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Yasushi Hori, a monk at Kougenji Temple near Hiroshima, begins his morning meditation at a low, lacquered dais surrounded by Buddhist icons. His clear tenor voice lifts in ritual chant, filling the 370-year-old worship hall with tones steeped in incense and tradition. As it resonates among the gilded tables, three monks join in from the base of the altar. Their incantation flows outside, to the steep conifer-covered mountains, in a chorus that includes bush warblers, crows, and the occasional frog. It is an ancient prayer for awakening to the deep connection among all living beings.

Today this invocation embraces an urgent call to action—a modern message for a world in crisis. After experiencing first-hand the terrifying effects of landslides and torrential flooding, these Buddhists have become unlikely leaders in a grassroots movement to build a climate-resilient society.

The monks meditating with Hori this morning are founders of Tera Energy, a start-up providing the electricity from renewable sources that powers Kougenji Temple. Tera means “temple” in Japanese, and alludes to both land and terabytes. The company’s logo is a light bulb enclosing a lotus blossom, a Buddhist symbol of purity.

Ryogo Takemoto, head minister of another temple and one of Tera’s founders, says he wanted to create a real-world connection between his Buddhist faith and his community. “It is part of my challenge to make society a better place,” he says.

Still small, with around 50 customers in the Hiroshima area as of August, Tera plans to supply 200 temples by the end of this year. And it aims to provide a model for climate action: “I hope other temples in other places will connect with this wild idea and start their own companies,” says Takemoto, a robust man with a twinkle in his eye.

However small its beginnings, every effort helps reduce carbon emissions, says Kougenji’s Hori: “Each of us should do whatever we can. We have to start!”

Today, there is a major gap between the main goal of the Paris agreement and the commitments countries have put forward to meet that goal.

Low-key and local, the Tera Energy entrepreneurs are members of the Japan Climate Initiative (JCI), an eclectic coalition committed to bringing distinctively Japanese solutions to the challenge of global climate change. Launched in July 2018 with support from WWF and other partners, this new face of Japanese climate action includes the multinational corporations Sony and Sumitomo Chemical, the megacities of Tokyo and Kyoto, and a forest conservation group founded by a musician—a total of 391 members as of August.

Together, they have pledged to achieve a decarbonized society by limiting their own carbon-generating activities. Several have committed to filling all of their energy needs with 100% renewable sources by 2050 or sooner. JCI members work to increase public awareness about the urgency and opportunity of climate action; inspire more companies, cities, and others to lead by example; and call for progressive public policies.



The main courtyard at Kougenji monastery, which buys renewable electricity brokered by Tera Energy.

JAPAN

Rank in terms of global carbon emissions: 5th

% of global carbon emissions: 3.3%

Climate pledge: Reduce carbon emissions to 26% below 2013 levels by 2030

Japan Climate Initiative

Launched: July 2018

Representing: 30% of Japan's greenhouse gas emissions

The Japan Climate Initiative (JCI) is committed to supporting Japanese companies, municipalities, research institutions, and organizations that are dedicated to realizing a carbon-free society by expanding renewable energy and promoting energy efficiency. Launched with the support of WWF-Japan, the Renewable Energy Institute, and CDP Worldwide-Japan, the group includes the cities of Tokyo and Yokohama, small businesses, and major companies such as Sony and Panasonic.

Signatories pledge to “stand at the forefront of global challenges in order to realize the decarbonized society envisioned by the Paris Agreement.” They aim to demonstrate global leadership in enhancing Japan's commitments and believe that accelerating Japan's efforts will yield new opportunities for growth and development.



GUSTON WWF

JASON HOUSTON/WWF/JASON

Ryogo Takemoto (center), who cofounded Tera Energy based on Buddhist values.

“In joining JCI, we are proudly collaborating with companies, citizen groups, and others to raise awareness about climate change and the actions that Yokohama residents are taking to address it. We will use upcoming events such as the Tokyo 2020 Olympics and Paralympics to inspire further global climate action.”

Shuhei Okuno

Deputy Director General, Climate Change Policy Headquarters, City of Yokohama

JCI is representative of a global groundswell of responses to climate change known as Alliances for Climate Action (ACA). The ACA initiative was formed by WWF and partners to support and connect an international network of domestic coalitions committed to accelerating the transition to a zero-carbon future. Japan joins Argentina, Mexico, and

the We Are Still In coalition in the United States in bringing together diverse stakeholders to champion that transition from the bottom up, and to bring more local voices to the global dialogue on addressing climate change (see sidebars for more details).

