

FOUNDATION **FOR THE** ASSISTANCE
OF FURTHER STUDIES AND RESEARCH



FONDATION D'APPUI **AUX** ÉTUDES
SUPÉRIEURES **ET À LA** RECHERCHE
APPROFONDIE



FASTEC —
THE MIRACLE TREE PROJECT

To serve for:

- Urban Beautification**
- Carbon Sequestration**
- Natural shade for
Schools, Public Places
& Homes**

PLANTING ALSTONIA SHADE TREE TODAY FOR THE GENERATIONS OF TOMORROW

A comprehensive account of the cultivation and domestication of Alstonia scholaris and Alstonia boonei in Cameroon — and FAFSAR's vision for a greener nation.



B.P. 571
Limbe, Cameroon



+237 677 754 290



fafsar.org

FASTEC PATENT RIGHT OAPI- 151983



Melo Henry Forchu

Founder of the FASTEC Project, beside one of FASTEC's early *Alstonia scholaris* planting sites.

Foreword

***"The trees we plant today will stand for a century.
That is why we plant."***

When we first began looking for a better tree for Cameroon's streets, we had no idea the search would take twenty years. We planted cuttings that failed by the thousands.

But we kept going — the trees along our roadsides today were not chosen for the long term, and that short-sightedness left our streets burdened by hazardous, unmanaged and unmanageable trees.

The discovery of *Alstonia boonei*, and the finding of naturally adapted seedlings at the foot of Mount Cameroon, changed everything.

This book is an invitation to governments, corporations, and individuals who believe in a greener Cameroon to help make the vision of 15 million trees a reality.

About FAFSAR

FAFSAR — the Foundation for the Assistance of Further Studies and Research — is a Cameroonian NGO based in Limbe, South West Region, founded with a commitment to carry out research, education, and foster environmental development.

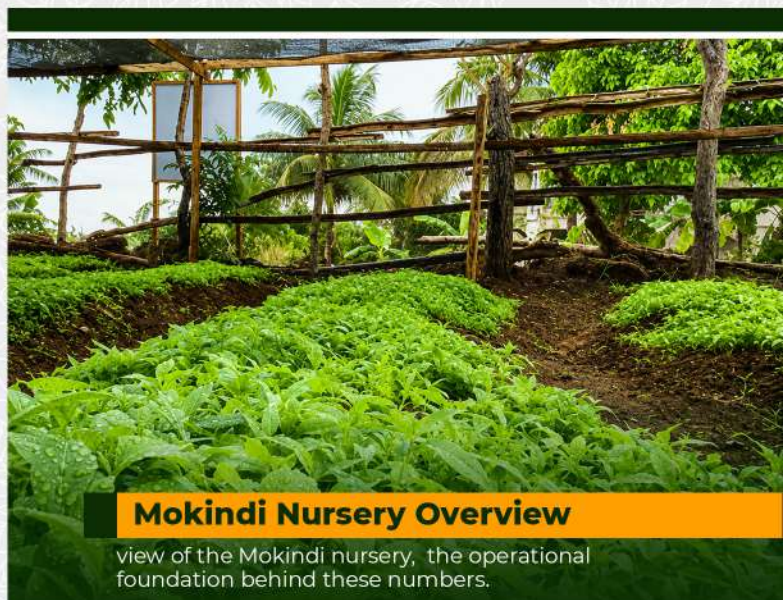
The FASTEC initiative began in 2005 as a research effort to find an appropriate shade tree for Cameroon's streets and communities.

FAFSAR was formally registered in 2015 to carry this objective forward. FASTEC — FAFSAR Shade Trees for Cameroon — is the organisation's flagship environmental programme, with more than 20 years of research and investment in domesticating the ideal shade tree species.



Mokindi Nursery Signboard

The FASTEC project signboard, marking the site where the vision took physical form.



Mokindi Nursery Overview

view of the Mokindi nursery, the operational foundation behind these numbers.

Executive Summary

The Problem

Decades of poorly planned urban tree planting have left a legacy of hazardous, unmanageable street trees that damage infrastructure.

The Vision

FASTEC aims to plant 2 million *Alstonia* trees annually over the next five years, reaching 15 million trees planted across Cameroon.

