E.Goudina Bibliography

A SUSTAINABLE DEVELOPMENT CRITIQUE OF THE RUSSIAN OIL AND GAS DISPOSITION SYSTEM

ANNOTATED BIBLIOGRAPHY

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Structure of this Annotated Bibliography
This annotated bibliography is organised in the following way. There are three sections within this bibliography: Application of the Concept of Sustainable Development to Non-renewable Natural Resources; Reform and Development of the Russian Natural Resources Legislation: Debate among the Russian Scholars; and Oil and Gas Law in Canada, Commonwealth and the World: Successful Examples of Comparative and Evaluative Works.

The first, largest section of this bibliography is divided into sub-sections. The first sub-section is on general works in the area. It includes fundamental works on sustainable development, on its application to non-renewable natural resources, understanding and meaning of the concept, its principles and critique. The next two subsections are devoted to major principles of sustainable development: integration of economic development with environmental protection, inter- and intra-generational equity. I have included some works on the issue of indigenous peoples to the latter, believing that certain experience on the protection of indigenous peoples' rights and dispute resolution may be extrapolated to general local communities or be of interest to the reader, concerned with the issue. The last subsection is devoted to the economic justification of the application of the sustainable development concept to non-renewable natural resources.

The second section of this bibliography is devoted to the Russian academic works in the area of Russian oil and gas law and its currently on-going reform. These works provide the context of the current status of the Russian oil and gas disposition system.

The last section of this bibliography includes a list of articles, which, in my view, represent wonderful examples of evaluative and comparative works in the area of oil and gas law. I am including them to this bibliography, as I have found them very useful while developing the evaluative methodology for my eventual thesis.

Every section or sub-section of this bibliography includes a part with monographs, written on the subject and a consequent part with relevant articles.

APPLICATION OF THE CONCEPT OF SUSTAINABLE DEVELOPMENT TO NON-RENEWABLE NATURAL RESOURCES

General works: Meaning, Understanding, Principles, Implementation

Monographs

Boyle A. and Freestone D., eds., International Law and Sustainable Development (New

York: Oxford University Press, 2001)
The book represents a series of essays considering the issues of international law and sustainable development. The essays include such topics as recognition of sustainable development as a principle of international law, sustainable development critique, development of natural resources case law by the International Court, etc. The essays provide for an overview of the concept's evolution over the last 3 decades using an historical approach. The book does not represent a comprehensive analysis of the concept of sustainable development, though the topics deal with the most challenging questions of sustainability.

Gao Z., International Petroleum Contracts (London: Graham & Trotman, 1994)
The book starts with description of legal regimes regulating development of petroleum resources in a number of jurisdictions and traces evolutions of these regimes. At the end of description of each jurisdiction, the author offers its evaluation from the perspective of sustainable development. The book concludes with thorough suggestions and schemes for implementation of quasi-sustainable development concept in the area of petroleum resources development and offers means of the concept's reflection in petroleum contracts. The book is well structured and written in a very clear language.

Handl G., "Environmental Security and Global Change: The Challenge to International Law" in Lang W., Neuhold H., Zemanek K., eds., Environmental Protection and International Law, (London: Graham & Trotman Limited, 1991)
A chapter in the book is mainly focused on international law issues. Its one section is, though, devoted to the question of sustainable development within the framework of international law. The author argues that the concept of sustainable development represents a strictly utilitarian view of environmental protection and offers its philosophical justification.

Onuosa S.N., "Sustainable Development of Petroleum Resources: The Rumpus and Resolution", in Gao Z., ed., Environmental Regulation in Oil and Gas, (London: Kluwer International Law, 1998)
The chapter of the book explores the concept of sustainable development in the area of oil and gas, offers definitions and principles of sustainable development, describes different attitude towards the problem, critiques of the concept, offers the concept quasi-sustainable development for non-renewable natural resources. This work represents a summarised, clear and brief explanation of the concept of quasi-sustainable development and justifies its importance and necessity.

National Sustainable Development Policy (recommendations from the National Commission on Sustainable Development and Steering Committees)
www.un.org/esa/agenda21/natlinfor/countr/barbados/ncsd.htm
An example of the government's commitments to a sustainable development policy in the areas of science and technology, man-made and built environment, natural resources, waste management, regional co-operation, research and development, human resources, coastal and marine preservation, etc.

Schrijver N., Sovereignty Over Natural Resources, (Cambridge: Cambridge University Press, 1997)
The book focuses on the question of balancing rights and duties of a state. It tracks the evolution of the concept of state's sovereignty over natural resources, addresses the problem of sustainable development of natural resources in an interdependent world and considers the obligations of the state which result from it. The discussion in the book provides for a balanced merge of international and domestic interests and obligations of a state.

Shelekhov A.M., Основные положения стратегии устойчивого развития России (General Provisions of the Sustainable Development Strategy in Russia - author's translation) (Moscow: State Duma Publications, 2002)

www.duma.gov.ru/sustainable/strategy.htm
The book offers a detailed description of the national sustainable development strategy in various aspects: understanding of the term, economic, social, educational, environmental aspects. The book examines the territorial aspect of the sustainable development concept and its international aspect. Some suggestions on implementation of the sustainable development strategy in Russia are made. (Published in Russian).

World Commission on Environment and Development, Our Common Future (Oxford: Oxford University Press, 1988)
The bible of sustainable development concept, usually referred to as The Brundtland Report. The report has introduced the most common definition of sustainable development: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". It is the first reading to be done, starting the research on sustainable development issues.

Articles

Heyes A.G. and Liston-Heyes C., "Sustainable Resource Use: the Search for Meaning" (1995) 23 Energy Policy 1
A very critical article. The authors claim that the concept of sustainable development is a useless, vague and rhetoric issue. They justify their position by the fact that the concept has not so far obtained a clear and precise definition accepted by the world community at large. Authors provide a very useful and well-organised list of possible definitions of sustainable development and outline strong and weak sides of each of the definitions.

McDonach K. and Yaneske P.P., "Environmental Management Systems and Sustainable Development" (2002) 22 The Environmentalist 217
The authors of the article describe sustainable development as a balance of ecological concerns and mankind's' socio-economic activities. They provide for several types of sustainability models for the modern states. The article deals with the issues of ecomanagement, sustainability, and its elements and makes a number of suggestions to actions of private companies and organisations to approach sustainability.

Norde W. "Energy and Entropy: a Thermodynamic Approach to Sustainability" (1997) 17 The Environmentalist 57
A critical article, which does not make many suggestions. The work mainly focuses on physics and theory of thermodynamics and critiques present consumption system.

Payne D.M., Raiborn C.A., "Sustainable Development: the Ethics Support the Economics" (2001) 32 Journal of Business Ethics 157
The article introduces three criteria of sustainable development, though defines them rather vaguely. The emphasis is made on the ethical approach towards sustainability and duty of businesses for sustainable operation. Authors examine different models of companies' behaviour.

Platonov V.M. "Десять лет в поисках устойчивости" ("Ten Years in Search for Sustainability")
www.platonovvm.ru/scripts/dynacont/cont.php?con_id=207
The article focuses on justification of the necessity of sustainable development implementation, definition of sustainable development and its goals. The author argues, that implementation of sustainable development is impossible unless an effective legislation system is created, and suggests that sustainable development first of all means a "sustainable state," that is a state with predictable policy, environmentally and socially oriented. The article introduces criteria of sustainable state. (Published in Russian).

Solow R., "An Almost Practical Step Toward Sustainability", (1993) 19 Resources Policy 162
The article reproduces the lecture given by the author on the occasion of the 40th anniversary of Resources for the Future, USA-based NGO. The author suggests the method of substitution of non-renewable natural resources by their renewable substitutes after their depletion and offers an economic justification of his proposal. A very well structured article, encompassing persuasive arguments and making a very clear point.

