of the process and the deficiencies in the current legislative scheme. Further the paper focuses on three key deficiencies in the current oil sands legislative framework, which include the lack of comprehensive land-use policies for the oil sands area and the complexity and lack of transparency in the process. This paper will provide valuable background on the existing regulatory framework and on the shortcomings of the process which the *ALSA* and the proposed single regulator are intended to correct.

## LEGISLATION

*Constitution Act, 1867* (UK), 30 & 31 Vict, c 3, reprinted in RSC 1985, App II, No. 5.

*Constitution Act, 1982*, being Schedule B to the *Canada Act 1982* (UK), 1982, c 11.

*National Energy Board Act*, RSC 1985, c. N-7.

## JURISPRUDENCE

*Fulton v. Energy Resources Conservation Board*, [1981] 1 SCR 153, 118 DLR (3d) 577.

*Re Upper Churchill Water Rights (1984)*, [1984] 1 SCR 297, 1984 CanLII 17 (SCC).

## SECONDARY MATERIALS

Azaria, Danae. “Energy Transit under the Energy Charter Treaty and the General Agreement on Tariffs and Trade” (2009) 27:4 J Energy & Nat Resources L 559.

The author was a PhD candidate at University College London at the time of this publication. In addition to the author’s own academic credentials, the fact that the paper was edited by Professor Nigel Banks, a renowned expert in the field of energy law, gives heightened confidence in this article. The article focuses on General Agreement on Tariffs and Trade (GATT) Article V and Energy Charter Treaty (ECT) Article 7, which are both transit provisions. The paper provides a thorough background of the ECT and GATT. The author argues that ECT Article 7 is “pivotal to the energy security that the ECT seeks to establish” and contrasts this with the relatively underutilized GATT Article V. The author submits that GATT Article V should not play a central role in the interpretation of ECT Article 7 and, rather, that ECT Article 7 is relevant for the interpretation of GATT Article V. The paper has a relatively narrow scope and, as such, the author is able to meritoriously compare and contrast these provisions so as to provide a thorough examination of same. She also makes reference to World Trade Organization Panel Decisions which illustrate how these articles have been used in practice.

Bankes, Nigel D., Constance D. Hunt & J. Owen Saunders. "Energy and Natural Resources: The Canadian Constitutional Framework" in Mark Krasnick, research coordinator, Case Studies in the Division of Powers (Royal Commission on the Economic Union and Development Prospects for Canada) (Toronto: University of Toronto Press, 1986) 53.

The authors are well respected legal scholars in the area of natural resource, energy and environmental law, all of whom have taught at the University of Calgary Law School. While Professors Bankes and Saunders continue to teach at the Law School, in addition to other scholarly pursuits, the now Justice Hunt sits on the Alberta Court of Appeal. The authors have indicated how the primary responsibility for the writing of the report was allocated between them; based on their reputations and their work in these respective areas, the paper, completed in December 1984, is a highly reliable source. The paper reviews developments in constitutional law in Canada, particularly from the 1970s and early 1980s, which are pertinent to natural resources, including the ramifications of the resources amendment, s. 92A, to the *Constitution Act*, 1867. There is an emphasis on the judicial decisions that evidenced these changes. The paper also discusses efforts by governments to allow the Constitution to accommodate the changing natural resources sector, for example, through the use of federal-provincial and interprovincial agreements. Ultimately, the authors characterize the challenge of allocating federal and provincial roles in the context of natural resource development to be a political one and assert that, provided there is a political solution, the Canadian constitutional structure appears to be sufficiently malleable so as to allow for same. The paper is tremendously beneficial to my research, both in terms of highlighting the jurisprudence that have brought meaning to the effect of Canada's constitutional framework in this setting and opines on how other issues that may arise in this context are likely to be addressed.

*Energy Charter Treaty*, (entered into force 16 April 1998) online: Energy Charter <<http://www.encharter.org>>.

Gold, Ivan and Nidhi Thakar. "A Survey Of State Renewable Portfolio Standards: Square Pegs For Round Climate Change Holes?" (2010) 35 *Wm & Mary Env'tl L & Pol'y Rev* 183.

This article is a collaboration between senior counsel and an associate from Perkin Coie LLP's offices in Portland, Oregon and Washington, D.C., respectively. Essentially, it surveys the standards in thirty states requiring generators of electricity to increase their use of renewable energy. In addition to surveying the renewable portfolios standards in these states, the work goes on to discuss climate change and regulation in the federal context of the United States, and essentially argues for a uniformity amongst state programs to reduce inefficiencies. It also discusses the Kyoto Protocol and the Copenhagen Accord in an international context. It is a comprehensive work, detailing the initiatives that have already been implemented at state level and giving some insight as to where the United States is headed with respect to legislation to address climate change issues.

Hogg, Peter W. *Constitutional Law of Canada*, loose-leaf (consulted on 22 October 2011), (Toronto: Thomson Carswell, 2007).

Professor Peter Hogg is the pre-eminent constitutional scholar in Canada. His text is regarded as authoritative and is often quoted by the Supreme Court of Canada when rendering its decisions on constitutional matters. Also, the looseleaf format is updated yearly so as to ensure that the text reflects the current state of the law. This text provides a thorough explanation of the constitutional intricacies that befall a federation, providing a thorough account of how powers are allocated, in Canada, as between the federal government and provincial governments.

Hsu, Shi-Ling and Robin Elliot. "Regulating Greenhouse Gases in Canada: Constitutional and Policy Dimensions" (2009) 54 McGill LJ 466.

Johnston, Angus. "Will the Sparks Fly? The Role of the European Union in the Liberalisation of the Electricity Industry" (2001) 3 Cambridge YB Eur Legal Stud 239.

The author is a Tutor, Staff Fellow and College Lecturer in Law at Trinity Hall, Cambridge. He discusses the increasingly favourable political and economic climate for electricity market opening and competition in the European Union context. The article addresses the various nuances of an Internal Electricity Market, exposing some of the opportunities and threats in relation to same. The author's opinion is well-substantiated with references to a wide scope of authorities the article is intrinsically valuable in that it identifies various sources of law and policy that govern the electricity market in the European Union, as well as providing succinct references to case law which informs the interpretation of same.

Konoplyanik, Andrey. "A Common Russia-EU Energy Space: The New EU-Russia Partnership Agreement, Acquis Communautaire and the Energy Charter" (2009) 27:2 J Energy & Nat Resources L 258.

Dr. Konoplyanik holds two degrees in international energy economics and served as the Deputy Secretary General of the Energy Charter Secretariat in Brussels from March 2002 to April 2008. The article discusses three ways to develop a legal energy framework between the European Union and Russia and argues that the third approach, using the Energy Charter Treaty as the basis for such a framework, is the most effective, practical way to accomplish this objective. The author goes on to discuss Russian concerns regarding the ratification of the Energy Charter Treaty, including five transit-related issues, and the failings of the Energy Charter Secretariat in the context of the Russia-Ukraine gas crisis of January 2009. Finally, the author suggests practical actions to be taken to create a "common legal background for the Russia-EU common energy space" based on the Energy Charter Treaty. The article is beneficial for the purpose of my research in that it highlights the feasibility of using the Energy Charter Treaty as a basis for a legal energy framework and discusses the issues within the draft Energy Charter Protocol on Transit and also provides a sampling of the concerns that may arise in this context from the respective perspectives of the supplier and the consumer.

Navigant Consulting Ltd. “Independent Supply Decision Review prepared for Nalcor Energy”, September 14, 2011.

Newfoundland and Labrador, Royal Commission on Renewing and Strengthening Our Place in Canada, *Power Politics and Questions of Political Will: A History of Hydroelectric Development in Labrador’s Churchill River Basin, 1949-2002* (St. John’s: Cleo Research Associates, 2003).

This report was prepared by Cleo Research Associates, with Jason L. Churchill identified as Principal, commissioned by the government of Newfoundland and Labrador as part of the aforementioned Royal Commission. The report provides a detailed history of the negotiations relating to the Churchill River developments since the 1960s. It appears to present a fairly unbiased view regarding the players in these discussions, and the extraneous circumstances that infused these negotiations. Although commissioned by Newfoundland and Labrador, the report acknowledges the failings by both provinces in failing to reach agreement regarding the Lower Churchill hydroelectric development. In the course of preparing the report, primary research was conducted in the form of interviews and email correspondence with former politicians and other government representatives that were involved in these dealings as history unfolded. It is a very useful document in terms of outlining the initiatives that have already been pursued with respect to this development and the reasons that these initiatives have not worked to date.

Pierce, Jason. “A South American Energy Treaty: How the Region Might Attract Foreign Investment in a Wake of Resource Nationalism” (2011) 44 Cornell Int’l LJ 417.

This article is written by a candidate for JD, Cornell Law School, 2012. However, despite the relative inexperience of this author to others who have written in the area of energy transit, the article nonetheless provides a coherent and well-reasoned argument for the benefits of energy integration in South America, lauding the objectives of energy security and economic efficiency. The article discusses international investment law, including an explanation of the most-favored nation treatment concept. Before proposing the development of a South American Treaty, the author summarizes the Energy Charter Treaty and essentially uses this framework to explain the potential benefits to South America if a similar instrument were to be enacted in that region, including the suggestion that such a Treaty might allow South America to better promote foreign investment in their respective energy sectors. This article is a good example of the use of comparative law methodology. As well, it is a very recent publication and provides updated information regarding the international energy sector.

Proett, Michael Anton. “Cumulative Impacts of Hydroelectric Development: Beyond the Cluster Impact Assessment Procedure” (1987) 11 Harv Envtl L Rev 77.

Schatz, Andrew. "A Tale of Three Signatories: Learning From The European Union, Japanese, and Canadian Kyoto Experiences In Crafting A Superior United States Climate Change Regime" (2009) 70 U Pitt L Rev 593.

Andrew Schatz is an associate lawyer at DLA Piper US LLP. He graduated from Georgetown University Law Center in the year prior to the publication of this article, in which he compares the efforts of the European Union, Japan and Canada to comply with the Kyoto Protocol. The author compares and contrasts these experiences and then attempts to extrapolate lessons from these experiences in order to inform the efforts of the United States in its attempt to implement climate change legislation. The author is attempting to appeal to legislators and policy makers who would be able to influence the methods through which the United States will attempt to address climate change. The article is very well-organized, discussing the successes and/or shortcomings of each of the aforementioned jurisdictions in this context, including Canada's failure to meet its Kyoto Protocol, and offering suggestions as to the reasons underlying this failure, particularly Canada's political climate. The article is beneficial for the purpose of my research in that it highlights the outstanding environmental commitment that Canada has failed to meet and makes the case for a need for electricity sources in the United States that are less polluting than coal-powered plants.

Vagts, Detlev F. "The Treaty-Making Process: A Guide for Outsiders" (2010) 17 ILSA J Int'l & Comp L 127.

The article is written for "students and others outside of the world of international law" to guide its readership through the process of treaty making. The author is a professor of international law at Harvard Law School. The article is highly readable and yet conveys the intricacies of preparing an international treaty. It emphasizes the complexities of dealing with a multitude of entities with competing interests, interests which would be at least as divergent as the interests of the provinces within a federation. It is beneficial to be able to refer to this process of treaty making to inform my comparisons of the European Union's initiatives with respect to energy transit, particularly in the context of the Energy Charter Treaty, to the progress, or lack thereof, within the federation of Canada to facilitate energy transit.

Waern, Karl Petter. "Transit Provisions of the Energy Charter Treaty and the Energy Charter Protocol on Transit" (2002) 20:2 Journal of Energy & Natural Resources Law 172.

The author has served as Senior Expert at the Energy Charter Secretariat, Brussels, Belgium. By way of background, the author traces the development of the Energy Charter Treaty and its existing transit provisions, as well as the WTO/GATT provisions applicable under the Energy Charter Treaty. The article then analyzes provisions of the Energy Charter Protocol on Transit on "third party access to energy transport facilities and its provisions on transit tariff design and international energy swaps". There is a brief description of electricity swaps, of particular relevance to my research. The author comments on the economic and political objectives of the Energy Charter process. The article includes helpful appendices, including a chart of the net import or export of energy by signatory to the Treaty, as well as a numerical example of an energy swap. This article deals with some technical issues but

makes good use of examples to facilitate understanding. It is enlightening as it appears to give somewhat of an “insider’s view” of the considerations that have informed the negotiation process for the Energy Charter Protocol on Transit.

