

Chapter 2

Advances in Beach Management in Latin America: Overview from Certification Schemes

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Abstract Beach management in Latin America is described, focused on analysis of beach certification schemes currently implemented in this continent. Initially, core concepts about beach management are discussed, in order to establish a common framework. Moreover, several initiatives to measure quality are analysed, looking for identifying those tools able to give a certification. Afterwards, 9 beach certification schemes applied in 12 Latin American countries are described (Argentina, Brasil Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Mexico, Peru, Puerto Rico and Uruguay), according to their origin, administrative framework, structure and implementation. Finally, advance in beach management in Latin America is discussed, pointing out main conceptual, methodological and practical challenges to be achieved for scientific and decision makers of the continent.

2.1 Beach Management Principles and Techniques

Physical systems information flows from the bottom upwards, i.e. from beach management – BM where a theoretical ideal puts into practice Integrated Coastal Management – ICM aims and objectives, i.e. it is a sub set of the wider scoped ICM

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umbrella and a very effective management tool (Williams and Micallef 2009). However, it usually lacks the proactive element and is frequently geared and based on award/rating tools/schemes, especially in tourist areas, such as, the Mediterranean, Caribbean. For example, the National Healthy Beaches Campaign; the Blue Wave initiative, (USA), Good Beach Guide, (UK), Blue Flag (Denmark).

Many BM schemes have a very narrow sectoral focus (safety, engineering, etc.), which is invariably the beach itself and not the bathing area hinterland (Radic et al. 2006) and many such schemes fail to recognize the catholic variety of beach types that exist, with the probable exception of traditional resort/remote beach areas (Cagilaba and Rennie 2005). Consequently, current progressive thinking has concerned itself with a holistic integrated approach to BM, recognizing beach classifications (dissipative-reflective; heavy-light usage; resort, urban, village, rural, remote; urban (e.g. Paris plage) – water (sea, river, lake), etc. acknowledging that different beach types need different management schemes. Quality indicators have been introduced into the literature e.g. those of Cagilaba and Rennie (2005) and Espejel et al. (2007), arguing that the following are essential elements for any BM plan. These are: clean shallow water and sand beach, no dangerous animals/odours, a pleasant water temperature, security and finally sound infrastructure/services (toilets, access, lifeguards, shade and a small shopping precinct).

So what is BM? Beach management should aim to achieve an optimal physical usage/resource development that is in line with the physical whilst satisfying basic beach user social needs i.e. integration of the physical beach fundament onto which is superimposed the cultural environment (Williams et al. 2002). Two common definitions are:

that process of managing a beach, whether by monitoring, simple intervention, recycling, recharge, the construction or maintenance of beach control structures or by some combination of these techniques, in a way that reflects an acceptable compromise in the light of available finance, between the various coastal defence, nature conservation, public amenity and industrial objectives. (Simm 1996:147)

Beach management seeks to maintain or improve a beach as a recreational resource and a means of coast protection, while providing facilities that meet the needs and aspirations of those who use the beach. (Bird 1996:212)

In essence, it should provide a sustainable, optimum usage of natural, e.g. profiling and sediment characteristics, wave, tide and current data, flora and fauna, socio-economic e.g. beach user preferences and priorities, economics of beach resources, willingness to pay, etc. and cultural resources (history, etc.) whilst providing in certain localities an increase in recreation, in others conservation. To the above, must be added the utilisation of expert personnel and appropriate techniques with which to obtain baseline of information regarding the beach area especially in understanding the nature of coastal processes; follow a sound management philosophy – working with nature rather than against it; long, rather than short range planning; more public participation and properly educated management people; consider ecological rather than economic considerations; co-ordinate public agencies; provision of legislation and more importantly implementation of the enforcement mechanisms. BM should input into any planning/regulation/decision

Table 2.1 Benefits accruing from beach management strategy adopted by Breton (1998)

Establishment of native flora following decreased human disturbance
Better representation of natural plant distribution typical of this part of the coast
Reconstruction of dune systems as a by-product of increased vegetation cover
Contribution to a community based management approach through the involvement of the public in litter collection
Academic value from data recorded on the ability of ‘sand-loving’ plants to adapt to low water, high temperature and substrate mobility and poor soil conditions
Opportunities to utilize this area for educational purposes for both academic and general public
Data generation for use in future beach management and rehabilitation programmes
Development of a beach management strategy utilizing low human and financial resources

making processes, especially with respect to engineering structures needed. It reflects by its very nature multi-disciplinary management, with sound aims, objectives and methodologies.

An example of sound management philosophy, which enhanced a degraded dune system in Catalonia, Spain, considered both socio-economic as well as environmental interests related to beach use (Breton and Esteban 1995; Breton 1998). The local council’s main objective was integration of public recreational beach usage with conservation. Access to prevent trample damage was controlled by pathways, litter was hand-picked and signage used for educational purposes (Table 2.1).

2.2 State of Art of Beach Management in Latin America

The beaches, in Latin America, like in the entire world, have a strategic importance. Nevertheless, only in the recent years it has begun to understand the necessity of application of a coastal integrated management in this ambit. Nowadays is recognized that problems are complex, and cannot be approached correctly from the traditional reductionist’s approach and methods (analysis-synthesis). In consequence, they demand adoption of conceptual and methodological focuses framed in the paradigms of the complexity and systems.

In fact, the integrated management of beaches, like a derivation of the integrated management of coastal areas, shifts from the decade of the 1990, mainly after establishes of this focus during the Conference of the United Nations on Environment and Development – CNUMAD of Rio de Janeiro, in 1992. In this way, the integrated management of beaches conforms as a new professional field, in full formation, starting from adoption of diverse conceptual-methodological approach.

As an example, in a quick search on scientific articles that had the term beach, in the database of Latin American scientific publications SciELO, was obtained that of 105 publications in the lapse of time between 2002 and 2008, 24 % was referred to ecology of beaches, 14 % to aspects of the coast dynamics, 2 % to environmental and alone contamination 2 % was framed in administration of beaches (Botero 2013).

Much more recently, in January of the 2012, during the I Ibero-American Congress of Integrated Management of Coastal Areas, in Cadiz (Spain), 40.7 % of the total speech presented in the section “Management for the sustainability and adaptation to the climatic change” were about beaches. This result allows appreciating a gradual growth in this type of studies and their applications, although it was also evidenced that main attention follows setting in the descriptive analyses, in particular geomorphological and ecological issues. Moreover, majority of studies are still in stage of diagnostic, more than in the implementation and evaluation of a management truly *integrated*.

Great relevance for advance of integrated management of beaches in Latin America has been organization and operation of a virtual forum of discussion in the theme: the Ibero-American Beach Management and Certification Network – PROPLAYAS. This initiative starts from year 2006, integrating a wide number of professionals and work groups related with the topic, coming from Argentina, Brazil, Colombia, Cuba, Costa Rica, Mexico, Peru, Portugal, Venezuela, Uruguay, among other countries, which continues growing. This network has become the most active space in coordination of efforts and knowledge in management of beaches of the continent.

In this moment, in Latin America are develop diverse management models and certification schemes of beaches, mostly influenced by exogenous models. Many of these initiatives are framed in international cooperation projects, type north-south, although it is appreciated a slow growth of the focuses and initiatives of local scale and south-south approach. There is also evidenced the concepts and instruments dominating the field of the integrated management of beaches has strong influences of diverse scientific disciplines. Among those scientific areas, it is highlighted contributions from biology, geography and oceanography, very valuable, but always slanted by vision to a unique discipline and, for the same question, with a potential of partial application. The first forms and actions of administration of beaches in the region were directly related with solve erosion problems and physical degradation. As a result, practical and solutions were mainly from coastal Engineering, generating a very controversial and polemic topic, with defenders and detractors.

The beaches, against the predominant opinion during the decade of the 1960s, are much more than a fringe of sand, and therefore they should be interpreted, just as they are in fact, complex systems, in those modifications of anyone on their behalves supposes to general unbalance. The application of *hard solutions*, such as jetties, barriers breakwater, and other of this type, implicate negative factors for a natural dynamics and a convenient transport to natural system of the sand. Not mean that it is fair an absolutely negative valuation of this actuation type, because there are some examples of applications with positive results, but it is unquestionable that majority actions of this type has been negative consequences. This appreciation can corroborate in numerous critical analysis of the matter carried out in Colombia, Argentina, Brazil and other countries.

During years 1970s and 1980s starts a more integrated vision of the performances engineers, when being emphasized by several authors that they should be articulated with the scientific studies that allow a deeper knowledge of coastal processes

and causes and magnitude of erosion. Additionally, regulations and laws applicable to coastal environment and marine areas start to be included. Based on these principles, *soft solutions* have been applied, highlighting regenerations of beaches by means of the artificial injection of sand (beach feeding). According to Tristá et al. (2012) this technique presents ecological and aesthetic advantages with regard to other options. These authors point out that it does not introduce radical changes to natural conditions of beaches and environmental and visual impacts are low when normal conditions are recovered. Also, morphological profile and dunes of beaches suffer less with these *soft solutions*.

The fact is that in last three decades application of artificial injection of sand, it has become the alternative for majority of administration of beaches at world level, and in the Latin America case, applications show notably successful in Cuba, Dominican Republic, Jamaica, Mexico and Brazil, among other countries. However, they are many cases in which these coastal performances respond to owners' interests or punctual tourist companies, but not to true programmes of integrated administration of beaches, scientifically based and with a holistic vision.

