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Twentieth Century Japan

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Environmental History of Japan

The Japanese people have been altering the environment for centuries. The islands of Japan were originally nine-tenth forests. There have been accounts of extensive deforestation since the seventh century (Karan 17-18). However, Japanese society was largely sustainable until the end of the nineteenth century when the Meiji restoration had begun (Karan 20). Kogai first appeared at this time. Kogai is the Japanese term used to describe the industrial pollution that damages human health and the environment (Wilkening 127). The increasing industrialization and westernization of the Meiji era brought with it kogai and other problems of an industrial society. The problems associated with kogai culminated after World War II with the emergence of Minamata disease, itai-itai disease and Yokkaichi asthma (Wilkening 126). However, by the early 1990s, Japan became a world lead in environmental awareness (Wilkening 196). The changing attitudes and treatment of the environment corresponded to the political and economic situation in Japan.

The Tokugawa Period (1600-1868) was a period of isolationism in Japan. During this period, Japan had to be self-sufficient in order to remain isolated. Therefore Japan was a sustainable country (Karan 19). A sustainable country is a country that is able to provide for the needs of its present population and its future generations (Wilkening 11-12). An example of Japan's sustainability is the successful sewage system of the Tokugawa Period. Human wastes from the cities were used as fertilizers in the nearby countryside. As a result there was a lower

mortality rate in Japanese cities than in American cities due to the lack of diseases such as cholera and dysentery that are spread by deficient sanitation conditions (Karan 18).

However there were some environmental changes during the Tokugawa period. The early Tokugawa period was a time of rapid deforestation (Karan 18). The early Tokugawa leader Iemitsu had policies of redistributing land (Gordon 15). Furthermore, the earliest pollution problems in Japan occurred during the Tokugawa era from runoffs in copper mines (Broadbent 85). However, the Tokugawa Era by isolating itself from the rest of the world managed to be largely self sustainable and did not cause major environmental degradation.

In 1853 the period of isolation would come to an end when Commodore Matthew Perry arrived in Japan. He gave the Japanese people an ultimatum, either trade with the United States or go to war (Gordon 50). The end of isolationism would have a grave impact on the environment and health of Japan. In 1868 the Meiji restoration occurred along with a new attitude about relationships with the West. The Japanese hoped that they could rapidly westernize and then the West would end its unequal treaties and treatment of Japan (Buruma 47). In order to westernize, Japan began to use foreign industry and technology (Karan 20). This new technology included coal-burning and chemical plants, mills, and refineries. All of which polluted the water and air in the nearby cities and villages (Broadbent 85). However during the Meiji era, industry was king. Japan was proud of their rapid industrialization and economic growth and could endure the negative environmental issues that resulted from it. Soon smoke, nasty odors, loud noises, grunge and the occasional epidemic became common in Japan (Wilkening 61-62).

While much of the new technology affected the environment, the worst offenders were the copper mines. The largest problem was sulfur dioxide from the copper smelters. Sulfur

dioxide is a by-product of the smelting process. Sulfur dioxide is damaging to both the environment and human health. It is known to cause acid rain and to trigger respiratory problems such as asthma. The four largest copper mines in the Meiji era were Ashio, Besshi, Hitachi and Kosaka. There were also several smaller mines. All of the copper mines had caused water and air pollution which resulted in citizens' protests (Wilkening 62-63). This was the first in the wave of environmental problems to arise as a result of the rapid industrialization of Japan.

The most famous environmental incidents due to the copper mines were at the Ashio mine. The Ashio mine had been in existence since the Tokugawa era, but no major environmental problems occurred until Furukawa Ichibei bought the Ashio mine in 1877. Fueled by the policies of westernization during this era, Furukawa turned Ashio into the largest copper mine in East Asia (Wilkening 63). Soon acid was deposited from the smelter and toxic metals were accumulating (Karan 20). The solution was to dump the wastes into the nearby Watarse River (Wilkening 64).

