



Mosaic landscape.

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Innovation in agriculture reduces pressure on forests

by Denis Jean Sonwa¹ and Dr Rachid Hanna²

Population growth and the expansion of small holders and industrial and large scale agriculture are considered to be major drivers of deforestation and forest degradation in the Congo Basin. Various innovations in agricultural practices are necessary to improve productivity, enhance producer livelihoods and reduce conversion of forests into fields for agriculture. These innovations can include improved crop varieties and crop production and protection practices, as well as post-harvest handling and better facilities to market small farmer products.

At the end of the last century, agriculture in Africa still substantially lagged behind compared to other continents. While the green revolution had succeeded in other parts of the world, Africa had not yet benefited from this in producing enough food to satisfy the food demand. The low productivity of African agriculture was in general mainly caused by low quality cropping materials, an insufficient level of management of pests and diseases, including weeds, a low or no fertilizer use, strict labour requirements and a lack of mechanisation as well as numerous institutional constraints.

Today, when on-station research succeeds in generating high-performing crop varieties with appropriate technological practical packages, various institutional constraints still restrict the adoption by rural smallholder farmers. Such constraints include a lack of appropriate seed systems and networks to distribute inputs, for example seed, crop protection products and fertilizer, as well as weak financial mechanisms such as rural banking for savings and credits. Labour and the lack



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of mechanisation also continue to hamper the realisation of full land productivity and post-harvest handling and processing. Governments and private sector investments are required to reduce these constraints to improve the efficiency of agriculture production, product transformation and marketing. Because of these constraints related to field farming systems and rural institutions, production increase to satisfy food demand was mainly realised by extending into the forest. Smallholder agriculture practices in forest zones

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