Sustainable Development of Tokyo Bay:
Collaboration of anti-reclamation movement and urban fishery

Kenji YAMAZAKI (Meiji University)
Tomoko YAMAZAKI (Iwate University)

1. Issue of Research

It is necessary to look at the history of our association with this body of seawater when studying the sustainable development of Tokyo Bay. Many people live this stage of sea. The association has changed over time, but there has always been a view of “learn from the sea”. However, during the high economic growth period following the end of WWII, a general trend was born to treat this sea as an object of real estate to be exploited. This resulted in the reclamation of coastal areas and construction of many factories thereon. The water from these factories was directly dumped into Tokyo Bay. The growth of the economy also resulted in a rapid increase of population. Here again, all waste from this growth flowed into Bay. Tokyo Bay was on the way to certain death.

The movement to revive Tokyo Bay, however, was initiated among the local inhabitants and activities of fishermen. When we open the history book on the environmental pollution, it becomes clear that “the fishermen have been sensors for pollution and subjects of experimentation.” Fishermen were the first to be affected by pollution in the cases of Minamata, the second Minamata, Yokkaichi and Ashio incidents. By focusing on the activities of fishermen, we can understand the requirements for the sustainable development of Tokyo Bay and we can see the true nature of the issue. Should we plan to stimulate a spending spree by constructing a casino that overlooks the night scene of Tokyo Bay or should we strive to regain a blue sea where fishermen can maintain their living? The choice is obvious.

2. Methods of Research

This research utilized the statistical data of the fishery census and the fishery statistics of Kanagawa and Chiba prefectures. Information was also obtained through conducting surveys of fishermen.

3. Contents of Research
3.1 Reclamation of Tokyo Bay

Reclamation of Tokyo Bay and the resultant change of the Environment Reclamation of Tokyo Bay began when Shogun Ieyasu at Edo Era constructed EDO Castle approximately 400 years ago. We can see how the Hibiya gorge was filled in when we walk through the Hibiya Park. The Kanda River, from where tea-water (Ochano-mizu) was taken, was excavated as the outer moat (Sotobori) and the soil taken out of the ditch was transported to Hibiya. The scale of reclamation at that time, however, was not so great as to completely destroy the ecosystem. “Edomae-no-Umi” (the sea in front of Edo) was the source of protein supply for the people of Edo.

Tokyo Bay is a resourceful sea because it continuously supplied animal protein to the people of Edo, whose population exceeded one million. Even today, there are some fishes that have decisive influence in setting market prices in Tokyo and Yokohama.

However, at the same time, Tokyo Bay is the ground for accumulating waste. The final disposal site for wastewater and garbage is Tokyo Bay. Tokyo Bay once had a self-cleaning capability. It was large-scale reclamation that removed the bay’s self-cleaning capability. Reclamation destroyed the tideland, and thoroughly! The tideland provides breeding grounds for fish and is where photosynthesis is carried out with abundant sunshine and dissolution of organics is greatly enhanced. The shallow inshore provides creatures not only with good living conditions, but it also satisfies the conditions for reclamation. Reclamation made it possible to secure large parcels of industrial land together with port facilities. Besides, a refuse dump was readily available in front!

Reclamation started in earnest in the late Meiji era, when the sea area extending outward from Kawasaki city was filled in. In general, a commercial seaport includes combination of anchorage and port facilities. You can see a typical example of this in Yokohama. Barges are used to off load raw materials for Kawasaki and Tokyo and to load the finished products onto ships. It was difficult to construct port facilities within an industrial complex when dredging and reclamation were low-level technologies. The advancement of these technologies completely changed the value of shallow inshore areas. The dredged soil from the construction of port facilities was used to reclaim new land for industrial use. In this way, simultaneous construction of port and industrial facilities became a reality.

