

Coastal Values and Quality of Life: A New Zealand Case-study

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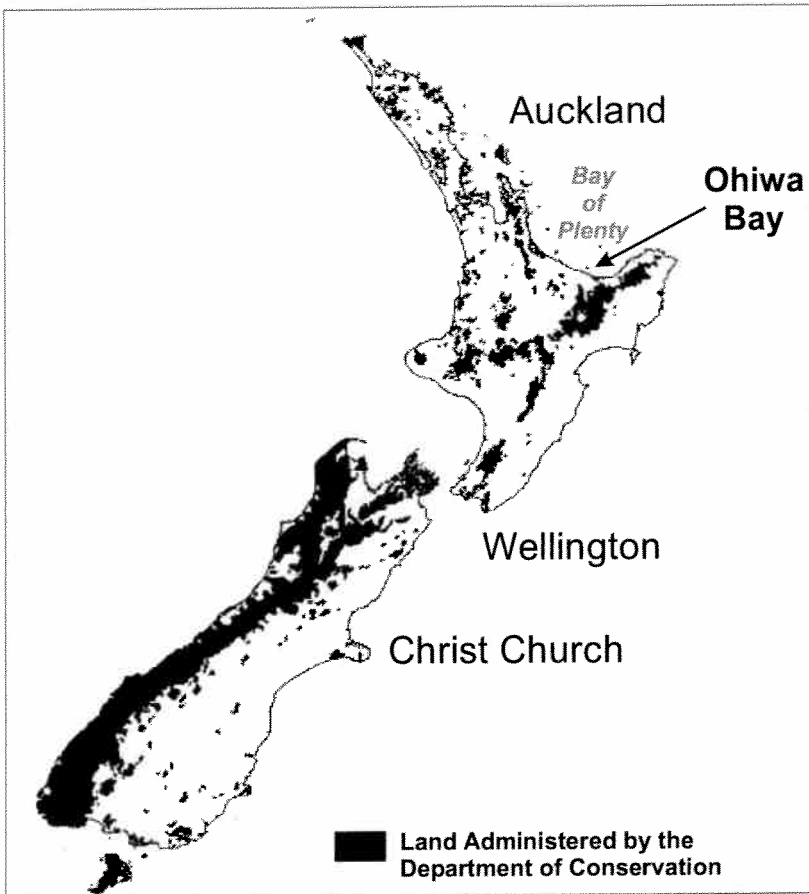
Abstract

An important input into the management of coastal areas is the values ascribed to such areas by those people who live close to, visit and use the amenity opportunities provided by the beaches and adjacent waters. This presentation discusses a process used to elicit values from residents of Ohiwa Bay on the east coast of the North Island of New Zealand. A series of focus groups involving local citizens was used to elicit key value categories and value statements. The focus group discussions centred on the key question "What makes Ohiwa Bay a good place to live?" Specific 'value statements' were used subsequently to develop a questionnaire, which was distributed to randomly selected individuals throughout the community. A preliminary synopsis of the results of the study is provided.

Introduction

New Zealand has a long coastline, estimated at some 15,000 km. With no towns more than 120 km from the coast, it plays an important part in the recreational and vacation life of New Zealanders (Rennie, 1993). The coastline is extremely diverse and major development is sparse with extensive areas of wild coastline especially in the southern part of the South Island (Figure 1). However, in common with coastal areas around the world, especially those in close proximity to large urban centers, many in New Zealand are increasingly under threat from tourism and residential development. As a result of city-dwellers seeking their little piece of paradise in the sun beside the sea and sand, sleepy, once remote hamlets are now the focus of beach-home development and beach-hut conversion. While this can provide residents with enhanced employment and business opportunities, escalating costs, overused facilities, loss of privacy and reduced amenity are also a common part of such development scenarios.

Figure 1. Map of New Zealand.



Government agencies and local authorities charged with planning and management are drawn into complex and often acrimonious debates over the future of particular regions. The multiplicity of jurisdictions involved in the planning of development and the maintenance of natural amenity in these coastal areas further complicates the prospects of finding solutions. Such solutions, to be judged appropriate, must not only minimize the impacts of development on the environment but must also meet the often conflicting demands among local interests and between them and seasonal residents.

