

LEVER FOUNDATION

Report 2025





Contents



08 - The Weight of Chopsticks



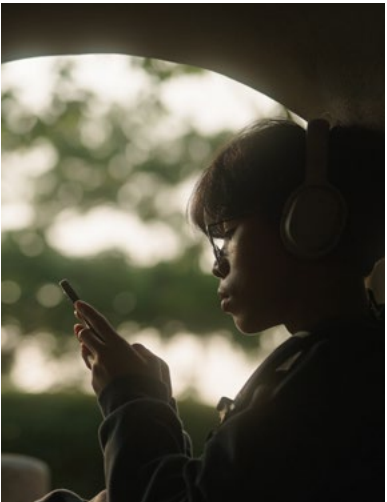
18 - Carried by the Current



30 - China's Next Course



44 - Anatomy of an Agricultural Shift



56 - The Algorithm of Change



70 - Made in Asia



82 -The Lever Effect



96 - Crisis Underwater



106 - Impact 2025

Asia at the Table

Environmental sustainability and climate change. Animal welfare. Public health and food safety. Sustainable food systems. These interconnected concerns all converge on one word, one region of increasingly crucial importance: Asia.

Asia is home to approximately 60% of the world's greenhouse gas emissions, 60% of global diet-related diseases, and 75% of the world's farm animals. And the region stands at a threshold. After transforming from scarcity to increasing abundance in one generation, it now faces an even greater challenge: making that abundance sustainable.

The stories that follow, which track Lever Foundation's work to bring about more sustainable food systems across Asia and beyond, invite you to see this transformation differently—through commercial kitchens serving better meals to thousands, through boardrooms where competition can drive sustainability, through farms where tradition and innovation are converging. What follows are accounts from the field, stories of real people making real change right now in countries such as China, Indonesia, the Philippines, Korea, Thailand, Malaysia and others.

You'll discover an Asia that isn't waiting for solutions from elsewhere but creating them from within, in markets and businesses and homes that some of us might never see up close but whose impact touches us all.

This is their story. It's also yours. Because what unfolds in Asia's food systems over the next decade will shape the world we all inhabit. ■



The Geography of Climate Change Runs Through Asian Kitchens

The Weight of Chopsticks



Dawn in Manila's Quinta Market. Vendors arrange whole chickens on metal hooks while jeepney drivers grab plastic bags of rice porridge and longganisa. Steam rises from woks frying garlic rice. In the next aisle, a woman sells fresh taho to uniformed schoolkids, the soft tofu swimming in brown sugar syrup—a morning ritual older than memory, plant-based before anyone named it that.

Billions across Asia wake each morning and decide what to eat. These choices, multiplied across ten thousand markets, shape our planet's future more than any climate summit. The region that feeds half the world's population and produces the majority of its meat, seafood, rice and vegetables holds the key to sustainable food systems globally.

The Asia-Pacific region has consistently been the biggest driver of growth in global carbon emissions for the past several decades, as population and wealth continue to increase. What the West built over a century, Asia has replicated—only compressed, scaled, and intensified in just one generation. Food systems now account for roughly a quarter of the region's total emissions, and Asia is responsible for close to half of global agrifood emissions.

But numbers miss the deeper currents. In Hong Kong tea houses, shared meals mark celebration. Korean barbecues bond colleagues after work. Taiwanese night markets serve three generations sharing one table. Food carries meaning beyond nutrition—prosperity, respect, belonging. Yet these same systems that nourish billions now strain under climate pressures, resource scarcity, and the challenge of feeding growing populations sustainably.

THE FACTORY AT EVERY BORDER

Midday delivery at a Hong Kong cha chaan teng. Trucks unload Australian beef, Brazilian soybeans, Dutch dairy products. The owner's daughter suggests adding locally-sourced ingredients and plant proteins to the menu. "Our customers want tradition," he says, but writes down the supplier's number anyway. Three months later, half his offerings feature sustainable proteins alongside traditional options.

Agriculture, primarily industrial animal agriculture, drives more habitat loss than any other human activity. In parts of Indonesia, forest gives way to monoculture crops. Across Southeast Asia, land once used for diverse food production shifts toward intensive farming. Looking ahead to 2050, the land needed to support current production methods and consumption levels in megadiverse countries—including Indonesia, Malaysia and the Philippines—could consume 30 to 50 percent of their arable land, squeezing out biodiversity.

Each country writes its own version. Taiwan's small family farms that once practiced rotation are now industrial operations. South Korea relies heavily on imported feed and fertilizers, making its agricultural sector dependent on global supply chains. Thailand produces for the world while its soils degrade from intensive cultivation. The push for efficiency often sacrifices environmental resilience, animal welfare, and public health.

Young Asians see these connections differently than their parents. A Taipei university student tracks the environmental footprint of her food choices between Instagram posts. Manila teenagers share videos about healthy plant-based foods, understanding intuitively what economists calculate slowly: that our food system's true cost includes tomorrow's floods, biodiversity loss, and health crises.





MARKETS IN MOTION

A procurement manager at a Hong Kong restaurant chain reviews the morning's delivery manifest. Every carton of eggs now comes from cage-free production systems with fewer public health risks and less intensive confinement of animals—a shift that seemed impossible five years ago. The majority of the city's top restaurant chains have made the same switch, commitments negotiated by Lever Foundation's team through years of meetings and support.

In Shanghai, a regional manager for a noodle chain walks through the dinner rush, checking how the new plant-based mapo tofu is selling. It's one of dozens of sustainable options now standard across their locations—part of a transformation spanning many thousands of restaurants across mainland China. Not declarations or campaigns, but purchasing decisions that redirect millions of dollars in food procurement toward more responsible products each quarter.

At a Manila hotel, the executive chef reviews next week's banquet menus with his team. Thirty percent plant-based, with higher-welfare proteins for the rest—that's the new mandate from a prominent hospitality group, a policy Lever secured through months of negotiations. The kitchen staff now sources from farms with better practices, builds menus around plant-based whole foods, and delivers nutrition without defaulting to industrial proteins.

Corporate progress in Asia can move far faster than legislation, and it follows the typical business logic: supplier contracts, profit margins, customer retention. While governments debate, companies sign purchase orders. When regulation is impossible in the short term, supply chains can still shift. The change happens not in proclamations but in loading docks and prep kitchens, one delivery truck and menu revision at a time.



MORNING CHOICES

Back in Manila's Quinta Market. Traditional vendors still dominate, their business brisk. But the taho seller has more customers than before. The carinderia now offers plant-based ginataang kalabasa without pork. A young vendor experiments with mushroom sisig, curious if it will sell. Change sidles in, unnoticed until it's everywhere.

Food prices rise with each degree of warming across Southeast Asia. The system strains, but in that strain lies the possibility to feed billions with less ecological destruction, to honor culture while adapting practice.

Nations must cut emissions by 40% in the years ahead to avoid catastrophic warming. Asia transformed its food systems in two generations. That same innovative capacity could shift agriculture again, if directed toward responsible production and improved public health rather than just sheer production volume.

The transition won't be smooth or total. Industrial farming won't disappear next year. Systems built over generations resist change. But the same Asia that went from scarcity to abundance in forty years can pivot strongly toward sustainability.

Dawn comes to Asia first. Each morning, billions choose what to eat. Those choices, multiplied across millions of markets and meals, shape what comes next. The weight of chopsticks, spoons and hands—each lifting food to mouth—these small gestures repeated billions of times daily across Asia may yet tip the balance toward survival. ■



How Poverty Shaped a Climate Advocate's Mission

Carried by the Current

Marielle Lagulay,
Sustainability Program Manager

The conference room at Ascott Makati carries the scent of fresh coffee and the weight of corporate decisions. Executives in pressed shirts lean over a polished mahogany table. Outside the floor-to-ceiling windows, jeepneys crawl through Makati traffic, diesel fumes mixing with the morning haze. Inside, Marielle Lagulay spreads plant-based menu plans across the table—mushroom adobo, coconut milk curry, jackfruit sisig.

“This is one of the most effective steps you can take to make food and beverage operations more

sustainable,” she tells them, her voice steady but pragmatic. “And in many cases, it saves money too.”

The hotel managers nod, understanding finally crystallizing as they shake hands and agree to put in place a policy that will bring more plant-based meals to their properties nationwide. But for Marielle, this moment represents more than just another business meeting—it’s the culmination of a journey that began on a rooftop in floodwater, where an eight-year-old girl first understood the true weight of environmental catastrophe.

Marielle meeting with the
head chef at Ascott Makati



THE STORM THAT SHAPED HER



Marielle's earliest memories are intertwined with water—not the gentle rain that nourishes crops, but the violent floods that swept through Metro Manila's most vulnerable neighborhoods. Her parents had migrated from rural provinces in search of opportunity: her father from a family of farmers in Capiz, her mother from marble quarry workers in Romblon. Like thousands of other poor migrants, they settled in Nangka, Marikina City, a flood-prone area, where rent was cheap and hope hard-earned, and where climate change wasn't an abstract concept but a recurring nightmare that shaped every aspect of daily life.

“We’re all going through it,” became the family’s quiet mantra as they moved from one low-cost rental to another, sometimes staying with relatives kind enough to take them in. Her father worked as a gasoline boy before becoming a carwash attendant, while her mother progressed from packing charcoal briquettes to running a small sari-sari store that helped cover daily expenses. The family’s struggles weren’t unique—missed rent payments, electricity cut-offs, relying on faith healers when medical care was unaffordable, and the constant calculation of which needs would go unmet each week.

