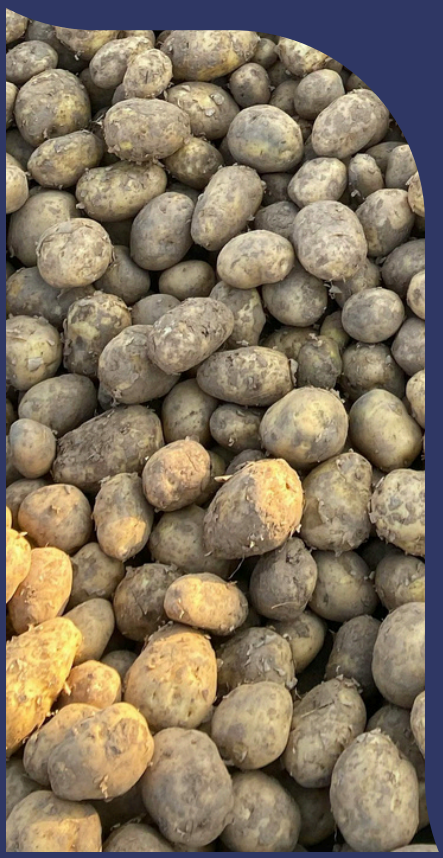


Regenerating Together Programme
BY SAI PLATFORM



From Global Framework to Local Practice: Piloting Regenerating Together in Indian Smallholder Systems

RTP CASE STUDY MCCAIN FOODS LIMITED AND PEPSICO

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McCain

pepsico

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Introduction

Understanding local contexts is essential for regenerative agriculture outcomes that meaningfully contribute to the regeneration of farming systems. In December 2025, SAI Platform conducted a joint pilot of the Regenerating Together (RT) framework with members McCain Foods Limited and PepsiCo in Gujarat and West Bengal, India. This initiative formed part of a longer-term project, *'Co-creating Scalable Regenerative Agriculture Solutions with Smallholder Farmers'*, co-funded by The Rockefeller Foundation and implemented in collaboration with the International Potato Center (CIP).

SAI Platform developed the RT framework as a global reference for regenerative agriculture, designed to be flexible and adaptable across diverse production systems and geographies. The primary objective of this pilot was to test the applicability of the RT framework in smallholder settings, moving beyond the predominantly larger-scale, technologically advanced production systems that have characterised most pilots to date. Specifically, the pilot aimed to validate the Context Analysis and Outcome Selection Modules of the RT framework, and to assess how effectively these link to existing field-level practices and capacity-building initiatives already supported by McCain Foods Limited and PepsiCo.

Regional Diversity: Same Crop, Different Contexts



While the RT framework was piloted in potato farming systems with both McCain Foods Limited and PepsiCo, the socio-economic and biophysical landscapes of Gujarat and West Bengal differ significantly. Applying a global framework therefore requires recognising and adapting to these specific local contexts.

FARM SUPPLY CHAIN
near Ahmedabad, Gujarat



FARM SUPPLY CHAIN
near Kolkata, West Bengal

MCCAIN FOODS LIMITED IN GUJARAT

Precision Agriculture in a Semi-Arid Landscape



McCain Foods Limited's Regen Farm in Gujarat

McCain Foods Limited's operations are concentrated near Ahmedabad, Gujarat, sourcing from approximately 2,000 contract farmers.

- **Scale and structure:** While representing a significant proportion of McCain Foods Limited's global farmer base, the landholding sizes of local producers are much smaller than the global average, typically averaging six to ten acres, with some farms exceeding this size.

- **Production system:** Farming is organised through annual contracts with terms agreed prior to the cropping season. The typical rotation includes potato, followed by groundnut, and fallow periods or cover cropping.

- **Support model:** McCain Foods Limited maintains a high annual farmer retention rate (approx. 80%) through intensive agronomic support, high-quality seed supply (Santana and Kennebec varieties), and reliable payment conditions. In 2025, the company established its third global Regen Farm (27 acres) in Gujarat serving as both a trial site for the project implemented in collaboration with CIP and an applied research and learning hub for the region.

