

Legal and Institutional Framework for an Integrated Management of Nigeria's Coastal Zones - Lessons from Canada.

Annotated Bibliography

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This web page contains selected sources of information, relevant to my LL.M. thesis research at the University of Calgary.

My thesis examines the Integrated Coastal Zone Management (ICZM) Policy and its suitability for solving the diverse environmental problems associated with Nigeria's coastal zones. It examines the ICZM and its current status under international law, with the aim of ascertaining the legal and institutional pre-requisites for its adoption in Nigeria. The thesis examines ICZM implementation efforts in coastal states like Canada with the aim of understudying the ideas that can be transferred to Nigeria to strengthen its adoption, and as a necessary corollary, implementation of the ICZM. This thesis also examines key features of the Canadian ICZM policy framework and provides answers to the questions: What are the legal and institutional actions necessary for the formal adoption of the integrated coastal zone management (ICZM) policy in Nigeria? Would the Canadian approach be appropriate and feasible in Nigeria?

ICZM has been globally acknowledged as a major tool for achieving sustainable development in coastal states, and as a more practical replacement for the traditional sectoral approaches to coastal management that have proved ineffective. It replaces the piecemeal and distinct management strategies with a comprehensive approach which harmonizes all the activities in the coastal areas, such that they are all adequately catered for in a single management instrument. It seeks to balance the environmental, economic, social, cultural and recreational objectives, all within a single framework. Thus, "Integrated" in ICZM refers to the integration of objectives and the integration of all relevant policy areas, sectors related to the coastal zones and a resolution of all the associated problems within a comprehensive legal and institutional framework.

Despite the recognition of the ICZM policy as a major tool for achieving sustainable development in coastal environments, the rules and regulations on its adoption, and consequently implementation, are still in their infancy in most resource based developing countries; Nigeria is one of such countries. Despite the multifaceted problems facing Nigeria's coastal zones, there are presently no laws relating to ICZM in Nigeria, also the institutional capacity and administrative infrastructure required to develop and implement ICZM are still absent. This must, of necessity, change if Nigeria seeks to overcome the perennial problems of oil spillage, gas flaring, water pollution, loss of arable land, destruction of traditional practices and the large scale environmental disequilibrium that have, for so many years, made life unliveable in its coastal areas. This thesis will examine the legal and institutional framework needed for the effective adoption of the ICZM policy in Nigeria.

This thesis examines ICZM efforts in coastal states like Canada with the aim of understudying the ideas that can be transferred to Nigeria to provide a roadmap for its adoption of the ICZM policy. Apart from the fact that Canada has adopted and implemented the ICZM policy with some level of success, Canada is also adopted as a case study for this research because it is, like Nigeria, a major oil producing state of the world. As such, learning from another oil producing state which has successfully managed issues associated with oil exploration may be a good way to go for Nigeria. Also, Canada and Nigeria have certain similarities in their legal systems, such as the fact that; both countries as British colonies operate the common law systems. Similarly, Nigeria like Canada is a federal state, governed by an intricate web of federal, provincial/state governments, regional and municipal regulations and policies.

This annotated bibliography is divided into five sections; each section (except section five) contains a part on monographs and another part on relevant articles.

Section one contains general information on coastal environments and the management of coastal resources, the social, economic and environmental significance of these regions, their sustainability. This section is intended to provide background information needed to understand the study.

Section two is devoted to literature on ICZM policy in international law, its scope, aims and objectives, and suitability for the effective management of the coastal zones. This is intended to establish, amongst others, the importance of the necessary frameworks for ICZM, specifically for Nigeria.

Section three encompasses the materials dealing with the theoretical perspectives of the thesis.

Section four is devoted to works on the adoption of the Canadian ICZM frameworks for Nigeria. It contains works on the coastal environments in Canada, the ICZM laws in Canada and the legal and institutional framework existing in Canada on the ICZM. It also contains works on the coastal environments in Nigeria, analysis of the laws governing these regions, the possible legal and institutional barriers to the adoption of the ICZM policy in Nigeria. These materials are intended to provide justification for the choice of research question, theoretical or conceptual framework and method; it will, also, form the basis for my comparative analysis of the coastal zone management approaches in Nigeria and Canada.