On the other hand, this beach feeding is an expensive technique that can bear problems for increasing of sedimentary flow in the marine ecosystem and that, usually, requires to repeat the operation to restore reservations (Medina et al. 2001). Several detractors of marine artificial feeding with sand coming from submarine banks argue that this method is ecologically degrading, as long as it affects negatively to the marine ecosystems in those extraction take place. Also, in some cases, these projects cause a progressive burial of meadows of seagrasses and corals for the haulage of the poured sand (Rodríguez-Perea et al. 2002).

All above-mentioned explains importance to distinguish between integrated management of beaches and coastal Engineering. Several solutions to face erosion and to regenerate or maintain physical conditions of the beach, constitute an important component, but they are not equivalent, in its entirety, to the Programmes of integrated coastal management.

Another distinction is the equivalence between integrated management of beaches and conservation of the coastal ecosystems. The latter constitutes an action approach that has reinforced in the last years, derived of the concern for degradation of biotic component and affectation of the marine-coastal environmental quality. It is so, in an extreme position, defends the option of not acting, and one pleads for *to conserve and to stop in the time* to the ecosystems, what constitutes, in our opinion, a deviation of true integrated management of beaches. Indeed, it is also important involve these efforts into the Programmes of integrated management of beaches, and there are very interesting applications of these focuses, even in the context of programmes of handling conservation areas. Despite of many conservationist initiatives verified in Costa Rica, Ecuador and other countries, it is clear that integrated administration of beaches should advance toward a complex vision. In consequence, a group of management actions, even with dissimilar and concrete instruments, should guide to preserve the basic mechanisms of self-regulation and dynamic-functional balance of coastal systems, with all its components.

This way, and amid these burning debates, integrated management of beaches in Latin America has gone evolving toward the design and application of models characterized by more holistic base conceptions. Also, an articulate group of diverse performances and “less aggressive” techniques allow a progressive change toward a management of beaches and dunes, every time “more integrated”.

In a recent work, under the title *The integrated management of beaches and dunes: experiences in Latin America and Europe* (Rodríguez-Perea et al. 2012), more than 60 authors contribute with their vision to these scientific and technical debates. In this publication, several authors defend new conceptual-methodological approach and operative tools for a more integrated management of beach-dunes systems. As a result, topics such as restoration actions and protection of dunes, implications of geomorphological factors in implementation initiatives, use of studies of environmental perception, and performance based on observation systems, are expanding for Latin America.

In many cases, there are experiences of advanced applications, based in technical very particular, as non-retreat of remains of seagrasses, to counteract the erosive processes. Another example are installation of captor's tramps to retain the sands and to facilitate formation of embryonic dunes. More proposals are substitution of mechanized cleaning by manual cleaning of the beach, and elimination of facilities and equipment's beach that affects the sandy fringe. All of these initiatives are proliferating and begin a new tendency of integrated beach management.

In this context, Williams and Micallef (2009) have been emphatic in defining the central aspects that should be guaranteed in the integrated management of beaches. These authors consider important to be attentive of environmental impact that cause the structures and processes, to maintain the “amenity” of the beach, cleaning and security, observation to the quality of the water and appropriate benefit of the tourist services, among other. Meanwhile, Cabrera et al. (2009) propose a wide group of addresses of the integrated management, supporter in the experience of more than 20 years in the Varadero's beach (Cuba). These authors propose several actions, such as evaluation of erosion causes and tendencies of physical degradation of the beach, maintenance and improvement of the fringe of sand, restoration and protection of dunes, handling of residual liquids and of solid waste, environmental planning, prevention of natural risks and anthropogenic, inspection and systematic audits, education and actors' training, and a rigorous integral scientific monitoring of the beach.

It is necessary to highlight that beaches management has been frequently associate, sometimes in an absolute way, with administration of tourist certification. Nevertheless, many authors have insisted in that management actions in tourist beaches imply the articulation of environmental, sociocultural and institutional aspects. In any case, it has played a fundamental role application of the Norms ISO 9001 (Systems of Quality) and ISO 14001 (Systems of environmental management) to the beaches, that suppose an advance in the continuous improvement of facilities and in coastal environment.

In the case of the Colombian Caribbean, it has been proposed a management approach toward an environmental and tourist quality of beaches. Botero (2013) has design a model formed by a group of parameters organized in five categories: environmental,

facilities, safety/security, information and education, and management; scope of this proposal should be translated in concrete actions to advance toward improve sanitary, ecosystem and recreational quality on beaches. Another initiatives in Latin America can be seen forward, when beach certification schemes will be described. As a conclusion, very positive fact is that in all Latin America, gradually, have gone entering in implementation diverse models of beaches management, based on national legal frameworks and certification schemes, at different scales. That is a signal of maturity of this field in the continent.

2.3 Beach Quality Assessment Tools on the World

There exist a rather large number of award schemes, all ostensibly providing quality indicators of quality. The following are but a few examples of these awards and the reader is directed to Williams and Micallef (2009) for a detailed examination of the various award schemes in existence.

2.3.1 Costa Rica

The oldest scheme is based upon the Marine and Terrestrial Act (Ley Maritimo Terrestre), Coast Rica, Chaverri (1989), identified beaches suitable for tourism development. Its basis was 113 *positive* and *negative* factors, divided into six groups. These were: Water (10 positive and 16 negative), Beach (9 and 7); Sand (6 and 10); Rock (11 and 11); General beach environment (11 and 12); Surrounding area (5 and 5). Each group had a score ranging from 0 (*bad*) to 4 (*good*). Summation of the resultant scores gave a rating division that was very subjective and of doubtful validity – a very subjective methodology indeed. Parameters, such as, vegetation quality, coastal area wealth, were not explained and no weighting was carried out.

2.3.2 The Blue Flag

The most well known of European award schemes, it is run by the non-profit Foundation for Environmental Education, based in Denmark (FEE 2013). A beach is eligible if it is nationally/internationally designated as a bathing area, with at least one sampling point for water quality analysis and also has the necessary facilities and standards needed to comply with the criteria needed. The aim is coastal sustainability at all levels and it is awarded for only one season. Two criteria need emphasizing. The FEE place great store on what are termed Imperative (I) and Guideline (G) standards for Total coliform, Faecal coliform and Faecal streptococci counts. For an Imperative standard, a beach must comply in order to receive an award; Guidelines standards are not mandatory.

2.3.3 *UK. Quality Coast Awards*

The Quality Coast award introduced in 2007 by Environmental Campaigns (ENCAMS; – www.encams.org), recognizes different well managed, quality but diverse parts of a coastline available to different users and recognizes four categories: (a) Fun in the Sea: essentially water sport activities; (b) Away from it all: need to get away from the city, appreciate wildlife, scenic beauty etc. Essentially they want rural beaches; (c) Bucket and Spade: day trippers/holiday makers, need car parks, build sand castles, often with grandparents. Beach entertainment for children e.g. cricket, football, kite flying are important. Safety and water cleanliness are important; and (d) Relaxed recreation: a nice day out at the seaside. Food outlets, car parks, toilets etc. are needed. Often people have dogs and like long walks. Certain elements need to be in place before (e.g. carrying capacity assessments, no dog fouling) and during inspection (e.g. signage is of a good standard). It strongly recommends that a beach management plan is in place.

2.3.4 *The Good Beach Guide*

This book is published annually by the Marine Conservation Society (MSC), a Non Governmental Organisation (NGO) based at Ross on the Wales/England border, UK. It is divided into two main sections. The first part relates to water quality criteria: (a) Recommended (minimum sewage contamination); (b) MSC Guideline pass (mscG; sewage affected in heavy rain/certain tides); (c) European Union, Guideline pass (G). Fail EU mandatory test 5 % of time; (d) European Union Mandatory Pass (P) Pass above but large pollution risk; and (e) European mandatory Fail (F) Contaminated. The second section provides a range of information such a, beach descriptions, safety, litter, facilities, wildlife, seaside activities, accessibility and parking, public and tourist information.

2.3.5 *Ukraine*

The Ministry of Resorts and Tourism of Crimea have categorised award beaches as: Yellow shell. In 2012, as an initiative, beaches were classified into five categories based on the services provided. The ratings were: one to two Shells – toilets, showers, changing rooms. For example, Kapsel beach on Cape Meganom; three to five Shells – as above, plus web-cameras, Wi-Fi, sport water activities and games, sport yards, cafes and bars. For example, Sudak, Novyi Svet; five Shells – given for the good ecological conditions. For example, Massandra Beach, Yalta.

In addition, Blue Flag beaches occur. Currently there are seven beach areas that fly this flag. This evaluation technique does not cover any remote beach evaluations: Yalta – Massandra beach, beach of the hotel ‘Yalta-Intourist’; Evpatoria – the

‘Northern Medical Centre’ beach together with the beach associated with the ‘Interregional Centre for Labour, Health and Social Rehabilitation of Disabled People’; Sudak – ‘Kapsel’ beach on Cape Meganom and the ‘Novyi Svet’ Municipal beach; Illichivsk (Odessa province) – the city Municipal beach.

2.3.6 Portugal: Gold Award Quality Beaches

‘The environmental organisation Quercus (National Association of Conservation of Nature), awards a ‘Gold quality award’ to bathing areas which over the past 5 years, have obtained a ‘good’ grade in water quality standards. The rating scheme is limited in scope, as water quality is the only criterion and based on annual data provided by the Portuguese Institute of Water.

