

## Tropentag, September 14-16, 2022, hybrid conference

"Can agroecological farming feed the world? Farmers' and academia's views"

## Ex-ante socio-economic evaluation of small agroecological farms in Anapolis, Goias State, Brazil

Osmira Fatima Da Silva, Alcido Elenor Wander, Agostinho Dirceu Didonet

Brazilian Agricultural Research Corporation (EMBRAPA), Brazil

## Abstract

This study is based on an agro-economic and socio-environmental technical survey carried out to identify and validate technologies in agroecological cropping systems of fruits, vegetables and grains, with a view to assessing the socio-economic impact. A questionnaire - Rapid Participatory Diagnosis (RPD) was applied to small farms linked to the Association of Agroecological Producers (APROAR), in the municipality of Anápolis and region in the state of Goiás, Brazil, in 2019. The objective was to quantify the participatory adoption of technologies in generation and increase in income obtained by farmers and their families and assist in decision-making regarding new technologies. The socio-economic data obtained in the initial phase were analysed and allowed the identification of characteristics of interest, from the profile of the producer, with information on the agroecological agricultural production in use by the producers, the nutritional aspects, management and cost of the production system, related to the sustainability of the farms. The results show a quite rational use of land and labour, a smooth generation change and family succession as well as opportunities for improvement in the modal cropping system, such as (a) the adoption of bean-maize-intercropping to improve income; (b) the use of organic compost and soil cover crops to reduce cost and improve soil fertility; (c) the mechanisation of some activities to enable expansion of cultivation area with same labour force; (d) the training and adoption of farm management tools to improve overall farm' results; and (e) training of labour force in agroecological agricultural practices to improve the cropping systems in a broader sense. With the Covid-19 pandemic, almost all farmers in the study started marketing their products using digital platforms. So, there is a potential to further develop those initiatives to improve farmers' buying and selling possibilities.

Keywords: Agroecology, cropping system, family farming, sustainability