Walde, Thomas. “European Energy Charter Conference: Final Act, Energy Charter Treaty, Decisions and Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects” (1995) 34 ILM 360.

The author acted as principal advisor on EU-sponsored activities to discuss the implications of the Treaty to Commonwealth of Independent States countries but this introductory note represents solely his personal and academic views. The author is also a Professor of International Investment, Petroleum & Mineral Law and Executive Director, Centre for Petroleum/Mineral Law & Policy, University of Dundee. The introductory note was prepared at Lisbon on December 17, 1994 contemporaneous with the execution of the documents referenced in the title. Professor Walde is widely published in the area of energy transit. He discusses the significance of the European Energy Charter in the interpretation of the Energy Charter Treaty, and the negotiations leading to the Treaty, as well as its content, and the administrative requirements for it to become effective. The article is a good summary of the highlights of the Treaty and gives context to the process of its development.

## **Annotated Bibliography - In progress**

Annotated Bibliography Assignment

Law 703 — Fall 2011

*Meriam A. Bravante*

### **Introduction**

This bibliography, fourteen of which entries are annotated, will be utilized for my proposed research paper entitled, “Opportunities and Challenges on Large Scale Mining EIA in the Philippines: Lessons from Canada”.

### **LEGISLATIONS**

*Establishing an Environmental Impact Statement System Including Other Environmental Management Related Measures and for Other Purposes*, Presidential Decree 1586 (1978).

*National Environment Policy Act*, 42 USC 4321- 4347.

### **JURISPRUDENCE**

#### **SECONDARY MATERIAL: MONOGRAPHS**

Ali, Saleem H. *Mining, The Environment, And Indigenous Development Conflicts* (Tucson: University of Arizona Press, 2003).

This book extensively delves on resource conflicts and environmental impact assessment by answering the question why indigenous communities support environmental causes in some cases of mining development but not in others. Cases studies were selected with the aim of presenting a clear picture of how environmental resistance movements evolve; how they can, in turn, be agents of change; and how they may affect the development trajectory of native communities. **Authority** — Ali is Professor of Environmental Studies at the University of Vermont's Rubenstein School of Natural Resources. He is also a member of the expert advisory group on environmental conflicts for the United Nations Environment Program. **Evaluation** — It is instructive not only in understanding the complexity of relationship between mining, environment and indigenous peoples. It has an objective and balanced explanation on why things happened the way it did. However, the analysis stops there, it does not offer solutions to resource conflicts.

Boyd, David R. *The Unnatural Law: Rethinking Canadian Environmental Law and Policy* (British Columbia, University of British Columbia Press, 2003).

The text provides an in depth assessment of the effectiveness of Canadian environmental laws and policies. It examines the reasons why Canada is facing huge environmental

challenges, exposing Canada's environmental record and identifies the gaps between Canadian values and action on a range of key environmental issues. **Authority** — Boyd is one of Canada's leading environmental lawyers. He has advised the governments of both Canada and Sweden on environmental issues. He is also a professor and former Executive Director of the Sierra Legal Defense Fund (now Ecojustice), Canada's leading public interest environmental law organization. **Evaluation** — This is a pivotal book fit for all Canadians who care about the environment. It is intended for government decision-makers, environmental activists and others who would care to listen. It questions the government's rhetoric and contradictions on improving the quality of environmental assessment (EA) and its actions in weakening EA legislation. It provides useful insights and suggestions that warns me to avoid the pitfall of replicating foreign legal systems (like Canada) blindly by knowing the strengths and weaknesses of the Canadian environmental framework and policies.

Diamond, J. *Collapse: How Societies Choose to Fail or Succeed* (New York: Viking, 2005).

Gatmaytan, Dante B. *It's Too Early for Conservation: Tokenism in the Environmental Impact Assessment System of the Philippines* (Philippines: Legal Rights and Natural Resources Center, Kasama sa Kalikasan, 2005).

Gatmaytan's article is one of the first few published articles on Environmental Impact Assessment (EIA) in the early 1990's. This article critiqued the legal framework of the Philippine EIA system. He made a notable observation on how the law was applied and accepted during that time. He noted that the law was met with reluctance and even resistance from several government agencies including top government officials. **Authority** — Gatmaytan is a law professor at the University of the Philippines. He also worked with the alternative law group, the Legal Rights and Natural Resources Center as a senior lawyer. **Evaluation** — The text maybe outdated but the analysis is important in comparing the current discourse on EIA within the Philippine context. This paper is very contextual; it serves as a window of what was the law in theory and practice is in the Philippines.

Holden, William N. and R. Daniel Jacobson. *Mining and Natural Hazard Vulnerability in the Philippines: Digging to Development or Digging to Disaster?* (London: Anthem Press, forthcoming).

The text explores the dangers inherent in mining in the Philippines, a country prone to natural hazards. It explains how and why natural hazards exacerbate these dangers and pose a substantial threat to the livelihoods of the poor, who are dependent upon subsistence agriculture and subsistence aquaculture. It argues that mining is a flawed development paradigm. **Authority** — Holden and Jacobson are both associate professors of geography at the University of Calgary. They have published many articles on the

Philippines and environmental impact assessment. **Evaluation** — The book is the most current on the topic and so far the most detailed. It is written in plain language and well organized thus useful for anybody who reads it. The intended audience includes students on environmental studies and geography programs with environmental impact assessment course and people who are interested in the Philippines and the environmental effects of mining, and natural hazards.

Mining, Minerals, and Sustainable Development. *Breaking New Ground* (London: Earthscan Publications, 2002).

The Mining, Minerals, and Sustainable Development is a report funded by a number of large mining companies (such as Anglo American, BHP Billiton, Codelco, and Newmont Mining), NGOs (The World Conservation Union), government agencies (Environment Australia and Natural Resources Canada) and multilateral agencies (World Bank) to examine the environmental and social effects of mining and whether mining is something capable of generating sustainable development. **Audience** — Written primarily for the mining industry, governments and multilateral agencies, the report calls for committing to standards and guidelines that are acceptable many stakeholders. **Evaluation** — this report purports to be an objective review of the opportunities and challenges faced by mining companies worldwide. This is useful in my paper as it offers analysis on the topic coming from another perspective, i.e that of mining proponents. While it calls for a change in the mining sector, one has to find another source to see whether this sector is listening.

Naito, Koh et al, *Review of Legal and Fiscal Frameworks for Exploration and Mining*, (London: Mining Journal Books Ltd, 2001).

This is a World Bank-commissioned review of the legal and regulatory framework, fiscal regimes and environmental requirements among the selected countries including the Philippines. It notes that most international mining companies consider a country's legal and fiscal framework for private investment in mineral exploration and mining as one of the key determinants of the kind and amount of capital investment in a country's mining industry. It focuses primarily on large scale mining operations involving foreign investment. **Evaluation** — It is written primarily for government decision-makers and as a practical guide for international mining companies in their decisions on where to best invest. While the survey on the legal framework maybe somewhat outdated (2001), it is instructive as to how and why the mining industry behaves in a particular way. It is a good reference explaining the reasons for the decline of the state as mineral producers. It is also a good reference to show the big influence of World Bank in legal reforms of many developing countries that is designed to be simple and efficient, ergo investor-friendly.

The World Commission on Environment and Development. *Our Common Future* (Oxford: Oxford University Press, 1987).

This book made the phrase “sustainable development” a household term. It examines the critical problems of the sustainability-development discourse. It also provides proposals on how to reconcile these problems for the sake of ensuring sustained human progress through development without negatively affecting the resources for future generations to enjoy. Also known as the Brundtland Report, it is a seminal book which formalized environmental concerns in the political development sphere. It laid the groundwork for the 1992 Earth Summit convention and the adoption of Agenda 21, the Rio Declaration and the establishment of the Commission on Sustainable Environment. The book is, however, somewhat problematic in that it blames the poor for environmental degradation and this generates the controversial notion that growth must occur before the environment can be attended to. **Evaluation** — This is a good starting point for anyone wishing to understand why global environmental problems need global solutions. This is relevant for my paper as it provides a broader context why EIA must be taken seriously.

### **SECONDARY MATERIAL: ARTICLES**

Peter N. Duinker and Lorne A. Greig, “The Impotence of Cumulative Effects in Canada: Ailments and Ideas for Redeployment” (2006) 37:2 *Environmental Management* 153.

This article examines, identifies and proposes solutions to six major problems with Cumulative Effects Assessment (CEA). The six problem areas include (1) application of CEA in project-level environmental impact assessments (EIAs), (2) an EIA focus on project approval instead of environmental sustainability, (3) a general lack of understanding of ecologic impact thresholds, (4) separation of cumulative effects from project-specific impacts, (5) weak interpretations of cumulative effects by practitioners and analysts, and (6) inappropriate handling of potential future developments. It advocates improvements on project-specific EIAs and mainly in the domain of region-scale CEAs and regional environmental effects frameworks. **Authority** — Duinker was a professor and former Director (1998-2004) of the School for Resource and Environmental Studies at the Dalhousie University in Halifax, Nova Scotia. He has authored or co-authored (often with Grieg) more than 200 publications on a wide range of topics including environmental assessment and management planning, among others. The authors as practitioners themselves on this field have followed the conceptual, regulatory, and practical development of CEA since the early 1980s. **Evaluation** — The text is targeted toward practice. It has a very astute and useful review of the trend on environmental assessment and CEA in Canada.

Reitz, John C. “How To Do Comparative Law (1998) 46 *AM J Comp. L.* 636.

Weston, Joe. “EIA Theories – All Chinese Whispers and No Critical Theory” (2010) 12:4 *Journal of Environmental Assessment Policy and Management* 357.

Weston did a literature survey on articles between 1997 and June 2010 published in the top five journals dealing directly with EIA. He argues that the development of EIA theories appears to embrace the sociological perspective of Weber and lacks critical theory analysis. He claims that EIA theory is far removed from practice and that “when measured against practice all the theories fail to adequately explain or even justify EIA.” **Authority** — Weston was the lecturer and director of postgraduate Programs in the Department of Planning, Oxford Brookes University. He became a director of Friends of the Earth. **Evaluation** — It is important for its currency and critical analysis on EIA as a planning tool. Basically a literature review, the article is a useful guide to further examine EIA theories. It is written primarily for students of resource planning and academics on this and related field.

### SECONDARY MATERIAL: OTHERS

AECOM Philippines Inc. *Tampakan Copper-Gold Mine Project Environmental Impact Statement*. (Taguig, Philippines: AECOM Philippines, Inc, 2011).

This is the draft main report on the Environmental Impact Statement of the Tampakan Copper-Gold Mine Project, the subject of the case study in my paper. It contains the details of the study conducted such as project description, analysis of key environmental impacts, environmental risk assessment, impacts management plan, environmental compliance monitoring and emergency response policy guidelines. **Authority** — AECOM is an independent and licensed EIA preparer that has been conducting EIA studies for mining companies around the world. **Evaluation** — This report is prepared primarily for the Philippine government agencies, the stakeholders of the Tampakan Copper-Gold Project, and the interested public. The report is the fifth version and is in the process of evaluation by the Philippine government.

Federal Review Panel. *Report of the Federal Review Panel: Taseko Mines Limited's Prosperity Gold-Copper Mine Project*. (Ottawa: Canadian Environmental Assessment Agency, 2010).

The Panel concludes that the proposed project would result in significant adverse environmental effects on fish and fish habitat, on navigation, on the current use of lands and resources for traditional purposes by First Nations and on cultural heritage, and on certain potential or established Aboriginal rights or title. It recommends procedures for the management of environmental effects should the Project be approved. If the Project proceeds there would be no other viable alternative to avoid the significant adverse environmental effects. It also noted that the recommendations would not eliminate or accommodate the significant loss First Nations would experience as a result of the Project. **Authority** — The Report was prepared by a panel appointed by the federal government. **Evaluation** — This is prepared primarily for the government agencies, the stakeholders of the Project, and the interested public. The Report resulted to a rejection

by the federal government of Taseko's proposal. This is one of the main papers that I will be examining relating to the Canadian EIA case study.

Husa, Jaakko. "About Methodology of Comparative Law — Some Comments Concerning the Wonderland..." Maastricht Faculty of Law Working Paper 2007/5 (Maastricht: University of Maastricht, 2007).