Economic Development Integrated with Environmental Protection Principle

Froese D., Pryce D., Schultz N., Tidmarsh G., Webster G., "Collaborative and Voluntary Approaches to Resolving Environmental Issues: Some Examples from the Canadian Upstream Petroleum Industry" in Leonard J. Griffiths and Patricia Houlihan, Sustainable Development in Canada: Into the Next Millennium (Canadian Bar Association, 2000)
The essay represents a number of concrete examples of quasi-sustainable development policy implementation in Alberta, including the Alberta Orphan Program. It addresses the issues of flaring of natural gas, measures for greenhouse gas reductions, benzene emissions, remediation and reclamation processes, etc.

Muir M.A.K. "Sustainable Energy Development and Use: Competitive Energy Markets and the Role of the Renewable Energy and Energy Efficiency" in Leonard J. Griffiths and Patricia Houlihan, Sustainable Development in Canada: Into the Next Millennium (Canadian Bar Association, 2000)
The essay focuses on the issue of marketing of renewable energy and the issue of deregulation of natural gas and electricity industries. The author brings good examples of deregulation processes from Northern America, United Kingdom and Colombia.

Principles of Inter- and Intra-generational Equity: public participation, local benefits, issue of indigenous peoples

Cassidy P. and Rowbotham E., "Sustainable Development and Public Participation" in Leonard J. Griffiths and Patricia Houlihan, Sustainable Development in Canada: Into the Next Millennium (Canadian Bar Association, 2000)
The essay argues that public participation is not always beneficial and does not always contribute to the sustainable development process. The authors discuss cases when public participation may have a negative impact on sustainability of the project. They argue that a reasonable extent to which public participation mechanism is applied should exist. The authors emphasise that sustainable development incorporates more aspects, than pure environmental protection; rather, the latter is an integral part of a developmental process, which includes also economic and social development.

Keeping, J.M., Local Benefits from Mineral Development: The Law Applicable in the Northwest Territories (Calgary: Canadian Institute of Resources Law, 1999)
The book analyses the law guaranteeing local benefits from mineral development in the Northwest Territories. The book first analyses the state of current law and then considers the question of the direction of the law's further development. The book concludes with suggestions and recommendations as to steps that should be taken to improve law and policy in the area of providing for local benefits in the area. This book could also have been placed in the third section of this bibliography as an example of an evaluative work in the area.

Weiss E.B., In Fairness to Future Generations (Tokyo: The United Nations University and New York: Transnational Publishers, 1988)
A fundamental work on the question of intra- and intergenerational equity. The book is mainly focused on the international aspect of the issue. It provides for clear definitions and principles of these aspects of sustainable development. The author suggests theological, political and historical justifications of the importance of these principles of sustainable development.

Articles

Chance N.A., Andreeva E.N., "Sustainability, Equity and Natural Resource Development in Northwest Siberia and Arctic Alaska" (1995) 23 Human Ecology 217
A comparative article, which deals with protection of rights of indigenous peoples in Russian Northwest and Alaska. The authors address the issue of the industry (in particular oil and gas development) influence of industry on life of indigenous people and state policy in respect of this issue. A rare article which offers a comparative analysis of the Russian and North American legislation. This article could also have been placed in the third section of this bibliography as an example of a comparative work in the area.

Hinterberger F., Omann I., Stocker A. "Employment and Environment in a Sustainable Europe" (2002) 29 Empirica 113
The article considers the concept of sustainable development in the scope of its effects on employment. Indicators of sustainability are somewhat described. The article includes a chapter on economy-employment-environment relationship and develops a set of formulas to describe and evaluate such relationships. The authors make examples of applications of these formulas in Germany and Austria.

Maggio G.F., "Inter/intra-generational Equity: Current Applications under International Law for Promoting Sustainable Development of Natural Resources", (1996-7) 4 Buffalo Environmental Law Journal 162
The article considers inter- and intra-generational equity as emerged principles of international environmental law. The author offers explanations of meaning of both inter-generational and intra-generational equity principles of sustainable development and discloses the history of their development. Some attention is devoted to the issue of indigenous peoples.

Mirande M., "Sustainable Natural Resource Development, Legal Dispute, and Indigenous Peoples: Problem-Solving Across Cultures" (1997) 11 Tulane Environmental Law Journal 33
The article represents a practitioner's point of view on means of solving conflict's arising among indigenous peoples and companies, using natural resources. The author argues that traditional litigation and seeking for court assistance may not be the best means of solving conflicts of this nature. He offers a step-by-step analysis of one conflict resolution in the states, which, even not being perfect, led to an establishment of long-term partnership relations between a tribe and an electricity producer. A very thorough and useful article for those, concerned with issued of natural resource development and status of indigenous peoples in this process.

Prophet C., "Public Participation, Executive Discretion and Environmental Assessment: Confused Norms, Uncertain Limits" (1990) 48 University of Toronto Faculty of Law Review 279
The article offers a theoretical justification of public participation mechanism. The author discusses a moral theory of public participation in administrative decision-making process based on Kant's imperatives. The article outlines objectives of public participation and areas where discretion by decision-making authorities is beneficial to the society. Emphasis is made on the theoretical aspect of the issue.

Suagee D.B. "Tribal Self-Determination and Environmental Federalism: Cultural Values as a Force for Sustainability" (1998) 3 Widener L. Symp. J. 229
The article focuses on the role of tribal governments in decision-making process and inter-governmental relations on environmental issues. It offers considering tribal governments as a third party (third type of sovereign) to the inter-governmental relations process. The author discusses the problem of participation of indigenous people's representatives in decision-making process, protection of their interests and rights, execution of treaties with Indian tribes. The author has chosen a very effective methodology: each part of the article starts with a relative abstract of a tribal folk story, which helps to deliver the article's message in the most narrative way.

Economic Justification of the Concept's Application to Non-Renewable Natural Resources

Monographs

Bretschger L. and Egli H., "Sustainable Growth in Open Economies" in Schulze G.G. and Ursprung H.W., eds., International Environmental Economics (Oxford University Press)
Chapter of the book discusses the criteria of sustainable development from an economic perspective, considers several economic growth models, touches upon the taxation system, international trade, natural resources. The authors describe several economic strategies for sustainable development implementation.

Daly H.E., Beyond Growth (Boston: Beacon Press, 1996)
A fundamental book on sustainable development and application of the concept to non-renewable natural resources. The author offers a thorough economic justification of the concept of quasi-sustainability, provides for detailed schemes of this concept's implementation. Besides economic justification, the author offers its theological and moral justification.

Some critics have characterised the book as a Copernican revolution in economics.

Pearce D.W. and Turner R.K., Economics of Natural Resources and the Environment (Baltimore: The Johns Hopkins University Press, 1990)
A thorough economic work on economics of natural resources in general. Two chapters in the book address the issue of non-renewable natural resources. The authors address the concept of quasi-sustainable development of non-renewable natural resources, offer a number of formulas which may help achieving quasi-sustainability when using non-renewable resources. The book is written in a clear language. Notwithstanding the high number of economic formulas, schemes and calculations, the book is easy to understand for non-economists as well.

Articles

Auty R. and Warhurst A., "Sustainable Development in Mineral Exporting Economies" (1993) 9 Resources Policy 14
The article focuses on the "Dutch Disease" syndrome and looks at its implications in the economies of the mineral exporting developing countries. Authors argue that the command-and-control method of environmental protection should be replaced with market regulations. The article offers expanded examples from Chilean economy and some other developing countries.

Intarapravich D., Clark A.L., "Performance Guarantee Schemes in the Minerals Industry for Sustainable Development" (1994) 20 Resources Policy 59
The article examines the policy of Thailand from the perspective of achieving sustainability in a

developing country, dependant on the use of non-renewable natural resources. The authors provide for a clear explanation of a mechanism and policy adopted by the state, and develop a discussion on advantages and disadvantages of command-and-control and economic methods of regulation in the industry.

