

HETEROGENEITY OF RECREATIONAL SERVICES AND VARYING PREFERENCES OF USERS: AN APPLICATION OF CHOICE EXPERIMENT TO FRENCH FORESTS

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Abstract

Recreational services provided by forests are highly heterogeneous and mostly non-market. Yet managers need to understand preferences for forest attributes and to place a monetary value on public goods like forest recreation. Unfortunately, traditional valuation methods are not designed to capture multidimensional changes. It is therefore necessary to use alternative methods like Choice Experiment (Bennett & Blamey, 2001). Developed within the discrete choice modelling framework, Choice Experiment is consistent with Lancaster's multi-attribute utility approach (1966) and with random utility theory (Manski, 1977).

We use Choice Experiment to study visitors' preferences for the recreational settings of public forests in the Gironde area (Southwest France) and to estimate visitors' Willingness-To-Pay (WTP) for these attributes. The status quo is a "no policy" alternative. Four attributes are identified: congestion, facilities, cleanliness and scenic quality. The cost attribute is expressed as a "proxy" distance. The status quo describes the hypothetical changes in recreation conditions at the survey site. The other scenarios are proposed as more or less distant alternative sites. Attribute levels are mainly represented by visual illustrations. Several methodological aspects are tested through different versions of the questionnaire (that vary with respect to the place of the illustrations for instance).

The survey was conducted in the summer of 2006, and 170 usable questionnaires were obtained. Among the various possible models, the conditional logit was selected. Results show that the baseline levels of cleanliness, congestion and equipments cause a loss of utility. Residents are however only willing to pay to maintain current levels of scenic quality and cleanliness. At the same time, several intermediate results suggest that residents may exhibit lexicographic preferences, whereas these are hardly consistent with standard economic assumptions and severely complicate estimation of WTP and demand. This point is discussed in the conclusion.

Key Words

Choice experiment, Coastal forests, Economic valuation, Outdoor recreation

Key References

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