



Webinar: Understanding the Profit Potential of Regenerative Agriculture: What's Holding Us Back?

7 November 2024





Transition Pathways Briefs

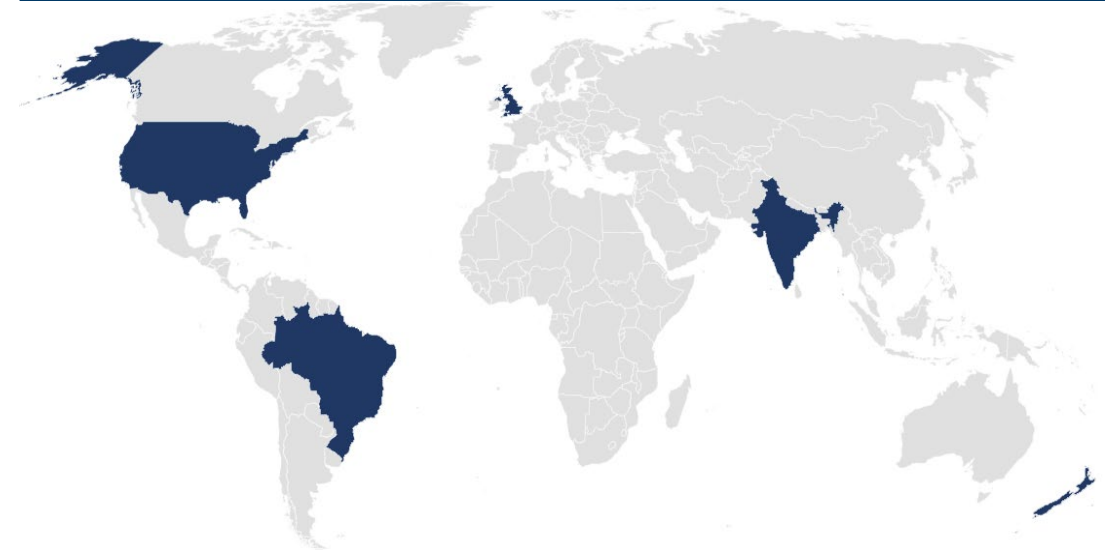
Carlos Agnes, Systemiq



Regen10 – Landscape Transition Pathways - Overview

- **Regen10** has developed **landscape-level transition pathways** across five significant agricultural regions.
- A **transition pathway** represents a switch from the conventional agricultural practices common in the landscape to regenerative ones, that helps **restore** and rebuild **natural systems**.
- A key element of this process is understanding the **economics of transitioning** to regenerative agricultural practices.
- Regen10 recognizes that there is **more than one way to create a regenerative food system**. The proposed approaches are not prescriptive, and practices were selected after careful contextual analysis of their relevance and evidence of their intended outcomes.

Selected Landscapes



Country	Landscape	Focus Ag Product
Brazil	Querência City	Soy & Beef
India	Punjab State	Rice
United States	North Dakota	Wheat & Maize
United Kingdom	East of England	Potato
New Zealand	Waikato Region	Dairy





General approach to transition pathway development



Current state of agricultural landscape

Transition pathways 10-year time frame

Future state of agricultural landscape

-  **Land-use**
-  **Farm archetypes**
-  **Agronomic practices**
-  **Challenges**
 - Economic
 - Environmental
 - Agronomic
 - Social



Model a transition that incorporates a combination of principal sets of changes...

Growing crops <ul style="list-style-type: none"> ■ No or minimum tillage ■ Cover crops ■ Longer, more diverse crop rotations ■ Ley farming ■ Inter-cropping or polycultures ■ Retaining crop residues on soil ■ Applying compost, manure, other biological soil amendments ■ Using integrated pest management to minimise pesticides ■ Reducing or eliminating synthetic fertilisers ■ Better irrigation management (e.g. for rice) 	Managing livestock <ul style="list-style-type: none"> ■ Raising livestock on pasture for whole life ■ Mob grazing / adaptive multi-paddock grazing / holistic grazing techniques ■ Integrating grazing animals into crop rotations and orchard management ■ Avoiding hormones & antibiotics 	Designing landscapes <ul style="list-style-type: none"> ■ Shelterbelts ■ Hedgerows ■ Pollination strips ■ Riparian area restoration ■ Water conservation through landscaping (e.g. keyline) ■ Managing non-productive areas for ecological goals
Integrating trees <ul style="list-style-type: none"> ■ Planting trees on cropland (agroforestry) ■ Planting trees on pasture (silvo-pasture) ■ Mulching pruning residues and old trees in orchards 		

