

Review of: "Improving agriculture and food security in Africa: Can the one health approach be the answer?"

Roger Leakey

Potential competing interests: No potential competing interests to declare. None

This is a well written and authoritative paper that addresses many of the issues very well. But, from my experience working around many countries of Africa it ignores a few very positive and important examples of a One Health approach delivering holistic food and nutritional security, poverty alleviation, land rehabilitation, agroecological functions, social justice, capacity building, business development, wildlife habitat restoration, incentives not to migrate to urban areas or overseas, mitigate climate change, and reduce social conflict! All of this can be achieved by the development of Multifunctional Agriculture delivered by intensified agroforestry in which local communities follow a highly adaptable 3-step model to close the Yield Gaps that bedevil African agriculture. The diversification of farming systems with participatory community-based domesticated indigenous trees has been pioneered in Cameroon through Rural Resource Centres. In addition, further diversification can be achieved by underplanting these agroforestry landscapes with herbaceous 'neglected and underutilized crop species'. Maybe, I can encourage the authors to read papers by: Tchoundjeu et al., Degrande et al., Asaah et al., Leakey et al. – including:

1. Converting 'trade-offs' to 'trade-ons' for greatly enhanced food security in Africa: multiple environmental, economic and social benefits from 'socially modified crops'. *Food Security* 10: 505-524.
2. From Ethnobotany to Mainstream Agriculture – Socially-modified Cinderella Species Capturing 'Trade-ons' for 'Land Mxing'. In: Special Issue on Orphan Crops, *Planta* 250: 949–970.
3. A re-boot of tropical agriculture benefits food production, rural economies, health, social justice and the environment. *Nature Food* 1: 260-265.
4. African lives matter: wild foods matter for livelihoods, justice, and the environment – a policy brief for agricultural reform with new crops, *Sustainability* 13(13), 7252
5. The future of food: domestication and commercialization of indigenous food crops in Africa over the third decade (2012-2021), *Sustainability* 14:2355.
6. *Multifunctional Agriculture: Achieving Sustainable Development in Africa* Academic Press, San Diego, California, USA, 480pp.
7. Addressing the causes of land degradation, food / nutritional insecurity and poverty: a new approach to agricultural intensification in the tropics and sub-tropics. In: *Wake Up Before it is too Late: Make Agriculture Truly Sustainable Now for*

Food Security in a Changing Climate, 192-198, *UNCTAD Trade and Environment Review 2013*, U. Hoffman (ed.), UN Publications, Geneva, Switzerland.