

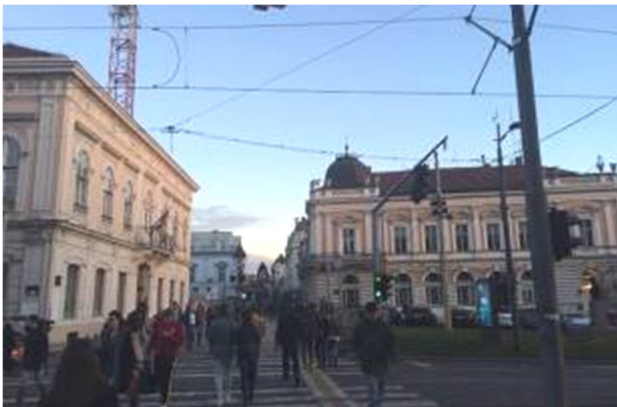


TRIP TO SERBIA

International Affairs Department

What is your image of Serbia?

Last year, JS conducted *Research on the global strategy of the B-DASH Project**1. The Research is a joint venture with Sewerage Business Management Center and contracted by the Ministry of Land, Infrastructure, Transport, and Tourism (MLIT). MLIT has promoted B-DASH Project since 2011 and recently challenges a global application of technologies through domestic or international investigation. The visit to Serbia in February 2016 was a part of the investigation, and I joined it.



Old city



"Haci" in Belgrade?

Serbia, with a 7.35 million population, is located in Eastern Europe, and its latitude and area are nearly the same as the Hokkaido Prefecture of Japan. On which our investigation focused, Belgrade, the capital of Serbia, is like the above pictures. It is such a beautiful "European" townscape. (I don't know any other European city because this is my first European visit!)

Belgrade has the Danube in the north. Danube is best remembered as "The Blue Danube" by the Austrian composer Johann Strauss II. However, the city with "the Beautiful Blue Danube" has no wastewater treatment facilities!

Belgrade has an improved pipe/conduit system that collects 80% of wastewater. However, the collected wastewater is discharged to the Danube or the Sava, a tributary of the Danube, without treatment. Serbia's construction of small-scale treatment facilities is progressing in some local cities. The data of 2014 reports that 74% of wastewater is collected, but only 16% of that is treated in some way. The problems are that the data has no stats on such qualities of the discharged water, and we don't know if these facilities are providing O&M service appropriately.

The Danube originates in Germany, flows southeast, and finally empties into the Black Sea. Nineteen countries share the Danube River Basin, and its basin area is over 800,000 km². Serbia is a part of a catchment area of the Danube River Basin and is the largest emitter of nitrogen and phosphorus, and it is required to reduce emissions.

At the moment, Serbia's top priority issue is to join the European Union (EU). EU has specific and detailed conditions for all candidate countries. The improvement of wastewater treatment facilities with nutrients removal is one of the requirements for EU accession.

Given such a background, the need for WWTP with nutrient removal is growing in Serbia. Now, Japan International Cooperation Agency (JICA) helps develop a master plan for a sewerage system in Belgrade at the request of the Serbia government.

In addition, the "Waterfront Plan" is proceeding around the Belgrade station along the Sava. They say the scenic beauty waterfront area will have high-rise condos and a shopping mall, something like Odaiba*² of Japan.

During our stay, we also visited Sabac, a sister city of Fujimi, Saitama Prefecture.



Rendering of the waterfront area

Fujimi City is the only Japanese municipality to have a sister city in Serbia. Thanks to Fujimi City, we had another chance to visit Sabac for investigation.

Sabac is 50 km west away from Belgrade, in the Sava river basin. At present, the EU supports the improvement of WWTPs in the city. When we visited, WWTP with the A2O process had just been completed, and we saw their staff training for the startup. Public cooperation that runs the WWTP targets robust management such as secure fare collection of water and wastewater, consideration of cost-saving construction or O&M, etc. The alliance also plans to generate electricity for domestic use in WWTP by digesting gas generation using sewage sludge.



Primary settling tank
(A building of water quality lab in the back)



Reactor (Blower building in the back)

The investigation shows Serbia needs far more improvement of its sewerage systems or facilities for the introduction of nutrients removal that they need. Japan has proud achievements in R&D, such as B-DASH Project. JS will continue supporting a global presence of Japanese technologies for regions with high demand for sewage works like Serbia.

**1: B-DASH (Breakthrough by Dynamic Approach in Sewage High Technology) Project conducted by MLIT of Japan targets leading-edge sewerage technologies and demonstrates them to verify their performance*

**2: Odaiba is a famous waterfront area in Tokyo, Japan.*