

## **Project Update: April 2016**

### **Reporting Period: July - December 2015**

#### *Activity 1: Project implementation and setup at the selected sites*

The main objectives of this activity were to:

1. Choose appropriate sites for the restoration experiment.
2. Identify relevant stakeholders both locally and regionally to help in the development and implementation of local action plans for ecological restoration of degraded land.
3. Build the capacity of the stakeholders through forums, meetings and training on the need for the prioritised conservation initiatives.

Our project received an invaluable cooperation and inclusion of the county commissioner through the head of environmental at Ouahigouya and Kaya. Six stakeholders and outstanding pioneers in ecological restoration were identified. We are also working with more local user groups and will work to involve farmers and local business women and men in the study area.

A factorial experimental plot on an area of 0.25 ha was implemented on encrusted and bare land (zippelé) of each study site by combining tree planting of three indigenous trees of high economic importance and restoration's technique. According to local preferences and the efficiency known from scientific results, three techniques of restoration (half-moons, zaï system, deep-ploughing) were applied in the afforestation trial.

#### *Activity 2: Monitoring and survey of biodiversity*

The main objectives of this activity were to:

1. Carry out a biodiversity survey and help in creating a database for the basin for conservation and education.
2. Involve the local community especially schools in biodiversity survey.

Vegetation surveys (using dendrometric measures and Braun-Blanquet) were conducted on the restoration sites and control plots in order to monitor the progress in key parameters such as vegetation cover, plant diversity (including functional diversity) and the diversity of other biota. Since long-time analyses of restoration will not be possible within the planned project period, we have included an older restoration sites located at Ouahigouya and analyse vegetation, soil and ecosystem parameters accordingly.

Below is a list of tree species identified during the monitoring events in the older restoration site:

<b>Species name</b>	<b>Family (APG III)</b>
<i>Faidherbia albida</i>	Fabaceae
<i>Acacia ataxacantha</i>	Fabaceae
<i>Acacia laeta</i>	Fabaceae
<i>Acacia senegal</i>	Fabaceae
<i>Adansonia digitata</i>	Malvaceae
<i>Anogeissus leiocarpus</i>	Combretaceae
<i>Acacia macrostachya</i>	Fabaceae
<i>Acacia nilotica</i>	Fabaceae
<i>Acacia pennata</i>	Fabaceae
<i>Acacia seyal</i>	Fabaceae
<i>Azadirachta indica</i>	Meliaceae
<i>Balanites aegyptiaca</i>	Zygophyllaceae
<i>Bombax costatum</i>	Malvaceae
<i>Combretum aculeatum</i>	Combretaceae
<i>Cadaba farinosa</i>	Capparaceae
<i>Capparis corymbosa</i>	Capparaceae
<i>Combretum ghazalense</i>	Combretaceae
<i>Combretum glutinosum</i>	Combretaceae
<i>Combretum micranthum</i>	Combretaceae
<i>Combretum nigricans</i>	Combretaceae
<i>Commiphora africana</i>	Burseraceae
<i>Cassia sieberana</i>	Fabaceae
<i>Dalbergia melanoxylon</i>	Fabaceae
<i>Dichrostachys cinera</i>	Fabaceae
<i>Diospyros mespiliformis</i>	Ebenaceae
<i>Feretia apodantha</i>	Rubiaceae
<i>Gardenia sokotensis</i>	Rubiaceae
<i>Gardenia ternifolia</i>	Rubiaceae
<i>Grewia bicolor</i>	Malvaceae
<i>Grewia flavescens</i>	Malvaceae
<i>Grewia mollis</i>	Malvaceae
<i>Grewia tenax</i>	Malvaceae
<i>Guiera senegalensis</i>	Combretaceae
<i>Vitellaria paradoxa</i>	Sapotaceae
<i>Khaya senegalensis</i>	Meliaceae

<i>Lannea acida</i>	Anacardiaceae
<i>Lannea microcarpa</i>	Anacardiaceae
<i>Lonchocarpus laxiflorus</i>	Fabaceae
<i>Maerua angolensis</i>	Capparaceae
<i>Maerua crassifolia</i>	Capparaceae
<i>Mitragyna inermis</i>	Rubiaceae
<i>Parkia biglobosa</i>	Fabaceae
<i>Piliostigma reticulatum</i>	Fabaceae
<i>Piliostigma thonningii</i>	Fabaceae
<i>Pterocarpus lucens</i>	Fabaceae
<i>Sclerocarya birrea</i>	Anacardiaceae
<i>Saba senegalensis</i>	Apocynaceae
<i>Sterculia setigera</i>	Malvaceae
<i>Stereospermum kunthianum</i>	Bignoniaceae
<i>Flueggea virosa</i>	Euphorbiaceae
<i>Tacazzea apiculata</i>	Apocynaceae
<i>Tamarindus indica</i>	Fabaceae
<i>Vitex diversifolia</i>	Verbenaceae
<i>Zizphus mauritiana</i>	Rhamnaceae



Fields assistants collecting soil sample on degraded land before the restoration trial



Field assistant delimiting vegetation plot for dendrometric measures in the old restoration's site (forested area of approximately 20 ha restored over a period of 40 years by Yacouba Sawadogo)