Exploring responsibility-sharing between visitors and managers: Results of a Delphi study

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Introduction

Given the high expectations for quality nature-based experiences by the public and the tourism industry combined with an increasingly diverse array of activities by visitors from a wide range of cultural backgrounds, visitor risk and safety management is of increasing concern to recreational and protected area management agencies around the world (e.g. Rickard 2012; Shibasaki et al. 2010). In addition to a genuine commitment and a moral onus to facilitate public access as safely as possible, risks to visitors are managed for legal and financial reasons (McDonald 2003). However, the management of visitor safety is multifaceted and complex, and ambiguity often exists in terms of whether and how much individual visitors share responsibility for their safety with park management authorities (Rickard 2012).

In an effort to explore the perspectives of protected area managers, a qualitative study has been conducted *to explore the concept of responsibility-sharing* in recreational and protected areas in Australia. The study sought to answer questions such as: who shares responsibility for visitor safety in protected areas; why are responsibilities shared; and how may responsibility-sharing vary across different visitation contexts at different sites? Given that the formation of appropriate visitor risk management strategies is highly context dependent, gaining answers to such questions is timely and may assist park managers in future strategic planning and management implementation processes.

Methods

An email-based Delphi study has been undertaken, which is a research method characterized by a repeated feedback-loop until consensus is achieved (e.g. Donohoe 2011). Research participants were recruited based on their involvement in visitor risk management as part of their professional role within protected area management agencies in Australia. A total of 22 experts agreed to participate in the study representing visitor risk management expertise from a state (i.e. seven agencies) and national (i.e. one agency) level. Using the simple heuristic of a 'responsibility continuum for risk management' (McLennan & Handmer 2012) as a conceptual guide, the results presented emerged from the systematic, qualitative analysis of the written responses provided by panellists in three consecutive Delphi rounds conducted over ten months in 2017 (see Gstaettner, Weiler, Rodger & Lee 2018).

Results and Discussion

Sharing responsibility for visitor safety in protected areas:
All participants agreed that maintaining a high visitor safety standard in recreational and protected areas can only be achieved if a variety of relevant stakeholders accept responsibility to maintain the safety of visitors. Five stakeholder groups were identified to share responsibility for visitor safety based on the acknowledgement that all of these may influence safety outcomes in protected areas. The stakeholder groups identified include:

1) *Environmental Land Management Agencies* (responsibilities arising from legal requirements and liability laws, the promotion of access including the associated provision of services and infrastructure, as well as from their superior knowledge of specific environmental hazards of an area, including previous incident occurrences);

2) *Other Government Agencies on a Local, State or Federal Level* (responsibilities may arise for example for police or fire and emergency services based on their specialist ability to respond to emergency situations, or specific knowledge of governmental departments such as the Department of Water in relation to water quality issues of recreational water bodies);

3) *Commercial Tour Operators and Other Park License Holders* (responsibilities arising from legal obligations stemming from codes, standards, or licensing requirements, as well as a from the direct facilitation and/or promotion of activities and the associated superior knowledge base in relation to specific activity risks);

4) *Tourism Agencies or Private Businesses involved in the marketing of park activity* (predominantly moral obligations stemming from the dissemination of - potentially conflicting - promotional information);

5) *Visitors* (responsibilities arising from legal and moral obligations in relevance to personal responsibility for one's own safety and the safety of other visitors, as well as their direct behavioural influence on safety outcomes due to their choices made in relation to the location visited, their choice of information source, their choice of activity undertaken, as well as whether they accept management safety advice provided).

Delphi participants focused in particular on the responsibility-sharing between 'those at risk' and 'those in authority' (McLennan & Handmer 2012), i.e. the visitor or park user and the relevant land and visitor management agency. Consequently, subsequent Delphi rounds further investigated how contextual factors reflecting the characteristics of recreation opportunities could shape responsibility-sharing domain between these two main stakeholder groups.

