

# A Comparative Study of the Perception and Value of Beaches in Rural Ireland and Portugal: Implications for Coastal Zone Management

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## ABSTRACT

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The ways in which beach users in rural areas of Portugal and Ireland perceive and value beaches in their countries was investigated by means of a questionnaire survey. The survey was carried out on beaches in Co. Donegal in Ireland, and Sines in Portugal in the summer of 1999 and 294 questionnaires were completed. The survey found that there were significant differences between Portuguese and Irish beach users. They differed in terms of the words associated with beaches, the ways in which beaches were valued, the aspects they liked and disliked about them, the problems associated with them, and the changes envisaged as likely to occur on beaches over the next decade. These results highlight the role that cultural and climatic setting play in influencing attitudes to beach use, and suggest that efforts should be made to maintain the diversity of beaches, providing a range of types from the amenity beach with a wide range of facilities to the less intensively used wilderness type. It is also argued that coastal zone management (CZM) in general would benefit from a greater scrutiny of the complex role values and perceptions play in influencing the CZM agenda.

**ADDITIONAL INDEX WORDS:** *Rural beach use, coastal zone management, perceptions, values.*

## INTRODUCTION

A great deal of research has recently been carried out into coastal management in Europe (see EUROPEAN COMMISSION 1997), much of which has been done with the intention of informing a trans-national approach to coastal management (EUROPEAN COMMISSION 1999a). In order to maximise the relevance of trans-national approaches, and hence their chances of support and success, the implications of different coastal contexts needs to be recognised. In terms of socio-economic context, this implies developing an understanding of the ways in which people's perceptions of coastal areas vary between, for instance, different countries or between rural and urban areas. The need for such information is recognised in the present European Union programme of research, known as the Fifth Framework Programme (EUROPEAN COMMISSION 1999b p18), which seeks research proposals designed to assess the implications of "changing perceptions and attitudes concerning rural development issues; the role of social capital, territorial identity and image" for coastal development policies. This paper attempts to contribute to this by examining the perceptions of beach users in rural areas of Ireland and Portugal.

The areas studied were Co. Donegal in north-west Ireland and Sines in south-west Portugal (see Figure 1). Although there are marked differences between these areas in terms

of climate, history and culture, the areas of Sines and Donegal have much in common. The population densities are similar: 25 people/km<sup>2</sup> in Sines and 27 people/km<sup>2</sup> in Donegal. Both areas have rugged, windy Atlantic coastlines, periodically subjected to stormy conditions. Donegal has a heavily indented coast of Dalradian metasediments, with many rock-bound beaches of different sizes. The Sines coast is similar and is comprised of rocky headlands of Quaternary sediments up to 50m high interspersed with pocket sandy beaches of variable length. Although the coastlines are geomorphologically distinct, they have certain features in common—notably both have a large percentage of soft coastline that is eroding in many places. In addition, there is evidence in Portugal and Ireland of hard engineered responses to the erosion that have not always been successful, e.g. see GRANJA and SOARES DE CARVALHO (1995); BRADY SHIPMAN MARTIN (1997); CARTER (1988, p468, p486). The areas of Sines and Donegal are both largely rural with fringing industrialised areas and major cities within an hours drive. Despite its rural character, there is an important industrial area within the council area of Sines. Both areas suffer from higher than average levels of poverty and deprivation, problems that can lead to a strongly pro-development ethos within some sectors of society. There are also similar histories of unplanned development around beach and dunes systems in Sines and Donegal. These tend to be holiday homes or caravan parks, and their presence demonstrates the problems of non-compliance with planning