Section five contains useful links to other web based sources, containing relevant information on the ICZM and on ICZM adoption in Nigeria and Canada.

SECTION ONE

GENERAL INFORMATION ON COASTAL ENVIRONMENTS: MANAGEMENT AND SUSTAINABILITY

Monographs

Ascher, William & Mirovitskaya, Natalia. *Guide to Sustainable Development and Environmental Policy*, (Durham: Duke University Press, 2001).

This work is a comprehensive presentation of definitions, philosophies, policies, models, and analyses of global environmental and developmental issues. With succinct explanations of more than a thousand terms, thoughtful interpretations by international experts, and helpful cross-referencing, this work should serve as a roadmap for understanding the issues and debates in the overlapping fields of environment and development. It is particularly helpful to this thesis in showing the importance and significance of ICZM, as a collaborative framework necessary to ensure that development and management plans for coastal zones are integrated with environmental, economic and social goals.

Beatley, Timothy & Schwab, Anne K. *An Introduction to Coastal Zone Management*, 2d ed. (Washington: Island Press, 2002).

This book offers a comprehensive overview of coastal planning and management issues. It presents detailed information on coastal pressure and critical management issues and puts forth a compelling vision for future management and sustainable coastal planning. It devotes particular attention to the role of stakeholders, including state and local governments, in management decisions affecting these regions.

Kay, Robert. *Coastal Planning and Management*, 2d ed. (United Kingdom: Taylor & Francis, 2007).

This book presents the important link between coastal planning and management, with emphasis on tools for the development, evaluation and implementation of all key types of coastal management plans. It also analyses coastal planning styles and approaches, such as ecosystem-based and values/societal planning.

Kay, Robert & Alder, J. *Coastal Zone Management*, 2d ed. (London: Taylor and Francis, 2005).

The book examines coastal management issues, concepts of coastal planning and management, major coastal management and planning techniques. It provides a blueprint for planners and managers who want to produce integrated coastal

management plans.

Walters, Carl. *Adaptive Management of Renewable Resources* (New York: Macmillan Publishers, 1986).

This book is about ways of dealing with uncertainty in the management of renewable resources, such as fisheries and wildlife. The author's basic theme is that management should be viewed as an adaptive process, rather than through basic research or the development of general ecological theory. The author's major conclusion is that actively adaptive, probing, deliberately experimental policies should indeed be a basic part of renewable resource management.

Wondolleck, Julia M. & Steven, L. Yaffee. *Conservation of Natural Resources* (London: Island Press, 2000).

The authors offer an invaluable set of lessons on the role of collaboration in natural resource management and how to make it work. The book explains why collaboration is an essential component of resource management, describes barriers that must be understood and overcome and presents eight themes that characterize successful efforts at natural resource conservation. The images of success offered are particularly useful for providing ideas to empower the proposition for new approaches, which are collaborative and comprehensive in style, as opposed to the traditional management styles.

Articles

“Lasting Landscapes: Reflections on the Role of Conservation Science in Land Use Planning” (2007), online: Environmental Law Institute <http://www.elistore.org/reports_detail.asp?ID=11212>.

This paper suggests that land use and development decisions made at the local, county, and state levels have a significant and cumulative effect on the conservation of native species diversity. It acknowledges that through their planning and local regulatory powers, land use planners and local elected officials have the ability to influence the types, extent, and arrangement of land uses across the landscape.

Storrier, K. L. & McGlashan, D. J. “Development and Management of a Coastal Litter Campaign: The Voluntary Coastal Partnership Approach” (2006) 30 Marine Policy 189.

The authors discussed the voluntary coastal partnership approach in the development and management of a coastal litter campaign. The authors observed that a combination of education, provision of adequate waste facilities and enforcement of legislation is needed to tackle coastal problems.

United Nations Educational Scientific and Cultural Organization (UNESCO), “The Role of Communication and Education in Sustainable Coastal Development” (1999), online: Pan-African Conference on Sustainable Integrated Coastal Management (PACSICOM) <<http://unesdoc.unesco.org/images/0011/001185/118569eo.pdf>>.

