



A Philanthropic Theory of Transformation

Cultivating Change: Accelerating and Scaling Agroecology and Regenerative Approaches

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25 leading philanthropies have issued a joint call for a tenfold increase in funding for regenerative and agroecological transitions to address urgent global agricultural and environmental challenges. These philanthropies have aligned around a shared ambition: to catalyze a transition to 50% regenerative and agroecological systems by 2040, and to ensure all agriculture and food systems are transitioning by 2050. They urge that to align food systems with the 1.5°C goal of the Paris Agreement there is a need to phase out fossil fuel use, especially fossil fuel-based agrochemicals in industrial agriculture, and transition toward agroecology and regenerative approaches.

This report assesses what is required for a systems transformation to agroecology and regenerative approaches; establishes the required magnitude of financing; defines barriers to change and systemic drivers; and outlines investment strategies to accelerate the transition. Following COP28, this initiative will advance this work by ground truthing and implementing catalytic acceleration levers to unlock locally-led financing and transition pathways.

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1. Context, cost, and potential for collective action

Viable and systemic responses to interconnected crises exist

An ambitious transition to regenerative and agroecological approaches¹ is required. This transition needs to support rapid scaling² across diverse landscapes and geographies.

Evidence from around the world has shown that agroecological transitions result in a cascade of positive results, from stable yields, crop resilience and higher incomes for farmers, fishers, and food producers to improved nutrition and food security and enhanced biodiversity.

Despite this potential, industrial-, energy- and fossil fuel-intensive agricultural systems are exacerbating climate change. Food systems account for one-third of greenhouse gas emissions and at least 15% of fossil fuel use. The fossil fuel industry is investing heavily in petrochemicals to perpetuate the dependence of food systems. Shifting to agroecology and regenerative approaches

¹ For thousands of years, traditional Indigenous foodways have reflected a worldview grounded in principles of reciprocity that nourish health, culture, and nature. More recently, agroecology science, practice, and movements have drawn from and built upon Indigenous wisdom and expertise, and organic agriculture, natural farming, and regenerative agriculture have been widely adopted. Together, this family of approaches offer significant opportunities to advance healthy, equitable, renewable, resilient, inclusive, diverse, and interconnected food systems that are shaped by people, communities, and their institutions. The transformations this initiative seeks are guided by the 13 principles of agroecology as defined by the High Level Panel of Experts (HLPE) of the Committee on World Food Security (CFS) and aligned with the 10 Elements of Agroecology adopted by the 197 FAO Members in December 2019.

² Brescia et al., *Fertile Ground*, 2017; and Mateo Mier y Terán Giménez Cacho et al., “Bringing Agroecology to Scale” (2018): 637–665.

would not only substantially reduce fossil fuel dependency but also realize a raft of benefits for people's health, livelihoods, and the environment.³

In short, industrial agriculture and food systems are the single largest user of land, a major contributor to the climate crisis, and a key driver of diet-related illnesses and biodiversity collapse. Regenerative and agroecological approaches represent an opportunity to reverse negative externalities, build resilience, improve nutrition and dietary diversity, and contribute to adaptation/mitigation.

With science and knowledge, scalable practices, and inclusive social change processes, agroecology and regenerative approaches represent some of the most viable and systemic responses to emergencies and interconnected crises, such as climate change. These approaches build social and ecological capital to accrue benefits across societal, environmental, economic, health, and well-being measures, showing a dynamic multifunctionality that can support communities overcoming converging global crises.

The scale of opportunity and need requires greater investment

Policy, research, governance, funding, and financial flows need to shift from the most harmful practices — chemical intensive monocrop agriculture, industrial meat and fish production, and ultra-processed foods. Instead, deep and structural change needs to be incentivized, with a focus on supporting the farmers, fishers, landscape leaders and organizations driving the change.