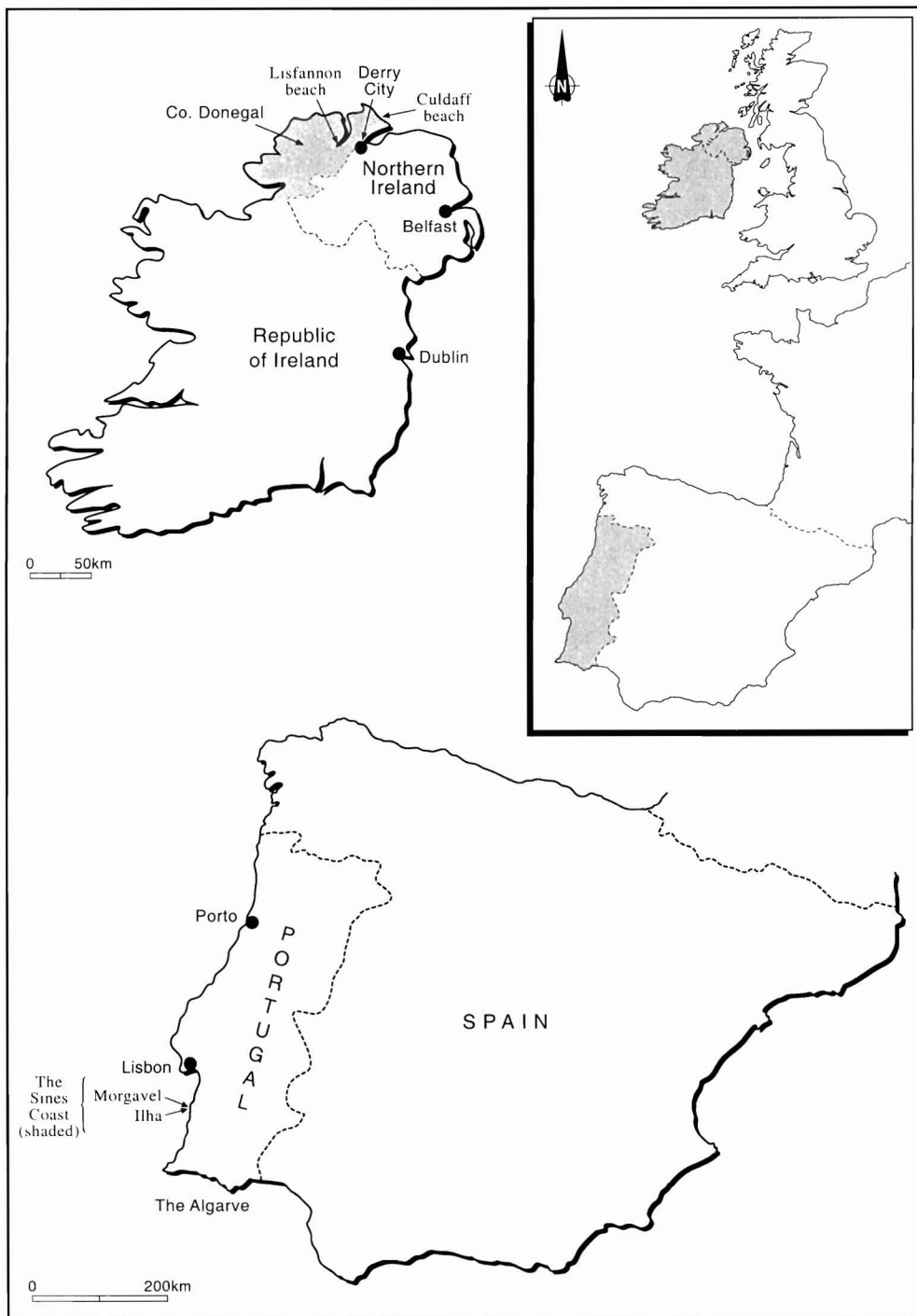


Figure 1. The locations of Co. Donegal in Ireland and Sines in Portugal, with the beaches used in the survey (Lisfannon, Culdaff, Morgavel and Ilha) marked.

controls from which both areas suffer. The division of authority and responsibility for coastal management in these areas is not always clear and this can lead to difficulties when it comes to co-ordinating management efforts. Finally, most of the visitors to the beaches of Donegal and Sines come from

within the countries, and this distinguishes them from more tourist-orientated areas such as the Algarve.

A number of previous studies have investigated the influences on beach users' perceptions and behaviour. Some of the factors found to be significant are summarised in Table 1.

Table 1. *The findings of previous studies that have investigated beach users' perceptions and behaviour.*

Study	Factors Influencing Beach Users' Perceptions and Behaviour
WEST and HEATWOLE 1979	Socio-economic status and environment.
CUTTER <i>et al.</i> 1979	Beach facilities and accessibility, desire for social interaction.
EASTWOOD and CARTER 1981	Personality.
HECOCK 1983	Beach accessibility and facilities; user's age and socio-economic status.
LINDSAY <i>et al.</i> 1992	Number of years visiting a beach; income level; home address; presence of sand dunes.
MORGAN <i>et al.</i> 1993	Age and personality.
WILLIAMS <i>et al.</i> 1993	Personality; gender; socio-economic status; planned length of stay.
DE RUYCK <i>et al.</i> 1995	Tradition/historical factors; socio-economic factors; level of beach development and accessibility.
MORGAN and WILLIAMS 1995	Users' place of origin (i.e. local or visitor) and socio-economic status.
BRETON <i>et al.</i> 1996	Beach location and character.
WILLIAMS and NELSON 1997	Gender, age, users' place of origin.
TUNSTALL and PENNING-ROUSELL 1998	Tradition and the meanings that beaches have for visitors.
MORGAN 1999	Level of beach commercialisation, users' beach type preferences.

There are many possible factors that may influence perception of beaches, depending on where the study is carried out and the particular focus of the study. Some work has been undertaken looking into the role of ethnicity. WEST and HEATWOLE (1979, p204) found little variation between ethnic groups in New York City and suggested that "attitudes concerning beach recreation may be influenced more by the economic and social conditions describing the respondent's neighborhood environment and less by his or her ethnic background". However LAHKAN (1990) found that ethnicity influenced people's recreational preferences in the coastal zone in Guyana. COFER-SHABICA *et al.* (1990) also found differences in the recreation preferences between ethnic groups at a site on Florida's coast. These studies looked at the differences between groups within a country. This preliminary study sought to assess similarities and differences between two regions (the Sines Coast of Portugal and Co. Donegal, Ireland) and to examine the reasons for, and implications of, any differences. In particular, aspects of expectations and preferences in relation to beaches were investigated. A questionnaire survey was selected as the investigative tool and the methodology employed is outlined in the next section.

## METHODOLOGY

The study was carried out in the summer of 1999 on two beaches in Donegal, (Culdaff and Lisfannon), and two in Sines, (Morgavel and Ilha), see Figure 1. The beaches were "matched" in the sense that they are similarly positioned in rural Ireland and rural Portugal and play similar roles *relative* to the other beaches in that country, rather than in the sense that are physically or recreationally identical. A short, 13 item questionnaire was completed *in situ* by selected beach users (see Appendix A at: <http://www.ulst.ac.uk/faculty/science/crg/czm.htm> for the questionnaire). Systematic sampling was employed and the irregular movements of beach users helped to avoid the problem of periodicity sometimes associated with this sampling technique (*i.e.* the over or under-representation of certain groups due to regularities in their distribution). Respondents were selected from all over each of the sites in numbers approximately proportionate to

the beach user population in each area. This was done to avoid bias caused by variation in beach user types in different areas of the sites. The sampling was carried out on Saturdays and Sundays between midday and 6pm. Beaches have different visitor patterns at weekends and during the week—they are usually busier and more likely to be visited by day-trippers at weekends. This has implications for the ways in which people perceive them as there tend to be variations in the ways that different groups such as locals, day trippers, and resident visitors think about and use beaches. For example, TUNSTALL and PENNING-ROUSELL (1998) found that for locals the beach may be a "regular and routine part of their everyday experience" (p325) which they sometimes take for granted but often have "heightened awareness" (p325) of. This is in contrast to day trippers for whom the beach often represents "a special event which happens only a few times a year" (p326). In this study weekends were chosen in order to study perceptions of the beaches when they were at their busiest and under the greatest recreational pressure. A target of 150 completed questionnaires was set for each country. Overall 294 questionnaires were completed, 157 in Ireland and 137 in Portugal.