The greatest reason for triggering the Kawasaki Reclamation Project was the pollution by “Asano Cement Corporation”. Since the days when the Government owned the factory, the fine dust and smoke were causes of conflict between the company,
located at Fukagawa, and the inhabitants of the neighborhood. This issue was taken up by the Imperial Parliament and, in 1911, the company promised in writing the abolition of the Fukagawa factory within five years. In the background of this, was the Ashio mine pollution, the biggest pollution issue of the Meiji era. Asano, at the same time, judged that it would be much more profitable to construct a large-scale modern factory. Messrs Soichiro Asano, Eiichi Shibusawa and Zenjiro Yasuda formed a union called “Tsurumi Reclamation Union” in 1912. A sand pump ship was purchased from Britain and reclaimed land (586.7ha) was constructed at the mouth of the Tsurumi River, the seaward extended area of Kawasaki. This site was accompanied by a pier which could accommodate ten thousand ton class ships. On this reclaimed land, heavy chemical industries such as Asano Cement, Nippon Kokan and Asahi Glass were born and, in time, they became the nucleus of Keihin Industrial Zone.

Post WWII reclamation projects picked up speed under in two versions. They were, “Tokyo Style” and “Chiba Style”.

The reclamation projects in Tokyo that took place during the period spanning from 1946 to 1965 were called “Tokyo Style”. The main issue associated with the port of Tokyo was construction of a wharf capable of accommodating large ships. The memory that rescue materials could not be quickly delivered to the damaged areas during the Kanto Earthquake Catastrophe made a strong impression on the minds of the city planners for the necessity of large wharves. During the post WWII period, wharves were constructed with the objective of providing direct cargo off-loading capabilities for large ships. Funds were publicly raised and reclamation work was done. The first post war reclamation projects were to build a coal off-loading wharf at Toyosu and a wharf to off-load grain at Harumi. These facilities played an important role in reconstructing infrastructure for the war-devastated Tokyo. The newly constructed areas were sold to gas and power companies, and power stations and gas distribution facilities were built. The money raised through the sale of newly constructed lots was used as capital for the reclamation projects that followed. Thus, the reclamation work kept going.

The reclamation projects of Chiba Prefecture that took place during the period from 1966 to 1975 were called “Chiba Style”. Chiba Prefecture declined into one of the entities recovering from bankruptcy in 1966 and unable to raise new money. Facing this predicament, Chiba Prefecture was successful obtaining advance money from the enterprises planning to move in reclaimed land and from large realty companies. The prefecture used this capital for agricultural and fishing compensation and creation of land. The land was distributed in proportion to the amount of advance money paid for the lots. The procedures to obtain the waiver of fishing rights were mainly undertaken
by the prefecture. The prefecture’s scheme was that the enterprises planning to move in were freed from all administrative annoyances. The fishing industry was lead to believe that it was wise to cooperate with the prefecture that held the authority to approve fishing rights. In this way, the coastal areas of Chiba Prefecture were rapidly reclaimed and developed.

There were some areas that escaped reclamation, specifically the vicinity of Kisarazu, Funabashi and Futtsu. The shallow inshore and fishing survived in these areas. The reasons Funabashi and Futtsu escaped reclamation will be discussed later.

3.2 Pollution of Tokyo Bay
During the high-level economic growth period following the end of WWII, the pollution of Tokyo Bay became grave. The incident triggering the legislation of the two laws governing water quality was the invasion of Edogawa Factory of Honshu Paper Mill by neighborhood fishermen. This factory was located about 8.8km upstream from the mouth of Edogawa River. A new manufacturing factory of semi-chemical pulp was completed in April, 1958. This factory dumped pitch-black wastewater into Edogawa and caused great damage to the down stream fishing grounds. The fishermen in the down stream area protested against the company immediately after the dumping the wastewater began and demanded a negotiation. But the company continued dumping and this lead to protest action by fishermen, on May 24, 1958, which was centered around the Urayasu Fishing Cooperative Association. Negotiations between the company and the representatives of fishermen were held seeking the company to stop its operation and refrain from dumping wastewater. But, before the negotiation concluded, the company resumed the operation and discharged a great quantity of wastewater. On 10 June, a meeting of town people was held and, following that, the fishermen marched against the company. A violent clash took place between the police force guarding the factory and the fishermen resulting in many arrests and injuries among the fishermen.

