

Figure 1: Ebony Project staff member Zac Emanda works with a community member to collect data on ebony growth Photo credit: Vincent Deblauwe

THE EBONY PROJECT

2023 Annual Progress Report – Executive Summary

NOTE: This document is a supplement to an ESRI StoryMap found at: <u>https://arcg.is/qPTTS</u>.

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The Ebony Project in Context

The Ebony Project is a community-based, scientifically driven agroforestry project launched in 2016 with financial support from Bob Taylor, co-founder of Taylor Guitars. By the close of 2023, project has planted over 35,000 ebony trees and 17,000 fruit trees in 13 villages neighboring the Dja Forest Reserve in Cameroon. The project uses a community agroforestry model with participating villages operating in a roughly five-year cycle. Once a community is finished planting, it cycles out, allowing a new village to enter, and thus expanding the project's geographic footprint. The project has produced several independent peer-reviewed scientific papers and has been profiled by National Geographic, Reuters, The BBC, Bloomberg, and Forbes, to name but a few. This said, and in part due to COVID, the project has received little media attention since 2019, yet it has continued to grow.

This is the seventh consecutive Annual Progress Report for the Ebony Project. Previous reports, along with other important project documents, can be found at <u>crelicam.com/resources</u>. The project is administered by The Congo Basin Institute (CBI) in Yaoundé, Cameroon, a partnership with the International Institute of Tropical Agriculture (IITA) and an overseas affiliate of The University of California Los Angeles (UCLA), along with local partner the Higher Institute of Environmental Studies (HIES).

This year, for our 2023 annual report, we decided to try something new. With the support of Environmental Systems Research Institute (ESRI) we focused most of our annual reporting energy on telling the story of the Ebony Project via an ESRI StoryMap collection, a more immersive format that we hope lets readers better understand the rationale behind why Taylor Guitars started this project and to explore the people and science that make the Ebony Project what it is. We would like to thank David Gadsden, Allen Carroll, and especially Ryan Farmer of ESRI for their assistance and, most of all, patience. You can explore the collection here.

This document—the 2023 Annual Project Report *Executive Summary*—is a supplement to the StoryMap designed to capture the major milestones that shaped the Ebony Project during this calendar year.

2023 Highlights

1. Creation of the Ebony Project StoryMap collection

As stated above, in lieu of a traditional text-based annual progress report for 2023 we decided to create an ESRI StoryMap collection as an experiment to see if such an approach might help reach a broader audience and tell our story in a different way. To view our ESRI StoryMap please see: https://arcg.is/qPTTS.

2. Crossing the threshold of 50,000 trees planted

By the end of the 2023 planting season, Ebony Project communities planted 52,859 trees: 35,793 ebony trees (68%); and 17,066 fruit trees (32%). When we surpassed our original goal of planting 15,000 ebony trees in 2021, we established a new goal to plant 30,000 by 2026. As of the close of

2023, we are over two-thirds of our way to that new goal. We're also nearing our goal of planting 25,000 fruit trees. Previous Annual Reports identified the importance of planting other native timber trees. The project began that process in 2023, planting nearly 500, including mukulungu (*Autranella congolensis*) and moabi (*Baillonella toxisperma*).

3. Planting trees that survive

The Ebony Project has always focused on the "durability" of the plantings—our goal isn't to plant ebony trees, it is to *grow* ebony trees. Many tree planting initiatives don't report mortality, especially after the first year, and peer-reviewed studies have shown wide variation in survival. For example an analysis of 67 mangrove planting sites in Sri Lanka showed survival ranged from 0% to 78%(\hbar). A meta-analysis of 176 sites in Asia showed a five year survival rate of 56% (\hbar). Since its inception, the Ebony Project has documented tree survival and tracks data via a Tableau dashboard. Our current survival rate is 78%, which includes trees planted from 2018-2022.

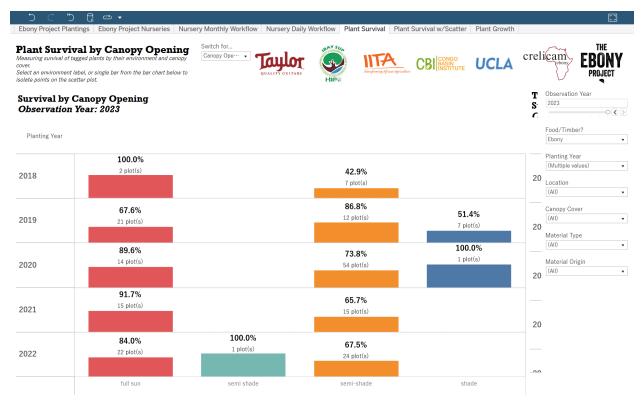


Figure 2: Tree survival rates by year and canopy type for the Ebony Project from the Tableau database.

4. Looking at and beyond ebony

Our work to understand ebony continued and broadened as we started to explore how this iconic species connects to healthy Congolian rainforest, including the broader landscape around the Dja Faunal Reserve. For example, project findings linking ebony and the critically endangered African forest elephant (*Loxodonta cyclotis*) is under review at a peer-reviewed journal, and we're excited to share those findings as soon as they have been validated and published. We are also working on

a species guide for ebony, given that there are many similar species within the genus that confuse even trained botanists. Finally, as stated above, this year the project began growing mukulungu (*Autranella congolensis*) and increasing our production of moabi (*Baillonella toxisperma*). These two native tree species provide a variety of ecosystem services, and their inclusion will make Ebony Project plots more biodiverse.

