Thesis Title An Economic Valuation of Ecosystem Services of the

Protected Area: A Case Study of Shivapuri-Nagarjun

National Park

Author Hari Bhadra Acharya

Degree Master of Science

(Natural Resources and Environmental Management)

Advisor Dr. Apisom Intralawan

ABSTRACT

The people living in the proposed buffer zone area of the Shivapuri-Nagarjun National Park, Nepal were surveyed by using the discrete 'yes/no' closed-ended contingent valuation question for assessing the economic value of protected area at local level. The econometric probit model was used to fit the data and interpretations were carried out for the qualitative analysis of relationships of various socio-economic characteristics with the valuation function. The estimated economic value of the ecosystem goods and services elicited by willingness to accept (WTA) compensation is US\$ 207 per household per year. However, the protected area is established primarily to achieve the goal of protecting important ecosystems and biodiversity, it provides array of ecosystem goods and services having different kind of values—direct and indirect, use and non use, instrumental and intrinsic—for various group of stakeholders depending the location from the park at local, regional, and global level.

Nevertheless, the ecosystem services are not considered for policy decisions

while designing the protected areas. However, the potential to accumulate financial

supports from the beneficiaries is significantly high for this park compared to the

financial support required for compensating welfare loss of the local community as

the vast amount of benefits such as clean drinking water, recreation, carbon

sequestration services to the adjoining city residents of Kathmandu is very high if

properly evaluated.

In developing country the subsistence agrarian neighboring community has

traditionally dependent on the public resources for their livelihoods and would be

impacted by the park's strict rules to limit the use of these resources, thus requiring

appropriate alternatives to address these issues for seeking their supports for the

conservation. However, economic valuation of ecosystem services is anthropocentric

approach as elicitation is based on human preferences, it provides us an opportunity to

evaluate the various ecosystem services of the protected areas in terms of a common

denominator, i.e., monetary that demonstrate clearly the importance of addressing the

distributional issues related to share the benefit and cost among the losers and winners

from the park establishment. The policy implication of economic valuation is for

designing the social welfare measures such as buffer zone programs of protected areas

for integrated participatory conservation programs.

Keywords: Protected area/Ecosystem services/Buffer zone/Welfare measure/

Participation

(5)