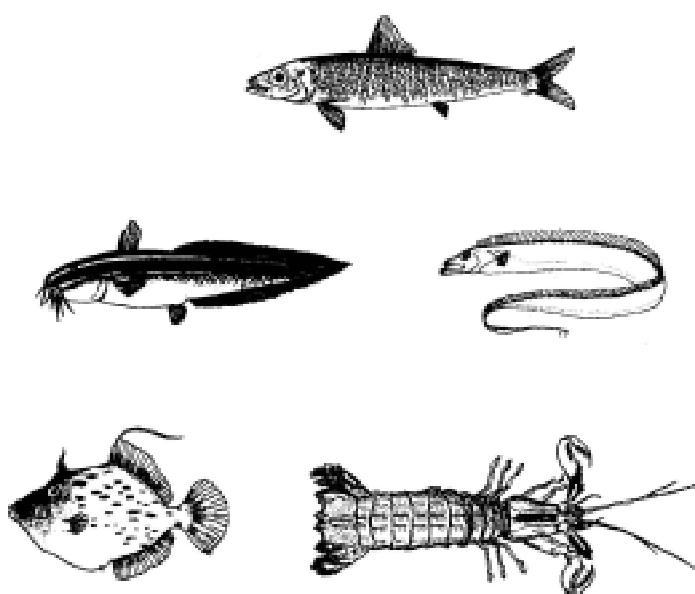


TEN THINGS TO KNOW ABOUT MINAMATA DISEASE

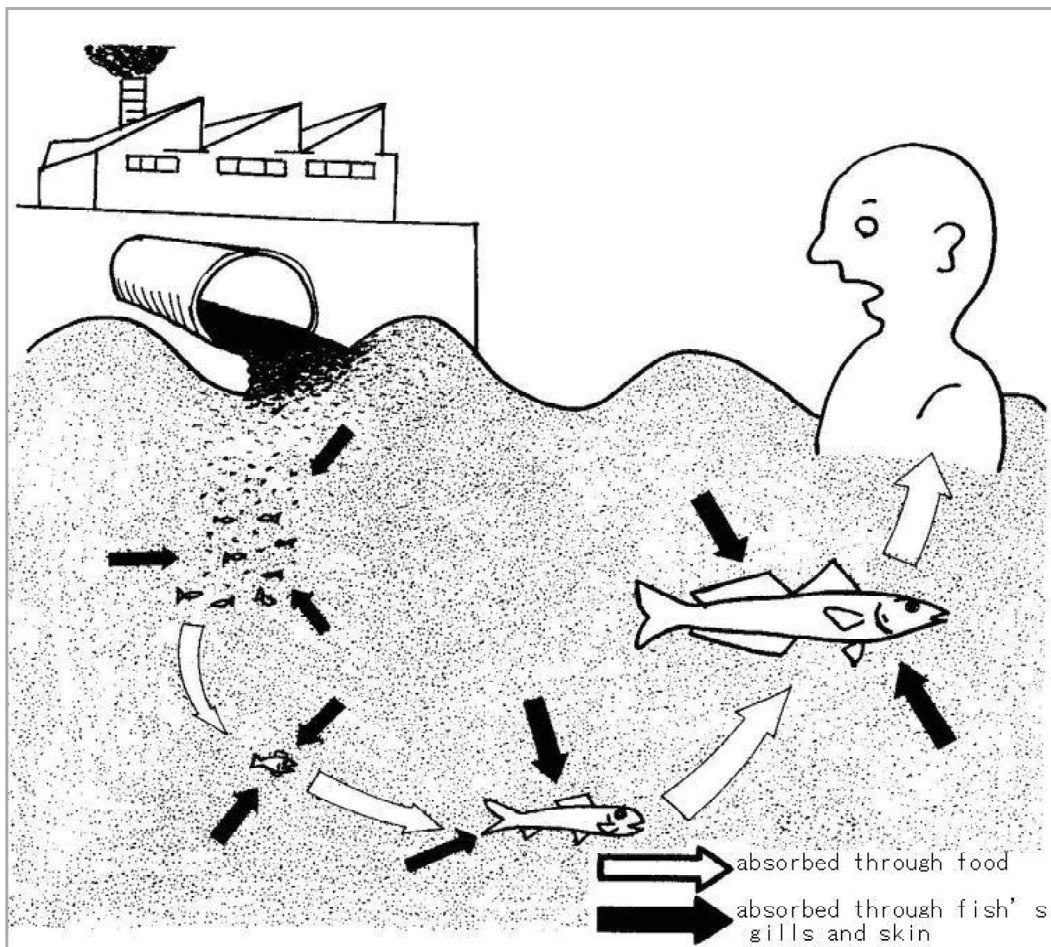


Studying and understanding Minamata disease makes one aware of the importance of the environment and nature.

In order not to repeat a tragic incident such as Minamata disease, we collected common questions about Minamata disease.

It would be our great pleasure if this booklet helps you understand about Minamata disease.

1.WHAT KIND OF DISEASE IS MINAMATA DISEASE?



accumulation of methyl mercury

Minamata disease was caused by eating large quantities of fish and shellfish polluted by methyl mercury discharged into Minamata Bay. Minamata disease is not a contagious or genetically transmitted disease. It was officially discovered in Minamata, Kumamoto prefecture in 1956, and in 1968 the national government announced that this pollution-related disease was caused by Chisso Co., Ltd..

The methyl mercury that enters the body mainly attacks the central nervous system. The symptoms include numbness and unsteadiness in the legs and hands, tiredness, ringing in the ears, narrowing of the field of vision, loss of hearing, slurred speech, and awkward movements. Some early severe victims of Minamata disease went insane, became unconscious, and died within a month of the onset of the disease.

