



SDM PROJECT 2024
«STRENGTHENING THE RESTORATION
AND SUSTAINABLE MANAGEMENT OF
FIVE (05) SACRED FORESTS OF THE
RAMSAR 1018 SITE IN BENIN»



ACTIVITY REPORT ON THE ENRICHMENT WORK OF SACRED FORESTS WITHIN THE FRAMEWORK OF THE “SDM PROJECT 2024”
«STRENGTHENING THE RESTORATION AND SUSTAINABLE MANAGEMENT OF FIVE (05) SACRED FORESTS OF THE RAMSAR 1018 SITE IN BENIN».



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1. Introduction

From May 1 to October 30, 2025, an enrichment campaign was carried out in five Sacred Forests (SF) of the municipality of Zè, located within the Ramsar Site 1018 of Benin. The main objective of this activity was to accelerate forest restoration, enhance biodiversity and ecological functionality of sacred forests, which play a crucial role in local ecosystem conservation and cultural heritage.

Organised under the SDM Project 2024 titled “Strengthening the Restoration and Sustainable Management of Five (05) Sacred Forests of the Ramsar Site 1018 in Benin”, financed by Institute for Global Environmental Strategies (IGES), the work was fully executed by sacred forest management committees with technical support from the NGO Ce.Sa.Re.N, a consultant trainer, and the local forestry administration.

This report presents the implementation process, methodology and key outcomes.

2. Methodology

2.1 Selection of species

After capacity-building sessions on enrichment techniques, the forest managers collectively selected indigenous species based on:

- Historical presence in the sacred forests;
- Cultural or religious importance to local communities.

The table below lists the species selected for each sacred forest.

Table 1: Species selected for the enrichment of sacred forests

Sacred forest	Selected species
Assanmèzoun	<i>Afzelia africana</i> , <i>Milicia excelsa</i> , <i>Khaya senegalensis</i> , <i>Adansonia digitata</i> , <i>Ceiba pentandra</i> .
Domèzoun	<i>Blighia sapida</i> , <i>Milicia excelsa</i> , <i>Ceiba pentandra</i> , <i>Khaya senegalensis</i> , <i>Senna siamea</i> , <i>Adansonia digitata</i> .
Houédozoun	<i>Milicia excelsa</i> , <i>Khaya senegalensis</i> , <i>Adansonia digitata</i> , <i>Ceiba pentandra</i> .
Hounzoun	<i>Adansonia digitata</i> , <i>Tamarindus indica</i> , <i>Khaya senegalensis</i> , <i>Ceiba pentandra</i> , <i>Milicia excelsa</i> .
Zanvozoun	<i>Adansonia digitata</i> , <i>Khaya senegalensis</i> , <i>Ceiba pentandra</i> , <i>Milicia excelsa</i>

2.2 Nursery Site Selection

The selection of the nursery operator was entrusted to the Local Sacred Forest Management Committees (CLFS), who appointed one nursery operator by consensus. The selected operator was later contacted by the NGO Ce.Sa.Re.N., under the supervision of the forestry

administration, to finalize the selection procedures and initiate the procurement of the required seedlings.

The selection criteria for the nursery operator included:

- Their ability to supply indigenous seedlings, fast-growing species, and fruit trees that meet the needs of local communities;
- Their membership within the local Zè community;
- Previous experience in providing seedlings for similar projects led by Ce.Sa.Re.N. in the municipality.



Photo 1 : The Secretary of the Houédozoun Sacred Forest Management Committee holding an indigenous seedling (*Khaya senegalensis*) at one of the nursery sites hosting part of the indigenous and exotic seedlings requested by the local communities.

2.3 Site preparation

The preparatory work began with the identification of canopy gaps and priority areas for enrichment. With the support of the training consultant and under the supervision of the local forestry administration, the CLFS members identified:

- Areas where light still penetrates through the forest canopy or those marked by the presence of treefall gaps;
- Degraded areas resulting from excessive forest exploitation, characterized by low vegetation density.

The identified zones were first cleared to remove invasive vegetation and open the soil, then pegged to accurately mark the location of each seedling to be planted, thus preparing the site for plantation.

Silvicultural interventions such as weeding, vine removal (delianage), and pruning were also carried out to support existing natural regeneration.



Photo 2: Identification of canopy gaps by the managers of Hounzoun Sacred Forest



Photo 3: Clearing of an identified canopy gap by the managers of Houédozoun Sacred Forest in preparation for the planting of enrichment seedlings

2.4 Planting

The purchased seedlings were transported to the enrichment sites and arranged near the prepared holes according to their size. The method used consists of:

- **Gap enrichment** to fill canopy openings;
- **Line enrichment** in degraded areas to restore forest density.