Numerous supporting telegrams from many fishing co-ops throughout Japan were delivered to the Urayasu Co-op that delivered a strong protest. This indicated that the fishermen did not have an effective method to prevent water pollution. At that time, the pollution of Japanese coastal areas was already in progress. The incident triggered the introduction of two laws governing the water quality (the Water Quality Preservation Law and the Factory Wastewater Control Law) being deliberated and passed the Diet. However, these laws contained economic reconciliation articles and did not effectively function. They remained as laws which passively set minimum
countermeasures after the fact. As time passed, water pollution in various parts of Japan spread, both quantitatively and qualitatively, keeping pace with economic growth.

Pollution of Tokyo Bay progressed rapidly. As a result, the fishing business became an industry with no future and this lead to conditions for giving up fishing rights. The more the pollution progressed, the weaker the future of the fishing business became, and the reclamation of fishing grounds became easier. This new reclamation gave birth to new pollution and constituted grounds for new waivers of fishing rights. Thus, an evil spiral was created.

3.3 Fishing industry in Tokyo Bay
3.3.1 Change of fishing enterprises in inner Tokyo Bay

Here, I pursue a number of private fishing enterprises (fishing households hereafter) through the use of fishing censuses. The first fishing census was taken in 1954. From this census, we can see the state of fishing in the pre-large-scale-reclamation era. This survey shows that there were 14,673 fishing households in Tokyo Bay. Of that figure, the number of fishing households in Chiba Prefecture amounted to 10,398 and occupied 70.8% of total enterprises in the coastal area. Similar figures for Tokyo Metropolis are 3,140 and 21.4%, and 1,135, and 7.7% for Kanagawa Prefecture. Statistics that followed show a steady decline in the number of coastal fishing households; 12,162 in 1963; 10,138 in 1968; 5,332 in 1973; 3,216 in 1978; 2,753 in 1983; 2,486 in 1988, and 2,224 in 1993. The number of fishing households rapidly decreased in 1960’s and 1970’s. The notable characteristic of fishing household shrinkage is the fact that the number goes down rapidly to almost zero, area by area. The reason for this occurring is that the fishing industry in Tokyo Bay operates in the onshore areas and is based on the sector fishing rights or the cooperative fishing rights. Fishing operations are mainly seaweed farming or catching shellfish. Therefore, the waiver of fishing rights led to a complete loss of the bases of enterprise. The shrinkage in the number of fishing households in Tokyo Bay kept pace with the development of reclamation projects. The decrease of fishing households in an area indicates that fishing rights have been abandoned in a particular area and reclamation is on going.

Next, I will show the area and by timeframe where a large-scale decrease of fishing households occurred. During the timeframe 1954 to 1963, the number of fishing households shrunk in the areas and sectors covering Anegasaki to Chiba and Tsudanuma, Chiba Prefecture; Tokyo Metropolis; Kawasaki and Isogo of Kanagawa Prefecture. This coincides with the initial era of development to fund the high level economic growth as the construction of city and port facilities of Tokyo and the
Petroleum complex of Chiba were vigorously promoted. The methods of reclamation were invented and termed “Tokyo Style” or “Chiba Style” and a formula of enabling a rapid area development was formulated. In the inner bay of Tokyo Metropolis, there is only freelance fishing since the waiver of fishing rights of 1960.