Mikesell R.F., "Sustainable Development and Mineral Resources" (1994) 20 Resources Policy 83
The article examines the application of the principle of sustainable development to mineral resources. The author suggests saving and reinvesting each year an amount equal to the present value of the annual net revenue. No suggestions to policy creation are made, but economic foundation of such policy is explained in a simple, brief and clear language.

von Below M.A., "Sustainable Mining Development Hampered by Low Mineral Prices" (1993) 9 Resources Policy 177
The author offers a useful from the quasi-sustainable point of view definition of sustainable development. He suggests technological innovation and environmental rehabilitation as means of achieving sustainability. The article argues that prices for mineral resources are currently lower than socially optimal. The author concludes that increase in price will contribute to sustainable use of these resources.

REFORM AND DEVELOPMENT OF THE RUSSIAN NATURAL RESOURCES LEGISLATION: DEBATE AMONG THE RUSSIAN SCHOLARS

Monographs

Brinchuk M.M., Экологическое право (Environmental Law) (Moscow: Jurist, 2000)
In the part of the book specifically devoted to the natural resources use, one of the chapters deals with the natural resources disposition system in Russia. It describes the complete process of obtaining specific licenses, entering into licensing agreements, consequences of being a party to licensing relations, etc. The question of administrative-contractual regulation correlation is raised, though no answers to the solution of such situation are offered. (Published in Russian).

Erofeev B.V., Экологическое право России (Russian Environmental Law), 10th ed. (Moscow: Profobrazovanie, 2002)
The book devotes one chapter to the issue of natural resources development. It sets out the general legal framework of the current Russian subsoil use legislation. Another chapter deals with international law issues in the area of natural resources development. It pays significant attention to the question of international environmental protection when developing natural resources. (Published in Russian).

Kalinin I.B., Природоресурсное право (Natural Resources Law) (Tomsk: Tomsk State University, 2000)
The book offers a detailed review of the Russian natural resources law, sets out the problems in the legislation, draws attention to the unclear and unregulated aspects of natural resources use relations. It also makes some suggestions to the legislation improvement. (Published in Russian).

Krassov O.I., Природные ресурсы России (Russian Natural Resources) (Moscow: Delo, 2002)
The book offers an analysis of the current Russian natural resources legislation at the federal and regional levels. It deals with the question of property right on natural resources, environmental protection, natural resources disposition system, etc. Specific attention is paid to the question of the disposition system and production sharing agreements. (Published in Russian).

Mirgazizova R.N., Правовое регулирование отношений собственности в сфере поиска, разведки и добычи минерального сырья в Российской Федерации (Regulation of Property Rights in the Area of Search, Exploration and Development of Mineral Resources in Russia) (Novosibirsk: Nauka, 2000)
The book represents a very thorough research of the problem of property rights in the area of mineral resources use. The book provides an historical review of the property rights development in this area, outlines gaps and uncertainties in the legislation. The author makes a number of sufficient suggestions as to the improvement of the current legislation. Sufficient attention is paid to the issue of mineral resource development in the areas of indigenous peoples. From the point of view of the language and methodology, the book represents an untraditional work in comparison with the classical Russian scholar works: it is written in a plain, clear and simple language. Very narrative an plain examples are used. (Published in Russian).

Articles

Busarov V., Fedorova T., Safonov P., "Energy Efficiency for Sustainable Development in Russia: Renewables, New Technologies and Policy Issues" (2001) 1 International Journal of Environmental Technology and Management 251
The article focuses on renewable resources and outlines problems of Russia in the energy sector. The authors suggest two policy strategies for the effective renewable energy production in Russia. (Published in Russian).

Artour L. Demtchouk "Sustainable Development: New Political Philosophy for Russia?"
www.bu.edu/Papers/Poli/PoliDemt.htm
The article is written in the area of political science. The author argues that the idea of sustainable development may serve as an ideology for the "new" Russia and offers criteria for assessment of costs, benefits and risk in view of sustainable development for the decision-making process. Certain attention is paid to generalisation of attitude towards sustainable development in Russia. The author makes some suggestions for Russia's sustainable development strategy.

Klukin B.D. "Формирование нового горного права России" ("Creation of New Mining Law of Russia") (2001) 3 Journal of Russian Law 14
The author traces the history of the mining law development in Russia, analyses the current legislation and makes a number of conclusion as to the rate of its progress, which are not very optimistic. He also predicts the possible direction of the further development of the legislation. The article argues that the low effectiveness of the legislation is a result of the absence of determinacy of the overall state's policy. (Published in Russian).

Konopliannik A., "Концепция создания благоприятного инвестиционного климата в нефтяном комплексе России" ("The Concept of a Favourable Investment Climate in the Russian Oil and Gas Sector") (1996) 11 Voprosi Economiki 1
The author argues that it is extremely important to encourage foreign investment in the Russian oil and gas industry. The means for doing so is, in the authors opinion, development of the production sharing legislation and introduction of concession arrangements. The author justifies his position and makes a number of suggestions of concrete steps, which should be made by the Russian legislators. A very critical, yet constructive article. (Published in Russian).

M.E. Pevzner, "Право собственности в недропользовании" (Property Rights and Natural Resources Use), (2002) 3 Gosudarstvo i Pravo 27
The article singles out five objects of property rights in natural resources development operations: natural resources, movable and immovable property, used while natural resources development, information obtained while natural resources development, and mining enterprise. The author explores property rights, which arise in respect of these objects. (Published in Russian).

Polonsky M., Kalyatin V., "Проекты в области нефти и газа в России: изменения в системе государственности" ("Oil and Gas Projects in Russia: Changes in the System of State Management"), (2000) 6 Neft', Gas i Pravo 18
The article analyses the experience of application of the Law on Production Sharing Agreements in Russia. The authors make prognosis as to in what direction the federal-regional relations may further develop, particularly focusing on the question of natural resources management and issue of sustainable development. (Published in Russian).

OIL AND GAS LAW IN CANADA, COMMONWEALTH AND THE WORLD: SUCCESSFUL EXAMPLES OF COMPARATIVE AND EVALUATIVE WORKS.

Monographs

Klukin B.D. Горные отношения в странах Западной Европы и Америки (Mining Relations in Western Europe and America)(Moscow: Grodetz, 2000)
The book offers a comparison of mining relations (including oil and gas development relations) in the jurisdictions of the United Kingdom, Canada, USA, France, Germany and some Latin American countries. The book describes such questions as property rights to natural resources, legal status of mining companies, disposition systems, responsibility for non-compliance with the legal regimes, etc. Due to the size of the book some questions lack detailed approach. (Published in Russian).

Articles

Black A.J. "Comparative Licensing Aspects of Canadian and United Kingdom Petroleum Law" (1986) 21 Texas International Law Journal 471
Article describes licensing of petroleum operations in Canada, mainly focusing on the provincial rights and authorities. It then compares the regime with the British licensing legislation in petroleum law and touches upon the problem of state participation. The article uses mainly historical approach and case study analysis.

Carpenter S., Low C.A., Olynyk J., "Oil and Gas Development in Western Canada in the New Millenium: the Changing Legal Framework in the Northwest Territories, the Yukon and Offshore British Columbia" (2001) 1 Alberta Law Review 1
The article focuses on recent developments in the field of oil and gas development in Western Canada. The role of such documents as the Gwich'in and Sahtu Final Settlement, for example, is discussed. The article shows their impact on the application of the CPRA regime.

Crommelin M., "Government Management of Oil and Gas in Alberta" (1975) 13 Alberta Law Review 146
The article deals with the Alberta legislation and regulations in the sphere of exploration, development and marketing of Crown-owned oil and gas fields. It suggests such criteria as "economic efficiency" and "equity" in order to evaluate the Alberta legislation. The article proposes solutions of problems outlined.