5. Growing capacity, not just trees

By design, the project has always invested a significant amount of time and energy in building the capacity of our team. The Ebony Project has supported six Masters' students and four PhD students, and five students who received professional training. Two-thirds of these students are Cameroonian. But most of the capacity building we do is hard to quantify. Repeated trainings and technical assistance on grafting, marcotting, nursery management and tree growing. Partnering with dozens of research assistants from local communities over scores of research missions— paying wages and consistently teaching skills ranging from using GPS devices to applying critical thinking and the scientific method. Seven years in, we are seeing the impact of all that investment—dozens of people with new skills that help conserve a species and earn livelihoods to support their families.



Figure 3: The Ebony Project team on a recent research trip to far eastern Cameroon

6. Partnerships for increased impact

In 2016, the Ebony Project became the keystone program of the newly established Congo Basin Institute, and since then CBI has grown considerably and today runs multiple projects focused on indigenous and local knowledge, remote sensing (using instruments in the air like satellites, drones, planes to collect data about the Earth), etc. There are many possible synergies between projects within CBIs portfolio and the team is now actively exploring how to more formally collaborate. For example, CBI's School for Indigenous and Local Knowledge (SILK) works with some of the same communities, and helps train research assistants hired for the Ebony Project. Remote sensing offers the potential to understand how the Ebony Project might be impacting land use change in the area. By bringing these projects together, CBI can offer a more comprehensive set of impacts on a landscape scale.

7. Getting (and staying) local:

One of the Ebony Project's strengths is our regular presence within partner communities. Our team visits participating villages dozens of times over the course of a partnership, learning names, challenges, strengths, and worldviews. Now seven years into that approach, we've learned three things about it. First, it works. Communities notice when projects follow up over and over again; it builds trust and creates an atmosphere of mutual commitment that have been critical to project success. Second, it is hard. The roads are bad, and good vehicles are costly to procure and maintain. It is challenging for staff to spend half their time away from their families, sleeping in tents in rural communities. Third, as the idiom goes, "all politics is local" and replication and expansion requires careful thought. The people, geography, and history of each community is unique, and can impact whether and how a project might succeed. Additionally, relationships between communities need to be considered; they can result in enthusiasm over expansion, but can also foster jealousy in communities where the Ebony Project isn't active.

8. Going global

We realized this year that a locally-focused project can have an impact on global efforts, and that we need to get better at articulating how what we're doing serves international goals. The Ebony Project helps address eight of the 17 Sustainable Development Goals (SDGs), and 13 of the 23 Global Biodiversity Framework Targets for 2030. We detail these linkages in the ESRI StoryMap Epoch IV: The Future. By establishing synergies between the Ebony Project and other ongoing CBI projects (see #5), we believe that we have the opportunity to create an even larger impact.



Figure 4: The Ebony Project Contributes to eight of the 17 SDGs (above) and 13 of 23 Global Biodiversity Framework 2030 Targets (next page)



Target 1: Plan and manage all areas to reduce biodiversity loss Target 2: Restore 30% of all degraded ecosystems Target 3: Conserve 30% of land, waters, and sea Target 4: Halt species extinction Target 5: Ensure sustainable, safe, and legal trade of wild species Target 9: Manage wild species sustainably to benefit people Target 10: Enhance biodiversity and sustainability in agriculture Target 13: Increase sharing of benefits from traditional knowledge Target 19: Mobilize \$200 billion/year for biodiversity Target 20: Strengthen capacity building and scientific cooperation Target 21: Ensure that knowledge is available to guide action Target 22: Ensure participation in decision-making Target 23: Target a gender-responsive approach to action

9. More of a good thing

Now in our seventh year (and still going strong), we can say with certainty that the Ebony Project is exceeding original expectations, and it is once again time to take stock. Our core team discussions with Taylor Guitars, UCLA and CBI have explored two complementary visions for what the future. First, we could expand geographically—take what we know works and do more of it beyond the proximity of the Dja Faunal Reserve perhaps moving eastward to work with communities neighboring other large protected areas within Cameroon. This approach would see the Ebony Project begin to work at the landscape scale. We have also had preliminary discussions about jumping the border to expand the project's footprint into neighboring countries. Second, we have considered maintaining and enhancing our current geographic footprint using it as a training and testing space for new ideas. Additionally, CBI could deepen its scientific research concentrating on how to improve the ecological functioning of agroforestry plots. Ultimately, such decision will be highly influenced by possible future funding.

10. How we might get there

In 2017, The Ebony Project received funds from The World Bank to conduct a Scale-up Feasibility Study which ultimately played a significant role allowing the project to expand from its original three villages to its current thirteen. The University of California provided funds from 2019-2023 for a study to understand the carbon capture aspects of the project. The Franklinia Foundation provided two years funds in (2020-2022) and recently renewed funding for three additional years. The Global Environmental Facility generously provided five years of funds under GEF7. All this said, Bob Taylor, the co-founder of Taylor Guitars, continues to be the Ebony Project's primary benefactor. And his contributions are supplemented by considerable in-kind support from Taylor Guitars and the Crelicam ebony mill in Yaoundé, which is co-owned by Taylor Guitars and Madinter. UCLA also provides significant in-kind support. Despite its success, the Ebony Project stands at a crossroads. While outside funds have helped the project grow, it is not practicable to believe that Bob Taylor can provide core funding indefinitely. The team is seeking funds for CBI to conduct a second scale up feasibility study to create a roadmap for the next phase of the project, including answering some of the questions raised in #9 (above). Such a study would consider localization and operational strategy, target geographies, continued species diversification, business model and funding availability, and integration with other livelihoods and conservation work.