PEPSICO IN WEST BENGAL

Partnerships and Resilience in a Fragmented Landscape



One of PepsiCo's Demonstration Farms in West Bengal, part of the 'Co-creating Scalable Regenerative Agriculture Solutions with Smallholder Farmers' Project, co-funded by The Rockefeller Foundation and implemented in collaboration with CIP

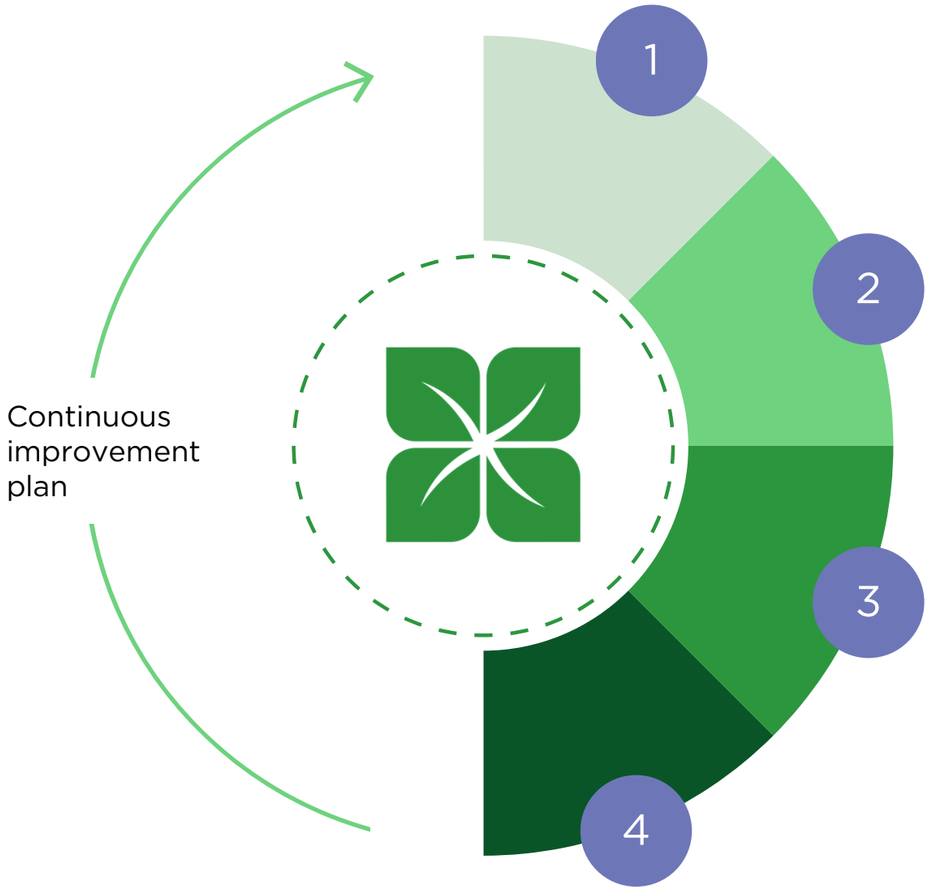
PepsiCo's farm supply chain in West Bengal, near Kolkata, operates within a more fragmented and humid agroecological context.

- **Scale and structure:** Landholdings are much smaller than in Gujarat, typically ranging from one to 1.5 acres. Agriculture remains the primary source of income, though increasing outmigration of men is shifting a greater share of farming responsibilities towards women.

- **Production system:** This is a high-input, high-output system that relies heavily on groundwater. Crop rotations typically include paddy rice during the monsoon season, followed by potato and other crops such as sesame or green gram.

- **Aggregator model:** Due to local legislation, PepsiCo works through core growers (aggregators) who act as hubs, supplying inputs and coordinating logistics for approximately 200 community farmers each. PepsiCo supports this network of farmers through intensive agronomic support in cooperation with partner organisations, as well as through the provision of proprietary potato seed material developed specifically for the West Bengal context.

The Regenerating Together Framework



1 Context Analysis
2 Outcome Selection
3 Practice Adoption
4 Monitor and Assess Progress

The RT framework implementation follows a four-module process:

1. **Context Analysis:** Assessment of environmental and production system conditions at farm and landscape levels.
2. **Outcome Selection:** Identification and prioritisation of the most relevant regenerative agriculture outcomes and their associated indicators.
3. **Practice Adoption:** Selection and implementation of context-appropriate practices and on-farm actions to achieve tangible environmental outcomes.
4. **Monitor and Assess Progress:** Tracking of progress against outcome indicators through context-specific continuous improvement plans.

This pilot focused on Module 1 (Context Analysis) and Module 2 (Outcome Selection) to determine if the RT framework effectively identifies local risks and supports the prioritisation of relevant environmental outcomes within the given context.

