

The Central African farmers protect their fallow trees to prevent the savannisation of their landscape

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Introduction

In the traditional slash-and-burn system, widely used in southern CAR, the forest is felled and then burnt, and maize, followed by cassava and banana crops, are planted in the ashes. Three or four years later, the plot is abandoned and left fallow without any management until its next clearing.

A study of the evolution of the landscape south of Bangui, the country's capital, shows that this practice leads to the retreat of the forest, replaced initially by a patchwork of degraded forest and *Chromolaena odorata* scrub, then by *Imperata cylindrica* savannahs where agriculture becomes almost impossible.

To avoid this degradation of ecosystems, leading to soil impoverishment, biodiversity loss, carbon emissions and the flight of populations, the PDRSO project introduced farmers in several villages to an Assisted Natural Regeneration (ANR) technique that protects young trees during the cropping cycle so that a stand of trees, and not invasive bushes and grasses, later occupies the land during the fallow cycle.





A negotiation phase between the farmers and the researchers made it possible to choose the species of interest and the technique to conserve them. Monitoring of 24 plots with ANR and 20 control plots without ANR, made it possible to assess the growth of woody plants. Surveys of farmers who had participated in the operation and those who had not, allowed us to assess their perception of the method and their willingness to continue it over time.





Results

Two years after being selected, the young trees already are larger than the main invasive species and are impeding their establishment. In addition, the farmers see the importance of preventing their village territory from being transformed into barren savannah. Difficulties reported include insecurity of land tenure, lack of support from the administration, the brevity of projects, and the difficulty of fighting fires due to lack of collective organization,

Figure: Evolution of the mean height of the main species preserved by ANRw in Boteke and Salanga, over a 24-month period (in cm)

all in an environment of civil war.

Discussion and conclusion



The ANR technique appears to be a simple, low-cost technique that can stop the degradation and the savannisation of landscapes, on the border between forests and savannahs. However, large-scale application requires a secure environment.



References

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