PROPOSAL FOR THE AYASE RIVER PURIFICATION INTO REGIONAL STRATEGY PLAN

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Seseragi Group & NPO Corporate Ecology Yume Kikaku

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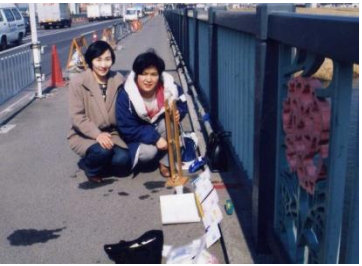
Thanks Mr.chairman.
I appreciate to introduce my activities.

Activity of Seseragi Group



Activity of Seseragi group

- At first of all, I will explain about SeseragiGroup.
- In 1986 ,Three Japanese housewives and I living in Adachi Ward in Tokyo formed a group to take action to help save the river that is so very important for our living environment.
  This group is named Seseragi Group.
- We examined the water quality of the Arakawa or Ayase River and visited the gravel purification facilities in the middle reaches of the Ayase river.
- Then we have thought it would be necessary to establish the same facilities in the lower reaches of the Ayase river too.

Founding an empty land for the purification facilities

Founded marsh land
1995

↑
Ayase river

Kuwabukuro Biotope
Park 2007

Ohsone Biotope
2009

Founding an empty land for the purification facility

- We founded an empty land in 1995 and proposed to the government to use it for the revitalization of the Ayase river.
- The government decided to buy the land and construct facilities with big money.
- After thirteen years, the two purification biotopes were completed.
- Ohsone Biotope on the left river bank in Yashio City and Kuwabukuro Biotope Park on the right bank in Adachi ward in Tokyo.

- How did we succeed? Here's how

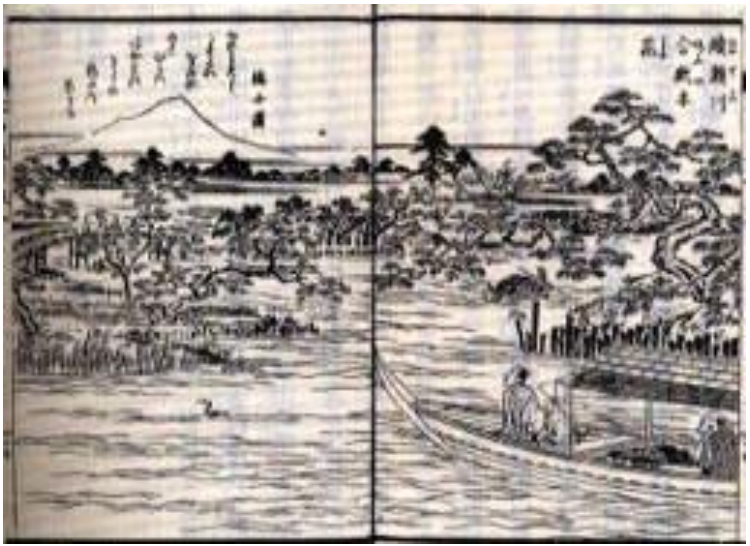
The Ayase River flows Satama prefecture to Tokyo bay.

The Ayase River flows Satama prefecture to Tokyo bay.

This river is managed by the Japanese Government
and has a total length of 47.6 km.