Myriad rating schemes exist that assess beach quality and give an award. But why do people go to a particular beach? Cutter et al. (1979) found that they went to the nearest beach. Work done by a variety of authors – see Williams and Micallef (2009), have confirmed this finding. However, this might be the first priority but for preference, >4,000 beach users who were questioned in Europe and the USA expressed a desire for five beach elements, in no particular order: safety, good water quality, no litter, facilities and scenery. In Latin America, Botero et al. (2013) findings added a *good warm beach atmosphere* to this list. But how many schemes have interviewed beach users? Most existing rating schemes have not taken cognisance of beach user views. In addition, how many schemes have weighted their questions? Inevitably all questions have been given the same weight, but some are more important than others. Do beach users know about rating schemes, do they care? Nelson et al. (2000) and Nelson and Botterill (2002) found that many people associated a flag with *danger*.

Do we need awards? If a beach is underperforming and an award will improve it, the answer must be *Yes*. However, the essence of good BM is that the manager knows his/her bathing area and can take steps to improve it irrespective of awards. McKenna et al. (2011) paper gives a salutary warning as to the significance of ratings/awards. Nevertheless, a wide perspective of schemes related with beach certification, classification and evaluation is shown at Table 2.2.

2.4 Beach Scheme Certifications in Latin America

Within this context of beach management and a *jungle* of awards, a detailed review of Latin American situation was done by Botero (2013). Main objective of this research was to propose a common framework for existing awards in this continent, but only those defined as a Beach Certification Schemes – BCS in the sense of “*set of administrative and operative elements, which through a systematic assessment, endorse continuous improvement of holistic conditions of the beach and recognize to the public an effective management*” (Botero 2013:87).

Table 2.2 Certification, classification and evaluation tools on the world

Name	Kind of tool	Application area	References
Blue Flag (www.blueflag.org)	Certification (ecolabel)	Europe, Africa, Oceania and America	Cagilaba and Rennie (2005), Vaz (2008), Williams and Micallef (2009), ECOSAMBITO (2007), Botero et al. (2012), FEE (2013), ECOSAMBITO (2007), Botero et al. (2012), MINAET (2011)
Bandera Azul Ecológica (www.aya.go.cr)	Certification (ecolabel)	Costa Rica	ECOSAMBITO (2007), Botero et al. (2012), MINAET (2011)
Bathing Area Registration and Evaluation (www.bare-beach.com)	Evaluation and classification	Mediterranean	Cagilaba and Rennie (2005), Vaz (2008), Williams and Micallef (2009);
Beach Quality Index	Evaluation	Spain	Williams and Micallef (2009); Ariza (2007)
Beach Safety in Australia (www.surflifesaving.com.au)	Evaluation	Australia	Cagilaba and Rennie (2005); Williams and Micallef (2009)
Blue Wave and Clean Beach (www.cleanbeaches.org)	Certification (ecolabel)	United States	Cagilaba and Rennie (2005), Williams and Micallef (2009), ECOSAMBITO (2007),
Certificación Turística de Playas (www.turismo.gob.ec)	Certification (ecolabel)	Equator	INEN (2012)
Clean Beaches (www.kabq.org.au)	Certification (award)	Australia	Cagilaba and Rennie (2005)
Environmental Campaigns (www.encams.org)	Certification (ecolabel)	United Kingdom	Cagilaba and Rennie (2005), Williams and Micallef (2009)
Escala Delfín	Evaluation	Rumania	Williams and Micallef (2009)
Good Beach Guide (www.goodbeachguide.co.uk)	Classification	United Kingdom	Cagilaba and Rennie (2005), Williams and Micallef (2009)
Green Sea Initiative (www.dwrcymru.com)	Certification (ecolabel)	United Kingdom	Williams and Micallef (2009)
Guida Blu (www.legambiente.it)	Evaluation	Italy	Williams and Micallef (2009)
Índice CEDEX (www.cedex.es)	Evaluation	Spain	Williams and Micallef (2009)
National Healthy Beaches Campaign (www.healthybeaches.org)	Evaluation	United States	Cagilaba and Rennie (2005), Williams and Micallef (2009)
Norma Q (www.aenor.es)	Certification (Sistema gestión)	Spain	Williams and Micallef (2009)

Playa Ambiental				Cuba	Botero et al. (2012), JCPV (2008)
Playa Natural (www.ceadu.org.uy)	Certification (ecolabel)			Uruguay	ECOSAMBITO (2007), Botero et al. (2012), MINTURD (2008)
Playas and Balnearios de Calidad (www.ambiente.gov.ar)	Certification (ecolabel)			Argentina	ECOSAMBITO (2007), Botero et al. (2012), Dadón (2005)
Praia Dourada	Evaluation			Portugal	Williams and Micallef (2009), Vaz (2008)
Award Ecoplayas (ecoplayas.rcp.net.pe)	Certification (award)			Peru	Botero et al. (2012), ECOPLAYAS (2007)
Award Ecoplayas (www.ategrus.org)	Certification (award)			Spain	ATEGRUS (2012)
Quality Coast Award (www.keepbritaintidy.org)	Certification (award)			United Kingdom	Vaz (2008), Williams and Micallef (2009)
Sostenibilidad para Destinos Turísticos de Playa (www.mincomercio.gov.co)	Certification (ecolabel)			Colombia	ECOSAMBITO (2007), Botero et al. (2012), ICONTEC (2011)
Sustentabilidad de Calidad de Playas (www.semarnat.gob.mx)	Certification (ecolabel)			Mexico	ECOSAMBITO (2007), Botero et al. (2012), SEMARNAT (2006)

Information of nine BCS was obtained after 4 years of searching in many different sources: (a) Official documents provided or published by organizations in charge of each BCS (i.e. Foundation for Environmental Education for Blue Flag); (b) Scientific documents such as papers, books and thesis related with beach management in Latin America; (c) Interviews with several officials of governments and organizations related with tourist beaches; (d) Interviews and discussion with many researchers of Latin America, mainly members of PROPLAYAS Network; (e) Visits to beaches in Argentina, Brazil, Colombia, Cuba, Ecuador and Uruguay.

All information acquired was organized in a common structure for the nine BCS. This procedure allows analyse each scheme in the same pathway, in order to describe its origin, management framework, structure and implementation. First part describes the establishment of the BCS in its own country, analysing the legal, political and technical framework existing in these times. Second part, management framework, is focused in those organizations with any role or function related with promotion, implementation or assessment of the BCS, and also describes procedure to obtain the award. Third part is the most technical, due to it describes all criteria required to endorse quality within particular sense of 'beach quality' gave for each BCS; this part is focused in those 'categories' in which criteria is grouping. Finally, a general description of implementation of BCS during years and geographical coverage reached is commented in the fourth part. In order to synthesize all this information, originally in Spanish, each BCS in Latin America will be shown.

2.4.1 Argentina: IRAM 42100

The Argentinian BCS, IRAM 42100, starts at 2003, when is created a commission for writing the Guidelines for Beach and Bathing Areas Quality Management. This commission was steered for the University of Buenos Aires and they tested these guidelines in three coastal cities: Mar del Plata, Necochea and Villa Gesell (Dadon 2005). At the same time, at 2004 was approved the Environmental Policy for Growing and Equity and afterwards, at 2005, the Strategic Federal Plan for Sustainable Tourism. Within this context the BCS was created as a Technical Guideline for the Argentinian Institute of Standardization – IRAM, therefore its name and number (IRAM 42100).

As a result of its origin, the IRAM 42100 is managed by the Argentinian Institute of Standardization. This organization do all tasks related with promotion, auditing and certification of bathing areas interested in be awarded. Punctually, main difference of this BCS over others is its focus, which is not a beach, unless a small portion of coastal zone called *bathing area*. This model is very common in Argentina and Italy, but not in other countries (see Fig. 2.1). This scheme has the advantage that defines clearly the responsible of management, but at the same time the disadvantage is fragmentation of beach in several units; in a beach can be more than 20 *bathing areas* independent among them.



Fig. 2.1 Typical use of the beach in Argentina

The BCS is awarded for 3 years, although each year is an auditing procedure done by IRAM's consultants. All visits for auditing are paid for owner of the bathing area, and also guidelines to start implementation of scheme have a cost. Majority of improvements of the beach are done for the private sector (bathing areas), with a slight cooperation with public institutions. Nevertheless, guidelines ask for users' perception surveys, allowing continuous improvement of quality.

About its structure, IRAM 42100 does not depend of type of beach, due to scheme is focused in subunits (bathing areas) of the beach. It has six categories of requirements: (1) Environment, coastal scenery and resources; (2) Infrastructure and facilities; (3) Safety and security; (4) Staff; (5) Environmental information and education; and (6) Management system (Fig. 2.2). This BCS is very close to ISO standards, but it can be considered as an ecolabel because all requirements are predefined.

Finally, implementation of IRAM 42100 has been less than expected. After 8 years, only three *bathing areas* have been awarded and only one in coastal zones; other two were obtained in rivers. Nevertheless, the owner of this *bathing area* highlighted advantages of BCS, specially related with improvements of infrastructure and demand for next tourist season. In the other side, no one of the three 'pilot' beaches had any bathing area awarded, as was expected in 2005. In conclusion, success of this BCS is very limited, perhaps due to high costs of implementation, strictness of guidelines and weak interest of public institutions at local scale.