Daintith T. "A Critical Evaluation of the Petroleum (Submerged Lands) Act as a Regulatory Regime", (2000) Australian Mining and Petroleum Law Association Yearbook 91
The article offers a constructive critique of the above act from the point of view of a British lawyer. It includes some comparative analysis with other similar regulations originating in other jurisdictions. Introduces such comparative criteria as security, flexibility and effectiveness.

Harrison R.J. "The Legal Character of Petroleum Licences" (1980) 58 The Canadian Bar

Review 483
The article deals with the question of the right of governments to derogate contractual rights and obligations. Having considered the theoretical aspect, the author explores the legislation of Alberta, Newfoundland and federal territories. The problem of contract/permit/licence flexibility is considered extensively.

Kuehne G., "Oil and Gas Licensing: Some Comparative United Kingdom-Germany Aspects" (1986) Journal of Energy and Natural Resources Law 150
The article provides brief comparison of the UK and German systems of oil and gas licensing, offering substantial theoretical support of the author's opinion. The author suggests a system of evaluation criteria derived from the differences in legal systems and general legal thinking in both countries. The author uses historical approach in order to explain the current oil and gas licensing legislation in both jurisdictions.

Thompson A.R. "Sovereignty and Natural Resources - a Study of Canadian Petroleum Legislation" (1966-67) 1 Valparaiso University Law Review 284
The article deals with "means which governments in Canada have used to achieve a balance between the competing claims of sovereignty and of security in dealing with petroleum exploration and development". It explores this problem from the historical point of view, some critique on the Canadian legislation is performed and solutions are suggested.

A Socio-economic Sustainability Analysis of the Nigerian Electricity Industry Restructuring Program

An Annotated Bibliography

By Nazeef Muhammad

Welcome!

This web page provides sources of information on my LL.M. thesis research at The University of Calgary. My research is focused on the proposal to restructure the Nigerian electricity industry. The proposal has reached an advanced stage of implementation. The Nigerian electricity industry is state owned, state controlled and vertically integrated and only about thirty-six percent of Nigerians are estimated to have access to electric power.

The proposal seeks to restructure the industry into an unbundled, privatised and independently regulated sector where generation and distribution will be in private hands. Distribution companies will have franchise areas initially while hydro generation facilities will remain in government ownership with transmission being operated by an independent company. It is expected that a free electric power market would promote efficiency and encourage private (especially foreign) investment in the electricity sector as well as promote export. It is also expected that this will ultimately energise the Nigerian economy and improve the quality of life for Nigerians.

Though there are some major hydroelectric generation projects, the major source of fuel for electric power generation in Nigeria is gas and generation facilities are mostly located in the southern parts of the country. It would appear that very few load centres in Nigeria can sustain a market driven electric power sector as industrial consumers - with heavy presence in a few cities only - account for over sixty percent of electric power use in Nigeria. There is very little industrial presence in other parts of the country and residential consumption is generally very low. In addition, the transmission network appears to be inadequate both to meet reliability requirements (it needs substantial re-enforcement), as well as long-term supply adequacy (it also needs substantial expansion).

Small and medium sized industries, which may not be in a position to afford competitive electricity tariffs, at least in the short run, constitute a large percentage of the Nigerian economy. In addition, high unemployment rates and double digit inflation combine to keep per capita income very low. These, along with certain historical reasons may account for the recognition of some socio-economic demands as Fundamental Objectives and Directive Principles of State Policy in the Nigerian constitution.

These fundamental objectives are not justiciable. Instead, they are policy goals, which the government should pursue. Thus, the government is urged to strive towards securing the "maximum welfare, freedom and happiness of every citizen" and towards ensuring that all Nigerians have "adequate means of livelihood". In my thesis, I will assess the socio-economic sustainability of the proposal for restructuring the Nigerian electricity industry against the background of these fundamental objectives. I also hope to formulate an appropriate legal and regulatory framework for the restructuring of the

Nigerian electricity industry in the light of these objectives.

This web page is divided into several segments, each dealing with an aspect of my research. The next section contains an annotation of some relevant literature, divided into segments for ease of reference. It will be followed by some links to electronic sources of relevant information on my research.

The Nigerian Electricity Industry and the Proposal for Restructuring

In this segment, I will highlight some of the literature that describes the Nigerian electricity industry as well as those that explain the proposal for restructuring it.

Abimbola Odubiyi, "A Legal and Regulatory Framework Arrangement for Deregulating the Electricity Industry in Nigeria" (2001) [unpublished, on file with the owner of this web page]

This is a private proposal document submitted to the government and proposes a regulatory reform model for the Nigerian electricity industry. It briefly describes the current structure of the Nigerian electricity industry and suggests the technical, regulatory and legislative structures required for restructuring it. It proposes certain approaches that would minimise industry transaction costs, create effective competition and build trust among market participants in a restructured Nigerian electricity industry. Its scope however does not include the welfare issues that will attend the restructuring program.

Abimbola Odubiyi, "Trading Arrangement for a Deregulated Electricity Industry in Nigeria" (2001) [unpublished, on file with the owner of this web page]

This is another consultation paper by the author of the preceding one but its focus is on electric power trade in a Nigerian electricity market. It provides some insight into a possible structure of the Nigerian Electricity Market. It paints a picture of a commodity market that is driven solely by market signals.

Nigeria, Bureau of Public Enterprises, Discussion Paper on the Privatisation of the Power Sector (Abuja, 2002)

This short paper describes the approach taken by the Bureau of Public Enterprises, the government agency saddled with responsibility of restructuring the Nigerian electricity industry, towards its mandate. It offers a little more detail and is more specific that the preceding document. Like the preceding document, however, it focuses more on the efficiency that restructuring will bring to the Nigerian electricity industry and private investment it will attract and less on the problems it will pose, especially to ordinary citizens.

Nigeria, National Council on Privatisation, National Electric Power Policy (Presidency: Abuja, 2001)

This official document outlines the Nigerian electric power policy, describes the current structure of the Nigerian electricity industry and the problems it faces as well as states the proposal to reform it in some detail. It is a basic source of information on the restructuring initiatives of the Nigerian government and places more emphasis on the benefits of restructuring without a corresponding attention to the attendant costs.

Issues in Electricity Industry Restructuring

This segment highlights some literature that provides some background to the restructuring of the electricity industry and which deals with certain issues that are involved therein.

Douglas D. Anderson, Regulatory Politics and Electric Utilities: A Case Study in Political Economy (Boston, Massachusetts: Auburn House Publishing Company: 1981)

This book analyses the structure of the traditional regulatory practice in the electricity industry and suggests the changes that reform will entail. It argues that the political forces at play at the creation of a regulatory agency determine the goals it pursues. It also examines regulator/client behaviour and stresses the importance of the regulatory framework to the success of electricity markets.

Cowan L. Gray, Privatisation in the Developing World (Westport, Connecticut: Green Wood Press, 1990)

This book discusses the privatisation of public utilities in the developing world and provides case studies to illustrate the limits of privatisation in a developing economy. It offers insights into what worked and what did not. It provides some general theories of privatisation and underscores the central role played by the prevailing socio-economic conditions in determining the direction and pace of privatisation.

James C. Bonbright, Principles of Public Utility Rates (New York: Columbia University Press, 1961)

This book treats ratemaking and rate setting with respect to public utilities. It argues that the public importance attached to the services provided by a utility determines the degree to which its rates will be regulated. It also attempts to relate academic thinking to real situation approaches by regulators and analyses the distribution of costs in the process rate regulation.

It also sets the criteria for a sound rate structure. Part of its conclusions is that an actual cost standard is preferable to the fair value rule, which is widely used and legally sanctioned in most jurisdictions. It provides very useful insights into the tariff debate as the electricity industry enters a new phase.

Electricity Industry Restructuring Models

This segment of the annotation discusses some of the literature on the approaches to electricity industry restructuring.

