

Preserving Traditional Japanese Agriculture In A Modern-Day Global Context

Lillian Hanako Rowlatt

Co-founder, Kokoro Care Packages

Niigata, 2003–2005



Abstract

Japan's agriculture industry faces challenges from a shrinking and aging farming population, an overwhelming presence of small-scale farms, and inefficient structural and political issues. Yet against this backdrop, an opportunity arises for Japan to preserve and support its agricultural communities by increasing the awareness of its traditional cuisine, sharing its philosophies around food and farming, and decreasing restrictive trade barriers with the U.S.

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Japanese cuisine, known as *washoku*, is renowned around the world for its quality, seasonality, and simple yet harmonious flavors. Much of this comes from the use of fresh local ingredients and traditional cooking methods that have been passed down through multiple generations for centuries. Yet Japan's agricultural industry is experiencing increased challenges. Despite being the eighth largest agriculture industry in the world, it faces risks from a shrinking and aging farming industry, an overwhelming presence of small-scale farms, and inefficient structural and political issues.

However, with crisis comes opportunity. A country of resilience and community, Japan has proven its ability to rebuild and reinvent when faced with challenges. With fertile soil, a global shift towards eating a healthier diet, and a traditional cuisine that has been recognized by UNESCO as an intangible cultural heritage of humanity, Japan could transform its agricultural industry on both a local and global scale in a way that still honors its traditional cuisine.

Landscape and Demographic Challenges

Japan's land mass is slightly smaller than that of California, yet less than 15 percent of this land is available for agricultural use (compared to roughly 45 percent in the U.S.).¹ This is due mainly to the mountainous and volcanic nature of Japan's landscape, with many of the agriculture communities in Japan based at the foot of these mountains in areas known as *satoyama* (里山 lit., village mountain).

The vast majority of this agricultural land is managed by small scale farms. Of all producers, 80 percent work less than two hectares of land² while the largest 3 percent of commercial farms (10 hectares or more) cultivate nearly half the total farmland.³ This fragmented landscape makes it difficult for farmers to benefit from economies of scale resulting in higher cultivation and distribution costs, which is compounded by Japan's relatively high input costs for farming.

¹ "Agricultural Land (% of Land Area)," World Bank collection of development indicators, 2016, <https://data.worldbank.org/indicator/AG.LND.AGRI.ZS>.

² Lutz Goedde, Jakob Fischer, Nicolas Denis, Masaaki Tanaka, and Tuito Yamada, "Empowering Japanese Agriculture for Global Impact" (McKinsey Japan, 2016), <https://www.mckinsey.com/-/media/mckinsey/featured%20insights/asia%20pacific/strengthening%20japanese%20agriculture%20to%20maximize%20global%20reach/empowering-japanese-agriculture-report.pdf>.

³ "Overview of the Food and Agriculture Situation in Japan," in Innovation, *Agricultural Productivity and Sustainability in Japan* (OECD Food and Agricultural Reviews, May 11, 2019), <https://doi.org/10.1787/92b8dff7-en>.

The owners of these farms are also aging. Between 1995 and 2018, the average age of farmers in Japan has increased from 59.1 years old to 66.8 years old, and over two-thirds of all Japanese agricultural workers are over the age of 65.⁴ This population of farmers is also shrinking, with the number of people who primarily earn their living from farming falling below two million for the first time in 2015.⁵ Because many young people have moved to urban centers in search of other, more lucrative employment opportunities, many of these farms lack successors (*kōkeisha*) and may end up being abandoned.

Natural disasters have also plagued Japan's countryside, with earthquakes, typhoons, and floods impacting production—a trend that appears to be worsening with the effects of climate change.

Against this backdrop, there are concerns surrounding Japan's calorie-based food self-sufficiency rate—a measure of a country's ability to produce enough food to feed its people. This number fell to a record low of 37 percent in fiscal 2018 in Japan, the lowest of any industrial nation (compare this number to the surplus in the U.S. of 124 percent).⁶ Japan is also the only country of the 54 countries studied in the OECD's "Agricultural Policy Monitoring and Evaluation 2020" report to have a declining food self-sufficiency rate.

These trends, however, may paint an overly negative picture of the present and potential output of Japan's agricultural system.