From 1963 to 1968, the waiver of fishing rights occurred at Sakata, Kubota, Imazu, Aoyagi, Soga and Kemigawa in Ciba Prefecture. Also, all fishing industries disappeared in Kanagawa Prefecture. In every case, the coastal fishing ground was transformed into industrial land for the use of material supplying industries such as Petrochemical and steel. This trend continued from 1968 to 1973 when fishing enterprises disappeared at a rapid pace at Hatazawa, Sakurai, Kuranami, Showa, Inage and Narashino in Chiba Prefecture, and at Kawasaki and Namamugi in Kanagawa Prefecture. Between 1973 and 1978, the waiver of fishing rights progressed at Nanbu, Aohori and Narawa for the construction of steel plant facilities, and at Makuhari and Minami-Gyotoku for the construction of urban facilities. In Kanagawa Prefecture, the waiver of fishing rights continued for the construction of urban facilities. After 1978, there were no incidents where entire fishing enterprises in one locality disappeared together. This is due to the demand for land for developing large plants of material supply industries based on large-scale reclamation had diminished.

The census taken in 1993 shows that there were 2,224 fishing enterprises in the inner Tokyo Bay. Of this figure, Chiba Prefecture occupied 1,662/74.7%, Tokyo Metropolis 371/16.7%, and Kanagawa Prefecture 191/8.5%. Comparing the number of fishing enterprises of 1963 and 1988, and noting those settlements where 50% are surviving or where more than 100 fishing enterprises are grouped together, we find that such areas existed at Futtsu, Kisarazu, Egawa and Funabashi-Gyotoku in Chiba Prefecture, at Ota in Tokyo Metropolis, and at Shiba-Kanazawa in Kanagawa Prefecture. Excepting Tokyo Metropolis, all such areas maintain the fishing rights.

The rapid decrease of the number of fishing households is the result of waivers of inshore fishing rights as reclamation progressed. Does this mean that the fishing industry is an old profession and not qualified to make a living in Tokyo Bay? As shown above, the number of fishing household that hold inshore fishing rights (like the examples of Shiba, Funabashi, Futtsu and Kaneda) did not extremely decrease when compared to the record of 1950’s. These fishing colonies hold some form of fishing rights, including the inshore fishing rights. The existence of fishing households in a form of a colony making a living by fishing through the generations is evidence indicating that Tokyo Bay holds the possibility to be a “resourceful sea”.

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3.3.2 The first case study: Shiba of Kanagawa Prefecture

Shiba was a half farming-half fishing village during the Edo period. In 1883 the seaweed farming business was introduced to this village. In 1937, the Imperial Japanese Navy confiscated the village’s land to build a petroleum storehouse and placed it under the control of a fortified command. In 1949, a fishing co-op was formed seeking to give direction to the fishing production of the area. The fishermen cooperatively constructed a common drying facility and tried to produce high value seaweed. Individual fishing households went into comparatively large-scale operation summoning not only family labor, but also hired hands. By 1968, almost all fishing households acquired own seaweed drying facility and successfully achieved quality improvement. Despite all these developments, a plan for reclamation of the sea area where the seaweed farming existed was schemed. This reclamation plan was drafted aimed at the fishing grounds at Tomioka, Shiba and Kanazawa. The co-ops of Tomioka and Kanazawa accepted the plan and entered into negotiations on compensation and concluded agreements in an early stage. But the fishermen of Shiba bitterly objected to the plan and the negotiation did not smoothly progress. At Shiba, there were many people earning high incomes. There were quite a few fishing households that were using not only family labor, but also hired labor. In addition, a considerable amount of money was invested in the seaweed producing facilities. In December 1969, the mayor of Yokohama visited the Shiba co-op and made a proposition that included Shiba’s approval of reclamation plan and consideration of Shiba’s future. The mayor explained the difficulties confronting the inshore seaweed farming business and suggested to seek living in an urban fishing business citing the example of Fisherman’s Wharf in San Francisco. The mayor also suggested that if Shiba agreed to an early conclusion of the negotiation, the city might offer a tax cut privilege on the compensation money. When Shiba finally sat down at the table for compensation negotiation the compensation money was already paid to the co-ops of Tomioka and Kanazawa.