But it was Typhoon Ondoy in 2009 that crystallized everything for the eight-year-old Marielle. As floodwaters rose around their community, she watched an entire family swept away by the current, each member disappearing beneath the churning water. Her own family huddled on a neighbor’s rooftop, sharing uncooked noodles through the night, while her father grimly prepared to tie them all to a post so their bodies wouldn’t be carried away if the worst happened. “We could be them,” she thought, a realization that would echo through every storm that followed.

Marikina, celebrated as the country’s cleanest and greenest city, became a site of unimaginable loss when Ondoy claimed hundreds of lives.

Despite years of environmental education—proper waste disposal, recycling, tree planting drilled into students as prerequisites for good citizenship—their community still suffered devastating destruction. “It made me question why these efforts weren’t enough and what larger forces were at play,” Marielle recalls.

The typhoons kept coming—Pepeng, Yolanda, Ulysses—each one strong enough to devastate families struggling to rebuild. Marielle missed her senior high school final exams because her family was trapped in an evacuation center as another storm struck. Schools reopened, relief goods arrived, and communities were expected to rebuild, knowing they were simply waiting for the next disaster to hit.

“Resilience without systemic change is just survival in disguise,” she reflects, articulating a frustration that would drive her toward the humanities despite practical concerns about career prospects. The Philippines faces an average of 20 storms and typhoons annually, each growing progressively more destructive due to climate change. As Marielle connected her family’s story to countless others across the region, she grasped a larger truth: while typhoons may be natural phenomena, the scale of their destruction is largely man-made, shaped by global systems prioritizing profit over people and planet.

This realization transformed her understanding of environmental action from local initiatives like tree planting to addressing root causes through systemic change. The food system, she learned, ranks among the biggest contributors to the greenhouse gas emissions intensifying these storms. Her work in sustainability crystallized around this connection—tackling the forces that leave communities like hers most vulnerable to climate impacts.





Carried by the Current

*Everyday life in the
Marikina community*



Carried by the Current

*Marielle with her siblings
in the Lagulay family home*



The local Marikina wet market

THE DETECTIVE OF OPPORTUNITY

First grade, public elementary school in Marikina. Twenty-six children crowd around tiny wooden desks, their uniforms varying shades of faded white. The teacher writes simple words on the blackboard—"bata," "bahay," "baso"—while most students copy eagerly into worn notebooks. Marielle stares at the letters, their meaning as foreign as hieroglyphs. Around her, classmates' pencils scratch across paper with confidence she can't imagine. Her family couldn't afford preparatory school; she's starting from zero while others race ahead.

But her teacher saw potential, keeping her after class for extra lessons that helped her leap from the lowest-tier Section 11 to Section 5 by second grade—a transformation that felt like proof that hard work and someone's belief in you could change your place in the world.

That early lesson sparked what she calls her detective work for opportunity. Elementary school brought the Tulong-Dunong scholarship through a Jesuit priest who recognized potential in kids like her. High school meant Alay ni Ignacio, offering not just financial support but community that shaped her understanding of leadership. College required another round of scholarship support from Tulong-Dunong through the Commission on Higher Education—each scholarship feeling like a lifeline thrown exactly when needed most.

"I learned that when someone gives you a chance, the best way to honor it is by eventually creating chances for others," she explains. This philosophy would later drive her approach to sustainability work, understanding that systemic change requires both individual opportunity and collective action.



Marielle in a Manila wet market, where food and climate intersect in everyday choices

GROWING PURPOSE WITH LEVER FOUNDATION

Manila, 2024. Fresh from graduation, Marielle scrolls through development sector job postings on her laptop. The usual offerings: NGO roles requiring years of experience, government positions with little opportunity for impact. Then she finds that the Lever Foundation is hiring and goes to the organization's website. Exactly what she's looking for; she applies.

"Lever's mission immediately resonated with me," Marielle notes, though working with the organization challenged her traditional development perspective. "I learned that good intentions alone aren't enough—effective solutions must be scalable and produce measurable results."

At Lever, Marielle found more than professional opportunities. She discovered a community of advocates, policymakers, and implementers who care as deeply about people, animals and the planet as they do about their own goals. "Being part of that community keeps me inspired, grounded, and reminded every day why this work matters so deeply."

Eight months into her role with Lever, Marielle had secured five major group commitments to advance plant-based foods. Global hotel brands Ascott Philippines and IHG Philippines joined homegrown hospitality group Eco-Hotels in pledging to make 30% of their menus plant-based, with Eco-Hotels quickly completing the transition. Major gaming and resort complexes Okada and Winford Resort & Casino issued identical commitments. Each new policy represents a reduction in greenhouse gas emissions and animal cruelty and an increase in public health. What energizes Marielle most is watching perspectives evolve.

"Six months ago, many hotel operators saw plant-based options as something for a small niche market, if they thought about it at all," she explains. "Now I'm having conversations where they're talking about these options as smart business moves and essential parts of sustainable hospitality." This mindset change signals durability beyond temporary trends, embedding sustainable thinking into daily operational decisions.



*Chef at Ascott Makati's Mesclun
preparing a plant-based dish*

*Marielle shares a laugh with her
parents outside their family home*



BECOMING A TRUE SUSTAINABILITY CHAMPION

Marielle sits across from hotel managers in yet another conference room. The conversation that once felt impossible—convincing hospitality executives to add sustainable food choices—now happens routinely. Her calendar shows three more similar meetings this week across different hotel operators and restaurant groups.

Marielle’s early experiences with scarcity and environmental uncertainty now serve as assets in her sustainability work. Growing up without financial security or predictability taught her adaptation, empathy and a stubborn determination to tackle systems making life harder for everyone—people and animals alike. “The climate crisis isn’t just about rising temperatures or melting ice caps,” she emphasizes. “It’s about families like mine who get hit first and hardest when extreme weather destroys what little stability they’ve built.”

Her approach to the work remains deeply personal. The hope she maintains is that through this work, fewer people will face the uncertainty she grew up with, building systems that protect all forms of life.

“Don’t underestimate how your own story connects you to this work,” Marielle notes in closing. “The difficult experiences you’ve faced give you insights that no training program can teach...You’re not just dealing with numbers and data—you’re fighting for real lives and a livable future.” ■

How China's Hotels Discovered Their Green Imperative

China's Next Course



Tofu and vegetable soup plated in Yang Guo Fu's bustling kitchen

Cecilia Zhang adjusts her laptop screen as the video call connects. Shortly, three hotel executives nod politely as she begins her presentation on sustainable menu design. What they don't yet realize is that they're about to become part of a sustainable food transition spreading rapidly across the country's food service sector.

Cecilia, a sustainability program director for Lever China, has spent two years in countless meetings like this one—walking through industrial kitchens, reviewing menu designs, helping major hotel chains pilot plant-based options. Her team's quiet work has accumulated into something extraordinary: in eighteen months, over 4,800 hotel properties and 7,700 chain restaurant locations across China have committed to make plant-based foods a much larger part of their menus.

Why does this matter? A kilogram of beef requires 15,000 liters of water—enough to fill a small swimming pool. Animal agriculture produces greenhouse gas emissions on par with all the world's cars, planes, and trains combined. In China, where meat consumption has quadrupled since 1980, dietary choices directly shape local climate outcomes.

The health implications run parallel. The World Health Organization classifies processed meat as a carcinogen. High consumption of meat links directly to heart disease, diabetes, and stroke—now leading causes of death across Asia. Plant-based meals, naturally rich in fiber and phytonutrients while lower in saturated fat, address both planetary and human health simultaneously. Each plant-based meal served in these thousands of hotels and restaurants represents tangible impact: water conserved, emissions reduced, health risks lowered.



Cecilia Zhao, Sustainability Program Director, Lever China

*Plant-based noodle soup and sides
offered at Echarm, a Dossen hotel brand*



BUILDING THE FOUNDATION

Cecilia's breakthrough came during pilot programs with several major chains in early 2024. For Dossen Group, one of the first hospitality companies to work with Lever China, the decision toward plant-based adoption came from both responsibility and opportunity.

"Plant-based menus reduce costs in some categories, win approval from younger and health-conscious guests, and strengthen our positioning as a forward-looking hospitality group," says Grace Hu, Chief Sustainability Officer at Dossen Group, which operates more than 2,000 hotel locations across the country. "These business drivers, combined with environmental and social benefits, convinced us that a bold step was the right step."

The transformation required careful cultural navigation. Dossen's chefs explored how to adapt iconic dishes—from dumplings to noodle soups—using plant-based proteins while keeping authentic taste. This approach allowed them to honor tradition while making a statement about innovation and responsibility.

The kitchen teams initially approached the project with professional caution, but once chefs began experimenting they discovered new textures and flavors that worked beautifully in traditional dishes. Several employees told Grace they felt proud to create meals that not only taste good but also reflect modern values. In a short period Dossen successfully completed the implementation of its new policy, making 30% of its food offerings plant-based.

Insights from early partners like Dossen Group became the foundation for Lever China's broader strategy: prove sustainability could enhance rather than compromise hospitality excellence.



Grace Hu, Chief Sustainability Officer of Dossen Group

*Chef at the noodle station in
Orange Hotel's buffet line*

A HEALTHIER COMPETITION

Cecilia knew successful pilots wouldn't automatically scale across China's massive hospitality sector, so Lever China deployed an industry scorecard to make major chains' sustainability progress visible. The response was immediate. In a culture where corporate leadership defines institutional identity, no one wanted to appear behind rivals.