A key challenge for decision-makers in coastal areas is to develop a decision-making process that takes into account the relative importance placed on various uses of the same area by different stakeholders. Identifying the various values that

are assigned to different uses provides one way of assessing the relative importance of one use over another (RAC, 1992). 'Held' values or ideals influence the 'assigned' values or worth of a place and both can influence the attitude taken towards a particular use of that place. In a sense, attitudes are values in action. Positive or negative attitudes can be expressed or action taken with respect to a class of places (e.g., wilderness) or a specific place (e.g., Quetico Provincial Park). Hence, in issues involving land-use planning, a value-based perspective is being introduced as a central part of the community consultation process (Wight, 1998). Such an approach can reveal the broad areas of agreement in the community (i.e., what must be sustained) and enable managers and community to focus on those issues where division exists.

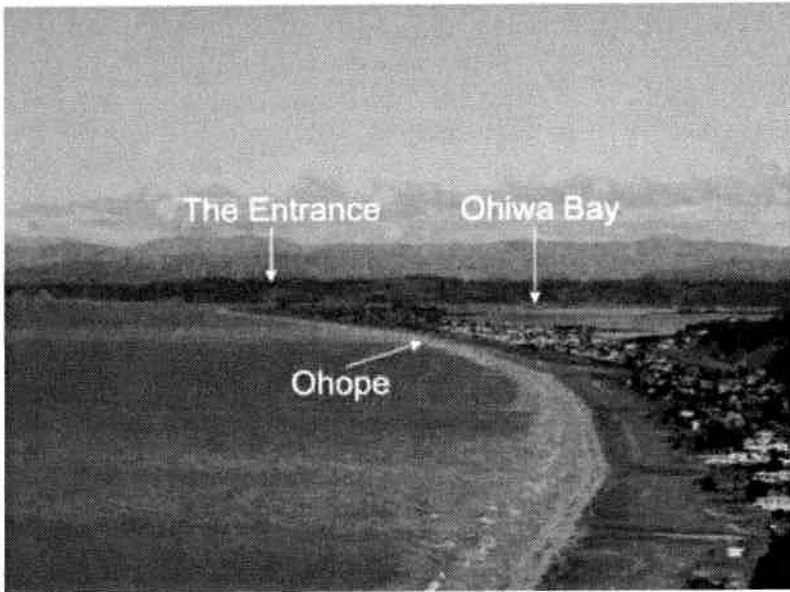
This paper details an approach to elicit values ascribed to a coastal region and uses a study from New Zealand to illustrate the use of the approach in a particular context.

Study Area

Ohiwa Bay is a small coastal community in the Bay of Plenty on the East Coast of New Zealand (Figure 1). The main settlement, the town of Ohope (Figure 2), has a resident population of 2760 (2001 Census). Although still dominated by older style beach cottages (baches), development of modern condominiums is on the increase and the once sleepy little hamlet now boasts a modern development on the site of the old shipping wharf and a number of controversial residential developments are proposed. Most of the landscape surrounding the Bay is dominated by agriculture and forestry operations but there are an increasing number of 'alternative lifestyle' inhabitants moving into this area as agricultural activity declines. The large township of Whakatane (population about 14,000) is a major summer tourist destination and lies approximately 5 km away on the other side of a prominent ridge. Ohope and district have become dormitory suburbs for Whakatane and suburban development is gradually encroaching.

The Bay of Plenty Regional Council and the New Zealand Department of Conservation are currently involved in the preparation of a development plan for the Ohiwa Bay District with a number of coastal developments at the initial proposal stage. There is much division within the community as to the future of the region and a sense on the one hand, that the natural and aesthetic values of the Bay are being compromised and on the other, that tourism development will bring prosperity and much needed employment to the area. The study described in this paper is one part of this planning process and was aimed mainly at eliciting the relative importance of quality of life attributes of the Ohiwa Bay district as perceived by permanent and seasonal residents.

Figure 2. Ohiway Bay district.



