



Recommended readings for this session:

- Dekeyser, Koen, and Sean Woolfrey, A greener Europe at the expense of Africa? Why the EU must address the external implications of the Farm to Fork Strategy (13 October 2021), <https://bit.ly/3v6oXxQ>

Africa, with its fast-growing population, changing diets and increasing reliance on food imports, is likely to be particularly affected by the F2F-strategy according to recent studies. Attention should be given by the EU and its Member States to supporting a transition to sustainable food systems in Africa, given the severe challenges facing that continent's food systems.

- Giller, K. E., Delaune, T., Silva, J. V., Descheemaeker, K., van de Ven, G., Schut, A. G. T., van Wijk, M., Hammond, J., Taulya, G., Chikowo, R., & Andersson, J. (2021). Small farms and development in sub-Saharan Africa: Farming for food, for income or for lack of better options? Food Security, <https://doi.org/10.1007/s12571-021-01209-0>

Farm size is a major determinant of food self-sufficiency and a household's ability to rise above the living income threshold. Closing yield gaps strongly increases the proportion of households that are food self-sufficient. Yet in four of the locations (Ethiopia, Tanzania, Ghana and Malawi), land is so constraining that only 42–53% of households achieve food self-sufficiency, and even when yield gaps are closed only a small proportion of households can achieve a living income.

- Giller, K. E. (2020). The Food Security Conundrum of sub-Saharan Africa. Global Food Security, 26, 100431, <https://doi.org/10.1016/j.gfs.2020.100431>

The conundrum that must be addressed is how to provide cheap, nutritious food to feed the growing urban and rural populations while creating incentives to stimulate increased agricultural production. Agricultural production in Africa needs to increase strongly to meet the demands of both national and international markets. Yet fragmentation of land due to population pressure in rural areas, and the low prices farmers are paid for their produce, mean that in many rural areas in sub-Saharan Africa the farms are already too small to provide food security or a living income for the household.

These are also relevant:

- Van Vliet, J.A., Slingerland, M.A., Waarts, Y.R., Giller, K.E., 2021. A Living Income for Cocoa Producers in Côte d'Ivoire and Ghana? Front. Sust. Food Syst. 5, <https://doi.org/10.3389/fsufs.2021.732831>

Our analysis shows that most cocoa producing households in Côte d'Ivoire and Ghana have difficulties to achieve a Living Income, and many fall below the poverty line. Our scenario analysis suggests that price increases will have limited effects on the income of households who now struggle the most, while benefits will mainly accrue to those who already earn more from cocoa. Structural changes will be required in the long term to lift all producers out of poverty.

- Giller, K. E. (2020). Grounding the helicopters. Geoderma, 373, 114302, <https://doi.org/10.1016/j.geoderma.2020.114302>

Minasny et al. (2020) raise an issue concerning the ethics of scientific research and publication that has implications far beyond the issue of authorship, highlighting some of the current biases in our

research and publication systems which need much further debate. It is a topic to which Ken Giller is particularly sensitive given that he has devoted virtually his whole career to research on smallholder agriculture in the tropics.

And more general - global view:

- Giller, K. E., Delaune, T., Silva, J. V., Descheemaeker, K., van de Ven, G., Schut, A. G. T., van Wijk, M., Hammond, J., Hochman, Z., Taulya, G., Chikowo, R., Narayanan, S., Kishore, A., Bresciani, F., Teixeira, H. M., Andersson, J., & Van Ittersum, M. K. (2021). The future of farming: Who will produce our food? Food Security, <https://doi.org/10.1007/s12571-021-01184-6>

Achieving SDG2 (zero hunger) in a situation of rapid global population growth requires a continued focus on food production. Farming not merely needs to sustainably produce nutritious diets, but should also provide livelihoods for farmers, while retaining natural ecosystems and services. Approaching the question of ‘Who will produce our food?’ requires a food systems approach at global level, given how interconnected the world is in terms of agricultural trade and the role of agriculture and food in our economies.

- Giller, K. E., Hijbeek, R., Andersson, J. A., & Sumberg, J. (2021). Regenerative agriculture: an agronomic perspective. *Outlook on Agriculture*, 50, 13- 25
<https://doi.org/10.1177/0030727021998063>

Agriculture all over the world faces serious challenges, as governments, corporations, research agronomists, farmers and consumers seek to negotiate a critical but dynamic balance between human welfare (or the ‘right to food’), productivity, profitability, and environmental sustainability. However, given the high degree of diversity of agro-ecosystems, farm systems and policy contexts, the nature of these challenges can vary dramatically over time and space. Against this crisis narrative the current interest in ‘Regenerative Agriculture’ and ‘Regenerative Farming’ has taken root. The majority of Regenerative Agriculture practices are aimed at improving soil management and reversing biodiversity loss. However, it appears improbable that Regenerative Agriculture will achieve all of the desired environmental benefits while also increasing global food production. Reflective engagement by research agronomists is now critically important.