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School: Koforidua Technical University

Regenerative Garden Design Plan

1. Video Review: Understanding the Living Power of Soil

The video “Soil Health” emphasizes a vital yet often overlooked truth soil is not lifeless dirt; it is a living ecosystem that sustains all terrestrial life. Through powerful visuals and expert insights, the film explains how healthy soil teems with microorganisms, fungi, roots, and insects that work together to recycle nutrients, store carbon, and nurture plant growth.

One of the most striking messages was the connection between soil health and climate stability. The video showed that when we protect and restore soil, we also capture carbon, prevent erosion, and build resilience against droughts and floods. It made me realize that every small action composting, mulching, or growing plants contributes to healing the planet from the ground up.

However, the video could be improved by including more practical examples for small gardens or household applications. Despite that, it serves as an inspiring call to action, reminding us that the life beneath our feet is the foundation of all ecosystems and must be cared for with the same respect we give to air and water.

Key takeaway: Healthy soil equals a healthy planet and every gardener has a role to play in regeneration.

2. Regenerative Garden Plan

Location & Vision

For this project, I chose a small outdoor garden space (5 m × 4 m) behind my home. The goal is to design a regenerative micro-ecosystem a garden that not only grows food but also restores the soil, supports biodiversity, and strengthens climate resilience. Inspired by the Beginner's Guide to Gardening, Kiss the Ground's Regenerative Agriculture Principles, and the Regenerative Living Guide, this plan integrates ecological design and sustainable farming techniques.

3. Plant Selection and Benefits

Plant	Role / Function	Benefits to Soil, Climate & People
Pigeon Pea (Cajanus cajan)	Legume / Nitrogen Fixer	Enriches soil by fixing nitrogen, provides edible peas, and offers shade for young crops.
Sweet Potato (Ipomoea batatas)	Ground Cover / Food Crop	Spreads quickly to protect soil from erosion, adds biomass, and produces nutrient-rich tubers.
Amaranth (Amaranthus spp.)	Leafy Vegetable / Dynamic Accumulator	Draws minerals from deep layers, improves soil fertility, and provides a nutritious green vegetable.
Cassava (Manihot	Root Crop / Soil Aerator	Deep roots loosen compacted soil and

esculenta)		enhance structure while providing a staple food source.
Moringa (Moringa oleifera)	Perennial Tree / Nutrient Source	Leaves are highly nutritious; roots stabilize the soil; and falling leaves feed soil organisms.
Marigold (Tagetes spp.)	Companion Plant / Pest Repellent	Naturally deters harmful insects and attracts pollinators, supporting ecological balance.

4. Regenerative and Climate-Friendly Practices

- a. No-Till or Minimal Soil Disturbance
Avoid frequent digging or plowing; this protects soil structure, preserves fungal networks, and prevents carbon loss. Healthy, undisturbed soil holds more water and supports a thriving microbial community.
- b. Continuous Soil Cover and Mulching
Keep soil covered with plants or organic mulch. This prevents erosion, maintains moisture, suppresses weeds, and feeds beneficial organisms that build healthy soil.
- c. Composting and Organic Matter Addition
Recycle kitchen waste and plant residues into compost. It enriches soil, adds nutrients naturally, and encourages microorganisms that convert organic matter into humus.
- d. Polyculture and Crop Rotation
Grow multiple plant species together instead of one. This prevents pest outbreaks, improves nutrient cycling, and supports pollinators.
- e. Water Conservation Techniques
Mulching and compost improve soil water retention and reduce evaporation, helping plants thrive in dry conditions.

5. Garden Layout Overview

- Three main growing beds (each 1.2 m wide) with walking paths between.
- Perimeter rows planted with Moringa and Pigeon Pea for structure and shade.
- Center beds intercropped with cassava, sweet potatoes, and amaranth.
- Borders lined with herbs and marigolds for pest control and pollinator attraction.
- Compost area in one corner for continuous natural fertilizer supply.