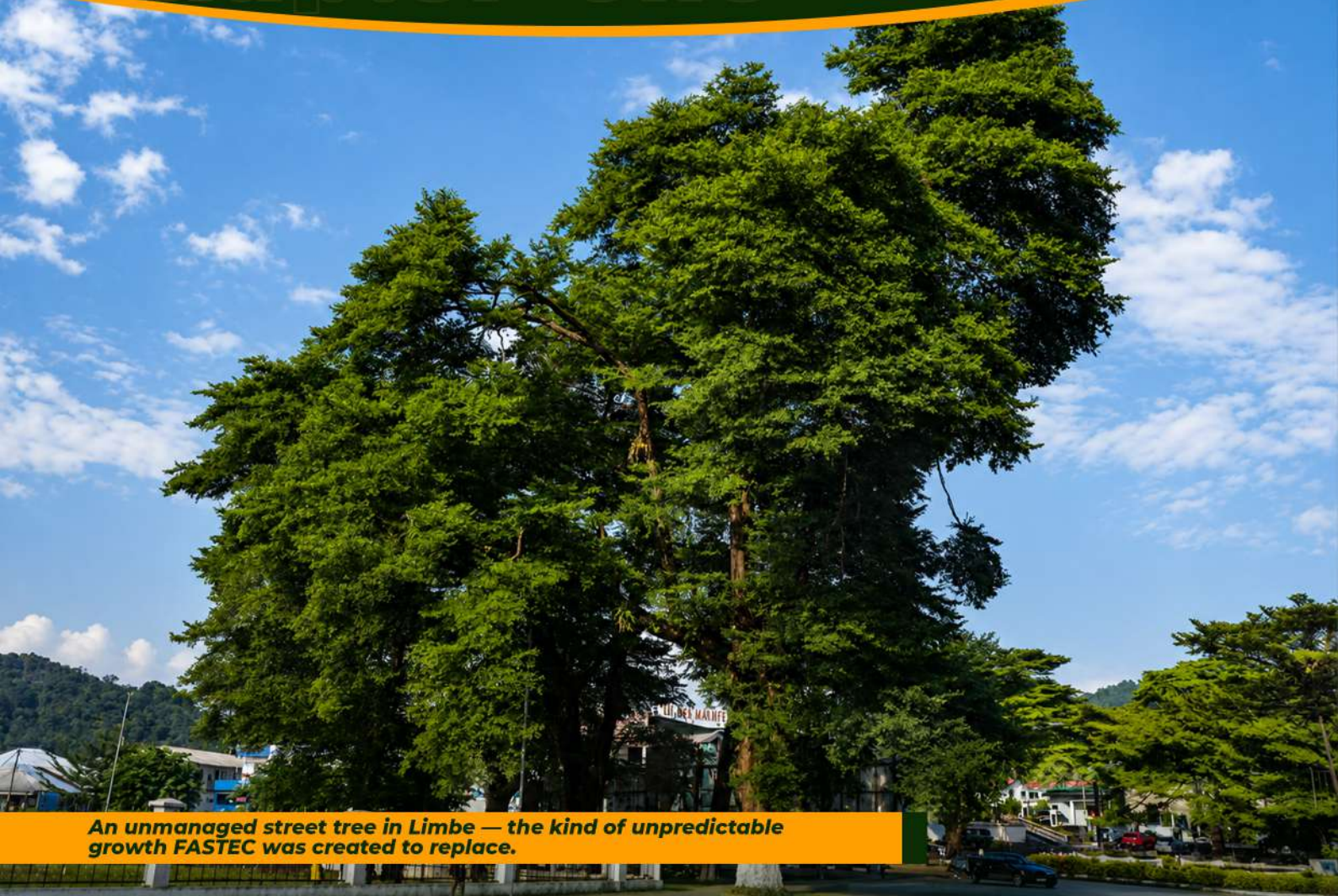
The Solution

After 20+ years of research, *Alstonia scholaris* and *Alstonia boonei* have been domesticated and proven in field trials across Limbe.

20+
YEARS RESEARCH

110,000+
SEEDLINGS

15M
5-YR TARGET



An unmanaged street tree in Limbe — the kind of unpredictable growth FASTEC was created to replace.

Cameroon's Urban Tree Crisis

Across Cameroon, trees have always played an important role in providing shade, beauty, and environmental protection. But many species commonly planted grow uncontrollably — roots damaging roads and drainage, branches overhanging power lines.

