

Project Update: December 2012

From September to November 2012, team members intensively sampled the distribution of populations of the following multi-used species in the sub-Sahel and partly in the Sahelian area of Burkina Faso: *Vitellaria paradoxa* C.F. Gaertn, *Pterocarpus lucens* LEPR. EX GUILL. & PERR., *Acacia seyal* Delile, *Balanites aegyptiaca* L. (Delile), *Lannea microcarpa* Engl. & K. Krause, *Adansonia digitata* L., *Boswellia dalzielii* Hutch., *Securidaca longepedunculata* Fresen, *Anogeissus leiocarpa* (DC) Guill. & Perr. and *Tamarindus indica* L. The sampling focused only on the stands of the targeted plant species. For each of these species, a minimum of 10 plots of 20m x 50m were sampled for most of the species across the study area. The following parameters were collected on each plot: diameter and height of all adult individuals, the names of accompanying species, type of land use, soil type, etc. Seedlings were sampled on sub-plots of 100m² nested in the big plot. In total, plant demographic data was collected on more than 10,000 tree/shrub individuals belonging to 10 species. First observations from the field showed that while a few species were very well distributed, with dense stands through the study area, some others such as *Securidaca longepedunculata*, were very rare in the whole sub-Sahelian area.

Germination trials were also conducted in the lab with the seeds of eight plant species in order to test their germination capacity. *Acacia seyal*, *Adansonia digitata*, *Lannea microcarpa* and *Balanites aegyptiaca* showed a relatively good germination rates after different seed pre-treatments. Conversely, the seeds of *Anogeissus leiocarpa* showed a very poor germination rate despite pre-treatment. The aim of the germination trials was to find out whether there is a sort of "correlation" between the ecological status of a species and its germination capacity.

The collected data are being processed and analysed with various ecological and statistical methods and the results will be release with the final report that will be available by March 2013.