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Socio-environmental Impacts of Sprawl on the Coastline Of Douala

Options for Integrated Coastal Management



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Abstract

The geodynamics of the coastal stretch naturally serve as a convergence point for anthropogenic settlements world-wide. On a global scale, coastal areas occupy 20 percent of the Earth's surface, yet they harbour approximately 50 percent of human population living within 200 km of the coast (UN, 2002). The continuous occupancy of the coastal milieu with limited resources and increasing economic hardship has resulted to uncoordinated spatial layout of urban settlement, termed urban sprawl. Urban sprawl, though not a new phenomenon, remains a challenge for most decision makers of the world, of which, Cameroon is not an exception. The challenge is further compounded by the fact that sprawl is not well circumscribed as there is no universally accepted definition for it.

This paper, therefore, addresses the socioeconomic and environmental implications of urban sprawl on the coastline of Douala-Cameroon by making use of qualitative and quantitative research methodology. Emphatic analyses of some of the hypothesis are made with the use of land value models of William Alonso, Earnest Burgess, Chauncy Harris, and Edward Ullman. Douala, the economic capital and main seaport of Cameroon, is the industrial nerve of the country. Douala harbours almost 80% of the Cameroon's industries (Angwe and Gabche, 1997) and because of the nature and varied economic activity; it is the fastest growing area of Cameroon. The fast growing nature of the town coupled with poor management strategies have meant that there is a lot of pressure exerted on its coastal resources. There is, therefore, a need for proposed long-lasting solutions to reverse or attenuate the prevailing situation. This study elucidates a brief background of Cameroon and paints a vivid picture on the morphological aspect of sprawl as well as its socioeconomic connotations. The work also examines the key players involved in shaping the urban planning process in Douala and further x-ray gaps inhibiting sustainable urban planning in Cameroon.

Moreover, the paper examines Xiamen's socioeconomic and environmental atmosphere before and after the implementation of Integrated Coastal Management (ICM) and, it is, however, deduced that, the entrusting of more powers to local governments to implement new environmental laws and welcoming of multilateral and bilateral assistance by the Chinese Central Government acted as a crunch since the introduction of ICM (Chen and Juha, 2003). Moreso, the political will bestowed by the

Xiamen municipal authorities, the involvement and inculcation of relevant stakeholders, the creation of a multi-agency council and the acquisition of sea-use zoning scheme are all ground breaking points that emblems Xiamen's ICM success stories. Today, with the successful implementation of ICM, Xiamen has built herself a dual reputation of a vibrant economy and a comprehensive ecological atmosphere.

The findings of the work portray that sprawl in Cameroon is orchestrated by inadequate policy implementation, archaic master plan, inadequate information dissemination to the public, inequality in the distribution of resources among the different regions of the State and above all, the gaps elucidated by the traditional form of management. The work upholds that livelihood strategies and environmental protection are intricately linked, and therefore, there is a need for ICM as the management approach blends the two adequately. Based on the experience drawn from Xiamen ICM, the study concludes that Douala needs an autonomous coastal interagency to address the gaps punctuated by sectoral management, and thus, enhance the sustainable management of its coastal milieu.

Key Words: Urban Sprawl, Integrated Coastal Management, Coastal Area, Land Value, Douala-Cameroon.

摘要

海岸延伸的地球动力学自然地域是一个人类的居住地的集合。在全球范围内，沿海地区占地球表面的 20%，但他们所庇护的生活在沿海 200 公里内的人口大约占全球 50%（联合国，2002 年）。持续的占据海岸带有限的资源环境以及由此带来的经济发展困难的增加，已经导致被称为城市展延区的城市居住区空间布局不协调。城市展延区，虽然不是一个新的现象，但对于世界上大多数决策者来说仍然是一个挑战，这在喀麦隆也不例外。由于没有公认的定义，扩张并没有很好的被限制，这个事实导致挑战更加复杂。

