

# How “Green” Is Japan?

## Studying Environmental Issues in the Field

By Chris McMorran

There is no shared definition of what makes a country, business, or person “green” or environmentally friendly. However, based upon its landscape, policies, technologies, and practices, Japan appears to be more eco-friendly than most nations. Approximately 70 percent of Japan is forested—a much higher percentage than other countries. It has a history of celebrating nature in the arts, from landscape gardens and flower arrangement to the haiku of Basho and anime of Hayao Miyazaki.<sup>1</sup> Japanese corporations lead the world in green technologies such as hybrid automobiles, while both citizens and the state have endeavored to clean up polluted skies and waterways, reduce greenhouse emissions, and adopt the three Rs (reduce, reuse, recycle).<sup>2</sup> However, any impression of Japan as green is complicated by its complex history of deforestation, deadly industrial pollution, rampant consumerism, wasteful state infrastructure projects, controversial stance on whaling, and reliance on imported fossil fuels.<sup>3</sup>

How green is Japan? Like many nations, Japan struggles to balance economic growth and environmental protection. Unlike many nations, however, it has the affluence and motivation to develop eco-friendly policies, technologies, and practices. With so much complexity over what it means to be green, so much excellent scholarship on environmental issues in Japan, and so much that can be learned on the ground, Japan’s environmental initiatives are a rich topic for field study in the humanities, social sciences, engineering, or physical sciences courses.

In this article, I reflect on three years of leading a field study course on environmental sustainability in Japan. I explain the course’s objectives and preparation, then highlight three assignments that allow students to observe and critically analyze Japan’s claims of environmental sustainability, as well as their own role in environmental protection.

### Course objectives

Field Studies in Japan is an intensive course designed for second and third-year undergraduates. The objectives are to expose students to the complexity of environmental initiatives in Japan and introduce them to field-based research techniques. Overall, the course complicates impressions of Japan as a green nation, while highlighting the difficulty all nations face balancing economic growth and environmental protection.

The course focuses on Japan’s rapid post-World War II economic growth, often called an “economic miracle.” Increased industrial output, widespread domestic consumption, and eventually surging exports turned corporations like Sony, Panasonic, and Toyota into global household names. By the early 1970s, just a generation after defeat in World War II, the Japanese enjoyed one of the world’s highest living standards, with high salaries, excellent education and work opportunities, long lifespans, and modern conveniences.

Viewed through an environmental lens in particular locations, however, this “miraculous” growth is more problematic. Industrial pollution in the 1950s and ‘60s damaged air and water quality, killed hundreds of people, and permanently scarred communities. Increased household consumption continues to strain landfills and waste incinerators, while state infrastructure projects aimed at restarting the struggling economy in the 1990s served only to blanket previously pristine landscapes in expensive concrete.

Today, Japan continues to struggle to balance economic growth and environmental protection. Field study in Japan allows students to witness the nation’s green efforts in context and reflect on the environmental sustainability of both Japan and their daily lives.

### Planning the itinerary

In addition to the usual course preparation (objectives, readings, assessments), a field study requires choosing an itinerary that matches course objectives, creating a budget, requesting funds to reduce costs (if possible), and recruiting participants. Those without experience or contacts in Japan may find making an itinerary especially intimidating. For a course on environmental sustainability, I suggest visits with government agencies and businesses, as well as exchange experiences with a host family, school, or other group. This allows students to learn about environmental policies, green technologies or production methods, and everyday eco-friendly practices and attitudes.

For the government’s perspective, I suggest visiting one of Japan’s 13 Eco-Model Cities, recognized in 2009 by the government for their efforts to reduce carbon emissions and implement other eco-friendly plans.<sup>4</sup> We visited the Eco-Model City of Minamata, which was also one of the most notorious sites of pollution during Japan’s period of rapid economic growth and the namesake of the methyl mercury poisoning known as Minamata disease. At a visit to city hall, an employee explained the city’s polluted history, as well as initiatives to become green, like sorting waste into over twenty categories.