Domestic Drivers for Revitalization

According to the Ministry of Agriculture, Forestry, and Fisheries, a total of 97,814 hectares of farmland was sitting idle and unused across Japan in 2018 while the land that is being used is inefficiently managed. Agriculture as a share of GDP in Japan is 1.1 percent, similar to that in the U.S., yet the share in employment is 3.4 percent, compared to 1.6 percent in the U.S.⁷ This statistic indicates a low level of labor productivity for agriculture in Japan. In fact, the value added per worker

⁴ Eric Johnston, "IT Services Touted as Key to Future of Japan's Farming Sector," *Japan Times*, May 26, 2019, <https://www.japantimes.co.jp/news/2019/05/26/national/services-touted-key-future-japans-farming-sector/>.

⁵ "Japan's Farming Population Rapidly Aging and Decreasing," *Nippon.com*, July 3, 2018, <https://www.nippon.com/en/features/h00227/>.

⁶ "FY2019 Summary of the Annual Report on Food, Agriculture and Rural Areas in Japan," Ministry of Agriculture, Forestry and Fisheries (MAFF), June 2020.

⁷ "Overview of the Food and Agriculture Situation in Japan."

in Japan is \$24,195.10 while in the U.S. it is \$84,870.62.⁸

Not only are most agriculture workers in Japan over the age of 65, but most are also part-time farmers. Most farmers in Japan only farm as a secondary business, which is partly driven by the structure of Japan's agricultural subsidies and the presence of the Japan Agricultural Cooperatives, known as JA. JA was set up as an ordinary agriculture cooperative due to food scarcity during World War II but grew into a powerful farm lobby with 9.7 million members and deep-seated political influence.⁹ JA exercises a near monopoly over agricultural inputs and controls access to financing as the only body in Japan with a license from the government to operate banking, life insurance, and damage insurance businesses. With this powerful connection to a large number of Japan's farmers, JA delivered votes to the Liberal Democratic Party in return for a protected agriculture market and resulting large subsidies.¹⁰ About 80 percent of the support is driven by market price support, which is arguably the most distorting form of support, and is achieved by artificially keeping prices high, particularly by border controls for rice, milk, and pork.¹¹ At 41.3 percent, Japan's agricultural subsidies as a share of gross farm revenues are double the OECD average and well above those of the U.S., which are at 12.08 percent.¹² Most Japanese farmers can therefore farm on a part-time basis while receiving the same benefits as full-time farmers without the need to innovate or increase productivity.

However, change appears to be afoot. The JA's economic dominance is waning due to competition from private-sector providers of agriculture inputs and credit. Electoral reform and a declining farm population has decreased the JA's ability to gather votes while the government has taken steps to move towards a more market-oriented system. At a local level, some farmers are finding innovative ways to operate outside of the JA network to interact more freely with market signals and their end consumers.¹³

⁸ "Agriculture, Forestry, and Fishery, Value Added per Worker (Constant 2010 US\$)," The World Bank, 2019, <https://data.worldbank.org/indicator/NV.AGR.EMPL.KD>.

⁹ Yamashita Kazuhito, "Understanding the Japan Agricultural Cooperatives," Nippon.com, July 30, 2013, <https://www.nippon.com/en/currents/d00082/>.

¹⁰ Patricia L Maclachlan and Kay Shimizu, "Maclachlan and Shimizu: Shinzo Abe's Tug-of-War with the Farm Lobby," Council on Foreign Relations, October 2, 2014, <https://www.cfr.org/blog/maclachlan-and-shimizu-shinzo-abes-tug-war-farm-lobby>.

¹¹ Alice Calder, "Agricultural Trade Subsidies: Everyone's Doing It," Global Trade, October 21, 2020, <https://www.globaltrademag.com/agricultural-subsidies-everyones-doing-it/>.

¹² Calder, "Agricultural Trade Subsidies."

¹³ Maclachlan and Shimizu, "Shinzo Abe's Tug-of-War."

Another factor driving Japan's low self-sufficiency rate is the change in the diet of the Japanese. The traditional Japanese diet centered around rice, fish, and vegetables, all of which had been supplied internally without an over reliance on imports. Over time, however, with the introduction of Western foods, the consumption of wheat and red meat has increased in Japan, most of which is imported. Yet with criticism surrounding the negative health implications of the standard American diet, there has been a shift towards healthy eating that could see a return to a more traditional Japanese diet. The Japanese government is putting an emphasis on promoting *shokuiku* (food and nutrition education), and the Japanese diet is seen internationally as one of the healthiest around the world (with Okinawa being one of the world's Blue Zones—areas with a high concentration of people living beyond 100 years of age). As people shift towards this healthier diet, locally-made traditional Japanese foods may see a global increase in demand.