This paper suggests that communication and education are essential for raising public awareness and improving the capacity of people to understand as well as appreciate issues and problems of the coastal areas. It also maintains that these two broad domains are also critical in any efforts to reinforce and develop the knowledge, values, attitudes, practices and skills required to participate fully in the sustainable development of coastal regions.

SECTION TWO

INTEGRATED COASTAL ZONE MANAGEMENT: OVERVIEW

Monographs

Clark, John R. *Coastal Zone Management Handbook* (Florida: CRC Press, 1996).

This book presents a detailed manual on coastal resource planning and management technology issues. It also presents the process of integrated coastal zone management (ICZM), by describing environmental impacts that need to be controlled and by outlining the variety of available methods. In addition to its comprehensive coverage of general concepts related to coastal regions, the book describes the strategic basis for coastal management, provides a set of working tools for management and planning activities. Extensive references are provided for management analysis, practices, techniques, and solutions. It is a useful resource for the study of coastal management issues, particularly, integrated coastal zone management.

Christie, Donna R. & Hildreth, Richard G. *Coastal and Oceans Management Law in a Nutshell*, (United States of America: Thompson, 1999).

This book discusses the management of coastal resources, including the integrated approach to coastal management. It presents coastal zone management as comprising aspects of property law, land use regulation, water law, natural resources law, constitutional law, federal and state statutory law, and international law in the special context of the coastal environment. It offers useful insights on how countries can benefit from the prospects of the ICZM. It is a succinct exposition of the law on this area.

Cicin-Sain, Biliana & Knecht, Robert. *Integrated Coastal and Oceans Management: Concepts and Practices*, (Washington: Island Press, 1998).

This book, primarily, provides essential information about integrated coastal management, which proves useful in establishing functional and effective programs for coastal management. It, also, provides a clear description of the benefits of ICZM, to help policy makers in coastal nations decide whether and how to develop ICZM programs. It pays particular attention to intergovernmental, institutional, legal and financial considerations for the adoption of this policy. The book offers a rich discussion on the initiation, formal adoption, implementation, and operation of an ICZM program.

Kullenberg, Gunnar & Stel, Jan H. *Coastal Zone Management Imperative for Maritime Developing Nations* (The Netherlands: Kluwer Academic Publishers, 1997).

The present volume is based on the 1994 international workshop *Integrated Coastal Zone Management*, and brings together contributions by leading specialists both on basic concepts and on applications of coastal management. The work is divided into six parts, dealing with the conceptual framework of ICZM; regional and global aspects of coastal management; environmental assessment in ICZM; capacity building and technology transfer; monitoring and environmental analysis; and case studies and status of ICZM plans. The book also incorporates an interactive ICZM planning module, which can be of use in designing a management plan for a coast. Attention is also given to long-term environmental effects of present-day actions. This work gives a broad coverage of conceptual and technical aspects of ICZM.

Vallega, Adalberto. *Fundamentals of Integrated Coastal Management*, (The Netherlands: Kluwer Academic Publishers, 1999).

This book presents a comprehensive treatment of integrated coastal management based on the sustainable development concept. It covers the components of the ecological conditions, the economic and social organisation, and the role of decision-making systems. Each chapter contains not only the theoretical, historical and philosophical foundations of integrated coastal management, but also some useful guidelines for management.

Articles

Agrawal, Arun & Gibson, Clark C. "Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation" (1999) 27 World Dev. 1.

The authors analyse those aspects of community most important to advocates for community's role in resource

management and indicates the weaknesses of these approaches. They suggest a more political approach on how these actors influence decision-making, and on the internal and external institutions that shape the decision-making process. This presents a clear view of the community participation requirement of the ICZM policy.

Bennett, Roger G. “Future Perspectives on Integrated Coastal Zone Management” (2001), online: Geografi Bergen <<http://www.nhh.no/geo/Nyesider/GIBframe/GIB.full.pdf/GIB243.pdf>>.

The paper gives a brief overview of the motives for and essential features of Integrated Coastal Zone Management. It examines essential problems of sectoral management and the implications of integration. It also challenges the assumption underlying much ICZM research, that more knowledge of coastal systems is the key to better management, pointing out that problems related to the management system itself often hinder the application of knowledge already possessed.

