

System for Evaluating Land Use Compatibility with Environmental Goals (SATRA)

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Land use in the Brazilian Amazon is related to biodiversity conservation, food production, and renewable energy. The potential of the Amazon biome as a source of biodiversity is well-known, however, it has been threatened by an increasing demand for agricultural land; today the legal Amazon is responsible for 40% of meat and soy produced in Brazil, but also represents 60% of the country's native forests. In some states, conservation areas reach 80% of the states' total area, indicating the possibility of reconciling agriculture with biodiversity conservation goals. This scenario shows that in the near future, the focus of debates over the Amazon will involve questions about quality of life of local populations, job availability, education, sanitation and socio-economic development. When expansion is limited by existing reserves, the use of converted areas will be intensified, which may result in ecosystem degradation. Considering production systems and the agricultural potential of these areas, potential degradation may be mitigated. In response to this demand, a system for evaluating land use compatibility with environmental goals was developed (SATRA – www.satra.eti.br). The system uses objective indicators that can be easily measured by small-scale producers or field technicians. In addition to evaluating the compatibility of current land use with environmental conservation and socio-economic objectives, the system generates an index of un-sustainability of land use. The system is available on the internet and capable of ranking management priorities in cases where re-evaluation of land use is necessary to reconcile agricultural demands and environmental conservation.

Key words: land use, Amazonia, land capacity

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