



MARS



Investing in rural people

**SUSTAINABLE FARMING IN TROPICAL
ASIAN LANDSCAPES (SFITAL)**

Topic 3: Soil and water conservation practices in SFITAL sites in Indonesia

27 June 2024

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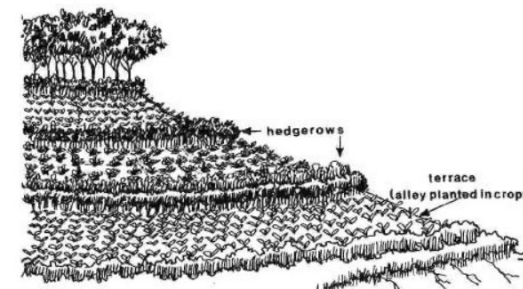
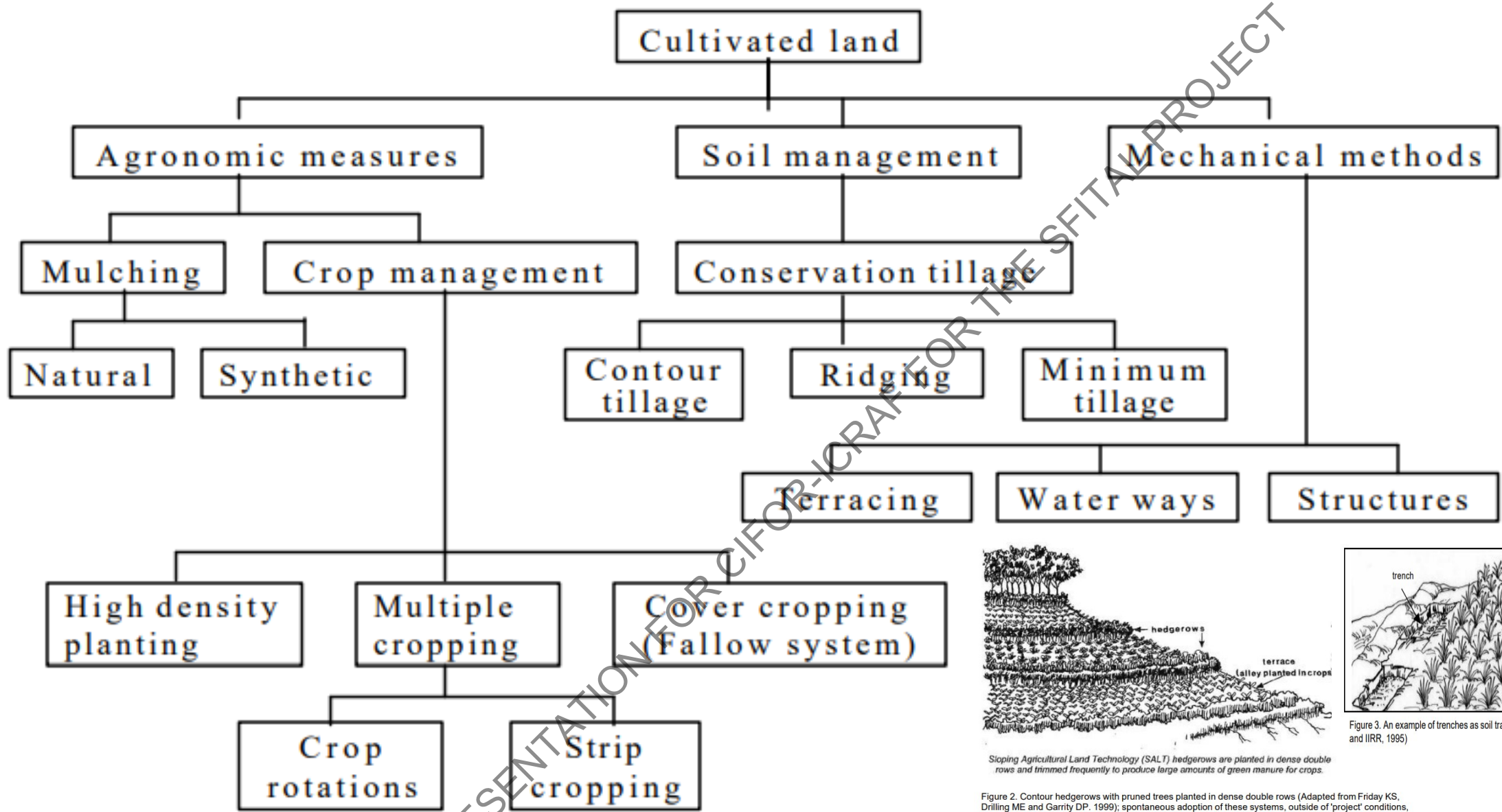


Figure 2. Sloping Agricultural Land Technology (SALT) hedgerows are planted in dense double rows and trimmed frequently to produce large amounts of green manure for crops.

