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Project Title: Scaling up conservation action for threatened species in gallery forests of the

Monts Kouffé reserve in Benin

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Tropical gallery forests represent a critical state of vegetation and are vulnerable to climate change and land use, which can contract or shift their distribution (Driscoll et al. 2021). In Benin, the gallery forests of the Monts Kouffé reserve are biodiversity hotspots (Toko et al. 2012). Unfortunately, they are now in an advanced state of degradation. Safeguard measures are therefore needed to ensure the long-term conservation of the IUCN Red List species they harbor. The objectives of this report were to: i) identify the major causes of tree felling in the gallery forests of the Monts Kouffé reserve, ii) assess the density of species undergoing intensive felling in relation to levels of habitat degradation, iii) produce seedlings of each of these species.

Activities

1. Identification of major causes of logging in gallery forests

This activity lasted two (02) months, from January 02, 2024 to February 29, 2024. Data was collected from 300 informants, identified in ten (10) villages distributed around the Monts Kouffé reserve. Informants cited ten (10) priority species (*Terminalia leiocarpa*, *Pterocarpus erinaceus*, *Prosopis africana*, *Afzelia Africana*, *Khaya senegalensis*, *Detarium senegalense*, *Pseudocedrela kotschyi*, *Daniellia oliveri*, *Diospyros mespiliformis*, *Isoberlinia* sp.) that are being cut down in the gallery forests of the reserve. The main reasons for cutting the stems of these species are linked to their stem characteristics: accessibility, durability, resistance and commercial value. The photos below illustrate the individual semi-structured interviews.

https://web.facebook.com/sosbiodiversitybenin/posts/pfbid02mGoJpcdjxjX7VHtseVCt7ke3YYJRam11Pbwtkc8KTrq7xo5LYUYqJHNBniir3jiJl





Photo 1: Semi-structured individual interviews with selected informants

2. Assessment of tree density in these intensively logged species

The project team has set up sixty (60) plots in several gallery forests in the Monts Kouffé reserve from March 01, 2024 to May 31, 2024. Within each plot, the $dbh_{1.30\,m}$ and total tree height of threatened species were recorded. The companion species present in the habitats of these threatened species were also recorded. The photos below illustrate the data collected and the anthropic pressures recorded on threatened species in the reserve's gallery forests.

https://www.facebook.com/share/p/158RE5yLQp/









Photo 2: Measurements of dbh_{1.30m} and some trees of *Pterocarpus erinaceus* and *Terminalia leiocarpa*, found cut during data collection.

3. Production of seedlings of threatened species

A total of 500 seeds from three species (*Khaya senegalensis*, *Detarium senegalense* and *Afzelia africana*), including 200 *Afzelia africana* seeds, 150 *Detarium senegalense* seeds and 150 *Khaya senegalensis* seeds, were sown on April 20, 2024. Apart from the *Afzelia africana* seeds, which gave a high germination rate, a low germination rate was recorded for *Khaya senegalensis* and *Detarium senegalense*. Seedlings from these species are currently being monitored and are due to be planted in June 2025 in the degraded gallery forests of the Monts Kouffé reserve. https://www.facebook.com/share/p/1ArUhdo9ia/







Photo 3: Nursery set-up and seedling monitoring.

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