



Mission Multiplier: The Cross-Cutting Case for Food Waste Reduction

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Animal Welfare

Tens of billions of land animals and hundreds of billions of aquatic animals are raised for food each year, primarily under conditions that raise significant welfare concerns. And a substantial share of those animals are raised for food that is never eaten. Globally, an estimated 20% of meat and dairy and 35% of fish and seafood are lost or wasted, equating to approximately **18 billion** land animals (primarily chickens) and likely tens to hundreds of billions of aquatic animals.

For funders focused on animal welfare, this presents a compelling opportunity. While many animal welfare strategies aim to improve conditions for farmed animals or shift consumption patterns, reducing food waste offers a complementary pathway—one that can reduce the number of animals affected while often aligning with the economic and environmental priorities of businesses and governments.

Report Author: Sharyn Murray, ReFED

About the Series

Whether your mission is centered on economic resilience, public health, climate, biodiversity, or other areas, progress often depends on addressing challenges that cut across systems—especially those shaped by the global food system. As that system has grown more complex to feed a growing population, it has placed mounting pressure on natural resources and supply chains, with cascading effects on people, animals, the planet, and the economy.

One of the most overlooked ways to ease that pressure—and to accelerate progress across multiple goals at once—is addressing the roughly one-third of all food produced but never sold or eaten. Wasted food also means wasted land, water, labor, dollars, energy, and nutrients, with ripple effects across affordability, animal welfare, biodiversity, public health, regenerative agriculture, and super-pollutant mitigation. Yet food systems receive **under 3%** of public climate finance—and less than 6% of that targets loss and waste. For philanthropic funders and mission-driven investors, that gap is a powerful, underutilized opportunity to advance core priorities faster while relieving pressure on the broader food system.

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How Food Waste Reduction Enables Impact

Food waste reduction could reduce the number of animals farmed and improve animal welfare through three complementary pathways:

Reducing demand for animal products through consumer food waste reduction

In many high-income countries, the largest share of food waste occurs at the consumer level, spanning both households and foodservice. When animal products are consumed rather than discarded, that consumption can displace future purchases, creating a direct pathway to reduced demand. Importantly, this approach does not require consumers to change what they eat—only to waste less of it—making it more accessible than many animal-focused demand-side interventions. It also avoids the substitution effects that can accompany dietary shifts (moving from beef to chicken, for example), which can inadvertently increase the total number of animals affected.



Improving supply chain efficiency to reduce animal production needs

Reducing animal and food loss earlier in the supply chain—across farming, transport, processing, and retail—can improve overall system efficiency and reduce the number of animals being farmed in the first place. Food systems are often designed with excess production built in to account for expected losses. By reducing those losses, producers and suppliers can operate with less buffer, lowering overall production volumes. Outcomes vary depending on the solution and market dynamics, but even a partial translation of efficiency gains into reduced production could result in meaningful reductions in the number of animals farmed.

Advancing interventions that reduce loss and improve animal welfare directly

Some food loss reduction strategies generate animal welfare benefits that go beyond their effects on production. Improvements in on-farm conditions, transport, handling, and slaughter processes, for example, can lower pre-slaughter mortality rates, reduce stress and injury, and improve product quality and shelf life. These interventions simultaneously reduce losses and improve conditions for animals within the system, creating a dual benefit.



Food waste reduction does not replace other approaches to animal welfare—it strengthens them. By reducing the total number of animals required and improving conditions within supply chains, it enhances the impact of corporate welfare commitments, diet change and alternative protein development, and other policy and advocacy efforts already underway in the space.



Funding Food Waste Reduction to Support Animal Welfare

Funding food waste reduction provides a practical and scalable pathway to advance animal welfare by targeting key mechanisms to reduce animal product demand, improve efficiency, and enhance welfare outcomes.

Reducing demand-side waste—and with it, incremental demand for animal products

- **Customizable portion strategies in foodservice.** Smaller portions, flexible sides, and “right-sized” meals can better align servings with actual consumption and reduce plate waste, a major driver of restaurant food waste. [Research](#) from ReFED and Datassential suggests these approaches can meaningfully reduce waste while generating cost savings for operators. Philanthropic funding can support pilot programs, field-building efforts, and partnerships with food service operators to accelerate adoption—work already underway through the [Portion Balance Coalition](#), led by Georgetown University’s McDonough School of Business, which is advancing research and industry engagement to shift portion norms.
- **Sensor technology.** Emerging technologies can further strengthen these efforts. [Innoscentia](#), for example, has developed sensor-based freshness labels that detect spoilage in real time, reducing reliance on static date labels and addressing a major driver of household food waste.