David M. Newberry, Privatisation, Restructuring, and Regulation of Network Utilities (Cambridge, Massachusetts: MIT Press, 1999)

This book primarily assesses the restructuring of the electricity industry in England and Wales but it commences with an analysis of electricity industry restructuring models. While it recommends the model adopted in England and Wales (vertical, and ultimately horizontal de-integration), it cautions that each country will have to adopt a model or a hybrid of models to suit its own peculiarities.

It draws from the experience with restructuring of other industries and provides an insight into the welfare issues that attend the introduction of market conditions in the electricity sector. Its analysis of both industry de-integration and privatisation holds lessons for Nigeria. This more so the case as Nigeria inherited much of its electricity industry structure from the British.

John E. Beasant-Jones, "The England and Wales Electricity Model - Option or Warning for Developing Countries?" in Public Policy for the Private Sector, (New York: The World Bank Private Sector Development Sector, 1996)

This paper analyses the regulatory reform model adopted by England and Wales with particular reference to its practicability in developing countries and concludes that developing economies cannot sustain such an approach. It suggests ways and means by which the British approach can be adapted to developing economies.

Mark Armstrong, Simon Cowan & John Vickers, Regulatory Reform, Economic Analysis and British Experience (Cambridge, Massachusetts: MIT Press, 1984)

This is also another book based on the experience in England and Wales and which proceeds from a general analysis of electricity regulatory approaches. It offers sobering insights into the major economic and welfare issues that attend electricity industry restructuring and critiques some of the policy directions that are inherent in the British model. It notes that only an advanced economy can adopt the British Model to any substantial extent.

The approach adopted by Argentina was analysed against the backdrop of that country's economic status. It was suggested that such an approach could hardly be sustained by a developing economy without major modifications.

Robert Pritchard, "Eight Guidelines for Electricity Industry Reform," online: <http://worldenergy.org/wec-geis/wec_info/work_programme2004/studies/emr/resources/guidelines_elec_reform.pdf

This article suggests certain steps that need to be taken in the process of restructuring an electricity industry. Its major argument is that the best approach is to separate transmission from generation and that competition should not be introduced in a hurry. An argument for gradual introduction of reform in the electricity industry as advanced in this article appears to suit the Nigerian electricity industry-restructuring program.

Historical Trends in Electricity Industry Restructuring

This segment deals with some literature on the warning signals posted by the experience of those jurisdictions that have travelled tortuous path to electricity industry restructuring as well as the prospects for the concept of an electricity market.

Edward Flippen & Anne K. Mitchell, "Electricity Utility Restructuring After California" (2003) 21:1 Journal of Energy & Natural Resources Law 1

This article examines the factors that led to the California electricity crisis in the United States and concludes that the crisis could have been avoided with better planning and a more suitable industry structure. It assesses the march towards restructuring the electricity industry by state governments in the US and underlines the need for greater attention to be paid to planning and the formulation of an industry structure that suits the locus of the market being designed.

Joseph P. Tomain, "The Past and Future of Electricity Regulation" (2002) 32 Envtl. L. 435

This article traces electricity industry restructuring in the US against the backdrop of the California electricity crisis, the ENRON debacle and the terrorist attacks on that country on September 11, 2001. It argues that public ownership or regulation of the electricity industry has come full circle, and concludes that while those events serve to urge caution on the restructuring trip, they also underscore the need for restructuring that critically important industry.

Rick Wallace, The British Columbia Advantage: Lessons from Alberta in the Deregulation of the Electricity Industry (University of Alberta: Edmonton, 2001)

This short book reviews Alberta march to a fully functional electricity market in the context of certain moves by British Columbia towards restructuring its electricity industry. It argues that reform brought higher prices to electricity consumers in Alberta and concludes that British Columbia and, indeed all other jurisdictions considering such a step should not lose the lessons from Alberta.

William W. Hogan, "Electricity Market Restructuring: Reforms of Reforms"

This article reviews the history of electricity regulatory reform in the US and highlights the policy reversals that have attended it. It argues that such reversals are the result of the complexity of creating a market for electricity. It concludes that the benefits of reform are substantial but that the details of a market for electricity are also neither obvious nor easy to put in place.

Socio-economic Demands and the Electricity Market

This segment highlights some literature on the socio-economic demands that citizens may make on the state with a view to applying the findings to a restructured Nigerian electricity industry. It is informed by the assumption in the research that there is some form of consensus in the Nigerian political discourse over the need to meet the welfare needs of the members of the society. This assumption is particularly true of those disadvantaged economically whom the fundamental objectives referred to earlier seek to protect.

Albie Sachs, "Social and Economic Rights: Can they be made Justiciable?" (2000) 53:4 SMU L. Rev.1381

This article outlines the difficulty inherent in making socio-economic rights justiciable and concludes that there is some basis for doing so. It argues that socio-economic rights may be cost-intensive but so are civil and political rights. It uses South African court decisions to posit that the courts are capable of adjudicating on socio-economic rights Craig Scott & Patrick Macklem, "Constitutional Ropes of Sand or Justiciable Guarantees? Social Rights in a New South African Constitution" (1992)

141:1 U. Pa. L. Rev. 1

This article reviews the objections against the recognition and protection of socio-economic rights and concludes that the same arguments used to guarantee civil and political rights apply to socio-economic rights. It notes that socio-economic rights are capable of incremental definition and enforcement, that judicial review can define the scope of socio-economic rights for enforcement in specific cases. It also notes that it was only by adjudicating real life cases that the courts were able to give civil and political rights the meaning they now connote.

It suggests that, at the very minimum, the state can recognise the negative obligation not to infract on the citizen's socio-economic rights. It also suggests some legislative drafting techniques that could be employed in avoiding any controversy that may attend the recognition of socio-economic demands as enforceable rights. In an electricity market, this line of reasoning could be employed to establish the necessary legal basis for the protection of access and affordability for those who for no fault of theirs cannot afford the market price of electricity.

Philip Harvey, Human Rights and Economic Policy Discourse: Taking Economic Rights Seriously" (2002) 33:2 Colum. H. R. L. Rev. 363

This paper analyses the economic argument against the enforcement of socio-economic rights and concludes that there is an economic basis for recognising and enforcing socio-economic rights. It provides a useful economic perspective of the rights debate and could form the policy foundation for legislative instruments that seek to ensure that the market does not deny electric power services to those that needs it but may not afford market prices.

Shedrack C. Agbakwa, "Reclaiming Humanity: Economic, Social and Cultural Rights as the Cornerstone of African Human Rights" (2002) 5 Yale Human Rts. & Dev. L. J. 177

This article argues that civil and political rights are meaningless for much of the people of sub-Saharan Africa if not accompanied by and strengthened by social and economic rights. It suggests that the meaninglessness of the former set of rights is dramatised by the civil strife prevalent in some parts of Africa. It posits that the resort to violent protest is due to the denial of socio-economic demands, which may sometimes mean the very ability of the citizen to exist.
It concludes that African governments should strive towards the protection and enforcement of socio-economic rights for the citizen. Its central thesis underscores the need, for instance, to ensure that market conditions do not exclude the economically vulnerable from enjoying the benefits of electricity services.

Legislative Instruments

Certain Nigerian legislative instruments have direct bearing on my research and the major ones are listed in this section.

Constitution of the Federal Republic of Nigeria, 1999.