For a business’s perspective, I suggest a factory tour. Companies like Toyota and Honda offer tours that describe their efforts to implement greener technologies and develop greener products. We did the Minamata factory tour at a plant that recycles glass, paper, and electronics. The company owner explained the life cycle of most products, which move from natural resources to waste. He then explained his company’s role in seeing waste as a potential resource to be profitably reinserted in the consumption cycle. Among other things, my students saw a disassembly line of glass bottles being cleaned and inspected, so they could be returned to distilleries and filled with sake. As I later explain, other companies, even theme parks, offer tours highlighting their green efforts that allow students to witness the green claims of companies for themselves.

Finally, for the perspective of ordinary citizens, I suggest an exchange opportunity like a homestay, farmstay, or visit to a school—any of which expose students to how the average Japanese person receives green policies and products and how they protect the environment. Students can also observe whether the fact that some people perceive eco-friendliness and not others is due to factors such as age or gender. My students stayed two nights each in both a homestay and a farmstay.<sup>5</sup> In the latter, students helped with weeding and planting vegetables, a first for many and an opportunity to learn about organic farming and farmstays as a form of ecotourism.

### Field-based learning: Reflective writing

The Field Studies in Japan course begins with five days of classes at our university. Students spend six hours each day learning about themes and destinations through lectures, discussion, small group work,



Figure 1. Excerpt from a student's field notebook, with reflections.

individual and group presentations, and short videos (see a list of resources following this article). Students also learn observation, reflection, and representation techniques, including photography and participant observation. One useful resource is Donald Meinig's classic paper titled "Ten Versions of the Same Scene," which provides examples of how to read a landscape in different ways. Meinig emphasizes careful observation and reflection in the field, which is necessary for students required to describe and critically reflect on their experiences both verbally in daily debriefing sessions and in writing in a reflective notebook. After the trip, this notebook is both an assessment tool and a cherished memory. It is also a form of assessment that can be used in many field-based learning experiences.<sup>6</sup>

Prior to departure, students read past field notebooks and scholarship that will help them incorporate field notes into their postfield study products. They also describe their home or neighborhood in a practice assignment and then read each others' work in class. During our ten days in Japan, students used a paper notebook to keep their daily reflections, which I collected twice. I commented on connections students made between sites, and I gave a pass or fail for completion. Some students wrote more than three hours per day, although I discouraged them from writing for more than two because writing time steals from time for new experiences.

In addition to the who, what, when, and where of each day, I asked students to reflect on the course learning objectives, connections between sites, and their personal relationship to the practices and issues we encountered. I encouraged them to be creative. Some students

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sketched landscapes or building interiors, described performances or meals, or discussed meetings with people. Others inserted Polaroid pictures and train tickets (Figure 1).

Students with varying analytical and writing abilities can describe what they encounter in the field and, with practice and prompting, reflect deeply on their experiences. The following is an excerpt from the notebook of A.C., a third-year female Japanese studies major, reflecting on a tour of a lumberyard:

*The locals tell us that . . . trees are continually grafted to grow new trees to replace the ones felled for wood. This scenario strikes me as one in which humans become implicated as an inseparable part in the entire system of the life cycle. Somehow I think of it not as an attempt to appropriate nature but a kind of relationship between those cutting trees and the trees bounded by a contract of renewing life.*

The best notebooks move beyond description and provide a forum for students to reflect on what sustainability means to them.



Figure 2. Touring eco-friendly facilities at Huis Ten Bosch. Photo by author.



Figure 3. Searching for eco-friendly practices at Huis Ten Bosch. Photo by author.



Figure 4. Selecting photos to share in the map. Photo by author.



Figure 5. Screenshot of the completed map, focused on a pushpin discussing the eco-friendliness of bricks vs. concrete. Screenshot by author.

