

Healing the Planet through Regenerative Land Systems

Rainer Detering, John Mathias Mangana (Tanzania)

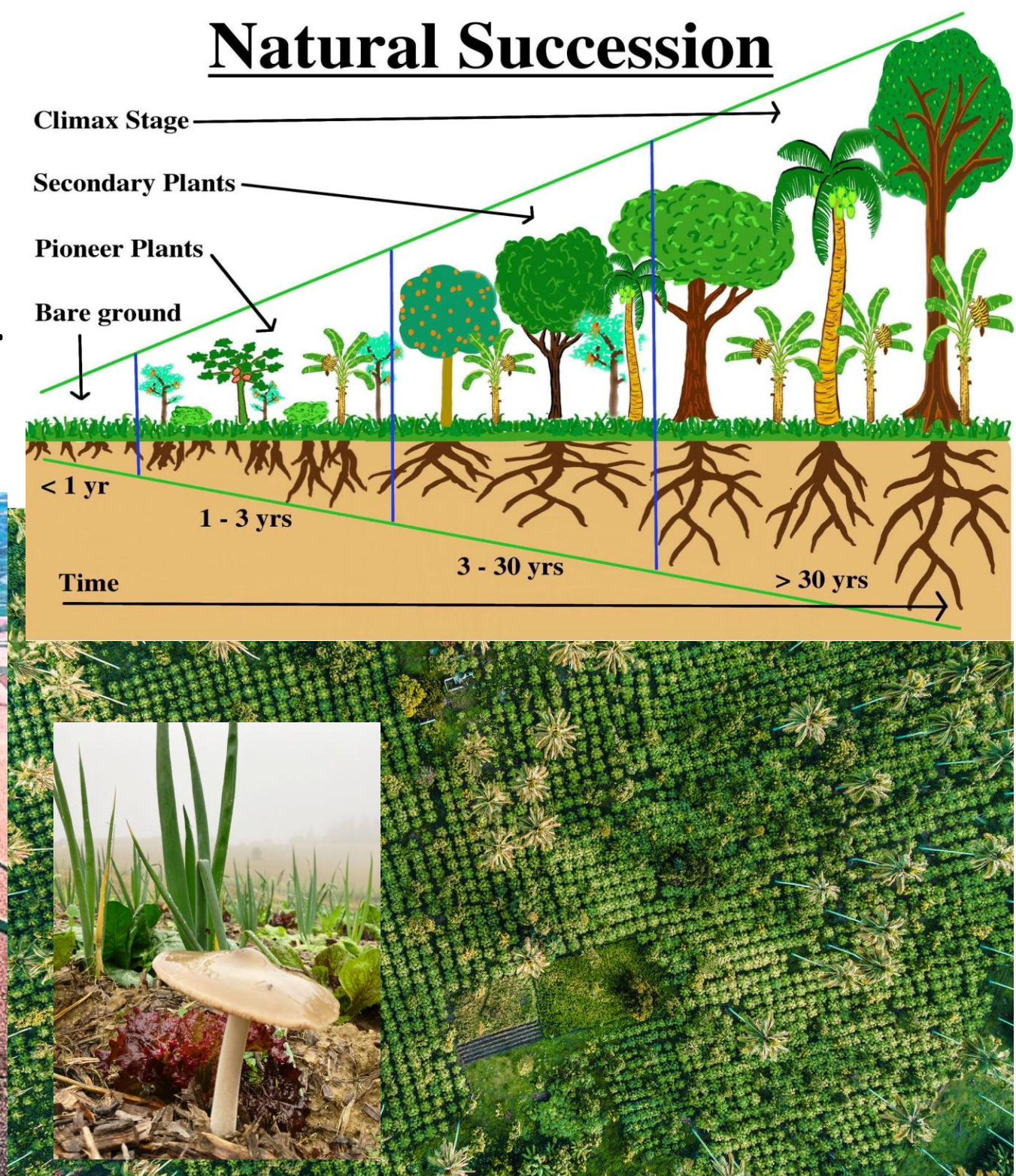
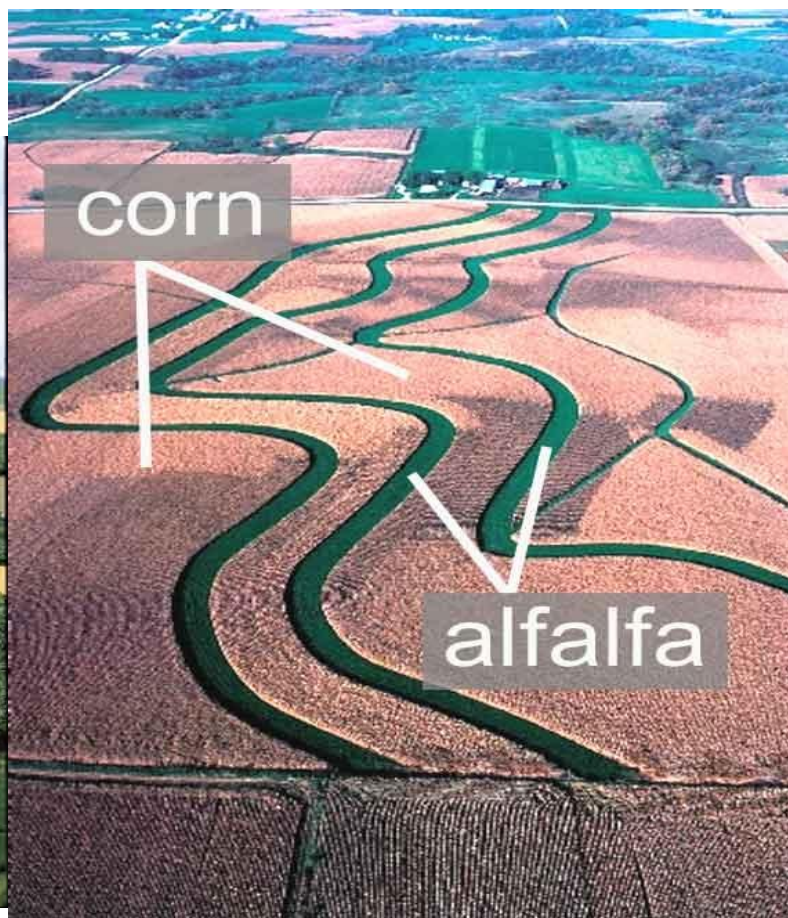
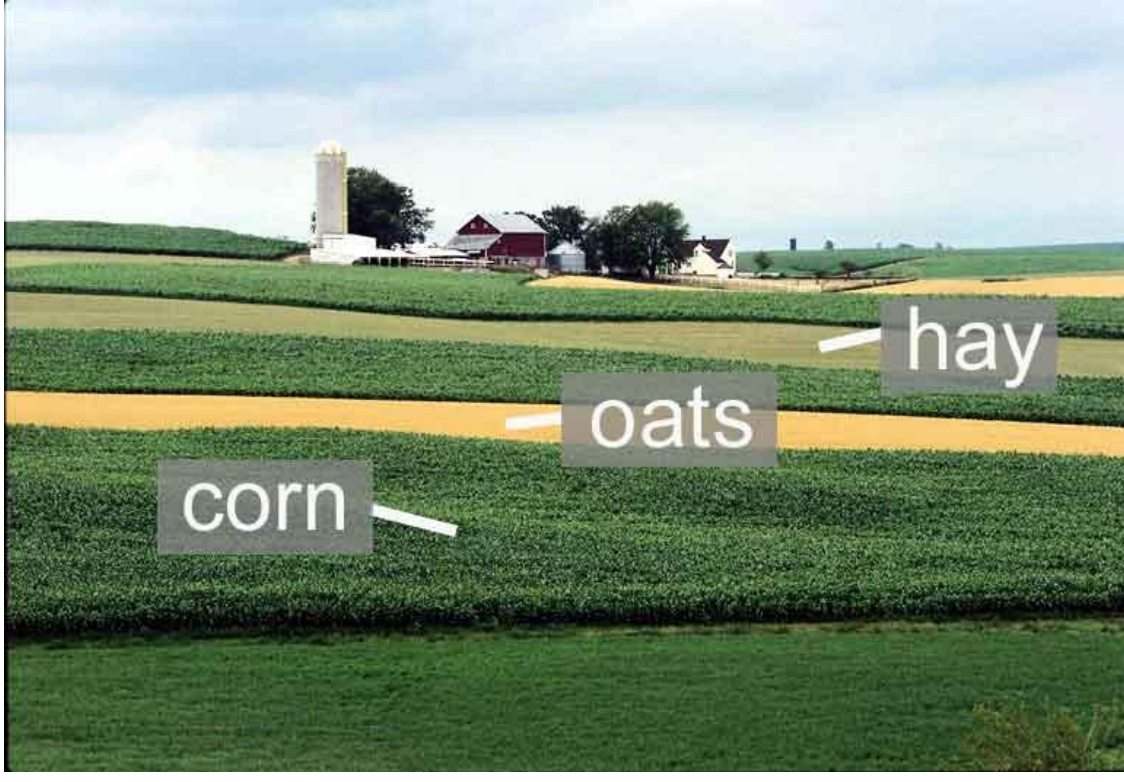
Our Planet is Sick