Defining the responsibility context in protected areas:
All participants agreed that each nature-based setting is defined by its unique combination of environmental, social and managerial characteristics, and it was affirmed that responsibility-sharing conditions and associated societal expectations vary in relation to these differences. Through the lens of responsibility-sharing, the visitation context impacting on visitor risk management decisions as defined by the Delphi research participants varies relative to three situational dimensions:

(1) by a setting's *remoteness* considering its spatial as well as functional accessibility;

(2) by a setting's *level of visitor service* provision such as its physical infrastructure and its level of on-site risk information provision; and

(3) by the way a setting is *promoted*, considering the extent of promotional efforts and the type of visitors targeted.

A summary of the contextual factors influencing responsibility-sharing in recreational and protected areas is provided in Figure 1.
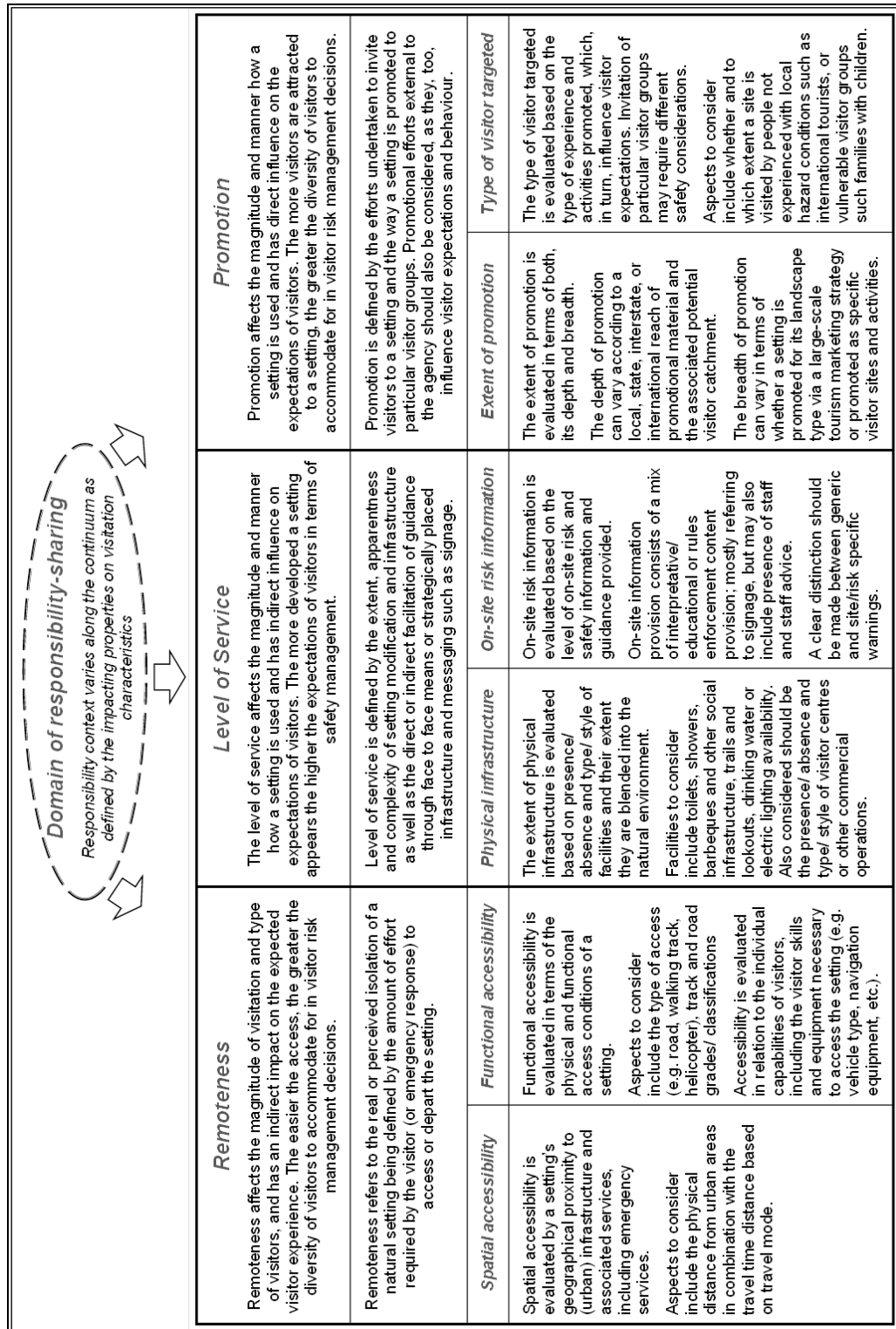
Domain of responsibility-sharing

Responsibility context varies along the continuum as defined by the impacting properties on visitation characteristics

Remoteness

Remoteness affects the magnitude of visitation and type of visitors, and has an indirect impact on the expected visitor experience. The easier the access, the greater the diversity of visitors to accommodate for in visitor risk management decisions.