Hanna, Kevin S. ed, *Environmental Impact Assessment Practice and Participation* (Ontario: Oxford University Press, 2009).

This edited and updated book examines the current debates, recent cases, and ongoing developments in Canadian Environmental Impact Assessment (EIA). Part I covers a comprehensive examination of Canadian EIA including several case studies. Part II provides detailed profiles of EIA laws and regulations as applied in each jurisdiction including the federal level. **Authority** — Hanna is Professor of Geography and Environmental Studies at Wilfrid Laurier University. **Evaluation:** It has an excellent choice of case studies that shed light on the impact of EIA in government policies, environmental planning and processes. It is a basic textbook intended for students in environmental studies and environmental impact assessments, as well as for EIA practitioners.

Petts, Judith, ed, *Handbook of Environmental Impact Assessment* (Oxford: Wiley-Blackwell, 1999).

This is the leading text on the Environmental Impact Assessment (EIA). This two-volume handbook is a ready-reference source. Volume I addresses EIA principles, process and methods. It maps the EIA process and its impact on decision, and positions EIA in the context of sustainable development as well as the other decision tools, including economic valuation. It also positions strategic environmental assessment (SEA) in a similar way. Volume 2 provides a unique consideration for EIA implementation and practice - in Europe, Africa, the Far East, South America and North America. It uses a number of project types to provide 'how-to-do' guidance and addresses practice in policy and planning assessment. **Authority** — Petts is a heavyweight on this field. She is a professor of Environmental Risk Management and Dean of Social and Human Sciences at the University of Southampton. She has over 30 years experience in applied research and advisory work in waste management with a particular focus on public engagement and decision-making. **Evaluation** — The intended audience are legislators, decision makers, economists, developers, industrial managers and consultants involved in this significant field. It may need updating but still remains the oft-cited book and most representative of the topic.

Umehara, Hiromitsu and Germelino M. Bautista, eds, *Communities at the Margins: Reflections on Social, Economic, and Environmental Change in the Philippines* (Manila: Ateneo de Manila University Press, 2004).

This book provides a snapshot of issues in contemporary Philippine rural society set against the changes that transpired from the 1920s to the 1990s. It focuses on microlevel conditions in communities in more than six provinces. Chapter two describe the process of minoritization of indigenous peoples of southern Mindanao, an area that has served as a modern frontier for Christian settlers. **Authority** — Bautista, is Professor of Economics and former Chair of the Economics Department of the Ateneo de Manila University. Umehara has a Ph.D. in Geography, and is Professor at Rikkyo University. **Evaluation** — The intended audience includes students of social science, micro economics and geography. It is a useful source of economic and historical background of the rural Philippines. In particular, the case study on Southern Mindanao is an important source of contextual and historical analysis that will inform my paper as it will study the same province.

UNIVERSITY OF CALGARY

FACULTY OF LAW

LAW 703: LEGAL RESEARCH AND METHODOLOGY

BEYOND THE NAIRA AND KOBO: TOWARDS A RESTORATION-CENTRIC LEGAL  
AND INSTITUTIONAL REGIME FOR LIABILITY AND COMPENSATION IN NIGERIA

ANNOTATED BIBLIOGRAPHY (WORK-IN-PROGRESS)

Compiled by:

Nonye F. Opara

DECEMBER, 2011

The following pages contain a list annotated information sources to aid my research on the topic: *Beyond the Naira and Kobo: Towards a Restoration-Centric Legal and Institutional Regime for Liability and Compensation in Nigeria*. My thesis makes a case for the need to review the current legal framework on liability and compensation in Nigeria to cater for environmental restoration in addition to guaranteeing compensation of human victims of oil pollution. It will review existing laws, regulations and institutional mechanisms on liability and compensation in Nigeria in order to show why the current system has been unable to address the perennial problem of environmental degradation in the country. It will also make recommendations for law reform taking lessons from restoration initiatives from the Albertan oil sands in Canada.

This annotated bibliography is divided into four broad headings: Jurisprudence, Legislation, Secondary Materials and Other Materials. It does not constitute a comprehensive list of the sources to be used for my research project.

## LEGISLATION

*Associated Gas Reinjection Act, 1979, Laws of the Federation of Nigeria 2004, c. A 25.*

This Act contains regulations that are aimed at addressing the problem of air pollution as a result of gas flaring in Nigeria. A major concern with this Act is that while it attempts to prohibit gas flaring in one light, it also permits the Minister of Petroleum to continue to permit companies to flare gas for a prescribed fee. Given that gas flaring is an ancillary process in oil production and the negative implications these contradictory provisions have had for the Nigerian environment, this Act is useful in highlighting the shortcoming of environmental legislation in Nigeria, particularly with regard to instituting effective liability regimes for oil pollution activities in the country.

*Constitution of the Federal Republic of Nigeria 1999, Laws of the Federation of Nigeria 2004 c C-23.*

This piece of legislation is the highest law in Nigeria, from which other enactments derive validity. It contains provisions detailing the various functions of the executive, legislative and judicial arms of governments. It also prescribes the nature, scope and extent of the powers of the federal, state and local governments in the country. With an amendment in 1999, the Nigerian Constitution reflected a specific provision on the environment, stated under the Chapter on 'Fundamental Objectives and Directive Principles of State Policy'. Sadly, this part of the Constitution is not justiceable and has formed the subject of numerous debates. Its non-justiceability has also affected the enforcement of environmental laws and the attitude of the judiciary to environmental matters. These provisions in the Constitution are important in my review and analysis of the gaps in the legal regime for liability and compensation for oil pollution in Nigeria because they pose serious disincentives for the enforcement of environmental legislation, however drafted. As such, it will provide a basis for critique and serve as an example of an inadequacy in the legal framework.

*Environmental Impact Assessment Act, 1992, Laws of the Federation of Nigeria 2004, c. E12.*

This Act sets out the processes to be followed by project proponents before the grant of an approval to undertake a project. It also makes it mandatory for development projects with potential for environmental effect to undergo an environmental impact assessment (EIA) prior to their commencement. An important provision is the requirement that proponents prescribe mitigation measures in the event that their projects occasion severe environmental consequences. Another is the requirement for monitoring and follow-up of the projects to ensure that they are not causing harm to the environment. This Act is useful in highlighting the legislative attempts currently in place to protect the environment as well as some of the gaps in the current legal framework.

*Harmful Waste (Special Criminal Provisions etc.) Act, 1988*

This law prohibits and penalizes the carrying, dumping and importation of harmful waste on land, territorial waters and matters related thereto. Besides the criminal penalties imposed under the Act, no civil liability is provided. Although do not expressly deal with compensation for oil pollution and environmental restoration, it is useful in highlighting the vacuum in the current legal regime in Nigeria and will facilitate my appraisal of legislative efforts at protecting the environment in Nigeria.

*Oil in Navigable Waters Act, 1968, Laws of the Federation of Nigeria 2004, c. O6.*

This Act was enacted primarily to implement the terms of the International Convention for the Prevention of Pollution of the Sea by Oil (1954 – 1962) and to make provisions for the prevention of such pollution in the navigable waters of Nigeria. The Act makes it an offence, subject to certain limitations, for any person to discharge oil into the waters of Nigeria. Although no provision is made for compensation or environmental restoration beyond providing criminal penalties for discharging oil in Nigeria's navigable waters, it is useful in reviewing the legal efforts at instituting a liability regime in the country and highlighting the absence of environmental restoration provisions.

*Oil Pipelines Act, 1956, Laws of the Federation of Nigeria 2004, c. O7.*

Amended in 1965, this Act was enacted to make provision for licenses to be granted for the establishment and maintenance of pipelines incidental and supplementary to oil field and oil mining for purposes related to such pipelines. The Act has as part of its set goals, the protection of the environment. An entire part (Part IV) is dedicated to the subject of compensation for oil pollution activities, procedure for instituting court actions to claim compensation as well as instances where compensation may not avail a litigant. Being one of the early pieces of legislation to be promulgated following the discovery of oil in Nigeria, it is useful for the purpose of reviewing and analyzing the current legal framework for liability and compensation in Nigeria and identifying aspects requiring reform along the lines of environmental restoration.

*The Petroleum Act, 1969, Laws of the Federation of Nigeria 2004, c. P 10*

This Act was enacted to provide for the exploration of petroleum from the territorial waters of Nigeria and to vest the ownership of all on-shore and off-shore, including the revenue from the petroleum, in the Federal Government of Nigeria. The Act confers a power of general supervision and inspection on the Minister of Petroleum Resources

further to which he or she may make regulations for the prevention of pollution of water resources and the atmosphere. Although the Act does not expressly set out to provide for environmental Restoration, it is useful in my review of the legal framework on liability and compensation in Nigeria as it provides a history of regulatory attempts to protect the environment and provides a basis for identifying the gaps in the law.

## SECONDARY MATERIALS: MONOGRAPHS

Benedickson, Jamie, *Environmental Law*, 3<sup>rd</sup> ed (Toronto: Irwin Law, 2009).

This book provides an introduction to Canadian federal and provincial environmental law. It addresses basic concepts in environmental law from an international and common law perspective. It also deals with financial compensation for spills; remediation and restoration of contaminated lands; environmental valuation and compensation; civil liability for environmental harm, to mention a few. The author teaches environmental law at the Faculty of Law, University of Ottawa and also serves as the Director of the IUCN Academy of Environmental Law. His work is useful because it offers insights into the Canadian perspectives on liability and compensation for oil pollution as well as restoration. This is valuable to my thesis which seeks to model its proposals for reform on the current initiatives in the Albertan Oil Sands, located in Canada.

Etikerentse, G, *Nigerian Petroleum Law*, 2d ed (Lagos: Dredew Publishers, 2004)

This book captures significant developments in the laws governing oil production in Nigeria between 1985 and 2003. It also examines the principal laws and regulations that apply to petroleum operations in the Country. More importantly, it examines local legislation and international conventions on liability for oil pollution damage, the shortcomings of these legislations and makes recommendations on how best to address some of the identified gaps. The author is a renowned scholar and legal practitioner with over twenty five years of practice experience in the petroleum industry in Nigeria, thirteen of which he spent as General Counsel of Chevron Nigeria Limited. An alumnus of the Academy of American and International Law, his was the first book written on the law and practice of petroleum activities in Nigeria. His intended audience includes students and lecturers of energy law. The practice perspective which this work brings to its appraisal of the legal framework for oil pollution liability is useful in my appraisal of the relevant laws governing liability and compensation for oil pollution damage in Nigeria.

Okorodudu-Fubara, Margaret T, *Law of Environmental Protection* (Ibadan: Carlton Publications, 1998).

The book traces the history of Environmental Legislation in Nigeria, highlighting the problems associated with control measures, enforcement mechanisms and application of legal provisions relating to environmental management. It provides background information on the pre-environmental legislation era in Nigeria, offering insights into the various processes that went into the drafting of the Nigeria's environmental laws. Professor Fubara once served as Dean of the Faculty of Law, Obafemi Awolowo University, Nigeria and now teaches International Environmental Law at the undergraduate at post graduate levels of the university. Her work is useful in providing a background and history of environmental laws in Nigeria. Having consulted for the United Nations on a number of times on some of the burning issues in the Niger Delta region of Nigeria, her analysis of issues affecting enforcement of environmental regulations in Nigeria will aid my evaluation of the current legal framework for liability and compensation in Nigeria.

Olanrewaju Fagbohun, *The Law of Oil Pollution and Environmental Restoration: A Comparative Review*, (Lagos: Odade Publishers, 2010).

The book provides a comprehensive analysis of the concept of restoration and its theoretical and philosophical perspectives; the interface between restoration and compensation; common law and environmental restoration; the statutory framework for restoration in Nigeria; the role of the judiciary and other institutional frameworks; international environmental law and oil pollution and the framework for restoration in sixteen selected jurisdictions. The author takes the view that compensation laws have failed in Nigeria owing to the underlying perspective that compensating human victims of oil pollution concomitantly yields environmental restoration. Professor Fagbohun is a research professor of Law with the Nigerian Institute of Advanced Legal Studies, a Director of the Environmental Law Research Institute in Nigeria and a member of the National Working Group for the streamlining of Environmental Laws in Nigeria. This work presents analyzes the various environmental legislations in Nigeria, identifying those that promote restoration; combined with his exposition on the theories of restoration provide, useful insights to my discussion and argument on the need for Nigerian liability and compensation legislation to take cognizance of environmental restoration.