"Cameroon does not need more trees but trees that are appropriately adapted to its environment"

Streets remain exposed to intense tropical heat. The cycle continues: a tree outgrows its space, becomes dangerous, gets cut to a skeleton, slowly regrows — and the problem repeats itself.



Another oversized, poorly structured urban tree, typical of species planted before modern urban forestry research.

The Scale of the Problem

These are not isolated cases. Across Limbe and alike in Cameroon, this pattern repeats on nearly every street — trees planted decades ago without the benefit of modern urban forestry knowledge, now grown far beyond safe or manageable limits.

A mature roadside tree beside informal market structures — typical of Cameroon's uncontrolled urban tree cover

Overreaching canopy branches extending across a busy street.

Another oversized, poorly structured urban tree, typical of species planted before modern urban forestry research.

An unmanaged tree spreading directly over a public road.



Alstonia seeds collected and laid out for propagation trials.

A 20-Year Journey

The journey toward discovering the ideal shade tree for Cameroon was neither easy nor immediate — more than 23,000 propagation attempts over twenty years, before a breakthrough occurred at the foot of Mount Cameroon.

2005–08

Initial species trials begin

2009–14

23,000+ propagation attempts

2015

Mount Cameroon seedlings discovered

2016–18

Cultivation technique perfected

2019+

Field trials and nursery scale-up

"The breakthrough came not in a laboratory but in the wild — in seedlings already adapted to Cameroon's soil, climate, and overall environmental conditions."



A full-grown Alstonia in the district hospital at Bota, Limbe: the elegant umbrella-shaped canopy that defines the species by FAFSAR

The Miracle Trees

Alstonia

Grows into an elegant, symmetrical umbrella-shaped crown that can be shaped through pruning without damaging its long-term health.

One of Africa's most significant medicinal trees — bark, leaves, roots, and latex used for generations to treat fever, malaria, pain, and infection.



A young Alstonia scholaris, its broad leaves already showing the shape the mature canopy will take.

Presented by **Princess Ntama Melo**,
Alstonia shade tree ambassador for children

Why Alstonia Changes Everything

The Alstonia tree possesses several unique advantages that distinguish it sharply from the species most commonly used for urban planting in Cameroon. These are not theoretical claims — each one was identified and confirmed through two decades of practical field testing across Limbe, from hospital courtyards to city streets.



Healthy Alstonia foliage — the dense leaf coverage behind the species' environmental benefits.

01 Exceptional Shade

A naturally broad, umbrella-shaped canopy provides reliable, dense shade year-round, cooling streets, courtyards, and public spaces especially at midday, when tropical heat is most intense.

02 Aesthetic Beauty

A symmetrical, structured form that can be actively managed through pruning without compromising the tree's long-term health — giving cities an organised, deliberate green streetscape rather than having to make do with accidental tree growth.

03 Carbon Sequestration

Absorbs and stores a meaningful volume of atmospheric carbon across a potential century of growth — a genuine, measurable climate asset, not simply intended for decoration.

04 Regeneration Capacity

Regenerates even after severe pruning or substantial trunk reduction, unlike species that decline or die once cut back — meaning maintenance strengthens the tree rather than threatens its life.

"Four advantages down, three more overleaf — together, they explain why FAFSAR spent 20 years in search for this tree."

More Reasons Alstonia Works

Medicinal & Social Value

Alstonia's medicinal properties — bark, leaves, and latex used across generations to treat fever, malaria, pain, and infection — are recognised throughout Central and West Africa.

Adaptability

Suits everything from a small residential garden to a medium landscape planting to a major city boulevard.

Infrastructure Safety

No root or branch hazards to roads, drains, or buildings — a genuine long-term asset rather than a maintenance liability.



A young Alstonia growing on in a nursery planter evidence of the species' adaptability from seedling to shade tree.



FASTEC volunteers at a residential site in Mokindi under a young Alstonia canopy.