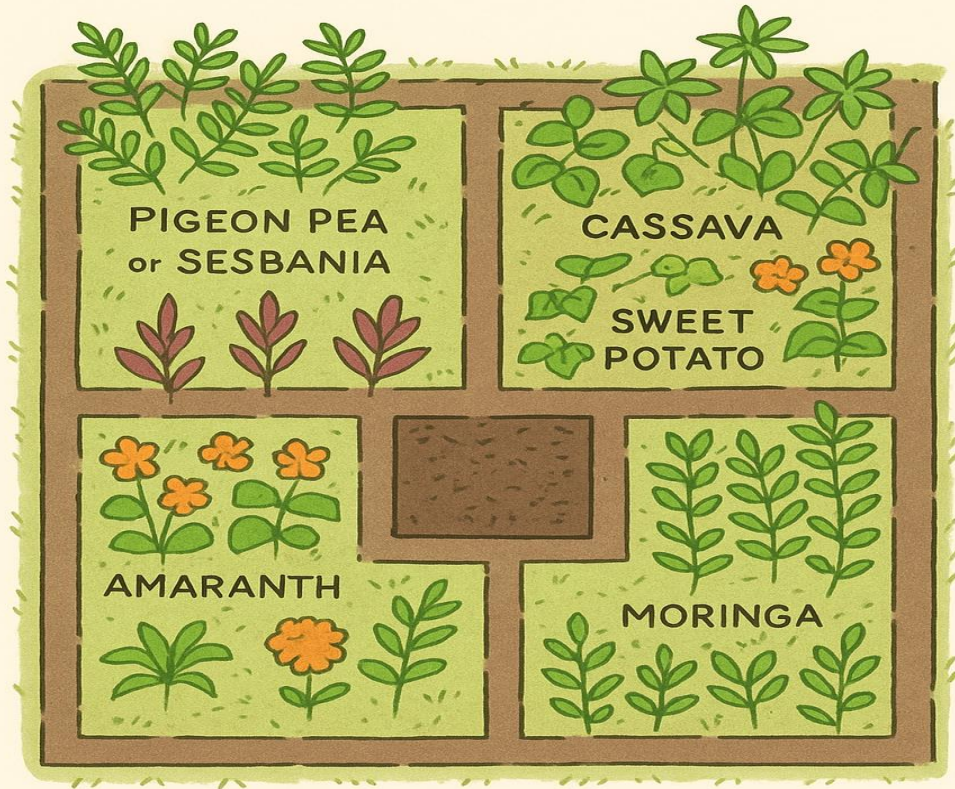
6. Expected Outcomes

- Improved Soil Health: Increased organic matter, better structure, and thriving microbial life.
- Enhanced Biodiversity: A mix of plants, insects, and soil organisms working in harmony.
- Climate Resilience: Greater water retention, reduced erosion, and carbon captured in soil.
- Human Wellbeing: Fresh, organic food and a peaceful green space that connects people with nature.

7. Conclusion

Through this regenerative garden, I aim to transform a small piece of land into a living classroom one that demonstrates how nature heals itself when given care and respect. The project embodies sustainability and regeneration, proving that every handful of soil holds the power to sustain life, restore the Earth, and inspire hope for a healthier future.

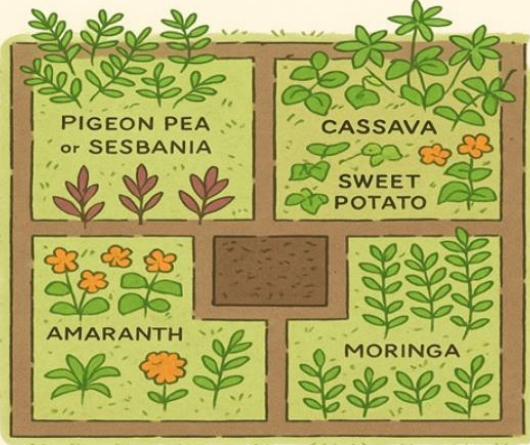
REGENERATIVE GARDEN



Planning a regenerative garden 🌱 This design includes nitrogen-fixing plants, diverse crops, and composting to build soil health and support biodiversity.

Instagram post

REGENERATIVE GARDEN



Planning a regenerative garden 🌱 This design includes nitrogen-fixing plants, diverse crops, and composting to build soil health and support biodiversity.

annimmonica

annimmonica 🌱 Here's my regenerative garden plan a mix of nutrient-rich plants like moringa, cassava, sweet potato, amaranth, and pigeon pea 🌱. Each one plays a role in restoring the soil, supporting pollinators, and nourishing people. What excites me most is how this design shows nature's balance where every plant helps another thrive! 🌱❤️

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