因此，本文针对喀麦隆的杜阿拉海岸线上的城市展延区，通过使用定性和定量研究方法研究其社会经济和环境的影响。对一些假设的着重分析则基于 William Alonso, Earnest Burgess, Chauncy Harris 以及 Edward Ullman 的土地价值模型。喀麦隆的经济首都和主要海港杜阿拉，是国家的工业神经。杜阿拉，拥有喀麦隆近 80% 的产业（Angwe 和，1997 Gabche），并且由于现状和各式各样的经济活动，它是喀麦隆发展最快的地区。城镇快速增长的现状，再加上不善的管理策略，这些都意味着对海岸带资源施加许多的压力。因此，需要提出长效的解决方案，以扭转或削弱目前的情况。本研究阐明喀麦隆的简要背景，生动地描绘城市扩张的形态学方面及其社会经济内涵。本研究还访问了在杜阿拉涉及制定城市规划程序的关键人员，以考察制约喀麦隆实施可持续发展城市规划的深层次原因。

在考察厦门实施海岸带综合管理(ICM)前后的社会经济和环境变化后可知，自从引进了海岸带综合管理，更多的权力委托给地方政府实施新的环保法律，以及中国中央政府提供的多边和双边援助，都扮演了一个积极的角色（陈和 Juha，2003 年）。除此之外，厦门市政当局赋予的政治意志，相关利益攸关方的参与，多机构理事会的创立以及海域功能区划制度的建立，都是开创性的，标志着厦门 ICM 故事的成功。如今，伴随着 ICM 的成功实施，厦门已为自身建成双重美誉：蓬勃发展的经济和广泛的生态氛围。

研究结果表明，喀麦隆的城市扩张问题缘于政策实施的不充分，陈旧的总体规划，缺少充分透明的信息传播，国家中不同地区之间资源分布不平等，以及传

统的管理形式造成的差异等。本文认为要解决这些问题应本着对民生战略和环境保护错综复杂联系的理解，因此需要一种能够充分协调二者的管理方法。海岸带综合管理（ICM）在东南亚，尤其在厦门被认为取得重大的进展，这在于它对沿海居民的整体利益具有加强经济和保护环境的双重功能，因此被认为是合适的管理策略。基于厦门 ICM 的经验，本研究得出结论，在喀麦隆杜阿拉实施海岸带跨部门间的综合管理是很有必要的，它能弥补部门管理的不足，并由此加强海岸带环境的可持续管理。

关键词：城市展延区；海岸带综合管理；海岸带区域；土地价值；喀麦隆——杜阿拉

List of Acronyms

AEFALSH	l'Association des Etudiants de la Faculté des Arts, Lettres et Sciences Humaines
AfDB	African Development Bank
BOD	Biological Oxygen Demand
BUCREP	Bureau Central de Recensements et d'Etude de Population
CBD	Central Business District
CDE	Camerounaise des Eaux
CEC	Commission for Environmental Cooperation
CUD	Douala Urban Council
CZMA	Coastal Zone Management Act
DHH	Department of Water Resources and Hydrology
DPSIR	Driver-Pressure-State-Impacts-Responses
EEA	European Environment Agency
FAO	Food and Agricultural Organisation
FCFA	Franc Communauté Financière Africaine
GDP	Gross Domestic Product
GOC	Government of Cameroon
GPHC	General Population and Housing Census
HYSACAM	Hygiène et Salubrité du Cameroun
ICAM	Integrated Coastal Area Management
ICM	Integrated Coastal Management
ICZM	Integrated Coastal Zone Management
IEA	International Energy Agency
INRA	National Institute for Agronomic Research
IRAD	Institute de Recherché Agronomique et de Développement
MAETUR	Mission d'Aménagement des Terrains Urbains et Ruraux
MINATD	Ministère de l'Administration Territoriale et de la Décentralisation
MINDAF	Ministère des Domaines et des Affaires Foncières
MINEE	Ministry of Energy and Water Resources
MINUH	Ministry of Urban Affairs and Housing
MINVILLE	Ministère de la Ville
NGO	Non-Governmental Organization

NIC	National Institute of Cartography
OECD	Organization for Economic Cooperation and Development
ONCPB	National Board for marketing of Basic Commodities
PCR	Pressure-Condition-Response
POPS	Persistent Organic Pollutants
PSR	Pressure-State-Response
SAP	Structural Adjustment Program
SIC	Société Immobilière du Cameroun
TVA	Tennessee Valley Authority
UCO	Unions of Agricultural Cooperatives
UNCED	United Nations Conference on Environment and Development
UN-HABITAT	United Nations Human Settlements Programme
UNWTO	World Tourism Organization

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