The questionnaire was designed, checked by social scientists and coastal management professionals, then piloted and revised before being used. A combination of open and closed-ended questions were used to investigate people's perceptions of beaches, the way in which they value them, their likes and dislikes and their thoughts on the future of beaches. Open-ended questions were employed as much as possible in order to avoid limiting people's responses and introducing bias. The non-response rate was low (<10%) and is unlikely to have affected the results as non-response was not limited to any particular sub-group of the beach population. One possible source of bias was introduced by the difficulty in reaching respondents engaged in water-based activities. This is a problem that is often encountered in beach user surveys and was noted by MORGAN (1999). To avoid under-representation of this group, when someone was unreachable because of an activity, *e.g.* windsurfing or swimming, an attempt was made to obtain a beach user who had either previously engaged in this activity or was preparing to do so.

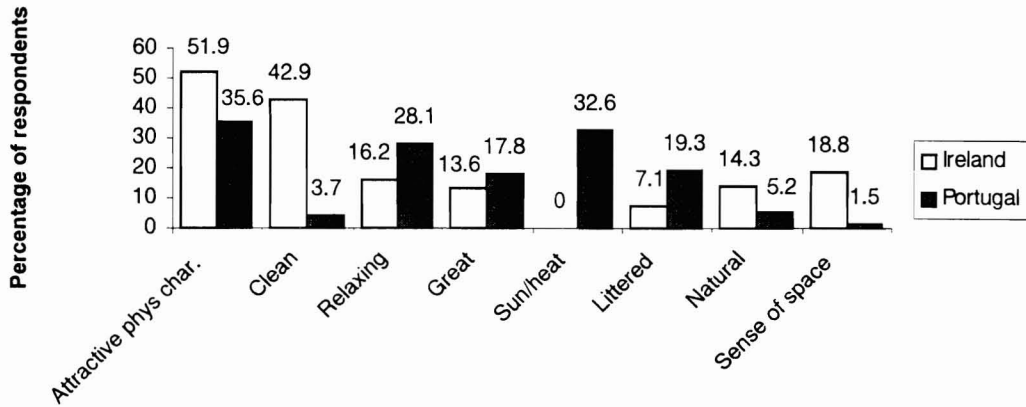


Figure 2. Which words or phrases would you associate with Irish/Portuguese beaches? (responses to question 1).

**RESULTS AND ANALYSIS**

One of the first features to note is the wide range of responses people gave to the open-ended items (see Appendix B at: <http://www.ulst.ac.uk/faculty/science/crg/czm.htm> for the complete results). For instance, there were 19 categories of aspects people said they liked about beaches and 15 categories of dislikes. While this may be in part an artefact of the way the results were coded, it would seem that beaches stimulate a variety of different responses. This may be due to the variety of people that visit beaches and their different motivations—it could be argued that compared to areas such as forests or mountains, beaches provide the opportunities for a wider range of activities and appeal to a wider range of personality types. The responses given to each question are summarised below along with a brief description of their significance.

**Which words or phrases do people associate with Irish/Portuguese beaches?**

An attractive physical character was the type of comment most commonly associated with both Irish and Portuguese

beaches in response to question 1, significantly ( $p = .005$ ) more often in Ireland (see Figure 2 and table B1 in Appendix B). Irish respondents were more inclined to associate positive aspects of appearance with beaches (such as attractive and clean) than their Portuguese counterparts. Although positive aspects of appearance were also commonly associated with Portuguese beaches, other factors such as sun/heat and relaxing atmosphere were frequently cited. There was a predictable difference in the numbers mentioning sun and heat given the climatic variations between the two countries ( $p = .000$ ). Also, many more people associated cleanliness with Irish beaches than with those in Portugal ( $p = .000$ ). This may seem somewhat strange given that rubbish/litter was the most common dislike about Irish beaches, however it may be because rural beaches in Ireland are otherwise perceived to be clean and unspoiled that the presence of litter is resented by so many. Finally sense of space, the third most commonly associated feature in Ireland was hardly mentioned in Portugal ( $p = .000$ ). This probably reflects the greater intensity of use of rural Portuguese beaches, although it could be linked to cultural differences in the awareness of personal space.

**How important do you think beaches are for Ireland/Portugal**

Respondents in both countries agreed that beaches are very important (see Figure 3). However, the reasons for thinking this were different in the two countries as the results to the next question show.