Electricity Act, Chapter 106, Laws of the Federation of Nigeria, 1990

Electric Power Sector Reform Bill, 2001 (This bill was passed recently by both houses of the Nigerian National Assembly and is awaiting presidential assent. It is believed that, given the enthusiasm with which the Executive went about this bill, only the recent general elections in Nigeria accounts for the delay in the president's assent and that it will be assented to as soon as the election dust settles)

National Electric Power Authority Act, Chapter 256, Laws of the Federation of Nigeria, 1990

National Electric Power Authority Act (Amendment) Decree No. 29 of 1998

Nigerian Investment Promotion Commission Decree No. 16, 1995 (as amended by Decree No. 32 of 1998)

Public Enterprises (Privatisation and Commercialisation) Decree No. 28 of 1999

Useful Links

This section provides links to electronic information resources on my research. There is very little internet-based electronic information about Nigeria generally and the electricity industry-restructuring program in particular but the following links should be helpful.

http://www.bpeng.org (This is the web site of the Bureau of Public Enterprises, which has the responsibility for restructuring the Nigerian electricity industry.)

http://www.nigeria-law.org (This site contains some Nigerian statutes and a few reports of Nigerian judicial decisions.)

http://www.eia.doe.gov/cabs/nigeria.html (This page of the US Energy Information Administration web site contains a general overview of the Nigerian energy sector, including electric energy. There are other relevant documents on this web site also.)

http://www.worldbank.org (The World Bank's web site contains several documents relating to electricity industry restructuring relating to different parts of the world and different segments of the electricity industry.)

http://www.allafrica.com (This site contains links to major Nigerian newspapers in which information on the progress of the restructuring program can be tracked.

Responding to Global Warming: A Critique of the Kyoto Protocol Compliance Regime

An Annotated Bibliography

By Teall Crossen

Introduction

This web page provides selected sources of information relating to my thesis research for an LLM at the University of Calgary. My thesis seeks to contribute to addressing the problem of global warming. The latest response from the international community to address global warming is the Kyoto Protocol, which sets quantified greenhouse gas emission limitation and reduction commitments (Article 3). The theory is that if we meet the emission commitments, this will prevent the predicted results of global warming. Therefore, my research will focus on the compliance regime for the Kyoto Protocol, and explore whether this regime is likely to encourage compliance with the emission commitments, and thus reduce global warming.

Multilateral Environmental Agreements and the Compliance Continuum

This section of my bibliography includes selected articles considering the question: "Why do nations comply with international law," focusing on multilateral environmental agreements. It is organized around the six leading theories on compliance: the managerial school, fairness theory, transnational legal process, reputational theory, international relations theory and the enforcement model.

Managerial School

Abram Chayes & Antonia Handler Chayes, The New Sovereignty: Compliance with International Regulatory Agreements (London: Harvard University press, 1995)

The New Sovereignty is one of the leading books in the area of understanding compliance with international law. In this book Abram and Antonia Chayes map the process of compliance with international regulatory agreements to understand why countries do, and do not comply. Their central argument is that the use of sanctions for the enforcement of treaties is generally ineffective ("enforcement model"). Rather, a management strategy is more likely to maintain an acceptable level of compliance with international regulatory agreements ("managerial school"). The book is divided into two parts. Part one discusses sanctions and uses case studies where sanctions have been employed to show the limitation of the enforcement model. The key reasons identified for the relative ineffectiveness of sanctions are the high costs and lack of legitimacy. Part two then explores what they mean by the managerial model. The Chayeses argue that the normative framework provided by the treaty is the foundation of this model and that international treaty norms are powerful in encouraging compliance. The other components of the managerial model include transparency, strategic interaction, reporting and data collection, instruments of active management (capacity building and technical assistance, dispute settlement and treaty adaptation), policy review and assessment, nongovernmental organizations and international organizations. At the heart of the Chayeses' case is

that the international climate is characterized by the interdependence of nation states. The need to belong to that community encourages compliance with international norms: they call this the "New Sovereignty."

Kal Raustiala, "Compliance and Effectiveness in International Regulatory Cooperation" (2000) 32 Case W. Res. J. Int'l L. 387

This article considers how compliance and effectiveness interact in international law. Raustiala outlines the main theories of state behaviour in relation to international commitments, categorized under (1) rationalist or utilitarian state-actor theories; (2) norm-driven or sociological theories; and (3) liberal or domestic institutional theories. Raustiala discusses insights and arguments on understanding compliance drawn from research on compliance and environmental studies. He argues that "architecture" is an important regulatory strategy. Additionally, regularized systems for review of national implementation can promote international co-operation by focusing on performance and collective learning, rather than punishing compliance. In concluding, Raustiala's key argument is that "the pursuit of compliance can sometimes be counterproductive to the achievement of effectiveness." Rather, a behavioural approach should be adopted.

Edith Brown Weiss, "Understanding Compliance With International Environmental Agreements: The Baker's Dozen Myths" (1999) 32 U. Rich. L. Rev 1555

In this article Weiss argues that the belief that most states comply with most international law most of the time is an assumption not supported by experience in international environmental agreements. She notes that this belief is supported by thirteen assumptions, which she labels the Baker's Dozen Myths. Her article critically examines each assumption with the conclusion that each is either a myth, or applies only in certain carefully prescribed conditions. (An example of a myth is Myth Number 5: "The more precise the obligation, the better the compliance by the Parties." The argument is based primarily on empirical evidence from a study of eight countries and the European Union with five agreements, which also forms the basis for the analysis in the book Engaging Countries: strengthening Compliance With International Environmental Accords edited by Edith Brown Weiss & Harold K. Jacobson (Massachusetts: The MIT Press, 1998). Weiss concludes that the realities of compliance indicates that compliance strategies must be tailored to each country, each agreement, and be able to adapt to changing circumstances.

Fairness Theory

Thomas Franck, Fairness in International Law and Institutions (New York: Oxford University Press, 1995)

In this pioneering book, Professor Thomas Franck argues that international legal scholarship has moved beyond defending the existence of the discipline to now consider the substance or content of international law. In assessing the substance, Franck claims the most important question is, "[i]s international law fair?" Franck's focus on fairness stems from his central contention that a perception that the law is fair encourages compliance. His theory is presented as an analytical framework for a critique of international law, where fairness is the defining criterion. Franck refers to such a critique as engaging in fairness discourse. His framework has three components: (1) preconditions for

fairness discourse; (2) gatekeepers of fairness discourse; and (3) the dual components of fairness: legitimacy and equity. After setting out this framework, Franck applies it to substantive areas of international law including self-determination, institutions, the security council, war, the International Court of Justice, environmental law, trade and investment law.

Transnational Legal Process

Harold Hongju Koh, "Why do nations obey international law?" (1997) 106 Yale L.J. 2599

In this article Harold Hongju Koh reviews the The New Sovereignty by Abram and Antonia Chayes and Fairness in International Law in Institutions by Thomas Franck to consider the question "why do nations obey international law?" Koh argues that while both the Chayeses and Franck provide insights into understanding why nations comply with international law, neither theory is complete. He argues both theories emphasize voluntary obedience and internalized compliance, but neither Franck nor the Chayeses explain how norm-internalization occurs. Koh believes that transnational legal process provides the missing link. Transnational legal process is the "process whereby an international law rule is interpreted through the interaction of transnational actors in a variety of law declaring fora, then internalized into a nation's domestic legal system."

Harold Hongju Koh, "Bringing International Law Home" (1998) Hous. L. Rev 623

In this article Professor Koh expands on his theory of "transnational legal process" outlined in "Why do nations obey international law?" (above). Koh provides further detail of how norm internalization occurs through social, political and legal processes, the key actors involved, further examples of how norm internalization occurs, as well as strategies for promoting obedience to international norms through transnational legal process. Note: the article is a piece of a forthcoming book, tentatively entitled Why Nations Obey: A Theory of Compliance With International Law.

Robert O. Keohane, "International Relations and International Law: Two Optics" (1997) 38 Harv. Int'l L.J. 487

This article explores the debate between the managerial school and the enforcement model (see George Downs below) from the perspective of international relations theory. Keohane labels the divergent views as the instrumentalist and the normative optic. The instrumentalist optic focuses on interests. According to instrumentalists, "rule and norms will matter only if they affect calculations of interests by agents." Keohane agues that neither the normative or instrumentalist optic adequately explains how predicted results follow from the theory's assumptions. In an attempt to synthesize the two optics, Keohane suggests that interests, reputations and institutions are common to the causal pathways of both optics. Instrumentalists' interests are "power, wealth, and position (position in the international system with regard to states and offices for individuals)." However, while Keohane argues international lawyers also consider interests, he notes it is a legitimate concern (also raised by political scientists) that it can be difficult to identify whose, and which, interest.