Figure 2. Contour hedgerows with pruned trees planted in dense double rows (Adapted from Friday KS, Drilling ME and Garrity DP. 1999); spontaneous adoption of these systems, outside of 'project' conditions, has been rare as the labour requirements for regularly pruning hedgerows of fast-growing trees are high

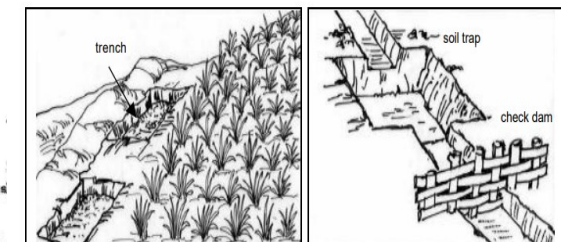
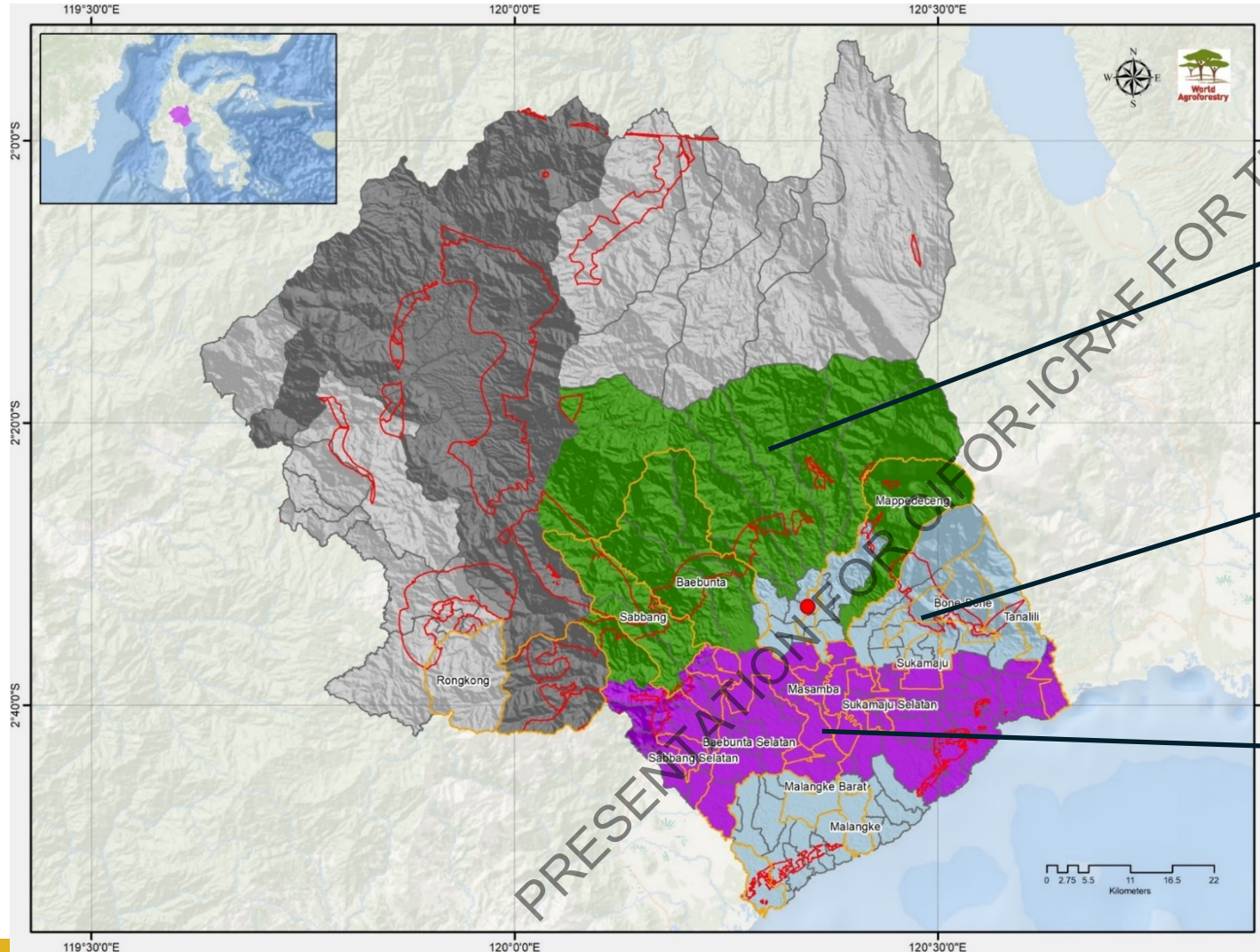


Figure 3. An example of trenches as soil trap and trenches + check dam combined. (Adapted from FAO and IIRR, 1995)

Figure 1. Soil conservation strategies for cultivated land (Adapted from Morgan, 1986)

Brief condition and issues on soil and water conservation in cacao agroforestry systems in Luwu Utara District, South Sulawesi Province, Indonesia



Slope land (elevation 100-300 m asl):
soil erosion due steep slope
Cacao productivity less than 500
kg/ha

Flat land (elevation 100-150 m asl):
flood potential and soil erosion due
to no soil cover crop maintained
Cacao productivity less than 500
kg/ha

Flat land (elevation 60-100 m asl):
flood potential
Cacao productivity less than 500
kg/ha

Soil cover crop (cluster 2, 5, 7)

objective: to increase soil fertility and reducing soil loss



With *Arachis pintoii*

Drainage management (cluster 5 and 7)

objective: to avoid inundation during heavy rainfall



Retaining cacao leaves litter fall (cluster 2, 5, 7) objective: as natural mulch

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Thank You

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