**Why do people think beaches are important?**

When asked to explain their responses question 2a, the reasons outlined in Figure 4 and Table B2 (Appendix B) were given. While similar proportions of the samples in each country thought beaches were very important, Irish beaches seem to be valued for a wider range of reasons than Portuguese beaches. In both cases the most commonly cited factor was “asset”, though more people mentioned this in Portugal ( $p = .000$ ). Relative to “asset”, other factors accounted for few re-

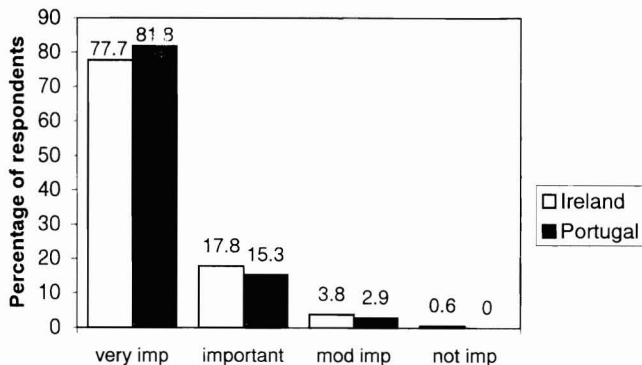


Figure 3. How important do you think beaches are for Ireland/Portugal? (responses to question 2).

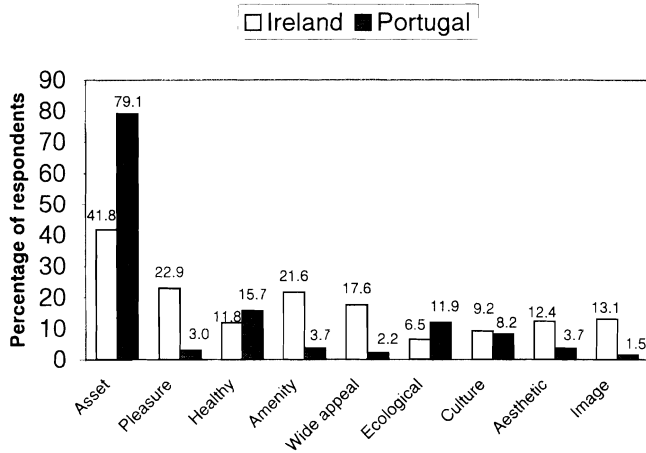


Figure 4. Reasons for importance (responses to question 2a).

sponses in Portugal. In Ireland other factors such as pleasure ( $p = .000$ ) and amenity ( $p = .000$ ), cited by only a few in Portugal, were mentioned more often. These results may reflect the greater contribution that tourism in general, and beach tourism in particular, make to the Portuguese economy. Beaches are an important attraction for tourists in Portugal whereas for reasons of climate Irish beaches are a smaller part of a wider range of attractions.

### What do you like most about Irish/Portuguese beaches?

There were distinct differences between what people said they liked about beaches in the two countries (see Figure 5 and table B3, Appendix B). While attractive physical character, cleanliness and naturalness were among the top five most commonly cited “likes” for both countries, there were significant variations in the numbers mentioning them ( $p = .000$ ,  $p = .001$  and  $p = .005$  respectively). It is interesting to note that the trends for attractive physical character and naturalness were the opposite in the two countries. Although one may have expected these features to be linked, they represent distinct properties of the beaches. Attractive physical character represents properties such as the size of the beach or the quality of sand, while naturalness represents properties such as natural, unspoilt, wild or undeveloped. In certain circumstances the naturalness of a beach and the attractiveness of its physical character could be contradictory: for example the presence of a large amount of natural seaweed on the strandline may appear unattractive to some people. Overall, the fact that sense of space ( $p = .000$ ), cleanliness and naturalness were mentioned more often in Ireland would seem to reflect the less intensive use of beaches there. Beaches in the countries seem to have different attractions—the second and third most commonly cited likes about Portuguese beaches, sun/climate ( $p = .000$ ), and water temperature ( $p = .000$ ), were not mentioned by any respondents in Ireland. These conditions affect the mix of activities at a beach and consequently the range of people who visit.

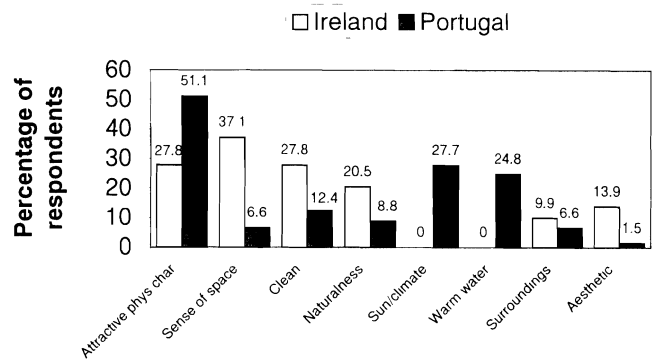


Figure 5. What do you like most about Irish/Portuguese beaches? (responses to question 3).

### What do you dislike most about Irish/Portuguese beaches?

The problem of rubbish and litter was the most commonly cited dislike in both countries (see Figure 6 and table B4, Appendix B). Pollution was cited more frequently by Portuguese respondents ( $p = .000$ ), presumably because of the industrial complexes around parts of the Portuguese coast and the presence of visible factory chimneys near several beaches. Pollution was also the most commonly cited problem in Portugal. Few respondents mentioned disliking pollution in Ireland, despite the presence of factories near one of the sites, anecdotes about pollution incidents, and periodic problems of water quality being affected by housing developments. However, it would be wrong to assume that people in Ireland were unconcerned about pollution as it was often cited as a problem, if not as a dislike.