There are also victims with chronic Minamata disease symptoms, such as headaches, frequent tiredness, loss of the senses of smell and taste, and forgetfulness, which are not easily visible but make daily life difficult. Moreover, there are congenital Minamata disease patients, who were born with handicaps after being attacked by methyl mercury while in the wombs of their mothers who consumed polluted fish. No cure for Minamata disease has yet been discovered, so treatment consists of attempts to lessen the symptoms and physical rehabilitation therapy. In addition to the physical damage, there is also social harm, such as discrimination in relation to Minamata disease.

2.WHAT KIND OF SUBSTANCE IS ORGANIC MERCURY?



The Great Buddha in Nara

Humans have had a long history with mercury, and it is well known, for instance, that mercury was used in the gold plating of the Great Buddha in Nara and in the Edo period in medicine and facial powder. In Japan, the places named Niu indicate the areas where mercury was produced and used.

Mercury is classified into inorganic mercury and organic mercury. Metallic mercury, which is recognized as inorganic mercury, is used in the production of familiar items such as fluorescent lights, batteries, and thermometers.

Methyl mercury which caused Minamata disease is a type of organic mercury. It is a white powdery substance and its smell is like sulfur in a hot spring. It is easily absorbed by gastric and intestinal organs, and carried by the blood into the brain as well as the liver, the kidney, and even into the fetus. Methyl mercury is highly poisonous and causes great damage.

3.HOW MANY MINAMATA DISEASE VICTIMS ARE THERE?

