THE REVERSE SIDE STORY ON THE RIVER MANAGEMENT IN THESE 60 YEARS IN JAPAN ~AS THE EXAMPLES OF THE CONFLICT BETWEEN THE UPPER AND DOWNSTREAM PEOPLE~

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PROLOG

There had been submitted numerous papers to academic societies or associations on the history of water resources development. However, among these papers, we would like to present our paper by way of referring to the long experience of ourselves.

It is not strange that together with changing the times, the sense of values changes. We have confronted water resources conflicts in various areas in Japan, experiencing the change of the sense of value occasionally. Several areas are selected to describe the typical cases of Japanese water conflicts and the change of the sense of value as the time passed.

In those water resources areas, the local government and the residents had entrusted to our organization with the research and the assessment of the development. It means that those occurrence reflect the situation of their difficult problems how to solve and confront and whom to rely on at that time. Because it was so difficult for them to find out the experts to give them adequate advise to help on the neutral and scientific stand-point.

The First case

The first case is the Chikugo River. The river is the longest and the largest river in Kyushu Island in Japan. It is not only the scale of it nor the view from it that famous. What makes it famous is the one as follows.

Just after the World War II, Japan has suffered from the severe typhoons that brought serious flood damage, especially to the lower part of rivers. Actually the victims of the flood damage reached more than one thousand almost every year from 1945 to 1959.

Especially in 1953, the lower part of the Chikugo River was suffered from heavy damage. At that time, the best way to resolve the problem was considered to out the river improvement works including dam-reservoirs.

Water resources area in Japan, is not alike that of other countries. We have local government and resident in any part of mountainous area, there, they had led their lives with long-established tradition from generation to generation. More than 65% of the country is mountainous and sparsely populated region.

In the upper part of the Chikugo River, one of the most severe anti-dam movement had happened. In about 1960's, it had been very rare kind of movements to happen and to be brought into court. In this case, Takahasi became an expert witness of the plaintiff side. That of suit itself was very sensational at that time, especially pursuing the advantage between private ownership and governmental system.

Since that suit, this case has long been a historical model of that kind of residential movement against the government. The shape of the fortress looked like a beehive nest, so people called it "the castle of beehive nest" since then.(Photo 1)

This case was the example of the days that the flood control was the most important for river management.

The Second Case

The second case is the Tadami River. The river is located rather near to the Tokyo Metropolitan Area. In addition, the upper region of the Tadami River are designated as special heavy snowy area in Japan by the Government. The melted-snow flow in spring and early summer is always the precious water resources for electric power generation. To recover from the ruins of the War, Japan intensely needed energy especially in industrialization and urbanization. To meet the need of that, hydro-power generation was actually planned and developed. However, the case of the Tadami River was different from other cases.

So many dams were continuously constructed, the river looks like a ladder or steps. (Figure 1)

How was the residents and local governments ? At the beginning, the concerned people had so expected to develop the region, as their desire since the old

time could come true, the desire to activate their area like TVA in U.S.A. Practically, they could increase the population and the employment. They also desired the same growth as the users of the electric power that was made from their rich water resources area.

Soon after the completion, the severe flood was occurred. The residents realized that those dams for electric power or irrigation do not protect against the flood damage and were not so effective to the flood control. On the contrary, the dams were tend to accelerate the damage, they thought. Even the employment they expected was not rewarded for the change from man power to mechanization. Company does not need their staffs to stay at the generation. Water resources areas become decreased in its population day by day until the old-age rate is over 50% at present.

Electric power facilities these days, as time wewnt by, became too old to keep their profit, the company abandon to keep their facilities to remove them, without assent of the residents concerned.

Today, in 21st century, we often call it "the century of environment preservation" or "the century of scenery". For the development of rural area, we need to have the above-mentioned both factors. However, the change of environment by the range of dams are too hard to remake without removal of those dams. Those areas also demand to take tax directly from the company to their water resources area for the development. But the situation is hard to achieve their object.

The Third Case

The third case is the Kitagawa River. The river is very famous for its beauty and good water quality. The river has been also popular with its flood control among the experts. Today, civil engineering works considering nature and scenery is highly appreciated. Often it is overestimated without considering the actual spot. The one of the traditional work for flood control is so-called "kasumi-tei"(open dike) that the bank of the river is not continuous, rather, discontinuous for leading the water to retarding basin. It is one of the typical and difficult problem between the upper stream area and the lower stream area. The upper stream area(often water resources area, and mountainous rural area) is almost always weaker politically than the down stream area(often urban and industrialized area). So the evaluation of the actual spot is often different from that of the remote area. Kitagawa river's damage from flood is too severe to be pleased with the evaluation from the remote area or the experts who are so absorbed in environment preservation and the scenery.(Photo 2)

According to the world climate change, this South Kyushu Island Area would be suffered from heavy rain annually. In addition, they have the case of renewal contact between electric-power company and them to improve their environment in their down-stream area of the dam. Other serious problem is the struggle between wild animals that give their agricultural product severe damage, and how to protect them against ,for example deer etc. becomes intense problem. These phenomena also accelerate residents to remove from their rural area to city areas.

EPIROG

Combination of municipal government with local government has enforced recently in Japan. It is very worthy of mention in Japanese history.

The number of local government become about from 3,300 to 1,800. The policy is now still progressing. In this policy, the local government of small villages and towns disappeared. Local problem become smaller and smaller with this policy, and the voice of mountainous area is no more the voice of the independent government but only the small voice of a part in small district in a large city.

On the other hand, NPOs are increasing, the discussion along the river basin area become active, interest in environment preservation is highly increasing, but the voice is often much stronger in urbanized and lower stream area. The opinion of the opposite side of the headwater area, , that is, the source of water supply area become weaker and weaker in these days.

What is one of the most different situation in Japan is, we have almost no untrodden areas. So, the development of water resources areas have not long been the problem of environment conservation but the problem of resident's future life.

However, recently, people living in the remote cities have rather the strong leadership in the anti-dam movement.



The Chronological Table on Water and River after the Second World War in Japan

- 1945~59 The period of Severe Flood Damages
 - 1953 The Hydrolo-electric Power Development Law
 - 1953 The Great Flood Damage of The Chikugo River
 - 1959 Ise Bay Typhoon
- 1960~72 The Period of Water Shortage
 - 1961 The Law on the Water Resources Development Public Corporation
 - 1964 The River Law (Changes from flood control measures only to add against water shortage for urban and industrial cities)
 - 1964 Tokyo Olympic Games
- 1973~96 The period of toward Preservation for Environment
 - 1973 Oil Crises
 - 1973 The Act on Special Measures for Reservoir Area Development
 - 1977 Policies for Comprehensive Flood Control Measures
 - 1990 Intimate River Works for Nature Conservation
 - 1995 Proposal on the Future Policy for Improvement of River Environment
 - 1997 Amendments to the River Law to emphasize the river

environment



Electric Power-Generation Map, Tadami River