Portuguese beaches seem to be closer to exceeding their social carrying capacity than those in Ireland – 27.9% in Portugal thought there were too many people on them compared to 1.5% in Ireland ( $p = .000$ ). DE RUYCK *et al.* (1997) have suggested that the social carrying capacity of a beach can be increased by the presence of facilities and activities, so it may be the high visitor numbers combined with the relatively undeveloped character of Sines beaches that has led people to

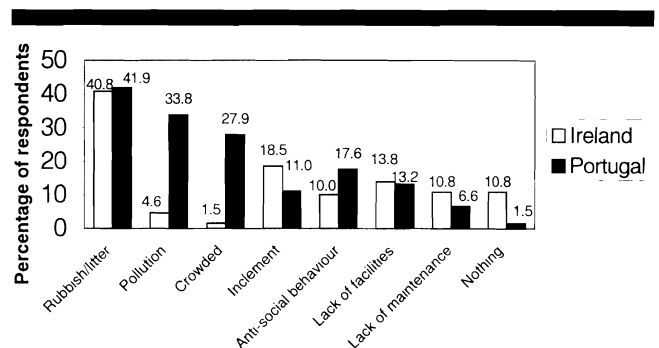


Figure 6. What do you dislike most about Irish/Portuguese beaches? (responses to question 4).

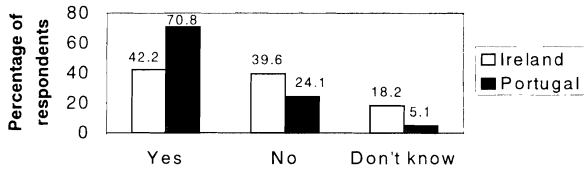


Figure 7. Do you think that there are any serious problems with Irish/Portuguese beaches? (responses to question 5).

conclude that they are too busy. Although certain activities, such as playing football or listening to music, may be more likely to cause annoyance on a busy beach, they do not have to be crowded for anti-social behaviour to be a problem. Some activities, such as the use of jetskis or dune buggies, can cause as much, or even more, annoyance on a quiet beach.

**Do you think that there are any serious problems with Irish/Portuguese beaches?**

There was a significant difference between the numbers of people who thought that there were serious problems with Portuguese and Irish beaches ( $p = .000$ , see Figure 7). Opinion was divided in Ireland with an even split between yes and no. In contrast, most Portuguese respondents felt there were serious problems and few people remained undecided. Portuguese respondents may have been influenced by recent coverage of coastal problems in the media, which has raised public awareness.

When asked to identify the problems in question 5a, a range of responses was given. These are outlined in Figure 8 and table B5, Appendix B. Badly planned coastal engineering occupies a similar position in the minds of Irish and Portuguese beach users. Although the Irish and Portuguese coasts are physically different, coastal erosion is a visible, high profile issue in both countries and some of the engineered responses to it have been unsuccessful. Greater erosion was frequently mentioned when people were asked how they thought their beaches would change in the next ten years. These factors may explain why the ineffectiveness of coastal engineering was seen as a problem in both countries. Although litter was the most common dislike about Portuguese beaches, it was not widely perceived to be a serious problem like pollution. Care should be exercised when comparing the results of questions 4 and 5 as the results for question 5 (“serious problems”) represent percentages of a sub-sample (those who thought that there were serious problems) whereas the “dislikes” (question 4) are percentages of the entire sample. When this is taken into account and the numbers citing the various “serious problems” are looked at as percentages of the entire population the results for pollution remain consistent for the two questions while the results for litter change considerably. Roughly half the number of people in Ireland that dislike litter consider it a serious problem and only about a quarter of those in Portugal that dislike it consider it a serious problem. Part of the difference between pollution and litter arises because dislikes and serious problems are not the same things: while one may expect most serious

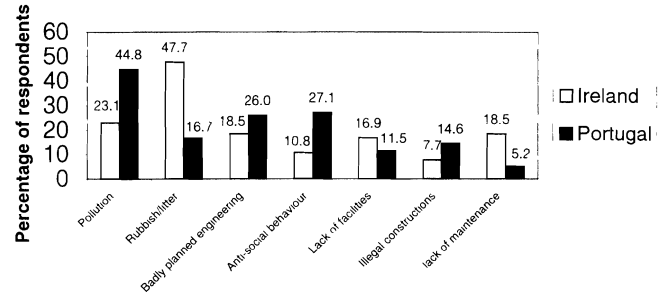


Figure 8. Please say what you think the problems are with Irish/Portuguese beaches? (responses to question 5a).

problems to be disliked, it does not follow that most dislikes will be considered serious problems. Variation between the countries may be the result of qualifying “problems” with the adjective “serious”, which encourages people to consider their responses in the context of all the problems at beaches. Although litter is disliked by as many people in the two countries, in Portugal it may not seem such a serious problem relative to the other problems that exist, such as pollution or badly planned engineering.

**Do you think Irish/Portuguese beaches will change noticeably over the next 10 years?**

Significantly more people expect beaches to change in Portugal than in Ireland ( $p = .017$ , see Figure 9). Opinion seems to be divided as to what will happen to Irish beaches in the future in comparison to Portuguese beaches where a majority of people expected them to change. This may reflect the greater change that there has been in Portuguese beaches in the recent past. When asked how they thought that beaches would change in question 6a, the responses in Figure 10 and table B6 (Appendix B) were given. In some ways these results highlight the differences between the busier Portuguese beaches and their relatively undeveloped Irish counterparts. More people thought that Irish beaches would experience increased usage ( $p = .01$ ) than Portuguese beaches. This may well turn out to be accurate given that Portuguese beaches are already more developed, and seem to be nearer to their social carrying capacity and therefore have less room for expansion. Despite the fears expressed, there was an optimistic note in the Portuguese responses with some saying that they expected beaches to change for the better and become more

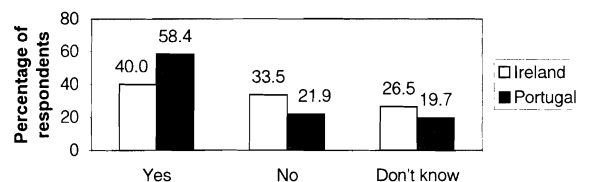


Figure 9. Do you think that Irish/Portuguese beaches will change noticeably over the next 10 years? (responses to question 6).

