



Integrating crops, livestock and forestry systems can increase farmers income in Querência while restoring forest reserves

Transitioning to a regenerative approach represents a net gain opportunity of 250M USD in additional profits for Querência farmers over 10 years.¹²

Current state of agricultural landscape

Agronomic & Environmental

- Dominance of monoculture soybeans and extensive cattle ranching, degraded pasturelands and legal forest reserve deficits.

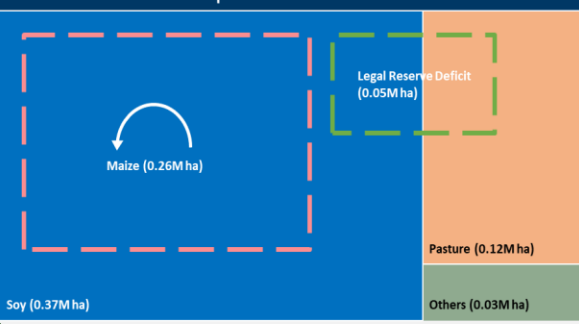
Economic

- Stricter deforestation exporting regulations, concentrated revenues on three products, and limited cattle profitability.

Social

- Tensions over Indigenous land rights, rapid population growth driven by agricultural expansion.

Current land-use at landscape level



Transition pathway hypothesis

Integrated livestock and forestry systems

- Implement silvopasture systems to increase cattle productivity, diversify income and reduce pressure for new agricultural land.

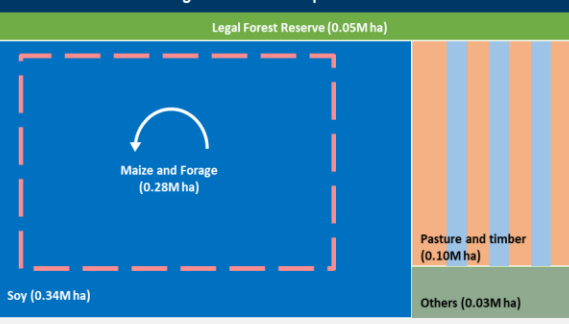
Integrated crop and livestock systems

- Sequence soy with maize in association with forage, permitting animal weight gains during the dry season and lower synthetic input use.

Natural forests

- Zero legal reserve forest deficits for compliance and environmental gains

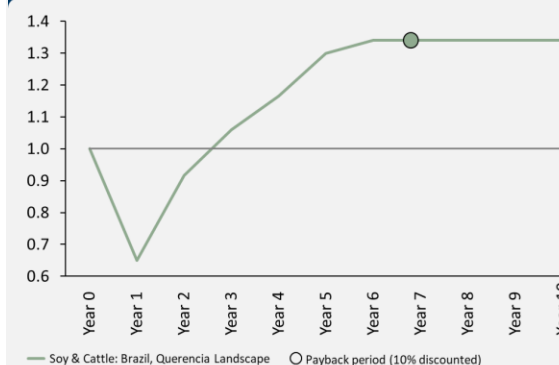
Alternative land-use at agricultural landscape level



Results of economic modeling

- Over 10 years, the cumulative effect of a transition to regenerative agriculture is positive with an average added value of 471 USD/ha and a payback³ by the mid of year 6 (10% discounted).
- Profitability lowers during an interim period and reaches a point of equilibrium 34% higher after year 6.
- New revenue stream from timber, cost savings on synthetic inputs and higher cattle productivity are the main contributors to the positive net change.

Change in net profitability over a 10 years period for proposed transition pathway (alternative state/current state) Indicated in relative terms



Implications and recommendations

- Integrating crops, livestock and forestry systems can increase farmers income by 34% after transition (nominal terms).
- Farmers can diversify income through forestry and reduce vulnerability to market shifts, as timber acts as a stabler financial asset.
- Transition is viable even with legal forest reserve restoration, easing compliance burden and improving environmental outcomes.
- **For transition to be possible, we need:**
 - Rural credit and financing options that permit initial investments in the transition with repayment terms that match delayed revenues.
 - Farmers, particularly in the city rural settlements, to be assisted with affordable technical aid and land tenure regularization.
 - Overcoming cultural resistance to change.