Remoteness refers to the real or perceived isolation of a natural setting being defined by the amount of effort required by the visitor (or emergency response) to access or depart the setting.

Spatial accessibility	Functional accessibility
Spatial accessibility is evaluated by a setting's geographical proximity to (urban) infrastructure and associated services, including emergency services. Aspects to consider include the physical distance from urban areas in combination with the travel time distance based on travel mode.	Functional accessibility is evaluated in terms of the physical and functional access conditions of a setting. Aspects to consider include the type of access (e.g. road, walking track, helicopter), track and road grades/ classifications Accessibility is evaluated in relation to the individual capabilities of visitors, including the visitor skills and equipment necessary to access the setting (e.g. vehicle type, navigation equipment, etc.).

Level of Service

The level of service affects the magnitude and manner how a setting is used and has indirect influence on expectations of visitors. The more developed a setting appears the higher the expectations of visitors in terms of safety management.

Level of service is defined by the extent, apparentness and complexity of setting modification and infrastructure as well as the direct or indirect facilitation of guidance through face to face means or strategically placed infrastructure and messaging such as signage.

Physical infrastructure	On-site risk information
The extent of physical infrastructure is evaluated based on presence/ absence and type/ style of facilities and their extent they are blended into the natural environment. Facilities to consider include toilets, showers, barbeques and other social infrastructure, trails and lookouts, drinking water or electric lighting availability. Also considered should be the presence/ absence and type/ style of visitor centres or other commercial operations.	On-site risk information is evaluated based on the level of on-site risk and safety information and guidance provided. On-site information provision consists of a mix of interpretative/ educational or rules enforcement content provision; mostly referring to signage, but may also include presence of staff and staff advice. A clear distinction should be made between generic and site/risk specific warnings.

Promotion

Promotion affects the magnitude and manner how a setting is used and has direct influence on the expectations of visitors. The more visitors are attracted to a setting, the greater the diversity of visitors to accommodate for in visitor risk management decisions.

Promotion is defined by the efforts undertaken to invite visitors to a setting and the way a setting is promoted to particular visitor groups. Promotional efforts external to the agency should also be considered, as they, too, influence visitor expectations and behaviour.

Extent of promotion	Type of visitor targeted
The extent of promotion is evaluated in terms of both, its depth and breadth. The depth of promotion can vary according to a local, state, interstate, or international reach of promotional material and the associated potential visitor catchment. The breadth of promotion can vary in terms of whether a setting is promoted for its landscape type via a large-scale tourism marketing strategy or promoted as specific visitor sites and activities.	The type of visitor targeted is evaluated based on the type of experience and activities promoted, which, in turn, influence visitor expectations. Invitation of particular visitor groups may require different safety considerations. Aspects to consider include whether and to which extent a site is visited by people not experienced with local hazard conditions such as international tourists, or vulnerable visitor groups such families with children.

Figure 3 Summary of contextual factors influencing responsibility-sharing

Conclusion

This study showed that Australian land managers involved in visitor risk management issues perceive protected areas as *shared risk spaces* where visitors and managers interact. Interaction does not necessarily relate to any physical or social contact between the two parties, but rather refers to the setting context as a means of defining conceptual representations of responsibility-sharing conditions. Within these conditions, the contextual manifestation of a setting is capable of defining societal expectations in relation to how much responsibility should be accepted by each party. The results of this study support recreation and protected area management agencies to establish relevant responsibility parameters and appropriate resourcing of a setting to identify an acceptable level of visitor risk management response. The three dimensions offer conceptual guidance to systematically consider the wider circumstances relevant to visitor risk management decisions across different setting conditions.

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