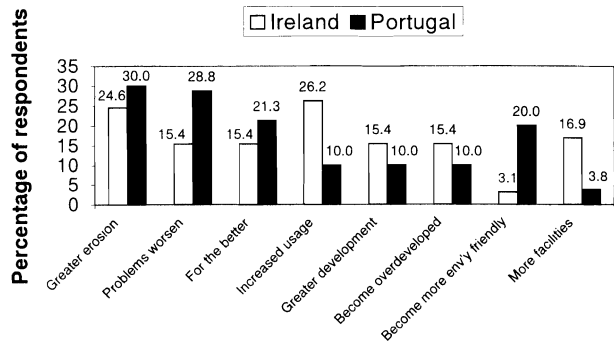


Figure 10. Please explain briefly the ways in which you think Irish/Portuguese beaches will change? (responses to question 6a).

environmentally friendly  $p = .002$ ). This may reflect recent initiatives taken by the Portuguese Government to tackle coastal problems. It should be noted that change is relative and this could explain the slightly less optimistic responses offered concerning the future of Irish beaches. It may be that if people feel more positive about Irish beaches now then they may feel that they have more to lose in the future.

### The Influence of Age

One major difference between the Irish and Portuguese respondents was that of age—those in Portugal were younger (the median age group was 26–30 compared to 41–45 in Ireland) and consequently less likely to have children (only 23% were parents compared to 69% in Ireland). There are a number of possible reasons why beach users tend to be younger in some places than others: a beach with a childrens' play area is more likely to attract older visitors with children; a beach with favourable conditions for surfing may well attract a younger crowd; an area such as Sines with a tradition of cheap camping attracts a younger crowd than the more expensive Algarve coast in southern Portugal, while the lack of hotels and relatively undeveloped tourist infrastructure in Sines may not appeal to older visitors and families. TUNSTALL and PENNING-ROWSELL (1998, p326) found that at English beaches "more 'natural' locations such as Hengistbury Head, Spurn Head and Hurst Spit are less attractive to families with young children." Whatever the reasons behind these demographic differences, they have implications for the way beaches are valued as people of different ages and backgrounds tend to have different perceptions and priorities (HE-COCK 1983; MORGAN *et al.* 1993; WILLIAMS and NELSON 1997).

In order to assess the relative importance of age and nationality in determining people's perceptions of beaches, multivariate analyses were carried out. The sample was recoded into two age groups ( $\leq 30$  and  $> 30$ ). The results for each item were then analysed by crosstabulating age with country. Three-variable tables show whether the trends observed for all ages combined were consistent in different age groups (see the example given below, full results can be accessed at: <http://www.ulst.ac.uk/faculty/science/crg/czm.htm>). Chi-square

values were calculated to test the significance of the relationships observed in the sub-groups.

The analyses showed that most of the trends observed between Portugal and Ireland for all age groups combined, were replicated when respondents  $\leq 30$  and  $> 30$  were compared. For example, in response to question 1, a higher proportion of the Irish respondents mentioned "clean" than Portuguese respondents in both age groups:

% associating "clean":

	$\leq 30$	$> 30$
Portugal	2	9
Ireland	42	43
Chi sq	38.8 ( $p = .000$ )	14.1 ( $p = .000$ ).

However, there were some instances where the analysis revealed differences between the age groups. In response to question 1, significantly more respondents in Ireland associated an "attractive physical character" with beaches than those in Portugal did. Further analysis reveals that the difference is only significant in the  $\leq 30$  age group. In response to question 3, the difference between the numbers of respondents in Ireland and Portugal citing "naturalness" is only significant in the  $> 30$  age group, while the differences between those citing "clean" and "physical character" are only significant in the  $\leq 30$  age group. When asked what they disliked about beaches in question 4, both age groups were much more likely to cite pollution and crowds in Portugal than in Ireland. However, the differences between Ireland and Portugal were more marked in the lower age group, particularly with regard to pollution. This trend was also present when respondents were asked what they regarded as the serious problems with beaches in their countries (question 5a)—people in the lower age group in Portugal were the most likely to cite pollution as a serious problem. In the  $> 30$  group the difference between the countries was not significant. Although there were no significant differences between the countries in terms of the numbers citing badly planned coastal engineering, further analysis revealed differences between the age groups in Portugal, where the respondents in the younger age group were significantly more likely to consider it a serious problem ( $p = .022$ ) than those in the older group. This may reflect a greater awareness amongst younger people of the threats posed by inappropriate responses to sea-level rise. This also shows the importance of looking beyond bivariate analysis where trends can be obscured. When asked if they expected noticeable changes over the next 10 years, more respondents in both age groups in Portugal said yes than in Ireland. However, the differences between the countries was only significant in the  $< 30$  age group. The trends in the responses to question 6a suggest that those in Ireland in both age groups expect beach usage to increase and that young Portuguese respondents are more likely to expect increased erosion. However the sub-samples were too small to confirm these trends statistically.

## DISCUSSION

Some caution must be exercised when attempting to draw general conclusions about rural beach users from these results as it may be an oversimplification to talk in terms of typical beaches and beach users. Rural beaches vary a great deal within Ireland and Portugal and it could be argued that there is no such thing as a typical Irish or Portuguese beach. This does not mean that questions such as “What do you like most about Irish beaches?” are meaningless. The responses to general questions such as these should be interpreted as what they in fact are—a mixture of preconceptions of an abstract concept and perceptions of a definable physical entity. Even though questions were asked about beaches in general, respondents were likely to have been influenced by the beaches they were more familiar with, *i.e.* those in Sines and Donegal, and their immediate surroundings. The importance of immediate surroundings was suggested by the fact that virtually every respondent gave answers relating to sandy, recreational beaches. If the surveys had been carried out on gravel beaches the responses may well have been different. Despite these reservations, there is certainly evidence that many respondents were willing to offer general answers and some interesting findings were made.