Clark, John R. “Integrated Management of Coastal Zones” (1994), online: Food and Agriculture Organisation of the United Nations, Rome <<http://www.fao.org/DOCREP/003/T0708E/T0708E00.htm>>.

This report identifies governmental actions that can lead to effective management of coastal resources and strengthening the national capacity for effective coastal resources management, through ICZM. It presents a detailed discussion of the principles, aims and benefits of ICZM. Its major argument, with respect to ICZM, is that the process may be initiated in response to a planning mandate but more often because of a crisis – a use conflict, a severe decline in a resource or a devastating experience with natural hazards. The orientation of the report is towards developing countries and is therefore, a useful source of ideas and information.

Elder, Danny. “Cross-Sectoral, Integrated Coastal Area Planning (CICAP): Guidelines and Principles for Coastal Area Development (Marine Conservation and Development Reports)” (1993), online: Gland, Switzerland, Water Conservation Union (IUCN) <http://www.wb2020.qld.gov.au/regional_profile/glossary_and_abbreviations/glossary_and_abbreviations.htm>.

This work presents guidelines for the development of coastal area plans that can be applied at a national level. It contains a brief review of coastal zone problems and the effects of climate and other global sources of change. Patterns of past, present and future use of the coastal zones are reviewed and the need for integrated approaches to management and planning, in the light of the need for conflict resolution, is discussed. Cross-sectoral coastal area planning is outlined and defined. The process by which such integrated planning might be achieved is discussed and the past experiences of several countries in attempting different forms of coastal management and planning are discussed.

Brachya, V., Juhasz, F., Pavasovic, A. & Trumbic I., “Guidelines for Integrated Management of Coastal and Marine Areas” (1994), online: United Nations Environmental Programme <<http://www.pap-thecoastcentre.org/pdfs/ICAMguidelines.pdf>>.

This document suggests that integrated management of coastal areas is required to lay the foundation for sustainable development, which will reduce or eliminate pollution, rectify other impacts, and prevent these occurring in the future. It sets down the guidelines for such integrated management. It also offers sufficient guidance for the authorities responsible for implementing policy in a specific coastal area.

Solent Forum, “Integrated Coastal Zone Management” (2006), online: Solent Forum - Working in Partnership for the Future <<http://www.solentforum.hants.org.uk/CoastalMgt/ICZM.htm#ICZM8>>.

This work, which discusses ICZM as a major tool for the co-ordination and management of the diverse activities and interests in the coastal and marine environment, contains an overview of the ICZM policy, its underlying principles, scope and objectives. It also contains wider initiatives for ICZM and will be a useful source of ideas for the planning and formal adoption of ICZM.

Olawuyi, Damilola S. “Integrated Coastal Zone Management Policy-An Overview” (2007), online: United Nations

This policy paper offers a synoptic guide for local authorities on the implementation of the ICZM at the national level. It provides guidelines for the development and implementation of the ICZM policy, the likely challenges and strategies to overcome such challenges. Being a summary of the modalities for the implementation of the ICZM, this paper would be a useful tool in the hands of national policy makers, particularly those in developing countries who are still struggling to understand the concept of ICZM.

Scialabba, Nadia. “Integrated Coastal Area Management and Agriculture, Forestry and Fisheries” (1998), Food and Agriculture Organisation (FAO) Guidelines, online: Environment and Natural Resources Service, FAO, Rome <<http://www.fao.org/fi/website/FIRetrieveAction.do?dom=topic&fid=16000>>.

These guidelines address the incorporation of agriculture, forestry and fisheries planning into integrated coastal zone management (ICZM). It posits that the external or internal environmental effects that each of these sectors generate, as well as the environmental impacts originating outside these sectors and affecting them, need to be taken into account in sector plan formulation. These guidelines examine issues specific to the agriculture, forestry and fisheries sectors, and suggest the processes, information requirements, policy directions, planning tools and possible interventions that are necessary for ICZM.

Shipman, Brian & Stojanovic, Tim. “Facts, Fictions and Failures of Integrated Coastal Zone Management” (2007) 35 Coastal Mgmt. 23.