- Soil is blown away by wind erosion.
- Water is polluted by chemicals.
- Biodiversity is collapsing.
- Unhealthy diets mirror unhealthy systems.



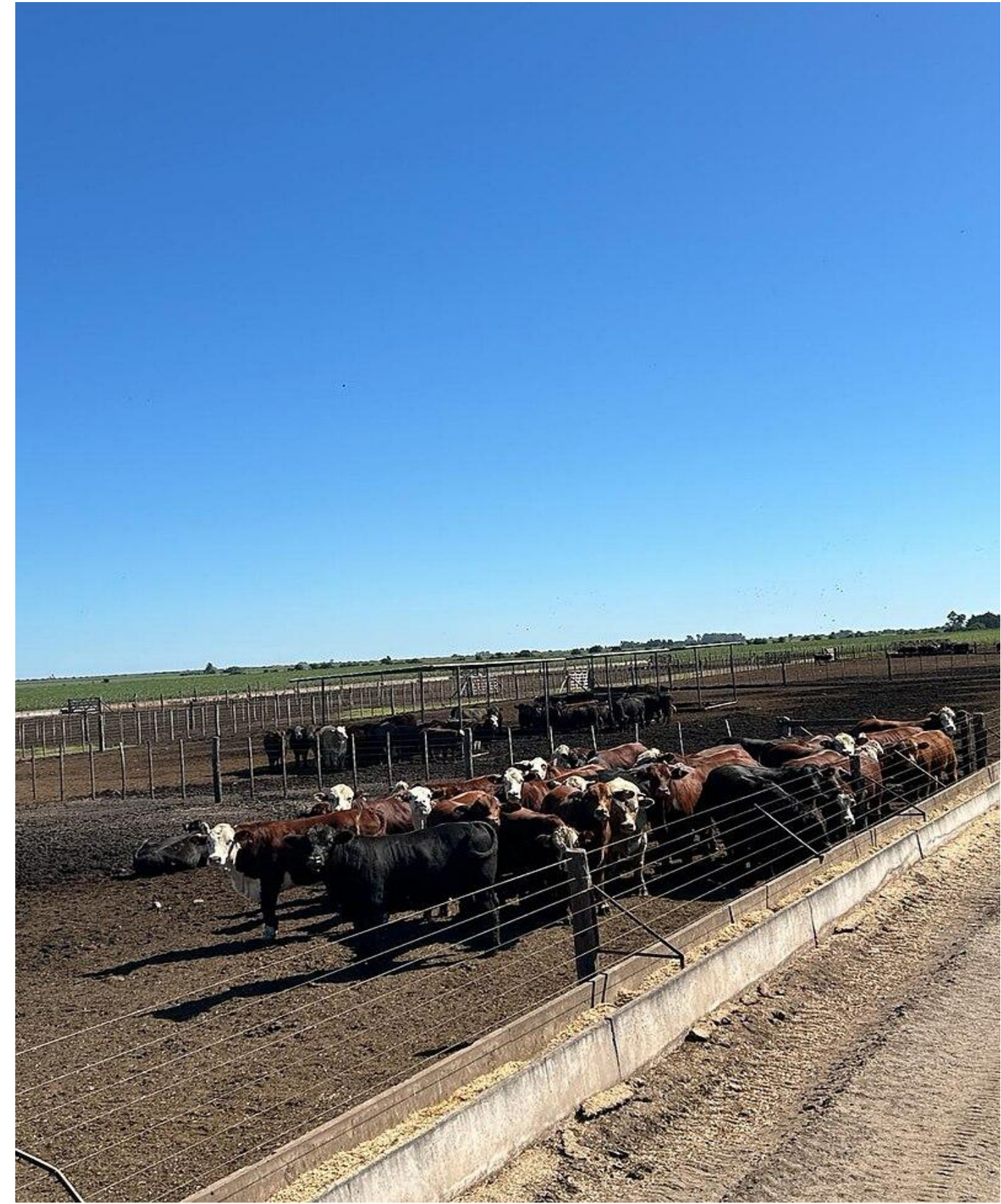
Agroforestry & Diversity

- Combining trees, crops, and livestock restores resilience.
- Trees bring shade, roots stabilize soil.
- Polycultures and perennials keep soils alive.