The waters of the Watarse became heavily polluted. When the river flooded, the toxins would spread into local fields. Soon local citizens started to complain about this flooding because it damaged their crops. Unfortunately for the citizens the Ashio mine was very important for military and foreign trade. These uses were in concordance with the Meiji era's mission to westernize and militarize. Therefore the citizens received little sympathy from the government. At most they received minimum compensation and false promises (Karan 20-21). The Sino-Japanese War and the Russo-Japanese War strengthened the tension between the citizens and the Ashio mine by increasing the demand for copper (Wilkening 65). Something needed to be done. In 1907 the government decided to prevent flooding by creating a dam instead of combating the pollution problem directly (Karan 21). As a result the village of Yanaka

was forced to relocate (Wilkening 65). It was not until 1974, after Ashio closed, that the farmers near Ashio received the compensation they deserved (Karan 21).

In the years leading up to World War II, there was little environmental activism in Japan. This was largely due to government restrictions such as the 1925 Peace Preservation Law. The Peace Preservation Law outlawed organizations that hoped to change the political system of Japan. This law was created particularly against socialist and communist groups, but the law also stopped environmental protests (Karan 22). Environmental issues took a backseat in Japan until the 1960s. However, pollution was still a problem during this time. Some of the largest problems were pollution in large cities such as Osaka and Tokyo. In 1928, over 20,000 tons of soot fell on Osaka. There were some initial efforts at controlling this air pollution such as Osaka's Clean Air Week. However, beginning in the late 1920s, the government of Japan had become increasingly militarized. Environmental problems were ignored as World War II loomed nearer (Wilkening 95-97).

World War II had brought a large amount of environmental devastation to Japan. Much of Japan had been deforested for the production of military goods. National parks were used as military practice. Cities were destroyed by bombs including the atomic bombs at Hiroshima and Nagasaki (Karan 28). While these events wreaked havoc on the environment, the political and economic ideologies that emerged in Japan after World War II also had devastating environmental and medical consequences. After a humiliating defeat in World War II, Japan made efforts to rapidly recover their economy and industry (Wilkening 121). Japan's efforts were deemed miraculous. From the 1950s to the 1970s Japan had the fastest rate of economic growth of any industrialized country. However this caused some severe pollution problems. Between 1960 and 1965, the amount of sulfur dioxide in the air quadrupled (Broadbent 12).

Japan was most likely the world's most polluted country during this time period (Schreurs 36). As a result of these intense efforts at industrialization, concerns about the environment were ignored until tragedy struck (Wokutch 531).

In the 1950s industrial mercury poisoning was found in Japan. The most famous cases were in the towns of Minamata and Niigata (Schreurs 36). It began when people who ate seafood from Minamata Bay began getting sick. The disease, known as Minamata disease, was caused by methyl mercury poisoning. Minamata disease affects the central nervous system. The symptoms include physical disabilities, coordination issues, trembles, and disfigurement. The disease can be deadly especially among babies. The Chisso Corporation dumped their waste, which contained the methyl mercury, into the Shiranui Sea. First fish, shellfish and seabirds began to die off. By 1953 the disease was evident in humans. This disease was also found in Niigata in 1965 (Karan 30).

Another deadly disease came about as the result of cadmium poisoning. This disease became known as itai-itai which translates as "it hurts" (Gordon 283). This disease causes brittle bones. It was discovered in 1955 in villages near the Jinzu River. In 1967 doctors were able to prove itai-itai disease was caused by wastes from the zinc refining plant of the Kamioka mines. Most victims of this disease were women and most cases resulted in death (Karan 31).

Problems also began in Yokkaichi after the opening of kombinato, an industrial complex that included oil refineries and power plants, in 1959. Soon chronic respiratory problems became common in residents living nearby the complex and the fishes smelled so foul that fishermen could not sell their catches (Schreurs 39). Doctors noted increases in cases of asthma, bronchitis and emphysema. Another complex was opened in 1963 and the situation became more drastic. High levels of sulfur dioxide were recorded along with acid rain (Wilkening 124).

In 1964, tragedy struck the Yokkaichi area when Furukawa Yoshio died of respiratory issues (Wilkening 125). The first efforts to protest these diseases and the companies that caused them in the early 1950s were ineffective (Gordon 283). Initially the government took the side of the corporations whose goals were more aligned with the government's goals of rapid industrialization (Karan 29).