Six months after each field study, I send students an online follow-up survey about their learning experience, including the field notebook. One student called the process “tedious,” but all of them acknowledged its learning value. C.A., second-year female Japanese studies major, noted, “One can never know when some form of genius or revelation might spring forth,” while M.T., a third-year female geography major, added:

*Writing field notes . . . really assisted my learning. Jotting down thoughts and observations as they came and writing them down properly at the end of the day was great as well, as I ended up doing much processing and consolidation of these thoughts/observations in writing the proper field notes.*

### Field-based learning: Mapping

One useful exercise that builds on students’ skills of observation and reflection is mapping. Maps are curious tools. They are often considered authoritative, such as when marking national borders. They are also essential when planning a field trip, and maps help students navigate unfamiliar field locations. However, maps are also biased, partial representations of the world. When students understand this, they realize that maps can be tools to analyze the validity of existing representations and depict new information. Using maps requires students to observe their surroundings and critically reflect on what they see versus what is depicted on the map.

Students did a mapping exercise at Huis Ten Bosch, one of many theme parks built in the 1980s and ‘90s to provide recreation for affluent consumers.<sup>7</sup> Huis Ten Bosch is modeled after Dutch townscapes of the seventeenth to nineteenth centuries and celebrates the link between Japan and the Netherlands during the Edo period, when Dutch East India Company employees were the only Europeans in Japan.<sup>8</sup> However, the Huis Ten Bosch park was also constructed to be eco-friendly, with power generation and waste disposal systems that were decades ahead of their time.<sup>9</sup> Also, the park construction now attracts more bird and insect species than before construction, all of which is explained in the guided tour (Figure 2).

Following the guided tour, I split the students into groups and assigned each group a different zone of the park. Each group took photos and annotated on the park’s official tourist map the location of twenty examples of eco-friendly practices (such as using permeable bricks instead of concrete for streets; see Figure 3) or things that contradict the park’s eco-friendly claims. Later, they uploaded photographs to a photo-sharing website like Flickr, then inserted images and captions

into a shared Google Map (Figure 4).<sup>10</sup> The finished product (<http://goo.gl/maps/VJNx>) is a layer on the Google Map of photographs and comments from all groups (distinguished by colored pushpins) reflecting on the park's green claims (Figure 5).

This exercise forces students to analyze the official tourist map, observe their surroundings, and decide how to represent the park based on their unique knowledge and experience. J.G., a third-year male economics major, explained, "The mapping exercise is also about creating/discovering our own knowledge, and I guess that's the most interesting part about field research: discovering things you probably wouldn't have noticed by being a passive observer." P.N., a third-year female biology major, added, "Mapping the photos at Huis Ten Bosch . . . gave us a chance to explore the place further, helping us familiarize and understand the area in a way tourists will usually not." Careful observation provided a sense of fulfillment at noticing things they would have missed otherwise.

### Sharing the field: PechaKucha

Once students return from field studies, they reflect on the experience with family and friends. However, one can harness the learning potential of reflection. Notions about a place build up over time, like layers of soil and clay, composed of impressions from television, guidebooks, Internet searches, postcards, and traveler's tales. These notions often contain inaccuracies and stereotypes that we carry with us when we travel. Ideally, a field experience dispels false stereotypes and adds complexity to our understanding of a place. In Field Studies in Japan, students experience the complexity of environmental issues, which they must make sense of before sharing with others.

When students share field experiences, they add their own perspectives that expand listeners' knowledge. Before leaving Japan, I emphasized the burden to my students of depicting the field as accurately as possible, while also realizing the limits to how broadly they can generalize about any given place based on brief experience. Sometimes, students need to reflect on their field experience in public in order to understand the importance of this point.

Field Studies in Japan students presented their findings at an annual event one week following our return. We utilized a format developed in Japan by designers and architects called PechaKucha.<sup>11</sup> Literally "chit-chat" in Japanese, PechaKucha limits each speaker to twenty slides for twenty seconds each. The format encourages clear and effective presentations, with students focusing on a particular practice or theme that occurs in multiple locations, such as waste sorting or forms of ecotourism. Since I emphasized sharing the experience and not the quality of the presentation, students received credit for completion.