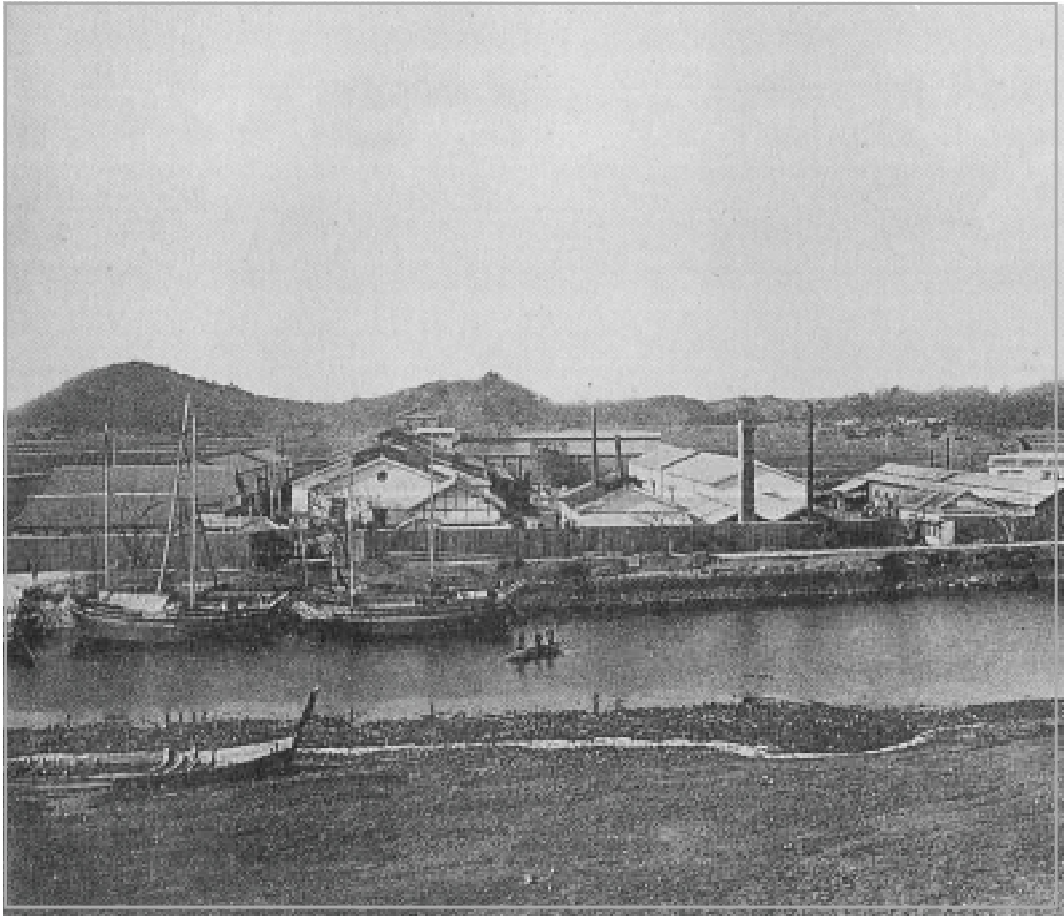


Minamata Disease Victims' Memorial Service

As of April 30, 1997, the number of people in Kumamoto and Kagoshima prefectures who had applied for certification as Minamata disease victims numbered more than 17,000. Of these 2,265 (of which 1,484 have passed away by January 31, 2003)were certified by the government. Moreover, there are 11,540 persons set as the object of the Minamata disease synthesis measure medical enterprise which carried out the last decision in 1997 also including the person who had already died. Therefore, the victim permitted the influence of mercury by administration for the moment can call it 13,805 persons. However, there are some people who died before the official discovery of Minamata disease, and others who died after the discovery without submitting an application form for official recognition and / or for medical assistance. Furthermore, some people did not apply for compensation for other various reasons, so it is impossible to know the exact number of victims.

The disease did not occur only in the Minamata area. In 1965 Minamata disease broke out along the Agano River in Niigata prefecture, caused by mercury discharged by the Showa Denko corporation. Ill-health or damage to one's health as a result of mercury poisoning caused by factories was also reported in China and Canada. In recent years rivers and lakes in the Amazon and Tanzania polluted by mercury have created serious health concerns.

4. WHAT KIND OF COMPANY WAS CHISSO?



The former Chisso factory constructed in the Meiji period

Chisso began as a hydroelectric power company in the late Meiji period. (1908) It built a carbide factory in Minamata, using the electricity, and before long began producing chemical fertilizers, becoming one of Japan's major chemical companies.