While at first the environmental situation seemed bleak in postwar Japan, the situation soon began to improve. By the mid-1960s pollution became part of political campaigns (Schreurs 41). In the mid-1960s and early 1970s pollution victims began to obtain support throughout Japan. They used sit-ins, boycotts and other protest strategies to combat these companies. They also filed lawsuits and demanded that they receive compensation (Gordon 283). In 1968 the government finally admitted that the Chisso Corporation caused Minamata disease. By 1973 the victims of Minamata diseases received significant compensation. A similar situation occurred for the victims of itai-itai disease (Karan 30-31). After the death of Furukawa Toshio, Yokkaichi began to fix its problems with air pollution and began to help its victims. In 1967 a lawsuit was filed against six companies of the kombinato. When the court reached its verdict in 1973, the court ultimately sided with the victims. By 1975 the emissions of sulfur dioxide were drastically decreased and in 1985 respiratory illnesses in Yokkaichi had the same frequency as in unpolluted regions (Wilkening 126).

During the mid-1960s and early 1970s, a great deal of environmental legislation was created in Japan. One such law was the 1968 Air Pollution Control Law which established a standard for sulfur dioxide emissions (Wilkening 128). In 1970 a special Diet session was held to address environmental issues. During this session thirteen anti-pollution laws were adopted (Wilkening 130). With strict anti-pollution laws and investments in pollution control, Japan's

sulfur dioxide pollution decreased faster than any other industrialized nation. Japan also increased energy efficiency, moved factories out of cities, and began recycling programs (Broadbent 14-15). After suffering environmental disasters in the postwar period, Japan was quick to recover by the 1970s.

Another area of Japan that suffered environmental problems as a result of World War II was Okinawa. After World War II, the United States occupied Japan. The U.S turned Okinawa into a large military base (Buruma 157). Although today the US no longer occupies Okinawa, Okinawa still holds 75 percent of the land of the US military bases in Japan. The environmental degradation of Okinawa by American forces began in World War II at the Battle of Okinawa. The battle took eighty days and completely transformed the environment. After the battle the US began constructing military bases in Okinawa. The US seized land and used it for its own construction without considering how the land was used before. As a result much of the arable land of Okinawa became military bases. Even today US bases take up eighteen percent of Okinawa's land (Karan 271-273). Today Okinawa is still fighting to decrease the US military involvement in Okinawa and the resulting environmental damage. Okinawa is now reaching out to non-governmental organizations to stop the building of a new base in Nago (Yonetani 391-392).

Although, the 1960s and 1970s brought about many pieces of environmental legislature, these laws were created to address local environmental issues that directly harmed the people of Japan (Karan 31). Unlike environmental legislature in the United States, there were no efforts to protect and conserve nature and wildlife for the sake of itself (Karan 13). Even though Japan did much to improve its pollution issue, Japan began to get a bad global reputation regarding its international environmental policies (Wilkening 194). However in the late 1980s and early

1990s, this reputation and Japan's attitude about the global environment began to change. New ideas about environmentalism began to emerge that included a greater interest in global issues and a greater interest in protecting the environment for the sake of the environment itself (Karan 46-47). There were many political and economic reasons for this new environmental trend. Japan increased its environmental awareness because of the foreign criticism it had received (Wokutch 532). Japan saw an economic opportunity to sell and manufacture its pollution control technology. Also Japan wished to increase its prestige and reaffirm its superpower status by becoming a global leader in environmental policy and awareness (Wilkening 196-197).

Another reason that Japan became global in its environmental goals is the transport of pollution from mainland Asia into Japan. The discovery of pollutants from mainland Asia brought a realization to Japan that it was not immune from the wastes of other countries. Japan realized that global environmental problems were also Japan's environmental problems (Wilkening 197). One country that Japan has been actively involved with in terms of environmental issues is China. Japan has supplied the government of China with loans and equipment to improve environmental policy, management and infrastructure. This cooperation has not only helped Japan with its issue of pollution from mainland Asia, but it has also helped China with its environmental issues and international standing (Hirono 1-2).

Even the environmental issues in Japan itself have a more global, environmental minded approach. One movement that has become increasingly more popular in Japan is the anti-dam movement. One of the earliest anti-dam movements was the movement to stop the building of the Nagara River Estuary Dam. Protests against this movement went to the national level when SANREDC (the Society against the Nagara River Estuary Dam Construction) formed. This organization included people from all over Japan with many different professions such as

fishermen, biologists and celebrities. The movement managed to get international attention and the Japanese environmentalists involved were able to make connections with famous American environmentalists such as David Brower. Ultimately though, the attempt to stop construction of the dam was futile. In 1996 the Nagara River Estuary Dam was completed. However the movement itself set precedence for more anti-dam movements. It also helped Japan to network with environmental activists in other countries. The media coverage showed the world that the Japanese people were committed to helping the environment (Karan 51-54).

