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## To what extent do the work organisation and the role of women determine farm trajectories in the Colombian and Brazilian Amazon?

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### Abstract

The development of agriculture in the pioneer fronts in tropical forest is complex given the tensions that may occur between farm management, forest preservation and socio-economic development. Agriculture worldwide is developed by small family farmers. In these farms, their functioning, their organisation of family work and, specifically, the role of women affect individual trajectories and forest transition processes (degradation, deforestation, regeneration, conservation).

From a systemic agronomy approach, we developed a new methodology to analyse farm trajectories and their bifurcations in pioneer fronts. Farmers were sampled based on degradation, deforestation, regeneration and conservation hotspot in Guaviare, Colombia and Paragominas, Brazil. Through semi-directed interviews, we analysed the role of women and the work organisation of family that allow us to identify the factors of sustainable trajectories. In addition, we analysed the territorial factors (public policies, roads, markets) that have had an effect on the trajectories. Finally, in order to determine whether agroecology is a solution for sustainable development in the Amazon, the farm trajectories are reviewed using a grid of agroecological principles. Our results showed that women play a fundamental role (often invisible) in beginning trajectories that leads to forest regeneration and conservation. Women farmers are also a fundamental actor in pioneering fronts for agroecology. It was found that the management strategy of intensification can lead to regeneration or conservation of forest, as opposed to a strategy based on the expansion of the farm, which in its early stages degrades the forest. The type of management may depend on the stage of the front pioneer (beginning, active, consolidated).

Both local government and development programmes play crucial roles in preventing deliberate bifurcations in farm trajectories that lead to degradation and deforestation (such as peak workloads, poor health care systems or extreme poverty situations). In conclusion, we identified the factors that must be addressed in pioneer fronts to foster farm sustainable trajectories that are a key for building sustainable Amazon territories. However, there is not only one solution and the design of sustainable pathways (prospective studies) is fundamental to support a transition to sustainable territories.

**Keywords:** Agricultural trajectories, agroecological transition, family farms, pioneer front, transitional pathways