Ayase river by Woodcut

made by Hiroshige

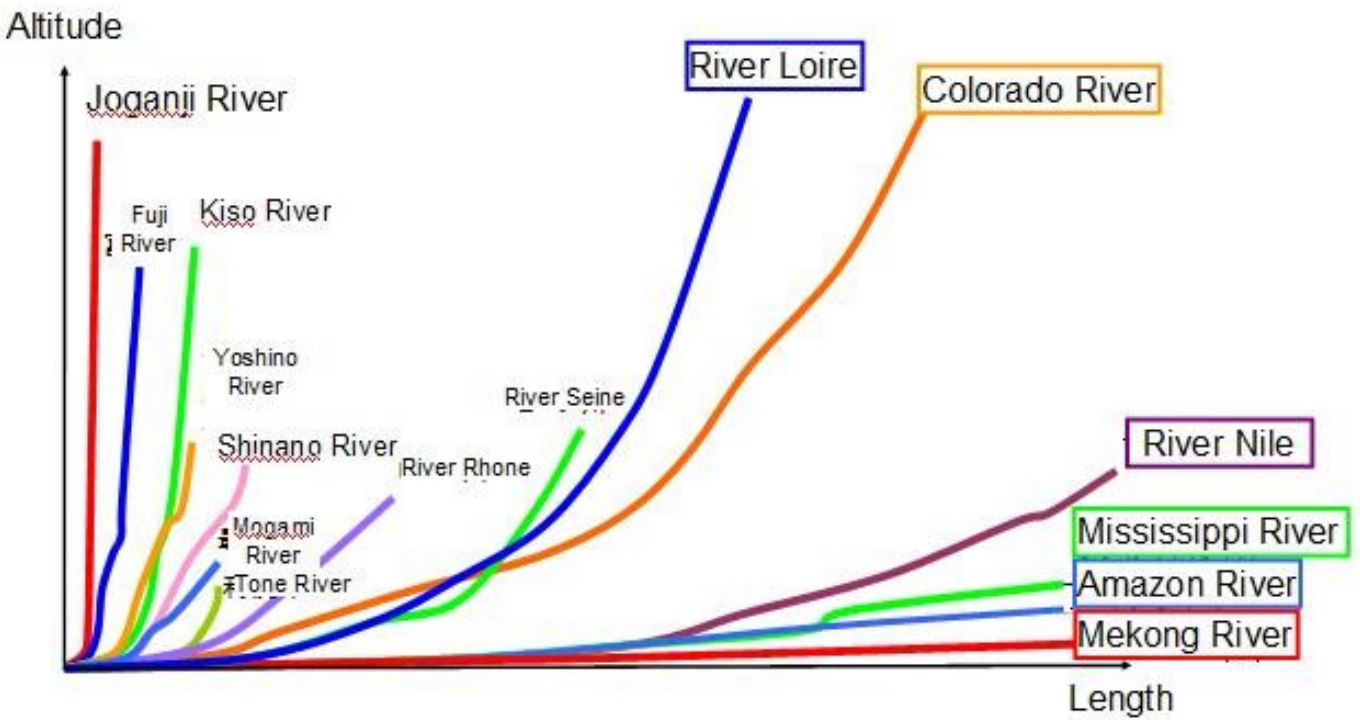


Songwriter got inspirations

Ayase river by Woodcut

- Because of its beauty the river was depicted in old Japanese woodcut like Hiroshige and many songs were written about it in the middle of the Edo period.(the 1600’s)

