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Introduction

Deforestation has dramatically increased in the world in recent years. Coffee production under agroforestry system (AFS) in Gorongosa, aims to reconcile coffee crop sustainability and increase income of small holder farmers.

Materials and Methods

Two areas were assessed (Coffee AFS production and rainforest degraded areas) based on observation of biological and physical parameters. Coffee grains from plants cultivated under different sun exposure and altitude

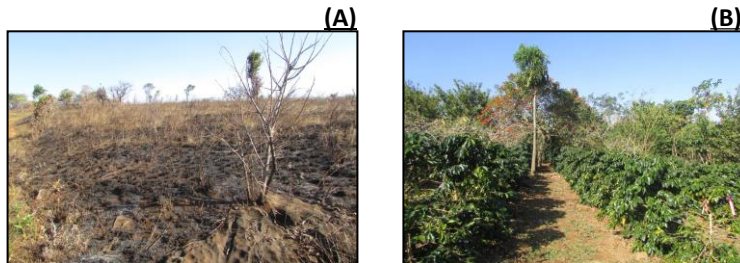


Figure 1: Degraded areas (A) Coffee AFS Gorongosa native trees(B).

Results:

1. Diversity and abundance were higher in areas of coffee AFS production than in degraded areas.
2. The weight of 100 grains, density, caffeine content and total phenols tended to increase with altitude. The green bean color suggested an improvement in quality with increasing altitude. Trigonelline, caffeic, p-coumaric and ferulic acids, and soluble solids con

Conclusion/Perspectives: The coffee AFS production is helping reforestation of degraded areas of Gorongosa mountain. Bean quality tend to increase with altitude, with some contribution of shade, although further analysis is being performed.

References:

1. Dubberstein et al. In Climate Resilient Agriculture - Strategies and Perspectives. 2018. Chapter 4, p. 57-85.
2. Semedo et al. J.N., In Theory and Practice of Climate Adaptation. 2018. Chapter 26, p. 465-477.

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