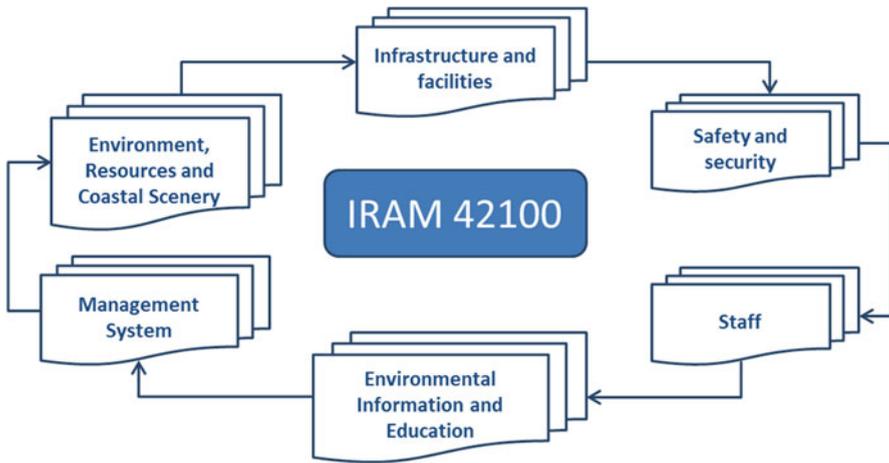


Fig. 2.2 Structure of categories of IRAM 42100

2.4.2 Colombia: NTSTS 001-2

The Colombian beach scheme certification was an initiative of Ministry of Trade, Industry and Tourism, following the National Tourism Law (Law 300 of 1996). This institution created the Sustainable Tourism Sectorial Unit, which was in charge of formulate six Technical Standards for tourism industry, being one of them about beaches. As a result, in 2007 the National Standards for Sustainable Tourism in Beach Destinations was approved with code NTSTS-001-2. Despite of public support, after 4 years without implementation, in 2011 the certification scheme was evaluated and approved a new version.

About its management framework, this certification is property of Ministry of Trade, Industry and Tourism; therefore its implementation should follow national tourism guidelines. Nevertheless, assessment of a particular beach, in order to give certification, can be done for any company approved for auditing technical standards. When a beach passes the evaluation procedure, the Ministry give the certification NTSTS-001-2 for 3 years, although each year has an auditing visit.

One of the most interesting aspects of Colombian BCS is its scope. Normally beach certifications cover strictly the ridge of sand and the bathing area of beaches, but NTSTS-001-2 is focused in classical tourism concept of “destination”. This particular scope, wider than normal certification schemes, allows managing not only the beach, but also its surrounding areas. At the same time, its scope has as a disadvantage the difficulty to establish an exact edge of beach management area, because it is according to the destination borders.

Structure of the Colombian beach certification scheme is composed by three general categories and four specific ones (Fig. 2.3). The formers are related with legal issues, a sustainable management system and territorial destination area. About specific categories, they are related with environmental, security/safety,

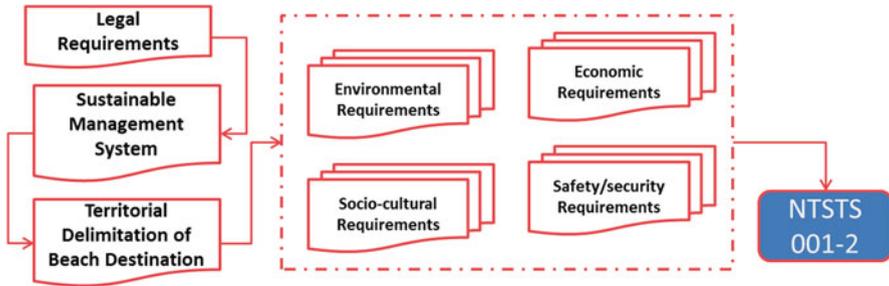


Fig. 2.3 Structure of Colombian beach certification NTSTS-001-2

socio-cultural and economic issues, each one with several requirements to fulfil. A beach with 100 % of these aspects covered will obtain the beach certification, but normally it is so difficult for any initiative of a single beach. Moreover, when all requirements are compulsory, continuous improvement is not necessary, because the beach must fulfil all aspects before obtain the certification.

As it was commented above, after 4 years this certifications was evaluated and a new version approved. However, it happens because no one beach was awarded with the NTSTS-001-2 scheme, despite of efforts of Ministry of Trade, Industry and Tourism for its implementation. During 4 years this Ministry spent almost 100,000 US dollars promoting a pilot case in the north coast of Colombia, in a highly conserved beach within a national park. Nevertheless, this initiative was leded from Bogota, 1,000 km away of Caribbean coast, and for consultants with limited experience in beach management; as a result, the beach was not certificated. There are other examples of initiatives supported by the Ministry, such as the beach *El Morro* in Tumaco Islands, at the pacific coasts, but nowadays no one has the award NTSTS-001-2.

2.4.3 *Costa Rica: Bandera Azul Ecológica (Ecological Blue Flag)*

Beach certification scheme of Costa Rica was the first created in Latin America. It was established in 1996, by the Water and Sewage Institute, with many other institutions such as National Tourism Institute, Ministry of Environment, Energy and Communications and Ministry of Public Health. This BCS is the only one approved and updated by presidential decrees, during its more than 15 years of existence. Due to success of Ecological Blue Flag – EBF, since 2001 this award is also given to local communities inland. As a result, in 2012 this certification scheme had nine categories, being beaches only one of them.

Administration of EBF is leded by a national commission conformed for ten different institutions, among public and private ones. Main responsibilities of this commission are: (a) To prepare an annual working plan; (b) To assess, audit and

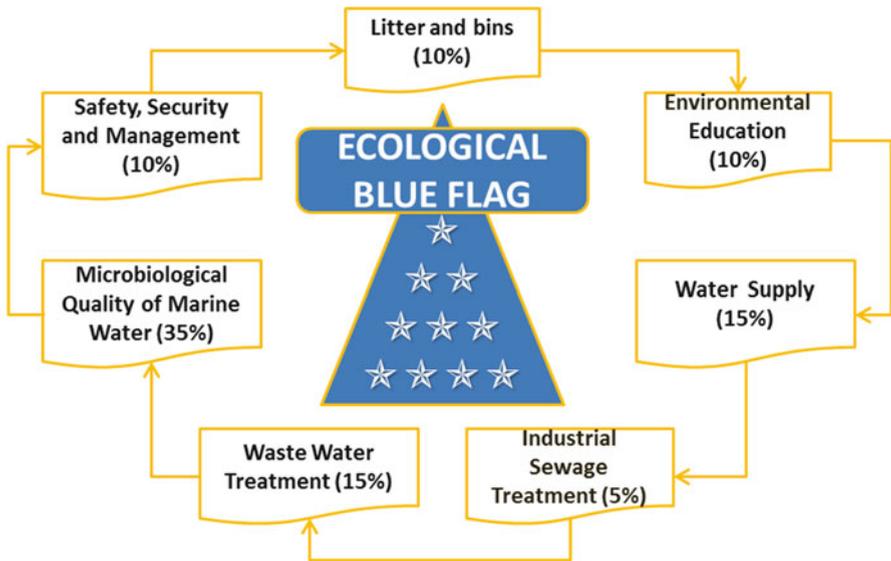


Fig. 2.4 Structure of beach certification scheme of Costa Rica

monitor local committees winners of previous certification; (c) To adjust any requirement of the certification scheme for future implementation. In brief, almost whole administration of BCS is in charge of this national commission.

At local level, communities linked to beaches must create a *Pro-EBF Committee*, which will lead application for the award. Procedure to obtain the award starts in March, when each committee must send documentation to the national commission. In April local committees must send a working plan and in December they must submit an annual inform. A particularity of this scheme is that water quality sampling is done by AYA, meanwhile in others BCS is done by each beach’s responsible. The Pro-EBF Committees have to be conformed at least for five members and they must receive two or three auditing visits per year.

Structure of certification has seven categories, each one is weighted accordance with importance for beach management; in Fig. 2.4 can be seen proportion of each category. Majority of requirements are focused in environmental and sanitary aspects, as a result of its origin in an institute of water and sewage. EBF has a big advantage due to its multilevel assessment, which is represented in five stars as a maximum recognition; first stars are related with environmental aspects and latter with improvements in services and facilities.

Ecological Blue Flag is the most implemented BCS in Latin America. Its success stem from the huge public support received during more than 15 years, and very clever strategies in its administration, such as committees with local community and the multilevel structure mentioned before. Moreover, assessment of beaches awarded is rigorous, as it is demonstrated for many flags lost each year in different localities.

Despite of that, during year 2012 the national commission awarded hundred beaches in this small Centro American country, an evidence of its success. Perhaps only weakness is absence of beach typologies and measure of carrying capacity, zoning and public perception.

2.4.4 Cuba: Playa Ambiental (Environmental Beach)

Beach Certification Scheme applied in the Republic of Cuba is called Environmental Beach. This scheme is the result of implementation of the Environmental Management Programme of Varadero Beach, run by the Office of Varadero's Coastal Management (JCPV 2008). The scheme is created in May 2009 by the Ministry of Science, Technology and Environment – CITMA, framed by Decree Law No. 212 of 2000. Previous, between 2002 and 2005, several meetings between authorities of tourism and environment were conducted to analyse the application of any of the existing schemes, such as the Blue Flag Programme and the ISO 14001 standard. The result was the creation of a scheme adapted to the Cuban socio-political reality, in a context of high state control, which is hardly compatible with the schemes supported by NGOs.

