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“Development on the margin”

Agroforestry Experiences in the Semi-arid Zone of Brazil: Quality of Life, Food Security and Nature Conservation

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Abstract

The Brazilian semi-arid zone and its Caatinga is one of the most depredated and least protected area of the country. Despite the difficult geoclimatic characteristics (*i.e.* limited and irregular rainfall regime, high evaporation rate, crystalline sub-soil), the region is densely populated (12 millions of inhabitants) and rely considerably on farming activities. Besides, decades of socioeconomic inequalities, environmental degradation and inadequate policies

have left a great part of the population in precarious and vulnerable socioeconomic situations.

This study aims to analyse the different benefits provided by successional agroforestry systems — model based on the observation of the local ecosystem and imitation of the natural succession processes - in small family farms of the region. We studied the effects on the food and economic security of these families and on the conservation of the Caatinga, and also tried to capture the farmers' perceptions of their quality of life.

From April to July 2009, semi-structured interviews with six families of farmers were conducted in Bahia, Pernambuco and Ceara. We registered their techniques and made an inventory of the species cultivated. For the analysis of the quality of life of the families, we used the definition of the World Health Organisation Quality of Life (WHOQOL), *i.e.* evaluating the farmers' perceptions of their physical and emotional conditions, their environment and, finally, the quality of their social relations and role in the society. We observed a direct link between this agricultural model and the environmental, food, economic, health and social security of these farmers. An average of 86 species were cultivated in each of the six farms, demonstrating an important agrobiodiversity and a less

economically and environmentally vulnerable system. We also observed a positive change in the farmers' perceptions of their role and responsibility in the society (provision of healthy food and preservation of nature).

Keywords: Agroforestry, biodiversity conservation, food security, life, quality of, small farming