As Chisso grew so did Minamata. Its population increased, and Minamata became one of the leading industrial cities in Kumamoto prefecture. A former factory director once served as mayor, and Chisso's influence on the region and the residents' dependence on Chisso grew.

In addition to chemical fertilizers, Chisso produced acetic acid, vinyl chloride and the plasticizers that were necessary in their production. Chisso became one of the companies that made possible postwar Japan's rapid economic growth.

Since the Taisho period (1912-1926), pollution of the ocean by the wastewater from the Chisso factory had occasionally become a problem. However, from 1932 to 1968 the company continued to use inorganic mercury as a catalyst when producing acetaldehyde.

It was used to make acetic acid and the plasticizers, and in the course of production methyl mercury as a by-product was discharged into the sea until 1966 virtually without treatment.

Even after Chisso knew the factory wastewater was the cause of Minamata disease, it did not suspend its operations. In the judgement in the first Minamata disease trial, this type of negligent corporate morality was severely criticized.

5.WHAT IS THE CURRENT SITUATION OF CHISSO?



Some of Chisso' s products

Chisso Co., Ltd. has its headquarter in Tokyo and two other factories in Chiba and Okayama prefectures in addition to the Minamata factory. The main products of the Chisso Minamata factory are liquid crystal, preservatives, anti-desiccation agents, chemical fertilizers, synthetic resin and so on. The Minamata factory employs more than 554 people as of October 2002, and it is still an important company in Minamata.

Chisso has undertaken the big obligation to pay reparations as a cause company of Minamata disease. Since a possibility that management might get worse in 1975 and afterwards, and payment of compensation etc. might become impossible to Chisso came out, Kumamoto-prefecture has offered financial support to Chisso through prefectural loan issue from 1978 to 2000. (Total loan amount of about 260 billion yen) However, since it became difficult for Chisso to pay the borrowed money, the Japanese government will pay it instead of Chisso from February, 2000 every year waiting and in the meantime until Chisso can pay some borrowed money.

There is responsibility which continues the medical treatment to a patient and compensation of a life in Chisso. Moreover, influencing to society is also called for so that the same fault may never occur as a cause company of Minamata disease.

6.WHAT HAS HAPPENED TO MINAMATA BAY?



Minamata Bay Reclaimed Land (Eco Park Minamata)

The sludge in Minamata Bay, of which the concentration of mercury was beyond 25 ppm, was dealt with partly by land reclamation and partly by dredging at a cost of approximately 48.5 billion yen over 14 years. The cost was covered by Kumamoto Prefecture. As a result, a portion of Minamata Bay has been transformed into 58 hectares of reclaimed land. The quality of water in Minamata Bay is one of the best in Kumamoto Prefecture in terms of transparency and cleanliness, so one does not need to worry about swimming or playing there. In order to prevent the spread of polluted fish and reassure the residents of the prefecture, the prefecture put dividing nets at the entrance to Minamata Bay in 1974, and enlisted the cooperation of the fishing cooperative to catch fish in the bay. Chisso had been buying the fish that had been caught and had been disposing them.

The concentration of mercury in fish and shellfish in Minamata bay has continued to decrease since Chisso stopped its production of acetaldehyde. It was confirmed that there were no species of fish that contained more mercury than the provisional national standards (0.4 ppm total mercury, 0.3 ppm methyl mercury) according to an investigation conducted by Kumamoto Government in October, 1994. Therefore, the Governor of Kumamoto declared Minamata bay is safe in July, 1997, and the dividing nets were removed in October. Now it can be said that the fish and shellfish in Minamata bay are as safe as those of outside the bay.

Even though the dividing nets had been removed, investigations into the concentration of mercury in fish and shellfish continued to be conducted twice a year for the next three years. Comprehensive data on the sea of Minamata which has experienced such large-scale environmental destruction and the health of the local residents are to be passed on to the rest of the world so the most can be made of the lessons of Minamata disease. In order to do so, long-term observation is needed.