Today, Japan is praised for its environmentally friendly businesses. Much of Japan has gone “green.” Some green strategies include repairing, remanufacturing and reusing products to extend a product’s life and usage. Japan also has a large recycling program and has worked hard on reducing its energy requirements. This green policy is not only good for the environment, but it is also economically favorable. Green products use less waste and need less raw material. For these reasons, environmental issues have been combined with the corporate culture of Japan. There have been large increases in the production of low-pollution cars and energy efficient appliances. Japan is exporting these products to other countries thereby incorporating green business with Japan’s global leadership in environmental awareness. More than 14,000 companies in Japan have environmental programs. This is more than any other country in the world (Dubey 263-265). Clearly Japan has become successful in becoming one of the world’s environmental leaders.

There are still skeptics about how environmentally friendly Japan really is. Some believe that these environmental achievements are just to stop foreign criticism and Japan’s intention was not for the benefit of the environment but solely for the country’s prestige (Wokutch 532). Japan is also having a severe urbanization problem. There have been enormous decreases in the

number of farmers in Japan. In 1950, 50.5 percent of the work force was full time farmers. In 1985 only 14.3 percent of the workforce was full time farmers and the numbers continue to drop (Broadbent 18). The lack of farmers could create issues with the sustainability of Japan's food supply and may make Japan dependent on foreign nations for food (Karan 131). Japan has also been criticized for whaling and for importing tropical hardwood. Even with its increased environmental agenda, Japan still is the largest whaling nation and the greatest importer of tropical hardwood. Another one of Japan's largest environmental offenses is exporting pollution. In order to decrease pollution levels in Japanese cities, corporations have often moved businesses to developing nations with less strict pollution requirements (Wilkening 195). Japan is going to need to change these policies if they are to continue to be one of the leaders in environmental awareness.

The environment in Japan has been largely affected by the politics and economy of the country. During the isolated Tokugawa period, Japan had learned to keep the environment sustainable in order to stay isolated from other nations. However after the rapid westernization of the Meiji restoration, *kogai* began to appear in large amounts culminating in the terrible diseases of Minamata, *itai-itai* and Yokkaichi asthma after World War II. After much legislation and new attitudes about the environment, Japan emerged as a leader in environmental awareness and protection in the 1990s. With new environmental ideals, increased use of recycling and more efficient energy usage, Japan may once again become a sustainable country.

Works Cited

- Broadbent, Jeffrey. Environmental Politics in Japan: Networks of Power and Protest. Cambridge: Cambridge University Press, 1998.
- Buruma, Ian. Inventing Japan: 1853-1964. New York: The Modern Library, 2003.
- Dubey, Parag. "Recycling Businesses: Cases of Strategic Choice for Green Marketing in Japan." IIMB Management Review (September 2008): 263-278
- Gordon, Andrew. A Modern History of Japan: From Tokugawa Times to the Present. New York: Oxford University Press, 2009.
- Hirono, Ryokichi. "Japan's Environmental Cooperation with China during the Last Two Decades." Asia-Pacific Review 14.2 (2007): 1-16.
- Karan, Pradyumna P., and Unryu Suganuma, eds. Local Environmental Movements: A Comparative Study of the United States & Japan. Lexington: The University Press of Kentucky, 2008.
- Schreurs, Miranda A. Environmental Politics in Japan, Germany, and the United States. Cambridge: Cambridge University Press, 2002.
- Wilkening, Kenneth E. Acid Rain Science and Politics in Japan: A History of Knowledge and Action Towards Sustainability. Cambridge: The MIT Press, 2004.
- Wokutch, Richard E., and Jon M. Shepard. "The Maturing of the Japanese Economy: Corporate Social Responsibility Implications." Business Ethics Quarterly 9.3 (1999): 527-540.
- Yonetani, Julia. "Appropriation and Resistance in a 'Globalised' Village: Reconfiguring the Local/Global Dynamic from Okinawa." Asian Studies Review 28 (December 2004): 391-406.