... considering their relevance to the local context and emerging results from pioneers



Transition pathway economic benefits

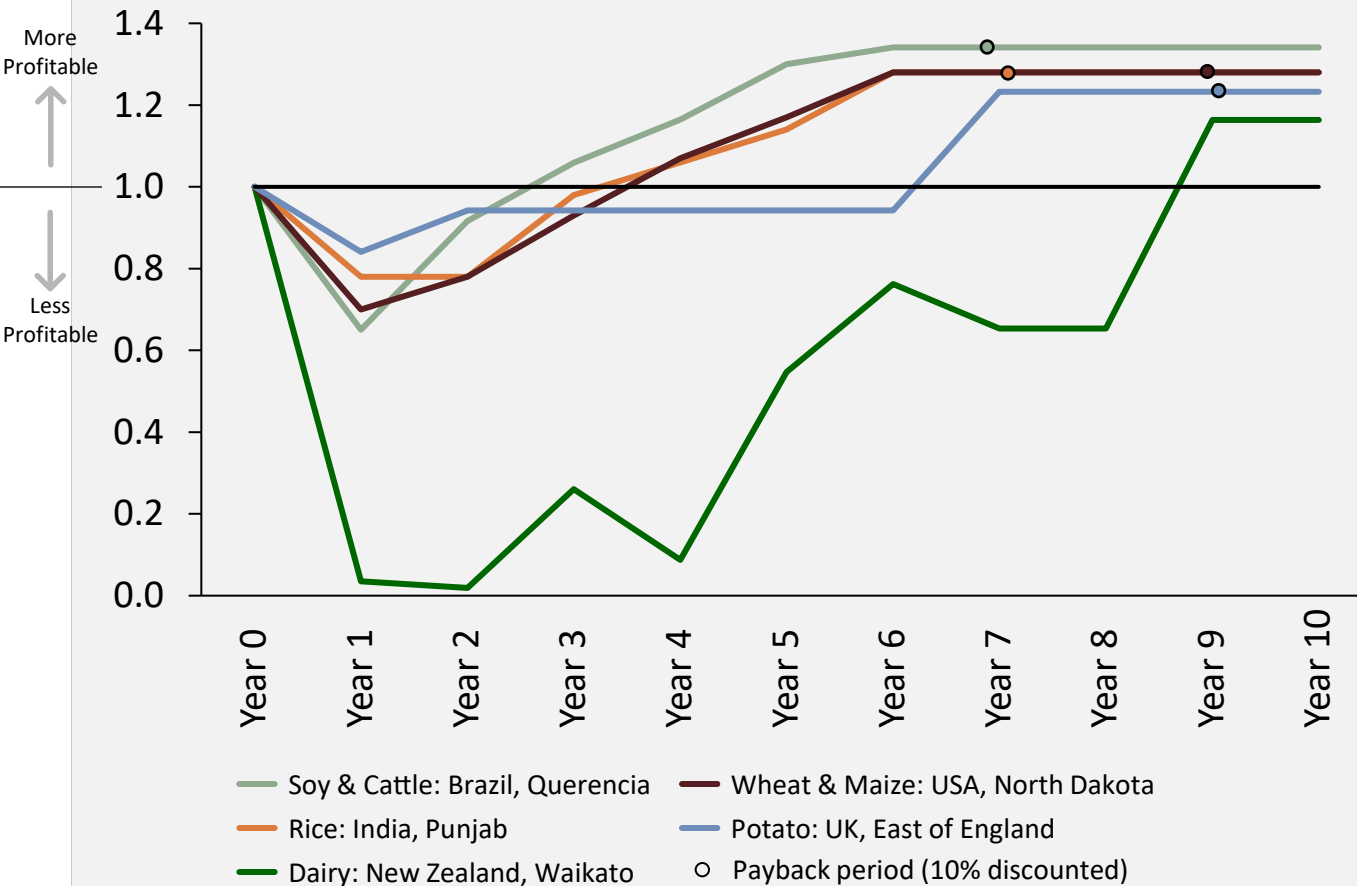


Assessment of the transition pathway against desired landscape level outcomes from Regen10 Framework

Transitions at a glance – impacts on landscape agricultural profitability

Regen10

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



Key Takeaways

- All transitions **eventually show a profit relative to conventional practices**, but it takes up to ten years.
- The discounted **payback period** usually happens between years 6 and 9, except for Waikato.
- **The transitions pathways will require an upfront expenditure**, which causes an initial drop in profitability due to expenses needed for the transition such as cover crops, seeding techniques, new machinery, tree planting and other practices.
- Generally **increasing diversification and reducing input costs** in healthier soils appears to be the most viable economic components of transitions.

