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Coastal scenic assessment and tourism management in western Cuba

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HIGHLIGHTS

- This paper suggests a five-fold classification of landscapes for coastal areas.
- This classification is applied to Cuba.
- Northern rural areas evidence small anthropogenic impacts (Type 1).
- Varadero hosts type 2 sites and is a centre for international tourism.
- Types 3,4, and 5 include sites of progressive decay of natural and human parameter.

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ABSTRACT

Coastal scenic assessments via checklist tables (18 natural, 8 human related parameters), can provide benchmark measures regarding desirable/non-desirable beach conditions and also classify sites. The scenic value for 43 sites in western Cuba was investigated, with the aim of helping managers improve bathing areas, especially for tourism purposes. Sites were categorised from Class 1, (top grade scenery), between La Habana and Matanzas, as extremely attractive, with white sand, turquoise water and additional scenic elements. Class 2 sites were located in Varadero, and their high scores were greatly due to appropriate human interventions, e.g. beach nourishment and dune restoration works. Classes 3 to 5 (the latter having very poor scenery), included sites with low scores for natural parameters. For these sites, coastal managers can do little to alleviate scenic impact, apart from addressing the human parameters, where improvement is possible, e.g. by litter removal together with the present chaotic protective structures.

1. Preamble

Coastal Zone Management (CZM) is a subject area first introduced and implemented in 1972 with the USA Coastal Management Act and many excellent books/papers have been written on the topic, e.g. Cicin-Sain and Knetch (1998), Kay and Alder (2005), etc. In the Mediterranean, the CZM protocol has the objective of coastal zone sustainability by ensuring that the environment and *landscapes* are in harmony with the economic, cultural and social development (UNEP-MAP, 2008). The catholic spectrum of elements that make up CZM represent many different challenges/themes, i.e. financial sustainability, inadequate capacities, governance, weak law enforcement, lack of integrated/collaborative efforts. Beach management (BM), a sub-set of the more voluminous ICM literature, has similar, but smaller scale elements, which have particular reference to pragmatic local management issues. *All* CZM elements are applicable to beach management, which has a more focused specific approach (individual beaches) to this zone - the outcome level of Olsen, Lowry, and Tobey (1999) , 56 pp. Books/papers on the BM topic are scarce, as it is a much younger discipline (Williams & Micallef, 2009, 445 pp.).

Despite many years since its inception, Sorenson (1997), Phillips and Jones (2006), have argued that uncertainty and little information exist regarding successful CZM strategies and effective CZM still *'remains a considerable challenge in many parts of the world'* (Garcia-Aguilar et al., 2013, p. 94). CZM is a broad-brush coastal zone approach that traditionally emphasised fisheries, tourism, recreation and hazards. Some current CZM key issues involve

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obtaining robust reliable information, lack of sound networks, little long term planning, public participation, financial capacity – many CZM schemes in developing countries have failed at the implementation stage because of this - and a low take up of new techniques. With respect to these issues at the BM level, this research paper, authored by a multi disciplinary network group, provides a wealth of information - over 4,000 beach users, i.e. stakeholders, participated in the methodological research (Hage, 2010) required to develop this innovative technique (Ergin et al., 2004), enabling Cuban coastal scenery to be analysed in a semi-objective manner. It is not the intention of this paper to provide a discourse on the issues associated with CZM/BM, but sound BM can lead to an increase in overseas/local tourism, quality of recreational opportunities, promotion of sustainable coastal development and effective utilisation of an increasingly valuable socio-economic/ecological national resource. Invariably indicators are used in current CZM/BM programmes to monitor the coastal state, indicting progress/non-progress of policies and for this paper, scenery is the chosen indicator. It is one of the five parameters identified by beach users (Williams & Micallef, 2009), as having a major importance on beach choice and effective BM can increase beach quality with by reference to just this one aspect. This is clearly shown by comparison of Varadero beaches (managed) with those on the southern Cuban coast (unmanaged) – see Discussion section.

2. Introduction

Tourism is one of the largest growth industries in the world and is expected to reach 1.6 billion international tourists by 2020 (www.Tourismconcern, accessed February 2013). Tourism's role with respect to the worldwide gross domestic product (GDP) in 2011 was *circa* 5 percent and in employment it was *circa* 6–7 percent of the overall number of direct and indirect jobs worldwide (United Nations World Tourism Organization UNWTO, 2011). Its contribution to GDP ranges from approximately 2 percent for countries where tourism is a comparatively small sector, to over 10 percent for countries where tourism is an important pillar of the economy, but for small islands and developing countries, the weight of tourism can be even larger, accounting for up to 25 percent in some destinations. Europe is currently still the world's largest source region (UNWTO, 2012), generating just over half of international arrivals worldwide, followed by Asia and the Pacific (22 percent), the Americas (16 percent), the Middle East (4 percent) and Africa (3 percent).

