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POLICY BRIEF

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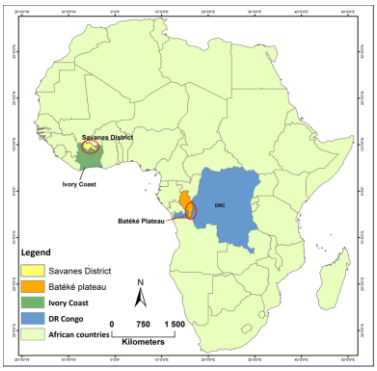
OPTIMISING AGROFORESTRY PRACTICES IN AFRICAN SAVANNAS: LESSONS FROM KORHOGO (CÔTE D'IVOIRE) AND THE BATÉKÉ PLATEAU (DRC)

Agroforestry, the integration of trees with crops and livestock, is a leading Nature-based Solution (NbS) to balance productivity and sustainability. In the 1980s, Korhogo (Côte d'Ivoire) and the Batéké Plateau (DRC) institutionalised similar agroforestry models centred on fast-growing, nitrogen-fixing species. Today, however, the two systems have developed very differently. This study highlights key success drivers and constraints to inform the design of adoptable, optimised and sustainable agroforestry systems across African savannas and beyond.



Study area. Map generated with ArcGIS

OVERVIEW

African savannas face a dual challenge: the need to increase yields for food security while restoring degraded ecosystems. Agroforestry offers a proven pathway to achieve both. Yet, adoption rates remain low across Africa, limiting its potential impact. Comparative studies explaining why agroforestry succeeds or fails across diverse African contexts are scarce.

This brief analyses two agroforestry systems, Korhogo (Côte d'Ivoire) and the Batéké Plateau (DRC), which have followed different development pathways over time. Korhogo shifted towards market-oriented cashew systems, while the Batéké Plateau maintained the earlier nitrogen-fixing and fast-growing agroforestry models.

POLICY RECOMMENDATIONS

1. **Adopt Multi-tiered agroforestry systems:** Implement agroforestry models that combine annual crops, fast-maturing fruit/fertilizer trees, and long-term timber species to provide early and continuous incomes.
2. **Provide targeted support for farmers:** Deliver starter packs of seedlings and moderate fertilizers, establish credit schemes aligned with crop maturation cycles, and set up farmer-led demonstration plots that publicly track agroforestry benefits.
3. **Establish enabling policies:** Secure land tenure, gradually shift subsidies from chemical inputs toward agroforestry-supporting inputs, promote alternative energy sources to reduce pressure on trees, and fund long-term research and multi-stakeholder coordination to scale successful models nationally.

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KEY FINDINGS

Agroforestry Systems and key drivers

- Korhogo: Transitioned from leguminous tree-based systems in the 1980s to market-oriented fruit-and-nut systems, dominated by cashew (*Anacardium occidentale*), driven by high global demand and economic returns.
- The Batéké Plateau: Maintained the original fuelwood and soil restoration model, centred on *acacia (acacia auriculiformis),* due to donor continuity, lack of alternatives, and persistent demand for woodfuel.

Key Ecological Limitations of Agroforestry Systems

- Korhogo:
  - Cashew-dominated systems reduce understory growth due to low species diversity and chemical inhibition of neighboring plants.
- The Batéké Plateau:
  - Acacia-based systems are associated with soil acidification and fire risk.
  - Short-term project cycles limit sustainability and monitoring

Constraints to Agroforestry Uptake

- In Korhogo, 98% of interviewed farmers perceive adding trees in their farms as a threat to food security, as it reduces space for cashew and food crops; this perception is driven by the lack of locally proven agroforestry models.
- On the Batéké Plateau, the clash between traditional and state land laws creates deep land tenure insecurity
- Key challenge: Agroforestry lacks clear, immediate economic benefits compared with traditional cropping systems.

RESEARCH APPROACH

The analysis uses a mixed-methods approach. In Korhogo, where agroforestry data are scarce, we conducted field surveys, tree and crop inventories, group discussions, expert interviews, and farm-level observations. In the Batéké Plateau, where a substantial body of agroforestry research already exists, we synthesized findings through a systematic literature review (1965–2025).

A farmer in Korhogo explaining his agroforestry decisions

CONCLUSION

Consistent with patterns reported in other African savannas, these case studies show that agroforestry adoption is driven primarily by economic considerations rather than environmental preferences.

To increase adoption, optimise practices and promote farmer-led agroforestry, systems must be redesigned to provide early and tangible benefits. This can be achieved through research on optimal species combinations, secure land tenure, demonstration plots, effective farmer cooperatives and improved market linkages and returns for agroforestry products.

REFERENCES

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