The Japanese government is also offering various support payments to attract young farmers to rural areas and programs to encourage more female farmers while technologies are being developed to replace labor, increase yields, and promote efficiencies. However, over-farming has a cost. Soil degradation, water depletion, greenhouse gas emissions, reduced biodiversity, and dead zones (areas that are unsuitable for life due to excessive fertilization) all need to be carefully monitored. Japan is promoting its agricultural growth while working under a framework of sustainable development goals that actively promote environmentally-friendly production activities, sustainable consumption, and community development. At the core of Japan's *satoyama* is the concept of people and nature coexisting in a mutually beneficial symbiotic relationship.

Global Support

As Japan works to increase its domestic production, progress has been made on the global stage with significant agreements to reduce tariffs and trade barriers, such as in the Japan-European Union Economic Partnership Agreement that began on February 1, 2019 and the bilateral U.S.-Japan Trade Agreement (USJTA) that took effect on January 1, 2020. These agreements are important as a country's self-sufficiency rate should be viewed in the context of a global market where domestic production can be balanced by international imports and exports. A heavy reliance on either could leave a country in short supply of meeting its needs. For example, domestic production could be impacted by unforeseen weather or natural disasters while political issues could lead to trade restrictions. Japan was the fifth largest destination for U.S. agricultural exports in 2019 at \$11.7 billion while the U.S. is Japan's largest supplier of agricultural products with 24 percent

market share, followed by the European Union at 14 percent.¹⁴ Following implementation of the USJTA, nearly 90 percent of U.S. food and agricultural products imported into Japan are now duty free or receive preferential tariff access. This agreement gives the U.S. similar access to the Japanese markets as other countries such as Australia, Canada, and New Zealand, which are all part of the Trans-Pacific Partnership. Japan's ministry of agriculture has also announced that it plans to increase the value of the country's food exports to ¥5 trillion by 2030, which is five times the 2019 level.¹⁵

Given the strong economic ties between Japan and the U.S., a mutually beneficial opportunity arises with the loosening of agricultural trade barriers. U.S. total imports of agricultural products from Japan totaled \$767 million in 2019.¹⁶ The continued introduction of traditional Japanese foods into the U.S. market exposes Americans to a healthier diet and to the Japanese philosophies around eating and agriculture. Increasing demand for these products from the U.S. can also help support Japan's local farming economy in the face of decreasing domestic demand. When *washoku* was recognized as an intangible cultural heritage by UNESCO, it was done so based on the diet's diversity and freshness of ingredients, respect for their inherent flavors, well-balanced and healthy characteristics, expression of natural beauty and the changing seasons, and close link to celebratory events.¹⁷

With this push to support local, centuries-old traditions, Japan's agricultural landscape could revitalize and thrive in a modern-day, global context.

¹⁴ Information obtained from the 2019 U.S. Agricultural Export Yearbook, United States Department of Agriculture Foreign Agricultural Service (USDA FAS), <https://www.fas.usda.gov/regions/japan#:~:text=In%202019%2C%20Japan%20was%20the,European%20Union%20with%2014%20percent>.

¹⁵ "Japan's Agriculture Ministry to Keep Food Self-Sufficiency Target at 45%," *The Japan Times*, March 11, 2020, <https://www.japantimes.co.jp/news/2020/03/11/national/japan-keep-food-self-sufficiency-target-45/>.

¹⁶ Information obtained from the Office of the United States Trade Representative, <https://ustr.gov/countries-regions/japan-korea-apecc/japan>.

¹⁷ "Washoku Designated UNESCO Intangible Cultural Heritage," *Nippon.com*, Jan 14, 2014, <https://www.nippon.com/en/behind/100052/>.

Author Biography

Lillian Hanako Rowlett is a half-Japanese Canadian currently living in Los Angeles. She was an ALT on the JET Program in Kashiwazaki, Niigata from 2003 to 2005 and later went on to co-found Kokoro Care Packages as a way of connecting people to the traditions and culture of Japan through locally-made artisanal foods. Kokoro Care Packages promotes the philosophies surrounding Japanese food while supporting local farmers, producers, and their communities. Lillian has always believed in the power of food to nourish one's body while connecting people to the land and people who created it. She holds a Bachelor's degree in Mathematics from Queen's University and spent almost a decade in finance before co-founding Kokoro Care Packages.

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