Japanese rivers run fast to the sea

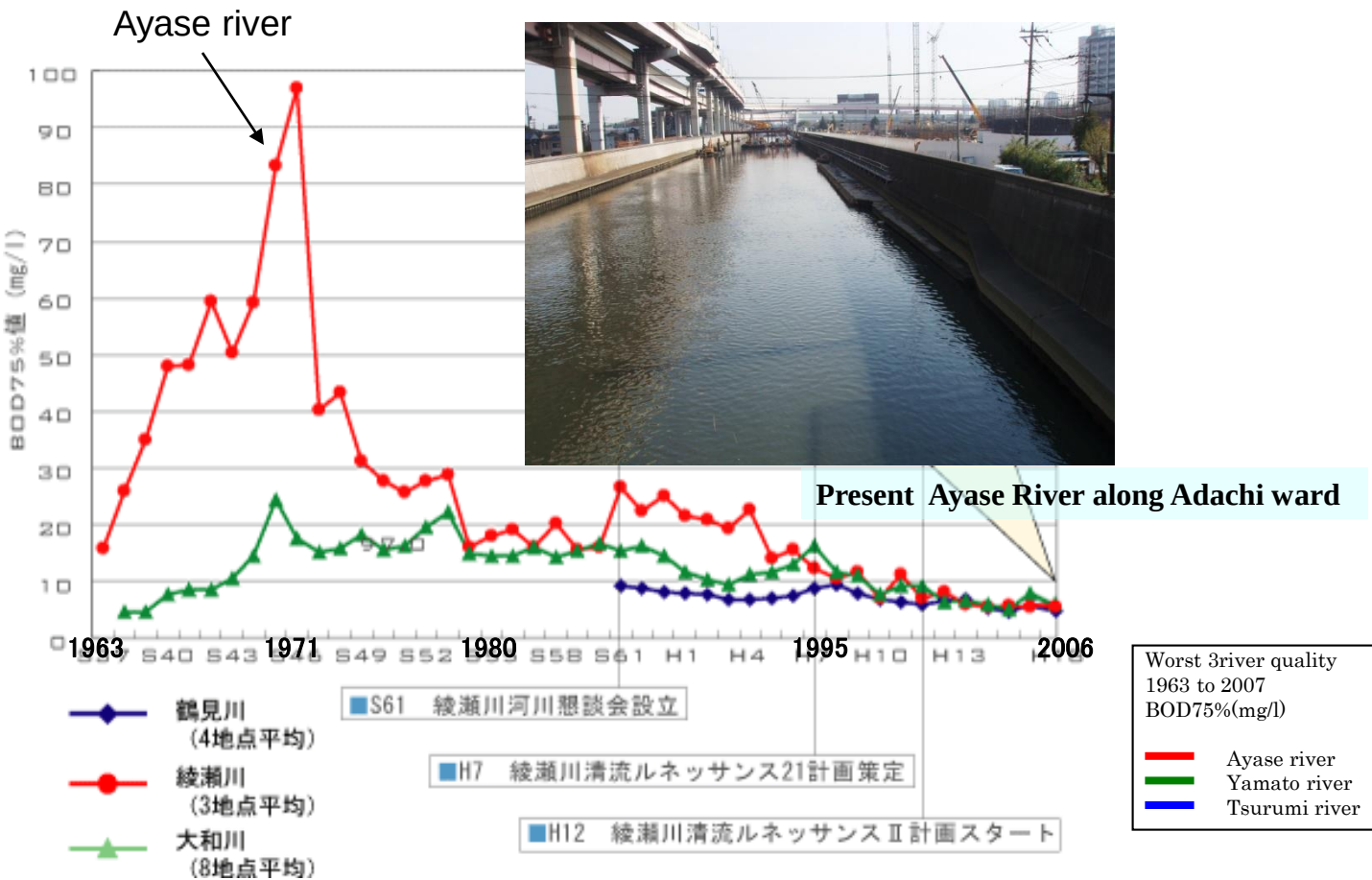


Japanese rivers run fast to the sea

- Japanese rivers run fast to the sea compare with the river Loire, the Missisippi river and the Mekong river like that.

- The people said that
  "the one that can govern the river will control the country"
- So the Ayase River was straightened and connected to another river in the Edo period (the 1600's).
- In the Showa period (the 1900's) the riverbanks were raised higher and higher after every big flood damage.