7.WHAT COMPENSATION DO THE PATIENTS RECEIVE?



The signing of an agreement between the patients' associations and Chisso in 1996

Patients and Chisso concluded a compensation agreement in July 1973, based on the March 1973 court decision of the Minamata disease trial and the direct negotiations that took place afterwards. Under this agreement, one time consolation payments of between 16 million and 18 million yen were paid to certified patients. In addition, annuities, medical expenses, nursing costs, funeral expenses, hot spring treatment expenses, and the cost of acupuncture and moxibustion treatments are paid. Also, Chisso uses the interest from a reserve fund to pay diaper expenses, home help costs, condolence gifts, massage treatment expenses, and transportation costs to and from hospitals.

Moreover, for those who have not applied for certification but meet certain requirements such as experiencing loss of sensation in all four extremities and having eaten large amounts of fish and shellfish, Kumamoto and Kagoshima prefectures pay the medical expenses not covered by health insurance, and expenses for other medical treatment (17,200 to 23,500 yen per month as of November, 2000) through its Comprehensive Minamata Disease Treatment Project.

Based on the Final Settlement proposed by the National Government, those, whether they are alive or not, who meet certain requirements for having been affected by methyl mercury (except for certified Minamata disease victims) agreed with Chisso that they would not ask for further compensation in 1996, and received compensation payments of 2.6 million yen.

8. WHAT HAVE THE PATIENTS BEEN REQUESTING?



Mr. Hamamoto, talking about Minamata disease as a narrator

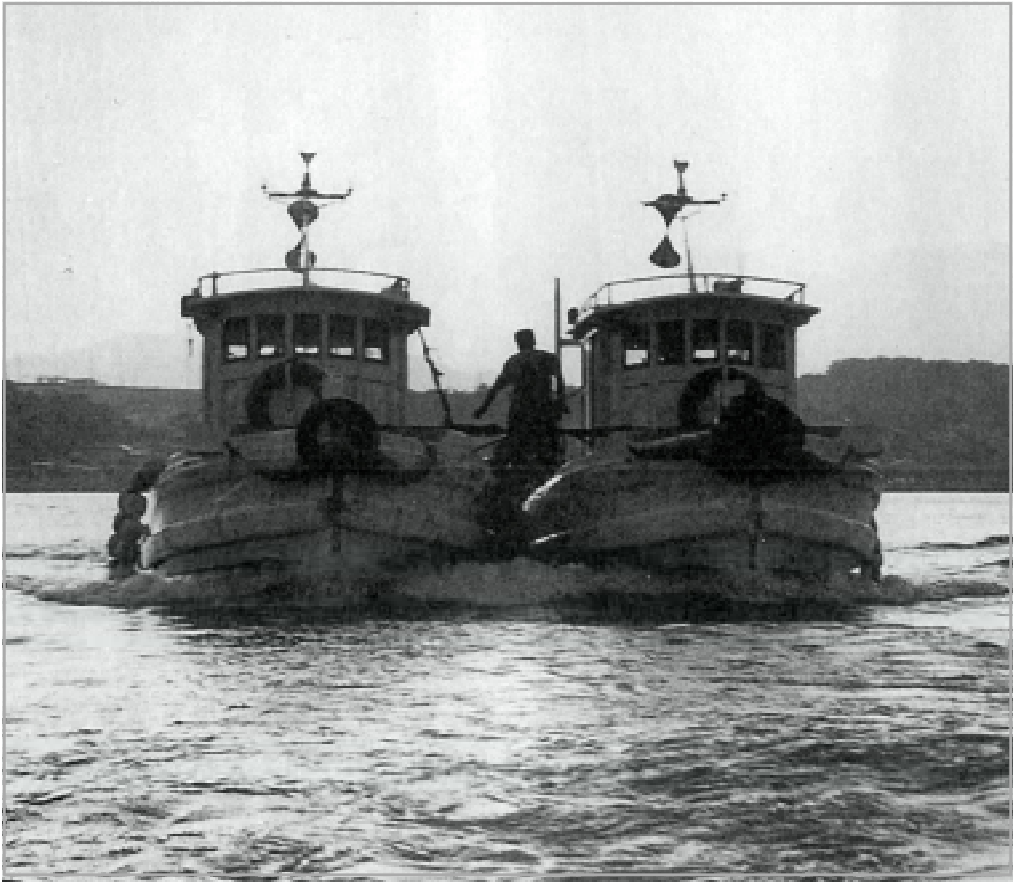
More than 40 years have passed since Minamata disease broke out. For the Minamata disease patients, the 40 years has seen the continuation of hardship and strife. What the patients requested through the trials and negotiations against the administrations and Chisso was a heartfelt and sincere apology for having caused Minamata disease and not having helped the patients. Also, the patients have been requesting that the victims' conditions be acknowledged and quick relief be provided. What they most strongly appealed for during this period, one of isolation from the local society, was that they be treated as human beings and citizens of Minamata.

