

Environmental Sociology in Japan and Environmental Problems in Asian Societies

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Abstract This paper discusses typical aspects of environmental sociology in Japan and what characteristics can be found in Japanese environmental problems when they are viewed from their relation to environmental problems in Asian societies.

The most prominent feature of environmental sociology in Japan is that it has been mainly the sociology of environmental problems, whereas in the United States it has been mainly the sociology of the environment. The second characteristic is closely related to the first: environmental sociology in Japan has focused on the local community and the life of people and victims affected by environmental problems.

The third property would be that many studies by environmental sociologists have been accumulated by the Japanese Association for Environmental Sociology, which was set up in 1990.

The approach to the study of environmental problems in Asian societies reflects these characteristics. Views from the historical interaction between Japan and other Asian countries are essential to the study of environmental problems in Asian countries.

1. PREFACE

Environmental problems now affect all living things on the earth, and efforts for solving them are needed in every field in every country. Sociology, I believe, can play a part. With this conviction, as a president of the Japanese Association for Environmental Sociology, and together with the rest of the association, I organized "The International Symposium on Asian Societies and Environmental Problems", which was held in Tokyo in July of 1993.

There were two main objectives. The first was to point out Japan's special role and status in this area, as Japanese industry has been responsible for environmental problems both at home and abroad. The second objective was rather theoretical. Environmentalism is now fashionable, and companies which are still big polluters advertise themselves as new "green" or environmentally friendly manufacturers. There are also many newcomers to the field who write about global concerns. In these circumstances the existence of local victims of pollution or environmental damage, often caused by big manufacturers is easy to be overlooked. We felt that sociologists, who know how to analyze community structure and the behavior and interrelation of people in local societies, should take an active part in making these problems visible.

I would like to summarize the history and characteristics of environmental studies done by sociologists in Japan and talk about the viable ideas for sociological studies of environmental problems in Asian

societies based on the reports, discussions and my keynote address presented at the symposium (Iijima 1993).

2. ENVIRONMENTAL SOCIOLOGY IN JAPAN

The term "environmental sociology" (Dunlap 1978, Buttle 1978) appeared in America in the late 1970s, about 10 years earlier than in Japan. The first formal use in Japan was at the establishment of "The Japanese Association for Environmental Sociology" in 1990.

I was one of the founders and the first president of this association. The main motivation for setting it up was the strong desire of younger sociologists who had been researching environmental problems in Japan since the latter half of the 1980s for an appropriate forum for exchanging knowledge and experience. A major stimulus was the world-wide concern for the earth's environment, but another factor may have related to the special history of the sociological study of environmental problems in Japan. Although the term "environmental sociology" itself appeared quite recently here, substantial studies on some of the social aspects of environmental problems have been going on for more than forty years.

2.1 Pioneers: 1950s and 1960s

The first authentic study was the report published in 1955 by Shimazaki et al, which analyzed the serious social effects of heavy pollution caused by mining in the Annaka region (a rural area of Gunma prefecture) during the Second World War. This research was one link in a global study funded by UNESCO to determine the influence of technological innovation on the community. Shimazaki eventually became a witness in the lawsuit against the mining company, and gave evidence of the grave evidence of the grave health damage sustained by the farmers who lived near the mine.

The second important study was research done by Fukutake and his successors in 1965 on the pollution problems caused by the petro-chemical industry at Yokkaichi in Mie prefecture. Fukutake and his co-researchers were known as authorities on rural sociology (Fukutake et al, 1965). Stimulated by these remarkable studies, other sociological papers related to environmental problems appeared in the 1960s. Among them, Aoi's 1965 theory of social movement known as the "theory of 'jumin undo' (movement by inhabitants)" was influential.

Although the total number of related papers published in the 1950s and 1960s was not great, I think those mentioned above are prominent milestones in the history of the sociological study of environmental problems.

2.2 Accumulation of research: 1970s to the first half of the 1980s

From the late 1960s through the early 1970s the Japanese were subjected to many serious pollution problems and environmental disasters. Japan even earned the notorious nickname "The Kingdom of Pollution". Bitter conflicts arose frequently between victims and the manufacturing industries, the polluters.