Methods

The initial stage in the development of the survey instrument was the elicitation of values attached to Ohiwa Bay and District by means of a series of focus groups. Participants in these focus groups were nominated by the Department of Conservation. In total, three relatively homogeneous focus groups were conducted.

- Conservation interests;
- Ohope residents; and,
- Catchment and Harbour residents.

All focus groups' discussions were tape-recorded and transcribed. Open and axial coding of the transcripts was conducted independently by two of the authors. This process resulted in the development of a series of value themes and value statements, which defined various quality of life attributes.

Value Themes and Statements

Five broad value themes were derived from the analysis of the focus groups. Each of the themes is listed below with an example of a value statement:

- Natural values (e.g., “The variety, the wetlands, the coastlines, the pohutakawa, the sandy shores...”);
- Economic values (e.g., “The ability to make a living”);
- Recreational values (e.g., “The diversity of recreation, kayaking, fishing, jet-skiing, picknicking, boating...”);
- Cultural values (e.g., “The spiritual connection with the land that restores and sustains you”); and,
- Social values (e.g., “The size of the community...its relatively low population).

30 value statements encompassing all aspects of the themes were derived from the analysis of the focus group transcripts (13 “Natural”; 6 “Recreational”; 5 “Social”; 4 “Economic” and 2 “Cultural”).

Survey Instrument

The 30 value statements were then used to develop a survey instrument to explore the relative importance of the value statements in the Ohiwa Bay community. Respondents were asked to rate the importance to them of the 30 value statements derived from the focus group transcripts. Each item was rated on a five-point Likert scale (5 = very important to 1 = very unimportant). Respondents were asked to indicate a number of demographic characteristics including: years of residence in the Ohiwa Bay District; age; gender; place of residence; education level and ethnicity.

Data Collection

A mail-out survey was distributed to a randomly selected sample of 1000 residents in the Ohiwa Bay District. The modified Dillmann Method (Dillmann, 1983) was used to design and distribute the surveys. A total of 404 useable responses were returned (40% response rate).

Results

Sample Characteristics

Respondents comprised people who had lived in the Ohiwa District for less than a year to those who had been there for up to 66 years. The average time living in the region was 18 years with a standard deviation of 15 years. There were more male (57.7%) than female (41.5%) respondents. The average age was in the range 46 to 55 years with some 25% of the sample over 65 years. Education level of the sample was slightly skewed towards tertiary level qualifications (53%), the other 47 per cent having either “High School” or “Trade” qualifications.

The sample was dominated by Pakeha respondents (88.5%), with 7.4% Maori and 4.1% mixed race (Maori/Pakeha). Most indicated their place of residence as “Ohope”

(34.3%). “Harbour Front (not Ohope)” accounted for 20.7%, 17.8% nominated the “Catchment” and 27.2% indicated that they were “Non-resident Property Owners”. Almost half (47.1%) of this latter group had residences in Ohope, with 28.1% in the “Harbour” and the remainder (24.8%) in the “Catchment”.

Data Reduction

The 30 value statements were reduced to six principle factors (Table 1) using Factor Analysis. This statistical procedure allows a large number of related items to be grouped into similar conceptual categories. This procedure is similar to the thematic analysis used to derive the initial items for the survey. However, rather than being based on researcher ‘judgement’ the factors are derived mathematically from the level of correlation between the individual items.

Table 1. Factor analysis value performance.

	Development Tourism	Nature Spiritual Connection	Nature Amenity	Community	Recreation	Nature Managed
Development	.867					
Tourism	.845					
Capital Gains	.780					
More people attracted	.731					
Sophisticated society	.591					
Amenities at the wharf	.585					
A sense of being where I belong		.764				
Spiritual connection		.748				
Timelessness		.683				
Maori history		.631				
Sounds of nature		.609				
Natural variety		.476				
Huge un-impacted coastline			.725			
Low population			.579			
Combination harbour/sea/bush			.578			
National Park Ohiwa harbour			.548			
Community different from city				.753		
Community caring/sharing				.751		
Diverse range of cultures				.721		
Harbour place of relaxation/recreation					.686	
Diversity of recreation					.667	
Seeing people use/enjoy harbour					.593	
Catch Seafood					.491	
Mix of forestry and farmland						.698
Non-native species						.623

Value Clusters

Six value clusters were identified by the Factor Analytic procedure. Factor 1 was named *Development/Tourism* because it was made up of value statements, which referred to aspects of development and amenities associated with tourism. In essence, it comprised those value statements which were classified as “Economic” in the original thematic analysis.

