



**“Gheorghe Asachi” Technical University of Iasi, Romania**



---

## INCREASING THE VALUE OF CHINA’S ENVIRONMENT FOR RECREATION: THE CASE OF JIUZHAIGOU, SICHUAN

**Cheng Cheng<sup>1</sup>, Brian E. Robinson<sup>2</sup>, Yi Xiao<sup>1\*</sup>, Zhiyun Ouyang<sup>1</sup>, Enming Rao<sup>1</sup>**

<sup>1</sup>State Key Laboratory of Urban and Regional Ecology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, 18 Shuangqing Road, Haidian District, Beijing, China

<sup>2</sup>McGill University, Department of Geography, 805 Sherbrooke Street West, Montreal, Quebec, H3A 0B9, Canada

---

### Abstract

Nature-based tourism is increasing rapidly in China, forcing policy makers to pay ever-greater attention to the balance between tourism development and natural resource conservation. Taking Jiuzhaigou National Park in Sichuan, one of China’s most famous nature-based tourism sites as an example, this study uses travel cost and contingent valuation methods to estimate the landscape’s “use value” from recreation and users’ willingness to pay for additional measures of protection, respectively. A hybrid individual-zonal travel cost method (TCM) is adopted to estimate travel cost (approximately 3.2 billion RMB) and the accompanying time value (928 million RMB), and the demand curve reveals an annual consumer surplus of more than 2.8 billion RMB. Contingent valuation methods are used to estimate the median willingness to pay (41.4 RMB per person per year) which result in a total marginal willingness to pay (MWTP) of 70.8 million RMB. This implies a total value of around 7.1 billion RMB for the aesthetic value for Jiuzhaigou in 2012. Comparing this research to previous studies of Jiuzhaigou, the recreation value has steadily increased over the past decade and the average per capita cost of travel has decreased. Given the continued growth of the middle class in China, it can be expected that the value of nature-based tourism to continue to increase into the future. Wise policies and proper planning are critical to ensure the landscape provides its maximum benefits to society.

*Keywords:* contingent valuation method, Jiuzhaigou, recreation value, travel cost method

*Received: January, 2013; Revised final: March, 2014; Accepted: April, 2014*

---

---

\* Author to whom all correspondence should be addressed: e-mail: [xiaoyi@rcees.ac.cn](mailto:xiaoyi@rcees.ac.cn); Phone: +86-10-62849335; Fax: +86-10-62849111