This call for transformation is nothing short of ambitious. This group of philanthropic partners align around a shared ambition: to catalyze a transition to 50% regenerative and agroecological food production by 2040, and 100% by 2050.⁴

The hidden costs of current industrial food systems globally is at least USD 12 trillion per year⁵. These externalities, which represent 10% of global GDP, are borne by the public sector.⁶ They include the exorbitant and growing cost of hunger and malnutrition, environmental damage, lost worker productivity, and health care. This costly system is propped up by USD 635 billion in annual global agricultural subsidies, USD 385 billion of which are considered distortive and result in harmful environmental outcomes.⁷

³ Global Alliance for the Future of Food, *Power Shift: Why We Need to Wean Our Industrial Food Systems Off Fossil Fuels*, 2023.

⁴ Dalberg Advisors analysis: These figures align with literature outlining pathways to reach climate, biodiversity and SDG targets.

⁵ FAO, *The State of Food and Agriculture*, 2023.

⁶ UNFSS, *The True Cost and True Price of Food*, 2021; FOLU, *Growing Together*, 2019;

⁷ World Bank, *Detox Development*, 2023.

A rapid redirection of funds — philanthropic, private, and public — is required. Transition costs, estimated to be USD 250-430 billion per year, are notably less than current agricultural subsidies.⁸ Philanthropy recognizes the urgency to shift financial flows.

The transition has begun with many farmers, fishers, food producers, organizations, governments, and companies investing in agroecology and regenerative approaches — to the tune of USD 44 billion per year. Philanthropy is also invested in this transition, contributing an estimated USD 300-700 million.⁹

It is not enough to shift financial flows; power dynamics and vested interests holding back change must be addressed. Local self-determination, and participatory, democratic local governance of funding and financing structures are critical to ensuring current and historic uneven power dynamics aren't replicated.

If we want to achieve global climate, biodiversity, and food security targets and if we are serious about food systems transformation, a **tenfold increase in current annual philanthropic, public, and private investments is required to transition to agroecology and regenerative approaches.**

The cost of transition is high, but the cost of inaction is much higher.

Catalytic investments are required across the transition lifecycle

Philanthropy, using a wide variety of strategies and tactics, has an important role to play across the transition lifecycle. Although case studies about agroecology and regenerative approaches are plentiful, detailed data and evidence about on-the-ground transition costs are limited. The following examples illustrate the potential and positive impacts of catalytic investments supporting regenerative and agroecological transitions.

Andhra Pradesh, India — Community Managed Natural Farming (APCNF)

A state-wide agroecology program transforming the farming practices of 6 million farmers that account for 6 million hectares of farmland and 50 million consumers.

Cost of transition

- USD 200-350 per farmer over the next 5-8 years

⁸ Transition costs do not include livestock or fisheries and are under-estimated and represent a global figure. See the [Annex](#) for the transition costing methodology.

⁹ Dalberg Advisors analysis: These global USD figures paint a useful but partial picture. Due to vastly different economies, systems, and structures, the costs of this transition vary significantly between regions. See accompanying [Annex](#) with methodology.

- 80% of the cost requirement is spent on training, monitoring, and measurement

Outcomes achieved

- *Increased crop diversity:* APCNF farms showcased greater crop diversity, averaging 4 crops per year versus the 2 on conventional farms
- *Increased yields:* Yields of primary crops on APCNF farms, including paddy rice, maize, millet, finger millet, and red gram increased by an average of 11%
- *Higher incomes:* Incomes of APCNF farmers increased by 49%, largely due to a 44% reduction in input costs.

Kansas, USA — Regenerative farming among wheat farmers

Large scale wheat farmers in Kansas implemented new farm and land management practices (e.g., crop rotation, reduced tillage, cover cropping, and pesticide reduction) enabling regenerative outcomes (e.g., improvement in soil health, increased water retention, and crop performance).

Cost of transition

- During the transition period (3-5 years), farmer profits typically decline up to 60%, due to lower crop yields and the added cost of seeds and new machinery.