The certification *Environmental Beach* is a scheme of provincial character, so far it was designed to hotels and entities located in the first line of Varadero beach. Certification must be requested by a group, committee or body in charge of beach management and conformation of it is one of the general requirements. The brand is owned by the Provincial Delegation of the Ministry of Science, Technology and Environment, and in particular the Department of Environment, that's who can grant or to remove the award according to compliance and maintenance requirements.

Regarding evaluation of requirements, it begins once the beach committee or body formally request to the Territorial Delegation of CITMA, submitting the required documentation. After reviewing the documentation, an Evaluation Committee must visit the beach and check that it meets the general requirements as well as the 13 categories of criteria established by its rules (JCPV 2008). Once this committee reviews that the beach meets the minimum qualifications, the awards is delivery for 3 years. From this point can be displayed Environmental Beach emblems, although it must pass an annual review and periodic audits performed by CITMA, which may involve proceedings for annulment and withdrawal of certification if failures are evident.

The Cuban BCS is quite solid, being composed of two distinct blocks. Initially, there are four general requirements, which are prior to the improvement of the beach conditions. These requirements begin with the creation of the group, committee or manager in charge to certify the beach and after it should establish a public environmental commitment. Accompanied by these two requirements, it is compulsory identify current legislation, corroborating its full implementation. Finally, it is verify easy and safe access throughout the length of the beach, protecting its property as a public area.

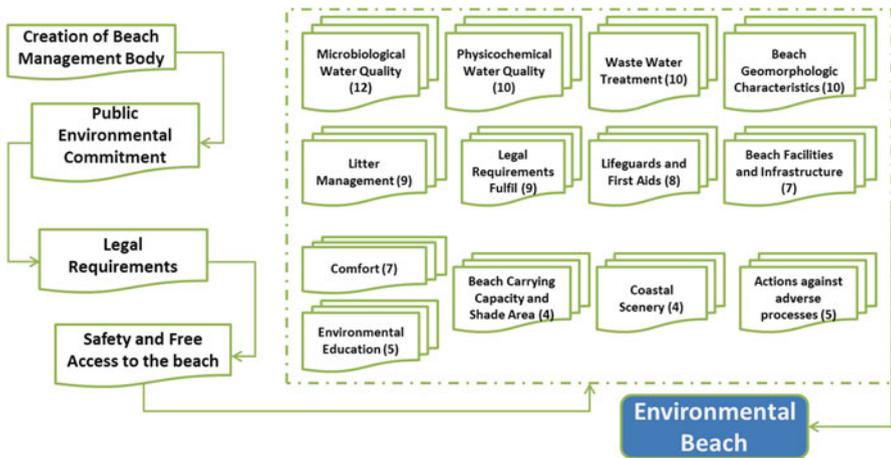


Fig. 2.5 Structure of Cuban beach certification scheme

Once the general requirements area achieved, there are 13 categories that must meet the beach, as shown in Fig. 2.5. Each category has a percentage value of points, which were established by a panel of experts, following the Delphi Method (JCPV 2008). This scheme considers itself as an “Environmental Management System”, thus the categories with higher values are related to water quality and wastewater treatment. Main weaknesses are the absence levels of assessment, differentiation of types of beaches and measurement of user perception.

About its implementation, between 2010 and 2012 had been delivered three certified beaches in Varadero and were still under evaluation five applications, not only in Varadero but also on the beaches of the city of Matanzas. Likewise, in the second half of 2012 was considering extending the scheme to the five provinces of the GEF’s Project Sabana-Camagüey. If this implementation is materialized, and considering the state of Cuban State hierarchy, we can predict that within 5 years, this BCS would be one of the most implemented in Latin America.

2.4.5 Ecuador: INEN 2631

Beach certification scheme in the Republic of Ecuador comes from sustained and funded effort in integrated coastal management for over 20 years. In 1984 Ecuador began a coastal zone management programme, funded by resources of the cooperation agency of the United States of America – USAID, for two million dollars. Subsequently, the Inter-American Development Bank – IDB granted two loans to implement the Programme of Coastal Resources Management – PMRC, funded with 12 million dollars between 1987 and 1996, and 14 million dollars between 2001 and 2004; most PMRC actions focused on support aquaculture, but also were invested resources in tourism.

In 2006 the consulting company perform various studies and consultation processes in the Ecuadorian beaches. As a result, they write the Handbook of Technical Standards for Beaches Tourist Certifications (PMRC 2007), as well as a consultancy report with worthy information and excellent comparative analyses (ECOSAMBITO 2007). Finally, in 2011, between September and December, the Technical Sub-Committee on Sustainable Tourism of Sun, Sea and Sand was created in the Ministry of Tourism; in March 2012 they officially approved the beach scheme certification, called INEN 2631:2012.

The INEN 2631 standard is managed by the Technical Steering Committee and Monitoring – CTSM, which is led by the Ministry of Tourism and composed of representatives from 12 institutions. To start the certification process on a beach, a Local Beach Management Committee – CLGP should be formed, consisting of at least five members in urban and rural beaches and six in uninhabited ones; members stay in their roles for 1 year minimum. The main responsibilities of CGLP are: (a) Represent the beach enrolled in the certification process; (b) Manage compliance with the quality requirements of the beach to obtain, maintain and renew the certification of tourist beach.

One of the most interesting aspects of the administration of the Ecuadorian certification is the ongoing collection of information on the beach. The Local Beach Management Committee must make permanent monitoring all weekends and holidays of the year, recording it in a form provided in the Standards for this function. Monthly, the CLGP sends the information collected from monitoring to the Technical Steering Committee and Monitoring for global processing (INEN 2012). Similarly, the CLGP must submit an annual activity report to the CTSM with respect to compliance with the requirements of the standard. For certification and renewal of the award, an assessment is made during the peak months, without notice.

The Ecuadorian scheme, as a result of specific studies for its creation and review of other certification schemes, has a structure more consistent and clear than most schemes previously created. The three main aspects that define its structure are: (a) Assessment requirements in three distinct types of beach; (b) Certification levels; and (c) Homogeneous categories of requirements. In fact, about requirements to assess and their organization, the scheme has a first category of *General Requirements*, which include criteria such as gathering of information and the creation of the Local Beach Management Committee. Then, they must meet circa 70 aspects, grouped in 7 categories or axes (Fig. 2.6). Although not all requirements must be applied in the first level of certification, it is considered that in any case their amount is excessive to start a management process in a Latin American beach.

Finally, in the second half of 2012 was barely starting the implementation of the ECP, given its recent creation. However, in interviews conducted in Guayaquil in July 2012, as well as the fluid contact with those responsible for certification in Ecuador, it is known that the Ministry of Tourism is promoting the certification of four beaches in the Ecuadorian coast, with assistance of a working group led by an expert in tourism and community organization. The goal of this organization was to begin certifying beaches in 2013, although there is no information of this result.

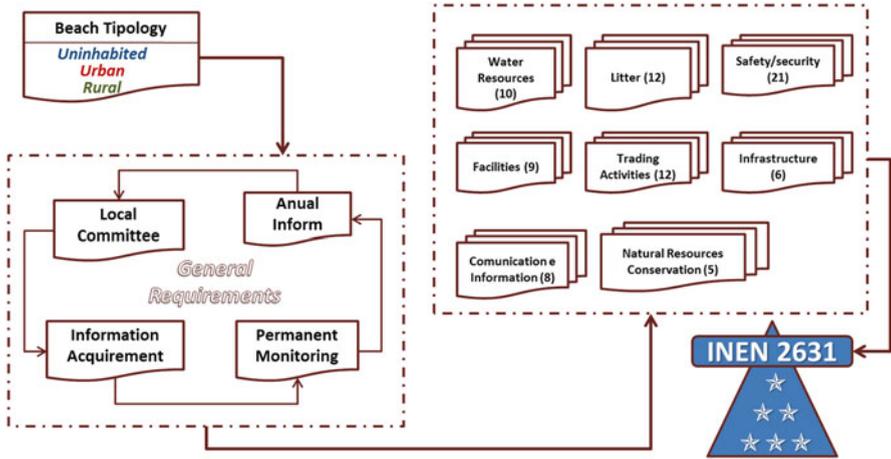


Fig. 2.6 Structure of Ecuadorian certification INEN 2631

2.4.6 Mexico: NMX-AA120-SCFI-2006

The Mexican BCS has its beginnings in the Clean Beaches Programme, which focuses on water quality at beaches. This was a joint initiative of the Departments of Navy, Environment, Health and Tourism. Subsequently, the Clean Beaches Committees, who are responsible for managing the beach, arise as a derivation of the Watershed Councils. In May 2003, in a meeting in Nuevo Vallarta, the institutions most closely related to the management of tourist beaches agree to create a Mexican beach certification. After 3 years of work, coordinated by the Secretariat of Environment and Natural Resources – SEMARNAT, in 2006 is published in the Official Gazette the Mexican Standard NMX-AA-120-SCFI-2006.

The coordination of the BCS is done by the environmental authority (SEMARNAT), in contrast with other countries where certification is dependent on the tourism authority. About managing the beach to be certified, the Standard NMX -AA -120 states that may be requested by municipalities, Clean Beaches Committees and/or individuals and companies interested in assessing the quality of the beach. To begin the certification process, they must initially submit an application to the SEMARNAT that is downloaded from the website of this institution, attaching the questionnaire included right there. Upon receiving the request, SEMARNAT directs it to the Mexican Institute of Standardization and Certification – IMNC, who sends a new request form certifying the quality of beaches to the applicant, which must be completed and handed back to IMNC. This standardization institute is in charge of doing the audit, which has a significant cost. If the result is approving, the applicant receives a flag that should be placed on the beach. This certification is valid for 2 years, but must undergo an assessment to audit a year of fulfilled granted, which follows a similar procedure to obtain.