Results of the Context Analysis

The RT framework's Context Analysis uses 12 material criteria, each scored from 0 (not applicable) to 3 (high risk). The results highlight the starkly different environmental pressures across the two regions:

Material Criteria	McCain Foods Limited (Gujarat) Score and Justification		PepsiCo (West Bengal) Score and Justification	
1 Crop Diversity Loss	2	Significant concern due to existing crop rotations.	3	High risk; smallholders cannot afford risk of diversification.
2 Soil Erosion	2	Water erosion is relevant due to local sandy soils.	2	High monsoon rainfall; risk remains despite soil cover.
3 Soil Fertility Loss	2	Continuous crop rotations lead to productivity loss concerns.	1	Productivity loss risk is currently considered low.
4 Soil Salinity	1	Low risk due to drip irrigation and management.	1	Risk is currently considered low.
5 Soil Compaction	2	Moderate concern; plough pans observed in sandy soils.	2	Moderate risk due to specific soil types and structure.
6 Agricultural Air Pollution	2	Pollution from residue burning is a significant concern.	2	Burning is common due to labour and machinery shortages.
7 Groundwater Depletion	3	Extreme water risks and high demand in the region.	2	Levels vary by season but overall remain relatively stable.
8 Surface Water Depletion	0	Not applicable; very little surface water use.	2	Applicable in eastern areas; subject to government regulation.
9 Habitat Loss	0	Not applicable in this region.	0	Farmland lost to housing, but not natural habitat loss.
10 Pesticide Leaching	1	Very low risk due to precision drip irrigation.	3	High risk due to open furrow irrigation systems.
11 Nutrient Leaching	1	Very low risk due to precision drip irrigation.	3	High risk due to furrow irrigation and run-off.
12 Agricultural Greenhouse Gas Assessment and Mitigation	3	High reliance on non-renewable energy sources.	2	Moderate risk; mechanisation is not yet universal.

Identification of Priority Regenerative Agriculture Outcomes

Following the Context Analysis, the pilot identified specific Priority Regenerative Agriculture Outcomes for each region. These outcomes set the "north star" for regenerative activities in each region, aligning practices with local challenges.

MCCAIN FOODS LIMITED (GUJARAT)

A Holistic Resilience Strategy

In response to the extreme water scarcity and intensive production cycles in Gujarat, the pilot identified five core outcomes that are already being addressed by McCain Foods Limited and the farmers in its supply chain through targeted interventions:

1. **Increased Soil Health and Fertility:** To reverse and prevent productivity loss associated with continuous cropping.
2. **Increased Nutrient Use Efficiency:** To reduce dependency on synthetic fertilisers and prevent potential soil degradation.
3. **Optimised Crop Protection:** Transitioning towards targeted, lower-impact interventions.
4. **Enhanced Water Resource Stewardship through Increased Water Use Efficiency:** Reducing the critical risk of groundwater depletion.
5. **Increased Cultivated Crop and Pasture Diversity:** Aiming to diversify crop rotations and improve ecosystem resilience.

PEPSICO (WEST BENGAL)

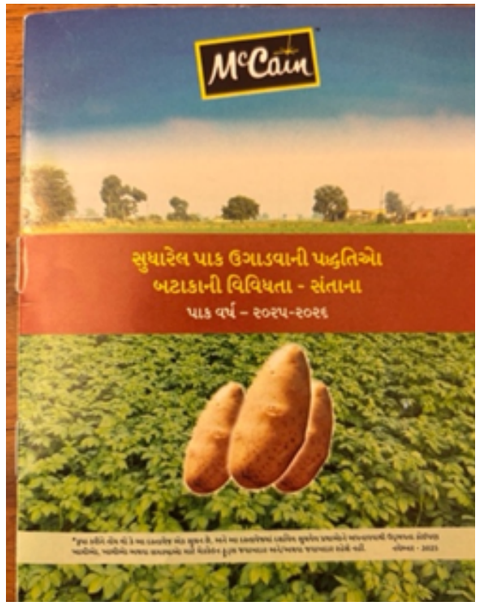
Prioritisation in a Challenging Environment

In West Bengal, the pilot identified the following Priority Environmental Outcomes being addressed through specific on-farm actions and capacity building approaches:

1. **Increased Soil Health and Fertility:** Focusing on stabilising the soil structure and maintaining fertility in a high-input, high-output monsoon environment.
2. **Increased Nutrient Use Efficiency:** Essential for preventing the loss of nutrients from fertilisers through run-off and leaching, identified by the pilot as of high risk due to the region's open irrigation systems.
3. **Optimised Crop Protection:** Reducing the risk of pesticide leaching caused by open furrow irrigation and high humidity conditions.

Roadmap for Farmer Engagement and Scaling of Practices

McCain Foods Limited and PepsiCo utilise distinct farmer engagement models to build capacity and drive the adoption of context-adapted regenerative agriculture practices. Both approaches rely on local demonstration to validate the agronomic and economic viability of these practices within smallholder systems.