The Mokindi Nursery

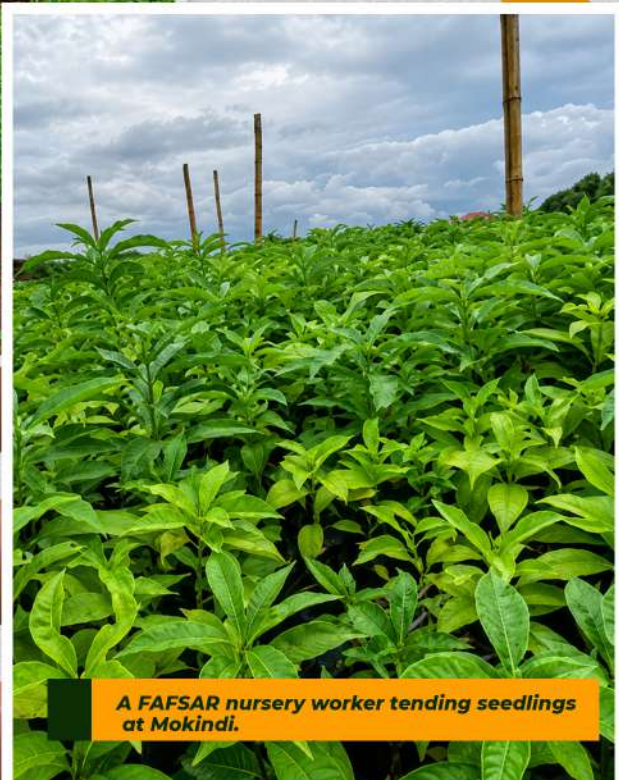
What began as a small experimental plot has grown into a significant nursery operation. Located in Limbe's Mokindi district, FAFSAR's nursery now holds over 75,000 healthy seedlings at various stages of development.



An aerial view of the Mokindi nursery — rows of Alstonia seedlings stretching across the site.



Rows of potted Alstonia seedlings, ready for the field.



A FAFSAR nursery worker tending seedlings at Mokindi.



Nursery Stages: Preparation & Growth

Every seedling in the ground began here — potted, watered, and tended by hand through the earliest and most fragile weeks of its life.

Filling potting bags with growing medium, ready for cuttings.

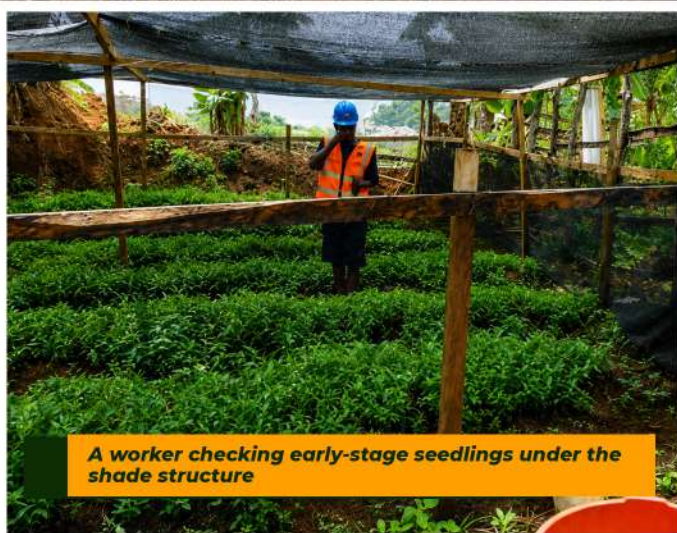


Hand-watering under the shade net, replicating natural forest-floor humidity.