The cascade was swift. Over the following year twelve hospitality groups in China, totaling nearly 5,000 properties, committed to making 30-70% of their menus plant-based within the next several months to several years.

"Suddenly sustainability became a competitive necessity," explains Cecilia. "Executives asked me directly: 'How fast can we match what our competitors are doing?'"

Among the most ambitious was Orange Hotels, managed by Huazhu Group, one of the largest hospitality groups in China. Orange Hotels committed to converting its menus to be 70% plant-based across its 1,000 hotel locations by the end of 2025. That powerful new policy reflects a broader philosophy within the Group.

"We're integrating plant-based dining into Huazhu's 'Universal Accessibility for All' project," says Xuhong Liu, Sustainability Director for Huazhu Group. "This extends our concept of inclusion to guests' dining tables. By enhancing healthy food choices, we're fulfilling our commitment to environmental responsibility and health inclusivity for every guest."

*Steamed oat bread served at
Orange Hotel's breakfast buffet*



NEXT-LEVEL CULINARY GREATNESS

Behind every corporate commitment lie thousands of individual adaptations. Lever China's approach emphasizes adaptation rather than replacement—showing how plant-based innovation can enhance traditional flavors. In kitchens across the country, chefs have been reimagining techniques, learning unfamiliar ingredients while preserving the complex flavor profiles that define regional Chinese cuisine.

Some say the key to replacing meat is to understand why each ingredient was there originally, then finding new ways to achieve the same flavor—a philosophy evident in kitchens where shiitake mushrooms and fermented black bean sauce now create what were once pork dishes. Traditional methods adapt well to new ingredients. Their chef's knife work remains unchanged after thirty years, but their mise en place now features jackfruit, nuts or tofu alongside traditional seasonings.

The approach of Cecilia and her team has emphasized cultural sensitivity from the beginning. Hotels learned to present plant-based options as premium choices rather than alternatives, emphasizing craftsmanship and cultural authenticity alongside environmental and health benefits.

"This change is happening now because both the market and the mindset have shifted," Grace Hu of Dossen Group observes. "Guests expect hotels to take responsibility, and the business case is clear. My advice to other groups is simple: start small, experiment, and listen to your guests. The results will surprise you—it's easier than it seems, and the benefits go far beyond cost."

BEYOND HOSPITALITY

It's not just hospitality groups catching on. China's restaurant industry is now also beginning to embrace plant-based foods at scale, with a number of major chains committing to transform their menus over the next two years thanks to partnerships with Lever China.

Picture the transformation at Yang Guo Fu, one of the world's largest hot pot restaurant chains, with over 7,000 locations across China and beyond. The company's signature malatang experience remains unchanged—the numbing Sichuan pepper heat, the ritual of selecting ingredients from refrigerated displays, the communal bubbling pot. But walk through any of their bright orange-branded locations now and half the selection trays overflow with plants. King oyster mushrooms sliced thick for satisfying chew. Lotus root wheels that snap between teeth. Corn kernels, bamboo shoots, glass noodles. The broth still burns with chili oil, still makes eyes water, but what swims in it has shifted.

Additional restaurant industry leaders have followed suit. Da Long Yi is shifting its menu to 45% plant-based across its 400+ outlets in China. Big Pizza, a self-service chain with over 300 restaurants, pledged to make 30% of its menu plant-based by next year—their buffet-style counters now featuring roasted pepper pizzas under heat lamps, mushroom and truffle flatbreads, sweet corn varieties displayed alongside traditional options.

These three restaurant groups' commitments will impact over 7,700 locations—equivalent to every single restaurant in Manhattan adopting meaningful plant-based foods policies simultaneously. The ripple effects extend beyond numbers: suppliers developing new products, farmers shifting crops, an entire ecosystem adapting to feed changing tastes.



Fresh greens and noodles at the vegetable station in Yang Guo Fu

ONE SUSTAINABLE MEAL AT A TIME

From a window, Cecilia and her colleagues Yue Zheng and Wenjia Fan overlook a city where food culture shapes daily rhythms. They can see countless restaurants and hotels—many now part of the transformation Lever China helped architect through patient, practical work.

“Sustainability feels abstract until you see it happening in individual kitchens, in the food you’re about to eat,” Cecilia reflects. “Every chef who learns exceptional plant-based techniques, every server who confidently recommends sustainable options, every individual choosing to eat a plant-based meal because it’s available and promoted—that’s how systems change.”

The afternoon brings three more calls: a hotel group in Beijing wanting seasonal menu guidance, procurement managers in Shenzhen needing supplier recommendations, and a major restaurant chain willing to discuss protein innovations. As Cecilia opens her laptop again, steam rises from her teacup. Outside, Shanghai continues its constant motion—millions making daily choices about dining. More of those choices will be healthy and sustainable ones, thanks to the team’s behind-the-scenes work on a transformation starting to reshape how China thinks about food sustainability. ■



When Values Drive Value

Anatomy of an Agricultural Shift

Huat Lai staff working inside one of the company's new cage-free barns

Design plans cover the well-worn conference table at Huat Lai Resources headquarters. Executives trace their fingers over the layouts—Malaysia’s newest and largest cage-free egg facility, constructed in the cleared-out shells of barns that previously housed countless hens in row after row of intensive battery cages. The idea of such a shift would have been laughed off just two years ago; now the numbers tell a different story.

At Huat Lai, old battery cages have become scrap metal. Two hundred thousand birds that previously would have sat huddled tightly together in those discarded cages now inhabit multi-tier aviaries with perches at different heights, nest boxes for laying, and scratching areas with rice hulls, transforming spaces that had never known the sound of flapping wings. Where supervisors once walked narrow aisles between towering battery cages, they now move through open spaces filled with the rustle of birds that are, while not living a great life, at least afforded freedom of movement and the ability to engage in natural behaviors like exploring, dust bathing and perching. It’s a transformation that began with a mutual understanding of the language both birds and businesses speak.



Huat Lai staff walking through a space that until recently was packed with battery caged hens

BUILDING TRUST THROUGH DATA

Mutzu Huang and Vilosha Sivaraman, Sustainability Program Managers at Lever Foundation, spent months working with Huat Lai’s managers before those blueprints ever reached the table.

“We focused on what mattered most to them—food safety, the production rates of cage-free layers, and growing corporate demand,” Mutzu explained. “We showed them how cage-free could increase their brand value. When you can show them that major retailers are actively seeking cage-free suppliers and that demand is outpacing supply, that changes the entire conversation. We brought them concrete data on production systems, market trends, and what their potential customers were actually requesting. The business case had to be solid before we discussed something else.”

The approach was methodical. Detailed corporate demand projections were presented, showing the volumes needed by leading local retailers like Mydin, Jaya Grocer, AEON Malaysia and the Food Purveyor; hospitality groups like Sunway Hotels and Hatten Hotels; and restaurant chains such as Old Town White Coffee and O’Briens—all of which had pledged to end the use of eggs from industrial caged confinement operations thanks to Lever Foundation’s work.

“Retailers that we worked with in generating improved animal protein sourcing policies were already asking Huat Lai for cage-free eggs, but they couldn’t supply them,” notes Vilosha. “We showed Huat Lai the contracts they were missing, the premium prices other producers were getting. That gap between demand and their current capacity—that’s what shifted the conversation from ‘why’ to ‘how fast can we do this.’”

Mutzu Huang, Sustainability Program Manager, Lever China



Vilosha Sivaraman, Sustainability Program Manager

The public health case proved equally compelling. Data from the European Food Safety Authority and over a dozen peer-reviewed studies show cage-free farms have up to 25 times lower rates of Salmonella contamination, and generate three to five times fewer cases of food poisoning compared to caged egg farms. Dense confinement in cage systems also facilitates transmission of highly pathogenic diseases and pandemics—a lesson COVID-19 made unforgettable.

Cage-free production also significantly reduces the suffering of the animals involved, an area which public surveys show is of increasing concern to young Asian consumers. A survey commissioned by Lever Foundation and conducted by leading Asia consumer research agency GMO Research found 77% of Malaysian consumers wanted food companies to remove industrial cage confinement systems from their supply chains. For a producer looking to sell to quality-conscious buyers, these aren’t just statistics—these are a competitive advantage.

THE MARKET REALITY

Congratulations arrive over WhatsApp from industry peers. Requests for facility visits from curious competitors land in their inbox. Questions about conversion timelines, costs, and lessons learned—all directed at Huat Lai’s team as word spreads about their successful transformation.

“In the past two to three years, we’ve seen a remarkable shift in corporate demand for cage-free eggs,” said Edwin Lim, Group Business Development Manager at Huat Lai. “Hotels, retailers, and food chains now expect 100% cage-free sourcing—covering shell, liquid, and powder eggs.”

To help Huat Lai understand that change was not just desirable but practically achievable, Lever Foundation organized a study tour to China, bringing Huat Lai’s team alongside teams from a half dozen other top Malaysian producers to visit established cage-free operations there. Walking through facilities where birds moved freely in multi-tiered systems, the Malaysian delegation could see their future.

The results are now visible at Huat Lai. Two hundred thousand birds move freely through the same structures where their predecessors lived their entire lives unable to spread their wings. In barns where the dominant sounds were once the mechanical whir of conveyor belts and the distressed squawks of confined hens, there is now the rustle of birds dust-bathing, the flutter of wings, and the sounds of animals engaging in natural behaviors for the first time in the facility’s history.

