Unravelling Mysteries of the Quesungal System: An Alternative to Slash and Burn

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Session: Basin [Andes] Sharefair and Resilience

Key Message
The Quesungal Slash and Mulch Agroforestry System (QSMAS) is a smallholder production system that combines simple principles with smart technologies and practices to improve the management of vegetation, soil, water and nutrients in drought-prone areas of the sub-humid tropics. It is an alternative to slash and burn that is paying off: runoff, erosion, water turbidity and surface evaporation have gone down dramatically, while infiltration, green water use and soil water storage capacity have increased.

Summary
The Quesungal Slash and Mulch Agroforestry System (QSMAS) is a smallholder production system that combines simple principles with smart technologies and practices to improve the management of vegetation, soil, water and nutrients in drought-prone areas of the sub-humid tropics. The first step is to manage the natural vegetation, not burn it, through selective and progressive “slashing-and-pruning”. Next, the biomass from the trees, shrubs and weeds are used to enrich the permanent soil cover. Potentially damaging forms of agriculture, such as tillage and direct seedling are replaced. Finally, fertilisers are applied at the appropriate time and place. QSMAS has already been adopted by 6,000 farmers in 7,000 hectares in Candelaria, Honduras, and is expanding throughout Latin America. The mulching is paying off: runoff, erosion, water turbidity and surface evaporation have gone down...
dramatically, while infiltration, green water use and soil water storage capacity have increased. Essentially, the increased quality of the soil boils down to more crop per drop of water and hour of labor. Local farmers are spreading the word to their neighbors in Nicaragua (Somotillo) and Colombia (Suárez) where the system has taken root.