Outcomes achieved

- *Input reduction:* Certain farmers achieved a remarkable 50% decrease in fertilizer usage and up to 75% reduction in pesticide application
- *Increase in profitability:* Once farmers reach a steady state of regenerative practices, profitability is forecasted to increase by 70-120% per year over a timeframe of 6-10 years
- *Return on investment (ROI):* Compelling long-term business proposition; regenerative practices offered farmers a 15-25% ROI over 10 years, as the increase in incomes over the long term offsets the short-term profit loss during the first few years of transition

Kenya — Regenerative farming among small holder farmers

Farmer-led grain aggregator enterprise working with 15,000 small holder farmers to build resilience through the adoption of regenerative practices such as intercropping, reducing tillage and agroforestry.

Cost of transition

- On-farm cost of USD 126 per hectare per year.
- Transition period is 3-5 years.

Outcomes achieved

- *Increase in yields:* Farmers witnessed a significant increase in yields over 3-5 years, up to four times the yield obtained through conventional farming

Brazil — Sustainable farming for a large beef farm in the Amazon

Case study evaluates the transition of a beef farm in Brazil's Amazon to sustainable agricultural practices.

Cost of transition

- On-farm cost of USD 476-672 per hectare per year during the transition
- Transition period is 3 years

Outcomes achieved

- *Increase in income:* Farmers witnessed a 130% increase in income over 3 years
- *Increase in productivity:* Beef productivity increased by 5.7%, rising from 228-241 kg of live weight sold per hectare
- *Pastureland rejuvenation:* The initiative led to the successful recovery of previously degraded pastureland

See the [Annex](#) for further details.

Early innovators and investors are aligning with the transition lifecycle, but significant barriers remain. To accelerate the transition, philanthropy has the unique ability to use its funding to support and drive collective and catalytic impact in ways that break down those barriers to deeper, systemic, and transformational outcomes.

2. Toward a philanthropic theory of transformation

Aligning and leveraging philanthropic leadership

This growing collaborative of over 20 philanthropic partners aims to leverage their investments to unlock new funding and financial flows to address some of the most critical issues of our era: growing hunger and food insecurity, inequality, the climate crisis, and biodiversity loss.

These partners have aligned around a shared ambition: **to catalyze a transition to 50% regenerative and agroecological systems by 2040, and to ensure all agriculture and food systems are transitioning by 2050.** This ambition is essential if we want to meet global climate, biodiversity, and food security targets and align with emerging government targets. Together, these philanthropic partners aim to coordinate funds and resources to support transitions at scale in regions where they are most active, as well as identify additional countries where regenerative and agroecological transitions are taking hold and where additional support could be catalytic.¹⁰

¹⁰ Dalberg Advisors analysis provides more details on the process, assumptions, methodology, and financial analysis. See the [Annex](#).

Philanthropic partners enlist a wide variety of strategies and tactics to deliver on their mandates. This philanthropic theory of transformation for regenerative and agroecological approaches is inclusive of diverse change strategies,¹¹ from shifting markets and mindsets to policy change and direct service provision among many other levers for change. Philanthropies engaged in this process prioritize inclusivity and strategies that result in funding flows defined by local leaders. Some seek a global narrative for agriculture, fisheries, and food systems that is tailored to diverse regions and bridging global-local connections. Others emphasize the need for shifting power dynamics, landscape leadership, investment in grassroots organizations, equity, self-determination, and guarding against oversized philanthropic influence.

Promoting collaboration and synergy

Momentum for regenerative, agroecological transitions has been growing for decades through the efforts of the many organizations and funder networks, with increasing alignment around the principles of agroecology.¹² Working together with landscape leaders, farmer, fisher, and Indigenous People's organizations, civil society, governments, research institutions, public sector donors, and the private sector is critical, as is linking with local and national regenerative and agroecological transition strategies.

Philanthropy and other donors are underinvested in this critical work; these philanthropic partners will mobilize additional donors to catalyze blended capital that will drive changes on-the-ground by filling the public/private sector finance gaps to create the enabling conditions for agroecology and regenerative approaches to flourish.