By the early 1970s at least four diseases directly attributable to pollution were identified in Japan: Minamata and Niigata-Minamata disease (mercury poisoning), Itai-itai disease (cadmium poisoning), Yokkaichi asthma (sulphur dioxide poisoning), and Toroku arsenic poisoning. Although mercury poisoning, cadmium poisoning, sulphur dioxide poisoning and arsenic poisoning had been recognized as occupational hazards, they were now being found in residential areas. This sparked a kind of nation-wide pollution panic. Many academic studies were carried out in the natural sciences and in the fields of economics and political sciences to analyze the social, economic and political situations. Few sociological papers appeared, but those that did showed promising results. Takashi Nakano studied the influence of the industrial complex in Okayama prefecture (Nakano 1972). Haruo Matsubara and Kamon Nitagai published a book of research work on various types of habitant movement in the face of environmental destruction (Matsubara et al, 1976), which adapted the theory of 'jumin undo' first created in the 1960s.

I myself began to study environmental problems as a graduate student in the late 1960s. I visited the Minamata area and researched the social aspects of Minamata disease (Iijima 1970) using the method of the sociology of community. I also presented the new concept of the social structure of the victim in the late 1970s as a result of my research on the victims of Minamata disease, medicine poisoning (SMON disease) and occupational hazards using the theory of life structure (Iijima 1976). I published, in both Japanese and English, a historical chronology of environmental problems in Japan over a 400 year period beginning in the 1600s (Iijima 1979).

From the results noted above, we see that the sociological study of environmental problems in the 1970s was characterized by the accumulation of basic information.

2.3 Expansion of studies: Late 1980s to the present

In the latter half of the 1980s many sociological studies of environmental problems in Japan suddenly began to appear. Both the methods and subjects became varied and rich.

Harutoshi Funabashi, Takamichi Kajita, Munekazu Hatanaka, Koichi Hasegawa and Harumi Katsuta published two books on the environmental problems caused by the Super Express Train (Funabashi et al,

1985, 1988). Although air and noise pollution caused by transportation specifically had been a public issue since the 1970s, theirs was the first sociological study on the subject. Furthermore, they did not rely on the same approaches used in previous researches done on environmental problems produced by factories; instead they applied R.Merton's theory of the middle range and the concept of a "victimization zone/benefit zone".

A study on the social aspects of the pollution of Biwa Lake (Torigoe et al, 1984) also created a new wave, with its new concept of "life environmentalism" and its folkloric approach.

There were also other studies on new subjects such as the environmental problems caused by nuclear power plants, energy issues, the destruction of historic or rare natural habitats, problems created by farmers and fishermen and waste and environmental problems in developing countries. The interest of Japanese sociologists appears to have moved closer to that of American environmental sociologists lately, probably because the problems in both countries have become partly similar.

2.4 Characteristics of environmental sociology in Japan

There are two important characteristics in Japanese environmental sociology. The first is an approach to problems from the inhabitants' or victim's perspective, and the second is an emphasis on case studies. Japanese sociologists have been mainly interested in analyzing social structure of the victimized by environmental deterioration and the social movement of the victimized. In other words, we have been focusing the local situation and have been interested in understanding the social reality of the people who have been victimized by environmental deterioration. I think that the reason why this characteristics of Japanese environmental sociologists have shown had close relation to social reality of environmental problems and tendency of main concerns of other sciences. Although there have been so many victimized of environmental problems, on the contrary, few of preceded studies in other sciences analyzed them.

The reason we chose the term "Asian societies" instead of "Asian countries" at the Symposium was that we wanted to emphasize that our concerns were "local"; environmental problems are too often treated at a national or even global level. For example, if we see the global reduction of the tropical rain forest we may talk about its impact on the earth's atmosphere. On the local level, however, we examine how people live in the rain forest and how they are affected by deforestation. This viewpoint has been very important to most Japanese environmental sociologists.

Some new and different methods or approaches for studying environmental problems may and should appear if we are to develop a really

effective theoretical framework. However, I think that attitudes and viewpoints discussed above are also essential for analyzing environmental problems in other Asian countries which are now beginning to experience what Japan has already been through.

