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Towards increased degrees of integrated coastal management in the City of Cape Town, South Africa

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ABSTRACT

Integrated coastal management (ICM) is the paradigm for sustainable coastal development in South Africa and has been, since 2008, entrenched in government decision-making by the National Environmental Management: Integrated Coastal Management Act, Act No. 24 of 2008 (ICM Act). The coast is a complex and dynamic space as a nexus of widely ranging and often conflicting socio-economic interests. ICM requires understanding and management of coastal systems at national and provincial policy-level but, more importantly, at the local government level. The ICM Act devolves some responsibility to municipalities, the smallest autonomous administrative management unit on the coast. However, this Act and the international literature are virtually silent on the most effective institutional arrangements to progress towards ICM within municipalities. This study is a "bottom-up" or examination of a number of internal institutional arrangements deemed appropriate to affect an increased degree of ICM within the City of Cape Town. This paper presents data and information that were collected during an institutional assessment of the coastal management competency in that city. Using a combination of qualitative methods, it was possible to assess three *a priori* scenarios of institutional arrangements for ICM in a large well-resourced municipality. The assessment resulted in a number of principles for the structuring of municipal institutions to increase the degree of ICM. The authors (from local government and the private, and research sector) contend that these principles are first applicable to metropolitan cities of South Africa but that it could also apply to local-level administrative units elsewhere. The data from the City of Cape Town indicate relatively low degrees of ICM, commensurately low degrees of political interest and constrained institutions, even within the buoyant and well-structured national ICM framework. Political interest; interpersonal and departmental conflicts; institutional idiosyncrasies, and overlapping operational mandates are not empirically measurable but are fundamentally rooted to the effectiveness of ICM.

1. Introduction

The utility and usefulness of integrated coastal management (ICM) is widely accepted in the literature (Taljaard et al., 2012; Bower and Turner, 1998; Cicin-Sain, 1993). ICM is seen as a potent and balanced planning and management process (Christie et al., 2005). The role of ICM in climate change adaptation has also been recognised in the literature (Sales, 2009; Nicholls et al., 2007; Chemane et al., 1997; Velinga and Klein, 1993). ICM literature often refers to the fact that coastal stakeholders at all levels (national to local) must be included in governance of coastal areas (Olsen 2003; IMO/FAO/UNESCO-IOC/WMO/WHO/IAEA/UN/UNEP Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) 1996; Cicin-Sain et al., 1998).

The composition and functions of coastal governance structures are often described (Olsen et al., 2009; Low Choy, 2006; Stuart et al., 2006), but it is rare to find a description of what would constitute an "appropriate" combination of internal (own to the institution) capacity, and other skills needed to effectively govern the coastal area. Kiambo (2001) describes an "ideal" coastal manager, and by extension the unit, as needing competency in four areas: project/programme management (manage and conduct meetings, fund-raising, and organisation and leadership); ICM practice (policy

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processes, ICM principles, public education, science for management, demonstration activities and issue profiling); professional skills (dispute resolution, facilitation, strategic planning and communication) and the necessary technical skills. These are over and above the fundamental technical functions reasonably expected to be the responsibility of local government. Some of these include land-use planning and development control; planning, construction and management of specific coastal management, infrastructure, civil infrastructure in the coastal zone, water quality management infrastructure; management of public access to and use of the foreshore; community awareness; development and engagement; and environment protection, enhancement and management (Stuart et al., 2006).

So, an elusive concept in literature is the minimum resource requirements, human and otherwise, for integrated coastal management at the smallest administrative units (generally local government level or municipalities). What combination of technical and other skills is required for effective coastal management at local government level? It is also not only a question of the presence of resources but also the manner of association and combination of resources, *i.e.* the nature and characteristic of the institutions created to promote and realise ICM.

Coastal management in South Africa has evolved to the point where ICM is recognised as the most effective management approach for a complex, dynamic and sensitive space (Celliers et al., 2013; Glavovic, 2006). Within the national environmental management framework, ICM is given formal recognition by the National Environmental Management: Integrated Coastal Management Act (ICM Act, No. 24 of 2008). This Act creates a nested system of governance and it assigns specific functions to the three spheres of government (national, provincial and local). A specific requirement of the ICM Act is the creation of institutions to facilitate ICM within the three spheres of government. These institutions are referred to as Coastal Committees at national, provincial and local government (municipal) level. The convention of Coastal Committees is mandatory at the provincial level but currently optional at national and municipal levels. Provincial coastal committees are multi-stakeholder forums championed by the provincial department delegated the responsibility for implementing ICM in each of the four coastal provinces. At municipal level it is however still rare to see self-organising of functional government (only municipal) or governance (municipal plus private sector and civil society stakeholders) units for coastal management (such as Coastal Committees). It is also still rare for local governments to take a pro-active active approach to coastal governance.

