UN environment programme | CONGO BASIN LANDSCAPES INITIATIVE

Insight Brief

Rethinking agriculture in the Congo Basin

What new land-use evidence reveals

New spatial analysis led by the Liverpool John Moores University (LJMU) highlights how dispersed agricultural systems are reshaping spatial planning across Central Africa.

The findings challenge simplified assumptions around agricultural expansion and reinforce the importance of agricultural expansion patterns..

Much of the agriculture shaping Congo Basin landscapes remains poorly represented in conventional land-use data.

What conventional maps miss

6.53 million ha — Agriculture often exists within forest-agriculture systems rather than clearly separated plantations

Smallholder-dominated — *Estimated oil palm identified outside industrial plantations*

Mixed mosaics — Agricultural expansion across many landscapes is dispersed and fragmented

Often visible	Often overlooked
Industrial plantations	Smallholder mosaics
Large-scale clearing	Agroforestry systems
Formal production zones	Informal agricultural expansion

The invisible landscape

Conventional plantation datasets capture only part of the agricultural dynamics shaping land-use change across the region.

LIVERPOOL JOHN MOORES UNIVERSITY

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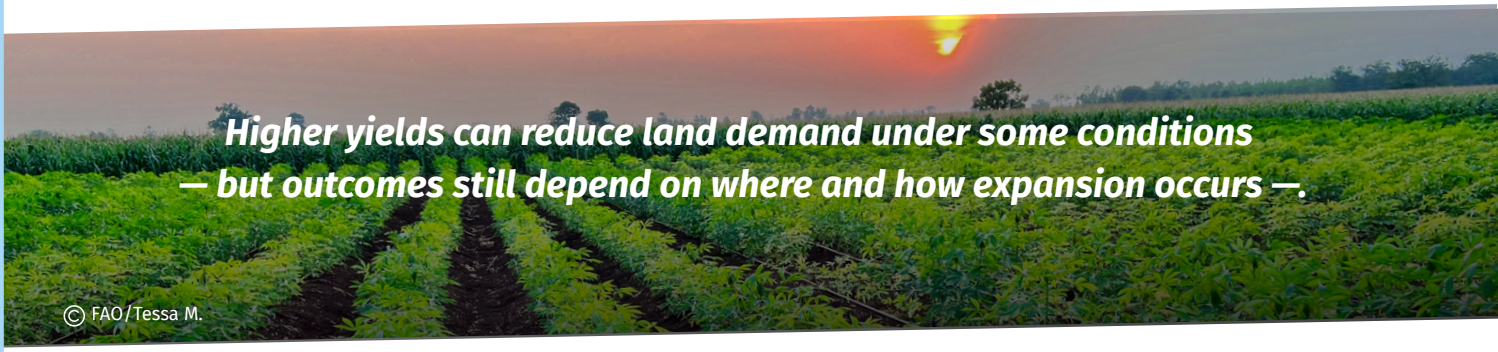
WHY THIS MATTERS

When planning focuses primarily on industrial agriculture, it can overlook the cumulative impact of dispersed smallholder systems.

In many Congo Basin landscapes:

- agricultural expansion is fragmented;
- production systems are mixed;
- and land-use change occurs gradually across wider mosaics.



Fom evidence to decisions

From invisibility to accountability

- Dispersed smallholder systems shape large areas of land use across the Congo Basin, yet they often remain poorly represented in conventional datasets and planning frameworks.
- Integrating these systems into land-use analysis helps reduce planning blind spots and improves visibility of cumulative landscape pressures.

From fragmented data to coordinated action

- Agricultural and conservation planning are often developed separately, despite operating across the same landscapes.
- Stronger spatial evidence can help improve coordination between sectors and support more coherent approaches to land-use planning and landscape management.

From expansion to efficiency

- Land-use outcomes depend not only on crop type, but also on yield, production systems, and where expansion occurs.
- Improving productivity before expanding cultivated land can help reduce pressure on intact forests and limit unnecessary land conversion.

About the Work

This research from LJMU under the GEF 7 Congo Basin Integrated program uses spatial analysis, satellite imagery, and field evidence to examine the impact of dispersed agricultural systems and smallholder production on land-use pressures in Central Africa.

By enhancing awareness of often-overlooked agricultural systems, the study aids in better land-use planning, conservation, and sustainable landscape management in the Congo Basin.

Better spatial planning depends on understanding how production systems function within real landscapes.

About the Congo Basin Landscapes Initiative

This UNEP-led multi-partner and multi-country initiative includes the GEF-funded Congo Forest Integrated Programme (CFIP) and the IKI-funded Congo Basin Peatlands project.

The CFIP encompasses two key initiatives: the GEF-7 Congo Basin Impact Programme (2021-2026) and the GEF-8 Congo Critical Forest Biome Integrated Programme (2025-2032), both focused on driving sustainable management and conservation of critical forests in the region. Visit our website for more information.

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