#### OTHER MATERIALS: FOREIGN SOURCES

*Environmental Assessment of Ogoniland*, UNEP/WHO, 2011 1, online: [www.unep.org/nigeria/](http://www.unep.org/nigeria/).

This report sets out the background and context to the current environmental conditions in Ogoniland, an oil-producing community in the Niger Delta region of Nigeria. It

highlights the findings of an independent study conducted by the United Nations Environment Program (UNEP) to ascertain the environmental and public-health impacts of oil contamination in Ogoniland. The assessment focuses on the thematic areas of contaminated land, ground water, surface water, vegetation, air pollution, public health and institutional reform. It also makes recommendations to deal with the environmental challenges facing the Ogoni people. UNEP is the agency of the United Nations set up to promote sustainable use of the environment by nation states. The study leading to this report was conducted at the behest of the Nigerian government following the almost two years of militant insurgency. The report findings provide useful information on the level of degradation in the Niger Delta. More importantly, it makes recommendations to various stakeholders in the oil industry on ways to facilitate the restoration of Ogoniland and other highly degraded areas in the Niger Delta region. It is useful in setting out the background and contest to my thesis and will also facilitate my discussion of the value of providing for restoration under Nigeria's liability and compensation laws.

## PRELIMINARY BIBLIOGRAPHY

### LEGISLATION: CANADA

*Alberta Land Stewardship Act*, SA 2009, c. A-26.8.

*Water Act*, RSA 2000, c. W-3.

### LEGISLATION: AUSTRALIA

### LEGISLATION: UNITED STATES

### SECONDARY MATERIALS: GOVERNMENT PUBLICATIONS

Alberta, *Water for Life: Alberta's strategy for sustainability* (November 2003) online:  
<<http://www.waterforlife.alberta.ca/02488.html>>.

Alberta, *Water for Life: a renewal* (November, 2008) online:  
<<http://www.waterforlife.alberta.ca/02488.html>>.

Alberta, *Land-Use Framework* (December 2008) online:  
<[https://www.landuse.alberta.ca/Documents/LUF\\_Land-use\\_Framework\\_Report-2008-12.pdf](https://www.landuse.alberta.ca/Documents/LUF_Land-use_Framework_Report-2008-12.pdf)>.

Sharp, Basil, "Institutions and Decision Making for Sustainable Development" (Auckland: New Zealand Treasury, 2002) online <<http://ideas.repec.org/p/nzt/nztwps/02-20.html#download>>.

State Government of Victoria, Department of Sustainability and Environment, "Bush Tender" online: <<http://www.dse.vic.gov.au/conservation-and-environment/biodiversity/rural-landscapes/bushtender>>.

United States Environmental Protection Agency, "Mitigation Banking Factsheet" online:  
<<http://www.epa.gov/owow/wetlands/facts/fact16.html>>.

### SECONDARY MATERIALS: COMMENTARY

Ali, Paul A U & Kanako Yano, *Eco-Finance: The Legal Design and Regulation of Market-Based Environmental Instruments* (The Hague: Kluwer Law International, 2004).

Barbier, EB, JC Burgess, C Folke, *Paradise Lost: The Ecological Economics of Biodiversity* (London: Earthscan, 1994).

Barton, Barry, "The Theoretical Context of Regulation", in Barry Barton et al, eds, *Regulating Energy and Natural Resources* (Oxford: Oxford University Press, 2006) 11.

*A high-level and authoritative review of the literature on the theory of regulation. Considers the various competing schools of thought on the definition of regulation and the role it plays in economy and society. Most directly relevant is Barton's consideration of views on the relationship between regulation and market development and operation. These range from the "neo-liberal critique" that markets function best when free of external regulation (at 17-18) to the social justice school that holds that market operation is merely one tool among many for pursuit of the public good (at 18). Of most interest to market development is Barton's treatment (at 22) of the need for "enormous legal input" where new markets are being developed in new tradable properties of environmental goods.*

Bressers, Hans TA & Dave Huitema, "Economic Instruments for Environmental Protection: Can We Trust the 'Magic Carpet'?" (1999) 20:2 International Political Science Review 175.

*A rather polemic article challenging the political realism of the economic theory behind MBIs. MBI economic theory posits actors in pursuit of economic efficiency. Policy-makers, however, often have different priorities, such as distributive effects, maintaining or enhancing competitiveness, control and predictability, and consistency with existing laws and institutions. These factors lead to MBIs either not being adopted or adopted in a distorted form which detracts from their effectiveness. Does not argue against MBIs but for more sophisticated analysis of policy-making dynamics as they are considered. See Dellapenna and Raymond for comparable thoughts, though less detailed.*

Bruce, Christine, "Interpreting the scope of their literature reviews: significant differences in research students' concerns" (2001) 102:1163/1164 New Library World 158.

Canadian Parks and Wilderness Society - Southern Alberta Chapter, *Market-Based Incentives, Stewardship Instruments, and Regional Land-Use Planning in Alberta* (Calgary: Canadian Parks and Wilderness Society, 2010).

Daily, Gretchen C and Katherine Ellison, *The New Economy of Nature: The Quest to Make Conservation Profitable* (Washington DC: Island Press, 2002).

Dellapenna, Joseph W, "The Importance of Getting Names Right: The Myth of Markets for Water" (2000) 25 Wm & Mary Env'tl & Pol'y Rev 317.

*An important examination of the concepts of private property and market exchange as applied to the "socially determined public good" of water, and by implication other aspects of nature. Because of public importance of water, and implications for third parties, no property system has allowed truly free exchange. Public interest prescribes some regulation, either by state or by third party tort law. Result is that market does not truly function in classical economic model. Results, therefore, ought not to be claimed to be economically efficient. Good comments on approaches to policy and law. Applies Hardin (though moderately critical of him) to open access to water. Good source of references to further literature on economics and non-conventional goods.*

- Doremus, Holly, "A Policy Portfolio Approach to Biodiversity Protection on Private Lands" (2003) 6 *Environmental Science & Policy* 217.
- Dyer, Simon et al, *Catching Up: Conservation and Biodiversity Offsets in Alberta's Boreal Forest* (Ottawa: Canadian Boreal Initiative, 2008).
- Gardner, Royal C, *Lawyers, Swamps and Money: U.S. Wetland Law, Policy and Politics* (Washington, DC: Island Press, 2011).
- Hardin, Garrett, "The Tragedy of the Commons" (1968) 162:3859 *Science* 1243, as reprinted in (2009) 1:3 *Journal of Natural Resources Policy Research* 243.
- Huber, Richard M, Jack Ruitenbeek & Ronaldo Seroa Da Motta, *Market Based Instruments for Environmental Policymaking in Latin America and the Caribbean: Lessons from Eleven Countries* (Washington DC: World Bank, 1998).
- Husa, Jaakko, "About the Methodology of Comparative Law: Some Comments Concerning the Wonderland," Maastricht Faculty of Law Working Paper No. 54.
- Kennett, Steven A & Monique Ross, *In Search of Public Land Law in Alberta* (Calgary: Canadian Institute of Resource Law, 1998).
- Keohane, Nathaniel M & Sheila M Olmstead, *Markets and the Environment* (Washington, DC: Island Press, 2007).
- Kerekes, Carrie B, "Property Rights and Environmental Quality: A Cross-Country Study" (2011) 31:2 *Cato Journal* 315.
- Manning, Preston, "Going Green, Staying Blue: Why environmental conservation is right for Alberta" (July, 2011) *Alberta Venture* 92.
- McKinstry, Robert B Jr, "Putting the Market to Work for Conservation: The Evolving Use of Market-Based Mechanisms to Achieve Environmental Improvement In and Across Multiple Media" (2006) 14 *Penn St L Rev* 151
- Nash, Jonathan Remy, "Trading Species: A New Direction for Habitat Trading Programs" (2007) 32 *Colum J Envtl L* 1
- Rae, Geneva, *Market-Based Instruments for Ecological Goods and Services: Learning from the Australian Experience* (Calgary: Canada West Foundation, 2007).
- A very brief monograph arising out of, and describing, a 2007 workshop held by the Alberta government with Gary Stoneham, Chief Economist of the State Government of Victoria's (Australia) Department of Sustainability and Environment. Contains concise overview of concept of MBIs and looks at BushTender program as case. Stoneham gives some key tips as to how MBIs might be proceeded with the Alberta. Good starting point for BushTender study*

*as has good references to other resources. This report gives rather short shrift to some serious challenges, such as saying (at 1) that difficulty in attaching appropriate prices to ecological goods and services “remain[s] a key challenge for policy-makers as they seek to take advantage of MBIs.”*

Raymond, Leigh & Sally K Fairfax, “The ‘Shift to Privatization’ in Land Conservation: A Cautionary Essay” (2002) 42 Nat Resources J 599

*Article takes issue with what authors see as conventional view that (in U.S. at least) early 20<sup>th</sup> century saw environmental concerns dealt with by expanding role of public lands and property and increased regulation, and that now that direction is being reversed to create private, voluntary transactions to protect environment, including the promotion of MBIs. Argues that classic “progressive” age actually saw blurring of public/private distinction, and that current movement is doing so again. Notes that many voluntary market-based measures are actually motivated by regulatory and tax policy, but implementation of policy is delegated in part to private parties. In neither case is there a clear conception of private or public property. Useful for perspective on the political ethos (and perhaps mythology) underlying rise of market-based instruments.*

Reitz, John C, “How to Do Comparative Law” (1998) 46 Am J Comp L 617.

Rose, Carol M, “From H2O to CO2: Lessons of Water Rights for Carbon Trading” (2008) 50 Ariz L Rev 94

*Draws on experience of water trading for lessons for carbon trading, and, to a lesser extent, habitat trading. Critical discussion of how property rights concepts often reflect community and economic values, with innovations subject to moral objections from various sides. “ The way rights are defined affects the things one can do with any given property regime.” (at 94) Appropriation systems, such as western US, are difficult ones in which to establish passive rights, such as that to instream flows (at 100-101), therefore require institutional support in form of recording or registration system (which require resources and need credibility if to work). Property rights are often a proxy for the actual effects we are concerned with. The looser the proxy, the more danger of unforeseeable externalities, but the more precise the proxy the greater the challenge to fungibility. Need to control externalities brings regulation either of trading itself or ex post conditions of trade, either slowing market operation.*

Stavins, Robert N, *Experience with Market-Based Instruments* (Washington DC: Resources for the Future, 2001).

———, “Harnessing Market Forces to Protect the Environment” (1989) 31:1 Environment 5.

*A concise and accessible article by one of the acknowledged leaders in the field. In reviewing and promoting “Project 88” report (to which he was staff director) Stavins highlights the general virtues of MBIs as a supplement, not full alternative, to conventional regulation. General claim is that MBIs will increase efficiency of pursuit of environmental goals, increasing productivity at the same time. Public and public sector should focus on defining*

*appropriate goals, then let entrepreneurs use market to find most efficient means. Of interest, one starting point is to eliminate current market barriers and perverse subsidies, so existing market works better, rather than constructing new markets. Stavins, however, does not explicitly recognize that those barriers and perverse subsidies may be product of social and political forces promoting other conflicting goals, so does not consider here how those conflicts might affect use of MBIs.*

Teitenberg, Tom, Elizabeth Wilman & Peter Tracy, *Environmental Economics and Policy*, Canadian Edition, Preliminary Version (Toronto: Pearson Addison Wesley, 2009).

*An accessible introductory textbook to the titular field. A good reference for common concepts, but not to be treated as authoritative. An abundance of short case studies and snapshots. Though it does not deal with the theory of market-based instruments, it points to several examples of their proposed or actual use. Little reference to the legal foundations of markets. Each chapter ends with an extensive “Further Reading” and “Additional References” section which will be useful as a guide to literature in the field.*

ten Kate, Kerry, Josh Bishop & Ricardo Bayon, *Biodiversity offsets: Views, experience, and the business case* (Gland, Switzerland: IUCN and Insight Investment, 2004).

