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Socio-ecological systems are facing global changes such as economic globalization, rural exodus, climate change, loss of biodiversity and soil degradation among others. The challenges of interdisciplinary socioecological science are to provide guidance to policy makers and civil society about how to promote adaptation to such changes whilst reducing ecological and social vulnerabilities. Soils are the basic support for many ecosystems and human activities. However, little justice is done to them since the general premise is that soils provide socio-ecosystems with “services” and humans provide soils with “impacts” from their use and management. Too often, soils are considered a “black-box” and studies focus on what happens aboveground. There is a consensus among many authors that our understanding about soil natural capital and its services has to be completed (Balmford et al., 2002; Daily et al., 1997; Kroeger and Casey, 2007; Swinton et al., 2006, 2007; Turner and Daily, 2008).

Agricultural ecosystems cover nearly 40 per cent of the terrestrial surface (FAO 2009). Agriculture is, thus, a dominant form of land use and it is both a supplier and consumer of ecosystem services (Power, 2010; Swinton et al 2007). However, increasing levels of soil erosion are affecting arable land in many parts of the world. Since the green revolution, the productive model imposed has prioritized technology (such as use of irrigation, fertilizers etc.). However, flexible Institutions could be more effective on solving environmental problems and social vulnerabilities.

Misfits between soil ecosystems, farmers and Institutional arrangement often arise from misunderstandings about key features of biophysical systems or because there is certain clash of interest concerning the inclusion of this knowledge, which leads to the creation of regimes poorly suited to the biophysical systems with which they interact (Young, 2002).

In this context, this research aims to adapt the Ecosystem Services (ES) approach to soils from a political ecology perspective. In other words, an amalgam between soil science and political ecology¹ science applied to ecosystem services of soils and their managers.

1. Political ecology has been defined in many ways (Robbins, 2004) but regardless of the multiple definitions, there are three common assumptions: 1) Environmental change and ecological conditions are a product of political processes; 2) Costs and benefits associated with environmental change are distributed among actors unfairly and 3) This reinforce or decrease existing social and economic inequality.