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Asset Specificity and Organizational Arrangements — The Case of Introducing Specified Technology in a Rural Area of Brazil

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Abstract

Subject of this analysis is the co-operation between researchers and peasant landowners introducing an innovative technology of tractor-driven bush choppers in Brazil. This socioeconomic project (ZEF and EMBRAPA) is located in Cumarú, Munizip Igarapé-Açu. A project like this is highly depending on the right choice of organisational arrangements to ensure the consent of both groups concerned, agrarian scientists on the one hand, peasant landowners on the other hand. The scientists are most interested in testing the efficiency of new machinery in “secondary” forests, the peasant landowners want to maximise their profits. To secure their goals both groups have agreed on an informal contract to form this co-operation. They have chosen a “hybrid” organisational form instead of a “market-orientated” or a “hierarchical” organisational form. The co-operation uses newly developed tractor driven bush choppers that are especially designed to be used in secondary forest regions like Cumarú. Using these choppers is not only a fire-free technology, it also insures a sustainable development and an alternative to the traditional method of slashing and burning soil for shifting cultivation in the Eastern Amazon region. Introducing highly specified bush choppers shows a high degree of specificity.

This paper uses the “new institutional economics” theory with special attention to the “transaction costs” in order to support the analysis in agrarian research. Asset specificity refers to the relative lack of transferability of assets intended for use in a given transaction in comparison to other uses. Using highly specific assets reduces costs. In the analysis of these assets it is important to keep in mind, that investments in highly specified machinery have little value beyond their designated use. For the analysis of this context “site specificity” and “physical asset specificity” are the most important parameters.

By analysing asset specificity this study helps to find the best possible organizational arrangement for a given co-operation between researchers and peasant landowners in the rural Eastern Amazon region of Brazil.

Keywords: Asset specificity, organizational arrangements, new institutional economics, transaction costs