Shiba sought a new type of fishing business and found trawl fishing. Ships and nets were procured using the compensation money and, after acquiring small ship trawling rights, Shiba entered into a new fishing business specialized in catching mantis shrimp. Mantis shrimps have to be boiled and peeled before sending them to market. Abundant household labor was essential. Since the days of seaweed farming, the fishing households of Shiba maintained fairly good source of household labor. This household labor played an important role in smoothly carrying out such operations as shell peeling, size selection and shipping preparation without freezing the products. Shipment of the products while cold and fresh was evaluated highly over other similar products. Mantis
shrimp of Shiba obtained the price reader position in Tokyo and Yokohama markets. It can be said that there is a reverse correlation between per capita fishing income and the number of fishermen. The reality was that a small number of fishing households survived in a situation where fishermen in the neighborhood were either changing jobs or quitting. It was certainly an advantage to be able to ship mantis shrimps cold and fresh leveraging the proximity to cities. Creating a new fishing business while waiving the inshore fishing rights can be positively evaluated.

However, the amount of mantis shrimp is down in recent years. In order to protect resources, individual producers are forced to exercise self-control in shipping amounts. It is difficult to control the amount of catch, and a control by restricting the number of fishing days was adopted. This method uses a combination of “two working days and one day of rest”. This is an example showing that fishermen are involved in environmental protection of Tokyo Bay. At the same time, other measures are being taken like stocking fry or establishing no-catch periods or technical measures, like adopting fishing nets of larger mesh.

In order to make the citizens aware that Tokyo Bay is a resourceful sea, morning markets are open on Sundays. Here, efforts are made to appeal to the numerous citizens of Tokyo through selling the fish caught in Tokyo Bay. Tokyo Bay is dead in the mind of most citizens, so they are surprised to know that fresh fish are presented from the bay. Citizens start to think that it is important to preserve Tokyo Bay as a sea of living fish.

3.3.3 The second case study: Funabashi of Chiba Prefecture
3.3.3.1 Preservation of Sanbanse
Funabashi City is located at about 40 minutes away from Otemachi, the center of Tokyo. Highly productive fishing is being done at this proximity to the center of the metropolis. Here, I intend to first outline the reclamation history of Funabashi and then move to study the movement of the fishermen who made the fishing possible there.

Funabashi once had the privilege of supplying fish to the Edo Shogunate Government called “Osaiba”. The “Osaiba” always favorably supported Funabashi’s position when involved in conflicts against other areas concerning the occupancy of fishing grounds. Another role Funabashi played was supplying salt to Edo from the sea area in the vicinity. Onagigawa (a canal) was built as the means to transport salt to Edo. We can observe fragments of history in the names of locales such as “Shioiri” (salty inlet) or “Shiohama” (salt beach). There once were “Irihama” style salt farms lined up on the coast. Salt making continued into the Meiji era. Salt making was a growing industry under a monopoly. However, in 1917, a typhoon and a flood tide brought
devastating damage to the salt farm. The Government did not reconstruct the salt farm and adopted a policy of concentrating all the salt farms of the country in the Inland Sea. The remains of the devastated salt farm became a target for development in the post war period.

