



APAF

Agroforesterie

Arbres fertilisaires

Foresterie

Together with local communities APAF guarantees large-scale regeneration of degraded farm, pasture and forest lands, while boosting biodiversity and fighting climate change.



Two women farmers maintain their APAF agroforestry coffee field

Why agroforestry in Africa?

- **Farmland expansion is the leading cause of deforestation in Africa.** The devastating effects of deforestation, include erosion, food insecurity, droughts and floods.
- **Agricultural soils are degrading** due to unsustainable land management practices, such as slash and burn, monocropping, and excessive use of inorganic inputs.
- **Farmers are under significant economic stress**, due to high input costs, low and fluctuating commodity prices, declining yields, and lack of extension services.
- **Urgent need to catalyse the transition to sustainable agricultural value chains**, through tailored long term investments.
- **Agroforestry, which combines trees with annual and perennial crops and livestock farming**, successfully counteracts the effects of deforestation, while boosting local economies and livelihoods, and resilience to climate shocks.
- The cost transitioning cannot lie with farmers alone. **APAF mission is to fill the finance gap and massively scale-up agroforestry systems across West Africa.**



Why agroforestry in Africa?

rfi Direct MONDE | Direct AFRIQUE

#BURKINAFASO #BRÉSIL #UKRAINE PODCASTS AFRIQUE AFRIQUE FOOT LES PLUS LUS STOP L'INFOX

Alain Karsenty (chercheur): en Afrique, «l'essentiel de la déforestation vient de la petite agriculture»

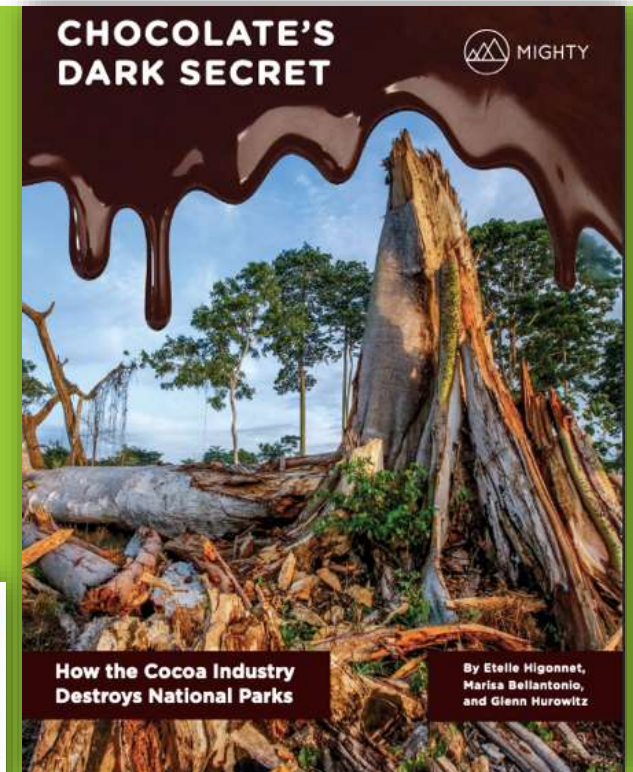
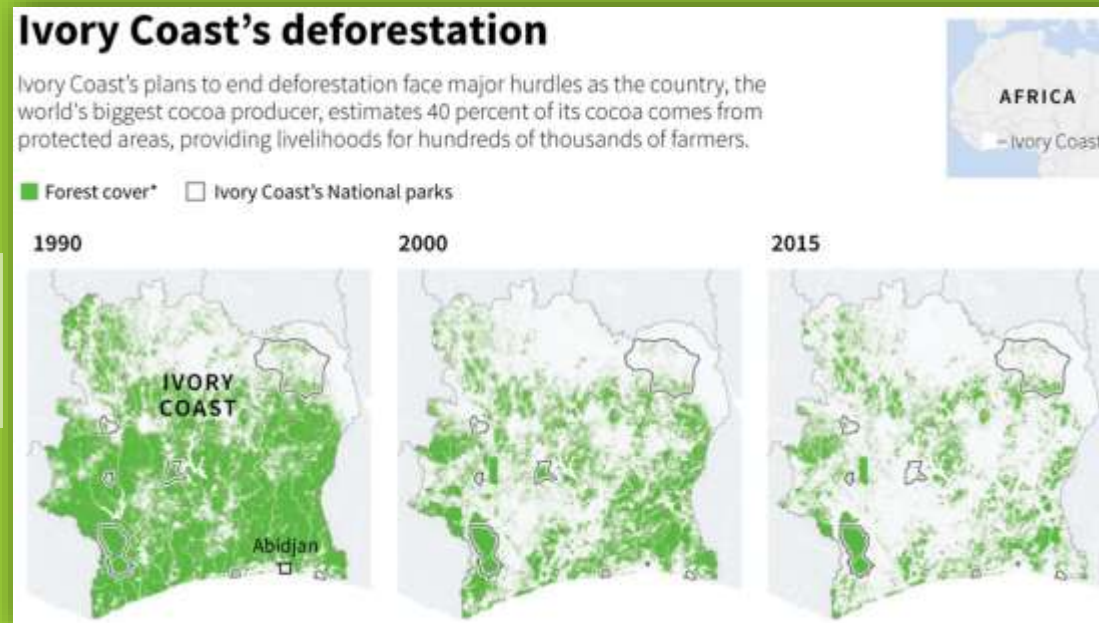
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Most deforestation comes from smallholder farming

