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SCALE
Strengthening Capacity in Agriculture
Livelihoods and Environment

Permagarden Monitoring Sheet

Name:							Location:					
Date:							Sites:					
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1. DESIGN: Site has a context-specific design that optimizes resources and external influences.												
2. WATER: Site has water harvesting strategies to slow, spread, sink and manage water.												
3. SOIL HEALTH: Site creates a healthy soil food web that supports sustained production and growth.												
4. BIODIVERSITY: Site has a diversity of plant, tree and animal species that work together to support overall health and production.												
5. PROTECTION: Site's soil and plants are protected from any negative effects of people, animals, insects, disease and other external influences.												

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Permagarden Checklist – Scoring Criteria

1. DESIGN. Site has a context-specific design that optimizes resources and external influences.

√-	Permagarden randomly situated in compound (e.g., not near kitchen or downslope from trash/rubbish pit). No water harvesting structures. Planting beds off-contour. No fencing.
√	Permagarden is near kitchen and designed with external influences in mind (e.g., sun, slope, water movement). Beds on contour and protected with mulch and shade. At least one contour swale and one berm. Garden is fenced. Compost pit(s) are present and collect daily sweeping or kitchen wastes.
√+	Water harvesting structures with overflows. Greywater mulch basin used. Animals integrated without causing damage. Farmer has plan to produce year-round harvests of nutritional crops. Resources placed to optimize production (e.g., latrine near fruit tree, animal pens for manure fertilization, shade).
*	Permagarden/compound includes annuals and perennials. Dry season strategies for nutrition and income. Site has windbreaks, multiple animals and water harvesting structures with overflows. Multiple vertical layers planted. Farmer has planting plan that considers specific income needs throughout year.

2. WATER. Site has water harvesting strategies to slow, spread, sink and manage water.

√-	Water harvesting structures not present or not functioning (e.g. water draining from site). Garden beds off contour. No mulch on beds or compound pathways. Crops and trees show signs of water stress.
√	+1 structure to slow, spread, or sink water. Permagarden protected from seasonal floods. One on-contour swale and berm, located directly above the permagarden beds. Only one strategy to reuse wastewater. Beds on-contour and mulched. Crops and trees continue to grow during drier times.
√+	Water harvesting structures and infiltration pits capture excess water from compound. Wastewater captured from 2-3 sources. Greywater mulch basin near kitchen. Garden beds shaded. Adequate mulch. Every tree/plant has catchment basin. Crops and trees show minimal signs of water stress.
*	Water harvesting systems capture and re-use all forms of wastewater (e.g., washing areas for clothes and dishes, hand-washing stand). System catches run-on water from offsite. Living mulches present. One-rock check dams used. Multiple shade strategies (e.g., trellis, trees, taller crops to sunside). Entire site mulched, including pathways. Crops and trees show no sign of water stress.

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3. SOIL HEALTH. Site creates a healthy soil food web that supports sustained production and growth.

√-	No soil improvement strategies. No compost pit. Beds shallow (<40 cm) and off-contour, with 0-1 soil amendments. No mulch. Farmer only uses inorganic fertilizers or pesticides. Plants show visible stress. Brix reading is below average for the specific crops.
√	Some use of soil improvement strategies. Compost pit filled with organic materials from regular sweeping of compound. Trees in compound mulched. Animal droppings placed into tree basins. Beds on contour and >40 cm deep. 2-4 soil amendments used. Mulch present. Farmer has single biofertilizer strategy (e.g., compost teas to fertilize crops). Brix reading is average for the specific crops.
√+	Multiple, separate pits in compound for trash and organic materials. Compost soil used in permagarden beds and tree basins. Beds > 50 cm in depth with +5 soil amendments. Top 10cm of beds fertilized with compost before each planting. Shade structures protect plants and water. Area mostly mulched. Farmer practices intercropping and crop rotation. Farmer makes their own liquid biofertilizers. Brix reading above average for the specific crops.
*	Farmer grows plants to use as garden amendments. Compost pits linked to water harvesting structures to ensure adequate moisture, with food scraps, kitchen waste and organic materials regularly added. Farmer applies multiple fertilizer strategies (foliar feeding, root drenching, layering of mulch materials). Brix reading is at the top of the scale for the specific crops.

4. BIODIVERSITY. Site has a diversity of plant, tree and animal species that work together to support overall health and production.

√-	No intentional diversity of plants, trees, and animals on the site. < 3 plant and tree species in compound. < 5 different types of plants in permagarden. Little vegetation coverage and mostly bare ground. Only one crop is growing in the garden beds (monocropping).
√	4-5 multi-functional plants (herbs, trees, vines, shrubs) present in compound. 1-2 recently planted trees. Permagarden has 6-9 types of plants (fertility, medicinal, pollinators, fruit, fodder, pest repellent) and 2-3 crop varieties, some from local seeds. Berms planted. Mix of annuals, biennials and perennials.
√+	6-10 multi-functional plants and 3+ new trees planted strategically in compound (e.g., west side of house for shade, windbreak and habitat for bees). 10-12 plants growing within fenced permagarden and surrounding berm. 4+ crops in beds for year-round production, with 1-2 crops grown to provide food in the lean/hungry times and dry season. Entire bed area planted to the edges. Quick maturing plants intercropped with longer maturing varieties.
*	10+ multi-functional plants present in compound which provides year-round production for food and marketing. 13+ multi-functional plants growing and providing shade, soil fertility, fruit, organic material, fodder, pollinators, and pest deterrents. Fence has 3+ species of living plants growing within it. Site has year round growth and +3 crops growing for hunger season harvest. Farmer practices intercropping, crop rotation and seed saving.

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5. PROTECTION. Site's soil and plants are protected from any negative effects of people, animals, insects, disease, and other external influences.

√-	No strategies to protect soil and plants. Compound shows signs of erosion and water damage. Damage from animals or poultry is evident. Garden has no protection from sun, heavy rainfall, flooding, or animals. No protection from pests or disease. No fence in place.
√	Strategies in place to limit grazing of animals on productive plants. Water management strategies reduce impacts of flooding and rain. Shade structures protect against sun exposure. Permagarden fence is present. Soil mulched. Farmer applies basic integrated pest management (IPM) strategy.
√+	Damage from animals and poultry eliminated from compound. Water damage eliminated. Shade strategies protect crops and plants. Living plants integrated in the permagarden fence structure. Farmer has effective biological pest control strategy (use of trap crops, pest repellent plants, IPM techniques). Edges of garden beds protected with stones. Dry season strategies in place (shade structures, heavy mulch).
*	Plants healthy and resilient (e.g., no insect damage, good germination rates, fruiting and flowering are robust, minimal stress in drier times). Year-round productivity. No apparent damage from people, animals, pests, disease and other external influences. Permagarden living fence is growing, maintained with a diversity of living plants in the fence that provide multiple benefits (fruit, medicine, thorns, structure, plant fertility, etc.) as well as protection. Integrated water management strategies reduce dry season stress and extend conditions for growing throughout the year.