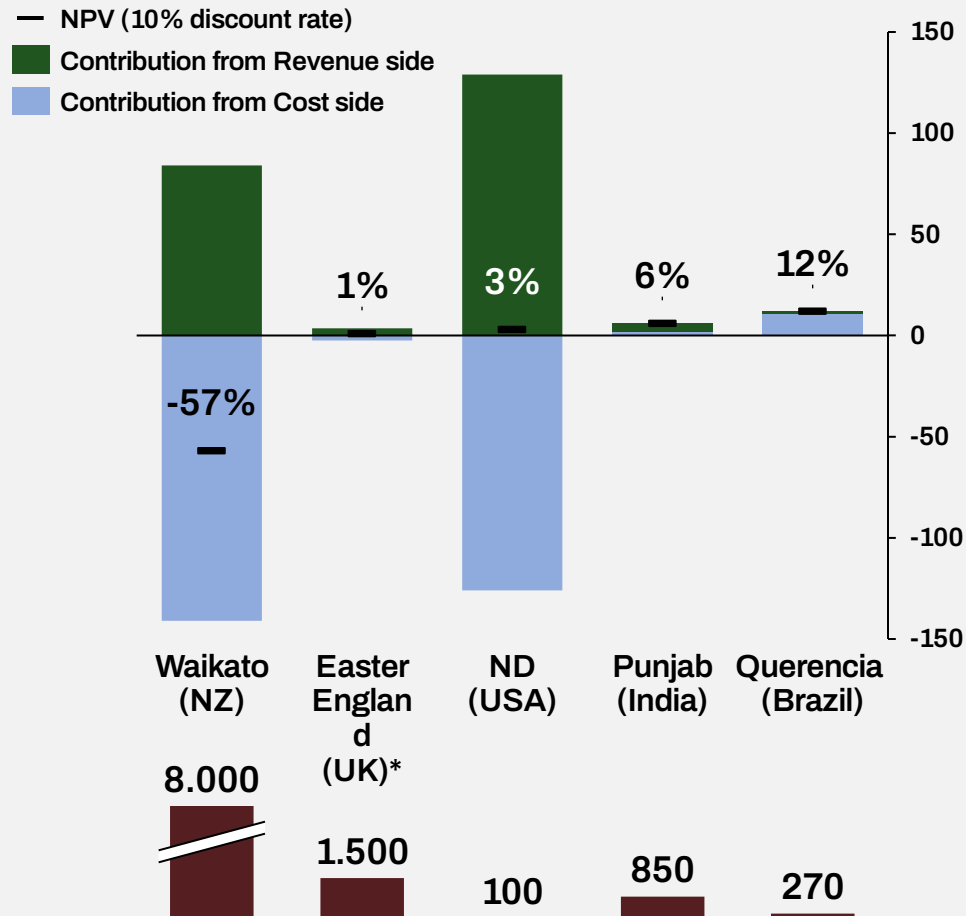
Source: Systemiq analysis.

Note: Regenerative Agriculture seeks varied landscape states departing from typical practices, balancing informed choices over a decade for feasible, beneficial shifts, avoiding extremes.

Transitions at a glance – impacts on landscape agricultural profitability

Net Present Value of transition in 10 years

Upper bars show cost and revenue fluctuations to reach NPV



Profit forgone per hectare before breakeven¹ (USD/ha)

Lower bars indicate cumulative profit loss during transition²

Key Takeaways

- Some landscape actors will need **external longer-term support** to make the transitions financially viable, given the modest NPV and profitability risks.
- Alternative revenue streams (carbon, PES), green premiums, or increases in land value, not included in the analysis, can further **enhance economic attractiveness for farmers**.
- Transition NPV and costs (profit forgone by farmers) vary significantly by landscape, emphasizing need for **tailored investment strategies and targeted support**.

Source: Systemiq analysis.

Note: ¹When future profits match current levels ²Aggregated value, varies by farm portfolio.



Thank you.

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