There is no complete cure for Minamata disease. Most patients go to hospitals every day for symptomatic treatment and rehabilitation. As the patients become older, the number of people who are hospitalized or receive home medical assistance increases. In this rapid aging society, the patients' wish that they be able to live in the community without any worries is also a common concern in Minamata.

Needless to say, those who can move their body do what they can manage. Although farming and fishing are considered heavy labor, they can help with rehabilitation. Some patients work for companies. The patients have learnt to live with their symptoms. However, prejudice and misunderstanding related to Minamata disease still remains. As such there are cases in which some patients hesitate to reveal that they are a Minamata disease victim even to their family or relatives. Others devote themselves to activities such as talks about their experiences and the lessons for future generations, hoping that Minamata disease will never be repeated.

Not forgetting those who were sacrificed to Minamata disease as the desire for materialistic prosperity and a result of natural destruction, what can we do next? What the patients would ask us to do is to continue to think about what we can do from now on.

9.WHAT IS MOYAI NAOSHI?



Moyai boats

‘Moyai’ literally means to bind boats together or to do something together. We name cooperative community projects ‘Moyai Naoshi’, which stress tackling the Minamata disease issue, and facing, understanding, and working together here in Minamata where the relationships among people and between people and nature were once destroyed.

Around the time of the outbreak of Minamata disease, the Minamata disease patients had problems mixing with neighbors, because people thought the disease was contagious.

Even after the mercury in the wastewater discharged from Chisso was determined as the cause of the disease, the victims were ignored by those who were dependant on Chisso. The trial and compensation payments were considered a threat to the existence of Chisso.

In addition, the victims experienced discrimination and malicious slander in relation to the compensation payments. Among those who applied for certification, it was said that some were faking disease symptoms. Since the disease was caused by Chisso, on which Minamata was financially dependent, strikes broke out followed by hostility among the residents. Relations between people supporting different standpoints have been severed for a long time.

However, having overcome these misunderstandings and realizing that hostility accomplishes nothing, the administration, the citizens, and the victims of Minamata disease are taking actions together for the reconstruction of Minamata through talks and activities.

10.WHAT CAN WE LEARN FROM MINAMATA DISEASE?