3. CHARACTERISTICS OF ENVIRONMENTAL PROBLEMS IN JAPAN AND OTHER ASIAN COUNTRIES

I have studied the history of environmental problems in Japan over the past 400 years, and have visited Asian countries since the end of 1970s to get a first hand look at their pollution problems. Though it is not within my grasp to provide a comprehensive framework for the sociological analysis of environmental issues in Japan and Asia, I think I can point out some of the characteristics.

3.1 The relation between environmental problems and work conditions

Environmental problems are often preceded by industrial accidents, occupational diseases, and consumer health concerns. In my opinion these three problems have incited more citizen mass movements than any other type of social disaster since the beginning of Japan's period of modernization. I think all these problems are interconnected in a fundamental way.

Theoretically and practically, occupational hazards precede environmental problems, but public understanding of the situation is often very different. The mining industry is a prime example. As long ago as the 17th century, rivers and paddy fields in Japan were poisoned by polluted water from copper, iron and gold mines. In some cases the protests mounted by the farmers were so successful that the mines were closed. However, the farmers were not the only victims. The working environment of mining industry was so bad that almost all workers suffered severe health problems and had drastically shortened lives. It is said that workers reached the age of 25 were celebrated for their "long life". They suffered from silica lung disease ('yoroke', or 'staggering'), an affliction which the mining industry has not been able to eliminate to this day.

Another example was the spinning industry, which started in the middle of the 19th century. By the end of the 19th century, Osaka, Japan's most populous city at the time, was also the most polluted. It was called "the city of black smoke", due to the numerous chimneys of spinning factories, which meant that the air of Osaka area was always covered with dark smoke. This was the problem of pollution. On the other hand, the spinning industry hired many girls ranging in age from 8 to 13 from rural area, and made them work 10 hours per day (and night) in fluff-filled rooms. Most of them were sent home with tubercu-

losis after working for about a year.

The iron industry, which began in the early 20th century, was seen as Japan's most important industry. However, many iron workers were injured in serious accidents, and smoke from the factories polluted the air severely.

A fourth example is the chemical industry. The factory which dumped organic mercury into the sea, causing the infamous Minamata disease among the local fishermen, was also notorious for workers' accidents.

These examples show that environmental problems and occupational hazards stem from the same root. Similar events are now happening in other Asian countries. For example, in the Philippines there is an industrialization process of unprecedented size called Calabarzon which started in the late 1980s. Relying on foreign capital, it has been carried out mainly in agricultural environmental problems and the violation of the human rights of workers, farmers, fishermen and citizens (Bueno, 1994).

3.2 Environmental problems are not by-products of capitalism only

Although it has been said that capitalism itself causes environmental problems, they have also occurred in feudal and socialist societies. At the symposium professor Yude Wang of China reported on what was happening to the lives of people and the natural environment in China (Wang, 1994). That country has embarked on a policy of industrialization, and environmental concerns have been put aside. And since the collapse of socialism in eastern Europe we have become aware of many serious environmental problems there. We have already discussed pollution by the mining industry in premodern Japan.

I think these facts show that environmental problems are not only related to the political or economic structure of a society, but also to the values cultivated by the leaders of the nation. There have been many conflicts in Japan between industry and residents, and we are now seeing them in other Asian countries. In most cases the political leaders have focused on industrialization or industrial development. Most farmers and citizens, on the other hand, resist such policies and would like to continue with their traditional lifestyles.

3.3 Environmental problems have political and cultural dimensions

Since industrialization is usually mandated by political and industrial leaders, they are often able to use their power to hide pollution and suppress the complaints of the victims. We have seen this frequently in the long history of environmental issues and conflicts in Japan, and are now seeing it in many areas in Asia. At the symposium, professor See-Jae Lee of Korea reported how the government and power com-

panies tried to hide the danger of nuclear power plants and shrewdly put pressure on the anti-nuclear movement (See-Jae Lee, 1994). And in Japan, despite the government's claim of "advanced" environmental protection laws and measures, policy on environmental protection actually moved backwards in the 1980s. While it is true that many laws and measures were implemented in the late 1960s and early 1970s due to citizen's movements, some of these measures were abolished or emasculated in the 1980s. Japan, therefore, is not 'an honor of pollution counterplan' which has been sometimes misunderstood by Asian countries.