*The product of collaboration between one of the world’s most authoritative conservation agencies and a fund manager interested in socially responsible business, this work seeks to bring conceptual clarity to the broad and diverse notion of biodiversity (conservation) offsets. Based on interviews with 37 people in varying relationships to offset projects in different parts of the world, it seeks to identify points of commonality and divergence. An excellent guide to the promises, pitfalls, and technical challenges of the concept. The concept’s relationship to other terms such a “mitigate” and “no net loss” is considered in the context of both mandatory and voluntary applications. Notes not only where offsets are appropriate, but where they are not, such as where development ought not to proceed in the first place (at 9). Technical issues identified, including difficulties in comparability of sites (at 53-71; see Zimmerman below for specific Alberta application). Legal recommendations (with case studies including U.S. wetland banking) are found at 22-37.*

Thompson, Barton H Jr, “Markets for Nature” (2000) 25:2 Wm & Mary Env’tl L & Pol’y Rev 261.

*A useful delineation and review of three types of markets for nature: 1) regulatory markets, where exchanges are required or as option to meet regulatory standards (ex: emissions trading, wetland trading); 2) public goods markets: non-profits or government agencies acquire private property or allocations in public interest (ex: land trust, water trust, government acquisitions); 3) ecosystem service markets: self-interested bodies acquire ecosystems goods to serve specific self-interest (ex: municipalities buying upstream riparian land). Water and riparian markets are examined in each of these models. Fourth model proposed: environmental regulators as environmental brokers, where regulators would enter market to acquire or release goods as needed to meet standards. In each model economic incentives and political implications are discussed. Many acute analyses of details and good*

*references to other works. Will be helpful in establishing categorization of claims made for market-based instruments, as clarifies that no single concept or theory.*

Wainger, Lisa A, et al “Wetland Value Indicators for Scoring Mitigation Trades” (2001) 20 Stan Env'tl L J 413.

Whitten, Stuart, Martin Van Beuren & Drew Collins, “An Overview of Market-Based Instruments and Environmental Policy” in Stuart Whitten, Marc Carter & Gary Stoneham, eds. *Market-based Tools for Environmental Management: Proceedings of the 6<sup>th</sup> Annual AARES National Symposium 2003* (Barton, Australian Capital Territory: Rural Industries Research and Development Corporation, 2004) 6 online: <<https://rirdc.infoservices.com.au/downloads/04-142.pdf>>.

*A concise and clear introduction to the concept of market-based instruments. Describes three categories of MBI: 1) price-based (fees, taxes, etc., including Bushtender), 2) Rights-based (allocations, offsets, cap and trade), 3) Market friction (ecolabelling, etc. to overcome aspects of market failure. Focus of article is on first two categories, citing several Austrian and U.S. examples of each. Frank discussion of political and economic potential and pitfalls of MBIs generally and each category. Very useful caution (at 11) that in absence of experience or expertise temptation may be to copy MBI scheme from another jurisdiction, when in fact they must be tailored to each policy and biophysical environment. Calls for high level of clarity and transparency in regulation as key to proper functioning of MBIs. Implicitly suggests Stavins as foundational on MBI theory. This whole volume of proceedings is very strong and much directly applicable.*

Zimmerman, Peter K, *A New Paradigm for Grizzly Bear Management: Using Market Forces to Conserve Habitat* (M ED Thesis, University of Calgary Faculty of Environmental Design, 2002) [unpublished].

*This Masters thesis uses BP Energy's internal carbon “cap and trade” system as a model for the proposing of a market exchange in grizzly bear habitat on Alberta's eastern slopes, founded on a cap in the amount of total landscape disturbance to be allowed. Extensive footnotes refer mainly to literature on business and sustainable development. Interesting development of concept of “ecocurrency”: an ecological unit of uniform value (“some measure of ecological service/unit area/unit of time” at 23) which can create the fungibility necessary for market exchanges among goods of high complexity (at 23-24, 69-86). Ten Kate explores this concept further (at ten Kate 55-71).*

**THE CASE FOR SUBJECTING THE RETAIL VOLUNTARY OFFSET MARKET TO REGULATION**  
**ANNOTATED BIBLIOGRAPHY (IN PROGRESS)**

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December 2011

This is an annotated bibliography for my thesis as an LL.M. candidate at the University of Calgary. It is a work in progress and should not be taken as exhaustive of the relevant literature.

The fundamental question of the research will be whether the retail voluntary offset market should be subjected to regulation and if so, what aspects of that market should be subjected to regulation.

This annotated bibliography is divided into two sections (a) legislation and (b) secondary materials. Only twelve entries, all within the secondary materials section, are annotated for the purposes of Law 703 assignment.

**LEGISLATION**

*Climate Change and Emissions Management Act*, SA 2003, c C-16.7.

*Environmental Protection and Enhancement Act*, RSA 2000, c E-12.

*Specified Gas Emitters Regulation*, Alta Reg 139/2007.

**SECONDARY MATERIALS**

Alberta. *Alberta's 2008 Climate Change Strategy*, (Edmonton: Environment Alberta, 2008).

———. Alberta Environment, *Technical Guidance for Offset Project Developers* (version 2.0), (Edmonton: Alberta Environment, 2011).

Ali, Paul AU & Kanako Yano. *Eco-Finance: The Legal Design and Regulation of Market-Based Environmental Instruments* (Netherlands: Kluwer Law International, 2004).

Andrew, Brian. "Market Failure, Government Failure and Externalities in Climate Change Mitigation: The Case for a Carbon Tax" (2008) 28:5 *Public Administration and Development* 393.

The author is a professor at the Charles Darwin University School of Law and Business. His major teaching area is accounting and he has published in the area of taxation and accounting. The main objective of this article is to make a case for a carbon tax as opposed to using market based emissions trading systems. The author argues that pollution represents the greatest example of market failure due to the fact that society has permitted organizations to pollute the environment for over 200 years without having them bear the full cost of their production. He further argues that to

permit cap-and-trade based emissions trading schemes to solve the greatest market failure would be “triumph of hope over experience”. Using the example of the European Union’s emissions trading scheme, the author argues that we have a case of both market and government failure. The author contends that implementing a carbon tax would be much simpler, more certain in impact and will essentially eliminate the secondary market in its entirety. This article appears intended for an audience that is keenly aware of the market issues- likely, informed regulators and policy makers. This article could have greatly benefited from citations for the author’s various assertions. Indeed, the article does not have a single footnote; the author just lists references at the end of his paper and based on those references and my readings, the author appears to have been quite influenced by Nicholas Stern’s review (cited in this annotated bibliography). Despite the failure to cite his authorities, I found the discussion regarding market failure and the various elements of market failure as well as the discussion regarding regulatory failure quite helpful for building the context for my thesis statement. The author’s use of a regulated cap-and-trade system to exemplify market failure further bolsters my assertion for the need of some regulation in an unregulated market such as the voluntary retail offset market.

- Baldwin, Robert & Martin Cave. *Understanding Regulation: Theory, Structure and Practice* (Oxford: Oxford University Press, 1999).
- Bankes, Nigel D & Alastair R Lucas. “Kyoto, Constitutional Law and Alberta’s Proposal” (2004-2005) 42 *Alta L Rev* 355.
- Barton, Barry. “Theoretical Context of Regulation” in Barry Barton et al., eds., *Regulating Energy and Natural Resources* (Oxford: Oxford University Press, 2006).
- Bayon, Richardo, Amanda Hawn & Katherine Hamilton. *Voluntary Carbon Markets: An International Business Guide to What They Are and How They Work*, 2d ed (Sterling, VA: Earthscan, 2009).
- Bell, Abraham & Gideon Parchomovsky. “Of Property and Antiproperty” (2003-2004) 102:1 *Mich L Rev* 1.
- Bennett, Lisa. Notes, “Are Tradable Carbon Emissions Credit Investments? Characterization and Ramifications under International Investment Law” (2010) 85:5 *NYUL Rev* 1581.
- Bernstein, Steven et al. “A Tale of Two Copenhagens: Carbon Markets and Climate Governance” (2010) 39:1 *Millennium: Journal of International Studies* 161.
- Boom, Jan-Tjeerd & Dijkstra R Bouwe. “Permit Trading and Credit Trading: A Comparison of Cap-Based and Rate-Based Emissions Trading Under Perfect and Imperfect Competition” (2009) 44:1 *Environmental and Resource Economics* 107.
- Breyer, Stephen. *Regulation and its Reform* (Cambridge, MA: Harvard University Press, 1982).

Bumpus, Adam G & Diana M Liverman. "Accumulation by Decarbonization and the Governance of Carbon Offsets" (2008) 84:2 *Economic Geography* 127.

Button, Jillian. "Carbon: Commodity or Currency? The Case for an International Carbon Market Based on the Currency Model" (2008) 32 *Harv Envtl L Rev* 571.

Butzengeiger, Sonja. "Voluntary compensation of GHG emissions: Selection criteria and implications for the international climate policy system" *Hamburg Institute of International Economics* (2005), online: Hamburgisches WeltWirtschafts Institut <[http://www.hwwi.org/uploads/tx\\_wilpubdb/HWWI\\_Research\\_Report\\_1\\_01.pdf](http://www.hwwi.org/uploads/tx_wilpubdb/HWWI_Research_Report_1_01.pdf)>.

Butzengeiger was a research fellow with the Hamburg Institute of International Economics at the time she wrote this research report. This is a comprehensive 90 page research report that deals with the selection criteria of voluntary offset projects and implications for the international climate policy system. The report focuses on compensating (offsetting) entities in their decision making process when deciding which offset project to select. While the report is silent on whether it was intended for audiences other than entities, it is quite likely that project advisors, interested scholars and regulatory analysts were also contemplated as potential audiences. This report has three stated objectives: first, to discuss appropriate criteria for selecting "compensating projects" (voluntary offset projects) based on the value systems of the offsetting entities and to develop a methodology for project selection; second, to conduct case studies to test the selected methodology and to gain insights on its practical implications; third, to discuss the potential interactions between the voluntary offset projects and the international climate policy system. The author begins by addressing the problem of determining selection criteria that balance the demands of a compensating entity while ensuring optimal environmental integrity benefits for any selected project. The author's research methodology includes a literature review of project characteristics used by entities, which is supplemented by surveys of offset providers. The author develops a methodological framework of analysis using selection criteria and indicators from her research and proposes the framework as a means for assessing offsetting projects. The author uses her suggested framework to assess five case studies. The report also considers whether voluntary offsetting enhances ecological effectiveness of international climate policies and concludes that while in theory offsetting may enhance ecological effectiveness, the reality is that due to significantly low numbers, offsetting does not enhance ecological effectiveness. This report provides a well reasoned synthesis of available literature on criteria for evaluating offsetting projects, which is quite useful for assessing potential projects in the voluntary offset retail market for my thesis. The sections dealing with selection criteria for offset projects and the section dealing with developing a conceptual framework for assessing offset projects will contribute significantly to my thesis, as I will need to consider appropriate criteria to evaluate existing voluntary projects approved by various standard setting organizations in the voluntary offset market.

Buzbee, William W. “State Greenhouse Gas Regulation, Federal Climate Change Legislation, and the Preemptive Sword” (2009) 1 San Diego Journal of Climate & Energy Law 23.

The author is a law professor at the Emory University School of Law. He is also a director of the Emory Environmental and Natural Resources Law Program and of the Emory Center on Federalism and Inter-systemic Governance. The article is based on remarks made by the author at a 2009 conference on “Federal Preemption or State Prerogative: California in the Face of National Climate Policy.” The main objective of the article is to address questions regarding the role, if any, of state and local greenhouse gas regulations if the federal government enacts climate change legislation. The author reviews the substantial regulatory failure risks inherent in federally proposed climate change legislation and considers preemption choices available for addressing conflicting local, state and national legislation. The author argues that there are significant risks for state and local climate change efforts from the expanding body of “obstacle preemption” jurisprudence. The author advocates for the retention of broad local and state powers on climate change matters to enable these sub-national levels of government to remedy some of the regulatory failure risks associated with a national legislation. The article appears intended for policy makers and regulators as well as scholars working in the area of climate change and inter-jurisdictional law. Part II of this article dealing with climate change legislation and the inevitability of partial regulatory failure when caps are set either too high or too low and Part V of this article dealing with the desirability of state and local climate roles will be quite useful for the recommendation portion of my thesis, as any proposed solution for regulating aspects of the voluntary offset market in Canada must factor in the federal-provincial jurisdictional divide and the potential for overlapping jurisdictions.