Since May 2023, the Global Alliance for the Future of Food (GA) has been convening partners from philanthropy and civil society to develop a shared vision and plan for action to strengthen and accelerate the regenerative, agroecological transition. Building on a decade of GA work elevating the importance of agroecology and regenerative approaches in food systems transformation, this collaboration addressed the following questions:

1. To meet our global targets for biodiversity, climate, and food security, what is the magnitude of action required?
2. What is the cost of transitioning from business-as-usual to regenerative and agroecological production systems around the world?
3. What are the barriers to change?
4. What pathways and systemic drivers support regenerative and agroecological transitions?

¹¹ For a complete list of philanthropic strategies please refer to the [Annex](#).

¹² These organizations and networks include but are not limited to the Agroecology Coalition, Funders for Regenerative Agriculture, and the Agroecology Fund, which are guided by the 13 principles of agroecology as defined by the High Level Panel of Experts (HLPE) of the Committee on World Food Security (CFS) and aligned with the 10 Elements of Agroecology adopted by the 197 FAO Members in December 2019.

5. What are some of the most effective strategies being used by philanthropy and other partners in their funding of regenerative approaches and agroecology?
6. How can philanthropy and other donors/investors align their strategies with each other and with landscape actors/organizations to ensure funds reach the ground?
7. What would it take to accelerate and scale the transition?

Initially funded by the IKEA Foundation, The Rockefeller Foundation, and Children's Investment Fund Foundation, the GA led a co-design and engagement process including interviews, meetings and research, with support from Dalberg Advisors, Pollination, and Presencing Institute.

This initiative seeks to create a deeply collaborative and consultative process that puts landscape actors in the centre, builds alignment across diverse philanthropies, identifies gaps, and fosters opportunities and relationships that will lead to further collaboration and shared action. The GA is coordinating philanthropic engagement for this initiative and seeks to elevate investable opportunities across multiple organizations and acceleration levers.

Given the critical global challenges related to food systems and the need for rapid transformations at scale, we need to ensure philanthropic strategies promote collaboration and synergistic efforts, versus strategies that are duplicative and disjointed. Diverse and grounded solutions that lead to deep systems changes will come from philanthropy better supporting coordination among themselves, civil society leaders, Indigenous Peoples organizations, policy makers, and the private and public sector.

Philanthropic leadership and catalytic investments aim to leverage significant shifts in financial flows to accelerate this transition with:

1. MORE dollars (working across the finance ecosystem to catalyze new investments)
2. DEEPER dollars (shifting from incremental investments to more transformative, long-term investment)
3. GROUNDED dollars (directing more funds to support IPLCs)
4. FLEXIBLE dollars (to adapt to changing conditions on-the-ground)
5. ALIGNED AND LEVERAGED dollars (ensuring that philanthropic dollars align for impact, unlock private investment, and repurpose public dollars).

Longer term support needed includes regional implementation and transition funding and financing, the identification of pilots, research, capacity building, as well as operational, programmatic and coordination funds for the organizations and landscape leaders involved. Longitudinal research and evidence building work needs to be supported. Alongside investments in agroecology and regenerative approaches, engagement and campaigns to shift food systems away from harmful

industrial practices and phase out fossil fuels use is required. Consumer focused communications strategies and campaigns need to be developed.

The effectiveness of this work will rely on synergistic interactions of other varied stakeholders from the private sector, public sector, NGOs, and social movements, as well as formal and informal networks learning from and with each other. There is an opportunity to work with non-food agricultural sectors (textiles, fashion, cosmetics) to ensure a systems approach. This theory of transformation cuts across national borders and intervention silos, across sectors and specialized interests, connecting local and global, and sustaining across time. The Global Alliance aims to facilitate convergence around a shared vision and values and, ultimately, to build critical mass and momentum behind tipping points that lead to healthy, equitable, renewable, resilient, inclusive, and culturally diverse food systems that dynamically endure over time.

3. Catalyzing acceleration and scale

A shared philanthropic theory of transformation will support ecosystem coordination and shift more capital — philanthropic, public, and private — toward the drivers of systems change. Philanthropy can align to scale and mobilize additional donors through their national–global influence as well as catalyze creative investment vehicles to drive market and ecosystem changes on-the-ground by filling the public/private sector funding gaps to enable landscape-level transformation.