The change of the water quality

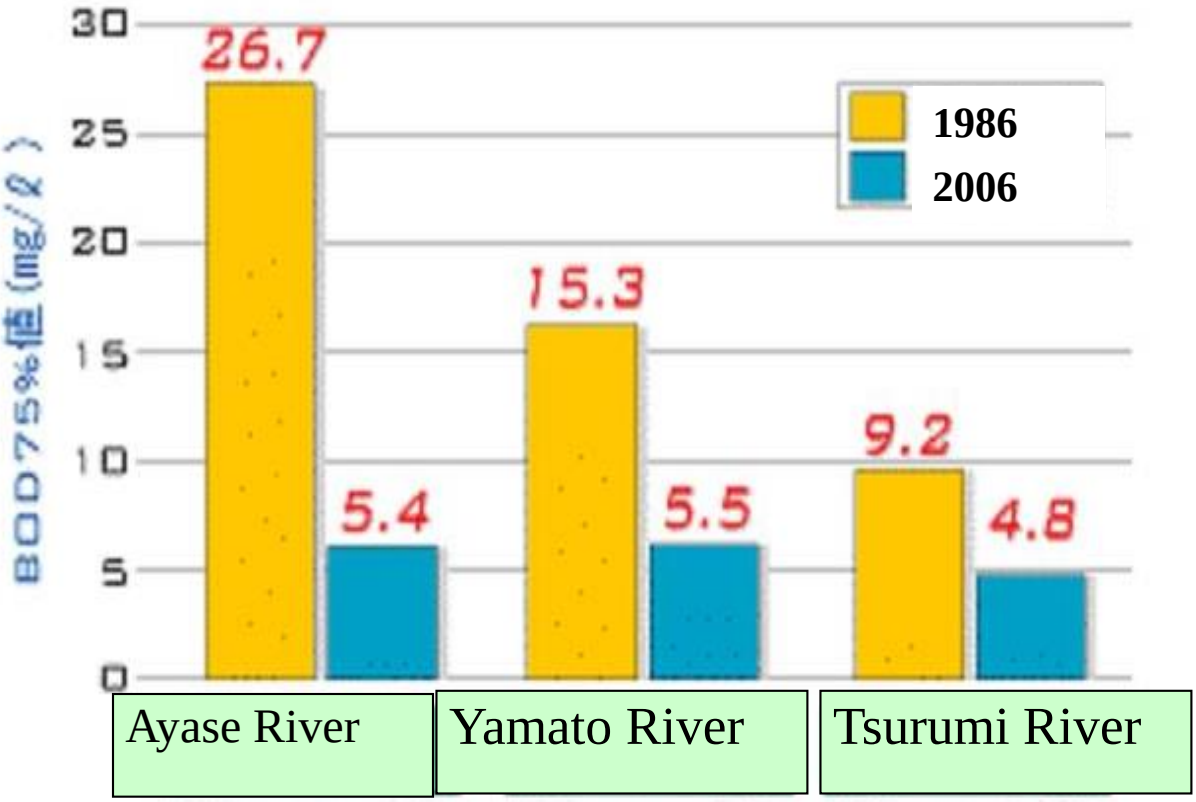


The change of the water quality

- As a resurt the water quality had worsened strongly in the second half of last century on the every rivers in Japan.

- As the Ayase River even had the disgrace of being officially the dirtiest river in Japan for a period of fifteen years.

Worst river quality (1986 to 2006 BOD75%(mg/l)



Worst river quality

- The Ayase, the Yamato and the Tsurumi River have the highest BOD(Biochemical Oxgen Demand) of all Japanese rivers.
- To improve the water quality of the Ayase a lot of money was spent in an action plan called Clear Stream Renaissance of the Ayase River by the River Bureau of the Ministry of Land, Infrastructure and Transport.

- As a result of the sewerage and waste water purification in the urban area, the water quality of the Ayase River has clearly improved,

  compared with twenty years ago.
- But even though, of course the river banks protected by concrete don’t offer a suitable habitat for plants and animals at all.

Foundinig an empty land

Foundinig an empty land for the purification facility

- On a day of November in 1995, I rode a bycicle and serched an empty land for the purification facility along the river.
- At the bank of the Ayase River in Yashio city, which is located just on the border of Adachi wards and Yashio city.

  I found at last an empty marshland that was like the sanctuary for birds.
- I thought it should be suitable for the purpose of the river purification, too.

- Next day,I went the office of Justice and I discovered who was the owner of the land.
- The owner was a private enterprise.

Investigations of descavered marsh land

A bait of a shrike

Investigations of descavered marsh land

- Next April, Seseragi Group investigated the water quality and the aquatic life in the marshland with specialists who were our friends.

- The investigation results were so satisfying that the citizens group decided to make a proposal to the government to buy the mashland to make a biological purification facillities.
- The vitalized mashland connected with the Ayase river would also provide a good habitat for plants and animals and an excellent place for people to enjoy nature in their urban environment.

Seseragi group could make a proposal!

If you could buy this land,you could restore the nature of the river.

step1 : It would be good for the water quarily,if you only pomped up a river water into the pond.
step2: If you could cut a bank, the aquatick life would come into a pond and spawn.
step3: You could make a subsoil gravel purification facilities ,if you could buy a second nearby location, too.
step4: If you could set up a bridge that only people can use, they could start the exchange of Adachi ward and Yashio city.

Seseragi group could make a proposal!

Seseragi group could make a proposal and asked the government to finance their plan.

