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### III.10 Passion fruit under slash-and-mulch land preparation- a sustainable crop?

Kato, O.R.<sup>1</sup>, Kato, M.S.A.<sup>1</sup>, Silva, W.R.<sup>1</sup>, Cordeiro, C.J.<sup>1</sup>, Vielhauer, K.<sup>2</sup>

1 *Embrapa Amazonia Oriental, Belém-PA-Brazil.* 2 *ZEF, Uni. Bonn, Bonn, Germany.*

The passion fruit crop (*Passiflora edulis*) became an alternative for the small holders to diversify their production and to increase their income, in part of the Northeastern Pará State, Brazil, and particularly in the municipality of Igarapé Açu. At present, it is the most important semi-permanent crop in this area, where is exclusively cultivated as a cash crop. The slash-and-burn land preparation associated with intensive mechanization use is contributing to increase soil degradation, reducing the potential of regeneration of the secondary vegetation and consequently affecting the biodiversity, and the nutrient availability, as well as exposing the soil to surface erosion. Aiming at evaluating the performance of this crop under the slash-and-mulch system, as a way to mitigate the problems associated to the traditional system, three land preparation methods are being tested, i.e. slash-and-burning; slash-and-burning + plowing; and slash-and-mulching, with and without intercropping. The work is being carried out under a participatory approach, with the farmers taking part of the decision making process. Besides of production data, are also being monitored: fruit quality, incidence of pests and diseases, socio economic aspects, and recently, biophysical aspects. The socio economic assessment is being approached by applying semi structured questionnaires, to some passion fruit producers, trying to understand the process of introduction of this region, how is it affecting their financial budget, and how sustainable is being the crop under the traditional system.