Crowding Management

Description

Crowding management is a key management tool in outdoor recreation management, with obvious applications in tourism planning. It is sometimes categorised as one of the "quantity management" strategies available to tourism communities, by recognising and setting limits to tourism use. Crowding management draws on the concept of *social carrying capacity* to enhance visitor experience and increase visitor satisfaction. Social carrying capacity can be defined as a level of use beyond which it is possible to notice a fall in satisfaction with the recreational experience for some users due to crowding. Satisfaction relates to the provision of facilities and services, the perceptions of the numbers and intensity of social encounters, and to the general level of tourism "development." Satisfaction can also depend on the level of interest and involvement of the visitor in their particular activity (see recreational specialisation).

How and when the tool is used

Crowding management was applied to human environmental relationships as early as the 1920s. Use in outdoor recreation management began in the 1960s. Essentially, in tourism development and growth crowding management, analysis of carrying capacity is the ability of a particular setting to sustain tourism activity within the environmental, social and physical constraints of the site (see also biophysical carrying capacity). Initial use of social carrying capacity in outdoor recreation management focussed on the issue of social encounters as a key aspect of a wilderness experience, alongside the physical attributes of an area. In terms of managing a Recreation Opportunity Spectrum (ROS) or the Limits of Acceptable Change (LAC) it is important to add this social dimension. Recreation management therefore looks to consider experiences in terms of interactions between people, not just their experiences of the natural environment. Some of the most well known uses of social carrying capacity and crowding management have been in reaction to controlling numbers in recreation pursuits, such as white water rafting, walking/tramping and fishing. New Zealand applications include sea kayaking and aircraft activity in national parks. There are some research examples in New Zealand, based on the issue of controlling social encounters between visitors in these sorts of contexts. Examples of practical use of crowding management include the hut booking systems on the Abel Tasman Track, limits on track numbers on private tracks, and control of the direction of walking on Milford Track. The concept of social carrying capacity and techniques for crowding management should allow for relatively routine, repeated monitoring of visitors and visitor activity - such as track counters and hut stay records. Unfortunately even these simple counting measures are often hard to obtain, especially with a time series. Most difficult are assessments over time of visitor satisfaction and crowding, and also host community perceptions of crowding, although a number of questionnaire based scales have been developed (see visitor satisfaction survey).

Application

Crowding management has strong spatial and economic dimensions, as it is primarily about assessing the sustainable level of use of resources from a social and physical perspective, and the allocation of scarce resources. Crowding management has largely been applied in outdoor, especially "wilderness", settings. There are implicit assumptions here that people have a greater tolerance of crowding in urban settings than natural settings, and, within natural settings, a greater tolerance of crowding in "front-country" than "back-country" settings. However, the principles of social carrying capacity should apply in any setting. Linkages exist between social and physical carrying capacity, and the Department of Conservation has begun to address the issues. In particular, the tool can assist with resolution of debates between enhancing conservation values and fostering use by visitors. The results could be applied to facility planning and tools such as concessions for business activities.

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However, the tool is not confined to public lands in potential applications, which should include both public and private settings and Maori or customary land. Crowding management has been applied on private walking tracks, for instance, walking numbers restricted to enhance the experience, and to fit with available facilities and increase business yield. Cultural sensitivity should be assessed alongside crowding tolerances (which could exceed cultural or other impact thresholds). Considerable attention has been given to the question of visitor satisfaction. Initially much of this effort was placed on the management of visitor numbers and activities, with a particularly strong emphasis on the provision of facilities, such as car parks, toilets, huts, walkways, visitor centres and interpretive information. By the 1990s, emphasis had swung more towards

management that focussed on personal experiences and social-psychological issues that included social encounters, learning experiences and participation. Other work looks at the interaction of visitor satisfaction and appropriate environmental behaviour, as with a study of visitors to a fur seal colony near Kaikoura. Further examples of the application of social carrying capacity in New Zealand include trout fishing and tramping. Work on the possibility of crowding on back country fishing rivers found differences between resident New Zealanders (less tolerance of encounters) and non-residents, and an increase in visitors' tolerance of encounters. Similar work on the relationship between recreation experience and perceptions of crowding found that the type of tramper, years of tramping experience and participation level all affect perceptions of crowding amongst trampers. Further studies found that visitors might be "bothered" by a number of factors that relate to both crowding and the impacts of visitors, such as poor water hygiene, trampling and track damage. Issues of crowding management are complex. Research on visitors to the Waitomo Caves found considerable differences in perceptions of crowding (or social carrying capacity) between domestic and international visitors and amongst various nationalities. Management of the "pulse" of tour groups through the caves can increase both social and physical carrying capacity, but there are important implications to managing such scarce tourism resources. These include cultural, commercial and political implications around visitors, the tourism industry and host communities.

Our evaluation

Work on crowding management to date has focussed on a number of outdoor recreation settings, but now needs to be broadened. There is also a need to develop stronger links between research, monitoring and management strategies. This will require simple tools (including simple survey forms) and training of staff in agencies such as the Department of Conservation. These tools could also be broadened to assess the crowding thresholds of different cultural groups - for instance Asian and European visitors may have differing perceptions of crowding. Additionally Maori groups who are closely associated with an area's activities or facilities may also have differing perceptions of crowding or carry capacity from visitors, tourism developers or DOC. Along with recreational specialisation, the concept of social carrying capacity and tools for crowding management, including the assessment of visitor satisfaction, are important contributions from outdoor recreation research and management to integrated tourism planning and management. They allow us to obtain a better understanding of the social characteristics of visitors and the nature of visitor behaviour indifferent settings and then to address the implications of this understanding in the management of visitors. Managing crowding is fundamental both to visitor and host community perceptions of tourism experiences. There is clear potential to link these concepts into an integrated approach to defining the limits to acceptable change, and tools to manage quantity and quality, at a resource agency level and also at a host community level.