JCI's engagement cannot come soon enough. Japan, the world's third-largest economy, is the world's fifth-largest emitter of carbon dioxide generated by fossil fuels, which drive nearly 88% of its energy economy. Its greenhouse gas emissions account for 3.3% of the world's total.

Like the other ACA countries, Japan is one of 195 signers of the 2015 Paris Agreement; the national government committed to reducing its carbon emissions to 26% below 2013 levels by 2030. While the agreement offers hope for addressing the climate crisis by limiting the increase in global average temperature to 1.5°C, achieving that goal will require cutting current levels of emissions in half in the next 11 years. Japan is not yet on track to hit that mark, and building a critical mass of cities, companies, and others committed to the Paris goals will be crucial to delivering the required scale of emissions reductions.

The Paris Agreement requires all parties to submit climate targets and strategies to move the world in the direction that is urgently needed. Yet recent announcements by Japan are not encouraging. In June, the government submitted a long-term strategy to the United Nations that specifies neither a target for increasing renewable energy nor a timeline for phasing out coal. With a carbon emissions reduction target of 80% by 2050, the strategy falls far short of the net-zero goals set by a growing number of countries. "It is very unfortunate that the government of Japan is not joining other nations in setting net-zero goals to address the true urgency of our climate crisis," says Takejiro Sueyoshi, a representative of JCI.

JCI members can proactively contribute toward closing the gap between the government's goals and its accomplishments—and can work together to engage the government and public and advocate for stronger policies that can enable Japan to decarbonize faster, says Mariana Panuncio-Feldman, senior director of international climate cooperation for WWF and global coordinator for ACA. JCI's diverse players—including businesses, academic institutions, and regional and local governments—represent Main Street, the economic and social anchors of society. "As key parts of the economy and the political process," adds Panuncio-Feldman, "they have the power to raise their voices, drive the broader political and policy transition, and deliver emissions reductions."

ACA seeks to amplify those voices by helping alliances like JCI champion climate action in ways that are locally relevant. As they learn from one another and grow internationally, ACA members are becoming "the face of the new zero-carbon economy" in their respective countries, adds Panuncio-Feldman.

Each participant sets an example through its own actions, she explains, gradually shifting the conversation about climate change. In Mexico, ACA is fostering climate leadership on issues such as renewable energy, waste, and nature-based solutions for urban resilience. In the United States, We Are Still In has played a major role in shoring up international confidence in the commitment of American companies, cities, and others to addressing climate change, driving further action, and fostering collaboration.

"By working together, and with their national governments, these alliances can be the force that speeds the change the world urgently needs," says Nik Sekhran, WWF-US chief conservation officer.



The Miles family estate.

ARGENTINA

Rank in terms of global carbon emissions: 29th

% of global carbon emissions: 0.6%

Climate pledge: Reduce its greenhouse gas emissions by 18% by 2030 (relative to a business-as-usual emissions projection)

Alliance for Climate Action Argentina

Launched: November 2018

Representing: More than 13 million citizens and more than 30% of the nation's economy

Alliance for Climate Action Argentina represents cities, investors, small and large businesses, universities, and civil society united in pursuing local efforts with global impact. Coalition members include the capital city of Buenos Aires and more than 190 other municipalities across the country; the province of Santa Fe; leading actors in the banking, private, and academic sectors, including Banco de Galicia, the clothing company Patagonia, the food and nutrition company Danone, and the Universidad del Salvador; and the association of 2,000 producers of agricultural commodities known as CREA.

The main purpose of the alliance is to enable Argentina to both meet its commitments under the Paris Agreement and create the conditions for enhancing the country's ambition. Members of the alliance aim to strengthen climate actions within their own institutions, inspire others to act, and collaborate to reach greater scale and impact.



HOUSTON, WWF

JASON HOUSTON/WWF/JASON

The farm crew and family on the Miles family estate are part of the CREA group, one of the founding members of ACA Argentina.

“We believe that proactively preparing for climate impacts and adjusting our practices to reduce our carbon footprint will make food production in Argentina more resilient and our agriculture sector more competitive in global markets. Producers have a critical role to play, but we will be faster and more effective if we champion climate action together.”