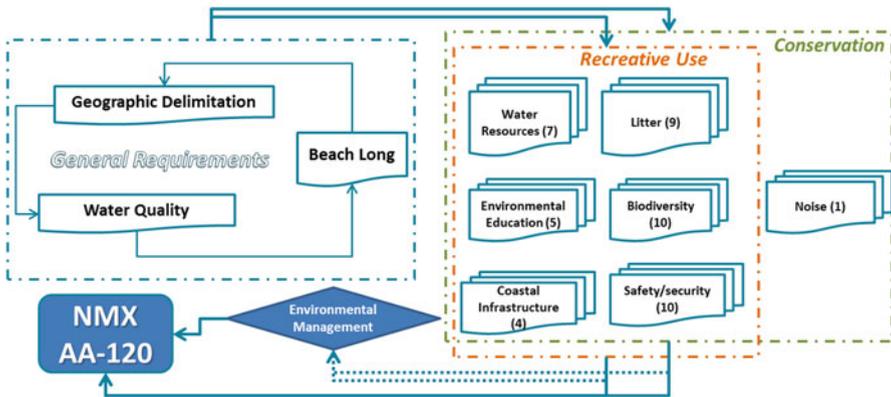


Fig. 2.7 Structure of categories of Mexican beach certification scheme

The NMX-AA-120 Standard considers two types of beaches for certification: (a) Recreational, defined as those where leisure activities are performed; and (b) Beaches under Priority Conservation, being those located within the territorial limits of various types of protected areas. NMX-AA-120 standard has a first category of *General Requirements*, which include mapping and bathing water quality aspects. Once these are fulfilled, each type of beach has specific criteria, but categories are almost identical: (a) Water Resources, (b) Litter, (c) Coastal Infrastructure, (d) Biodiversity, (e) Safety and Security, and (f) Environmental Education. In beaches with priority for conservation, further requirement is included relating to noise pollution (Fig. 2.7).

Since its creation in 2006, the NMX-AA-120 standard has been increasing year by year coverage on the wide Mexican coastal zone. For the second half of 2012, 14 beaches were certified between the Pacific coast and the Caribbean, being the former where the majority (11) are located. Certified beaches are available on the website of SEMARNAT, which is updated monthly with information provided by the IMNC. Although the amount of certified beaches is higher than that achieved in Argentina or Colombia, countries with similar certification schemes and coastal lengths, value is less than what would be expected for a BCS with 6 years of implementation.

2.4.7 Peru: Premio Ecoplayas (Ecoplayas Award)

The Beach Certification Scheme in Peru is not a permanent management system, unless an award that is given annually. It was originated in 2006 as a private initiative of the Peruvian Beaches Ecological Organization – ECOPLAYAS, which has administered it from that date to 2012. Due to it is a private initiative, which also only gives three awards per year, one per category as will be explained further, its development has been minimal during its 6 years of existence.

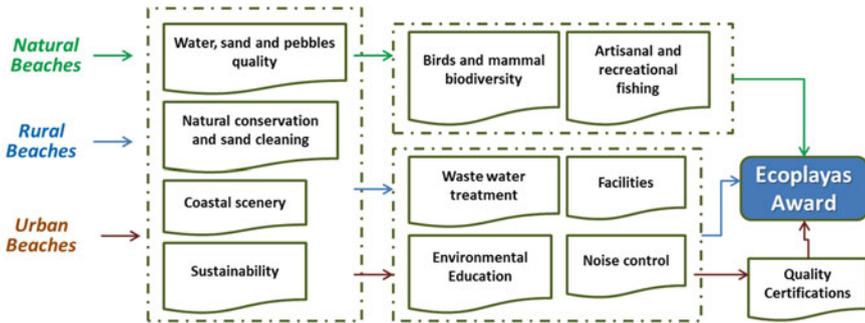


Fig. 2.8 Structure of categories of Ecoplayas award

The administering organization exercises all functions of the award, from promotion to evaluation. The participatory process has five steps, which are followed consecutively. Initially, between mid-December and mid-January, the institutions interested in participating should register online at the website of the Organization ECOPLAYAS. Once all applications are received, the managing organization team visits each of the beaches and evaluates requirements according to the category in which was inscribed the beach; this visit is prearranged with the requesting institution. After gathering information and verified on-site conditions, a Jury reviews the evaluation reports and decides in closed session to reward three beaches, one per category. Finally, the last days of March, the awards ceremony is done which public authorities and press participation.

The prize is awarded annually, consisting of a trophy-winning permanent possession and delivery the *Ecoplayas Flag* for 1 year, which shall be hoisted on the award-winning beach. As a particular case, if a beach wins for three times the award, it will be granted in perpetuity possession of Ecoplayas Flag. When a beach earns the award, to be presented again to the prize, it must wait at least 1 year.

The ECOPLAYAS award has three categories of types of beaches: natural, urban and rural. *Natural Beaches* are considered those with minimal human intervention and which can make sports and ecotourism. The *Urban Beaches* are coastal areas that are near or in cities with large populations. These beaches must have roads and public transport, a significant flow of visitors in the tourist season and good urban infrastructure and public services. Finally, the *Rural Beaches* are those coastal areas located in the vicinity of cities with small populations and rural geographical environment, but with seasonal influx of visitors; they must have minimum infrastructure services to the public.

Assessment requirements are very similar among the three categories, difference being some specific criteria for each type and strength of aspects, such as services to the public. All categories have four common requirements, which are: (a) Natural conservation and cleaning; (b) Water, sand and/or pebbles quality; (c) Coastal scenery; and (d) Sustainability (Fig. 2.8). Specific requirements for Natural Beaches are: (a) Presence of typical biodiversity of birds and/or mammals, and (b) Freedom to practice artisanal and recreational fishing. On the other side, urban and rural beaches

share most of their specific requirements: (a) Wastewater treatment; (b) Facilities (baths, showers, bins/cans, umbrellas, sports facilities, etc.); (c) Noise Control; and d. Environmental education; as an exclusive requirement for urban beaches is included existence of other quality certifications, which is quite striking, since it allows (and promote) multiple certification.

ECOPLAYAS award has been given since 2006 without interruption, which means 18 beaches awarded until 2012, although some have repeated the award. Due to this award is granted only for three beaches per year, its application has been restricted to this number, without have been considered extension to more winning beaches until the end of 2012. As a weakness of this BCS, historical information about winning beaches is not available, neither about structural changes during its implementation.

2.4.8 Puerto Rico, Dominican Republic and Brasil: Blue Flag

As already mentioned above, Blue Flag is the most recognized and ancient beaches certification scheme in the world, being as well the most studied in the literature (Botero 2008, 2009; Cagilaba and Rennie 2005; ECOSAMBITO 2007; Vaz 2008; Williams and Micallef 2009; McKenna et al. 2011). However, their success has roots in December 1975, when the European Commission adopted the European Bathing Water Directive 76/160/EEC, marking a change in the assessment of the environmental quality of bathing areas and maritime beaches.

Due to an innovative blend of environmental conservation with tourism promotion, the programme impact quickly the European countries and after abroad, being present in 46 countries in 2012. However, their creation in Latin America dates back to 2004, when it was the first Blue Flag raised in the continent. It is noted that Blue Flag is a registered mark of an NGO, which only depends on itself to fit each country, avoiding the lengthy administrative processes of public bodies and standards organizations that have had to follow other Latin American BCS for its creation. In this sense, if a country wishes to participate in the Blue Flag programme, the first step should be to register as a non-profit organization called *National Operator*, for which it must follow a series of steps: (a) Organization of a Blue Flag seminar/workshop; (b) Establishment of a National Blue Flag Committee; (c) Assessing the feasibility of permanence Blue Flag; and (d) Implementation of a pilot phase of the Blue Flag programme. Once this procedure is completed, authorization to use the brand is given to the National Operator.

The management of the Blue Flag Programme is focused on this National Operator, although its application guidelines are not defined for each country, but they are centralized at the Head Office of FEE, in Denmark. The role of the National Operator focuses on two aspects: promoting and evaluating the beaches in their jurisdiction. In regard to the promotion of the programme, one of the great successes of this BCS is it public and fully mediated delivery of the certifications to beaches that have passed the evaluation process. Regarding the assessment of the

beaches, a Blue Flag beach can only be requested by the municipal authority (mayor), which is very relevant in countries with strong local governments, such as the case of Europe, but it is a weakness in countries like those of Latin America, where the political responsibility for environmental issues is still scarce on the local scale.

The Blue Flag award is given annually, receiving nominations for a period established by each country (e.g. Puerto Rico: May to June). Applications are selected for a National Jury that which main authorities with beach management responsibilities are represented. Once applications are approved at the national level, they are forwarded to the International Jury, which is composed of representatives of the FEE and the international partners of the Blue Flag Programme. The jury ultimately decides which flags are to be delivered for the following year, in each of the 46 countries that make up the programme. The certification comes through referral documentation, not an audit in situ, marking a profound difference with those BCS based on standards. Therefore, fulfilment of criteria is ensured by various means, such as monitoring of local authorities, results of official analysis of bathing water and inspections carried out by the National Operators and the International Blue Flag Coordination Programme. Again there is a weakness of the Blue Flag programme in Latin America, because after a decade of the century, it is not still common systematic and rigorous monitoring of bathing water quality on beaches in the continent.