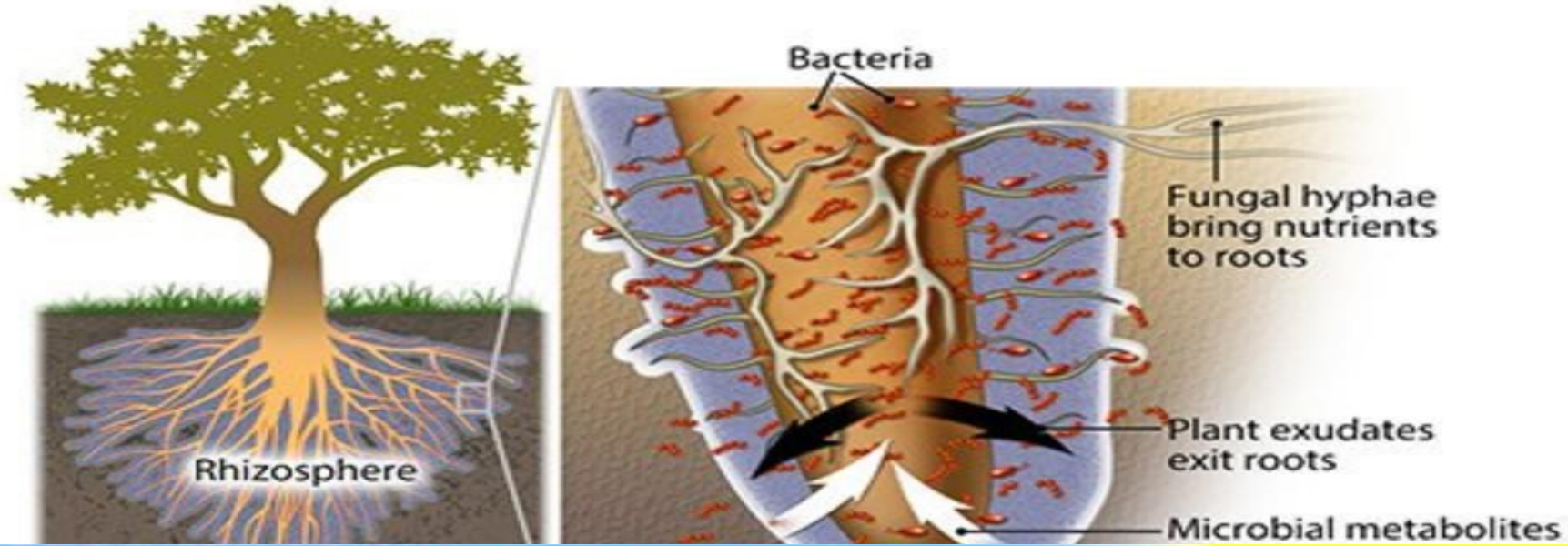
