

Background and aims



Environmental services of agroforestry, such as carbon sequestration and biodiversity maintenance, have been highly emphasised during last decade.

Wood consumption and production, be it fuelwood or timber, is still critical for a large part of rural and urban populations in many African countries.

Agroforestry systems plays a large role in wood production. Improved agroforestry systems could contribute to sustainable wood production, and decrease pressure on natural forests, complementary to forest plantations.



Methods



Case studies concern more specifically Côte d'Ivoire, Cameroun and Democratic Republic of Congo, in relation to authors' experience. Bibliographic analysis was completed for some important agroforestry systems such as cocoa production and forest fallows in humid regions, and agroforestry parklands and hedges in more dry regions.



Results

- Integration of fast-growing trees, mainly local or introduced nitrogen-fixing trees (*such as acacia mangium and a. auriculiformis*), in fallow systems has many advantages: improvement of nitrogen and soil fertility, and then food supply (cassava, maize, ...); carbon sequestration, ... Projects carried out around Abidjan, Douala and Kinshasa show that they can also make a significant contribution to wood and charcoal supply to rural and urban populations, and generate incomes for small agroforestry farmers with limited investments.
- Cocoa production was first developed under natural forest shade. Current strategies intend to restore old cocoa plantations in line with "zero deforestation" strategies for sustainable cocoa production. Integration of service or timber trees in young cocoa plantations contributes to restoring an adapted microclimate, but also to significant production of wood through appropriate agroforestry management.
- Integration of woody hedges and more sustainable management of agroforestry parklands, are agroforestry practices contributing to the restoration of soils and the environment in dry regions. These agroforestry systems also provide a large quantity of wood for various uses for the populations of the villages, complementary to natural ecosystems.



Discussion

Complementary context based analysis are needed for joint social, economic and environmental integration of the multifunctional role of wood production in AFS, including carbon sequestration.



Conclusion

It is critical that policy makers and field operators do not forget the wood production component in agroforestry strategies. This is important for rural and urban populations, complementary to other services and food production provided by agroforestry systems.

References

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