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Monitoring the Value of Visitors to Protected Areas: The Australian Approach

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Keywords: Visitor expenditure, protected areas, survey toolkit.

Objectives of the Study

The key aim is to develop a 'toolkit approach' to assess the direct visitor expenditure attributable to protected areas. The toolkit is based on a critical appraisal of selected evaluation methods and techniques that have been implemented in Australia and abroad. The toolkit enables protected area managers to readily assess the economic benefits of visits to localities and regions containing protected areas. Such data has been used to present cases to better resource the management of these areas, that attract so many domestic and international visitors. This project builds on work undertaken by Wood and Dowling (2002), Wood (2003) and Carlsen and Wood (2004); to measure the direct economic value of visits to two areas in Western Australia, the Southern Forest Region and the Gascoyne Coast Region.

Methods

The project builds on other Australian (Carlsen 1997, Wood 2003) and international studies to establish methods of assessing the direct economic value of visits to protected areas, to clarify key explanatory variables of visitor expenditure and to develop and proof a simple survey instrument. More specifically, the project includes:

a) Desktop research to identify methods to assess the economic value of protected areas.

b) Statistical analysis of survey data collected at two protected areas in Western Australia, between 1997 and 2004, to identify key explanatory variables of direct tourist expenditure;

c) Development, assessment and modification of a survey instrument that addresses the key variables of visitor expenditure based on (b).

Whilst sample sizes for this project were relatively large, data was also compared with that collected by Wood (2003) since 1997 with samples varying from around 100 to 400 surveys. This comparison produced remarkably consistent results across varying sample sizes with the exception of one survey that was dramatically skewed by a predominance of campers in the survey, suggesting that samples should be moderated by knowledge of accommodation types and occupancy rates at the time a survey is conducted. Similarly, average length of stay was influenced by responses from long-term campers in the sample (especially in the Gascoyne Coast Region), so these 'outliers' had to be removed from the final data set.

Key Findings

The study finds that the most appropriate measure of assessing the contribution of visitors to a local/regional economy is direct expenditure and that the key explanatory variables of direct expenditure are:

1. Visitor origin
2. Visitor accommodation type
3. Visitor activities
4. Visitor household income
5. Visitor age

Table 1: Key explanatory variables of visitor expenditure.

	Statistical significance (level)	
Variable	**Southern Forests Region**	**Gascoyne Coast Region**
Visitor place of origin	-	significant (0.01)
Visitor accommodation	significant (0.01)	significant (0.01)
Visitor activities	-	significant (0.01)
Visitor household income	significant (0.05)	-
Visitor age	-	significant (0.01)

Consequently, a very useful visitor expenditure survey can be restricted to questions related to expenditure and these five key explanatory variables (Table 1). Additional questions enable the attribution of visitor expenditure to the protected area and a measure of the substitution effect. Attribution and substitution were key elements in presenting direct expenditure data to the Western Australian Treasury (see Carlsen and Wood, 2004) as they provide an indication of the significance of the protected area in attracting visitor expenditure (attribution) and retaining visitor expenditure in the state economy (a form of import substitution).

Conclusion

The survey instrument developed by the researchers can be used to collect direct expenditure data attributable to protected areas.

Sample sizes can be small provided they are representative of the key explanatory variables. Consequently, it is recommended that surveys be conducted in all accommodation types in and around protected areas. The results can be used to generate more resources for protected areas, commensurate with the direct economic value of tourism to those sites. For example, the State Government Department of Conservation and Land Management [CALM] successfully used these direct expenditure estimates to present a business case to the Western Australian Department of Treasury, to obtain substantially increased management resources for protected areas. The protected area evaluation toolkit will be employed in other regions of Australia and overseas to obtain increased resources for protected areas.

Acknowledgements

The project was conducted by the Curtin Sustainable Tourism Centre (CSTC), under the auspices of the Sustainable Tourism Co-operative Research Centre (STCRC).

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