<https://www.rfi.fr/> (CIRAD)

Ivory Coast has lost 80% of its original forest cover to cocoa cultivation since 1960.

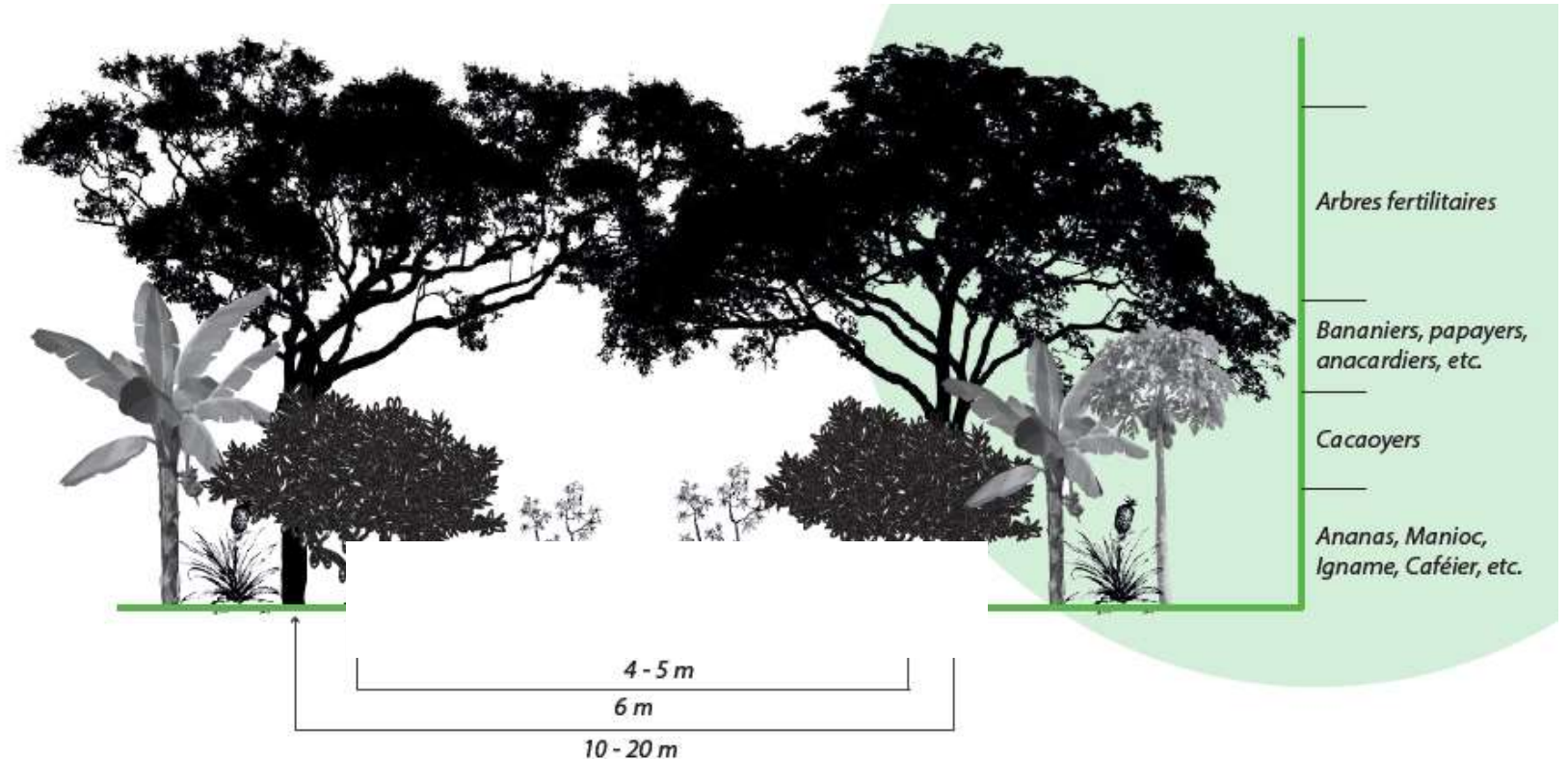
<https://blog-isige.minesparis.psl.eu/>



<https://www.mightyearth.org/>

A solution provided by APAF: multi-storey agroforestry fields

An innovative time-tested solution to nature-positive land use intensification led by the community participants:
Multi-storey agro-forestry combining fertilizer, forest and fruit trees.



- APAF designs and implements complex agroforestry systems with communities.
- Fertilizer trees live in symbiosis with bacteria and fungi (mycorrhizae) located in and around their roots.
- A true green manure, they make available to associated crops nitrogen and other nutrients present in the air or in the deep layers of the soil.
- Fertilizer trees can be used for forestry, fruit or forage purposes

According to Dupriez (agronomist) and de Leener (bioengineer), 1993, "A fertilizer tree is a tree whose activity enriches the arable layer of a soil, improves its texture and favors its structuring. To perform its function effectively in the field, it must be user-friendly, i.e. it must not enter into strong competition with species cultivated for their domestic or commercial production".

High social, environmental and economic added value

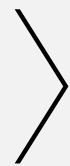
FARMER LIVELIHOODS

- **Elimination of chemical fertilizers and pesticide use** → savings and health benefits
- **Sustainable agricultural production** → improved soil fertility
- **Production of firewood and timber** → freeing up women's labour time for non-wood harvesting activities
- **Food crops and cash-cropping** → diversification of farm income
- A doubling of real farm household income over 20 years
- **Improved livelihoods** → counteracting rural exodus

NATURE

- **Reduced deforestation risk**, especially of slash-and-burn farming and logging.
- On-farm **biodiversity enhancement** and biodiversity protection of off-farm natural habits
- **Climate change mitigation and adaptation**
 - Field studies by APAF have demonstrated a **carbon sequestration potential** of over 300 tonnes of CO₂ equivalent per hectare in tropical regions (coffee & cocoa fields, for example).
 - **Enhanced climate risk resilience** through regulation of the water cycle and the microclimate

Contribution to the United Nations Sustainable Development Goals



A proven intervention method

Our strengths

- **Local teams of technical Agroforestry Advisors** (knowledge of local issues and contacts with chiefdoms)
- **Tailored investments** and in-field tree selection and regeneration and training with farmers
- **End-to-end support** (seed production, nursery establishment, inoculation with nitrogen-fixing bacteria and mycorrhizae, planting, pruning and maintenance, recognition of self-regenerating species (FMNR), etc.)
- **A landscape centered approach:** Interventions are designed and implemented in collaboration with communities and local authorities.
- **Strong business-case at the farm-level**, guaranteeing long-term financial viability.
- **Plantation traceability** thanks to in-house field monitoring 'using SIPAF'



*Photo of an agroforestry coffee field in Adoumé Lavagno, Plateaux Ouest, Togo.
Planted 20 years ago. You can watch the hyperlink below*

[Agroforestry field 20 years, coffee, Adoubé lavagno, Togo](#)

[Agroforestry field cocoa: 1 500 kg/ha, Kpalimé, Togo](#)

