



Resilience Design Checklist

Name:																					
Date:	Transect #1					Transect #2					Transect #3					Transect #4					Notes
Location:	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
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 soil food web that supports sustained production and growth.																					
4. BIODIVERSITY : Site has 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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Resilience Design Checklist – Scoring Criteria

1. DESIGN. Site has a context-specific design that optimizes resources and external influences. No site design. Site does not work with local context or use external influences for enhanced benefits (no water harvesting, planting not on contour). Basic ag techniques. 1+ functioning on-contour water harvesting structure (e.g. swale, terrace). Crops on contour. Some mulch. Basic protection from wind, sun, people. Use of local organic resources. Multiple strategies to strengthen resilience and extend production. Crops growing along on-contour berms. Mulch covers most soil. Biological fertilizers used and animals integrated. Water harvesting structures are well vegetated with cover crops. Year-round production of plants. Trees are integrated. Farmer observes feedback and adjusts to enhance productivity. 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 is draining from site). Water harvesting interventions are seen at the highest point. 1+ water harvesting structure is present, on-contour and has an overflow spillway. Mulch is on the water harvesting structure(s) and surrounding field. 2+ water harvesting structures, covered in living mulches and diversely planted. Overflow spillways present and armored. Berms √+ compacted at pathways. Minimal erosion. Every tree has water harvesting structure. Multiple water harvesting structures are linked, completely vegetated and well-shaded. Overflow spillways are supported and heavily mulched. All surface water is harvested, banked and protected within soils. All plants have water harvesting structures. 3. SOIL HEALTH. Site creates a healthy soil food web that supports sustained production and growth. No deep soil preparation or fertility management. Fields have a shallow soil profile (<30 cm, measured with stick). Signs of heavy tillage, chemical use and erosion. Plants show weak growth. Bare soil is hot to touch. 2+ soil fertility amendments (e.g. cow manure, ash, compost, etc.). Mulch on 1/2 field. Planting rows are on-contour. Plants show average growth. Organic matter present in soil. No visible erosion.

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- Mulch covers > 1/2 field. Farmer uses green manures/bio fertilizers. Fertility plants growing. Soil structure is not compacted. Soil under mulch is cool. Vibrant plant growth. Various organic matter visible. No erosion.

 No bare soil (completely vegetated). Animals are integrated. Compost is used. Soil structure is high in organic matter and soil is minimally disturbed after preparation. Perennial plants contribute to soil fertility.
- 4. BIODIVERSITY. Site has a diversity of plant, tree and animal species that work together to support overall health and production.
- $\sqrt{\ }$ Site is monocropped. Most or all trees were removed for crop production and/or field was burned.
- Intercropping of 2+ crop species and 2+ support species. Farmer does not burn field. Trees/shrubs are integrated. Vegetation exists on water harvesting structures. No chemical fertilizers, pesticides, etc. 1+ crop produces income.
- Intercropping of 3+ crop species and 3+ support species. Mix of annual and perennial crops, trap crops, multipurpose plants. Farmer uses biological pesticides/fertilizers. Crop mixture accounts for dry season, lean food and economic cycles.
- Intercropping 10+ plant species. Fertility plants are integrated. Approx. 30 trees/ha. Farmer uses biopesticides/biofertilizers they produce or source locally. Vertical plant diversity from root crops to overstory trees. Farmer has strategies to grow seed, seedlings, etc. Integrated animal production (bees, poultry, etc.).
- 5. PROTECTION. Site's soil and plants are protected from any negative effects of people, animals, insects, disease and other external influences.
- √- Ground is bare (no mulch or shade). Damage is visible from water flows and wind. There are no protective structures to guard against wind, animals or pests/disease.
- 1+ water harvesting structure is present up-slope from crops and within fields. Soils have mulch and trees that protect from sun, wind and loss of moisture. Fence or community strategy limits animal access.
- Multiple strategies to protect from water damage and nutrient loss and to protect soil resources (mulch, shade, groundcovers, etc.). > 30 trees/ha to protect against sun exposure/ winds. Site has a living fence.
- Complete mulch coverage. Trellises protect water harvesting structures from evaporation. Site has a living, productive fence including various plants. Intercropping and push-pull system for pest management.

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