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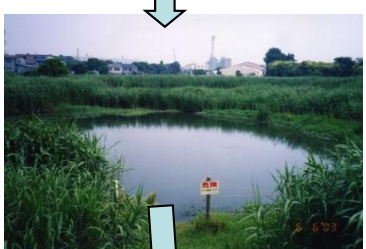
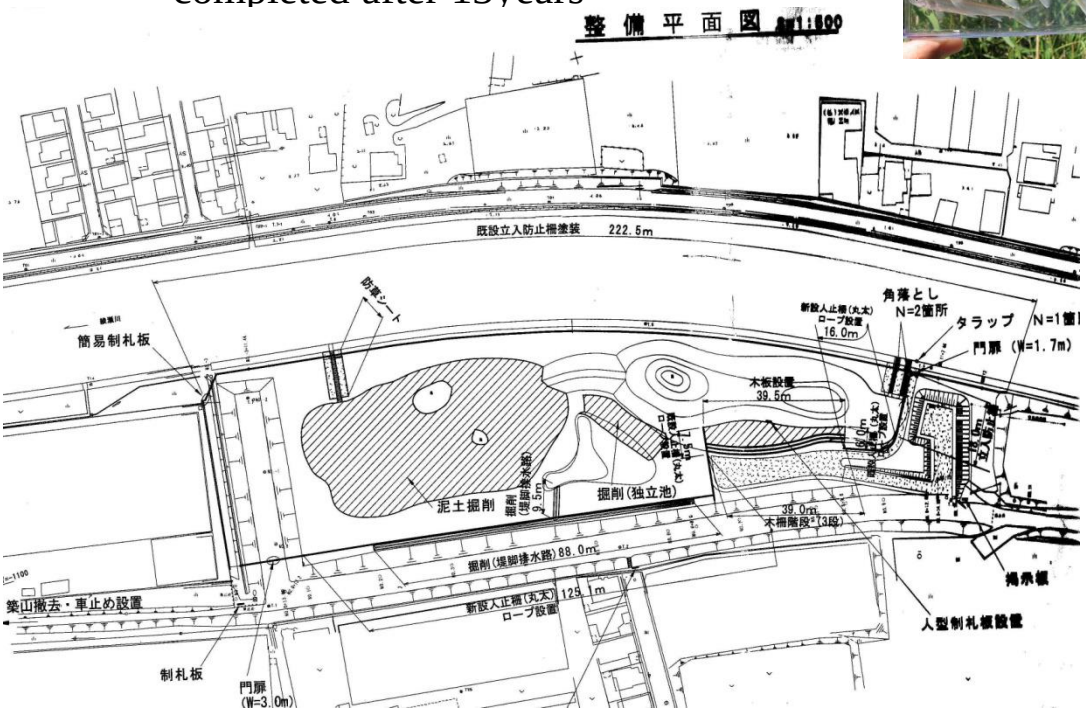
Ohsone financial plan

completed after 13years





Ohsone financial plan

- The government agreeded with the proposal three years later, in 1998.
- The government decided to buy the land for 780 million yen (about 8million dollars) from a private enterprise.
- The purchase of the ground was rather expensive because it was for residence.
- Eventually a subsidy of 6.1 billion yen (about 64 million dollars) for operation and maintenance costs for the two purification sites for five years was acquired.
- It was the fund outlaid specially because of economic revival.

- In 1999 the Ohsone Biotope conference agreed with the design for this location.

3Fish road using the tide

in Ohsone Biotope

3Fish road using the tide in Ohsone Biotope

- When the river water rises at flood tide, it enters the pond and it flows back into the river again at ebb tide .
- Because only the water on the surface which is oxygenated is moved with these tides, this seems to be very useful for the purification of both the pond and the water of the Ayase River.
- Fish like Malta and Karaiwashi that had disappeared for twenty years came to enter the pond suddenly.
- And Dragonfly and Kingfisher also returned to the pond.
- This project was completed later 13years in 2008.
- Wonderful nature was recovered.