McCain Foods Limited booklet for farmers in Gujarat

MCCAIN FOODS LIMITED (GUJARAT)

The "Regen Farm" Learning Hub

In addition to frequent on-farm visits by agronomic advisors, McCain Foods Limited uses its newly established 27-acre Regen Farm as a focal point for farmer training, reaching several hundred smallholders annually through small-group field days. As part of the company roadmap for farmer engagement and the dissemination of regenerative practices, priorities for adoption and support include:

- **Micro irrigation,** to directly address water use efficiency and optimise fertiliser application, while ensuring stable yields despite high temperatures during the potato growing season.
- **Cover cropping,** to improve soil health, fertility, and moisture retention for enhanced water use efficiency. Using a variety of crops such as sun hemp, cowpea, or sesame during fallow periods ensures soils remain covered for up to 320 days per year, depending on maturity and feasibility, thereby building organic matter and suppressing weeds.
- **Enhanced crop diversity,** utilising varied rotations such as pulses and oilseeds to disrupt existing cropping cycles. This targeted approach aims to reduce the prevalence of soil-borne pathogens and prevent nutrient depletion, supporting long-term productivity.
- **Integration of natural habitats and landscape elements,** such as buffer zones and trees, to reduce wind-borne soil erosion and provide spaces for beneficial insects, fostering natural pest control and supporting biodiversity across farming landscapes.
- **Evidence-based advisory support,** farmers receive a "one-stop shop" booklet (including planting calendars, soil health guidance, and best practices) supporting the implementation of regenerative practices linked to improved environmental outcomes.



PepsiCo pictorial handbook for local farmers

PEPSICO (WEST BENGAL)

Community-Led Learning and Demonstration

In West Bengal's fragmented landscape, PepsiCo's strategy is grounded in the principle of "seeing is believing". This is essential for smallholders with limited landholdings who cannot absorb the risks associated with crop failure or diversification. As part of the company's roadmap for farmer engagement and the dissemination of regenerative practices, priorities for adoption and support include:

- **Integrated pest management (IPM),** utilising controlled pest and disease monitoring, pheromone traps, and targeted biological controls to optimise crop protection while reducing reliance on synthetic pesticides and mitigating the high risk of pesticide leaching in the region's furrow-irrigated fields.
- **Cover cropping and green manuring,** to improve soil health and fertility by providing a protective buffer against monsoon-driven erosion and the destructive impacts of cyclones, helping to stabilise soil structure and reduce nutrient run-off during heavy downpours and untimely winter rains.
- **Biofertilisers and vermicomposting,** promoting bio-based inputs to enhance soil biology, improve fertility, and increase resilience under intensive production system conditions.
- **Precision nutrient management,** leveraging extensive soil testing to provide targeted fertiliser recommendations, improving nutrient use efficiency and reducing the risk of leaching into groundwater.
- **Visual education and vernacular toolkits,** utilising pictorial handbooks and locally adapted materials to ensure accessibility of core management concepts and regenerative practices for farmers with varying levels of literacy or technology access.

Conclusions for the Application of the Regenerating Together Framework Across Diverse Global Farming Systems

The pilot initiative implemented together with McCain Foods Limited and PepsiCo demonstrates that the RT framework successfully bridges the gap between global regenerative agriculture goals and local implementation through:

- **Identification of Material Risks:** The Context Analysis ensures that regenerative efforts are not generic, but that instead they target the most pressing local issues, such as water use efficiency in the semi-arid West of India (Gujarat) or pest and disease pressure in the humid East (West Bengal).
- **Linking Outcomes to Practices:** By first identifying Priority Regenerative Agriculture Outcomes, the RT framework provides a clear rationale for selecting and implementing targeted on-farm practices such as micro-irrigation, IPM principles, or cover cropping.
- **Enabling Application Across Diverse Farming Systems:** The pilot shows that a harmonised framework can be applied not only to larger-scale production systems, but also across diverse smallholder farming contexts. It provides a consistent, yet production-system-, geography, and commodity-agnostic approach, while remaining sensitive to local agroecological and socio-economic conditions and constraints.

Ultimately, the RT framework enables the development of context-specific roadmaps, referred to as Continuous Improvement Plans, to guide farmer engagement and the scaling of regenerative practices. It provides companies with a structured pathway to advance regenerative agriculture while ensuring that implementation remains practical, locally relevant, and capable of delivering measurable environmental outcomes.



Discussing the Regenerating Together framework Context Analysis scoring with PepsiCo agronomic advisors and partners in West Bengal



With special thanks to The Rockefeller Foundation for co-funding the '*Co-creating Scalable Regenerative Agriculture Solutions with Smallholder Farmers*' Project, as well as to McCain Foods Limited and PepsiCo staff for their participation in and support of the joint pilot initiative.

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