# Encounter and Behavioral Norms of Hikers: A Study of the Taroko Gorge National Park, Taiwan

# Yi-Chung Hsu<sup>1</sup> & Chih-Peng Fang<sup>2</sup>

<sup>1</sup>National Dong Hwa University, Taiwan ychsu@mail.ndhu.edu.tw

<sup>2</sup>Taiwan Hospitality & Tourism College, Taiwan jpfang@tht.edu.tw

Keywords: Encounter norms, embarrassment, guilt, informal sanction, internal sanction, norm crystallization, obligation, shame.

### Introduction

Due to the heavy use of mountain trails, national park policy makers are concerned about how to establish social carrying capacity indicators. Developing evaluative standards for judging the acceptability of impacts caused by hikers is important. The normative approach was developed in North America as a useful method of conceptualizing, collecting, and organizing empirical value judgments regarding resource management issues. The study examined the personal and social encounter norms of hikers, as well as their behavioral norms on the Taroko Gorge national park trails, Taiwan a non-North American setting.

## Methods

The survey instrument's content and format was based on the questionnaires developed by Vaske and Donnelly (2002), Heywood (2002) and Heywood and Murdock (2002). The survey gathered the following data: (a) hiking experience and level of specialization; (b) the number of hikers encountered and their level of perceived crowding; (c) social obligations and self-reports of sanctions for jamming trail traffic. In total, 475 questionnaires were obtained using an on-site survey in 2005.

## Results

The survey results were as follows: (1) Most hikers (57.5%) had a personal encounter norm; (2) The consensus of the social encounter norm was high;

(3) The perceived encounters and perceived crowding for those with a norm were significantly higher than those without a norm; (4) When perceived number of encounters exceeded a hiker's personal encounter norm, their perceived crowding level increased; (5) Over 90% of the hikers said they should always give way to other hikers; (6) The intensity of the behavioural norm was low, which was determined by summing subject responses to shame and guilt (internal sanctions) and embarrassment (informal sanction); (7) The power and prevalence of the behavioral norm were low.

#### **Conclusions**

Three conclusions were drawn: (1) Encounter norms exist for most backcountry hikers, consistent with North American literature; (2) The encounter-norm-crowding relationship can be generalized as Vaske and Donnelly (2002) suggested; (3) The results of the behavioral norm suggested cross-cultural variations for sustainability and carrying capacity evaluations should be considered for future research. Suggestions were made for national park management. For instance, encounter norms, perceived encounters, and perceived crowding should all be included as carrying capacity indicators for the Taroko Gorge national park trails. Since internal and informal sanctions were low, either compulsory trail regulations or educational programs should also be considered.

# **Acknowledgements**

The authors would like to thank the National Science Council of Taiwan for financially supporting this research under contract NSC 94-2415-H-259-004.

## References

- Donnelly, M.P., Vaske, J.J., Whittaker, D., & Shelby, B. (2000). Toward an understanding of norm prevalence: A comparative analysis of 20 years of research. In: Environmental Management (25/4), p 403-414.
- Heywood, J.L. (2002). The cognitive and emotional components of behavior norms in outdoor recreation. In: Leisure Sciences (24), p 271-281.
- Heywood, J.L. & Murdock, W.E. (2002). Social norms in outdoor recreation: Searching for the behavior-condition link. In: Leisure Sciences (24), p 283-295.
- Kim, S.-O. & Shelby, B. (1998). Norms for behavior and conditions in two national park campgrounds in Korea. In: Environmental Management (22/2), p 277-285.
- Vaske, J.J. & Donnelly, M.P. (2002). Generalizing the encounter-norm-crowding relationship. In: Leisure Sciences (24/3-4), p 255-269.