In 1948, the Township of Funabashi tried to reclaim the salt farm and promote urban land usage. However, the reclamation project was interrupted due to the shortage of funds. A real estate company offered funds and proposed to continue the project, and the project was resumed. The reclamation work of the salt farm portion at Fanabashi was completed by 1961. Here, the prototype “Chiba Style” was born where commercial enterprises provide funds and local governments undertake the reclamation and the reclaimed land are distributed in proportion to the funds invested. The real estate company involved was absorbed by Mitsui Realty who provided funds for the reclamation projects of the coastal areas of Chiba Prefecture. In 1966, Chiba Prefecture sent notification of reclamation plans to reclaim the shallow inshore area fronting Funabashi. This sea area is called Sanbanse. The fishermen continuously protested for three years, but in 1969 they decided to waive their inshore fishing rights. The reclamation work, however, did not follow immediately. In 1973, the so-called “Oil Crisis” occurred changing the industrial structure of Japan. Projects to construct large-size material supply plants diminished. The reclamation of Sanbanse was repeatedly delayed and a presentation was made by citizens on the values attached to Sanbanse; i.e., 1.) Purification of water in inner-most Tokyo Bay, 2) Maintenance of ecology, 3) Mitigation of damage from the blue tide, 4) Intermediate resting grounds for migrating birds, 5) Presentation of a friendly water space for city inhabitants, 6) Production space, and 7) Scenic views. This presentation by citizens and the fishermen using Sanbanse as the grounds for production joined forces for the preservation of the environment. Chiba Prefecture repeatedly drafted plans to reduce reclamation projects and to obtain citizens’ consent for reclamation, but agreement was never reached. In September 2001, newly elected Governor Domoto supported abolition of the reclamation plan and the reclamation of Sanbanse was stopped at least temporarily. After this, round-table meetings of citizens, fishermen and scholars were held on the topic of revitalization of Sanbanse and a detailed presentation was expected soon.

3.3.3.2 Funabashi’s fishing industry
Rolling net fishing consists of two operating ships and a transport. Five to eight people are assigned per operating ship and two to three people are assigned to each transport. Many of these crews are migrant workers from the outer coast of the prefecture. The
operating season is from March to December. January and February are spent in repair and maintenance of fishing nets. There are three flotillas engaged in the rolling net fishing in Funabashi.

The main fishing grounds are Sanmaizu at the Arakawa river mouth, Sanbanse, Iwazu of Kisarazu, and Futtsu point. All are sea areas fronting barely remaining tidelands. The main catches are sea bass, black porgy and mullet. These fish are shipped alive to not only the Tokyo market, but also to the markets in Hanshin and Nagoya areas. In addition, sardines caught in the morning are delivered to the shelves of retailers for sale in the early afternoon. The proximity of markets is fully utilized. Also, even during fishing operations, market trends are received by radio and the catch is off-loaded at markets offering best prices.

As for shellfishes, the main catch is Asari. The fishing ground is Sanbanse located only 10 minutes away. This tideland is the sea area that survives thanks to the delay of reclamation projects. This area was struck by large-scale blue tide in September, 1985 and the shellfish of the area were totally devastated. Fishing operations were resumed only four months later, demonstrating its productivity. Due to the limited space of the fishing area, strict controls are exercised on the amount of catch and operating sectors.

Seaweeds is produced at Sanbanse from November to April. A cooperative sales system for seaweed was formed in Chiba Prefecture. Unification of quality and general upgrading of techniques are promoted, and the seaweed production in Funabashi is holding the position of price leader. It is indispensable to have costly machines available and reinvestment in facilities in order to stay in business. The reclamation issues of Sanbanse have caused uneasiness among people because these issues may necessitate new investments. Because of this, there is a decrease of producers and an increase of per capita production.

3.3.4 The third case study: New Futtsu Fishing Cooperative

Request for Cooperation with reclamation projects was intensified in Futtsu area beginning in 1965. Members of four fishing co-ops (Futtsu, Arai, Aohori, South Aohori) were anguished to make decisions whether to stay in business or not. An official reclamation plan (1442ha) was disclosed the following year. Given the background of intense requests for fishing rights waivers, Mr. Hiroshi Amuro, chairman of a multiplication research association, at Aohori Fishing CO-OP, thought there was no way to meet the fishermen's resolve to remain in the fishing business other than to develop a new fishing ground. The Marine Products Division of Chiba Prefecture also
was of the same opinion and provided support. As a result, a new fishing ground was sought to the south of Futtsu cape. This area has the characteristics of the outer ocean and considered unfit for the seaweed farming. But Mr. Amuro and his supporters, from 1967 to 1968, had already developed new seaweed farming technique through testing operation using the so-called “Okinagashi” method. A production-testing operation was conducted in 1969 on the south side of the cape and was successful. Good prospects for using the area as a new fishing ground was established.