This paper identifies some unexplored difficulties in overcoming the obstacles to successful ICZM as: the continued complexity of regulation across the land-sea interface, the national policy vacuum for ICZM, the absence of a networked approach to information management at the coast, and the need to move beyond technical exercise to include the intangibles of ICZM. The authors identify principles which can form the rationale for future developments of ICZM: interrelationship of effects and impacts identification and management, integration between spatial planning and management, consistency, transparency and democratic accountability in decision making and empowerment of local communities and stakeholders.

Pergent-Martini, C., Pasqualini, V., Ferrat, L. & Pergent, G., “Ecological Data in Integrated Coastal Zone Management” (2006) 38 E. M. 1.

This paper exemplifies the usefulness of ecological data to ICZM programs. It, however, concludes that new approaches must be developed to evaluate more accurately the impact of human activities on the most important ecosystems and to establish their carrying capacities.

Post, Jan C. & Lundin, Carl G. “Guidelines for Integrated Coastal Zone Management,” online: Washington DC, World Bank (1996) Environmentally Sustainable Development Studies and Monographs Series No. 9. <http://www.wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1996/08/01/000009265_3961219091924/Rendered/PDF/multi_page.pdf>.

These guidelines are a conceptual presentation of how Integrated Coastal Zone Management may be applied to contribute to the evolving practice of environmentally sustainable development. It predicts that due to the increase in coastal populations, unless careful environmental management and planning are instituted, severe conflicts over coastal space and resource utilisation are likely, and the degradation of natural resources will close development options.

SECTION THREE

THEORIES OF LEGAL TRANSPLANTS AND INTEGRATION

Monographs

Gunderson, Lance H. & Holling, Crawford S. *Panarchy: Understanding Transformations in Human and Natural Systems*, (Washington, DC: Island Press, 2002).

This book expands the integrative theory and explores its implications for ecological, political, institutional and management systems. It deepens one's understanding of linked ecological/economic/decision systems through the use of a set of interactive models and several analyses of institutions that link people and nature. The book represents a significant step in integrating disciplinary knowledge for the adaptive management of human-natural systems across widely divergent scales, and offers an important base of knowledge from which institutions for adaptive management can be developed.

Nelken, David & Feest, Johannes. *Adapting Legal Cultures* (Oxford: Hart Publishing, 2001).

Contributors to this edited work attempt to present the best explanatory model of external forces acting on any legal system and the internal reasons for legal evolution and change in the legal culture. They address the often deliberate adoption of legal cultures and the relationship to the economic, political and social factors that condition the attractiveness of foreign models of law.

Watson, Alan. *Sociological Jurisprudence*, (Philadelphia: Temple University Press, 2001).

In this classic work of comparative legal scholarship, the author argues that law fails to keep step with social change, even when that change is massive. The author considers the development of law in global terms and across the centuries. His arguments centering on how societies borrow from other legal systems and the continuity of legal systems are particularly instructive for those interested in legal development and the development of a common law.

Articles

Dezalay, Yves & Garth, Bryant. "The Import and Export of Law and Legal Institutions: International Strategies in National Palace Wars" in Nelken, D. & Feest, J., *Adapting Legal Cultures* (eds.) (Oxford: Hart Publishing, 2001) 240.

The authors discuss the terms legal transplant and legal culture. There is a discussion on successful and unsuccessful legal transplants. The authors seek to examine the structures and processes that challenge and transform legal transplants.

Hein, S.J. "Predicting Legal Transplants: The Case of Servitudes in the Russian Federation" (1996) 6 *Transnat'l & Contemp. Probs.* 187.

This article discusses the concepts of legal transplants, particularly, Professor Watson's version of the theory and Professor Otto Kahn-Freund's postulations. It recognizes that on the one hand, legislators may simply transplant legal institutions and rules from states that have created viable solutions to specific problems and on the other hand, each state has its own unique history and identity that may cause transplanted rules or institutions to fail.

Holling, Crawford S. "Understanding the Complexity of Economic, Ecological and Social Systems" (2001) 4 *Ecosystems* 390.

