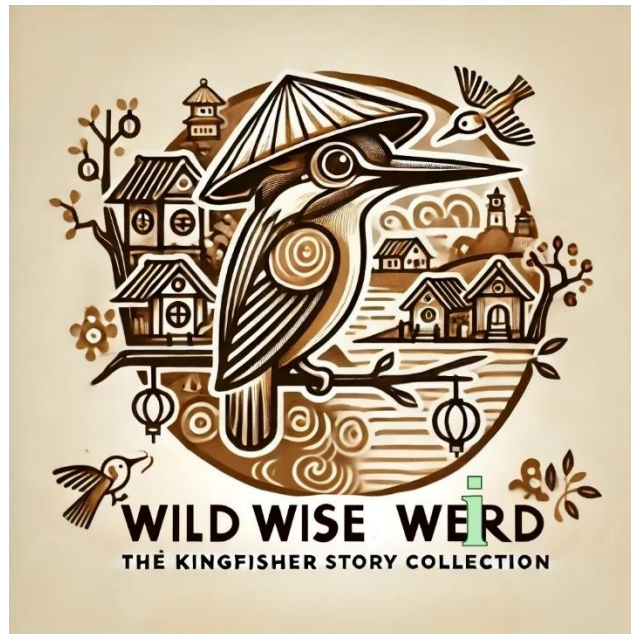


Trees on Farms: A Natural Solution to Malnutrition in Malawi

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“When humans live in peace and joy, the birds can, too.”

In “Conductor”; *Wild Wise Weird* [1]



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In rural Malawi, malnutrition remains a pressing challenge, disproportionately affecting women and children. Although agriculture is the primary livelihood, many households suffer from poor dietary diversity and inadequate intake of vital micronutrients—vitamin A, zinc, iron, and folate—compromising the health and development of millions [2,3]. A recent study by Vansant et al. [4] highlights a promising, nature-based strategy to address this issue: the integration of multipurpose trees into farming systems.

By surveying 460 rural households across both dry and wet seasons, the researchers found compelling evidence of the benefits of on-farm trees for nutrition. Households that actively used trees to source food consistently achieved higher micronutrient adequacy. In particular, women from these households had diets with 7% to 20% greater adequacy of key micronutrients compared to those without food-producing trees.

Beyond providing food, trees also offer additional livelihood benefits, including income generation from marketable products and fuelwood for cooking. However, the study revealed that the most significant nutritional gains stemmed directly from the consumption of tree-sourced foods—such as fruits and leafy vegetables—rather than from income or fuel benefits alone. Notably, while tree-derived income can enhance livelihoods, it does not reliably translate into improved diets, likely due to persistent challenges in market access and the affordability of nutritious foods.

During the dry season, when food shortages are most severe, the role of trees becomes even more critical. Households with fruit-bearing trees—such as mango, guava, and various indigenous species—not only achieved higher micronutrient intake but also reduced their reliance on market purchases, buffering them against volatile food prices. Moreover, these multipurpose tree systems enhanced the productivity of surrounding crops and wild leafy vegetables by improving soil quality and retaining moisture, offering additional food sources during lean periods.

The study underscores the essential link between nature and human well-being: integrating trees into farming landscapes strengthens both ecological and nutritional resilience. Trees sustain vital ecosystem functions—such as soil fertility, water conservation, and climate buffering—while directly helping to alleviate nutrient deficiencies. In the face of climate change, deforestation, and persistent poverty, the promotion of multipurpose trees emerges as a practical and sustainable strategy for improving diets and securing livelihoods in Malawi [5].

References

- [1] Vuong QH. (2024). *Wild Wise Weird*. <https://www.amazon.com/dp/B0BG2NNHY6/>
- [2] Han X, et al. (2022). Global, regional, and national burdens of common micronutrient deficiencies from 1990 to 2019: A secondary trend analysis based on the Global Burden of Disease 2019 study. *eClinicalMedicine*, 44, 101299. <https://doi.org/10.1016/j.eclinm.2022.101299>

[3] FAO, IFAD, UNICEF, WFP, and WHO. (2023). *The state of food security and nutrition in the world 2023: Urbanization, agrifood systems transformation and healthy diets across the rural–urban continuum*. FAO, IFAD, UNICEF, WFP, and WHO.

<https://doi.org/10.4060/cc3017en>

[4] Vansant E, et al. (2025). Multipurpose trees on farms can improve nutrition in Malawi. *One Earth*, 8(2), 101165. <https://doi.org/10.1016/j.oneear.2024.12.001>

[5] Nguyen MH. (2024). How can satirical fables offer us a vision for sustainability? *Visions for Sustainability*. <https://ojs.unito.it/index.php/visions/article/view/11267>