On the world scale, tourist arrivals grew by 4.6 percent to reach 983 million worldwide in 2011, up from 940 million in 2010 (UNWTO, 2012); International tourism receipts for 2011 are estimated at US$ 1030 billion worldwide, up from US$ 928 billion in 2010 (+3.9 percent in real terms), setting new records in most destinations. According to the latest UNWTO World Tourism Barometer (http://media.unwto.org/en/press-release/2013-01-28/international-tourism-continue-robust-growth-2013, accessed February 2013), the International tourist arrivals grew by 4 percent in 2012 to reach 1.035 billion. Emerging economies (+4.1 percent) regained the lead over advanced economies (+3.6 percent), with Asia and the Pacific showing the strongest results. Growth is expected to continue in 2013 only slightly below the 2012 level (+3 percent to +4 percent) and in line with UNWTO long term forecast.

In the Americas, arrivals (+4 percent) were boosted by South America (+9 percent), which continued to lead growth in the region for the second consecutive year. Since the early 1980s, the Caribbean regional economy has moved toward deeper integration and shifted away from traditional agriculture towards more competitive manufacturing and service industries (ranging from tourism to construction and information technology). For Caribbean island economies, in 1990, the US$9 billion tourism sector brought in six times the revenue of all traditional agricultural exports. For Cuba in 1994, sugar exports accounted for over 50 percent of GDP. In the same year Cuba joined the Caribbean Tourism Organization and the Association of Caribbean States (ACS) and, by 2003, tourism revenues reached US$2.1 billion, providing almost half of Cuba's total hard currency. This has become the engine, which now drives the economy (Taylor & McGlynn, 2009): international tourist arrivals have increased greatly in recent decades, from 11.4 millions in 1990 to 17.1 millions in 2000 and 19.5 millions in 2010. In 2011 and 2012 international tourism arrivals increased by 4 percent per year (20.1 and 20.9 millions respectively recorded in 2011 and 2012), boosted by sound results from the larger island destinations in 2011, such as Cuba (+7.2 percent, 2.7 millions of international arrivals) and the Dominican Republic (+4 percent), UNWTO (2012).

According to the *Oficina Nacional de Estadísticas e Información* of Cuba (ONEI, www.one.cu, accessed February 2013), 2.83 millions of tourists visited Cuba in 2012 and hotel occupation increased from 46.8 percent in 2011 to 46.9 percent in 2012. Most important tourists source region in 2012 were Canada (109,636 visitors), England (11,329), Germany (10,554), Italy (10,413) followed by Mexico, Russia, France and Spain. In 2011 and 2012, revenues linked to tourism in Cuba increased from 1.73 to 1.86 billions of US$ (ONEI, www.one.cu, accessed February 2013). The coastal area between La

Table 1
Location and main characteristics of investigated sites (name, setting, "D" value and class).

Site	Location	Type	Score	Class
La Puntilla	Northern Mayabeque	Rural	1.14	1
Los Cocos	Northern Mayabeque	Rural	0.93	1
Cayo Levisa	Pinar del Río	Resort	0.93	1
Arroyo Berbejo	Northern Mayabeque	Rural	0.87	1
Calle 46	Cárdenas	Urban	0.80	2
Calle 55	Cárdenas	Urban	0.80	2
Sandals	Cárdenas	Resort	0.80	2
Calle 57 Museo	Cárdenas	Urban	0.79	2
Bocaciega	La Habana	Village	0.70	2
Brisas	Cárdenas	Resort	0.69	2
El Mamey	Matanzas	Rural	0.64	3
Sitio Punta Perdiz	Cienaga de Zapata	Rural	0.63	3
Guanabo	La Habana	Village	0.60	3
Jibacoa	Northern Mayabeque	Rural	0.58	3
Bueyvaca	Matanzas	Rural	0.57	3
La Altura	Pinar del Río	Rural	0.56	3
Calle 48–50	Cárdenas	Urban	0.54	3
Sitio Cueva Peces	Cienaga de Zapata	Rural	0.49	3
Hotel Melia Las Américas	Cárdenas	Resort	0.47	3
Hotel Arenas Blancas	Cárdenas	Resort	0.41	3
Barlovento	Cárdenas	Urban	0.38	4
Plaza America	Cárdenas	Resort	0.38	4
Playa Carenero	Pinar del Río	Rural	0.35	4
El Río	Cienaga de Zapata	Rural	0.34	4
Banes	Northern Artemisa	Village	0.32	4
Sitio Bahía	Matanzas	Urban	0.28	4
Rosario	Southern Mayabeque	Rural	0.26	4
Canal oeste	Cárdenas	Rural	0.23	4
Campamento	Cienaga de Zapata	Rural	0.20	4
Canal este	Cárdenas	Urban	0.12	4
Playa El Morrillo	Pinar del Río	Village	0.10	4
Playa Larga	Cienaga de Zapata	Village	0.08	4
Hotel Solymar	Cárdenas	Resort	0.06	4
Puerto Esperanza	Pinar del Río	Village	0.06	4
Buenaventura	Cienaga de Zapata	Village	0.02	4
Playa Majana	Southern Artemisa	Village	−0.09	5
Allende	Matanzas	Urban	−0.22	5
Sitio Cajío	Southern Artemisa	Village	−0.23	5
Faro de Maya	Matanzas	Rural	−0.42	5
Mayabeque	Southern Mayabeque	Village	−0.48	5
Tenis	Matanzas	Urban	−0.87	5
El Judío	Matanzas	Urban	−0.90	5
Sitio Mariel	Northern Artemisa	Industrial	−0.93	5