Robert O. Keohane, "When Does International Law Come Home?" (1998) 35 Hous. L. Rev. 699

In this article Keohane responds to Koh's "Bringing International Law Home" (above). Keohane

argues that Koh's transnational legal process identifies two, not one causal pathway of compliance with international law. The first causal pathway is "exclusion from the club," where compliance is encouraged through the advantages gained through complying with standards a sufficiently large enough "club" are applying. The second pathway is "transnational norms," where compliance is encouraged to a significant degree through the actions of transnational entrepreneurs influencing state behaviour. Keohane also discusses failures of international law to bring international law home, arguing Koh's theory focuses too much on successes, as well as the role of liberal democracy in norm internalization.

Reputational Theory

Andrew T. Guzman, "A Compliance-Based Theory of International Law" (2002) 90 Cal. L. Rev. 1823

This article develops an alternative legal theory of why nations comply with international law, drawing from international relations theory, where states are assumed to be rational, self-interested actors. Guzman argues that traditional legal theories on compliance with international law inadequately explain compliance. He begins by identifying the managerial model, consent, legitimacy and transnational legal process as being the most promising of the existing legal theories on compliance. However, Guzman argues all theories inadequately address the compliance question. Guzman then outlines the international relations theories: neorealist theory, institutionalist theory, and liberal theory. He draws on the institutionalist tradition from international relations school to develop a new model of compliance with international law. At the heart of his theory in understanding why nations comply with international law is the reputational impact of a cost of violation, as well as the possibility of sanctions.

Enforcement Model

Anastasia A. Angelova, "Compelling Compliance with International Regimes: China and the Missile Technology Control Regime" 38 Colum. J. Transnat'l L. 419

This article discusses the two dominant theories in the literature of why nations comply with international law: the managerial school and the enforcement school. Angelova compares Abram and Antonia Chayeses' (see The New Sovereignty above) argument that enforcement is an ineffective tool to secure compliance with international regulatory agreements, with George Downs' theory (see "Is the Good News About Compliance Good News about Cooperation?" below) which cautions against too much reliance on the managerial approach, and that enforcement may be necessary. After outlining each school of thought Angelova reviews the Missile Technology Control Regime and the efforts of the United Sates to secure China's compliance with the regime. She then evaluates this in light of the Chayeses' and Downs et al's theoretical disagreement. Her conclusion supports Downs et al's argument in favour of the enforcement approach.

George W. Downs, David M. Rocke & Peter N. Barsoom, "Is the Good News About Compliance Good News about Cooperation?" (1996) 50 International Organization 379

This article challenges the managerial thesis on compliance with international regulatory regimes; that compliance is generally high and enforcement has played a limited role in achieving that (see The

New Sovereignty above). The authors' key argument is that the high record of compliance in international law is attributable to the lack of deep co-operation, which they describe as "the extent to which it requires states to depart from what they would have done in its absence." Downs et al argue that in the case of regulatory treaties that prescribe reductions in a collectively dysfunctional behaviour the high compliance record and limited role of enforcement is because most treaties require nations to make only modest departures from what they would have done without the treaty. Similar to The New Sovereignty, this article use case examples to support their argument. This includes examples where strong enforcement has been important to the success of the Treaty, as well as where lack of enforcement had led to the failure of the treaty. Downs et al warn that the managerial case arguing against the use of enforcement has not been made out.

George W. Downs, "Enforcement and the Evolution of Cooperation" (1998) 19 Mich. J. Int'l L. 319

This essay responds to the managerial and transformationalist critique of the political economy theory of enforcement. One of Downs' key points is that political economic literature does not suggest that enforcement is always necessary, but that the choice of enforcement strategy varies depending on many factors, including the nature of the good being regulated, the quality of compliance data available and utility uncertainty. Additionally, as multilateral environmental agreements increase their level of co-operation over time, they also increase their level of enforcement. His final conclusion is that the enforcement model should not be so readily dismissed, as there is evidence to suggest it has its place.

George W. Downs & Michael A. Jones, "Reputation, Compliance, and International Law" (2002) 31 J. Legal Stud. 95

Downs and Jones respond to the international relations and international law argument that reputation concerns are the principal mechanism for maintaining a high level of treaty compliance. They argue that the actual effects of reputation are not only weaker, but more complicated that the standard view of reputation maintains. Additionally, Downs and Jones argue that States have multiple reputations, such that defection under one agreement, may not affect the state's reputation under another.

David D. Victor, "Enforcing international law: implications for an effective global warming regime" (1999) Duke Envtl L. & Pol'y F. 147

This article considers the effectiveness of international environmental treaties in solving environmental problems. Victor notes that compliance with international environmental treaties has been high, despite weak enforcement mechanisms in the treaties. However, compliance does not establish effectiveness in problem solving. Victor argues that the reason for high compliance is "shallow co-operation" as identified by George Downs (above). That is, commitments agreed to in treaties reflect what countries are already doing and therefore do not encourage behaviour change. The crux of his argument is that strong enforcement is necessary, particularly in the case of global warming. In discussing enforcement options under the global warming regime Victor concludes that a tradable permit regime is not feasible. He suggests that enforcement should focus commitments on "liberal states" pursuing a technological innovation regime.

Beyond the Compliance Continuum

This section includes articles on the theme of compliance with international law that do not fit into the above theories.

Daniel Bodansky, "The Legitimacy of International Governance: A coming challenge for international law? (1999) 93 A.J.I.L. 596-624

The central argument of this article is that international environmental law lacks a strong theory of legitimacy. Moreover, in seeking to find one, Bodansky argues that democracy cannot fill the gap, but public participation and scientific expertise could help to legitimate international governance.

Kyle Danish, "Management v. Enforcement-The New Debate on Promoting Treaty Compliance" 37 Va. J. Int'l L. 789

In this article Danish considers the debate between the managerial school (The New Sovereignty above) and the enforcement model ("Is the Good News About Compliance Good News about Cooperation?" above). Danish argues that an analysis of the substance of the managerial school reveals that the Chayeses are not as opposed to enforcement as they assert. He notes that elements of the managerial school, such as verification and deterrence are in fact elements of enforcement. Also, relying on threats of disapproval affecting a state's reputation to secure compliance falls closer to enforcement, rather than management. According to Danish, "[n]o matter how they frame it, the regimes of the New Sovereignty would do more than merely offer technical and financial assistance. They would also coerce." He re-conceptualizes the Chayesian approach as a managerial strategy and a social enforcement strategy, where social enforcement refers to enforcement through leveraging loss of reputation and standing in the international community.

Markus Ehrmann, "Procedures of compliance control in International Environmental Treaties" (2002) 13 Colo. J. & Pol'y 377

This article examines the structures in international environmental law to address non-compliance with treaties. First, Ehrmann considers the traditional international law mechanisms for responding to non-compliance. Ehrmann argues that these traditional methods are inappropriate for the enforcement of international environment law for three main reasons: (1) they are confrontational and repressive; (2) they are overly formalistic; and (3) they are tailored for bilateral commitments rather than multilateral structures. Secondly, Ehrmann discusses the non-compliance procedure of the Montreal Protocol and the multilateral consultative process of the United Nations Framework on Climate Change. Finally, common elements of a compliance control procedure are analysed: the sources of information, the individual procedural steps, the institutional framework, and the relationship between repressive and modern co-operative means of law enforcement. From this analysis Ehrman concludes they the two key principles crucial for compliance control procedures to secure full compliance are the principles of co-operation and flexibility with regard to the response measures.

