sustainable japan

Preserving biodiversity with science, foreteller insects

Roundtable

NADER SAMMOURI CONTRIBUTING WRITER

How blind are we to things too big to see directly? Take the environment — why should people care? Our muddled perceptions can make it grueling to find the right balance between individual well-being and conservation of nature. Falling biodiversity — the variety in the life around us, from microbes on up — has severe repercussions for human well-being. As species go extinct, we lose the food, clothing, medicine and more that they can give us, some of it lost before ever being discovered.

Yasuo Takahashi, research manager of the biodiversity and forests area at the Institute for Global Environmental Strategies (IGES), joined Ross Rowbury at The Japan Times Sustainability Roundtable for its 25th iteration. They discussed the institute's work in the realm where science and policy intersect to formulate strategies concerning biodiversity, climate change, and sustainable consumption and production.

Serendipitous events in life

Serendipitous events often steer us on unexpected routes in life. As a youth, Takahashi enjoyed nature and liked birdwatching with his grandparents. He completed his four-year undergraduate studies in a Hokkaido marsh, where he became enthralled by the dispersion of prevailing plants. Rowbury noted that people who at a young age have a robust connection



The underlying human-nature dichotomy is that although people seek nature's irrefutable healing benefits, they still fear its lurking — and often unpredictable threats. People in developing countries are more directly reliant on natural resources. Knowing that led Takahashi to apply for a two-year volunteer project in Malawi that the Japanese government had arranged, for which he "luckily" — as he humbly claimed — got selected. "I stayed in a tiny village in Malawi, one of the poorest countries in the world, which bordered a lake close to a mountain. Though people were poor, they never abstained from smiling. Their source of happiness and kindness was a paradigm shift for me," Takahashi said.

Once again, serendipity — perhaps life's mesmerizing sauce — played its unsystematic role. Takahashi's visit to seek a deeper understanding of the African environment (an external trek) unpredictably turned into an internal hike imposing the query: Are we overcomplicating the simple process of happiness?

Fishing for alternatives

People in Malawi were very dependent on the lake and its surroundings for food and other resources. "They overfished in the lake and cut plenty of wood for cooking. With their increasing population, they have been expanding the deforested areas," Takahashi said. The strain that overpopulation has put on nature is significant, and overfishing one

> Takahashi is mainly involved in where biodiversity science and policy meet, plus research on socioecological systems. YUICO TAIYA



Yasuo Takahashi, research manager of IGES YUICO TAIYA

species may destroy a resource for another, with flow-on effects.

Rowbury wondered how an understanding of the issues could be translated into practical strategies. Takahashi explained that solutions are born "by understanding human drivers and human activity." Raising an eyebrow, Rowbury seemed to be thinking about how quite difficult it can be to create policies that alter how people interact with nature so they don't burden the land. "Everyone has been fishing in Malawi the same way they have always done it," Rowbury said. "It's just that the number has increased. People may rebel, saying, 'Our grandparents have done it this way,' and

there is no reason why they shouldn't do it similarly. On an individual basis, it's tough to understand the impact one is having. Yet on a collective plane, the impact is quite serious."

Rowbury later asked the question, "So how do you convince people to change how they interact with nature, and how do you get them to adopt new behaviors?" Takahashi emphasized the significance of having alternatives "because fishermen go fishing for income, and if they can't go fishing, they have no income. So they would need alternatives to sustain their survival (before anything else), like having protein substitutes such as soybean rather than meat."

Taking action in the real world

One can't save nature only by studying it, Takahashi said: "Studying nature is vital to progress our relationship with it, but my preference leans towards further proactivity in the real world." Rowbury stressed the importance of a solid knowledge base, saying, "Without the knowledge base, we can't work out the issues and potential solutions and ultimately can't get started." Takahashi recognizes the value of scientific evidence, particularly when sharing it for the sake of reaching a global agreement, because people in diverse parts of the world have different understandings of nature. He also thinks direct experience with nature is pivotal to understanding complexity that a model might fail to provide.

Rowbury noted that the concrete objectives that societies require in their policies spring from scientific understanding, so it is safe to say that a combination of scientific analysis and field experience provides the link to get a consistent policy with which people can agree.

Local knowledge tests science

Culture and science seem to have a onesided love relationship. Though almost all cultures cherish science, science is inclined to ignore culture as containing mythologies that go untested and are passed down through sentiment.

Takahashi mentioned the value of working scientifically in tandem with indigenous elements and local knowledge of nature. Rowbury recalled a personal experience with a shopkeeper in the northern part of the Kanto region who told him it would be a cold winter that year. "How do you know?" Rowbury asked. The merchant told him of an insect that could predict the level of snow in the coming winter and lay its eggs just above that level. If you see its eggs high up on tree trunks, there will be a lot of snow. "Understanding nature is associated with the tradition — something weath-

Takahashi contributes to this intergovernmental policy organization. YUICO TAIYA

ermen never broadcast, but comes from living in harmony with the natural environment. The insect may be more accurate than the long-term weather report," Rowbury said. Praising nature, he continued: "It is so fascinating because it is so broad in terms of diversity. Nevertheless, sometimes you need some degree of simplicity to offer an easy understanding of that biodiversity." Takahashi nodded and spoke of how almost 80% of Japanese people reside in urbanized areas, "hence there is a huge gap between our lives and nature. From that vantage point, it wouldn't be easy to empathize with biodiversity."

