

"Gheorghe Asachi" Technical University of Iasi, Romania



PERCEPTION AND USE OF CULTURAL ECOSYSTEM SERVICES AMONG THE ANDEAN COMMUNITIES OF CHIMBORAZO RESERVE

Danny Daniel Castillo Vizuete^{1,2}, Alex Vinicio Gavilanes Montoya^{1,3}, Carlos Benjamín Ricaurte Yepez², Carlos Renato Chávez Velásquez² Marina Viorela Marcu¹, Stelian Alexandru Borz^{1*}

¹Department of Forest Engineering, Forest Management Planning and Terrestrial Measurements, Faculty of Silviculture and Forest Engineering, Transilvania University of Braşov, Şirul Beethoven No.1, Braşov, RO-500123, Romania

²Faculty of Natural Resources, Escuela Superior Politécnica de Chimborazo,

Panamericana Sur km 1½, Riobamba, EC-060155, Ecuador

³Faculty of Sciences, Escuela Superior Politécnica de Chimborazo, Panamericana Sur km 1½, Riobamba, EC-060155, Ecuador

Abstract

Challenges that characterize the relations between humans and environment can be addressed using the concepts and methods of ecosystem services assessment to provide a proper basis for environmental accountability and policy development. While the provisioning ecosystem services received a lot of focus in the science, and based on different cultural values that may be associated to different regions, there are still gaps in understanding how local communities use the ecosystems' cultural services. This study quantified the frequency of use and the perceived capacity to provide cultural services in the view of communities located in the Chimborazo Wildlife Production Reserve (CR), Ecuador, by a questionnaire survey. Based on 356 valid questionnaires and a response rate of 78%, the findings indicate that locals tend to use and place value on cultural services provided by iconic mountains such as Chimborazo. In particular, the locals use cultural services that are associated with recreation (observation of flora and fauna, hiking, rest and relaxation, entertainment and landscaping), while the frequency of use seems to be related to proximity and local believes. In the case of perceived capacity, the things were similar, with high ratings given to closest landscapes and touristic attractions, and in particular to the Chimborazo Mountain. Locals tend to perceive differently the capacity of landscapes to provide cultural services based on gender, occupation and level of income. Implications for local environmental management are not serious since the management scope of the CR is not divergent compared to the locals' use of cultural services.

Key words: actual use, capacity to provide, Chimborazo, cultural ecosystem services, Ecuador

Received: January, 2019; Revised final: May, 2019; Accepted: June, 2019; Published in final edited form: December, 2019

^{*} Author to whom all correspondence should be addressed: e-mail: stelian.borz@unitbv.ro; Phone: +40 742042455