

**International Affairs Department**

I've been involved in a Vietnam project since last year. Here's my Vietnamese report in two years.

 **#1: Septic Tank**

A septic tank is widely used in developing countries and is set in an underground house to hold domestic wastewater from a flush toilet for a while. The septic tank makes an anaerobic treatment to wastewater, which means just leaving it and discharging supernatant. The septic tank making no aeration treatment is ultimately different from "Jokaso."

Last year, I had a chance to visit our interpreter. Her house had an underground septic tank, but she did not know where it was because there was no inspection opening or sludge withdrawal pit. I wanted to see the real septic tank, but I wanted to see the real septic tank, but nobody can see it unless they are rebuilding the house. If sludge is not removed, I imagine the septic tank will overflow someday.

The building regulations of Vietnam require a building to have a septic tank, and even the administration building of WWTP has a septic tank. However, new communities adopting separate sewerage systems will be excluded in the future: they need no septic tanks.

 **#2: Interceptor System**

Treated (?) water in the septic tank flows into a river through a sewer conduit. However, the wastewater just through a septic tank is marginal at best. So wastewater has to be treated again in WWTP.

In Vietnam, WWTP accepts hundreds of gallons of water from a river, including wastewater, and returns it to the river after treatment. This system is as it is called an interceptor, and I've never seen such a wild sewer catchment system before. The interceptor system has some advantages for making an inexpensive and easy sewerage system. However, the interceptor system does not make people aware of the benefit of wastewater treatment.

Flushing toilets are widely used, whether with or without connection to sewerage systems. This situation makes collecting sewerage charges from users challenging because they have no inconvenience now. People don't want to pay for things that do not benefit them. For years ago in Japan, since people benefitted from improving a sewerage system, they were satisfied with paying sewerage charges. Even if the Vietnamese are mild and obedient, I still wonder if they are willing to pay sewerage charges. Currently, Vietnamese people spend 10 % of the water charge as sewerage charge. While user awareness is always essential for stable sewerage management, raising water charges or wastewater rates is a possible policy for the present.

### #3: Shopping Spree

In February 2016, we invited five Vietnamese to Japan to participate in the "*Study on the global strategy for B-DASH Project*" operation. Five Ministry of Construction, Ha Long City, and Danang City representatives visited Kochi City and JS Training Center. In Kochi, we could show them "*Energy-saving wastewater treatment technology using circulation and no-aeration,*" which is an example of the B-DASH Project.

The most extensive interests in their free time were "*shopping.*" Each of them had their shopping list and looked absorbed in wise shopping: Where should I go shopping? Or, which is the best digital camera manufacturer? Their shopping lists were different, except all items were "made in Japan" One of them checked my digital camera and looked satisfied to know it was "made in Japan." He did not forget to note

its model. I've heard that when they visited Kyoto, one of the visitors purchased a hundred air refreshers! I don't know why he got them in Kyoto.

I'm expecting Vietnam on a shopping spree for B-DASH technology.

#### #4: Go for it! Vietnam

Now all over Japan support Vietnam. The sewage work field is no exception: technical assistance and information exchange become active at each level of government, local government, and private sector. Hoi An City, known for its ancient town, will adopt a "PTF" system that JS conducted technology verification. "PTF" left a favorable impression to tour participants of this time.

JICA plans to establish a "Sewage Works Center" in Vietnam. In the plan, The "Sewage Works Center" is required to have functions of training (human resource development), business support (sewage works management support), and R&D (study on technology adoption in Vietnam). The project is to make a Vietnamese JS. (It is not JS, but VS because it's about Vietnam.) As a member of JS, I'm so excited to make another JS in Vietnam.

JS will continue to support Vietnam directly or indirectly. I want to be involved in Vietnam's matters to the best of my ability.