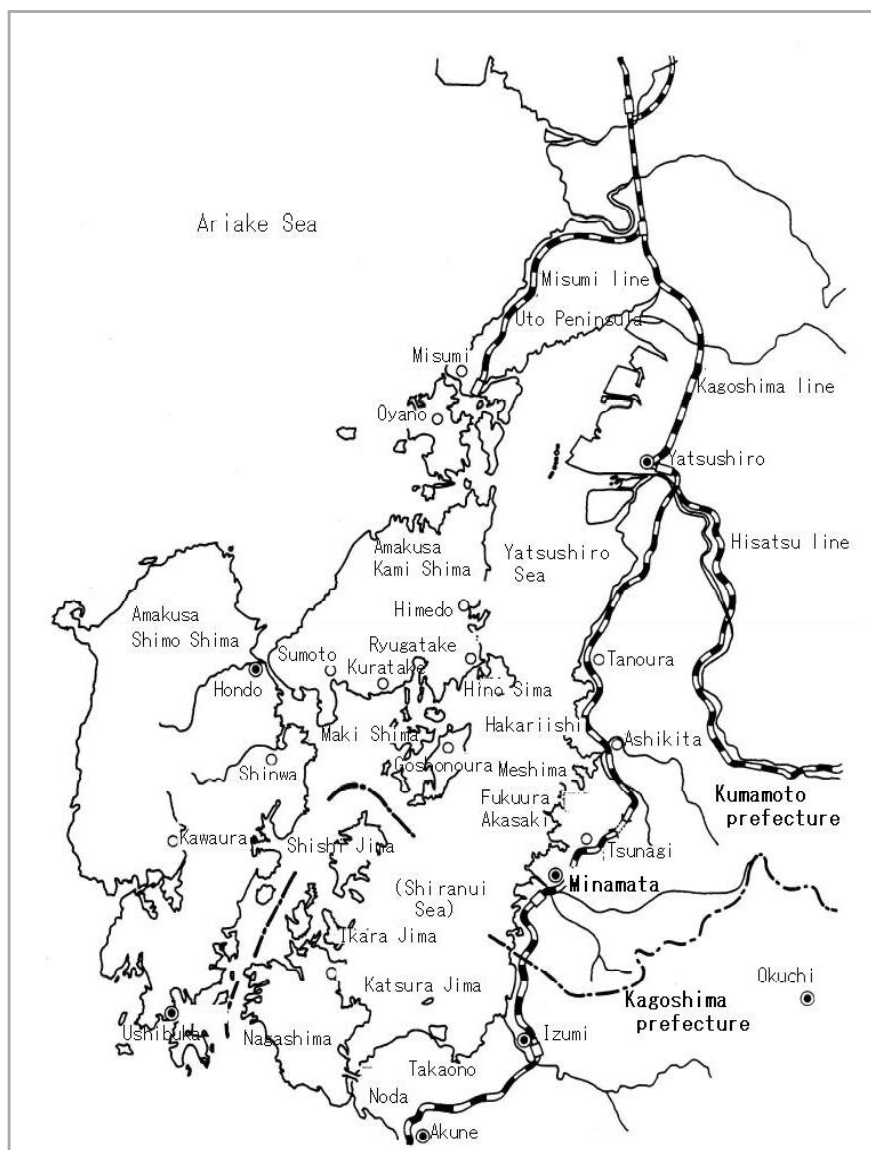
the classification of trash and refuse by the residents into 2 1 groups

Minamata disease was caused by eating contaminated fish and shellfish, which were polluted by industrial waste discharged by Chisso. At the same time, hostility among people broke out.

The citizens of Minamata have learned that water and food are essential to life, and therefore invaluable, and that household and industrial waste should not be allowed to destroy the environment.

Mass production, mass consumption, and mass waste make our lives more convenient and prosperous. Yet, our environment and health are suffering, surrounded by exhaust fumes, agricultural chemicals, food preservatives, and various toxic substances. We can not think about our rich materialistic lives without referring to the relationships we have with other countries. Minamata disease tells us that human beings can be the perpetrators as well as the victims.

Minamata disease also tell us: to coexist with nature, based on the idea that we are living thanks to nature; to think about the relations among people, rivers, and the sea; to think about food which is safe; to decrease home and industrial waste and to grapple with recycling; and to tackle global problems.



Siranui Sea Map

TEN THINGS TO KNOW ABOUT MINAMATA DISEASE

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