Huat Lai’s transformation has also sparked broader industry interest. At a recent industry conference in Kuala Lumpur organized by Lever Foundation, over sixty participants gathered to discuss cage-free conversion, including managers from nearly all of the country’s largest egg producers. Hotel chains, retailers, and equipment vendors also joined the dialogue, signaling strong interest and support to producers for making the transition.



A hen takes flight inside the barn—wings spread in ways cages never permitted

SCALING SUCCESS
ACROSS CHINA

The construction crews arrive at dawn in Jian'ge County, Sichuan Province. Heavy machinery moves across the site where Sundaily, China's second-largest egg producer, is building what will become the nation's largest single-site cage-free egg farm. The facility will initially house 300,000 cage-free hens across a number of barns, with plans to scale to one million hens over the next three to five years. For an industry that measures change in decades, the speed of the country's second-largest producer shifting from using only caged systems to making a large portion of its egg production cage-free is remarkable.

What's happening at Huat Lai isn't isolated. Across China, for years Lever China has been holding similar conversations in farm offices and conference rooms, producers weighing the same data points that convinced Huat Lai and Sun Daily to act.

In Shanxi Province, egg producer Pianguan Yong Ao didn't just convert existing caged facilities—it also launched an ambitious “One Million Cage-Free Hens” initiative in partnership with the local government. Traditional large-scale caged egg producers like Danxiansen and Tudama have also transitioned tens of thousands of birds out of caged production and into cage-free or free-range systems.

Hens move freely around a worker in Huat Lai's cage-free barn



The momentum is visible at construction sites across the country. In Shandong, egg producer Fuziyuan built new cage-free facilities from the ground up. Donghua, one of China's leading producers, decided that for the first time their next barn would be built entirely without cages. In Guangdong, construction has begun on a government-backed project in partnership with Tudama Agricultural Development Company that will ultimately see 500,000 hens moved into cage-free production systems.

CREATING RIPPLES ACROSS SOUTHEAST ASIA

The delegation steps out of the air-conditioned van into the humid air of a Malaysian morning. Executives from three different egg producers—competitors back home—walk side by side through Huat Lai’s transformed barns. They watch birds dust-bathing, perching, moving freely through multi-level systems. One executive pulls out his phone to record a video. Another asks detailed questions about feed conversion rates. By the end of the tour, the conversation has shifted from “whether” to “how soon.”

Each successful conversion makes the next conversation easier. Producers visit operating cage-free farms, see the economics working firsthand, talk to managers who’ve made the switch. The unknown becomes familiar. If Huat Lai can do this profitably, why can’t they? These questions and conversations—pushed forward day after day by Lever’s team—can reshape industries.

As commitments are locked in place, and old facilities torn down so better versions can take their place, the capital commitments needed to build new facilities strongly incentivize producers to push their healthier, less-cruel products through distribution channels.

This is how agriculture evolves: patient evidence accumulation, relationships built over years, proof that systems which benefit public health and animal welfare can also make for viable businesses. Mutzu, Vilosha and colleagues working with farmers and producers across China and East Asia on the topic aren’t just advocating change—they are engineering it, one conversation and one farmer at a time. ■



Perched on a roost, a hen shows behaviors cages once restricted

*The Duo Bringing Sustainable Eating
to Life on Screens Across Asia*

The Algorithm of Change



Midday in Kuala Lumpur, Malaysia. Kertna Tharmaraja watches her laptop screen as numbers climb. A video of a piglet squealing with joy, enjoying fresh air, now sits at 2.6 million views. Her phone buzzes: Lena Dhammaraks, texting from Bangkok. “Are you seeing this?” The post’s shares have hit 200,000, each one a small act of connection, passing hand to hand a message of compassion for animals raised for food, like a secret that changes everything.

This is the new physics of cultural change. Not classroom lessons or dry PSAs, but a piglet’s happiness traveling at the speed of bandwidth through Asian consciousness. Where a series of David Attenborough documentaries could gradually shift the consciousness of a generation of Britons, and where America’s long-running “Click It or Ticket” seatbelt ad campaign could over the course of years turn safety into second nature, widespread increase in concern and caring can now happen in days instead of years on the back of millions of swipes and shares.

As leaders of Lever Foundation’s Communications team, Kertna and Lena have been building out the engine for driving just such a transformation in how the next generation across Asia views healthy eating, farm animal well-being, and food sustainability. The duo and their colleagues are on track to generate over a billion impressions across Asia this year—enough to fill every phone screen in Jakarta twenty times over, to wallpaper Seoul in pixels, to reach more minds in a month than most NGOs touch in a lifetime. The pair has also developed and scaled Planti.ai, Asia’s first AI-powered guide to help consumers across Asia make healthy, sustainable food choices.

But the paths that led them here were winding, and their ability to have this level of impact was far from inevitable.

A viral piglet video that reached millions, sparking awareness across Thailand



THE ARCHITECTS OF ATTENTION

Before the billion impressions, before the viral pigs, there were two women following separate rivers toward the same ocean.

Kertna's river began with words. Her finance degree gathering dust, she joined a Melbourne social impact ad agency working on campaigns to help people make small daily pivots like recycling correctly and checking their smoke alarms. But it was Malaysia's "Katakan Tak Nak" (Say No To Cigarettes) anti-smoking campaign that showed her what great marketing and repetition could build. Years after the campaign ended people still quote the phrase, passing it between generations like inherited wisdom.

Back in Malaysia, she bounced between ethical fashion startups and conventional advertising, searching for something that mattered. The moment came in 2021: she'd won a pitch for a Malaysian plant-based foods brand, sold the vision, prepared the strategy. Then her agency killed it. Too difficult, they said. Too much behavior change required. She resigned within weeks, instead joining Lever Foundation to work on the bold food system communications missing in a region still inclined to treat sustainability as a foreign import rather than a local necessity.



Kertna Tharmaraja, Communications Director



Lalena Dhammaraks, Communications Manager

Lena's river ran through images. Art was her first language, the way she made sense of chaos. She'd wanted to be a veterinarian until she realized she spoke better through design than science. Following a Language and Culture program at Chulalongkorn University (one of Thailand's most prestigious universities), and working in luxury brand management in the Swiss Alps, she landed on Four Seasons Bangkok's opening team. There she learned how desire gets manufactured: the perfect angle of light on water, typography that whispers wealth, stories that make people ache for experiences they've never had.

But beauty without purpose left her hollow. Through agencies and hotel brands, she perfected her craft while her passion starved. Then her boyfriend found a job posting for a role at Lever Foundation, reading it aloud to her like poetry: "Care about animals? Check. Love social media? Check. Want to change the world? Check. This job was written for you." She applied that night, finally finding the right role where her creative talent could meet her childhood dream of helping creatures who couldn't help themselves.



Lever Foundation social media posts for audiences in Hong Kong and Taiwan

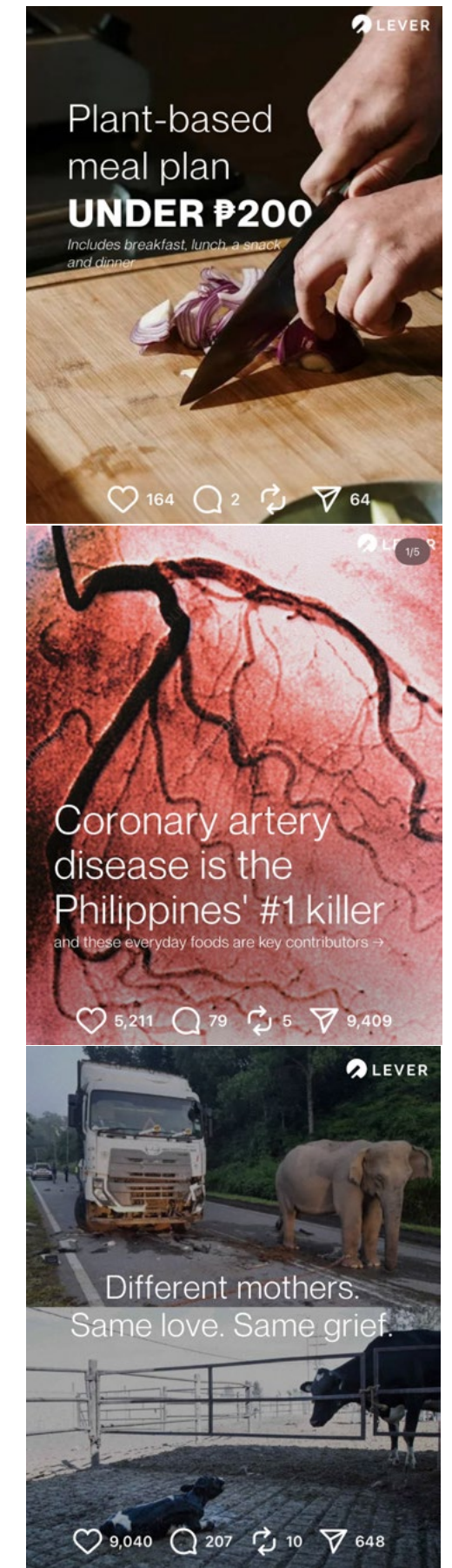
THE IMPRESSION MACHINE

Together, the pair have step by step built out the impression machine to rapidly spread awareness and positive behavior change across East Asia. Not by transplanting foreign food philosophies into Asia, but by helping Asian food culture examine itself and evolve from within.