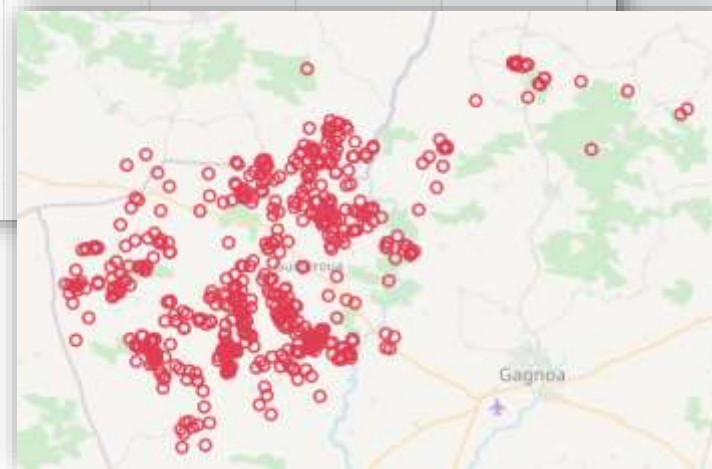
[Harvesting agroforestry coffee, Gbadape Aveho, Togo](#)

SIPAF: Field geolocation and data collection guarantee reliability and reliability

APAF has monitored its reforestation efforts since 2020 through its internal monitoring system, **SIPAF**

All of APAF's agroforestry fields, a total of 3188 fields have polygon data (at date).

Système d'Information APAF								
Salson	Pays	Région	Sous-région		Donateur			
2021								
Identifiant	Fertilitaires plantés	Fertilitaires RNA	Fruitiers plantés	Fruitiers RNA	Forestiers plantés	Forestiers RNA	Total arbres	
Total	75 365	905	1 119 716	5 953	42 233	1 818	1 245 990	
CI	52 541	482	1 119 280	5 951	0	0	1 178 254	
gôh	51 605	482	1 108 140	5 601	0	0	1 165 828	
bayota	704	0	17 100	0	0	0	17 804	
guiberoua	31 312	474	644 290	501	0	0	676 577	
dignago	285	0	6 750					
serihio	18 569	8	426 500					
gagnoa	250	0	4 500					
tonla	485	0	9 000					
la me	206	0	4 140					



