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

Kpolita Arnot[1], Dubiez Emilien[2,3], YONGO Olga[1] and Peltier Régis[3]

[1] Université de Bangui, République Centrafricaine

[2] Institut national de Recherche Forestière (IRF), Brazzaville, Congo

[3]Cirad-ES, RU Forests & Societies, Montpellier, France
peltier@cirad.fr

**Background:** In the traditional slash-and-burn system, widely used in southern CAR, the forest is felled and then burnt, and maize, then 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 the 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, loss of biodiversity, carbon emissions and the flight of populations, the PDRSO project introduced farmers in several villages to a technique of Assisted Natural Regeneration (ANR), which makes it possible to protect young trees during the cropping cycle so that the fallow land is made up of a stand of trees and not of invasive bushes and grasses.

**Method:** 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 the selection of the young trees, they already exceed the size of the main invasive species and slow down 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, the difficulty of fighting fires due to lack of collective organization, 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 of landscapes on the border between forest and savannah. However, large-scale application requires a secure environment that the population hopes will improve.