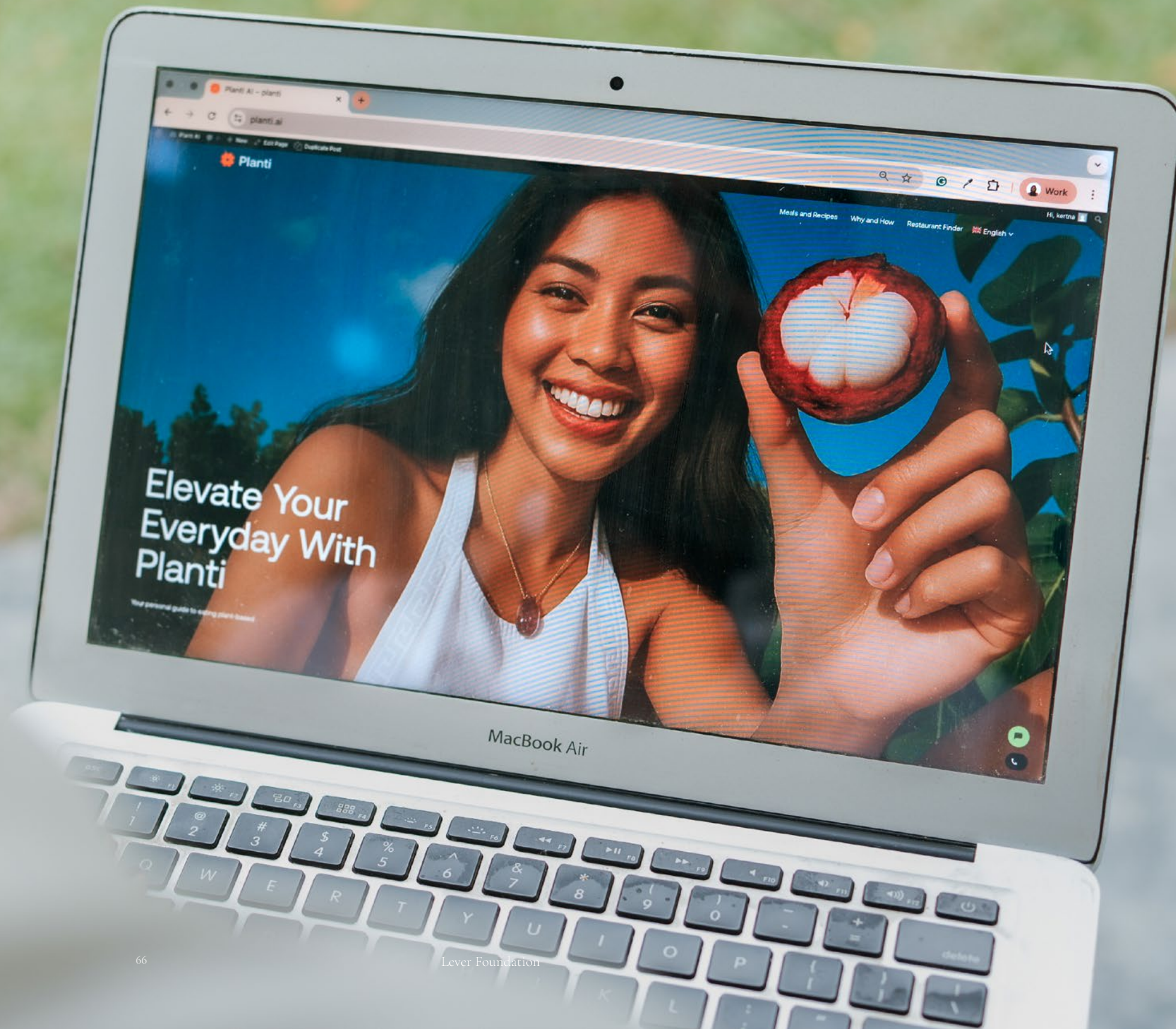
The architecture of their digital content campaign is deliberate. Four pillars hold the structure: environment (forests becoming feedlots), animals (suffering made visible), health (from heart disease to clear skin), and, crucially, food that looks like what people already love. Each piece of content is translated and adapted by local staff across Greater China, Korea, the Philippines, Indonesia, Thailand and Malaysia for maximum reach.

In their catchy social media posts, Kertna, Lena and the rest of the Communications team translate peer-reviewed journal findings into street language, transform factory farming footage into watchable motivators for change, and translate the idea of change into flavors that taste like home.

The approach: test organically first. No ad spend, just truth released into the wild to see if it survives. When something resonates, scale it with precision targeting. A Malaysia post about a viral baby elephant killed on a highway, the mother and baby forced onto roads because deforestation for agriculture destroyed their habitat. A Philippines post about coronary disease featuring local dishes dripping with pork fat. Each designed not just to inform but to lodge in memory, to become the thing people think about at the market, at dinner, in the moment of choice.



The Planti.ai homepage, where technology meets healthier eating



THE QUESTIONS AFTER AWARENESS

A twenty-something in Quezon City sees a post on coronary disease. She thinks of her family history—diabetes, hypertension, hearts giving out too young. She wants to eat differently but doesn't know where to start. She types a question: "But what do I cook instead?"

This is the gap Planti.ai fills. Live now across Asia, Planti is AI trained on actual Asian food cultures, built with the help of nutritionists from each country who understand that Korean temple food differs from Thai Buddhist cuisine, that halal requirements shape options differently than Hindu vegetarianism.

Planti.ai's interface doesn't look like advocacy. Clean lines, bold colors, the aesthetic of wellness apps and beauty platforms—young Asian women smiling over colorful bowls, sleek graphics promising energy and glow-ups. This isn't deception but recognition: people trust what feels familiar, aspirational, within reach. Planti.ai's offer: free live calls and chat with an intelligent, well-trained AI to answer any and all questions, from "Where can I buy tempeh in Ho Chi Minh City?" to "How do I make my grandmother's recipe without pork?" to "Is plant protein really complete?"

Tools to transform whatever's in your refrigerator into craveable, healthy, localized recipes—mushroom sisig, tempeh rendang, vegetable bibimbap. A restaurant finder to recommend eateries based on your location and to spotlight plant-based menu items at popular chains. Shopping links that connect directly to Lazada and Shopee—Asia's equivalents of Amazon—removing any friction point between intention and action.

The site and AI tool pair with a ten-week pledge program that draws from addiction cessation research, weight loss psychology, and habit formation science to support people in the first two months of building healthy, sustainable eating habits. Weekly emails in local languages, featuring celebrities who've reduced meat, restaurants to try this weekend, scripts for what to say when your aunt insists meat is needed at every meal for strength. The program's approach is not preaching but accompaniment, walking alongside people as they navigate positive change.

RACING THE CLOCK

Late afternoon in Southeast Asia. Kertna in Kuala Lumpur, Lena in Bangkok. A Slack huddle hums as they work together in the popular design platform Canva, adjusting a video side by side—tweaking fonts, trimming clips, debating tone. Each frame is carefully calibrated: not so shocking that people look away, not so soft that they keep scrolling.

Together, video by video and ad by ad, they search for the persuasive leverage point marketers dream of: to make change look better than the status quo. Make it beautiful, local, achievable. Use the same tools that sell cosmetics and phones to sell health, compassion, and environmental conscientiousness. The format matters less than the function: answering questions, removing barriers, making eating more plant-based foods as natural as breathing.

They study Instagram's engagement algorithms, Facebook's retention patterns. Not to manipulate but to compete—because their content shares space with everything else demanding attention on five billion Asian smartphone screens.

The piglet in their viral video doesn't know it's become a symbol, doesn't know its joy has traveled through circuits and servers to lodge in millions of minds like a song you can't stop humming. But this is how culture changes now—not through grand declarations but through perfectly timed posts that slip past defenses, algorithms that learn what moves people, patient work that turns awareness into action. One impression at a time, one question at a time, one meal at a time, racing against tomorrow while building it today. ■



Made in Asia

Made in Asia

The Deep Roots of Asia's Plant-Based Heritage

Made in Asia

October in Phuket. White-clad devotees wind through streets draped with yellow flags, each stamped with distinctive red characters. Woks hiss with frying tofu skins. Vendors ladle jackfruit curry over rice, arrange mock-meat skewers, pour coconut milk over shaved ice. For nine days during the Jay Festival, this entire community eats no meat, eggs or dairy, as well as no pungent roots like garlic and onion. The yellow flags mark participating restaurants and stalls, transforming the city into a map of possibility.

Across Asia, plant-based foods have roots running centuries deep, embedded in religious practice, cultural ritual and everyday cuisine long before Silicon Valley discovered oat milk and veggie burgers. The Jay Festival, observed by millions in Thailand as well as Chinese communities in Malaysia, Singapore and Indonesia, represents just one thread in a tapestry of deep-seated traditions that transformed soybeans and grains into protein when these ingredients were still largely unknown in other parts of the world.



THE ANCIENT ARCHITECTURE

Dawn in a Seoul temple kitchen. A monk stirs a pot of kombu and shiitake broth, steam rising like incense. The mushrooms were picked yesterday from the monastery's mountain. The seaweed arrived wrapped in paper, a gift from coastal devotees. This recipe hasn't changed in four hundred years.