Canada. Environment Canada, *Turning the Corner: Canada’s Offset System for Greenhouse Gases*, (Ottawa: Environment Canada, 2008).

———. Environment Canada, *Turning the Corner: Regulatory Framework for Industrial Greenhouse Gas Emissions*, (Ottawa: Environment Canada, 2008).

Carpenter, Robert. “Implementation of Biological Sequestration Offsets in a Carbon Reduction Policy: Answers to Key Questions for a Successful Domestic Offset Program” (2010) 31 Energy LJ 157.

Coase, Richard H. “The Problem of Social Cost” (1960) 3 JL & Econ 1.

At the time of writing this article, Coase was a professor at the University of Virginia. Coase received the 1991 Alfred Nobel Memorial Prize in Economic Sciences and his nomination was based on his two publications, one of which is *The Problem of Social Cost*. This article was written at the request of a group of economists at the Chicago School after he had convinced them that the conventional economic wisdom espoused by Pigou, relating to government taxation and regulation to deal with nuisance, was incorrect. This article is a path breaking article that is

credited to have given rise to the field of law and economics. Coase's article is the most widely cited article in the area of law and economics. Coase's main contention was that the Pigouvian solution of dealing with welfare economics, such as the issue of pollution and other instances of nuisance, was inadequate because it was based on incorrect analysis and inappropriate policy conclusions. Coase advocates for a change in approach – one that would use the opportunity cost approach and compare the transaction costs between various social arrangements before attempting to change an existing system. Put differently, Coase argues that one must take into account the total cost involved in operating various social arrangements- market arrangements, government initiatives etc as well as the cost of moving to a new system before making a decision on whether or not to adopt a new system. Coase's intended audience is economists but he also intends to influence judicial decision makers as well as policy makers. Coase does not mince his words when he suggests that Pigou's analysis is flawed. His style is conversational and his choice of simple mathematics rather than economic jargon is very helpful. This article is of significant importance to my thesis given my assertion that a self-regulated voluntary offset retail market may be in need for some form of economic regulation. This article introduces me to the concept of transaction costs in decision making in the area of pollution and other social harms. Coase's use of opportunity cost analysis and of considering the totality of costs is a useful conceptual framework for me to consider in the solution part of my thesis.

Cole, Daniel H. "Clearing the Air: Four Propositions About Property Rights and Environmental Law" (1999) 10 *Duke Envtl L & Pol'y F* 103.

Corbera, Esteve, Manuel Estrada & Katrina Brown. "How do regulated and voluntary carbon-offset schemes compare?" (2009) 6:1 *Journal of Integrative Environmental Sciences* 25.

Davidson, Simone. "Voluntary carbon offsetting: an overview" (2008) 29:11 *Bus L Rev* 253.

Diaz, David, Katherine Hamilton & Evan Johnson. "State of the Forest Carbon Markets 2011: From Canopy to Currency" *Ecosystem Marketplace* (September 2011), online: *Forest Trends* <[http://www.forest-trends.org/documents/files/doc\\_2963.pdf](http://www.forest-trends.org/documents/files/doc_2963.pdf)>.

Diaz was a forest carbon associate at the Forest Trends' Ecosystem Marketplace at the time of writing this report. He is now a senior portfolio associate at the Climate Trust. Hamilton is the managing director of Forest Trends' Ecosystem Marketplace. She has authored a number of reports on carbon and water markets and she is the co-author of the *Voluntary Carbon Markets* book (cited in this annotated bibliography) as well as annual *State of the Voluntary Carbon Markets* reports. Johnson is an independent consultant at Forest Carbon and has expertise in forest carbon and has worked on Reduced Emissions from Deforestation and Forest Degradation (REDD) international policy. This 93 page report is the second annual report on the state of the forest carbon market. The report captures responses from 161 project developers or proponents in the primary market and 48 suppliers in the secondary market encompassing some 412 forest carbon projects. The report is intended to provide an

update of the forest carbon market for the 2010 year and provides data and analysis covering forest carbon activity both in the compliance and the voluntary carbon markets. The authors provide valuable insights regarding primary and secondary market size, market players, the existence of a diverse array of standards and challenges facing the forest carbon market. The report is intended for a wide spectrum of audiences including policy makers, retailers and project developers, investors and students as well as conservationists. According to the report, forest carbon transactions represent more than 40% of the total voluntary offset market by volume, which makes the report findings quite relevant for my thesis. Moreover, the survey findings regarding a broad range of standards and carbon pricing and correlation analysis will be useful information for the introductory chapter of my thesis.

Foundation for International Environmental Law and Development. "Background Paper: International Workshop on the Legal Nature of Emissions Reductions" (25-26 May 2004), online: Foundation for International Environmental Law and Development <<http://www.field.org.uk/files/LNA%20Background%20Paper.pdf>>.

Gehring, Markus W & Charlotte Streck. "Emissions Trading: Lessons from SO<sub>x</sub> and NO<sub>x</sub> Emissions Allowance and Credit Systems Legal Nature, Title, Transfer and Taxation of Emission Allowances and Credits" (2005) 35:3 Environmental Law Reporter: News and Analysis 10220.

Gillenwater, Michael et al. "Policing the voluntary carbon market" (2007) 6 Nature Reports Climate Change 85.

Michael Gillenwater is currently at Princeton University's science, technology, and environmental policy program where he is a doctoral candidate in the Woodrow Wilson School of Public and International Affairs. He is also co-founder of the Greenhouse Gas Management Institute and is presently its dean and executive director. He is the lead author of several Intergovernmental Panel on Climate Change and several Environmental Protection Agency reports. At the time of writing this commentary Derik Broekhoff was with the World Resource Institute; he is currently the vice president, policy of Climate Action Reserve, where he is overseeing the development of various protocols for quantifying and registering greenhouse gas reductions from carbon offset projects. Mark Trexler is the director of Det Norske Veritas (DNV), a standards-setting and risk management firm focusing on climate change risk and risk communication. At the time of writing this commentary, Trexler was the director of global consulting services at EcoSecurities. Jasmine Hyman is the marketing director of the Gold Standard Foundation where she oversees Gold Standard initiatives to boost demand of carbon offsets. Rob Fowler is the co-founder and managing director of Abatement Solutions –Asia Pacific with expertise in the design and implementation of market based instruments to reduce greenhouse gas emissions. Fowler is currently a member on the Technical Advisory Committee for the CDM Gold Standard and is assisting with the deployment of the Gold Standard VER Registry. The authors' main objective is to highlight the need for

government oversight in policing the voluntary offset market. The article is likely intended for policy makers and government regulators. The authors argue that there is an imminent risk of market collapse due to a lack of standards, policing and credibility. The authors argue that the implications of this collapse have the potential of discrediting market based environmental policies with the public. They suggest three criteria for evaluating carbon offsets and use the criteria to evaluate some of the existing standards in the market. The authors conclude that no standard exists that takes into account all three evaluative standards. This commentary is insightful for my thesis as it comes from those who are actually working in the voluntary offset market and helping develop and refine some of the voluntary standards in the market. The fact that insiders are calling for government oversight further solidifies my assertion regarding regulating the voluntary offset market and their assertions will contribute to the introductory chapter of my thesis.

Goetz, John et al. "Development of Carbon Emissions Trading in Canada" (2009) 46 *Alta L Rev* 377.

Hahn, Robert W & Gordon L Hester. "Where Did All the Markets Go? An Analysis of EPA's Emissions Trading Program" (1989) 6:1 *Yale J on Reg* 109.

At the time when this article was published Hahn was a senior staff economist at the Council of Economic Advisers and an associate professor at the Carnegie Mellon University in Pittsburgh, PA. He is the author of a book on reviving regulatory reform and has also authored a number of articles, including those specifically related to marketable permits. Hester was a doctoral candidate at the School of Urban and Public Affairs at the Carnegie Mellon University at the time of publication of this article. While the authors do not explicitly state their target audience, the article is clearly intended to be read by policy makers, researchers and regulatory analysts. The authors suggest that very little effort has been spent evaluating the impact of emissions trading in the United States and this article, therefore, is a first attempt to provide a systematic analysis of four different elements that constitute emissions trading under the Environmental Protection Agency (EPA) regime and to evaluate proposals to reform emissions trading. The authors' research methodology includes a literature review on the use of market based systems to regulate environmentally harmful activities, and they augment their research with informal interviews with key insiders. The article summarizes legislative and regulatory basis for emissions trading and of four emissions trading elements-offsets, netting, banking and bubbles. The article also analyzes emissions trading data for a four-year period before drawing conclusions on reforming emissions trading policies. While the article deals with a regulated emissions trading model, the authors' conclusions and their evaluative criteria are useful for my thesis in developing comparable criteria for evaluating and reforming the voluntary emissions trading system. The authors' use of three factors to explain patterns from their data- transaction costs, uncertainty concerning property rights and the different treatment of new and existing sources of emissions- applies to Alberta's offset system as well and could potentially be used to compare data in the

voluntary offset system or at a minimum, provide contrasts to factors that may emerge from analysis of voluntary trading data.

———. “Marketable Permits: Lessons for Theory and Practice” (1989) 16:2 *Ecology LQ* 361.

Hamilton, Katherine et al. “Forging a Frontier: State of the Voluntary Carbon Markets 2008” *Ecosystem Marketplace & New Carbon Finance* (8 May 2008), online: Ecosystem Marketplace  
<[http://ecosystemmarketplace.com/documents/cms\\_documents/2008\\_StateofVoluntaryCarbonMarket2.pdf](http://ecosystemmarketplace.com/documents/cms_documents/2008_StateofVoluntaryCarbonMarket2.pdf)>.

Hamilton, Katherine et al. “Fortifying the Foundation: State of the Voluntary Carbon Markets 2009” *Ecosystem Marketplace & New Carbon Finance* (20 May 2009), online: Ecosystem Marketplace  
<[http://www.ecosystemmarketplace.com/documents/cms\\_documents/StateOfTheVoluntaryCarbonMarkets\\_2009.pdf](http://www.ecosystemmarketplace.com/documents/cms_documents/StateOfTheVoluntaryCarbonMarkets_2009.pdf)>.

Hamilton, Katherine et al. “Building Bridges: State of the Voluntary Carbon Markets 2010” *Ecosystem Marketplace & Bloomberg New Energy Finance* (14 June 2010), online: Forest Trends <[http://www.forest-trends.org/documents/files/doc\\_2434.pdf](http://www.forest-trends.org/documents/files/doc_2434.pdf)>.

Harris, Elizabeth. “The voluntary carbon offset markets: An analysis of market characteristics and opportunities for sustainable development” *International Institute for Environment and Development* (2007), online: International Institute for Environment and Development <<http://pubs.iied.org/pdfs/15507IIED.pdf>>.

At the time of writing this report, the author was the UK manager for Pioneer Carbon, the carbon asset developer for Climate Care. This 76 page report focuses on the structure and dynamics of the voluntary offset retail market and considers future developments and implications for this market based on the research findings. While the report is silent on its intended audience, the report is clearly intended for policy makers, regulators and scholars interested in the voluntary offset retail market. The stated objectives of the paper are to describe the characteristics of the retail voluntary offset market, to discuss perceptions of the market and its role in addressing climate change, to examine sustainable development attributes within the market, and to explore future market developments and its implications for sustainable development objectives. The author’s research methodology included a comprehensive literature review of both the compliance and the voluntary market for the purposes of setting her context, followed by surveys of offset retailers selected based on extensive website searches and contacts gathered at CarbonExpo 2006. Of the total population of 53 offset retailers identified, the author was able to obtain responses from 35 of her sample. Research findings include the fact that the voluntary offset retail market has been characterized by an absence of publicly available market information, a general lack of transparency, a wide range of standards and procedures and the lack of a universal registry. This is a well designed research report that includes an extensive survey of literature, which is quite useful as a starting point for my thesis

research. Chapters 3 (market structure) and 4 (market perceptions) are most relevant for my thesis in developing the context on the nature and characteristics of the voluntary offset retail market. The inclusion of the questionnaire sent to potential retailers and the general design process for the questionnaire provide me with a prototype to build on for the purposes of my thesis.

Harrison, Rachel Feinberg. "Carbon Allowances: A New Way of Seeing an Invisible Asset" (2009) 62:4 SMU L Rev 1915.