Watering newly prepared propagation beds at Mokindi



A worker checking early-stage seedlings under the shade structure

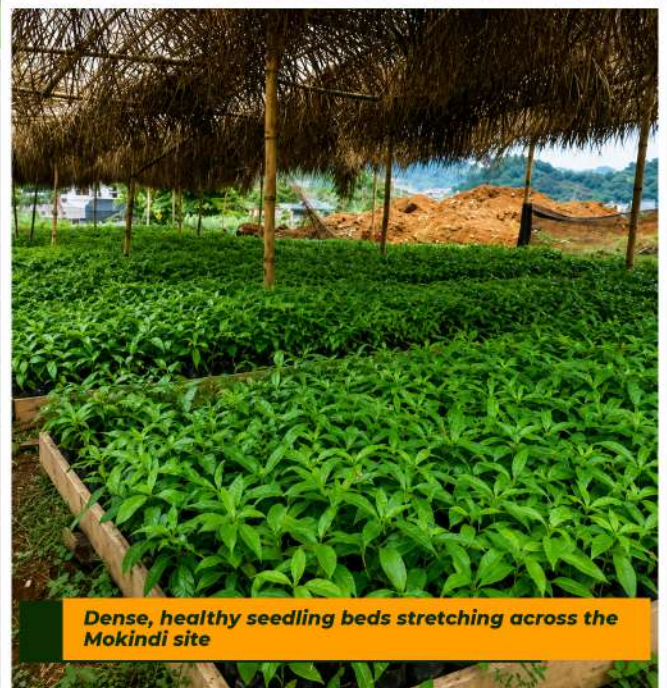




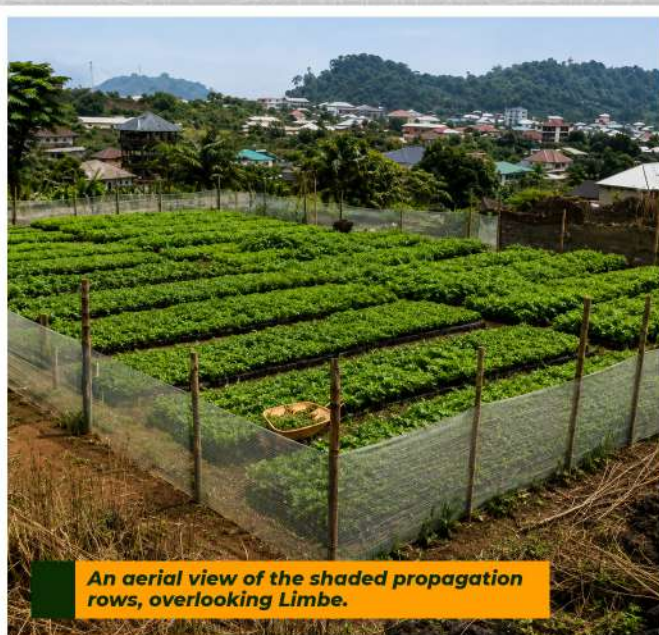
Rows of mature nursery beds, seedlings nearing field-ready size.

Nursery Stages: Maturity & Scale

At full capacity, the Mokindi nursery holds over 110,000 seedlings in various development stages — the production base that makes a 15 million-tree target achievable.



Dense, healthy seedling beds stretching across the Mokindi site



An aerial view of the shaded propagation rows, overlooking Limbe.



Field-ready seedlings, staked and hardened off ahead of transplanting.

Proving It: Field Trials

Bota District Hospital, Limbe — a mature *Alstonia* from FAFSAR's pilot programme

"The trials were not failures. They were how we learned what worked."

For more than a decade, FAFSAR conducted practical field trials at public institutions, residential areas, and community spaces — Bota District Hospital, the Central Police Station, Manga William neighbourhood, and more.

6+
PILOT SITES

13+
YRS LONGEST TRIAL

High
SURVIVAL RATE



FASTEC team and community at a planting site in Limbe

People & Community

For more than a decade, FAFSAR conducted practical field trials at public institutions, residential areas, and community spaces — Bota District Hospital, the Central Police Station, Manga William neighbourhood, and more.



The nursery workforce at Mokindi

Projected Green Cameroon



A greener Cameroon: shaded boulevards leading to a hospital, with Mount Cameroon beyond.

2M/yr
ANNUAL TARGET

15M
5-YEAR TARGET

All 10
REGIONS

100 Yrs
LEGACY





Living Proof: A mature *Alstonia scholaris* at our site in Limbe — the century-long canopy this chapter is about.

Environmental & Climate Impact

Climate change is a present reality for Cameroon — rising temperatures, shifting rainfall, and intensifying urban heat. Large-scale *Alstonia* planting addresses several of these challenges simultaneously.

Every *Alstonia* tree planted is a 100-year investment in carbon, air quality, and community health.



15 Million Trees by 2035

“An ambitious but achievable national target proven scientific experiments, operational nurseries and a team that has already demonstrated what is possible.”



2M

TREES / YEAR



15M

5-YEAR TARGET



100

YEAR LEGACY



Partner with FASTEC

Together, we can grow a legacy that outlives us all.

Sponsored Planting

FAFSAR's field teams handle preparation, planting, staking, and aftercare.

Seedling Supply

Bulk, hardened-off seedlings from our 75,000-tree stock.

Development & CSR

A verifiable environmental commitment aligned with SDG 13, 15, 11.

FAFSAR — Foundation for the Assistance of Further Studies and Research

B.P. 571 Limbe, South West Region, Cameroon

Tel: +237 677 754 290 / +237 652 842 624 · fafsarcm@gmail.com · www.fafsar.org