As early as the sixth century, Emperor Wu of Liang promoted Buddhist vegetarianism throughout his empire, establishing temple cuisines that would evolve over centuries into sophisticated culinary arts. By the Tang Dynasty, monks had documented wheat gluten—mianjīn—transformed into mock meats so convincing that visiting dignitaries couldn't tell the difference. These weren't substitutes born from scarcity but innovations born from devotion, each dish a meditation on compassion.

The tradition spread and evolved. In Japan, Zen monks developed shōjin ryōri, temple food that treats cooking as spiritual practice. The thirteenth-century master Dōgen wrote the Tenzo Kyōkun, elevating the temple cook to a position of honor, describing how to transform simple vegetables into enlightenment. Every cut, every seasoning, every arrangement on the plate becomes prayer.

Korean temples practice barugongyang, formal meals where seasonal vegetables and fermented pastes are consumed in ritual sequence. No garlic, no onion—nothing that might inflame passion or cloud meditation. Instead, mountain herbs, lotus root, mushrooms foraged at dawn. The monks eat in silence, each bite a teaching about sufficiency and gratitude.



THE ORIGINAL ALTERNATIVE PROTEINS

Central Java, morning. Women sit on woven mats, laying out banana leaves like sheets of green paper. They spoon boiled soybeans onto each leaf, fold them into packets precise as origami. By tomorrow, white threads will have knitted the beans into firm cakes, protein transformed by time and tradition into something that tastes of nuts and earth and home.





Made in Asia

Tofu arrived during China's Han dynasty, over two thousand years ago. Not as poverty food or health trend but as discovery—soybeans transformed through nigari or gypsum into silken blocks that could be fried, steamed, fermented, frozen. It spread across Asia like language itself, each culture adapting it to local tastes. Japanese yudofu simmered in hot springs. Korean dubu pressed firm for stews. Malaysian tahu goreng fried golden and stuffed with vegetables.

Indonesia created something entirely new. Tempeh appears in the Serat Centhini, written in

1815, though the practice is far older. Soybeans inoculated with *Rhizopus* mold, wrapped in banana leaves that impart their green perfume while enabling fermentation. The leaves aren't just packaging—they're part of the alchemy, their waxy surface creating the perfect microclimate for transformation.

Plant-derived proteins like tempeh and tofu weren't seen as substitutes—they were celebrated as themselves, complete, sufficient. The original plant-based innovation, created through centuries of refinement and tradition.



Made in Asia

FESTIVALS OF TRANSFORMATION

A gurdwara kitchen in Petaling Jaya. Volunteers stir pots large enough to bathe in. The dal has been cooking since midnight. The vegetables arrived at dawn, donated by a Muslim greengrocer. Chinese aunties roll chapati alongside Punjabi grandmothers. Outside, a queue forms—flood victims, foreign workers, anyone hungry. This is what plant-based food looks like at scale: not individual choice but collective care.

The Jay Festival transforms entire cities. Across urban landscapes like Bangkok, Phuket, Penang and Singapore, families who typically eat meat every day switch completely, not from guilt or activism but from tradition. Street vendors swap their regular menus for plant-based versions. Even McDonald's offers jay burgers. The collective shift is absolute, temporary, and repeated annually like seasons.

Chinese Buddhist festivals follow lunar calendars, marking holy days when temple kitchens open to the public. During the seventh lunar month, temples across Taiwan, Hong Kong, and Malaysia serve elaborate vegetarian banquets. Whole communities gather for meals that prove plant-based food can be celebration, not sacrifice.

But perhaps nothing matches the scale of Sikh langar. In gurdwaras across Malaysia and Thailand, volunteers prepare free vegetarian meals for anyone who enters—no questions about religion, caste or citizenship. During the 2021 Klang Valley floods, Kuala Lumpur's gurdwaras served between 7,000 and 15,000 meat-free meals daily. Vast pots of dal simmering with cumin. Mountains of chapati. Sabzi bright with turmeric.

PAST AS PROLOGUE

Back in Phuket. The yellow flags flutter like prayer ribbons. Incense smoke mingles with frying oil. A teenager photographs her meal for Instagram—mock duck curry that her great-grandmother would recognize, now traveling through fiber optic cables to reach millions.



Across Asia, countless dishes have long-standing plant-based variants, woven into daily life without fanfare. Coconut-based laksa, in versions rich with tofu puffs and vegetables. Buddha's delight—braised vegetables and mushrooms served at Chinese New Year. Gado-gado—Indonesian salad dressed in peanut sauce. Indian idlis with coconut chutney. Japanese inari sushi—sweet seasoned tofu pockets filled with rice.

These dishes aren't marketed as plant-based. They're just food, ordered without thought or ceremony. And they make clear that plant-based eating in Asia draws

from its own deep traditions and local ingredients. The blueprints already exist in grandmother's recipes, temple kitchens, street stalls.

The roots are here, have always been here. Not imported from the West but grown from Asian soil, watered by Asian hands, seasoned with Asian spices. The question now isn't whether Asia can embrace plant-based foods—it already has, for centuries. The question is how to help these roots grow again, spreading from temple grounds to shopping malls, from festival days to everyday, from tradition to transformation. ■



The Strategy Reshaping Asian Food Businesses

The Lever Effect

The midday rush fills a hotpot restaurant in Chengdu, where tables crowded with simmering broths showcase the region's appetite for meat-heavy dining. Multiply this scene by millions across Asia, and the scale becomes staggering.

China alone now consumes more animal protein than the European Union and United States combined. Asia is home to three out of every four farm animals alive today and accounts for half of the growth in global demand for animal protein. This surge carries global consequences, from rising greenhouse gas emissions and deforestation to heightened risks of zoonotic disease and antimicrobial resistance.

Across Asia's sprawling food landscape—from Seoul's gleaming corporate towers to Jakarta's bustling restaurant districts, from Hong Kong's luxury hotel chains to Manila's fast-casual empires—the choices made in corporate boardrooms ripple through supply chains that feed billions. Procurement directors deciding to source less-harmful animal proteins, expand plant-based offerings, or shift practices in ways that reduce food waste are making decisions that reverberate across ecosystems. While consumer education and government regulation remain vital, corporate policies operate at a scale that can reshape entire industries with unprecedented speed.

WHEN ONE DECISION AFFECTS MILLIONS

In provincial cities across China, restaurants brim with families gathered around steaming pots of fragrant broth, sharing tofu, vegetables and eggs. These everyday meals are now beginning to change, as more companies embrace improved sourcing standards.

At Steel Pipe Factory Xiaojungan Hot Pot Skewers, a popular nationwide restaurant chain, a new policy pledge developed in partnership with Lever China will see the company source only cage-free chicken and eggs across its over 1,000 restaurant outlets. That single decision, made by a few executives at one company, will improve the lives of over ten million animals each year while lowering public health risks for hundreds of thousands of customers.

“Corporate policies create transformation at a velocity that simply isn’t possible through most other channels,” explains Lily Tse, a sustainability program director at Lever Foundation. “When major food companies commit to improve their sourcing standards through steps like eliminating industrial confinement systems in their supply chain, we witness mass-scale improvements happening in real time.”





Bing Lam, Sustainability Program Manager, Lever China

Policies to improve animal protein sourcing can reduce the daily suffering of millions of animals, but the benefits extend far beyond that. Research from the European Food Safety Authority and peer-reviewed studies from across the globe makes clear that less-intensive production systems have lower health and food poisoning risks for consumers. By reducing intensity, these systems also decrease local air and water pollution. And by preventing the disease outbreaks and compromised immunity that result from confining animals in overcrowded conditions, such systems provide greater protection against avian flu transmission and other public health risks. For both animal welfare and public health, transitioning toward farming systems that eliminate the worst industrial practices is essential for creating a more sustainable and healthy food system in Asia.

“What makes these decisions especially powerful is how they reshape market expectations,” says Bing Lam, a sustainability program manager at Lever China. “When one company takes the lead, competitors, suppliers, and even regulators begin adjusting in response. That ripple effect accelerates broader change, making progress not just faster but more resilient and enduring.”



THE COMPETITIVE CASCADE EFFECT

In Hong Kong’s bustling dining scene, where neon-lit cha chaan tengs sit alongside high-end international chains, consumer expectations shift quickly and companies know they cannot afford to lag behind. Here, competitive pressures don’t just shape menus—they can redefine entire sourcing systems.

Perhaps most fascinating is how entities like Lever Foundation and Lever China can use competitive dynamics and market opportunities to accelerate transformation across entire industry landscapes. Rather than pursuing isolated company policies, Lever’s teams engage whole sectors—bringing in restaurant groups, hotels, farmers and distributors—so that change ripples through supply chains.

This approach has yielded extraordinary results. As of 2025, more than 60% of leading restaurant and café groups in Hong Kong—covering over 1,000 locations in the city—have committed to phasing out eggs from industrial caged confinement systems. Among them is Taste of Asia, one of the territory’s most recognizable mid-tier dining brands. Known for its sprawling

menus and affordability, the chain announced a cage-free egg policy this year across its 300+ outlets—a decision that sends a powerful signal to both diners and competitors about where the market is headed.

The Philippines is experiencing a similar shift, but at an even larger scale: over 70% of restaurant chains nationwide have already set timelines to transition to end the sourcing of eggs from caged hens, including the country’s two largest restaurant groups Jollibee Foods and Century Pacific Foods. Altogether, these policies by restaurant groups in the Philippines cover nearly 10,500 outlets, reflecting a nationwide industry transformation.