Cristian Feldkamp
Executive Director, CREA

On a rain-soaked summer morning at Kougenji Temple, Hori straightens his embroidered Buddhist stole as he recounts the terror of a nearby landslide. The sound of mud and trees pummeling down the mountainside haunts him at night, he says, fingering his amber prayer beads.

Flooding in Kagoshima, extreme heat in Kyoto, diminished beaches along the Pacific coast, landslides in Okayama—these are the disasters driving climate activists throughout Japan.

For Teisuke Suzuki, vice president of fish cake company and JCI member Suzuhiro Kamaboko, what began with an uneasy awareness of declining fisheries climaxed with the 2011 tsunami on Japan’s northeast coast—an event that triggered the release of radionuclides at Fukushima Daiichi Nuclear Power Plant. A dapper man with carefully combed black hair, Suzuki, who loved eating yellow-tail tuna in his childhood, realized major environmental changes were occurring when the catch of yellowtail off the Odawara coast, 50 miles south of Tokyo, plummeted dramatically over the course of 50 years. But he was stunned when the Daiichi accident and closure of nuclear power plants across the country plunged his company into frequent blackouts, threatening to shut down Kamaboko production.

“I believed we could have electricity anytime. I never thought beyond the plug,” says Suzuki.

Shocked into broadening his professional focus to include energy issues, Suzuki persuaded 38 local business owners, entrepreneurs, and community organizations to contribute to a company that would provide regional renewable energy. They formed Houtoku Energy, a JCI member named for a 19th-century movement emphasizing the ethic of cooperation and mutual help.

Houtoku's electricity comes from solar power, and it provides new energy to a company, Shonan Power, that distributes it through a group called the Energy Consortium of Hakone and Odawara. Shonan contributes 1% of its profits to local community uses that include providing solar panels to schools. Now, renewable energy and community involvement are part of what makes his kamaboko taste so good, says Suzuki. "The fish for kamaboko-making need not only healthy seas but also healthy forests and rivers to thrive," he says. "My business connects me to the whole world."

Despite the enormous diversity of size and purpose among JCI members, they share a deep cultural commitment to repaying debts to fellow citizens, parents, ancestors—and to nature.

Part Buddhist influence, part Shinto, this profound sense of reciprocity drives the pledges of many JCI members to reduce their carbon footprints and restore the natural resources that supply their businesses.



MEXICO

Rank in terms of global carbon emissions: 11th

% of global carbon emissions: 1.4%

Climate pledge: Reduce its greenhouse gas emissions by 25% by 2030 (relative to a business-as-usual emissions projection)

Alliance for Climate Action Guadalajara

Launched: August 2018

Representing: More than 5 million people

Based in Mexico's second-largest metropolitan area, Alliance for Climate Action Guadalajara unites local and state governments, academia, businesses, and civil society in advancing the country's climate goals. Members include the University of Guadalajara; the local government of the Guadalajara Metropolitan Area; the government of the state of Jalisco; and large companies from the waste management and energy sectors, including solar company Fortius.

Alliance members aim to demonstrate real commitment to climate action, beginning within their own institutions and companies, and working with all sectors of the economy to both accelerate and deepen Mexico's contribution under the Paris Agreement.



Stock Photo/Douglas Peckler Photography/Alamy Stock Photo

Douglas Peckler Photography/Alamy

People from across Mexico, including in cities like Guadalajara, have joined forces to fight climate change—and protect their signature landscapes.

“We believe that building an inclusive and prosperous society in Mexico that runs on the renewable energies of the future and protects its citizens from the impacts of climate change is a responsibility that we all share.”

Mario Silva

General Director, Metropolitan Planning Institute, Guadalajara, Mexico

Take for example Sekisui House, one of Japan's largest homebuilding companies and a leader in sustainability. The care that goes into each Sekisui house reflects a culture in which people think of their house as a legacy, says Kenichi Ishida, managing officer of the Osaka-based company. Miwa Haishima and her husband own a Sekisui house in a quiet neighborhood in Saitama City, a suburb north of Tokyo. It looks like nearby two-story homes, white-walled and tidy, with an overhang for parking bicycles; inside, it is appealingly spare. What distinguishes the Haishima house is its heated floors, heavily insulated ceiling and windows, and integrated solar roof tiles, which produce almost as much energy as the house consumes. Haishima uses a handheld online control panel to monitor energy usage room by room, often gleaned clues about which son is playing video games upstairs.

