

A METHOD OF RAPID BIODIVERSITY EVALUATION FOR PAYMENT FOR ENVIRONMENTAL SERVICES: INDICATORS APPLIED TO PUBLIC POLICY CONSERVATION.

Theme: Biodiversity conservation indicators

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The paper presents a method of rapid biodiversity assessment for the purposes of Payment for Environmental Services (PES). In 2008, the State of Espírito Santo published the Law n° 8.995 allowing for payment for soil conservation, carbon, water and biodiversity services. A quick and easy procedure to assess biodiversity was developed based on the theories of landscape ecology and conservation biology and on the triangle of sustainability: environmental, social and economic (modified Padovan 2004). It includes three different levels of analysis: scopes, principles, criteria and indicators. Scopes are: the natural area object of the analyses (fragments), the rural property and its immediate surroundings. Each scope is considered under a hypothetical principle, measured by different criteria and indicators scored from 0 to 3 points. The principal for the natural area “it conserves the biodiversity of the region” is measured by four criteria and nine indicators, including diversity of ecotones, successional stage, endangered species, size and shape of fragments. Within the property, focus is on socio-environmental suitability and indicators range from percent extension of the natural area to diversity of productive activities. In the property’s surroundings the focus is on the ecological viability of the natural area, indicated by the distance and the size of nearby fragments. The social production of biodiversity is evaluated through knowledge associated to management of the property ecosystems. The whole method includes one field trip, a semi-structured interview, analysis of aerial images and secondary data. It is estimated to take around 16 hours/man and to be performed by two individuals separately, in order to control for subjectivity. The aim is to provide public incentive for private conservation of biodiversity, such as for inhabitants and owners of natural reserves.

Key words: Evaluation, biodiversity and environmental services.