“When we release our industry scorecards, companies and their customers see exactly where each group stands relative to competitors on improved animal protein sourcing,” notes Lily. “The scorecard approach works because it turns corporate responsibility into a competitive advantage. Companies realize that being early adopters positions them as industry leaders, while laggards risk being seen as behind the curve.”



Lily Tse, Sustainability Program Director

Similar change is happening elsewhere across East and Southeast Asia—from e-commerce and hotel players like Shuttle and Avon in Korea, to hospitality chains like Amari Group and Cape & Kantary and restaurant chains like Wine Connection in Thailand, to Indonesian hotel brands Boga Group and Ismaya Group, to prominent Malaysian retailers like Jaya Grocer and the Food Purveyor. Pledges by these and many other food groups for improved animal protein sourcing illustrate how thoughtful corporate policy engagement and competitive dynamics can cascade across borders and sectors, steadily reshaping Asia's food system for the better.





Alice Dou, Sustainability Program Manager, Lever China

RETAILERS AS SUSTAINABILITY LEADERS

At a Rainbow supermarket in Shenzhen, China, a shopper reaches for a carton of eggs labeled “cage-free.” Just a few years ago, this choice would have been nearly impossible to find. Now, with Rainbow Digital Commercial—the country’s largest state-owned supermarket chain—committing all 116 of its stores to sell only cage-free eggs, moments like this are becoming increasingly common.

Other leading retailers in the country are following suit. Ole and Epermarket, popular brick-and-mortar and e-commerce grocery chains catering to China’s growing urban middle class, announced their own 100% cage-free policies this year, expanding the use of safer and less harmful eggs in some of the country’s most influential markets. Even in Macau, where supermarket shelves have traditionally lagged behind mainland trends, two of the four leading retailers introduced identical policies over the past year and a half, a profound shift for that region’s market.

“Retailers have unique influence because they set the

baseline of what’s available to everyday consumers,” explains Alice Dou, a Sustainability Program Manager at Lever China. “When companies like Rainbow or Ole commit, it raises the floor for the entire market.”

Beyond retail, China’s bakery sector has also seen impressive momentum in normalizing more responsible animal protein procurement. From improved sourcing policies at dozens of local bakery chains in cities like Beijing and Chengdu, to top national brands like Wellnice, which operates 800 bakery locations across the country, change has been in the air and in the dough over the past year.

“Each of these wins demonstrates that change isn’t confined to elite brands—it’s spreading into everyday food businesses that millions of people interact with,” notes Bing. “That’s how consumer expectations begin to evolve, one neighborhood shop and popular chain brand at a time.”

BUILDING THE INFRASTRUCTURE
FOR CHANGE

A restaurant operator in Manila reviews supplier options while placing next week's order, scanning for producers who meet the sustainability standards now required by corporate policy. A detail that once felt unusual is fast becoming commonplace across Asia's food scene. Surveys confirm that most consumers want more responsible sourcing, and companies are reshaping their supply chains to keep pace.

When it comes to driving sectoral shifts toward less-intensive, less-destructive animal agriculture, the

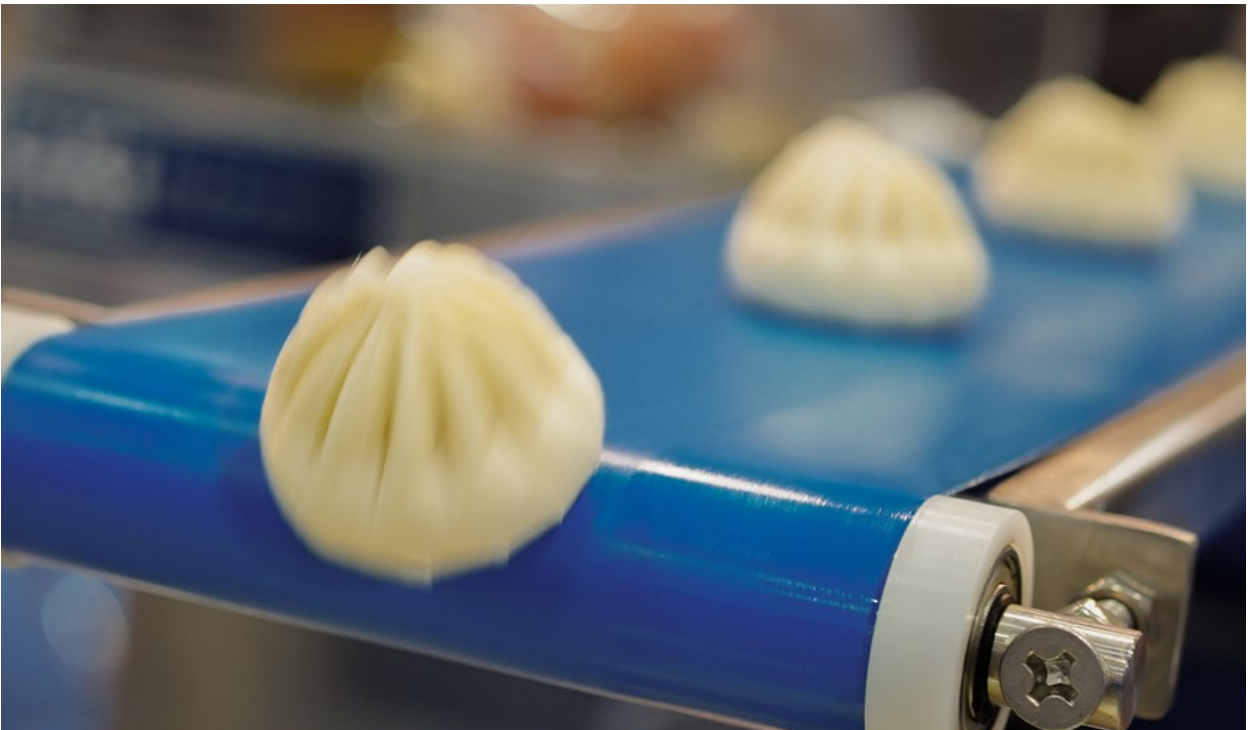
impacts of new corporate policies extend far beyond those companies themselves. Farmers and producers begin transitioning to improved production systems to meet the growing corporate demand. Logistics companies invest in new offerings in these areas. Distributors stock more products in these categories and use it as a selling point with prospective customers. From farmers through to end business customers, Lever's team supports the players at each step in the supply chain to help them embrace and expand into these new market opportunities.

“We’re not just securing commitments—we’re engineering the ecosystem for sustainable food system transitions,” Alice explains. “Each policy victory creates infrastructure that supports additional commitments within the same sector and adjacent industries. When we celebrate industry leaders publicly, it creates a positive incentive for competitors to follow suit.”

Ultimately, this ecosystem approach is what makes corporate-led food system transformation durable. A sourcing pledge by a single restaurant chain can trigger

upgrades in farming practices, investments in logistics, and changes in consumer perception—building resilience into the system itself. Each commitment is a building block in a new market reality where healthier and more sustainable practices become the default.

This is the story of how corporate decisions—multiplied across thousands of companies and millions of meals—are reshaping the future of food in Asia. ■



The Unseen Cost of the Catch

Crisis Underwater

Pre-dawn at an Indonesian shrimp farm. The manager's boots sink into mud as he wades through shallow pools, net in hand. Thousands of tiny bodies float belly-up, their gills fluttering weakly in oxygen-depleted water. He scoops them out with practiced efficiency—a morning ritual so routine it barely registers.

This is the hidden mathematics of seafood: for every shrimp that reaches a dinner plate, several others wither and die from disease in murky pools across Asia's coastlines. The scale defies comprehension—133 billion farmed fish and 630 billion farmed shrimp raised annually, most in Asia's rivers, coasts, and converted rice paddies. Add two trillion wild-caught fish pulled from oceans each year, and seafood becomes the largest source of animal protein on earth—and a frequent blind spot for those working toward a more sustainable food system.