The cultural dimension is connected to the political dimension: as industrialization proceeds, political and business leaders spread the idea to "put industry first", and a gradual change occurs in the values of ordinary people. In industrial areas in Japan and other Asian countries it often happens that people see tall chimneys as a symbol of prosperity, even while they are suffering from respiratory diseases. In this atmosphere the fight against political and business leaders is likely to be isolated.

3.4 Victims are concentrated among the powerless

In most instances the victims of pollution problems and occupational disasters are people at the bottom of the social ladder. For example, the victims of Itai-itai-disease were mostly women farmers, and at its outset the victims of Minamata disease were poor fishermen. Almost all victims of occupational hazards are blue-collar workers.

Environmental pollution has been transferred to other countries as a result of increased social pressure or with the implementation of protective measures. Indeed, when faced with the rising protests of the anti-pollution movement in the 1970s, Japanese companies "exported" pollution to other countries, where victims were often farmers or fishermen (Ari, 1994, Surapol, 1994). The transfer of environmental victims to other Asian countries continues to this day.

Domestically, nuclear power plants tend to be built in rural areas. Those living in the area receive the least benefit and the most danger. Dangerous work tends to be allocated to the most deprived workers, such as illegal immigrants.

By refusing to clamor for reform, the Japanese people share the blame with governments and big business for the worsening environmental conditions in foreign countries. We should keep in mind that the mass consumption of the Japanese people has much to do with excessive development in Asian countries.

3.5 The close relation between health damage and the deterioration of life

All cases of health damage due to pollution, such as Minamata disease, Itai-itai-disease, asthma and the harmful effects of medicine or food have shown a close relation to the deformation of life (Iijima, 1992).

The extent of the damage incurred by pollution victims often has a direct bearing on the scope of the secondary problems related to their living conditions. If the health damage is not serious and the victim is able to return to work, the ensuing problems will not be overwhelming and there is the possibility of a complete recovery for the victim and his family. However, when the victim requires many years of treatment before even partial recovery is possible, or when the victim is permanently disabled, the suffering involved is almost impossible to measure. In the worst case the death of the victim would leave the family in a very difficult or even impossible situation.

When the breadwinner in the family is killed in an industrial accident or environmental disaster the complications that ensue are all too obvious. In such situations the wife is forced to find work and sometimes the children are obliged to give up school in order to care for younger children, or even to obtain work. Often the family is unable to restore its standard of living. When the victim is the mother, the secondary problems can be so extensive that the human relationships in the family become greatly altered. If a young child is the victim, the burden on the mother is increased, and family viability can be threatened. This is particularly the case with thalidomide babies and with infants suffering from mercury poisoning. Even when the cause of the disaster has been fully understood the mother's suffering is increased by the fact that the poisoning was administered unwittingly through the food chain by the mother herself. In these ways the social roles of the victims and their positions within their families also determine to a great extent the degree of damage done to the family infrastructure.

Only Japan has experienced so many health problems and their effects on living standards due to environmental destruction. These tragedies should not be transferred to other countries, or even to other places within the nation.

3.6 Anti-pollution movement

Finally, I would like to emphasize the role the anti-pollution movement has in protecting the environment. The anti-pollution movement encompasses groups representing the environment, victims of pollution, citizens and consumers. Major reforms of Japanese policy, such as the enactment of the Anti-pollution Basic Law in 1967 or the enactment of

14 related laws in 1970, should be seen as the result of their persistent efforts. I think that the history of environmental pollution in Japan shows that the first step towards the solution has been taken by the victims of pollution. From this fact I am convinced that the true solution should be based on "real" efforts at the local level. This is also true in other Asian societies.

4. CONCLUSION

The new field of environmental sociology has developed different objectives and approaches in Japan and the United States because of the different environmental problems faced by each country. In Japan it may be called "the sociology of environmental problems", while in the United States it would be "the sociology of the environment".

Although these two approaches are slowly becoming closer as the problems faced by each country become similar partly, there is still a big difference. For historical reasons, it would be the duty of environmental sociologists in Japan to study environmental problems in other Asian countries, and especially Japan's involvement in these problems. Although study has just begun, solutions are anxiously awaited.

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