Through a comprehensive co-design process with partners on-the-ground in key geographies and who have long histories of supporting landscape transitions, we have developed an extensive list of acceleration and scale mechanisms and levers.¹³ From that, areas and ideas for philanthropy and others to best catalyze regenerative and agroecological transitions are emerging.

Regional engagement to ground truth acceleration priorities is starting in geographies where transitions are underway and philanthropy is most active currently: India, Brazil, East Africa, USA, and EU. Additional engagements will happen in more geographies over time. Analysis in the different geographies is being undertaken to understand current funding flow mechanisms and the transition ecosystem.

Emerging acceleration ideas

The following initial and preliminary acceleration ideas have emerged through the co-design process. While this process takes time, doing so ensures that actions taken are contextually relevant and impactful, leading to higher success and implementation rates. Importantly, it also surfaces existing initiatives that can be supported and scaled across all levels and levers, prioritizing coordination and amplification over duplication. More discussion is required to fine-tune these ideas.

¹³ See the [Annex](#).

Multi-layered finance

- A multi-layered approach including: 1) connecting the financing ecosystem within a localized context; 2) developing, socializing, and capturing learnings from existing financial instruments, templates, and best practices that are locally-led; 3) enhancing access to funding through country-level blended financing.
- Finance unlocking mechanisms including grants, pooled funds, direct investment, blended capital, patient capital, direct investment, and ecosystem service payments with a focus on addressing key barriers related to pipeline development, connecting projects, organizations, farmers/fishers to the right forms of funding, investment and capital, derisking capital, project preparation, technical assistance, demand aggregation, and supply–demand matching.
- Mapping of effective financing mechanisms and structures by landscape, stakeholder type, instrument type, etc.

Ecosystem coordination

- Country/regional acceleration platforms linking national governments, farmer/fisher, civil society, and Indigenous Peoples organizations, social movements actors, research institutes and others responsible for implementation of national and landscape transition strategies.
- Convening body to align decision-making, identify key priorities, disseminate evidence and develop strategic communications, as well as support horizontal ecosystem coordination within and across transition geographies.

Global and regional policy and regulation advocacy

- Policy platform that mobilizes funding; establishes, enhances, and redirects (especially distortive) policies; addresses trade issues, and shifts narratives at the global and local level (especially horizontally across local markets).
- Global, regional and national policy advocacy on increasing/reallocating subsidies toward agroecology and regenerative approaches and reducing distortive subsidies.

Locally-informed technical and material support

- Locally-informed data platform providing tailored insights to relevant stakeholders to address evidence gaps, standardize best practices, and promote transparency. Robust landscape-level evidence informs business cases and enables systematic ROI assessments for investors; frames priorities for policymakers; and shifts dominant narratives and mindsets.
- Technical research and development working closely with country acceleration platforms and national research centres.
- Digitally-enabled infrastructure focused on innovation and social capital.
- Peer-to-peer learning initiatives that enable learning and exchange, especially with youth, women and Indigenous Peoples organizations, and enable effective knowledge generation and dissemination, participatory guarantee systems.

Scaled, systems-level skills, knowledge, and research development

- Multipronged support that no single actor can provide at scale, including knowledge dissemination; capacity building and investment/promotion of innovative research, development, and practices by providing capital for technical assistance.
- Open-source database of holistic landscape-level metrics (tracking relevant environmental, social, human, and economic outcomes), transition costs, yield fluctuation, and change in metrics post transitions to refine definitions, measure progress, and evaluate transition costs and outcomes across landscapes.
- Longitudinal research to track outcomes over 5-10 year transition cycles.

Public and private market development mechanisms

- Market development mechanisms focused on enhancing supply chains by generating at-scale demand, via private-side focused on procurement and corporate/supply chain financial institutions and public-side focused on stimulating demand through public sector purchasing programs.
- Regenerative, agroecological value chain development by helping farmers, fishers and intermediaries understand regenerative requirements, guaranteeing minimum prices/volumes, and supporting local infrastructure development.

