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“Bridging the gap between increasing knowledge and decreasing resources”

Challenges for Sustainable Agricultural Practices in Semi Arid Brazil: The Example of Irrigation Projects in the Itaparica Region

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Abstract

The region of Itaparica, located in Northeast Brazil, was flooded in the year 1987 due the construction of the Luiz Gonzaga Hydroelectric Dam which was built by the São Francisco Hydroelectric Company (CHESF). The flooded area is about 83.400 hectares large and affected approximately 10 cities in the States Pernambuco and Bahia. Around 50.000 people were forced to move to new cities and settlements with irrigation schemes. In the region more than 10 settlements were established and three cities were reconstructed. Since the first year the resettled people have free access to water and agricultural support, guaranteed by a CHESF and Polo Sindical (Local Syndicates Organisation) agreement. Due to the free access the small farmers have used excessive amounts of water mostly for coco, banana and onion cultivation by the sprinkler irrigation system. The salinisation of soil, a result of uncontrolled water use, is a problem in all settlements since the early 1990s. In the last years the use of the agrochemical raised significantly. Some areas are also affected by erosion. Due to these reasons many areas have become unproductive. The excessive use of agrochemical products has affected the health of producers, applicators, consumers and the local population. Since 2012 farmers do not have technical support for agricultural production and consequently the abovementioned problems have increased. The aim of this research is to show the problems of agricultural production in the Itaparica region and aims to contribute to the current debate on sustainable methods in the agricultural production. The lack of control of water and the excessive use of agrochemicals is a big problem for the region. The certification process of sustainable practices is one alternative to avoid environmental impacts. Some organisations give seals for “good agricultural practices” to incentivize production without agrochemicals and to improve the water use. After a literature review various field stays with stakeholder workshops, using constellation analysis, were undertaken. The study is integrated in the INNOVATE Project – a partnership between Brazilian and German universities studying water and land use in the Itaparica region.

Keywords: Agricultural production, environmental impacts, settlements