However, as noted by the Blue Flag Programme itself, the best observers for meeting the requirements are the users of the awarded beaches. In fact, if the National Operator receives repeated complaints from users, it can remove the flag, or at least make a visit verification conditions that can also result in the cancellation of certification. A very special situation allows for this BCS, because if some beach not met sometime certain requirements, such as the quality of the bathing water, it is allowed to lower the flag until it reach again the level of quality and so it can be raised again.

The Blue Flag Programme requirements are grouped into four categories: (a) Water Quality; (b) Environmental information and education; (c) Environmental management; and (d) Safety and services (Fig. 2.9). It is noted that the BCS has a strong bias towards environmental requirements, being the centre of three of the four categories. The Blue Flag Programme is applicable in any type of beach, but due to the minimum required infrastructure and equipment, has been widely criticized for its use on not urban beaches (Nelson and Botteril 2002; Nelson et al. 2000). However, going against several of the most critical scientific papers to Blue Flag (Rees 1997; McKenna et al. 2011), the BCS does not have much more demanding requirements than other certifications such as Argentinian or Ecuadorian ones. Perhaps the weakness of the programme is not so much the application of equipment, such as the inability to adapt to the types of beach according to the natural variable.

As was commented before, Blue Flag Programme began in Latin America in 2004, when the first four beaches in Puerto Rico were certified. Subsequently, it was implemented in Dominican Republic (2004) and Brazil as the last country that has joined the ECP in the continent (2009). In Blue Flag website appears also an

Fig. 2.9 Structure of Blue Flag requirements



institution in Mexico, however in 2012 this country had not yet received any flag. Regarding the number of certified beaches in the continent, for 2012 were given 21 Blue Flags, divided in 7 to Puerto Rico and 14 to Dominican Republic and no one in Brazil. In proportion to other BCS less recognized, as the Ecological Blue Flag Programme or NMX -AA -120 Standard, the Blue Flag Programme coverage is still low.

2.4.9 Uruguay: Playa Natural (Natural Beach)

The Natural Beach Standard was developed in 2003 by a group of experts from the NGO Centre for Studies, Documentation and Analysis of Uruguay, from a request of the Ministry of Tourism and Sports – MINTURD. Officially, the Standard was approved by the Executive Decree 406 of 2003, in order to use it as promoting environmental certification on beaches. For processing, other schemes were consulted, such as Blue Flag and Blue Wave, although the approach finally proposed was much closer to the ISO 14001 environmental management standard, which profoundly defined their ultimate design.

The Natural Beach management is focused entirely on the Ministry of Tourism and Sports, who is also the owner of the trademark. This issue should be emphasized, since it demonstrates a unique consistency of *national brand* (Uruguay Natural) with the beach certification scheme. The relevance is supported because a certification is primarily *recognition*, then for making it more convenient for a BCS national in scope, it should have same image as the country. Moreover, management the certification on the beach is via a Responsible Party Beach – GRP, which may be a public or private organization with demonstrable environmental management authority over the beach, such as the Mayor Municipal Commission of Development, a local NGO, a business chamber or to a neighbourhood association.

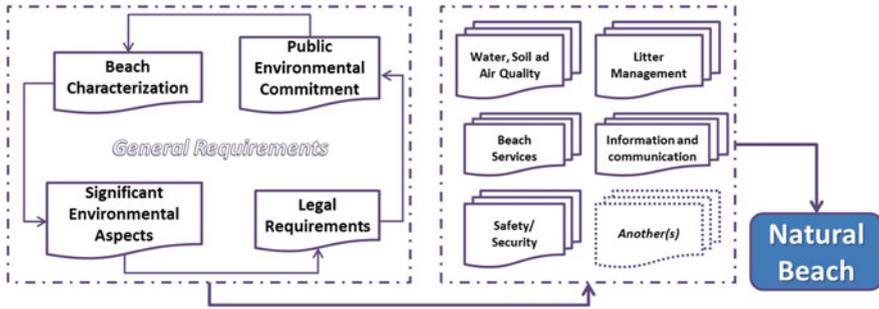


Fig. 2.10 Structure of categories of Uruguayan beach certification scheme

The assessment process begins with requirements to MINTURD and a certification body accredited to this standard. Subsequently, the external audit is performed by the certifying body, which sends the results to MINTURD who, if satisfied that all requirements are met, gives the award to the beach. As is common in the certification process, the GRP should bear all the expenses arising from the external audit, as well as improving the condition of the beach. The duration of certification is up to 12 months, as explicitly stated in the rule is valid until 31 March following delivery, being consistent with the summer in the southern hemisphere. To renew, it should hire a certification body, which performs the external audit and send the results to MINTURD again.

Natural Beach scheme is more consistent with the certification of management systems, both environmental and quality. Although other BCS, like Colombian or Argentinian, promote the implementation of management systems, Uruguayan scheme really works as such. Importance of this structure is that instead of placing specific requirements to meet, the scope of certification is the quality of health, ecosystem and recreational conditions of the beach. This aspect is quite confusing, but part of understanding is the ability to differentiate a management system of an eco-label, such a Blue Flag Programme (WTO 2002).

Uruguayan BCS has a category of general requirements, framing four aspects: (a) Beach characterization; (b) Public environmental commitment; (c) Significant environmental issues; and (d) Identification of legal requirements. Additionally, it must establish five environmental management programmes, depending on the following areas: (a) Water, air and soil quality; (b) Litter Management; (c) Beach Services; (d) Information and communication; and (e) Safety and security. In addition to these five programmes, the Responsible Party Beach may add it deems necessary for the proper environmental management of the beach (Fig. 2.10).

Baseline information of this standard is curiously low, since BCS is very focused on brand recognition. However, in 2008, during the 5 years after its adoption, a workshop organized by the PROPLAYAS Network review its implementation and make adjustments in the text for their improvement (PROPLAYAS 2008). In this

activity it was concluded that after 5 years of implementation, it had accumulated enough experience to review the BCS and create a new version; however, a part of it, not much more information is known.

2.5 Discussion of Beach Management in Latin America

Integrated beach management in Latin America has become a new professional field, in full development. Every time there are more researchers, government's authorities, non-government organizations, managerial technicians, educators, and other sectors of the society that study, promote and apply this kind of management. As a consequence, it demands to systematize the lessons from the theoretical-methodological approach adopted and the own practical experiences.

It is still frequent that management's actions do not focus on ecosystem-based and adaptive approaches, but rather it is opted to maintain rigid and static procedures to natural and dynamic systems. The coastal management still implies planning, organization, address and control of coastal resources towards certain objectives of uses, particularly tourist, conceiving beaches like a service, and not, like it should be, as a natural system. As consequence of this incorrect interpretation, many administration efforts and tourist certification of beaches have been configured more as marketing mechanisms than management tools.

In front of this conception, the vision of a true integrated management of beaches should be prefixed, it means a holistic and dialectical character, in that multiple actions are developed, very articulate to each other, and always looking for maintaining functional base, and multiple and sustainable use of the coastal system. After that, feasible and coherent efforts of certification can be constituted in an exceptional value added for tourist-recreational activity.

Although reductionist focus, dominant until our days, has caused a vision and a fragmented practice of the coastal management in general, integrated beach management will advance toward an increased character of *interdisciplinary*. In consequence, it is necessary to develop a varied and sufficiently solid arsenal of tools, among which is necessary to highlight the approaches of functional zoning and carrying capacity, risks' studies and public perception, the best variants in the coastal engineering, monitoring systems focused on making decisions, and other many, but always based on the particularities of the system beach, so that they can be applied with true effectiveness.

A notable influence has been exercised in several countries of Latin America, among those that is necessary to highlight to Cuba, Uruguay, Mexico and Colombia, the conception of the cycles of coastal integrated management, suggested from 1996, for the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection – GESAMP. This method translates continuous development to coastal management, through diverse phases that go from characterization and diagnosis, until conformation, implementation and evaluation of programmes, improving in a systematic way.

However, in many cases, the practice demonstrates that these processes have been characterized by expensive and long periods of time, and erratic results in its implementation. In this sense, it is necessary to criticize persistence of focus and partial actions in some initiatives of integrated beach management, as a result of the very frequent fragmentation of the reality, and exhaustive processes of characterization and diagnosis that are carried out starting from multidisciplinary studies. In those, specialists of different areas, very expert in their topic, describe elements and problems from their perspective, that constituted later in the bases for elaboration and implementation of integrated beach management programmes, that end up in excessive detailed working guides, what impregnates whole process with a classic top-down focus.

This gets more complicated in the face of the reality, pointed out by Botero (2013), due to authorities usually have too short periods of time for support these programmes, making impossible than they complete a whole cycle of coastal management. Therefore, local authorities usually concentrate only their interest on those matters that come closer to their government objectives, and within this reality, it is practically impossible that integrated beach management process can be successful, because it requires continuity in the time.

Stem from this reality, with too much frequency coastal management is developed over conceptions, forms and instruments decided by few ones, for a short term and directed by people that hardly ever have the holistic formation, neither time that is required. As a consequence, evaluation stage is reached very few times, and the most common solution is that new studies of diagnostic are restarted, what believes a scenario of continuous frustrations, in which credibility of efforts is lost.