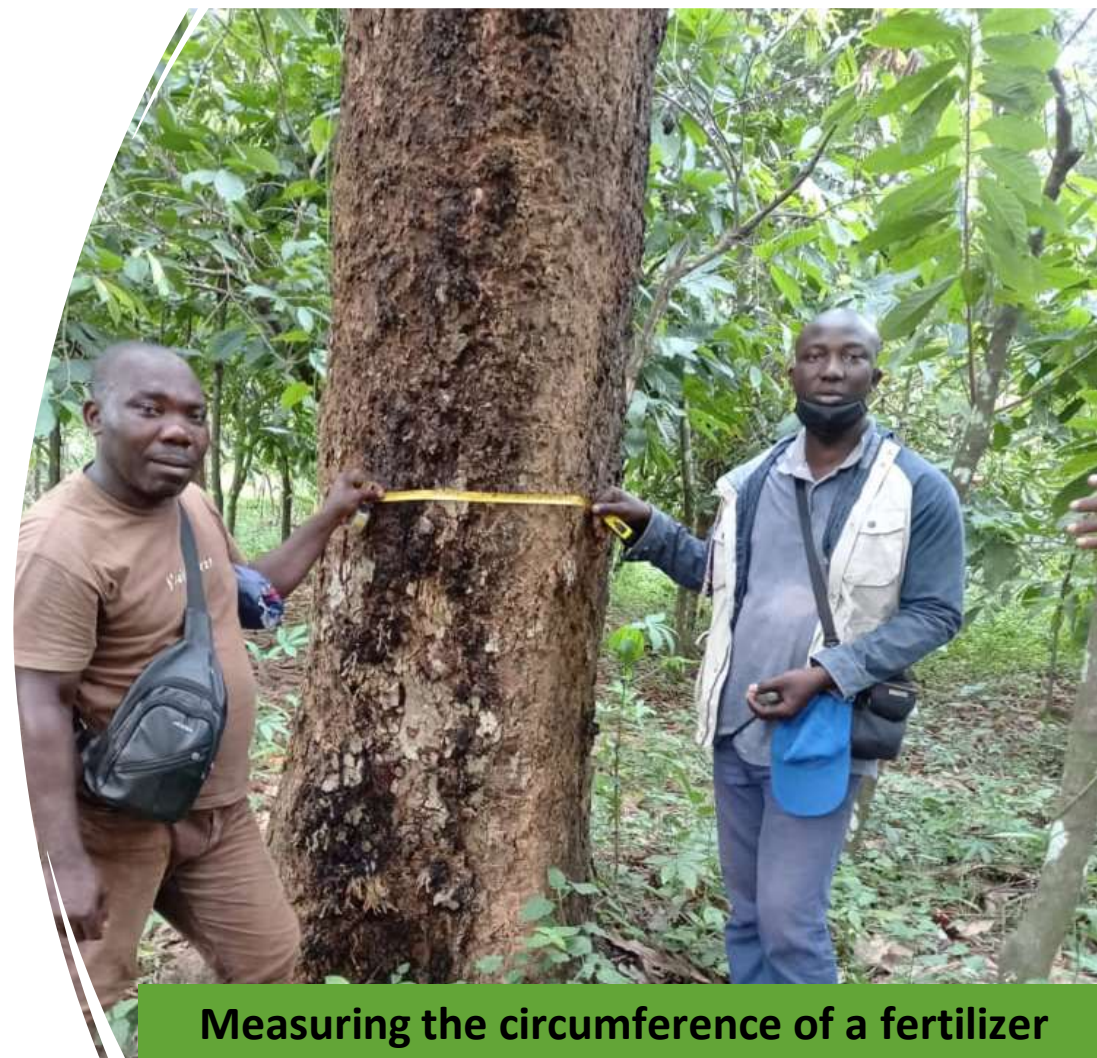
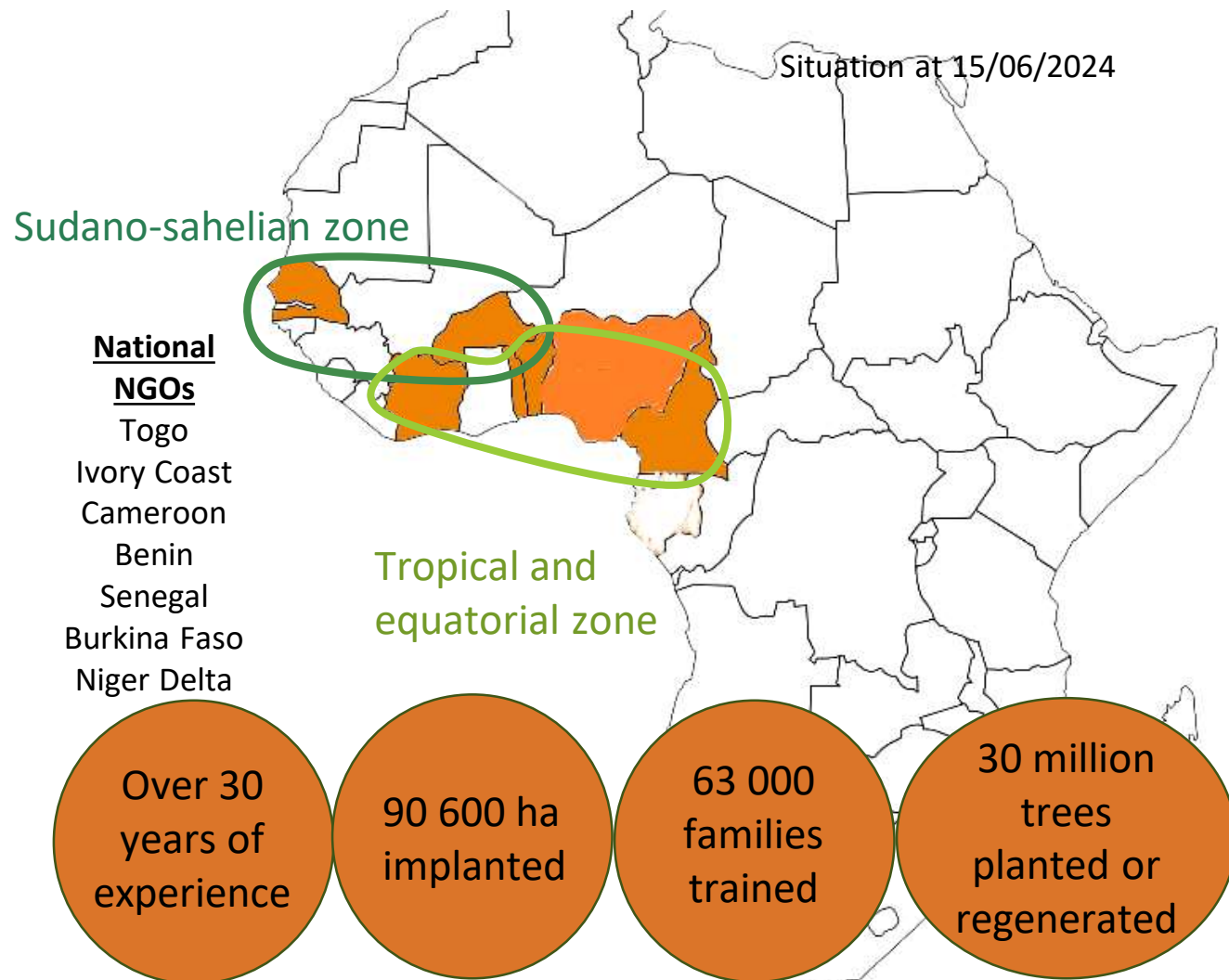
RNA=Régénération Naturelle Assistée (Farmer Managed Natural Regeneration)