Healy, Thomas P. "Clearing the Air: Pursuing a Course to Define the Federal Government's Role in the Voluntary Carbon Offset Market" (2009) 61 Admin L Rev 871.

Hepburn, Samantha. "Carbon rights as new property: The benefits of statutory verification" (2009) 31 Sydney Law Rev 239.

Hoffmann, Matthew J. *Climate Governance at the Crossroads* (Oxford: Oxford University Press, 2011).

Howland, Juliet. "Not All Carbon Credits Are Created Equal: The Constitution and the Cost of Regional Cap-and-Trade Market Linkage" (2009) 27:1 UCLA J Envtl L & Pol'y 413.

Kennett, Steven A, Arlene J Kwasniak & Alastair R Lucas. "Property Rights and the Legal Framework for Carbon Sequestration on Agricultural Land" (2005-2006) 37:2 Ottawa L Rev 171.

Kolk, David Levy & Jonatan Pinkse. "Corporate Responses in an Emerging Climate Regime: The Institutionalization and Commensuration of Carbon Disclosure" (2008) 17:4 European Accounting Review 719.

Kollmuss, Anja et al. "A Review of Offset Programs: Trading Systems, Funds, Protocols, Standards and Retailers", *Stockholm Environment Institute* (2008), online: Stockholm Environment Institute <[http://sei-us.org/Publications\\_PDF/SEI-ReviewOffsetPrograms1.1-08.pdf](http://sei-us.org/Publications_PDF/SEI-ReviewOffsetPrograms1.1-08.pdf)>.

This report was published by the Stockholm Environment Institute (SEI), an independent research institute, and was prepared by Anja Kollmuss, Michael Lazarus, Carrie Lee and Clifford Polycarp. At the time of its publication, Kollmuss, Lazarus and Lee worked in the Climate and Energy Programme at SEI and Polycarp worked as a part-time researcher with the same department. This 196 page report's objective is to provide a comprehensive review of offset programs- mandatory and voluntary, including an assessment of some of the funds, standards and retailers comprising the carbon market. The report's intended audience includes policy makers and others interested or involved in the design of compliance based systems as well as voluntary offset systems and standards. The report provides a systematic review of domestic and international offset programs, focusing on key features of existing programs and activities and highlighting lessons learnt. The report is quite

useful for my thesis because it highlights the fragmentation of the voluntary offset market and provides a thorough assessment of key offset retailers and voluntary standards. The sections on comparative assessment of offset programs, the voluntary standards for offset projects and the section on offset retailers are quite useful for setting the context in my thesis.

Kollmuss, Anja et al. *Handbook of Carbon Offset Programs: Trading Systems, Funds, Protocols and Standards* (London, UK: Earthscan, 2010).

Kossoy, Alexandre & Philippe Ambrosi. "State and Trends of the Carbon Market 2010" *World Bank* (2010), online: [World Bank <http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/State\\_and\\_Trends\\_of\\_the\\_Carbon\\_Market\\_2010\\_low\\_res.pdf>](http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/State_and_Trends_of_the_Carbon_Market_2010_low_res.pdf).

Law, Salzman & JB Ruhl. "Currencies and the Commodification of Environmental Law" (2000-2001) 53 *Stan L Rev* 607.

Linacre, Nicholas, Alexandre Kossoy & Philippe Ambrosi. "State and Trends of the Carbon Market 2011" *World Bank* (June 2011), online: [World Bank <http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/StateAndTrend\\_LowRes.pdf>](http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/StateAndTrend_LowRes.pdf).

This 84 page report is an annual report published by the World Bank highlighting the state and trends of the carbon markets. Ambrosi and Kossoy were the authors of the report in 2010 and Ambrosi was a co-author of previous state and trend reports published by the World Bank. Linacre was the lead author in this report and his most recent publication relates to the risks of investing in Australia's clean energy future. The stated goal of this report is to provide its audience with a comprehensive discussion of the issues that most affected the carbon market in 2010. The intended audience appears to be regulators and policy designers. The report includes a section on international development in the area of climate change regulation given the expiry of the first commitment period under the Kyoto Protocol in 2012; a section on domestic policy development highlighting the current status of climate change policies in a number of countries including Canada and Australia; a section on risks and regulations based on how market participants transact; and a section on carbon finance including a subsection on the voluntary offset market. The authors highlight the fragmentation of the carbon market and the challenges faced by the regulators, including issues relating to fraudulent market activities leading to loss of millions of dollars. The report could benefit from more footnotes especially in regards to major assertions. Nevertheless, this report is useful for my thesis as it provides me with the most up-to-date analysis and overview of the state of the carbon market in general. The discussion on the scope of the primary and secondary market and the discussion on fragmentation and fraud suggest issues with access to information and/or information uncertainty, which can be causes for market regulation, hence pertinent my thesis.

- Lovell, Heather, Harriet Bulkeley & Diana Liverman. "Carbon offsetting: sustaining consumption?" (2009) 41:10 *Environment and Planning A* 2357.
- Lucas, Alastair. "The Alberta Energy Sector's Voluntary Approach to Climate Change: Context, Prospects and Limits" in G Bruce Doern, ed, *Canadian Energy Policy and the Struggle for Sustainable Development* (Toronto: University of Toronto Press, 2005) 293.
- . "Implementing the Kyoto Protocol in North America: Canada's Policy and Instrument Choices" (2006) 2 *International Energy Law and Taxation Review* 48.
- . "Mythology, Fantasy and Federalism: Canadian Climate Change Policy and Law" (2007) 20 *Pacific McGeorge Global Business & Development Law Journal* 41.
- Lucas, AR & V Potes. "Voluntary Approaches and Formal Regulation: Climate Change and Canada's Energy Sector" in Barry Barton et al., *Regulating Energy and Natural Resources* (Oxford: Oxford University Press, 2006) 317.
- Mace, MJ. "The Legal Nature of Emissions Reductions and EU Allowances: Issues Addressed in an International Workshop" (2005) 2 *Journal for European Environmental and Planning Law* 123.
- Meadows, Teresa & Tony Crossman. "A Tale of Two Provinces: Imposing Greenhouse Gas Emissions Controls Through Law and Policy in Alberta and British Columbia" (2010) 47 *Alta L Rev* 421.
- Peters-Stanley, Molly et al. "Back to the Future: State of the Voluntary Carbon Markets 2011" *Ecosystem Marketplace & Bloomberg New Energy Finance* (2 June 2011), online: Forest Trends <[http://www.forest-trends.org/documents/files/doc\\_2828.pdf](http://www.forest-trends.org/documents/files/doc_2828.pdf)>.
- Rose, Carol M. "From H<sub>2</sub>O to CO<sub>2</sub>: Lessons of Water Rights for Carbon Trading" (2008) *Ariz L Rev* 91.
- Salzman, James & J B Ruhl. "Currencies and the Commodification of Environmental Law" (2000) 53 *Stan L Rev* 607.
- Savasta-Kennedy, Maria. "The Newest Hybrid: Notes Toward Standardized Certification of Carbon Offsets" (2009) 34 *NCJ Int'l L & Com Reg* 851.

Savasta-Kennedy is a clinical professor of law teaching advanced environmental law practice and pre-trial litigation courses at the University of North Carolina's School of Law. Her research interests include regulatory and market responses to pollution control and climate change and environmental justice and she has authored several articles on environmental law issues, including those specifically related to regulation of carbon offsets. According to the author, the purpose of the article was to make a case for introducing some measure of government oversight in the voluntary offset market and standardizing the certification of voluntary offsets. The

author suggests a blended approach, what she calls a new-hybrid approach, where regulatory agencies and market participants jointly create and administer certification standards. She also proposes to draw insights from the evolution of the organic products market, which progressed from a fragmented, multi-standard approach to a uniform system of certification. Her intended audience appears to be legislators and other academic writers. The author does a good job of setting the context for carbon offset market, which will be useful for my thesis. Her review of the organic products market and its limitations respecting meaningful oversight is also useful. However, her assumptions and limitations on the scope of her work that are included in various parts of the paper weaken her paper to a point where, in the end, her espoused goal of making a case for standardizing the certification process suffers from her concluding assumption that if a uniform system of certification is the best way of regulating the offset market, then her suggested new-hybrid model provides the necessary balance between market integrity and consumer protection on the one hand and flexibility and innovation on the other hand. Nevertheless, the paper does provide me with the introductory context for the carbon offset market and for considering the similarities of the offset market with the organic products market for my thesis.

Schwarcz, Steven L. “Regulating Complexity in Financial Markets” (2009) 87:2 *Washington University Law Review* 211.

Stern, Nicholas. *The Economics of Climate Change: The Stern Review* (Cambridge: Cambridge University Press, 2007).

Taiyab, Nadaa. “Exploring the market for voluntary carbon offsets” *International Institute for Environment and Development* (2006), online: International Institute for Environment and Development < <http://pubs.iied.org/pdfs/G00268.pdf>>.

Taylor, Katie. “Purchasing in an Unregulated Market: Federal Government Procurement of Carbon Offsets” (2010) 39 *Pub Cont LJ* 2065.

United States. CRS Report for Congress, *The Role of Offsets in a Greenhouse Gas Emissions Cap-and-Trade Program: Potential Benefits and Concerns* (RL34436) (Washington DC: Congressional Research Service, 2008).

———. CRS Report for Congress, *The Carbon Cycle: Implications for Climate Change and Congress* (RL34059) (Washington DC: Congressional Research Service, 2009).

———. CRS Report for Congress, *Voluntary Carbon Offsets: Overview and Assessment* (RL34241) (Washington DC: Congressional Research Service, 2009).

At the time of writing this report, the author, Jonathan L. Ramseur, was an environmental policy analyst with the Congressional Research Service. The author has published a number of other reports relating to carbon markets and other environmental policy matters, all under the banner of the Congressional Research Service. The report’s intended audience is the United States’ Congress and the

author's stated purpose is to provide an overview of carbon markets and examine key issues generating debate and controversy within the voluntary offset market. The author does a good job of providing an overview of carbon offsets generally and offsets from the voluntary market specifically, which will be useful for my thesis. The author's identification of potential integrity concerns relating to offsets generated from four sources of carbon offsets provides me with a quick summary of a broad range of controversial issues affecting the voluntary offset market. The author's assessment of the voluntary offset sellers group and the general lack of uniformity in the standards developed by each group and the variance in the substantial monitoring and verification procedures is of great use to me in my thesis as it provides me with the basis for making a case of some form of regulation for the voluntary offset market. The report could have been more useful if the author had cited his sources for the controversial issues highlighted in the report. However, given the intended audience for this report, it is not surprising that the report is light on citations. Nevertheless, the report does provide me with some pertinent information for setting the context and argument for regulation of the offset market for the purposes of my thesis.

———. CRS Report for Congress, *Regulating a Carbon Market: Issues Raised by the European and U.S. Sulphur Dioxide Allowance Markets* (RL34488) (Washington DC: Congressional Research Service, 2010).

———. CRS Report for Congress, *Estimating Offset Supply in a Cap-and-Trade Program* (RL34705) (Washington DC: Congressional Research Service, 2010).

Weston Brown, Eleanor. "A Common Morality: Toward a Framework for Designing Fiscal Instruments to Respond to Global Climate Change" (2009-2010) 15 *Widener Law Review* 391.

Yandle, Bruce. "Grasping for the Heavens: 3-D Property Rights and the Global Commons" (1999-2000) 10 *Duke Env'tl L & Pol'y F* 13.

Yandle, Bruce & Andrew P Morriss. "The Technologies of Property Rights: Choice Among Alternative Solutions to Tragedies of the Commons" (2002) 28 *Ecology LQ* 123.

THE LEGAL INSTITUTIONALIZATION OF TRANSPARENCY AND ACCOUNTABILITY  
IN NATURAL RESOURCE REVENUE GOVERNANCE: A COMPARATIVE ANALYSIS  
OF SOLID MINERALS AND THE PETROLEUM SECTOR IN GHANA.