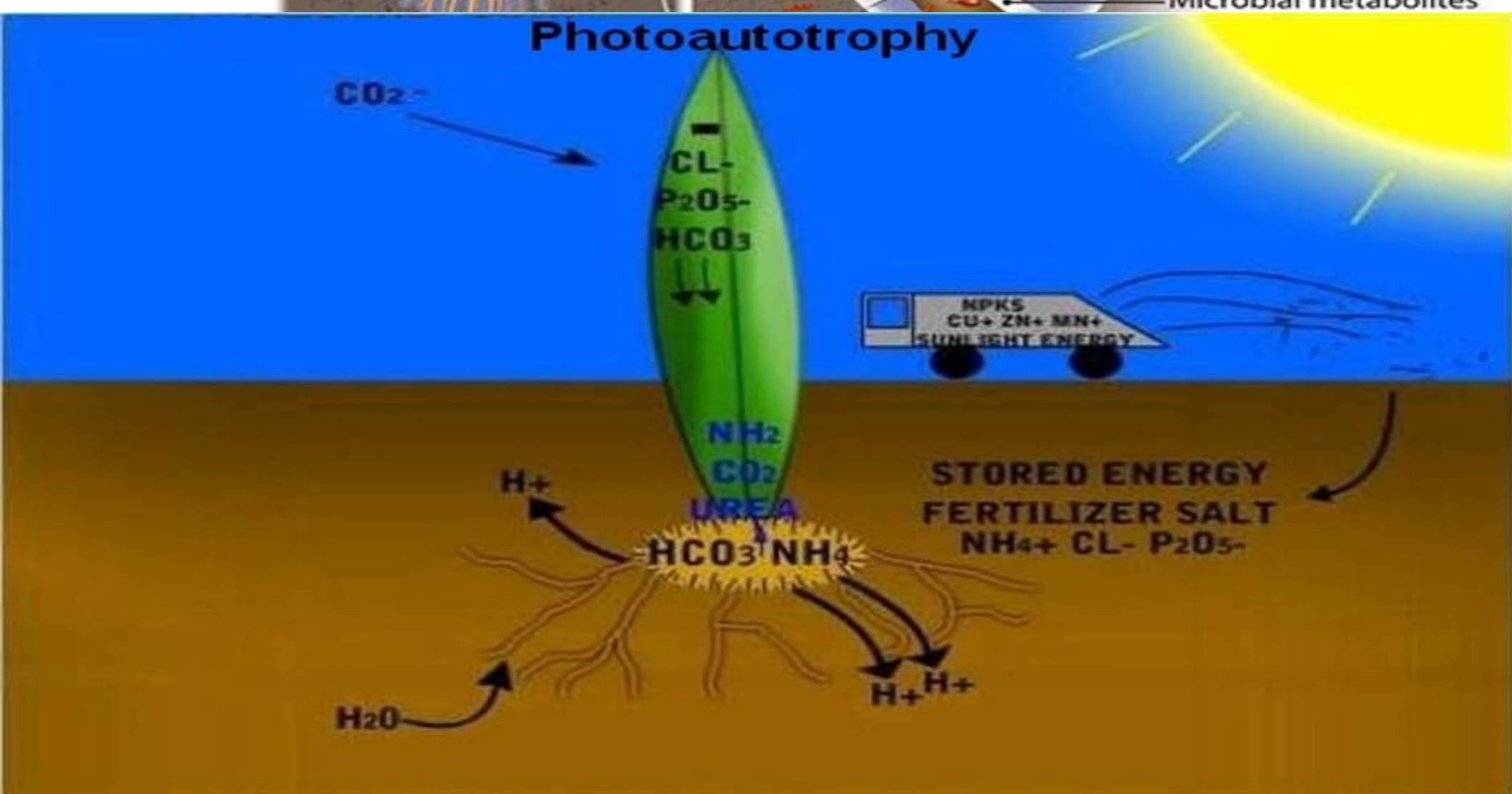