Kuwabukuro Biotope Park

subsoil gravel purification facilities

There was an elementaryshcool

The pond of the lotus

solar panel

rain water use

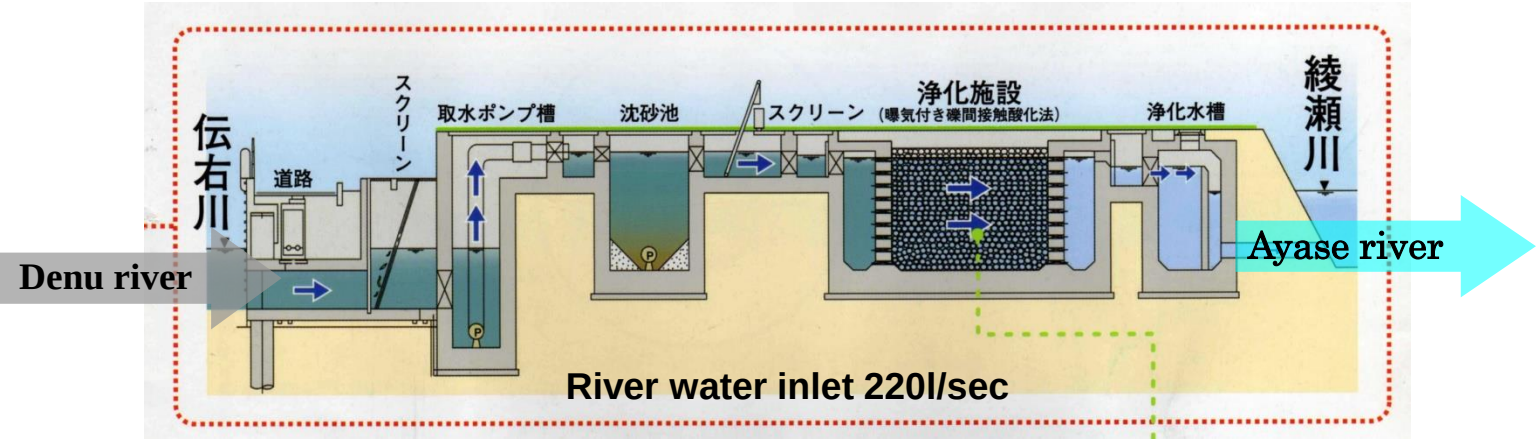
the Ayase River clear stream pavilion

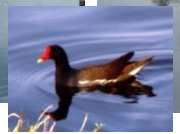
The main pond

Kuwabukuro biotope

- Fortunatury Kuwabukuro Elementary school in Adachi Ward was closed down at that time. So it offered free ground to set up a second biotope.
- So the government decided to build the subsoil gravel purification facilities there.
- The citizens group and residents agreed with the government that the building would be constructed in an environmentally friendly way with things like photovoltaic generation, rain water use, rooftop gardening, a wooden floor, etc.
- But unfortunately these features above were not included in the first blueprint that the government handed in because the officers whom we talked with got transfer so new officers took over them and changed the original agreement.
- Similar mistakes were found during these projects often.
- However, we didn’t forgive their mistakes and finally reached the goal which we had proposed at the first conference.

The subsoil gravel purification facilities in Kuwabukuro biotope





The subsoil gravel purification facilities in Kuwabukuro biotope Palk

- Half the water volume of the Denu river goes through the subsoil gravel purification facility. The water purification rate is 75%.
- The purified water is drained off to the biotope's pond and to the Ayase River. This park was opened in 2007.

- The water from the river always went through the facilities which had gravels so fish could not come into the pond directly.
- However, fisheggs could enter the facilities because they were small enough. Then they went to the pond after they became small fish and finally they became adults in the pond. Eventually Kingfishers came to the pond to eat the fish in the first year.
- Moorhen (or Gallinula Chloropus) and Chinese Spotbill nested in the pond in the second year because plants grew around the pond and in the pond so they could hide there and eat the plants.

Japan River Law

- 1896 Flood control
- 1964 Flood control +Water use
- 1997 Flood control +Water use + Environment
- (+resident’s opinion)

Japanese River Law and "multinatural river development

- The first Japanese River Law was enacted to reduce the frequent occurrence of flood damage in 1896.
- The second river law aimed at an integrated water system management,flood control and the profits of water use was introduced in 1964.
- The third river law in 1997 after a long period of 33 years was a more environmental friendly approach of flood control and water use.
- The citizens group were lucky that the newest Japanese River Law the officers had to listen to the opinion from the people living near the river.

- In Japan the combined natural-technical river purification approach that was used in Europe since the 1980‘s was adopted, and the River Bureau of the Ministry of Land, Infrastructure and Transport started "multinatural river development" in 1990.
  - The concept of this development is the original biological growth potential of the river and the creation and maintenance of an additional beautiful, natural spectacle.
  - People began to look upon rivers as important biotopes for all kinds of plants and birds, fishes, insects and other animals.

NPO Ecology Yume Kikaku

（：Ecology Dream Plan ）

http://www.ecoyume.net

Let's rescue baby dragonflies in a pool!

Let's investigation of a fish with family along the Ayase River

Investigations of a living thing

Green map of Adachi ward

NPO Ecology Yume Kikaku

- As a member of Seseragi Group, Motoko Mitsui established NPO Corporate Ecology Yume Kikaku in 2003.
- This corporate took over the Seseragi Group activities and performing ecological investigations and also developing promotional and educational activities (
- www.ecoyume.net).

Investigations of living thing by Ecology Yume Kikaku (inch 2003, 2007, and 2009)

Established a gide book in 2009

Investigations of living thing (inch 2003, 2007, and 2009)

•NPO Ecology Yume Kikaku performed the ecological investigations in 2003 and 2007 and published the results of the investigation on its website (www.ecoyume.net).
•A guidebook for this biotope was also produced by the NPO in 2009.
•The marshland serves as a platform for environmental education and pupils are visiting there.

CONCLUSIONS 1

Citizens can play an important role in ecological riverside restoration

CONCLUSIONS 2

Clay works by children

Citizens can earn the trust of the government and cooperate together with them.

CONCLUSIONS 3

Aquatic biotopes can be used for natural purification.

CONCLUSIONS 4

In just a few years the ecological situation can be clearly improved

CONCLUSIONS 5

Riverside biotopes can be used for citizens to enjoy nature and for environmental education.

정청 고마웠습니다