

Sustainable milk and beef production in Nicaragua: actions and opportunities for an inclusive value chain

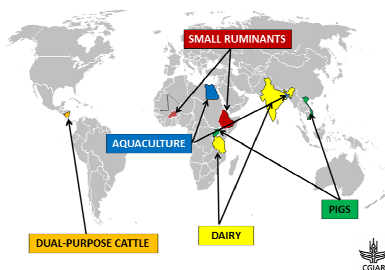
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Cattle Sector in Nicaragua

- Major pillar of economy (36% of agricultural exports)
- Increasing demand
- Adapted disease resistant breeds/crosses
- Extensive, low productivity
- Soil degradation and deforestation
- 63% of agriculture GHG emissions

Nicaragua dual purpose cattle value chain part of CRP Livestock and Fish



LivestockPlus

Sustainable intensification:
integration of improved forages

- Genetic intensification: superior cultivars
- Ecological intensification: improved agro-ecological practices
- Socio-economic intensification: reinforced institutions and policies



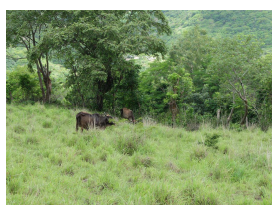
Partners

- Farmers
- Cooperatives
- Solidaridad Network
- National Agricultural University
- Heifer International
- Regional Research Institute CATIE

Farmer Field Schools + Model Farms



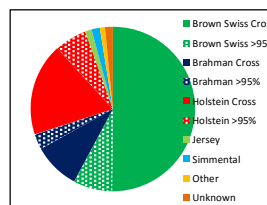
Silvopastoral Systems



Improved Forages



Mapping of genetics



Reinforcement of institutions and policies



Perspectives

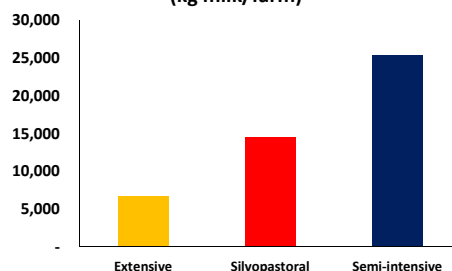
- Increased Productivity
 - Milk 700 kg → 1400 kg/cow/yr (+100%)
 - Increased live weight gain (+100%)
 - Lower age at first calving (-33%)
 - Reduced calving interval (-20%)
- Socio-economic intensification
- More diverse ecosystems
- Reduced ecological footprint
 - Reduced GHG emissions (-50%)

Further needed

- Emphasis on integrated pasture systems
 - Silvopastoral systems
 - Dry season feeding (including conservation techniques)
 - Good management practices
- Territorial learning alliances

- Investments for cooperatives and small dairy/meat processing enterprises
- Payment for Ecosystem Services, private sector involvement

milk production increases (kg milk/farm)



greenhouse gas emissions reduce (kg CO2 equivalent/kg milk)