The results suggest that there are distinct differences between the ways that beaches are perceived and valued in the countries. The survey found that there were significant differences between Portugal and Ireland in the words associated with beaches, the reasons cited for their importance, the aspects people liked and disliked about them, the problems associated with them, and the changes people thought were likely to occur over the next decade. Despite these differences, one point on which there was general agreement was the importance of beaches—approximately 4 out of 5 people in each country considered them to be “very important”.

By far the most common reason suggested for the importance of Portuguese beaches was their value as assets, *i.e.* their role in bringing tourists and income into the country. This reflects the developed role that beaches play in contributing to the Portuguese economy. For example the Algarve, which has 45% of the overnight stays of tourists in Portugal, has in the order of 30 million overnight stays per year. While the value of beaches as assets was also considered important in Ireland, it was accompanied by a perception of beaches as important sources of pleasure and amenity. According to DAVOS *et al.* (1997) the value that people assign to coastal areas can be divided into (a) conservation science values, (b) market values, and (c) non-market values. Conservation science values are those arising from the role coastal areas can play in conserving biodiversity and promoting research and education. Market values are those arising from the direct or indirect usage of coastal areas “for which markets exist and/or for which economic benefits can be reasonably readily determined” (DAVOS *et al.* 1997 p3/4). Non-market values are difficult to assess in monetary terms and can be divided into aesthetic value, existence value, and option value. According to this classification, considering beaches important as assets is a market valuation, while pleasure and amenity can be considered non-market values. Few respondents in either

country associated conservation science value with beaches. There are a number of possible reasons for this, such as the relative abundance of beaches, or the lower profile of conservation issues in these countries.

The responses to the questionnaire may be, at least in part, artefacts of the ways in which certain questions were phrased. For example, there is a subtle difference between asking someone “What do you like about Portuguese beaches?” and “What do you like about visiting Portuguese beaches?” or “Why do you choose to visit Portuguese beaches?” Going to the beach is often a complex activity in which the actual characteristics of the beach are only one element. TUNSTALL and PENNING-ROWSELL (1998, p320) have described the English beach visit as a “resilient social construction” that has evolved through time and which has “different meanings for those who live at the coast, for day visitors and for those at the beach as part of a longer holiday” (p325). People may choose to go to a beach because it is a convenient public space for a day out, or because they simply “want to visit the coast” (TUNSTALL and PENNING-ROWSELL 1998 p323), rather than because it is a beach as such. As HARRISON *et al.* (1999 p93) note: “People from all walks of life value the natural world not just for its features and objects but for a wide range of less tangible benefits which accrue to society”. In addition, the values associated with beaches in this study were limited to those of actual beach visitors. This is significant as someone’s presence on a beach implies that they value beaches as areas of human activity, whether that activity is sunbathing, bird watching or sand collection. Other people who do not visit beaches may still value them, but in different ways—for example as landscape features, as part of the character of the country, as economic assets or for their biodiversity. Alternatively, those who thought that there were serious problems with beaches or had particular dislikes may not visit. Therefore it cannot be assumed that the way in which a beach is valued and perceived will be the same amongst those that visit it and the wider population. The recent European Commission strategy on ICZM recognised the need to consider the views of those outside the coastal zone, noting that “collaboration must go beyond the involvement of the stakeholders who are physically present in the narrow coastal strip” (EUROPEAN COMMISSION 2000, p9).

The situation is complicated by the possibility of variation in people’s responses. It is conceivable that the same person could give quite different answers to the same questions at another time and/or place. HARRISON *et al.* (1999, p87) have distinguished between variable preferences and more stable underlying values, suggesting that: “Often it is only through open and sustained debate that ‘values’, whose relative stability distinguishes them from more subjective and labile personal preferences, are revealed.” They argue that techniques which attempt to express the value of a natural system in terms of a single measure (see, for example, LINDSAY *et al.*, 1992; KING, 1995; BLAKEMORE and WILLIAMS, 1998) are reductive and, by trying to combine incommensurable values, ignore factors such as the “cultural significance of nature” (p107). Attempts at economic valuation of nature have been the subject of recent debate. Some have found that “economic valuation of environmental resources is feasible and can im-



prove the information basis of public decision-making in marine and coastal environments" (KING, 1995, p129), while others have highlighted methodological shortcomings (GOODMAN *et al.*, 1998) and epistemological objections (BURGESS *et al.*, 1998) to such approaches. The criticism of BURGESS *et al.* (1998, p25) that economic valuation methods such as contingent valuation are underpinned by the assumption that "the environment and nature can be segmented into discrete 'bits' for which people can express discrete preferences or monetary values" is one with particular relevance to beaches. Beaches are integral parts of larger physical and social systems. The ways in which people perceive and value them may well be quite different when they are considered individually compared to when they are thought of as interconnected parts of larger systems such as dune systems, coastal sediment cells, ecosystems, the leisure infrastructure or the cultural landscape. This holistic view of coastal areas is one of the principles upon which the EUROPEAN COMMISSION (2000, p25) based its recent strategy for ICZM. They state that:

"Coastal zones are complex: they are influenced by a myriad of inter-related forces related to hydrological, geomorphological, socio-economic, institutional and cultural systems. Successful planning and management of the coastal zone must eschew piecemeal decision-making in favour of more strategic approaches that look at the bigger picture . . ."

