

343 | 15 | 0
Views | CrossRef citations to date | Altmetric

Original Articles

Measuring the economic benefits of designating Baegnyeong Island in Korea as a marine protected area


Joseph Kim, Seul-Ye Lim & Seung-Hoon Yoo 

Pages 205-213 | Received 15 May 2016, Accepted 25 Aug 2016, Published online: 21 Sep 2016

 Cite this article  <https://doi.org/10.1080/13504509.2016.1232318>



Sample our
Economics, Finance,
Business & Industry Journals
>> **Sign in here** to start your access
to the latest two volumes for 14 days



 Full Article  Figures & data  References  Citations  Metrics

 Reprints & Permissions

[Read this article](#)

[Share](#)

ABSTRACT

The Korean Government is considering designating Baegnyeong Island, which has several distinguishing features (it is the habitat of endangered species such as the spotted seal and has unique marine scenery and ecosystem), as a marine protected area (MPA). The policymakers are demanding information on the economic benefits of designating the island as an MPA. Therefore, this paper describes an attempt to measure the economic benefits, using a contingent valuation (CV) survey of 600 randomly selected households in Korea in 2015. We used a one-and-one-half-bound dichotomous choice (DC) question to derive the willingness to pay (WTP) responses, and applied a spike model to deal with WTP responses of zero. The yearly mean WTP

per household was computed to be KRW 3,590 (USD 3.15) for the next 10 years, an estimate that is statistically significant at the 1% level. Expanding the value to the national population gives us KRW 67.2 billion (USD 59.1 million) per year. The present value of the total economic benefits amounts to KRW 534.0 billion (USD 469.2 million) using a social discount rate of 5.5%. We can conclude that Korean households are ready to shoulder some of the financial burden of designating the island as an MPA.

KEYWORDS:

Baegnyeong Island

marine protected area

contingent valuation

economic benefit

willingness to pay

Acknowledgements

This research was a part of the project titled 'Integrated management of marine environment and ecosystems around Saemangeum', funded by the Ministry of Oceans and Fisheries, Korea (grant number 20140257).

Disclosure statement

No potential conflict of interest was reported by the authors.

Additional information

Funding

This research was funded by the Ministry of Oceans and Fisheries, Korea (grant number 20140257).

Related research

People also read

Recommended articles

Cited by
15

CAK Daly et al.
African Journal of Marine Science
Published online: 16 Mar 2015

Information for

Authors
R&D professionals
Editors
Librarians
Societies

Opportunities

Reprints and e-prints
Advertising solutions
Accelerated publication
Corporate access solutions

Open access

Overview
Open journals
Open Select
Dove Medical Press
F1000Research

Help and information

Help and contact
Newsroom
All journals
Books

Keep up to date

Register to receive personalised research and resources by email

 Sign me up



Copyright © 2026 Informa UK Limited [Privacy policy](#)

[Cookies](#) [Terms & conditions](#) [Accessibility](#)

Registered in England & Wales No. 01072954
5 Howick Place | London | SW1P 1WG

 **Taylor & Francis**
by **informa**•••