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Options for the Sustainable Development in Humid Mountain and Semi-arid Surrounding Areas in Ceará, Brazil

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Abstract

The Baturité region in the North of Ceará presents a singular climatic diversity and is divided in three sub-regions of a total of 3,822 km²: humid highlands and semi-arid surroundings (Sertão) and the transition zone inbetween. This mountainous region called “Maciço de Baturité” has fundamental ecological importance for the formation and maintenance of the hydrological stability, specifically for the supply of the metropolitan region of Fortaleza, a city of over 2 Mio inhabitants. The biodiverse forests are encroached by agricultural land-use. Agricultural production systems are characterised by low technological levels which threaten the stability of the natural systems. Population growth is high; the young people emigrate to the cities in search of better economic possibilities; though geographically close, markets are not being reached by the majority of farmers, and the commercialisation system is inefficient. Innovative agricultural production systems were evaluated both from economic and ecological point of view together with their social implications. These alternative systems are ecological and integrated, for instance organic coffee, intensive floriculture, intensive horticulture, sheep-goats, and beekeeping throughout suitable for family farms. The “Maciço of Baturité” has an enormous potential as a pilot area for regional development. The fragility of the natural systems and the threats to scarce water resources of the three sub-regions demands urgent planning and investigation. Future development should make benefit of the location advantage of the proximity to the large consumer market of Fortaleza. It is important to promote the controlled tourism included the other 12 neighbours municipalities as a base for the economic and productive impulse and to counteract socio-economic regression. Specific strategies for each environment can be proposed: Motivating young people, applying an integrated farming system approach, further improvement of flower and vegetable cultivation, inputs to be reoriented towards local resources, development of local markets, linking tourism with coffee production, restricting coffee production to quality cultivars within quality environments.

Keywords: Baturité, key words: Ceará, options for sustainable development.