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1. Frameworks for structuring and synthesising ecosystem service assessments (TWG 1)

A framework proposal to evaluate ecosystem service indicators

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An important step of ecosystem service payment projects is to use indicators to monitor the effectiveness of the guidelines adopted by farmers. In Brazil, the ecosystem payment projects are very recent and it is not possible to know yet the indicators efficiency to monitor the ongoing actions concerning these projects.

For this purpose, this paper aims to present a set of indicators that are being used in Brazil and a framework for its evaluation. The set of indicators was taken from the project documents available. Six ecosystem payment projects ongoing in Brazil were surveyed and more than thirty five indicators concerning the environmental, social and economic dimensions were collected. Most indicators were related to water parameters. The other important analysis is from the landscape, concerning biodiversity and relief parameters. Another important aspect of these projects is the erosion evaluation. However, only few soil parameters are included, which shows an important aspect to be improved in the projects. Concerning the social and economic aspects, there was only one parameter that could be associated to social dimension and none to the economic one. It demonstrates the need to add this aspect to the evaluation, as one of the ecosystem payment projects aim is to improve society's wellbeing. This was the first stage of a huge ecosystem service indicators evaluation.

The second stage was to associate the indicators according to a methodological framework to assess ecosystem services based on both performance of ecosystem services delivery (supplieside) and its use, based on Haines-Young and Potschin (2010) and Martin-Lopez et.al. (2013). The framework were applied to evaluate each service and includes its structure, function and benefit. For each step, a set of indicators was associated. As ecosystem service is a very complex subject, it is important to define very well the service that will be evaluated and how it will be done. The critical issue is the framework methodology definition.