Today 79% of Sekisui's newly built houses are zero-net energy. “Japan needs more efforts—and more action from its government—when it comes to climate change,” says Ishida. “We cannot rely just on the goodwill and efforts of people.”

Whether in Japan, Argentina, Mexico, or the US, climate activists agree that national governments must enact policies to help mainstream progressive measures at the scale and speed that are needed.

It's a hopeful sign that more and more Japanese companies are pledging to generate 100% of their electricity from renewable sources, says Shin Furuno, Asia finance senior campaigner with the environmental organization 350.org. Still, their efforts so far are short of the ambitious measures needed. “What is missing now,” Furuno says, “is not the financial or technical capability, but political will.”



Six feet above sea level and built on porous limestone, Miami faces flooding when sewers back up and the sea runs over the seawalls during particularly high tides. Rising sea levels exacerbate the problem.

UNITED STATES

Rank in terms of global carbon emissions: 2nd

% of global carbon emissions: 14.6%

Climate pledge: Before announcing plans to withdraw from the Paris Agreement, the United States had pledged to reduce carbon emissions to 26%–28% below 2005 levels by 2025

We Are Still In

Launched: June 2017

Representing: Roughly half of the US population—some 155 million Americans across all 50 states—and \$9.46 trillion, or almost half the US economy

When President Donald Trump announced on June 1, 2017, that the United States would withdraw from the Paris Agreement, mayors, governors, and business leaders came together to form [We Are Still In](#). What began as a statement signaling support for the Paris Agreement has evolved into a platform for action and collaboration among tribes; faith groups; cultural institutions; colleges and universities; businesses and investors; health care institutions; and state, county, and city governments.

The bipartisan coalition now includes more than 3,800 representatives, from Anchorage, Alaska, to West Palm Beach, Florida, and from Connecticut to Hawaii. Signatories include household names like Amazon, Google, Nike, and Target. Organization leaders include Governor Kate Brown of Oregon, representatives from Microsoft and Walmart, and President Fawn Sharp of the Quinault Indian Nation.

We Are Still In supporting organizations are united in pursuing ambitious climate goals. View their commitments at wearestillin.com.



HOUSTON WWF

Youth gather outside Miami's City Hall (pictured above) each Friday to protest the city's position on the climate crisis, [demanding that a climate emergency be declared](#) and action be taken.

“It will take action from all countries and all companies to tackle climate change. That is why Mars has committed to cut greenhouse gas emissions across our value chain two-thirds by 2050. And it is why we joined 'We Are Still In,' the largest climate coalition in the United States, as members of the leaders' circle, to catalyze climate action in the US and globally.”

Kevin Rabinovitch

Global VP for Sustainability and Chief Climate Officer for Mars Incorporated

Like all alliances for climate action, JCI aims to muster a collective voice loud enough to reach the national politicians who signed the Paris Agreement. While the coalition is still nascent, its combination of market-driven business savvy, diversity of voices, and national grounding is promising and inspiring, says Manuel Pulgar-Vidal, leader of WWF's global climate and energy practice. “We're in an extraordinary cultural moment, and these coalitions are doing something unprecedented,” he says.

Erika Abiko, owner of Hachidori-sha (Hummingbird) Café, has joined the call for a climate-safe future as well. Her second-floor restaurant is a short walk from the Atomic Bomb (Genbaku) Dome memorializing the 1945 nuclear bombing of Hiroshima, and Abiko, a self-described “action-maker,” uses the space to invite conversations about war, peace, and the environment. During one such recent conversation, she learned about Tera Energy and signed up immediately; renewable energy now powers her air conditioner and refrigerators.

Abiko says she chose the name of her café from an allegorical story about a hummingbird trying to put out a forest fire by carrying one drop of water at a time. Mocked by other animals, the tiny bird replied that it was doing what it could.

“What I do is not a lot,” she says, “but it's what I can do.”

This sense of optimism and shared responsibility is the spirit that inspires Alliances for Climate Action around the world. As JCI members embark on the challenge of building a zero-carbon, climate-resilient world, their promise to support one another is carrying the Buddhist monks' chorus across Japan and beyond, one chant at a time.