Geoffrey Palmer, "New Ways to make International Environmental Law" (1992) 86 A.J.I.L. 259

This article argues that in order to successfully address environmental problems, new ways of making international environmental law are required. Specifically, Palmer argues that we lack the necessary

rules and institutions to effectively address global environmental problems. Although new ways to make environmental law should build on existing international law and institutions, a new form of legislative capacity is essential. Moreover, this legislature will need to be able make binding rules on nations by means other than unanimous consent.

The Kyoto Protocol Compliance Regime

The section includes selected works on the Kyoto Protocol compliance regime. An additional reading list (not annotated) of official UN documents and Earth Negotiations Bulletin relating to compliance is also provided.

G.H. Addink, Joint Working Group Compliance on the Kyoto Protocol: An Overview of Suggestions on Compliance (The Netherlands: Utrecht University, 1999)

Under Annex II of Decision 8/CP.4 from COP4 on "Preparation for the first session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol" a joint working group on compliance was established. This paper provides an overview of some of key issues relating to a compliance regime for the Kyoto Protocol identified by the Joint Working Group. The key argument is that the development of non-compliance procedures is imperative. The report makes several conclusions and recommendations including relating to consequences for non-compliance.

Clare Breidenich, et al., "The Kyoto Protocol to the United Nations Framework Convention on Climate Change" (1998) 92 Am. J. Int'l L. 315

This article provides an overview of the most significant features of the Kyoto Protocol, including the problem of global warming, earlier multilateral efforts to respond, Kyoto Protocol negotiations, key features of the Kyoto Protocol, focusing on the compliance elements.

Jutta Brunnee, "A Fine Balance: Facilitation and Enforcement in the Design of a Compliance Regime for the Kyoto Protocol" (2000) 13 Tul. Envtl. L.J. 223

This article considers possible non-compliance procedures and mechanisms for the Kyoto Protocol and identifies the key questions that developing these mechanisms are likely to involve. The article suggests how a compliance regime might take shape under the Kyoto Protocol that balances sovereignty concerns, but also introduces assertive mechanisms for approaching non-compliance.

Joanna Depledge, "Tracing the Origins of the Kyoto Protocol: An Article-By-Article Textual History," Prepared under contract to UNFCCC, FCCC/TP/2000/2 25 November 2000

This technical paper traces the evolution of each provision of the Kyoto Protocol during the negotiation process. For each provision it considers the original proposals submitted by parties through to the final text. The paper was prepared under contract to the United Nations Framework Convention on Climate Change to contribute to the historical record of the intergovernmental climate change process. Ambassador Raul Estrada-Oyuela, who chaired the Kyoto Protocol negotiations,

reviewed it.

Fiona Mullins, "Kyoto Mechanisms, Monitoring and Compliance From Kyoto to the Hague: A selection of recent OECD and IEA analyses on the Kyoto Protocol" (Paris: Organization for Economic Cooperation and Development, 2001)

This paper is a compilation of summaries of papers that were prepared at the request of the Annex I Expert Group on the United Nations Framework Convention on Climate Change. It includes a section on monitoring, reporting and compliance and considers how to ensure compliance with the global climate change regime. It discusses issues with designing an effective compliance regime and identifies options to respond to cases of non-compliance.

Gregory Rose, "A Compliance System for the Kyoto Protocol" (2001) 24(2) U.N.S.W.L.J. 588

This article provides an overview of the negotiations of the Parties to the UNFCCC relating to compliance and discusses the significant compliance issues including the adoption of compliance instrument, the establishment of a compliance body, the information system, the procedural requirements and the consequences for non-compliance.

Anastasia Telesetsky, "The Kyoto Protocol" (1999) 26 Ecology L.Q. 797

In this article Telesetsky outlines the greenhouse effect, how the Kyoto Protocol proposes to address those effects and considers obstacles to implementation of the Protocol. She includes a summary of the Protocol's flexibility mechanisms and comments on the position of the United States re ratification.

Matthew Vespa, "Annual Review of Environmental and Natural Resource Law: Climate Change 2001: Kyoto at Bonn and Marrakech" (2002) 29 Ecology L.Q. 395

This article briefly traces the history of the Kyoto Protocol, focusing on the outstanding issues relating to compliance. Vespa provides a comment on the features of the compliance regime adopted at the Seventh Conference of the Parties agreed at Bonn and Marrakech. Additionally, Vespa comments on the significance of the US position against ratification.

Jacob Werksman, "Compliance and the Kyoto Protocol: Building a Backbone into a "Flexible Regime" (1999) 9 Y.B. Int'l Env. L. 48

This article assesses the rules, procedures and mechanisms that could be developed within the climate change regime's compliance system to provide responses to non-compliance, focusing on compliance with the emission commitments in the Kyoto Protocol. Werksman outlines the general principles of international law applicable to climate change, treaty specific non-compliance mechanisms, the relationship between compliance and the flexibility mechanisms of the Kyoto Protocol, as well as considering the possible consequences for non-compliance with the emission commitments of the Kyoto Protocol.

David A. Wirth, "The Sixth Session (Part Two) and Seventh Session of the Conference of the Parties

to the Framework Convention on Climate Change" (2002) 96 A.J.I.L. 648

In this article Wirth reviews the negotiations at the Sixth and Seventh Conference of the Parties to the United Nations Framework Convention on Climate Change. Wirth focuses on issues relating to implementation of the Kyoto Protocol and compliance.

Official UN Documents on Compliance

UNFCCC, Report of the Conference of the Parties on its First Session, Addendum, Part Two: Action Taken by the Conference of the Parties at its First Session, Held at Berlin from 28 March to 7 April 1995, U.N. Doc. FCCC/CP/1995/7/Add.1 (online at http://www.cop4.org/resource/docs/cop1/07a01.pdf).

UNFCCC, Report of the Conference of the Parties on its Seventh Session, Addendum, Part Two: Action Taken by the Conference of the Parties, Decision, Procedures and Mechanisms Relating to Compliance under the Kyoto Protocol, Held at Marrakesh from 29 October to 10 November 2001, U.N. Doc. FCCC/CP/2001/13/Add.3. 2002 (online at http://unfccc.int/resource/docs/cop7/13a03.pdf).

UNSBSTA & UNSSBI, Note by the co-Chairs of the Joint Working Group on Compliance, Procedures and Mechanisms Relating to Compliance under the Kyoto Protocol, Elements of a compliance system and synthesis of submissions, Addendum, Synthesis of Submissions, 17 September 1999, U.N. Doc. FCCC/SB/1999/7/Add.1 (online at http://unfccc.int/resource/docs/1999/sb/07.pdf).

UNSBSTA & UNSSBI, Note by the co-Chairmen of the Joint Working Group on Compliance, Procedures and Mechanisms Relating to Compliance under the Kyoto Protocol, 4 April 2000, U.N. Doc. FCCC/SB/2000/1. (online at http://unfccc.int/resource/docs/2000/sb/01.pdf).

Earth Negotiations Bulletin

This section provides links to the Earth Negotiations Bulletin, which is a published by the International Institute for Sustainable Development and summarizes each Conference of the Parties to the United Nations Framework Convention on Climate Change, as well as other important meetings.

International Institute for Sustainable Development, "Summary of the First Conference of the Parties for the Framework Convention on Climate Change: 28 March-7 April" (1995) 12(21) Earth Negotiations Bulletin.

International Institute for Sustainable Development, "Summary of the Sixth Conference of the Parties to the Framework Convention on Climate Change: 13-25 November 2000" (2000) 12(163) Earth Negotiations Bulletin.

International Institute for Sustainable Development, "Informal Exchange of Views and Information on

Compliance under the Kyoto Protocol: 6-7 October 1999" (1999) 12(111) Earth Negotiations Bulletin.

International Institute for Sustainable Development, "Summary of the Workshop on Compliance under the Kyoto Protocol: 1-3 March 2000" (2000) 12(124) Earth Negotiations Bulletin.

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Useful Links

The Intergovernmental Panel on Climate Change

The United Nations Framework Convention on Climate Change

The Kyoto Protocol to the Framework Convention on Climate Change