Improving supply chain efficiency

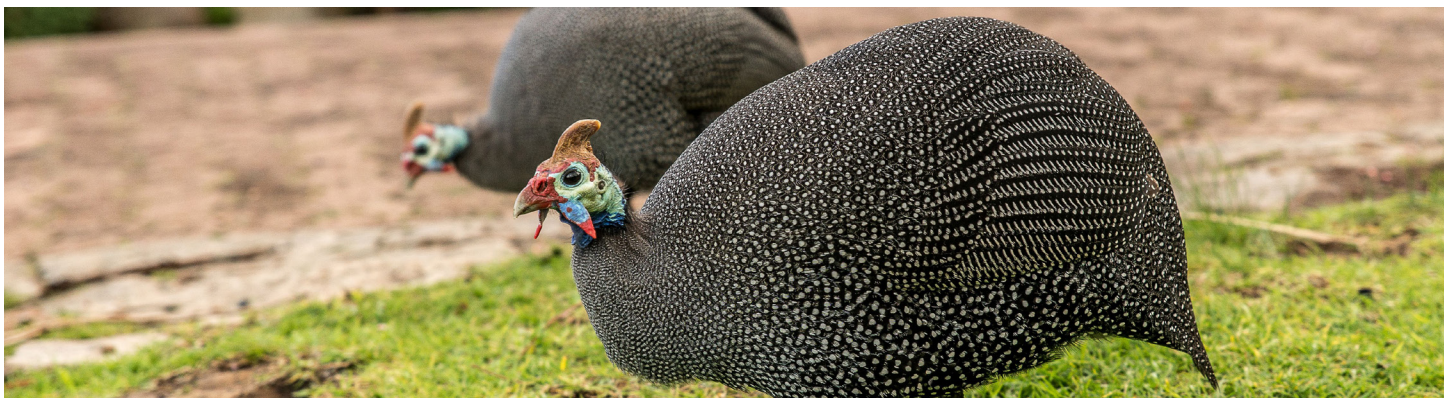
- **Demand forecasting, dynamic pricing, and inventory optimization.** At the retail level, these interventions—offered by companies like [Afresh](#)—can significantly reduce the waste of highly perishable animal products like meat and seafood. Given the high cost of these losses, such solutions are often economically attractive and well-positioned to scale. Philanthropic capital can play a catalytic role here by funding targeted pilots, including those facilitated through the [U.S. Food Waste Pact](#), to identify the most effective approaches and accelerate adoption.
- **Spoilage reduction.** In parallel, investments in cold chain infrastructure and logistics, such as [FieldTech](#), particularly in emerging markets, and shelf-life extension technologies like [Freshr](#) can reduce spoilage earlier in the supply chain, before losses compound downstream.

Solutions that reduce food loss and improve animal welfare at the same time

■ **Aquaculture improvements.** In aquaculture, technologies that improve animal health and reduce pre-slaughter mortality—such as [Oxzo's](#) oxygenation systems and [UniFahs's](#) disease treatment—can lower fish mortality while improving conditions on-site. The [Lever Foundation](#) is doing important work in this space, having secured commitments from global food companies such as Pret a Manger to implement aquaculture supply chain policies requiring daily monitoring of water quality, disease, and mortality, with major retailer commitments expected in late 2026. This work targets what Lever views as the most critical frontier in farmed animal welfare and food waste reduction: the extremely high pre-slaughter mortality rates in aquaculture, which daily monitoring and reporting requirements can meaningfully help drive down.



■ **Welfare-aligned slaughter.** Similarly, improvements in slaughter and pre-slaughter handling—such as optimized line speeds at slaughterhouses, better handling practices, and more effective stunning and other humane slaughter methods—can reduce product loss while improving animal welfare outcomes. Companies like [HEFT](#) have developed new methods for more humane stunning of pigs and chickens, while nonprofits such as [Ethical Seafood Research](#) and [Scale Welfare](#) are studying the relationship between humane slaughter of fish and product freshness. Philanthropic funding can also support research, pilot programs, and policy engagement to better quantify these relationships and drive broader adoption.



Across demand reduction, supply chain efficiency, and welfare-aligned interventions, food waste reduction offers funders a practical and underutilized pathway to reduce the number of animals affected while improving conditions within the system—particularly for the small-bodied species that dominate global production.



Case Study

Dual Impact in Action

Ambitious Impact's Charity Entrepreneurship program, launches and funds new nonprofits to tackle the world's biggest problems—including highly impactful organizations such as [Giving Green](#), [Fish Welfare Initiative](#), and [Animal Advocacy Careers](#)—has explored food loss and waste as a pathway for improving animal welfare with climate co-benefits.

In its most recent climate co-benefits research round, one food loss and waste intervention reached the final stage of Ambitious Impact's research process: extending expiration dates for animal products to prevent food waste, given that confusion over date labels is a major driver of household food waste. While this particular intervention was not ultimately recommended for nonprofit incubation and launch, it came close and Ambitious Impact remains interested in adding food loss and waste interventions to its idea prioritization funnel going forward.

On the investment side, [Lever VC](#), a venture capital firm focused on the future of food and agriculture, integrates food waste and animal welfare considerations directly into how it evaluates opportunities. In assessing companies spanning consumer-facing apps to supply chain technologies, Lever VC favors solutions that sit further upstream, don't depend on consumer behavior change, offer clear short-term ROI for producers, and can be implemented at meaningful scale. Technologies that reduce on-farm disease and mortality in aquaculture—such as AI camera systems, digital monitoring tools, new vaccinations, and early disease detection—are among those the firm finds most promising. Lever VC is also drawn to innovations on the processing side, such as technologies that increase carcass yields, which could in theory reduce the number of animals raised by a comparable margin, along with solutions that reduce meat and seafood spoilage across retail and distribution.



"We are excited about food loss and waste as a way to reduce demand for animal products without having to change what people are eating, which is notoriously difficult."

Vicky Cox, Senior Research Manager (Animal Welfare), Charity Entrepreneurship

To date, Lever VC has invested in [Floxx](#), an AgriTech company that uses AI and computer vision to monitor poultry welfare and flock health around the clock, and [HerdDogg](#), an AI-powered health tracker for cattle that generates real-time health alerts, allowing ranchers to isolate and treat cattle earlier and more precisely. Both investments share the same underlying goal: reducing animal mortality and food loss together. The firm continues to evaluate additional opportunities within aquaculture.



“Aquaculture stands out to me as the most important area at this intersection. The mortality rates are staggering, the welfare implications are enormous given the scale of animals involved, and yet it remains relatively under-explored and underfunded.”

Nick Cooney, Managing Partner, Lever VC

If you'd like to learn more about how your funding can support multiple missions, please reach out to our Capital & Innovation team.



capitalinitiatives@refed.org



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