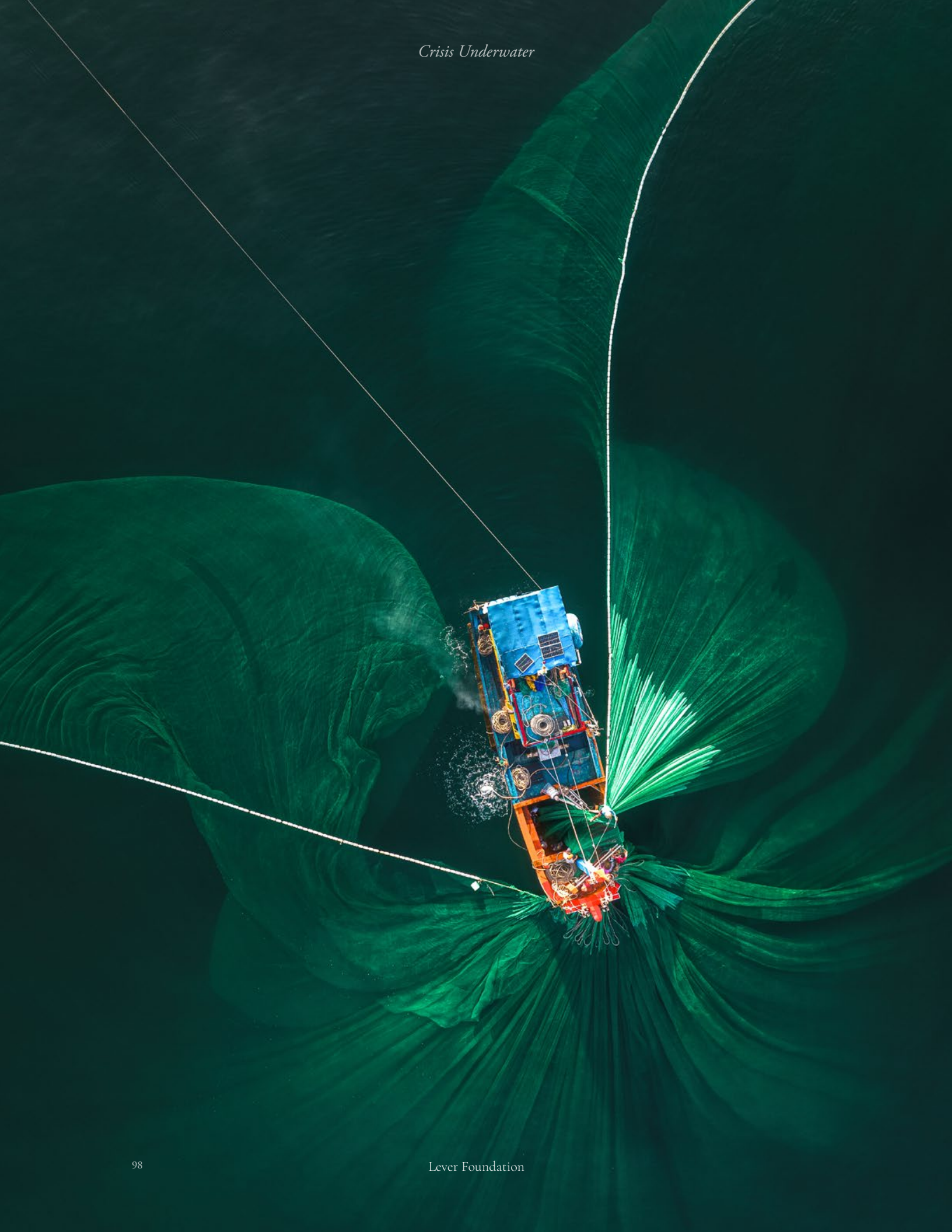
THE FORESTS BENEATH THE WATER

Coastal Vietnam, dawn. Where ancient mangroves once filtered tides through their root cathedrals, bulldozers push through the last stands. Each tree that falls releases centuries of stored carbon—up to 1,500 metric tons per hectare. The forest that took millennia to build disappears in a morning, making room for another rectangular pond.

Thirty percent of Southeast Asia's mangrove loss traces to aquaculture. These weren't just trees but entire worlds—nurseries for wild fish, storm barriers for villages, carbon vaults for the planet. Now they're pools requiring constant pumping, aeration systems humming day and night. Intensive operations demand round-the-clock energy, and the waste that settles into pond bottoms generates methane as it decomposes without oxygen.

In many regions, shrimp farms also drain freshwater reserves, fueling droughts and conflicts over access. And when water quality falters, outbreaks spread fast—driving heavy use of antibiotics and chemicals that leach into rivers and coastal seas.

Meanwhile, out at sea, trawling nets drag across seafloors like underwater bulldozers. *Nature* published the calculation: one gigaton of carbon released annually, matching aviation's entire global footprint. *National Geographic* and *TIME* have documented what scientists know but what rarely reaches dinner conversation—that seafood production drives greenhouse emissions in ways we've barely begun to recognize.



THE ARITHMETIC OF SUFFERING

On a Thai fishing vessel, nets heavy with three days' catch rise from dark water. What emerges is part harvest, part cemetery. Fish crushed against each other, some still writhing, others long dead. The crew sorts through mechanically, the sheer volume reducing life to weight and measure.

Hooks left dangling for days. Live bait strung while conscious. Millions of bycatch animals tossed back dead or dying, collateral in the hunt for others.

Aquaculture adds its own equations. In ponds across Asia, disease sweeps through crowded water like fire through dry grass. One-third to one-half of fish never make it to harvest, their diseased bodies discarded as trash or scrap. The waste is staggering—billions of lives, billions of gallons of water and acres of feed, heaps of emissions, all for nothing.

Those that survive endure months at densities that would be unthinkable for any land animal. Female shrimp are blinded to accelerate breeding, a routine procedure with a clinical name—eyestalk ablation—that obscures its impact.

Yet the arithmetic is not immutable. Cleaner water reduces disease and mortality. Reduced mortality means fewer wasted lives and resources, easing pressure on feed and wild stocks alike. Improved slaughter systems prevent prolonged suffering and waste. Shifts away from the most destructive wild-catch fishing methods protect fragile ecosystems that anchor the climate.

BUILDING THE ALTERNATIVE

Astrid Duque's inbox pings with the latest iteration of a draft seafood policy from a multinational caterer, nearly ready for sign-off. As Sustainability Program Manager at Lever Foundation, this is a scene she has grown used to: helping companies understand the importance of eliminating the worst practices from their seafood supply chains, and helping them draft a sourcing policy that does just that—a milestone now being reached with increasing regularity across industries and continents.

For years, key welfare and sustainability issues with seafood production were ignored. Too complex to understand. Too difficult to drive corporate policy progress. Not anymore.

This year Lever launched the Model Seafood Welfare Standard, a corporate sourcing policy shaped with input from eight NGOs spanning North America, Europe, Asia, and Latin America. Not philosophy but practice: concrete parameters for both farmed and wild-caught seafood, from stunning before slaughter to density limits and bans on the most destructive catch methods.

Alongside the Standard, launched publicly at SeafoodWelfare.org, sits a searchable database of

suppliers already meeting some or all of these criteria—thousands of producers sorted by species, country, method. The challenge to food companies of finding improved suppliers becoming obsolete overnight.

Change is afoot. This year Espresso House, which boasts over 500 cafe locations across Europe, adopted the Standard, giving the company the most comprehensive seafood policy of any restaurant chain to date. Global food service provider DO & CO, feeding millions through airlines and transit hubs across Asia, Europe, and North America, set a matching policy pledge. Aquaculture producers Morenot and Sanlei, in Asia and Africa respectively, installed electrical stunning systems—tens of millions of fish now unconscious before death, reducing suffering and waste at slaughter. Steps forward, all made in partnership with Lever Foundation.

“Each commitment creates market pressure,” Astrid notes. “When major buyers demand better standards, producers adapt. When producers invest in improvements, they need more buyers to justify costs. It’s a cycle that accelerates itself.”



Astrid Duque, Sustainability Program Manager



THE TURNING TIDE

Back at the Indonesian farm, morning sun burns through coastal mist. New ponds are being dug along the periphery—the industry still expanding, still hungry for space. But in the manager’s office, papers accumulate: welfare certifications, density guidelines, water quality protocols. Change arriving not as revolution but as paperwork, one standard at a time.

Asia’s aquaculture expands relentlessly. Vietnam, Thailand, China, the Philippines—each racing to feed growing demand. The infrastructure built today locks in tomorrow’s practices for decades. Without intervention now, the morning routine of netting dead shrimp becomes as permanent as concrete.

But Lever’s work traces another possibility. Each corporate commitment rewrites procurement contracts. Each producer converting demonstrates viability. The mathematics slowly shift—making cruelty more expensive than care, negligence costlier than attention.

The morning nets full of dead shrimp need not remain routine. In boardrooms from Stockholm to Singapore, in farms from Indonesia to Ecuador, the hidden arithmetic of seafood is being recalculated. Patient engagement turning corporate policies into production practices, one species at a time.

The work continues against powerful currents. But tides, as any coastal farmer knows, eventually turn. And when they do, they reshape everything in their path. ■



How Lever Foundation Donors Moved The Needle

Impact 2025



What happened

July 1 2024 - June 30 2025

What's changing

103

food companies issued new sustainable food policies

13

food producers shifted to improved production systems

701 million

impressions were generated of news content and digital content on healthy and sustainable eating

24 million

meals will be shifted to plant-based each year thanks to new company policies (estimated), and a similarly large but unknown number shifted thanks to new public education campaigns

37 million

animals will be raised in improved production systems each year thanks to new company policies and producer shifts (estimated)



The measurable impact

from company and producer policies alone

304 million

lbs CO2 equivalent of greenhouse gas emissions will be eliminated each year (estimated)

146 million

square meters of natural land will be conserved from use each year (estimated)

97 million

fewer grams of saturated fat, and 2 million fewer milligrams of cholesterol, will be consumed each year (estimated)

37 million

animals will be raised in less-harmful systems each year (estimated)

1.2 million

fewer animals will be raised for food each year (estimated)

5 million

pounds of food waste will be eliminated each year (estimated)

Transformation is underway. From hotel kitchens to restaurant menus, from revamped farms to viral videos, these stories map what's possible when pragmatic work meets strategic investment.

Lever Foundation is a 501(c)3 public charity whose work is funded entirely by private donors and foundations. Each dollar multiplies across supply chains and policy decisions, reshaping production patterns and eating habits in a region several billion call home.

What unfolds next in Asia's food systems will shape the world we all inhabit. That future remains unwritten. Please join us in being one of those who choose to help write it.

Our team is a text message, phone call or email away at hi@leverfoundation.org and +1 (717) 584-1805.

Thank you. ■



