

Project Update: September 2019

This progress report is a continuation of the first progress (was sent on early April 2019), to achieve my two main objectives: -

1. Analyse the roles of the newly introduced area enclosure for natural regeneration of *B. papyrifera* tree species and its associated woody species
2. Train local community and other relevant stakeholders on the roles of the introduced area enclosure for natural regeneration and seedlings growth of *B. papyrifera* and its associated woody species

Details of the progress report

Jointly with the relevant stakeholders, we introduced area enclosure with soil and water conservation structure (**Fig 1**) in Abergele district of northern Ethiopia (the study area) to study its roles for assisting natural regeneration of the endangered *Boswellia papyrifera* tree species and its associated woody species. The enclosure was continuously protected and managed for 7 months. After 7 months, data related to survival, regeneration and seedlings growth of the study species, its associated woody species and their degraded habitat were collected for analysis. Our analysis results (details on the analysis will be included in the final report) showed that the newly introduced area enclosure assisted natural regeneration and seedlings growth of *B. papyrifera* and its associated trees compared to the adjacent non-enclosure (freely grazed by animals).



Fig 1. The newly introduced area enclosure into the *Boswellia papyrifera* woodlands of northern Ethiopia

For example, we counted about 15 newly emerged regenerates of *B. papyrifera* with good growth status (diameter, leaves number, height and health) compared to the adjacent non-enclosed area. We also counted higher number of regenerates of the associated woody species such as *Acacia etbaica* and *Acacia asak* comparing to the non-enclosed area. In addition, different grasses and herbs with good coverage and organic matter were recorded under the enclosure area than the non-enclosure ones, indicating that the area enclosure conservation intervention as a good approach for rehabilitating the degraded habitats of *B. papyrifera* woodlands. These results and the achievements of area enclosure conservation intervention for natural regeneration of *B. papyrifera* tree, associated woody species and their degraded habitats were also practically trained to the stakeholders.



Fig 2. Newly regenerates of *Boswellia papyrifera* in the area enclosure with a good coverage of grasses and herbs



Fig 3. Data collection jointly with local community from the newly emerged seedlings of *Boswellia papyrifera*



Fig 4. Data collection from the newly emerged seedlings of *Boswellia papyrifera*



Fig 5. Newly emerged seedlings of the associated *Acacia etbaica* tree species with *Boswellia papyrifera* in the area enclosure.