Farmer geolocating his plot in Côte d'Ivoire, 2021

APAF's governance structure

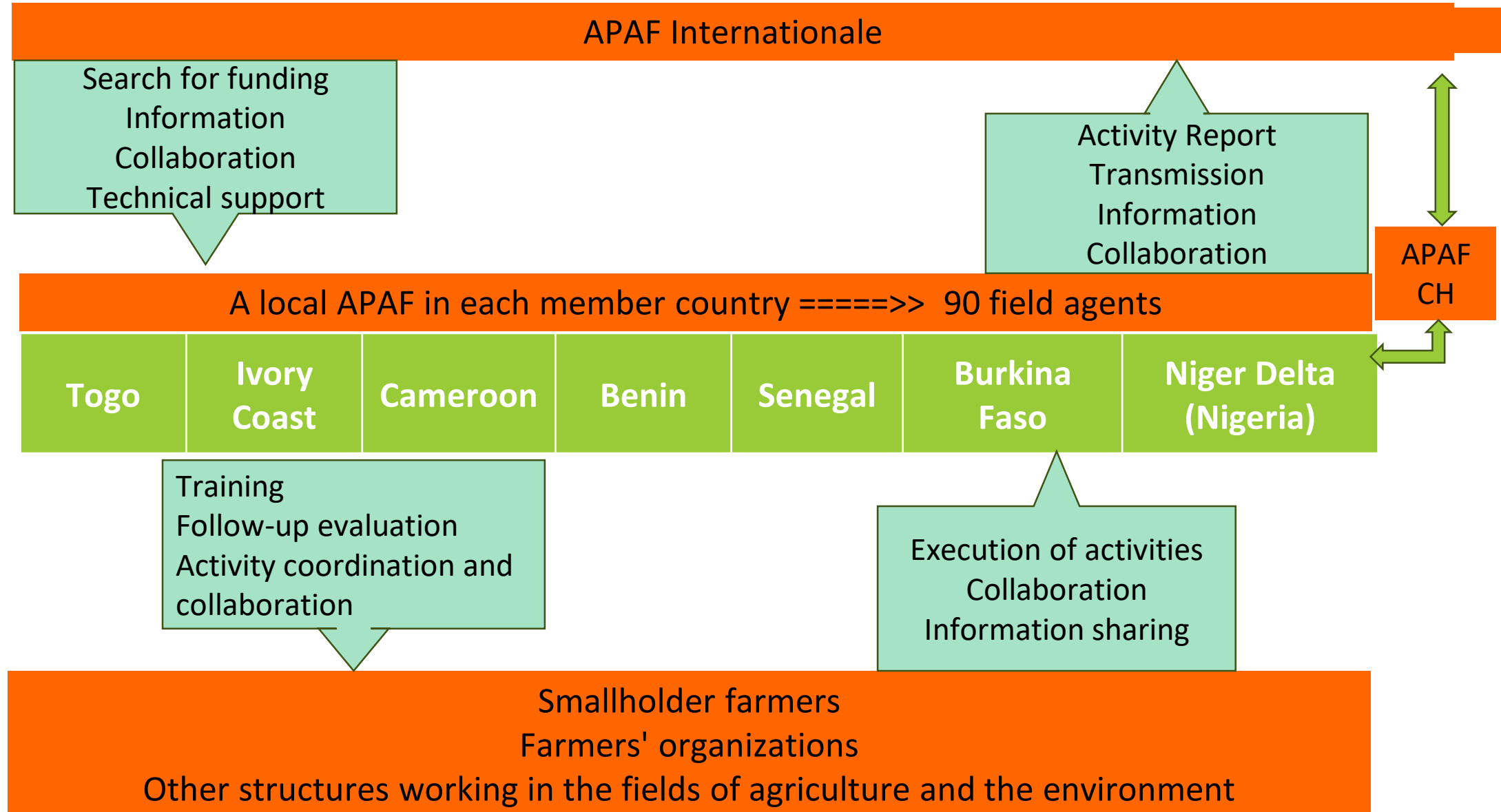
A network 7 national NGOs with >90 employed field agents with background and expertise in plant nursery, inoculation, species selection, farmer-managed natural regeneration, and participatory engagement.