The learning of this analysis, it is that a less mechanical and absolutist integrated beach management should be adopted in its concepts and methods, and that it should advance toward a wider vision to each particular coastal system, in all its dynamic complexity, and in permanently evolution. It is very important that programmes of integrated beach management continue moving from current emphasis in descriptions and diagnoses, toward an operative design focused on what and how to manage these singular and complex ecosystems integrally, and taking in consideration particularities of socio-political, normative and technician-scientific contexts in that they are developed.

Another learned lesson, and outstanding for immediate future, it is that being beaches in majority of Latin American countries a public goods, in which converge a wide range of stakeholders with diverse interests and intervention forms, it is necessary coordination of actions that is only possible through conformation and operation of participative bodies for integrated management of beaches, that act as valves of the interrelations among all stakeholders. This way, in Latin America are indispensable conformation of Beach Management Organs at local scale, and they should be constituted as the basic decision making structure, with a public-private character, non-profit nature, participative, pluralistic and contributive regime, and relatively autonomous as for their organization, conformation and decisions (Botero et al. 2008).

Moreover, in the broader context of Beach Certification Schemes that have been created in Latin America, we should note the lack of communication between the organizations managing the nine schemes. As a result, it has not taken advantage of the synergy that can generate joint work in a region that shares many similarities and the same interest of management. Additionally, the BCS still are applied paltry amount compared to the number of tourist beaches of the continent, being an indicator of reduced success in terms of implementation of this tool. However, the progress of research in integrated beaches is evident on the continent, starting with the continuity of the Ibero American Network of Beach Management and Certification – PROPLAYAS and increased scientific publications on the subject, like this one which has presented in this book.

References

- Ariza E (2007) A system of integral quality indicators as a tool for beach management. Doctorate thesis, Univesidad Politécnicna de Cataluña. Blanes, Spain.
- ATEGRUS (2012) Bases premio bandera ecoplayas. Asociación Técnica para la Gestión de Residuos y Medio Ambiente. Bilbao, Spain
- Bird ECF (1996) Beach management. John Wiley & Sons, Chichester
- Botero C (2008) Proposal of management framework for tourist beaches based on ICM. Master thesis in water and coastal management, Universidade do Algarve, Faro, Portugal
- Botero C (2009) Utilidad de los esquemas de certificación de playas para el manejo integrado costero: Evaluación de ocho certificaciones en Iberoamérica. *Rev Cienc en su PC* 4:27–41
- Botero C (2013) Evaluación de los esquemas de certificación de playas en América Latina y propuesta de un mecanismo para su homologación. PhD thesis, University of Cadiz, Spain
- Botero C, Diaz LH, Hurtado Y et al. (2008) Determinación de un sistema de calificación y certificación de playas turísticas – Informe final contrato 012. Instituto de Investigaciones Tropicales, University of Magdalena, Santa Marta, Colombia
- Botero C, Zielinski S, Noguera LA (2012) Esquemas de Certificación de playas en América Latina: Diagnóstico de una herramienta de Manejo Integrado Costero. *Rev Costas-UNESC* 1:49–63
- Botero C, Anfuso G, Zielinski S et al (2013) Reasons for beach choice: European and Caribbean perspectives. *J Coast Res* SI65:850–885
- Breton F (1998) Metodologia d'ordenació i gestió dels espais lliures en les zones litorals, Support to social science emerging groups, UAB CIRIT 1995–1997. Barcelona
- Breton F, Esteban P (1995) The management and recuperation of beaches in Catalonia. In: Healy MG, Doody P (eds) *Directions in European coastal management*. Samara Publishing, Cardigan
- Cabrera JA, Orellanes O, López L et al (2009) Evaluación del programa de manejo integrado de la playa de Varadero (Cuba): 7 años de experiencias y retos. *Rev Medio Ambiente Turismo y Sustent* 2:67–79
- Cagilaba V, Rennie HG (2005) Literature review of beach awards and rating systems. Environment Waikato Technical Report 2005/24. Waikato, New Zealand
- Cutter SL, Nordstrom KF, Kuema GA (1979) Social and environmental factors influencing beach site selection. In: West N (ed) *Proceedings of the 5th annual conference on resource allocation issues in the coastal environment*. Newport, RI, USA, pp 183–194
- Dadon J (2005) Playas y balnearios de calidad: gestión turística y ambiental. Directrices y guía de autoevaluación. Secretaria de Ambiente y Desarrollo Sustentable, Buenos Aires

- ECOPLAYAS (2007) Bases del premio Ecoplayas -Descripción y guía evaluativa. Organización Ecológica Playas Peruanas. Lima, Peru
- ECOSAMBITO (2007) Establecimiento de un programa de certificación de playas turísticas en la faja costera. Informe final contrato PMRC-022-2006, Programa de Manejo de Recursos Costeros, Presidencia de la República del Ecuador. Guayaquil, Ecuador
- Espejel A, Espinoza-Tenorio O, Cervantes I et al (2007) Proposal for an integrated risk index for the planning of recreational beaches: use at seven Mexican arid sites. *J Coast Res SI* 50:47–51
- FEE (2013) Official web page for the Foundation for environmental education. www.blueflag.org/Criteria/Beaches. Accessed 20 Oct 2013
- ICONTEC (2011) Norma Técnica Sectorial Colombiana NTS-TS-001-2 que establece los requisitos de sostenibilidad para destinos turísticos de playa – Second Edition. Instituto Colombiano de Normas Técnicas y Certificación. Bogotá D.C., Colombia
- INEN (2012) Requisitos de certificación turística de playas – Norma INEN 2631:2012. Instituto Ecuatoriano de Normalización, Quito
- JCPV (2008) Fundamentación y Reglamento del Sistema de Certificación Playa Ambiental. Junta Coordinadora Playa de Varadero. Varadero, Cuba
- McKenna J, Williams AT, Cooper JAG (2011) Blue Flag: red herring: do beach awards encourage the public to visit beaches? *J Tour Manag* 32(3):576–588
- Medina JR, Tintoré J, Duarte CM (2001) Las praderas de Posidonia oceánica y la regeneración de playas. In: Pericás J. La recuperación de playas, objeto de polémica. www.elmundo-eldia.com. Accessed 15 March 2002
- MINAET (2011) Decreto Reglamentario del Programa Bandera Azul Ecológica. Ministerio de Ambiente, Energía y Telecomunicaciones, San José
- MINTURD (2008) Especificaciones de desempeño ambiental y requisitos para playas. Ministerio de Turismo y Deportes, Montevideo
- Nelson C, Botteril D (2002) Evaluating the contribution of beach quality awards to the local tourism industry in Wales – the green coast award. *Ocean Coast Manag* 45:157–170
- Nelson C, Morgan R, Williams AT et al (2000) Beach awards and management in Wales, UK. *Ocean Coast Manag* 43(1):87–98
- PROPLAYAS (2008) Informe de la reunión de expertos en gestión ambiental de playas – Revisión Norma Playa Natural. Red Iberoamericana de Gestión y Certificación de Playas. Montevideo, Uruguay
- Radic M, Micallef A, Williams AT et al (2006) Application of the Bathing Area Registration and Evaluation (BARE) system – experience from Istria County on the northern Croatian coastline. In: Proceedings of the Second International Conference on the management of coastal recreational resources – beaches, yacht marinas and ecotourism. ICoD, University of Malta, Malta
- Rees G (ed) (1997) Lies, damned lies and beach awards. Current issues, vol 1. Robens Institute, University of Surrey, Guildford, pp 1–2
- Rodríguez-Perea A, Servera N, Prieto M (2002) Alternatives a la Dependència de les Platges de les Balears de la regeneració artificial continuada: Informe Metadona. In: Pericás J. La recuperación de playas, objeto de polémica. www.elmundo-eldia.com. Accessed 15 March 2002
- Rodríguez-Perea A, Pons GX, Roig-Munar FX, et al (2012) La gestión integrada de playas y dunas: experiencias en Latinoamérica y Europa. Monografíes de la Societat d'Historia Natural de les Balears, Mallorca, Spain
- SEMARNAT (2006) Norma Mexicana NMX-AA120-SCFI-2006 que establece los requisitos y especificaciones de sustentabilidad de calidad de playas. Secretaría de Medio Ambiente y Recursos Naturales. Mexico D.F
- Simm JD (1996) Beach management manual. CIRIA report 153. CIRIA, London
- Tristá E, Juanes JL, Caballero V, et al (2012) Causas y alternativas para el control de los procesos de erosión en las playas. Experiencias de las aplicaciones en las playas del Caribe. In: Rodríguez-Perea A, Pons GX, Roig-Munar FX, et al. La gestión integrada de playas y dunas: experiencias en Latinoamérica y Europa. Monografíes de la Societat d'Historia Natural de les Balears, Mallorca, Spain

- Vaz B (2008) Contributos para a avaliação e gestão de praias: a importância da percepção dos seus utilizadores. Master thesis in Ecologia Humana y Problemas Sociales Contemporáneos, Universidade Nova de Lisboa, Lisboa
- Williams AT, Micallef A (2009) Beach management: principles and practices. Earthscan, London
- Williams AT, Micallef A, Ergin A (2002) A theoretical framework for beach management guidelines. In: Ozhan E (ed) Beach management in the Mediterranean and the Black Sea – MEDCOAST. Middle East Technical University, Ankara
- WTO (2002) Voluntary initiatives for sustainable tourism. World Tourism Organization, Madrid