The authors develop and test the elements of an integrative theory that had the degree of simplicity necessary for understanding economic, ecological and social systems. Also, the complexity required to develop policy for sustainability is discussed. The author describes how hierarchies and adaptive cycles comprise the basis of ecosystems and social-ecological systems across scales

Nelken, David. "Comparatists and Transferability" in Legrand, P. and Munday, R. (eds.) *Comparative Legal Studies: Traditions and Transitions* (Cambridge: Cambridge University Press, 2003) 437.

This author presents a detailed discussion on the issue of the meaning of "successful legal transplant". He also discusses such issues as whether respecting differences rule out a social science of legal transfers, or whether there is any point in asking if legal transfers will fit into the societies into which they are adopted.

Nelken, David. "The Meaning of Success in Transnational Legal Transfers" (2001) 19 Windsor Y.B. Access Just. 349.

In this article, the author discusses the increasingly common incidence of legal transfers and borrowings across jurisdictions and borders. Specifically, in this article, he attempts to bring together the various views on the meaning of success in legal transfers and the factors that affect such success, such as the type of legal transfer under consideration. He focuses on issues such as the measurement of the success of legal transfers.

SECTION FOUR

COASTAL ZONE MANAGEMENT IN CANADA AND NIGERIA

Monographs

Harrison, Peter. *Coastal Management in Canada* (New York: Crane Russak, 1983).

Management of Canada's extensive coastal zone is the responsibility of a large number of federal and provincial agencies. This work introduces the special issue on Canada by outlining some of the principles of coastal zone management which emerged and by identifying key policy questions for the future – especially federal – provincial cooperation. This work will be particularly useful to my thesis, considering the similarities in the division of jurisdictions and authorities in ocean and coastal governance, in Nigeria and Canada.

Gundling, L. *International Environmental Law: Marine Environment, Polar Regions, Outer Space* (Geneva: United Nations Institute of Training and Research, 2006).

This book, published by the United Nations, offers useful insights on how coastal states can benefit from the sustainable development prospects of the ICZM. It discusses the scope and objectives of ICZM. It presents ICZM as the major tool for achieving sustainable development in coastal environments, which replaces the traditional approaches to management in coastal areas that have proved to be ineffective. It also acknowledges Canada as the best model for ICZM implementation, at the national level.

Hildebrand, Lawrence P. *Canada's Experience with Coastal Zone Management* (Canada: The Canadian Institute of Canada, 1989).

This work traces the decades of experience with coastal zone management in Canada. Beginning with a brief description of Canada's extensive and varied coastal zone, it then compares Canada to other coastal nations, to provide a context for determining the Canadian disposition to coastal management. A detailed description and analysis of the Canadian initiatives of national coastal zone management policy development follows, highlighting the challenges faced and the lessons to be learned for this experience. Particular attention is paid, however, to the shortfalls of Canada's coastal zone management efforts.

Omotola, J. A. *Environmental Laws in Nigeria* (Lagos: Mayodele Ajayi Enterprises, 1990).

This book achieves the unique task of providing various points of view on addressing most of the legal issues connected with environmental protection in Nigeria. It offers a rich guide on the institutions, ministries and legal regimes on environmental management in Nigeria.

Rothwell, Donald R. & VanderZwaag, David L. *Towards Principled Oceans Governance: Australian and Canadian Approaches and Challenges*, (Routledge: New York, 2006).

This book assesses the obligation, compliance, implementation and trends in international ocean law and their impact in Australia and Canada. It also explores how these countries have responded to the challenges of ocean and coastal governance, looking at the legal, policy and political responses that the countries have adopted. While Canada and Australia cannot set the international ocean governance agenda, this volume considers the ways in which they have attempted to influence that agenda and the lessons learned from their successes and failures, lessons that could be applied to nearly all coastal states seeking to engage in an integrated oceans and coastal governance policy.

Sorensen, J. C. & McCreary, S. T. *Institutional Arrangements for Managing Coastal Resources and Environments* 2d ed. (Washington, D.C.: Renewable Resources Information Series, Coastal Management Publication No. 1, 1990).

