Project Update: August 2021

In the continuity of the activities planned in this project, we were able to finalise certain objectives.

Ethnobotanical survey and Tree nursery

In March 2021, an ethnobotanical survey focusing on agroforestry was carried out in the villages bordering the forest of Dogo-Ketou (Dogo, Adakplame…). The questions asked focused on two important points: the state of knowledge of the local populations on the biological resources available in the forest; and information on agroforestry (or cultivation) techniques existing in the Dogo-Ketou region.

At the end of this survey, it emerges that the local populations cited many animal species that existed in this forest, but which have, for a few years, disappeared according to their claims, because of poaching and the advance of the deforestation of this forest. As commonly cited species, we have listed antelope, bush pig, duiker, species of monkey and monitor lizards.

During the ethnobotanical investigation, a focus was placed on the threatened species of this forest, namely *Afzelia Africana, Khaya senegaleensis* and *Pterocarpus erinaceus*. We were able to assess the degree of use of these species by local populations and the causes of overexploitation. It shows that the bark of *K. senegalensis* is widely used by populations to fight against certain diseases, in particular malaria. The tree is suffering from its reputation, and most of the last trees seen in the area are debarked. It is also used in the manufacture of charcoal which is a very widespread activity in the region according to our observations. *P. erinaceus* is much more sought after for its quality wood used as timber (making doors, windows, etc.) and in making charcoal. *Afzelia* has been rarely mentioned in the uses, and for good reason, the inventory reveals that this species is no longer observed in the environment.

Other natural forest species have been cited as highly sought after by local residents for various uses: teak (for its wood), *Anogeissus* trees (for its wood) and *Milicia excelsa* (for its wood).

Our investigations into the existence of agroforestry practices in the region made it possible to assess the degree of appreciation of the local communication on the associations of vegetable cultivation with multipurpose trees and the possibility of adopting agroforestry. Of the total number of people surveyed, less than 10% claim to combine annual crops with trees. More than 90% of respondents claim to own fruit trees, from which they get additional financial resources. Questions about the advantages that trees provide them, several positive points and benefits resulting from the presence of tree planting were cited: provision of wood, shade, soil enrichment by leaf decomposition, erosion control, and financial sources. By analysing these responses, it is easy to conclude that this population has good knowledge about the degree of importance of trees in the region.

However, the low adoption rate of agroforestry in cropping systems may be related to the responses given when asked to report the constraints (disadvantages) associated with the presence of trees in cultivable land. The major constraints or disadvantages cited are reduction in crop yield, attraction of pests for crops

(vegetables), competition with annual crops, absence of large cultivable areas, and reduction of the cultivable space available for annual crops. This fact can be explained by the lack of mastery of agroforestry techniques that can really allow them to benefit from both planted trees and annual crops. Regarding the tree species that local communities prefer to plant or have on their agricultural land, the following were cited: fuelwood producing species (24% of respondents); fruit species (72% of respondents); forage species (3% of respondents); wood producing species (40% of respondents); and short-lived growing species (19% of respondents). These answers allowed us to orient our advice towards the practice of agroforestry. Indeed, the choice of trees to be integrated into the agricultural system of this region must take into account the preference of the local communities.

At the end of this survey, the farmers were advised on how to practice agroforestry, the possible choice of trees that can benefit them in several ways such as *Acacia auriculoformis*, Moringa trees. The measures to be taken to properly plant trees and the spacing to be respected have been discussed.

For the planting phases, we have initiated the establishment of a nursery of at least 5,000 Acacia auriculoformis plants in the village of Dogo.

Photos 1: Some images taken during the ethnobotanical survey with local communities.

Promotion of agroforestry practices and land restoration through plantation

Thursday, June 17, 2021 was World Day to Combat Desertification and Drought. The leader project and members of SOS Biodiversity NGO took this opportunity to train local communities in agroforestry and plant 600 *Acacia auriculiformis* plants in the Dogo-Ketou forest.

This activity took place in the village of Iladji which is bordering the Classified Forest of Dogo- Ketou. This day was attended by officials and agents of the Forest Inspection of the Ouéme - Plateau region, local elected officials, farmers and students from ILADJI primary school. The activity had three main stages: the launching ceremony of the activities, practical training in agroforestry and planting of the seedlings.

Captain Adrien DOSSA, coordinator of the Technical Forest Management Unit (CTAF) of Dogo-Ketou spoke by recalling the objective of World Desertification Day. He thanked the project coordinator, the SOS Biodiversity NGO and his President, and the financial partner The Rufford Foundation for their support for the sustainable management of the Dogo-Ketou forest. Having taken the floor in turn, the project coordinator and the President of the SOS Bidoviersity NGO wished to recall the importance of this activity, which has the overall objective of reducing pressure on the forest of Dogo-Ketou and participate in the reconstitution of the plant cover of

the latter. Both praised the effective presence and involvement of forestry agents, local elected officials, the population, in particular farmers. They ended their introduction by reminding the audience of the importance of maintaining the plants in order to encourage the efforts that will be made.

Photo 2 : Group photo of participants

Agroforestry training

In order to encourage farmers to practice agroforestry, training was given by members of the project and the SOS Biodiversity NGO. Indeed, the following points were discussed during the training:

- Causes and consequences of desertification.
- Objectives of agroforestry.
- Species used and criteria for choosing species in agroforestry.
- Spatial arrangement of the species used.
- *Acacia auriculiformis* production technique.

The participants asked multiple comprehension questions and satisfactory answers were given by the trainers present. They requested that special training be given on production techniques for other agroforestry species.

Photo 3: *Acacia auriculiformis* nurseries produced with community participation

Planting activity

A demonstration was made by one of the rangers on how to plant the seedlings. 600 *Acacia auriculiformis* plants were planted over an area of 5000 m^2 occupied by a corn field. This plantation was carried out in the locality of Iladji (N 7.532194; E 2.643984), which is a land bordering the Forte Classée of Dogo-Ketou. This village is very dependent on the forest. The populations of this village exploit the resources of the forest for their needs, in particular wood. The lack of fertile land also pushes them to fraudulently deforest the forest. The action carried out in this village aims to help reduce pressure on the forest of Dogo-Ketou.

Photo 4: Demonstration of tree planting by a forester: **Photo 5**: Effective presence of farmers, foresters and the SOS Biodiversity NGO and project teams:

Photos 6: (a) Planting of seedlings by participants; (b): Planting of Acacia auriculiformis by a farmer of Iladji village; (c): Planting of the tree by a village schoolboy

This training and reforestation activity took place in a festive atmosphere. It was with great satisfaction from the participants that they made the commitment to monitor and protect the plants.

Acknowledgements

We would particularly like to thank the forest agents of the forest of Dogo-Ketou. Thank you also to the President of the Efèoutè Planning Unit, to the village chief of Iladji and to the entire population of Iladji who promised to maintain and monitor the plantation. Our thanks also go to the President and all members of the SOS Biodiversity NGO for their material and technical support. This activity was made possible thanks to the support of Rufford Foundation which we thank once again.

Useful links

- https://web.facebook.com/sosbiodiversitybenin/posts/1955845837897191
- http://sosbiodiversity.org/2021/06/17/journee-mondiale-de-lutte-contre-la-desertification-et-la-secheresse-2021-avec-sos-biodiversity/