Measuring the circumference of a fertilizer tree in a cocoa field in Togo, western plateau region. A 22-year-old *Samanea saman*.

APAF's operating structure

Network Operating Structure



Our achievements by the end of 2023

	Number of villages	Number of families	Agroforestry fields (hectares)	Forests	Number of trees planted or regenerated
Togo	734	42 343	53 763	5352	11 222 951
Ivory coast	290	13 048	26 044	851	15 081 935
Cameroon	55	512	1 058		709 358
Benin	23	2006	62		108 000
Burkina Faso	443	3158	1 753		925 319
Senegal	243	2129	1 659		1 295 096
Total	1 788	63 196	84 339	6203	29 342 659

A farmer admires a 4-year-old fertilizer tree, Porgo, Goh, Ivory Coast



Above, Kpalimé nursery, western Plateaux, Togo

The Executive Director of APAF International in a 20-year-old agroforestry coffee field, Plateaux Ouest, Togo



Long term vision

Vision

To massively scale-up the regeneration of degraded ecosystems and improve farmers' livelihoods across the African continent

Medium term

Strengthen APAF's agroforestry initiatives in tropical areas (Togo, Côte d'Ivoire, Benin, Cameroon), focusing on improving local capacities and extending its agroforestry models to other regions within these countries.

Long term

Continue to develop agroforestry with fertilizer and fodder trees in the Sahelian zone (Senegal, Burkina Faso), with techniques adapted to arid climatic conditions.

Donors Interests



Environmental impact:

Direct contribution to the regeneration of agricultural and forest land

Sustainable forestry capital:

Creation of long-term forestry capital, increasing the value of investments.



Income diversification:

Improvement and diversification of income for local communities, strengthening their economic resilience.

Support for the green economy:

by promoting agroforestry with fertilizer trees and agroecology, long term durable soil fertility is guaranteed.



Our operations in the Sahel region: the example of Cassou (Burkina-Faso)

A video shot in Cassou:

<https://www.youtube.com/watch?v=REzzSiUFn28>

Agroforestry on
field crops



Agroforestry
Pasture (full
pasture)



*Acacia
macrostachya*
hedge

Our work in the Sahel region: the example of the Yagma school field, Burkina-Faso

Irrigated market
garden





An example of a multi-storey cocoa, cola, food crops, timber, etc. field... it looks like a forest with large trees, such as these *Terminalia superba* (fraké), etc., but it's an APAF agroforestry field!

Stay in touch!

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<https://www.youtube.com/channel/UCvHRN2hnXS0B4dS455Cgk9g>

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