Principles that inform our work, as surfaced through the co-design process

Principles for WHAT we want to achieve include:

- *Prioritize transformation*: Focus on catalyzing deep regenerative¹⁴ and agroecological approaches by matching strategies and funds across the transition lifecycle, from incremental to transformational.
- *Participatory and inclusive*: Center the needs and perspectives of land stewards, Indigenous communities, local cooperatives and institutions, and marginalized communities.
- *Outcome-focused flexibility*: Emphasize transparent outcomes, allowing for local adaptation.
- *Catalytic funding*: Target opportunities with strong and holistic returns on investment and additionality; bolster innovation through institutions and inventive approaches.

Principles for HOW we work together include:

- *Foster locally led adaptation*: Adopt principles developed by IIED.¹⁵
- *Promote power shifting to local leadership and organizations*: Ensure all stakeholders, including farmers, Indigenous communities, and grassroots organizations, are involved in acceleration strategies.
- *Amplify, don't duplicate*: Coordinate and amplify existing efforts, avoiding duplication.

¹⁴ We are using the 13 principles of agroecology to define “deep” regenerative

¹⁵ <https://www.iied.org/principles-for-locally-led-adaptation>

- *Uphold diverse evidence and holistic outcomes:* Base decisions on quantitative and qualitative case studies and data-driven insights.
- *Multisectoral collaboration:* Encourage collaboration across sectors, bridging the gap between agriculture, health, environment, and more for holistic impact.

Next steps

- Following COP28, this initiative will increase its focus on acceleration levers through regionally-focused engagement. Over the next six months these include: Regional engagement to gain a deeper understanding of transition processes underway and to continue to refine acceleration ideas.
- Private/public sector outreach and engagement.
- Network mapping to elevate key implementation partners in specific countries and regions where there is interest from donors.
- A Q2 2024 convening to discuss and define acceleration levers, mechanisms and needs, including cross-regional collaboration and early communications and narrative work.
- Continued investment in transparent and holistic outcomes frameworks.¹⁶

Call to action

There is no time to wait. The acceleration of regenerative and agroecological approaches is centrally important to addressing multiple and interconnected global crises we face. We know that transformation is multi-dimensional, multi-faceted, multi-level, multi-sectoral, multi-national, and augmentative. Transformation will require multiple interventions flowing together to generate mammoth changes in global systems. Facilitating convergence around shared visions and values and building critical mass and momentum toward tipping points is crucial. Philanthropy has a role to play connecting and coordinating to support and enhance the many collaborations, alliances, and movements aiming to accelerate regenerative and agroecological approaches.

Our call to action is to catalyze a transition to 50% regenerative and agroecological systems by 2040, and to ensure all agriculture and food systems are transitioning by 2050. This requires a tenfold increase in current annual philanthropic, public, and private investments for regenerative and agroecological transitions to address urgent global agricultural and environmental challenges.

¹⁶ Through various efforts, including [Regen10](#).

About this initiative

The philanthropic partners who are participating in this initiative address issues related to global food and agriculture at different scales, on diverse issues, and from a multitude of perspectives. They are: African Climate Foundation, Agroecology Fund, Biovision Foundation for Ecological Development, Builders Initiative Foundation, Climate Emergency Collaborative Group, Children's Investment Fund Foundation, ClimateWorks Foundation, Erol Foundation, European Climate Foundation, Funders for Regenerative Agriculture, Global Alliance for the Future of Food, GRACE Communications Foundation, IKEA Foundation, India Climate Collaborative, Instituto Clima e Sociedade, Instituto Ibirapitanga, Laudes Foundation, Macdoch Foundation, McKnight Foundation, Oak Foundation, Platform for Agriculture and Climate Transformation, Porticus, Robert Bosch-Stiftung Foundation, The Rockefeller Foundation, Sall Family Foundation, Walton Family Foundation.

The Global Alliance for the Future of Food leads this co-design and engagement process with support from Dalberg Advisors, Pollination, and Presencing Institute. Please contact info@futureoffood.org for more information.