

Type of submission: Abstract (voluntary contribution)

S2 ES in Rural landscapes in Brazil

A proposal to enhance ecosystem services in rural landscapes in Brazil

First author(s): Ana Paula Turetta

Other author(s): Fabiano Carvalho Balieiro; Rafael Tonucci; Rachel Bardy Prado; Aline Pachobayba Oliveira; Guilherme Donagemma; Aluisio Granato de Andrade; Luciano Mansor de Mattos.

Affiliation: Brazilian Agricultural Research Corporation – EMBRAPA, Brazil

Contact: ana.turetta@embrapa.br

The multifunctional capacity of agroecosystems is directly linked with ecosystem services provision. The agroecosystem concept provides an approach which analyzes food systems as wholes, including their complex sets of inputs and outputs and the interconnections of their components that results in benefits for the whole system. However, to define in a reliable manner, the connections between agricultural practices and ES provision, is still a challenge, since it is influenced by many factors, specific for each case. The aim of this study is to present some adaptive agriculture strategies to enhance ecosystem services provision in rural landscapes. So, in this study, we present a framework to identify the weaknesses and potentialities of agroecosystems in three study areas, each one located in different biomes in Brazil: Atlantic Forest, Cerrado and Caatinga. Some results concerning that ES types more affected by deployment and management of agroecosystems are supporting and provisioning services, what demonstrated the potential of agriculture management provide multiple services besides food, fiber and energy. “No fire use” and “agricultural consortium” were the criteria for deployment and management of agroecosystems with higher potential for increasing ES provision and biomass stock in soil and litter was the soil parameter more appropriate to be used as indicator to monitor the impact of agroecosystem in ES provision.

Keywords: tropical farming; ecosystem services; multiple agricultural system