The general complexity of the coastal environment, which requires a specifically defined management paradigm such as ICM, therefore presupposes that there would be a need for ICM competency in government institutions. This need is particularly noticeable in municipal government. South African municipalities are the smallest autonomous administrative unit on the coast and has also been assigned some ICM responsibilities (Celliers et al., 2007, 2013). ICM competency is defined as the knowledge, skills and behaviour of people (within institutions) within municipalities, in order to implement the provisions of the ICM Act within the prescribed timeframes, and to do so consistently and continuously.

Institutional assessments are usually conducted to identify strengths, weaknesses, threats and opportunities in order to develop plans for structural development. The evaluation of institutions is concerned with how it uses its capacities, maintains motivation, and how it relates to the external environment (Lusthaus et al., 2002, 1995). While institutional assessments are quite commonly used in various sectors, *i.e.* higher education (Burdrow and Evers, 2010); health (Jacobs et al., 2002), its use for assessing the coastal governance arrangements, or institution, of a coastal municipality could not be established from the literature.

The objective of this study was, therefore, to bring together concepts from ICM, governance and institutional assessment in order to evaluate three scenarios for the establishment of a municipal institution to achieve increased degrees of ICM at the municipal level. This institution was proposed to consolidate, facilitate and improve the capability within the municipality to implement ICM and comply with the ICM Act. The evaluation was based on existing (ICM) institutions, their performance and the opinions, of officials within the City of Cape Town (CCT), of their efficiency and effectiveness. The authors contend that complete ICM is not achievable but that there are a number of critical and linked factors that influence the ability to achieve increased degrees of ICM through the creation of an effective institution for that purpose. The theory and practice of these factors, which contribute to ICM competence at the municipal level, were demonstrated using a qualitative case study of the CCT, and a similar, less detailed case study of the City of Durban.

Three scenarios of municipal institutions for ICM were *a priori* determined by CCT managers. This "black-box" determination was a result of an internal CCT process which included political, economic, social and environmental realities of the CCT, as perceived by relevant municipal officials (*pers. comm.* Darryl Colenbrander: ERM Coastal Coordinator, City of Cape Town). The scenarios were; **'No-limits'** – most appropriate institutional model without considering financial or restructuring constraints; **'Current-constraints'** – most appropriate institutional model considering current financial constraints and restructuring implications; and **'No-cost'** – most appropriate institutional model without restructuring or incurring financial costs but through the re-allocation of roles and responsibilities and formalised coordination and organisation between municipal line functions. In addition to the scenario testing, the lessons learned from this study are presented as "principles" for the organisation of municipalities to achieve higher degrees of ICM through, amongst other, implementing the ICM Act.

2. Study area

2.1. Biophysical and socio-economic characteristics of the City of Cape Town

The CCT is located in the Western Cape Province of South Africa. The CCT has a population of 3.8 million people, contributing to approximately 65% of the province's population. Although the CCT may boast the second largest economy in South Africa in terms of Gross Domestic Product (contributing 11.1% of the national GDP) there is a disjuncture between this productive economy and high rate of unemployment (City of Cape Town, 2012). In 2005, unemployment in the CCT was 20.7%, with the majority of the unemployed living in high density informal settlements (CCT, 2006). The population of CCT is characterised by stark socio-economic inequalities where population densities may be used as a gauge to reflect income groups. Population densities of high income areas are as low as 1228 people per km^2, whilst in low income groups, these densities may exceed 150 000 people per km^2 (Turok et al., 2010, Fig. 1). Although progress has been made towards a unified non-racial society, the contrast in population density and income groups is reflective of a dual economy; a legacy of South Africa's racially divided past.

The CCT's coastline spans 307 km, 240 km of which is managed by the CCT with the remainder managed by the Table Mountain National Park (CCT, 2010). The CCT has a longer sea frontage than any other metropolitan city in South Africa. The coastline is arguably one of the CCT's greatest socio-economic and environmental