This book presents available strategies to strengthen the governance of coasts and the management of renewable natural resources in coastal zones of the developing nations. It represents a synthesis of literature from the developed and developing world along with the findings of interviews with coastal resource managers. Key points of this report include that: an array of management strategies and an array of institutional managements are necessary to allocate coastal resources among competing and conflicting interests and; institutional arrangements and management strategies must be tailored to the needs of each individual coastal nation. It concludes that nations with one or more of four critical coastal-dependent sectors - fisheries, tourism, mangrove forestry, or an economy vulnerable to coastal hazards - have a strong incentive to pursue integrated coastal management.

Articles

Badejo, Olusegun T. & Nwilo, Peter C. “Management of Oil Dispersals along the Nigerian Coastal Areas,” (2006) online: Department of Surveying and Geoinformatics, University of Lagos <<http://www.isprs.org/istanbul2004/comm7/papers/241.pdf>>.

This paper traces the history of oil spillage, as a major environmental problem of the Nigerian coastal environments. It also analyses the impacts of such spillages on the environment and offers useful recommendations for the more effective managements of such incidents in Nigeria.

Chinsman, B., Okoro, O. O., Van-Dessel, J. P., Wicks, A., Pullen, S., Otobo, A. T. & Ivbijaro, M. F. “Defining an Environmental Development Strategy for the Niger Delta,” online: Industry and Energy Operations Division West Central Africa Department <http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2000/11/10/000094946_00082605382641/Rendered/INDE>

This report examines the major obstacles to sustainable development in the Niger Delta and presents strategic options for overcoming them. The report assesses the full range of environmental issues to identify the priority concerns based on the severity of their health and environmental impacts. The principal constraints to addressing the concerns, including institutional capacity, information, beneficiary consultation, regulatory frameworks, and enforcement, are examined. The report also critically discusses policies issues and options that should be addressed in designing a regional environmental development strategy for Niger Delta.

Eleri, Otu Ewah. “Strengthening Energy and Ecosystem Resilience in Nigeria” (2007), online: <<http://74.220.209.240/jessup/jessup08/mcgill.pdf>>.

The author examines major obstacles to sustainable development in the Nigerian coastal areas and identifies some structural factors that contribute to the vulnerability of these regions to climate change-related events. In the bid to address this vital issue, he makes several recommendations, including developing and mainstreaming a National Action Plan for these regions and empowering the population to contribute in such activities.

Fabbri, Karen P. “A Strategic Decision Support Framework for Integrated Coastal Zone Management” (2006) 6 *Envtl. Tech. & Mgmt.* 1.

The authors identify that the advantages of structuring decision situations include the embodiment of shared responsibility, accountability and transparency. The paper identifies an integrated methodology that combines multiple approaches and tools to support strategic decision making in ICZM. This provides policy-makers a method through which the objectives, courses of action, and the possible impacts of ICZM can be structured and compared.

Hatzios, Marea E. "A World Bank Framework for ICZM with Special Emphasis on Africa" (1997) 37 *Ocean and Coastal Management*, 281-294.

This paper describes the World Bank's emerging program in Integrated Coastal Zone Management (ICZM), with a focus on Africa. The major elements and direction of this program are summarized, drawing especially on examples from Eastern Africa and the Western Indian Ocean, where the Bank's program in ICZM was initiated and where significant opportunities exist to influence the course of development in coastal areas still not transformed by major growth. The challenges ahead in establishing a viable framework for ICZM in Africa are then discussed. The paper concludes with suggestions as to how the Bank and partners in the region can best focus their efforts in the future to meet these challenges.

Intergovernmental Panel on Climate Change, "Regional Impacts on Climate Change: Africa", November 2000, online: IPCC Special Reports on Climate Change <<http://www.grida.no/climate/ipcc/support/about.htm>>.

This work is devoted to an analysis of the vulnerability and impacts of climate change on the African coastal zones, the first section of which provides information on the significance of these regions for African States. It goes on to provide further information on the implications of these impacts on selected African States, including Nigeria. This is particularly useful for this thesis because it exposes the interconnectedness of these coastal activities. Also, it will be useful to this thesis, as a source of information, for the background of the research problem.

O'Boyle, R. & Jamieson, G. "Observations on the Implementation of Ecosystem-Based Management: Experiences on Canada's East and West Coasts" (2006) 79 *Ocean and Coastal Management* 1.