It may therefore be that exploring the wider meaning attached to coastal areas through inclusive and deliberative approaches such as Multi-Criteria Analysis (HARRISON *et al.* 1999) could facilitate this holistic approach to ICZM by complementing studies of specific features and providing a wider context in which to interpret them. This is important if, as they propose, "the process of discussing values for nature and negotiating criteria is much more significant than the actual product" (p107)

It has been suggested (MORGAN *et al.*, 1993; MORGAN, 1999) that there are two fundamental ways in which beaches are valued by beach users—there are those who wish to enjoy the "natural characteristics" of a beach and those who prefer the traditional "beach resort" qualities. Although this relationship was not observed in this study, it does not mean that it does not hold in Ireland or Portugal. It may simply reflect the focus and design of this study. However these studies do demonstrate that the ways in which people value and perceive beaches vary both within and between countries. This has implications for coastal management at the regional, national and international levels. At the national and regional level, it implies that efforts should be made to maintain the diversity of beaches, providing a range of types from the amenity beach with a wide range of facilities to the less intensively used wilderness type. This is not always consistent with universal recreation designations such as the Blue Flag Scheme. Although this scheme is often beneficial, "it tends to be administered as an inflexible template with limited potential to adjust to local conditions" (MCKENNA *et al.*, 2001, p85) and is therefore not always appropriate, particularly on quieter, wilderness type beaches. Instead, it has been argued

that "the criteria for rural beaches in the UK Seaside Award and the pilot Green Coast Award in Wales are generally more suitable than those of the Blue Flag for rural beaches" (MCKENNA *et al.*, 2001, p85). Acknowledgement of the different ways in which beaches are valued, whether as assets, sources of pleasure or areas of naturalness, would enable the diverse expectations of beaches to be satisfied.

## CONCLUSIONS

At an international level beaches vary between countries in terms of their physical character and the ways they are used. There also seem to be differences in terms of the ways beaches are valued and perceived. Many possible factors contribute to this—physical, historical, economic, cultural—which are intertwined and combine to produce a complex picture of what beaches mean to people. Coastal zone management would benefit from a greater understanding of this complexity as values and perceptions play an important role in determining the CZM agenda. This is because many coastal events are not problematic in any absolute sense, rather they come to be defined as problematic in relation to certain values. For example, housing development in coastal areas is often seen as problematic because it is intrusive. It is not objected to because people find housing objectionable *per se*, but because it is felt inappropriate in an area that is valued for its natural or traditional landscape character.

To a certain extent values define what is considered problematic, and this, in turn, influences the CZM agenda. Therefore, if public support for participation in CZM initiatives is desired, it may be helpful to take into account the values that underpin people's perceptions of coastal issues. It has been argued that doing so will improve the "resilience" of coastal areas: "To promote this resilience requires a better understanding of the public's attitudes and aspirations for the coast and its future, in order to match public policies to what the public wants and will accept" (TUNSTALL and PENNING-ROWSELL, 1998, p319). This also applies to those with authority for the management of areas of the coastal zone. Different groups often have different interests in the coastal zone, which guide their actions when it comes to beach management. For example, a local authority may see beaches as a means of attracting tourists and revenue to an area, while at the same time wishing to minimise the costs and legal liability arising from beach management. On the other hand, a conservation body is more likely to have sustainability or biodiversity as their guiding principle and will consequently be more interested in maintaining the natural integrity of a site. In order to understand the actions of the participants in CZM, some knowledge about the values and priorities that underpin those actions is required. The value-laden character of coastal management thus makes an examination of the values and agendas of all those involved essential.

It was found in this study that there were significant differences between the ways in which beaches were perceived in Sines and Donegal. They differed in terms of the words associated with beaches, the ways in which beaches were valued, the aspects that were liked and disliked about them, the problems associated with them, and the changes envisaged

as likely to occur on them over the next decade. Although age was found to influence some of the responses to certain questions, most of the trends between the countries held regardless of age. This study has demonstrated that even within Atlantic Europe, rural beaches can differ markedly in the ways they are used and perceived. The determining factors probably relate to climatic and cultural differences between the two areas and beach using populations. A comparison of the perceived problems with beaches in the two areas revealed a potential exceeding of the social carrying capacity in Portugal that was not found in Ireland. Since population densities are similar in the study areas, this may reflect a cultural predisposition to beach use that may itself be climate linked. Whatever the reasons for the differences it is clear that management of rural beaches must take account of the expectations and perceptions of users if CZM is to be met with popular support. This cultural constraint argues against a rigid framework with ubiquitous application. A more differentiated approach to CZM would be facilitated by a greater understanding of the ways coastal areas are perceived and valued, both by those that use them directly and the wider population. Deliberative, inclusive approaches which seek to involve the broad spectrum of stakeholders in active discussions about coastal areas and policy could be used in conjunction with the more focussed type of surveys described in this paper. Such deliberative approaches could complement analyses of specific coastal features by putting them in a wider context, thereby facilitating more holistic approaches to CZM.

If economic development is to be linked to recreational use of beaches in rural areas it is important that such development does not destroy the resource that attracts users. Conversely, knowledge of user demands and the identification of opportunities to satisfy these demands could lead to greater utilisation of the natural resource. Since it is likely that the population is sub-divisible in terms of their expectations, providing a range of beach types to meet these expectations may be a necessary development strategy for such rural areas.

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## APPENDICES

### APPENDIX A THE QUESTIONNAIRE USED IN THIS STUDY

Available at: <http://www.ulst.ac.uk/faculty/science/crg/czm.htm>

### APPENDIX B COMPLETE RESULTS OF THE QUESTIONNAIRE

Available at: <http://www.ulst.ac.uk/faculty/science/crg/czm.htm>