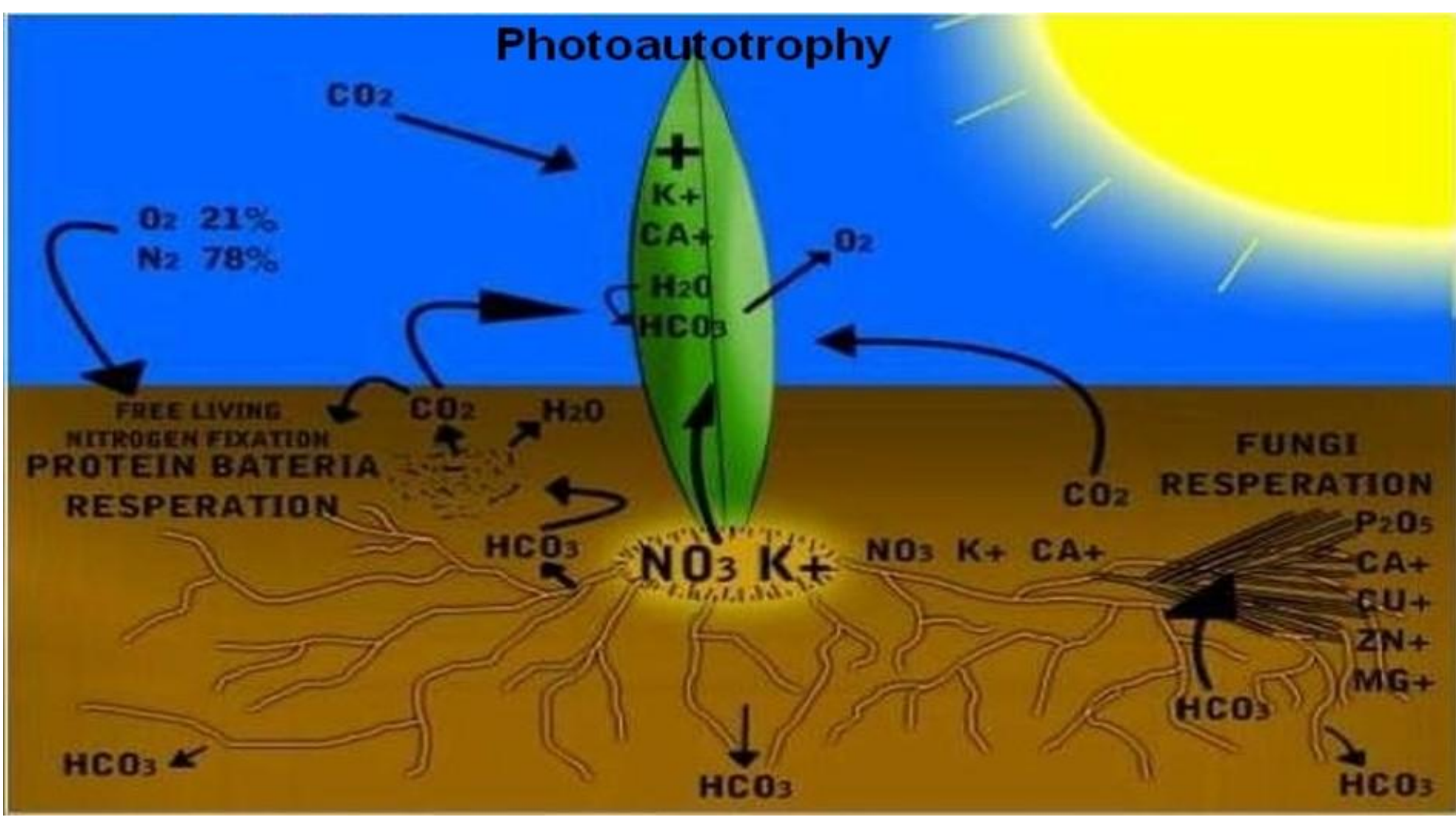
Separation of Livestock