ANNOTATED BIBLIOGRAPHY

COMPILED BY

THEODORE NSOE ADIMAZOYA

LL.M CANDIDATE UNIVERSITY OF CALGARY

**INTRODUCTION**

This bibliography was prepared for Legal Research and Methodology Class (Law 703) at the University of Calgary after one term of study. It contains selected secondary sources of information relevant to my LL.M thesis research at the University of Calgary. My thesis focuses on institutionalizing transparency and accountability in the management of solid mineral revenues in Ghana to reduce resource revenue corruption with comparisons drawn from the legal and regulatory regime that governs revenue management in the Petroleum sector. Please note that this annotated bibliography is a work in progress and is not, by any means exhaustive.

## ANNOTATION

### A. SECONDARY MATERIAL: COLLECTION OF ESSAYS

Gavin Hilson & Roy Maconachie, “The Extractive Industries Transparency Initiative: Panacea or White Elephant for Sub-Saharan Africa?” in J.P. Richards ed, “Mining, Society and a Sustainable World” (Heidelberg: Springer, 2009) 469.

This Chapter of the book critically examines the challenges involved in implementing the Extractive Industries Transparency Initiative (EITI) in Sub-Saharan Africa. The authors use a proactive, positivist and solution oriented approach to evaluate the effectiveness of EITI in Sub-Saharan mineral states and argue that those driving the EITI have diagnosed the challenge far too superficially. They then conclude that the EITI on its own is incapable of facilitating reduced corruption, prudent management of mineral and/or petroleum revenues, or mobilising citizens to hold corrupt government officials accountable for embezzling profits from extractive industry operations. This work will contribute immensely to a strand of the argument in my thesis that effective transparency and accountability must start with the provision of the right legal environment in host states for citizens to be able to mandatorily hold their governments accountable for extractive resource revenues.

Terry Lynn Karl, “Ensuring Fairness: The Case for a Transparent Fiscal Social Contract” in Macartan Humphreys, Jeffrey D. Sachs & Joseph E. Stiglitz eds, “Escaping The Resource Curse” (New York: Columbia University Press, 2007) 256.

The author provides a practical view on how resource-rich countries can maximise long term benefits from their natural resource revenues. He argues that the first thing needed to prevent rent-seeking behaviour of all actors involved in the extractive sector is a “fiscal social contract” based on transparency. Terry Lynn Karl is a professor at Stanford University who has researched extensively on the political economy of development especially in oil exporting countries. The piece is directed towards policy makers and those interested in influencing policy. It is useful to my research as it discusses the problem of rent-seeking behaviour and suggests transparency as the tool to curb rent-seeking.

## **B. SECONDARY MATERIAL: ARTICLES**

Abdullah Al Faruque, “Transparency in Extractive Revenues in Developing Countries and Economies in Transition: A Review of Emerging Best Practices” (2006) 24 *Journal of Energy & Natural Resources Law* 66.

This article surveys emerging best practices on revenue transparency developed by multi-stakeholder initiatives, international institutions’ efforts and legislative measures of the governments of some developing countries and economies in transition. It critically analyses emerging transparency mechanisms developed by such measures and then focuses on the respective roles of each stakeholder in undertaking measures in revenue transparency. Abdullah Al Faruque is an assistant professor, Department of Law, University of Chittagong, Bangladesh. Although he explores the role of other stakeholders in resource revenue management he strongly argues that the main responsibility for transparent revenue management rests with the state. The

article is intended for an academic audience but can also be used for advocacy. It assists my research in situating the discussion of transparency and accountability in solid minerals in Ghana within a broader context.

Jennifer Drysdale, "Five Principles for the Management of Natural Resource Revenue: The Case of Timor-Leste's Petroleum Revenue" (2008) 26 *Journal of Natural Energy & Natural Resources Law* 151.

This article discusses five principles that are necessary if resource-rich countries want to manage their natural resource revenues to achieve sustainable development. The article reveals the five principles to be that: responsibility for petroleum revenue management must be defined; all natural resource revenue must be received by the state; natural resource revenues must be invested wisely; natural resource revenues must be managed transparently; and some natural resource revenue must benefit future generations. Drysdale uses Timor-Leste as a case study to explore the principles and contends that countries that manage their natural resources revenue based on these five principles are more likely to avoid the problems associated with the influx of natural resources such as corruption and the resource curse and achieve sustainable development. Although the article uses these five principles to explore Timor-Leste's Petroleum Revenue Fund, it fails to show how the five principles have crystallised except to say that a "review of the literature" reveals these five principles without the article itself neither reviewing the said literature nor citing any authority to support this assertion.

Ivar Kolstad and Arne Wiig, “Is Transparency the Key to Reducing Corruption in Resource-Rich Countries?” (2009) 37 *World Development* 521.

This piece reviews the main mechanisms through which transparency can reduce corruption and other dysfunctions in resource-rich developing countries. The authors argue that transparency is insufficient in itself and needs to be complemented by the ability of citizenry to process the information and the ability and incentives to act on that information. The authors draw on both economic theory and relevant empirical studies to address the gap in research in this area. The piece thus explores the basic mechanisms through which transparency may affect corruption, attendant limitations, and complications of such a perspective and the implication for transparency reform in natural resource-rich countries. The piece is important for those in academia and policy and fills the gap in the literature on corruption in resource-rich countries because there has been little formal research on what role access to information plays in improving development outcomes in a resource-rich context.

Mark Bovens, “Analysing and Assessing Accountability: A Conceptual Framework” (2007) 13 *European Law Journal* 447.

In this work Bovens in the context of the European Union tries to get to grips with the appealing but elusive concept of accountability. He does this by asking conceptual, analytical and evaluative questions on the concept of accountability. Bovens is a professor of Public Administration at the Utrecht School of Governance, Utrecht University, the Netherlands. This work will aid my research through its exploration of the conceptual framework of the accountability.

Paul Collier, “Laws and Codes for the Resource Curse” (2008) 11 Yale Human Rights & Development Law Journal 9.

Collier analyses the potential contribution of international codes and laws in increasing the development impact of natural resource revenues. Collier who is a professor of Economics at the University of Oxford and Director of the Centre for the Study of African Economies argues that voluntary codes have the potential to benefit oil-producing states and the citizens of those states. He suggests that international voluntary codes can play a key role in addressing the resource curse problem and harnessing commodity booms. Collier outlines five decisions that are jointly critical in harnessing resource wealth. These decisions points appear to be the same in content as that called five principles by Drysdale but while Collier justifies these decision points with literature Drysdale fails to do so.

Marisa B. Van Saanen, “Paul Collier, Laws and Codes for the ‘Resource Curse’” (2008) 11 Yale Human Rights & Development Law Journal 29.

In this response Van Saanen identifies how voluntary codes have worked in other instances and how those instances are similar to or different from the situations in various other natural resource markets, particularly the oil and gas industry. She then suggests other possible legal remedies which are useful in dealing with the resource curse problems, with a particular focus on anti-corruption and governance efforts. Van Saanen formerly a Faith Liason for the World Bank, with an M.phil from Oxford University and JD from Yale Law School, concludes that there need to be new ways in addition to international voluntary codes to promote transparency and accountability. In her view additional legal mechanisms are necessary in order to curb corruption

and ensure an environment where compliance with voluntary codes might be even more possible. This article pulls out the loopholes of Collier's suggestion of voluntary codes by emphasizing that voluntary codes will work in an environment where enforceable legal mechanisms exist. This article will add important insights to my assessment of domestic efforts on transparency and accountability in the extractive sector.

Alexandra Gillies & Antoine Heuty, "Does Transparency Work? The Challenges of Measurement and Effectiveness in Resource-Rich Countries" (2011) 6 Yale International Affairs 25.

This article investigates the impact of transparency initiatives on improving governance and economic outcomes in oil, gas and mineral rich developing countries. The article reveals shortcomings and limitations in the design of existing transparency initiatives in particular that many initiatives are externally driven and target transparency too narrowly which affects both the intent and character of their implementation. Alexandra Gillies is a Governance Advisor with the Revenue Watch Institute with a PhD from the University of Cambridge and has consulted widely on natural resource governance while Antoine Heuty is Deputy Director with the Revenue Watch Institute and has served as public economist with the UNDP with degrees from Oxford University and Columbia University. The authors among other things suggest that transparency and accountability initiatives need to be decentralised to allow for the kind of participatory approaches that will bring transparency and accountability together in tangible ways. This article is written for academics, advocacy and policy. It will be useful in my research in how it proposes effective transparency and accountability mechanisms.

Joseph Anthony Schumacher, "Introducing Transparency into the Oil Industry: The Quest for EITI (2004) 4 Global Jurist Advances 1.

In the context of the debate between transnational companies and the Extractive Industry Transparency Initiative (EITI) on whether transparency should morph into international hard law, this article uses the interactional legal theory to explain and analyse the efforts of Publish What You Pay (PWYP) coalition in terms of "norm articulation" and legal regime creation. The article concludes by offering a potential treaty solution, combining mandatory and voluntary measures and contends that nascent conditions for customary international law regarding transparency are forming. The text is targeted towards legal academics. It is at best a juristic review of the force and content of international initiatives on transparency and accountability. This work will aid my research through its exploration of the limitations of current international initiatives.

Virginia Haufler, "Disclosure as Governance: The Extractive Industries Transparency Initiative and Resource Management in Developing World" (2010) 10 Global Environmental Politics 53.

The author discusses transparency and its intended effects in the realm of resource management and examines the overlapping campaigns and global norms that point to information disclosure as appropriate solutions. It discusses the growing institutionalization of EITI and assesses its limits and possibilities. The article comprehensively evaluates the limits and possibilities of the EITI and concludes that notwithstanding the hurdles in implementing transparency in resource rich countries, revenue transparency is a reasonable initial step that the international community

can take. This article is useful to my thesis for its offer of suggestions that can be used for law reform to deal with opacity in resource revenue management.

Reagan R. Demas, “Moment of Truth: Development in Sub-Saharan Africa and Critical Alterations Needed in Application of the Foreign Corrupt Practices Act and Other Anti-Corruption Initiatives” (2010-11) 26 American University International Law Review 315.

Reagan Demas is a Partner at Baker & McKenzie LLP in Washington DC whose practice focuses on anti-corruption. He has travelled extensively on the African Continent, evaluating business opportunities and providing advice on the Foreign Corrupt Practices Act (FCPA) of the United States. This article shows that most of the international initiatives and FCPA deal with the supply-side of corruption and points out that corruption cannot be consummated without a supplier and a demanding party. The article makes an interesting analysis by showing that supply-side alone fight of corruption will not achieve results in Africa. The primary audience appear to be those in practice and legislators. The article contains a pointed and cogent critique of the United States of America’s FCPA and other OECD initiatives.

Dr. Peter Eigen, “Fighting Corruption in a Global Economy: Transparency Initiatives in the Oil and Gas Industry” (2006-07) 29 Houston Journal of International Law 327.

The article provides an overview of the growth of the anti-corruption movement in the natural resource sector. It outlines the development of Extractive Industry Transparency Initiative (EITI), its challenges, criteria, framework and benefits. The author is the founder and chairman of the Advisory Council of Transparency International and chairman of the EITI. Its audience is primarily those in advocacy and the article was initially presented as a lecture in Houston

University and later published. It provides only a historical overview of the EITI and its issues and does not objectively analyse these efforts.

David L. Goldwyn, “Extracting Transparency” (2004) 5 *Georgetown Journal of International Affairs* 5.

This article shows that for the benefit of energy infrastructure and wealth to be realised in developing countries, transparency in government must be extracted like oil from the ground. The author is president of Goldwyn International Strategies LLC and was Assistant Secretary of Energy for International Affairs in the Second Clinton Administration. The intended audience are policy makers since the author advocates that efforts should be aimed at encouraging or obliging nations rich in non-renewable resources to commit to transparency. This article will add to an argument in my thesis that there need to be legal mechanisms that foster transparency and accountability in the extractive sector.

Catharina Lindstedt and Daniel Naurin, “Transparency is Not Enough: Making Transparency Effective in Reducing Corruption” (2010) 31 *International Political Science Review* 301.

This article has continued the common assertion that transparency may reduce corruption. It has however, qualified it by stating that making information available will not prevent corruption if the conditions for publicity and accountability are weak. The authors use cross-national data to investigate their hypothesis. They come to the conclusion that reforms focusing on increasing transparency should be accompanied by measures for strengthening citizens’ capacity to act upon

the available information. The article is useful in the manner in which it explores the issues of transparency using scientific data. It is targeted at policy makers, advocacy groups and academics as its audience.