### Conclusion

Field-based learning provides an opportunity to ground knowledge about environmental sustainability in actual locations that complicate simplistic impressions of Japan as a green nation. Students receive a nuanced, contextualized understanding of how Japan's rapid economic growth brought both the benefits of an affluent lifestyle and the sorrows of environmental damage, thus highlighting the difficulty of balancing economic growth and environmental protection. I hope that the field activities and reflection tools discussed here are useful to those who teach and learn about Asia. ■

### NOTES

1. For an excellent review of the role of nature in Japanese aesthetics, see Donald Keene, "Japanese Aesthetics," *Philosophy East and West* 19, no. 3 (1969): 293-306.
2. The Ministry of Foreign Affairs highlights recent green initiatives, contrasting them with past environmental problems. See <http://tinyurl.com/k4wagpy>.
3. On forestry, see Conrad Totman's "Japan's Forests: Good Days and Bad—Rhythms of Damage and Recovery," written especially for teachers:

## Using maps requires students to observe their surroundings and critically reflect on what they see versus what is depicted on the map.

<http://tinyurl.com/kdqt88>. On pollution, see Brett Walker, *Toxic Archipelago: A History of Industrial Disease in Japan* (Seattle, London: University of Washington Press, 2010). On infrastructure, see Gavan McCormack, *The Emptiness of Japanese Affluence* (Armonk: M.E. Sharpe, 2001). On whaling, see Peter Kirby, *Troubled Natures: Waste, Environment, Japan* (Honolulu: University of Hawai'i Press, 2011).

4. See the list of cities and initiatives in English at <http://tinyurl.com/mknp2oo>.
5. Travel agents can arrange homestays and farmstays. However, a Google search of "farmstay Japan" yields many links, including the nationwide WWOOF group (World Wide Opportunities on Organic Farms), [www.woofjapan.com](http://www.woofjapan.com); farmstay associations like one in Aomori Prefecture, [www.greentourism-aomori.jp/en](http://www.greentourism-aomori.jp/en); and dozens of inns and farmhouses that cater to English speakers.
6. See Trevor Dummer, Ian Cook, Sara Parker, Giles Barrett, and Andrew Hull, "Promoting and Assessing 'Deep Learning' in Geography Fieldwork: An Evaluation of Reflective Field Diaries," *Journal of Geography in Higher Education* 32, no. 3 (2008): 459-479.
7. McCormack (2001) explores this resort construction boom. See also Joy Hendry, *The Orient Strikes Back: A Global View of Cultural Display* (Oxford, New York: Berg, 2000).
8. Employees stayed on Dejima, a man-made island that has been carefully restored and is worth visiting. See <http://tinyurl.com/pown2ke>.
9. McCormack (2001) praises the park's eco-friendly origins and practices.
10. Among many online mapping tools, I use Google Maps because it is free, has clear instructional videos, allows collaboration by multiple authors, provides a link to the finished product, and has excellent coverage of the park.
11. See [www.pechakucha.org](http://www.pechakucha.org).

### ADDITIONAL TEACHING RESOURCES

The following is a partial, but particularly useful, list of resources related to Japan's eco-friendliness.

#### Books

George, Timothy S. *Minamata: Pollution and the Struggle for Democracy in Postwar Japan*. Cambridge: Harvard University Asia Center, 2001.

Ishimure, Michiko, and Livia Monnet. *Paradise in the Sea of Sorrow: Our Minamata Disease*. Kyoto: Yamaguchi Publishing House, 1990.

Kirby, Peter Wynn. *Troubled Natures: Waste, Environment, Japan*. Honolulu: University of Hawai'i Press, 2011.

McCormack, Gavan. *The Emptiness of Japanese Affluence*. Armonk: M.E. Sharpe, 2001.

Walker, Brett L. *Toxic Archipelago: A History of Industrial Disease in Japan*. Seattle, London: University of Washington Press, 2010.

#### Video

*Minamata: The Victims and Their World (Minamata: Kanja-san to Sono Sekai)*. DVD. Directed by Noriaki Tsuchimoto. Japan: Zakka Films, 2011.

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