Meanwhile, the fishermen took a position of being absolutely opposed to the proposed reclamation and the government agency demanded the waiver of fishing rights as a prerequisite of reclamation. There was no precedent of issuing a guarantee for a new fishing ground with fishing rights in addition to paying compensation money. Therefore, the government opposed the idea. However, since reclamation projects never progress without the cooperation of the fishermen, the Marine Product Division had to approve the fishing rights on the south side as a new precedent. Taking this as a prerequisite, those opposed accepted a negotiated waiver of fishing rights in the inshore area. The negotiation was successfully concluded and the fishing rights of 1402 people in the four co-ops were waived, including Futtsu Co-op which had concluded negotiations the previous year. The amount of compensation was 11 to 14 million yen per member.

When membership was offered to those who intended to continue seaweed-farming businesses in the new fishing ground, more than 800 responded. The total membership of the old four co-ops member was 1402. Of these, 57% had the intention of staying in the seaweed farming business. However, the area covered by the new fishing rights was restricted to an area of 3km by 3km. The capacity of fishermen who could operate there was 200 to 300. Therefore, the number of people had to be reduced. The new co-op came up with the four following conditions to qualify as a member.

1) Those holding high technical standards
2) Those having a successor to continue the business
3) Those free of bad debts
4) Those investing 5 million yen from the compensation money for new fishing ground development and installation of necessary facilities

The new ‘Futtsu Township Fishing Cooperative” was born in 1971 having 236 people selected through the above action. The 236 members, out of the 1402 old membership constituted 16.8%. From the old co-op point of view, the membership
records show as follows; Aohori 95 (335, 28.3%), Southern Aohori 52 (267, 19.5%), Arai 7 (66, 10.6%) and Futtsu 82 (734, 11.2%).

Those fishermen holding a strong intention to stay in the business, as well as having high technical standards were gathered and remained. Since the new operating ground faces the outer ocean area fed by no rivers and in order to carry out the seaweed farming business there, it was necessary to actively bring in new techniques and exercise collective control of the operating ground. Developments and propagation of such new techniques as “Betanagashi.” Catching nets for frozen products, and “Green-cut” will be required for mass production of good quality seaweed. Stability and continuity are brought to individual business operations by acquiring detailed specific evaluation of the market.

4. Conclusion

Tokyo Bay is not a dead sea. However, it could be said that the bay is near death with disappearing inshore areas of shallow water due to continuing reclamation work. There are people who make a living here. The inhabitants of Tokyo have been acquiring the most of necessary protein from this sea for about 400 years before rapid reclamation arrived. The preservation of the livelihood of fishermen is very important when planning for the preservation of this sea.

The role played by fishing in the preservation of this sea is not small. The struggle has is not only maintaining business, but it is also a campaign to preserve the environment. The preservation of fishing in Tokyo Bay will influence four aspects. They are: the cooperation of fishing and city people; new developments in urban fishing business and the upgrading of fishing techniques to fit the environment; the promotion of the resources of the sea; and the creating/supporting new industries which make good use of those resources.

We questioned how we could preserve the sea where fishing is done, in other words, fish can live while ecology is kept. I would like to ask if we should pursue short-term real-estate profits while using the sea as a waste disposal ground or should we plan to preserve the sea based on a long-term outlook.

Today, the situation surrounding Tokyo Bay is shows the last phase of decay. To preserve Tokyo Bay while fishermen can make a living is the practical answer to the issue of sustainable development of the Bay. The preservation of Tokyo Bay directly relates to the preservation of all the seas of Japan.
References