The proclamation of the Canada's *Ocean Act* in 1997 announced Canada's intention to adopt a holistic approach to the management of its aquatic ecosystems, one in which the impacts of the activities of diverse oceans industries would be considered as part of an integrated framework. Since then, there have been a number of initiatives undertaken to explore the structure and function of this new approach. The progress made and the lessons learned are summarized in this paper.

Okeke, Ifenyinwa F. "Coastal Challenges and the Challenges of Coastal Education in Nigeria" (2006) online: <<http://www.gisig.it/coastgis/papers/okeke.htm>>.

This paper analyses some of the problems common to the Nigerian Coastal Zone and suggests some solutions to these problems. It however emphasises that one of the major challenges of coastal education in Nigeria is the dearth of coastal education, even among the professionals in this field.

Osanwuta, Dennis A. & Nwilo, Peter C. "Capacity Building for Integrated Coastal Areas Management in Nigeria" (2005), online: <<http://www.gisig.it/coastgis/papers/osanwuta.htm>>.

This paper analyses interdependency of the activities affecting the Nigerian coastal environment. It acknowledges the need for a legal and institutional framework, and a policy instrument to achieve the goals of ICZM. It also examines possible obstacles to ICZM in Nigeria.

Prior, D. B. & Pickrill, R. A., "Marine Geoscience Contributions to Integrated Coastal Zone Management" (2004),

online: <<http://www.mar.dfo-mpo.gc.ca/science/review/e/pdf/marine.pdf>>.

This paper illustrates some of the principal contributions that marine geosciences in general, and Canadian marine geosciences specifically is making to ICZM. It also indicates some future directions to the Geological Survey of Canada's marine programme.

Raufu, Abiodun. "Africa Underwater: Nigeria's Coastline is Besieged by Global Warming - Currents - Brief Article" (2002), online: E: The Environmental Magazine <http://findarticles.com/p/articles/mi_m1594/is_2_13/ai_83667620>.

The author analyses some of the problems of the coastal regions of Nigeria caused by global warming, with particular emphasis on the Victoria Island of the Lagos Coast, as the most threatened coastline in Nigeria. He suggests options for managing these problems. The author's major conclusion is that available measures can only minimize the impact on Nigeria's coastline, as opposed to a permanent solution. This conclusion is within the contemplation of the ICZM policy and is, therefore, particularly useful, as a source of ideas, to this thesis.

The World Bank Group, "The Niger Delta: A Stakeholder Approach to Environmental Development" (1995), online: The World Bank Group <<http://www.worldbank.org/afr/findings/english/find53.pdf>>

This study attempts to move beyond emotive arguments to provide an analytical basis for substantive stakeholder discussion of the most critical environmental and social issues and possible interventions. It offers a comprehensive assessment of the environmental issues in the Niger Delta region of the Nigerian Coast and resulting social impacts.

SECTION FIVE

Useful Links

For an overview of the management and sustainability of coastal zones, and integrated coastal zone management, including links to relevant organisations home pages, and other information sources, see Coastal Management Web Sites, online: Coastal Management Related WWW Sites <<http://www.ncl.ac.uk/tcmweb/tcm/czmlinks.htm>>.

For an overview of Canada's efforts at developing strategies to give effect to ICZM, see the following:

Oceans Action Plan, online: Fisheries and Oceans Canada, <http://www.dfo-mpo.gc.ca/home-accueil_e.htm>.

National Programme of Action, online: Canada's National Programme for Action for the Protection of the Marine Environment from Land Based Activities <<http://www.npa-pan.ca/en/index.cfm>>.

Government of Canada, online: Links to Websites Related to Integrated Coastal and Oceans Management <<http://aczisc.dal.ca/links.htm#CANADA>>.

For an overview of Nigerian environmental laws, environmental protection institutions and relevant governmental departments in Nigeria, see African Environmental Law and Policy, online: the African Programme of the Environmental Law Institute <<http://www.eli.org/africa/nigeria.htm>>.

For more information on Nigerian environmental laws, see Laws of the Federation of Nigeria, online: Federal Republic of Nigeria <<http://www.nigeria-law.org/LFNMainPage.htm>>.