

## Vietnam Fieldwork August 2nd – 4th Water Group Report

Four international department students (Mr. Tearo, Mr. Nakao, Mr. Nouchi and Miss Suenaga) carried out fieldwork Vietnam from August 2nd – 4th. The first and second days were spent in Hanoi city and the third day in Halong Bay.

### Day 1 (Fieldwork in Hanoi city)

On the first day, they were escorted around Hanoi city by a tour guide and his son. There are many motorcycles in Hanoi city and a lot of people live there too, so the students felt a bit overwhelmed. But the old back streets of Hanoi are full of energy and are quite different from the regular commonly seen vending streets. For example, on one street people were selling metal products at all of the stores right on the street side. People really can find anything they want to buy. But each local store owner bargains hard over the prices.

Hanoi city is surrounded by the Kou river and the Duon river, both stemming from China. We saw that there are lakes used as water sources near the center of the city. An especially impressive thing we learned was that there used to be a two meter long turtle living in the lake. But it had died the previous year. We really wished we had a chance to see it. And we went to a “Journey Museum” in Hanoi. We learned about the life of the long journey it takes to live in the mountainous areas of Vietnam. In those areas the houses floors are high off the ground and resemble houses of long ago.

At night, the group went to a television station, and were informed about the content for media expansion that they are doing. With a laugh, the students said, “We want to collect material and help you next year”.



### Day 2 (JICA and a local business in Halong Bay)

We did water quality surveys in a river in Hanoi city with a JICA expert Mr. Wako and a JICA staff Mr. Kantou. We investigated at two different water locations, went Mr. Wakos house in Hanoi city and saw a big river flowing through downtown. As a result, we found there are bacteria containing ammonia in the river running through Hanoi city. The students were very surprised in the changing of color in the pack-test at the moment we pulled sample water up from the river in a back alley. In fact, we checked the color after waiting for a while but we couldn't do any more testing because this showed that it contains too much ammonia. The river has sewage in it due to not being properly disposed so the water is a black color and has a bad odor. There is too much trash thrown around the river and also near an adjoining market. So we thought weather or not there is an effect on the life of local residents. We felt a deep meaning when Mr. Wako said, “Vietnam can become like Japan after several years from now”, and we thought that there may have been a situation like this previously in Japan.



After that, we went to Baimau sewage plant that Vietnam had established with JICA's support. The director of the sewage plant and people in charge explained about how to dispose of sewage. The facility of Baimau sewage plant is more developed than we thought. It isn't so different from that of Japan.

At a meeting after the sewage plant visit, we asked questions about the history and condition of Hanoi's waterworks. We had a very fruitful time.

In the afternoon we traveled to Halong Bay, which took us four hours.



### Day 3 (Mangrove planting)

On the third day, we planted mangroves. Mangroves are areas of trees that modify into land at a high tide and submerge at a high tide. They are a major contributor to the ecosystem, providing living creatures there with their habitats. Not only that, these trees purify water by photosynthesis and serve as a natural barrier against the tidal waves from offshore.

In order to plant the mangroves we went to a mangrove site in Halong Bay, a location over thirty minutes boat ride from the shore. Because it was raining, planting roughly 20 trees, with our feet stuck in the mud, was far more difficult than we had imagined. However, imagining that the plants will grow into a forest and become a contributor to the ecosystem excited us a lot.

There are lots of wild shrimp in the mangroves. Some of us, who researched how to solve the issue of mangroves being cut down to farm shrimps, were inspired to discover a way to raise shrimp without cutting down mangroves.

After that, we visited some water villages in Halong Bay to observe how they were growing fish there. Though we couldn't learn much in detail, we discovered that they change food depending on the kinds of fish; the very information we needed. Also, we examined water quality there.

The mayor of a water village said, "Some people are farming fish here, but nowadays many people leave for urban areas." Indeed, the fact that one elementary school was closed told us that more and more people are giving up living in the water village.

Registered as a world heritage site, the view of Halong Bay is spectacular. With the number of foreign tourists boosting, more and more resort-related facilities are being constructed along the coast. At the same time we saw garbage and oil floating on the water. This made us realize that regional development does not always agree with the environmental preservation.

We learned about the water situation in Vietnam, which is said to be outdated by some ten years compared with that of Japan, and we saw that the Japanese technologies can help it develop further. Whereas sewage disposal is 90% completed in Korea and about 80% in Japan, it is only about 12-13% in Vietnam. In the water villages we visited, there are no toilets with sewage disposal system, and the toilets using biotechnology are going to be set up in a few years. It seems to be that there are similar situations to it in many parts of the world. What can we do to help solve these problems — this, we find, is something we should think actively from now on.