- Feedlots crowd animals and break nutrient cycles.
- Manure becomes waste instead of fertility.
- Pollution and erosion rise, fertility declines.



Chemical Fertilizers vs. Autotrophy

- Fertilizer salts replace natural flow.
- Plants reduce root exudates, microbes starve.
- Dependency makes systems fragile to drought and pests.

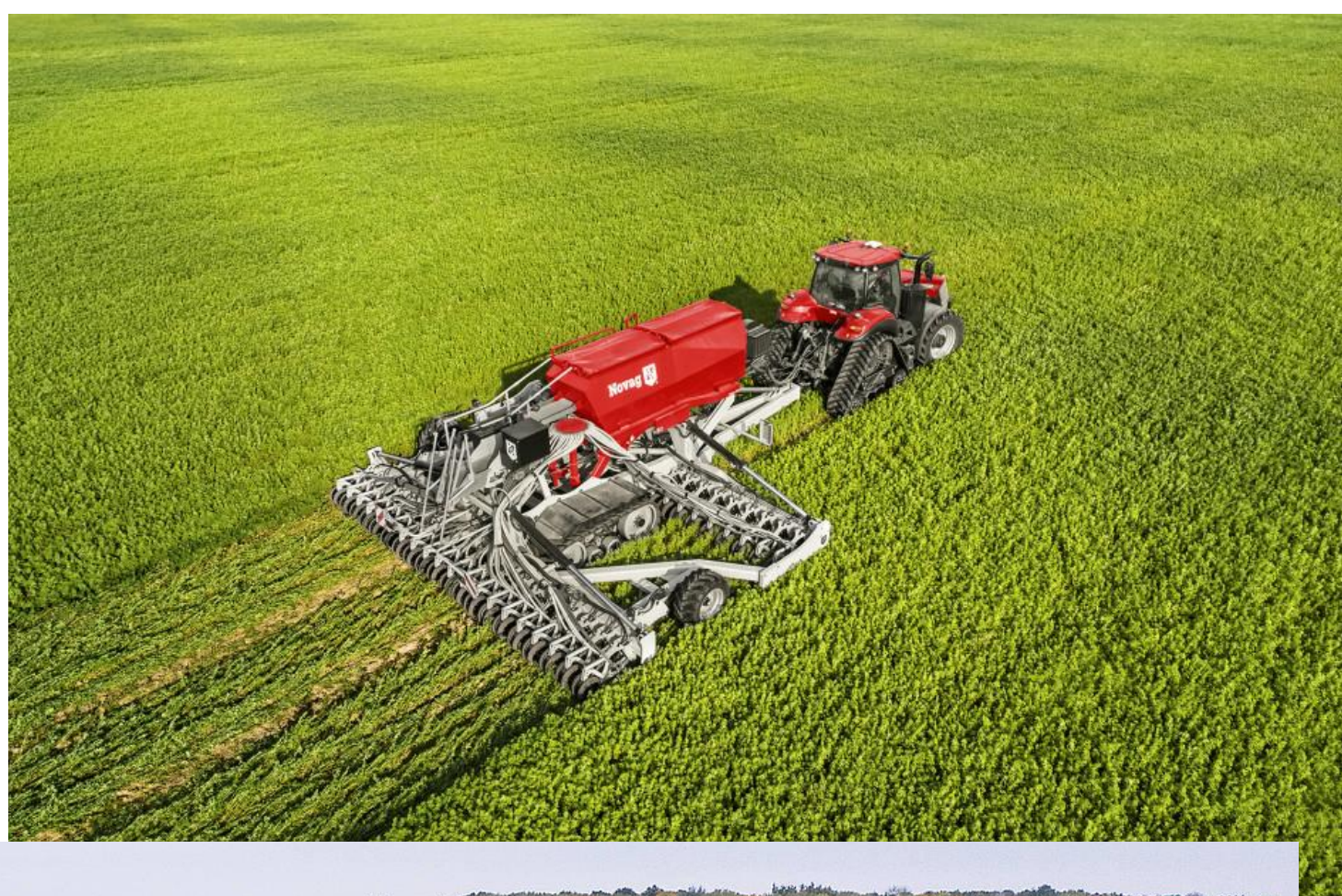


One Health – Starting from the Soil



Scaling with Technology

- Wide-span carriers (NEXAT) reduce compaction.
- Precision no-till (Cross-Slot, T-Force Plus).
- Technology must serve biology.



Integration of Livestock (Solution)

- Grazing on cover crops & vineyards closes cycles.
- Manure feeds soil microbes, builds organic matter.
- Biodiversity and soil fertility return.



Weeds as Indicators

- Parthenium → heavy metals
 - Morning Glory → compaction
 - Lantana → overgrazing
 - Sodom Apple → degradation
- Weeds are messengers of soil conditions.



Take-Home Messages:

- Feed the soil, not the plant
- Diversity builds resilience
- Living roots year-round keep soils alive
- No-till, cover crops, livestock integration
- Technology aligned with biology creates true regeneration



Zum-Zum International
Foundation

Gezaulole
P.O.Box: 20781
Dar es Salaam,
Tanzania, United Republic of
Phone: +255 767 986 986
WhatsApp: +49 1520 368 1886
www.zumzum.international
rainer@zumzum.international