The Factor Analysis indicated that the original “Natural” values category consisted of three sub-sets namely:

- *Nature Spiritual Connection* combined value statements on place attachment, aesthetics and culture;
- *Nature Amenity* combined those statements, which referred to the relatively uncrowded and high natural amenity of the district; and,
- *Nature Managed* combined value statements, which referred to the rural and human altered nature of the district.

A fifth Factor, named *Community*, comprised valued attributes of the Ohiwa community including its perceived difference from the ‘city’, its ‘cultural diversity’ and supportiveness. The sixth and final Factor focused on the *Recreational* values of the Ohiwa District including the ‘harbour’, diversity of recreational opportunities and recreational harvesting of ‘seafood’. One value statement “The native bush and the abundance of wildlife” loaded equally (.510) on the *Nature Spiritual Connection* and *Nature Amenity* attesting to the contribution made by the ‘bush’ and ‘wildlife’ to both the natural amenity and spirituality of people in the area. While the Factor Analysis aids in the understanding of the value clusters shared by the people of the Ohiwa District, it does not in itself indicate the relative importance of these values.

Relative Importance of the Values

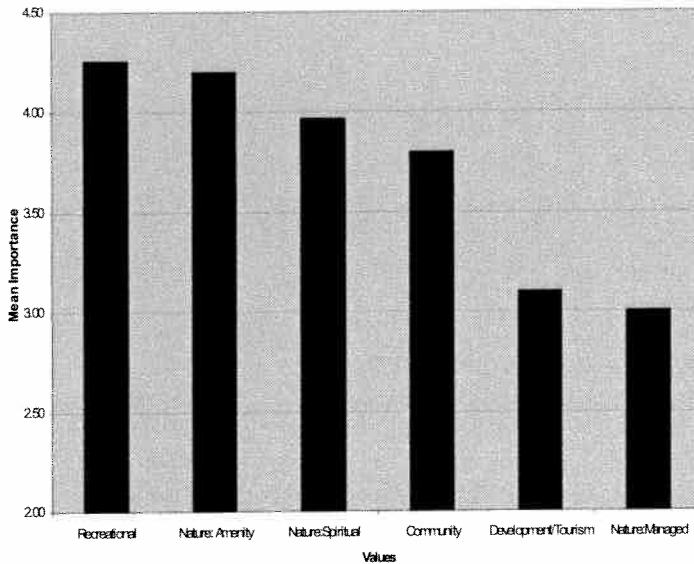
To understand the relative importance of each of the value clusters to the people of Ohiwa District, it is necessary to calculate the mean (average) score of each of the value clusters.

It is evident from Figure 3 that the most important value of Ohiwa District is its *Recreational* opportunities (mean score = 4.25). This is closely followed by *Nature Amenity* (mean score = 4.19), *Nature Spiritual Connection* (mean score = 3.96) and *Community* (mean score = 3.79). All of these would be rated as “important” to the people of the Ohiwa District. On the other hand, two value clusters are rated as neutral, namely *Development Tourism* (mean score = 3.09) and *Nature Managed* (mean score = 3.00).

The analysis indicates that there are three distinct value groupings. The first is comprised of recreation and nature amenities (i.e., use values). The second, of only

slightly less importance, relates to spiritual and community values and finally, the third least valued grouping refers to human alterations of the natural environment.

Figure 3. Relative importance of the value-clusters.



Conclusions

This paper has detailed a method for eliciting the value positions of different groups within a community, using focus groups to explore the variety of value positions and derive verbatim value statements, which were subsequently used as a basis for a community-wide survey. The results revealed a general consensus as to the high importance of recreational use, spiritual, and community values but demonstrated the relatively lower importance and greater diversity of opinion in relation to economic values related to development and tourism.

Acknowledgements

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