One of the primary ways for people to grasp the issue's immensity is to get close to nature. Although people in the recent pandemic years had no choice but to stay home, many have also realized there is no need to live in the city, especially those working from home. One might finally have the chance to abandon urban living — convenient but



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nature.



Tsukuba's outlying R8 districts realize and promote their charms

Times Capsule

Fuesday, Oct. 31, 1922: THE JAPAN TIMES & MAIL THE JAPAN TIMES & MAIL, TUES

ESG/SDGs

MAIKO MURAOKA CONTRIBUTING WRITER

"There is nothing in this town" — this is a phrase you too often hear when asking a resident of a rural area in Japan about places to go and things to see. And it was exactly what many participants said in 2018 at the first residents' workshop for the promotion of the area surrounding the central part of the Ibaraki prefecture city

of Tsukuba. The area consists of eight districts, now referred to as R8 (Region8), that have existed since long before they merged to form the city of Tsukuba 35 years ago. With the merger, the Tsukuba Station area became the center of the entire area, making the R8 districts rather peripheral. This may have added to district residents' lack of confidence in what their area had to offer. The launch of the workshops and the establishment of associations for development were intended to encourage residents, with support from the municipal government, to find value in resources that they had long neglected or taken for granted and then use them to promote the area. "In fact, there are so many things to see and enjoy in Kamigo. I can say that because I have the eyes of an outsider," said Hiroshi Kokubo, the chairman of the Association for the Revitalization of Kamigo District.

Kokubo, 68 years old, was originally from Kamigo but lived away from home



A performance at the Kamigo festival CITY OF TSUKUBA

for decades after entering Waseda University in Tokyo. During his career, he engaged in planning, launching and promoting commercial facilities and services such as department stores and convenience stores in locations across Japan, moving to a new place every few years. This experience led him to believe that understanding an area's history, culture and environment and building connections with local people is the path to success for any kind of regional activity — advice he gives his students in the introductory classes on regional promotion that he teaches as a visiting professor at the University of Tsukuba and Ibaraki University.

When Kokubo returned to his hometown and started thinking about how he could use his skills and experience in revitalizing the area, he was already equipped with half of the tools he needed — a sufficient knowledge of its history, culture and environment — because it was where he had grown up. But he lacked connections with residents because he had been away for decades. "I joined golf groups and organized class reunions. The best way to build relationships is through fun events," he said. Some of the people he reunited with or got to know for the first time through these activities have become members of the association.

He did not hesitate to participate in any kind of local event or project, and one of them was the R8 residents' workshop. "Among the many ideas that we came up with in the workshop, we decided to make an illustrated map of the town of Kamigo as our first project," he said. The colorful map, larger than a newspaper page, is full of places worth visiting shrines, temples, historic sites such as castle ruins, the picturesque Fukurai Bridge over the Kokai River, leisure spots such as a fishing pond and the riverside Kawaguchi Park, which has been designated as one of the geosites in the Mt. Tsukuba Area Geopark, and more. Participants who had said, "We have nothing" came to realize through the map-making that they had

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The workshop where the illustrated map of the town of Kamigo was created CITY OF TSUKUBA

everything. "The map is used in the local elementary school's English class to learn about and introduce the students' hometown," Kokubo said proudly.

"Involving youths is another key to the success of regional revitalization. While this kind of local association tends to consist of senior citizens, our members range from young people to elderly," Kokubo said. But he never had to solicit them. "If you are constantly doing something interesting and promoting it well, people of all generations will come to you naturally," he said.

Festivals are something that attract people and make them want to take part. That is why the association has been bringing back old festivals and organizing new ones such as the Kamigo Festival, held in autumn last year and this year. More than 2,500 people visited the festival to enjoy music and dance performances, eat at food stalls and buy local products and handmade goods.

The other seven districts of R8 also have their own organizations and groups of residents that, with support

from the city of Tsukuba, are engaged in revitalizing and promoting the charms of their areas.

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TSUKUBA

Yukichi Fukuzawa special

150th anniversary of publication

'Gakumon no Susume' 'An Encouragement of Learning'

Yukichi Fukuzawa, one of the leading educators of the Meiji Era and founder of Keio University, was a relative of Sueji Yamada, founder of The Japan Times.

This year marks the 150th anniversary of the publication of Fukuzawa's book "Gakumon no Susume" ("An Encouragement of Learning"). Fukuzawa, also known for being portrayed on \$10,000 bills since 1984, says in the book that "heaven does not create one man above or below another man," which had a significant impact on the Japanese people in the era and made the book a bestseller.

Fukuzawa's experience in the United States and Europe as a member of a government mission affected Japan's modern educational system, promulgated in 1872, because the idea driving the educational reform was identical to what the book said — that fundamentally, achieving success depends on one's education — according to Kumaji Yoshida, an educationist in the 1900s.



To commemorate the 150th anniversary of the publication of "An Encouragement of Learning," Keio University President Kohei Itoh sat down to talk with a special guest. For more information, please visit Keio University's special page.

"Gakumon no Susume" special page: https://www.keio.ac.jp/ja/gakumon150/



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