Photo 4: Grouping enrichment seedlings near the dug holes according to their size.



Photo 5: Planting of a *Ceiba pentandra* seedling in a canopy gap of Houédozoun Sacred Forest

2.5 Monitoring and maintenance

The planted seedlings underwent regular monitoring and maintenance, which mainly involved replacing dead seedlings and weeding around those planted to reduce competition with surrounding vegetation and prevent excessive shading.

Indeed, during the short dry season (August), a follow-up inventory was carried out. This made it possible to quickly identify and replace dead seedlings during the short rainy season (September and October), thereby improving the success rate of the plantations.

Maintenance activities were carried out approximately three months after planting and consisted of circular weeding (about 2 m in diameter) around each seedling. This technique helps reduce competition for water, light, and nutrients, while also improving soil aeration and root development. It also increases the visibility of seedlings, reducing the risk of accidental damage during future interventions.

3. Results

The enrichment was successfully carried out in all five sacred forests. The species and quantities used are detailed in the following table:

Table 2 : Quantities of plants used for enrichment

Sacred Forest	Native's plants	Quantity
Assanmèzoun	<i>Milicia excelsa</i>	10
	<i>Azelia africana</i>	35
	<i>Ceiba pentandra</i>	35
	<i>Khaya senegalensis</i>	30
	<i>Adansonia digitata</i>	40
Domèzoun	<i>Blighia sapida</i>	15
	<i>Ceiba pentandra</i>	35
	<i>Khaya senegalensis</i>	30

	<i>Adansonia digitata</i>	35
	<i>Senna siamea</i>	20
	<i>Milicia excelsa</i>	15
Houédozoun	<i>Milicia excelsa</i>	15
	<i>Ceiba pentandra</i>	45
	<i>Khaya senegalensis</i>	50
	<i>Adansonia digitata</i>	40
Hounzoun	<i>Milicia excelsa</i>	15
	<i>Ceiba pentandra</i>	40
	<i>Khaya senegalensis</i>	35
	<i>Tamarindus indica</i>	25
	<i>Adansonia digitata</i>	35
Zanvozoun	<i>Milicia excelsa</i>	15
	<i>Ceiba pentandra</i>	45
	<i>Khaya senegalensis</i>	50
	<i>Adansonia digitata</i>	40
Total		750

In total, 750 native plants were used to enrich an area of 5 hectares of sacred forests, thereby helping to restore degraded areas and enhance the biodiversity of these sacred forests.



Photo 6: Female manager planting a *Khaya senegalensis* in the Zanvozoun sacred forest



Photo 7: Enrichment of a degraded area impacted by windfallen trees in the Hounzoun Sacred Forest.

At the same time, approximately 800 naturally regenerated seedlings benefited from silvicultural interventions aimed at ensuring their future development. These regenerations involved species such as *Lecaniodiscus cupanoides*, *Khaya senegalensis*, *Albizia zygia*, *Ceiba pentandra*, *Albizia adianthifolia*, *Cola gigantea*, and *Cola milenii*.

The follow-up inventory conducted after planting revealed an average survival rate of 81%, reflecting the overall successful implementation of the enrichment activities.

However, the seedlings that did not survive were replaced during the short rainy season (in September) to improve the final success rate of the enrichment plantations and to ensure a more uniform regeneration of the restored areas.

All planted seedlings were also maintained.



Table 3: Survival rates of plants by sacred forest

Sacred forest	Survival rate (%)
Assanmèzoun	76,67
Domèzoun	83,33
Houédozoun	90,67
Hounzoun	86,87
Zanvozoun	68
Mean	81,1

A second inventory will be conducted before the start of the next rainy season (in April 2026) to assess the resilience of the plants after enduring the dry season. The results of this assessment will help optimally plan the replanting activities scheduled for the next campaign.

4- Conclusion and perspectives

The enrichment of the sacred forests has been successful, with overall satisfaction from the managers. This initiative has helped restore degraded habitats and increase the biodiversity of the sacred forests. Although the plant survival rate remains relatively high, it is essential to continue monitoring and maintenance to stabilize these results in the long term.

Furthermore, it is worth noting the strong involvement and active participation of all age groups and genders (men, women, children, youth, and elders) at all stages of the activities, as shown in the photos above.

The next steps will include:

- Implementing adaptive measures to address climate-related challenges, particularly during the dry season;
- Establishing firebreaks to protect the planted seedlings from fires;
- Replanting seedlings during the next campaign (2026).