

## STEPS Students Report

Lisse Hasegawa (B3)

Department of Civil Engineering

During my stay at MSU, I did some research about the bicycle infrastructure in Moscow city. Recently, the Moscow transportation department has conducted the plan to promote the bicycle use in Moscow city to relieve the terrible traffic congestion and improve people's health. For example, the share bike system called "Velobike" was launched in 2013 and the number of bikes and stations is increasing every year, with 3,200 bicycles available now. In addition, the bike lane was developed in the Moscow city since 2011. I had collected data and information about these bicycle infrastructures before I came to Moscow, but I noticed that there were so many problems in these infrastructures by seeing them used with my own eyes. Therefore, I set two questions for my research. First question is to specify what kind of obstacles exist that prevent Moscow city from being friendly to cyclists. Second question is what kind of steps should be taken to overcome the problems and promote the bicycle use in Moscow city. To investigate the current situation of the bicycle infrastructure in Moscow and answer these questions, I consulted with Prof. Mazurov and decided to do three things mainly. First is to read books and thesis about the bicycle infrastructure. Second is to carry out the interviews to professors, city officials and the leaders of NPO. Last is to visit museums to deepen my understanding about the city planning and the structure of Moscow city. I proceeded my research doing a meeting with Prof. Mazurov about two times a week. Prof. Mazurov let me conduct interviews to many people including the head of the transportation department of Moscow city. It was a very valuable experience for me to listen to their stories. Also, walking around the Moscow city and seeing the condition of the bicycle infrastructures with my own eyes were really important. I saw many cars parked on the bike lane and the bicycle parking unavailable covered with snow. I was able to find many other factors that prevent Moscow city from being friendly for bikes. The problems I found are shown below.

### (1) The size of the city

The size of Moscow city is too large to commute only by bike for many people, so citizens are reluctant to use bikes on a daily basis. This is the main difference between Moscow and cities like Amsterdam and Copenhagen, which are well developed for cyclists.

## (2) Road Structure

First, the main boulevard is so wide that it is very difficult for bicycles to make u-turns when they want to go to other destinations. Therefore, the route that cyclists can follow is not flexible. Second, the bike lane is non-continuous and the situation that the bicycles hit the highway and cannot reach the destination often occurs. As for the bike lane itself, there are steps and slippery objects like manhole and gutters on the lane. Thus, the condition of the bike lane itself is dangerous for cyclists. In addition, the lack of parking space for bicycles is a serious problem for cyclists.

## (3) Attitude of car drivers

The structure of the Moscow city has been so car-centered that car drivers are not used to pay attention to cyclists. The drivers in Moscow drive in high speed and change lanes frequently, so cyclists on roadways are always in danger of getting involved in the accidents. Also, many cars parked on the bike lane block the bicycle's passage.

## (4) Harsh winter and maintenance

The winter in Moscow is very cold and snowy, so only a small number of people ride bikes in winter. However, the city official does not take sufficient steps to let cyclists ride bicycles safely and comfortably to increase the number of cyclists in winter. For example, the snow on the bike lane is not removed quickly. Also, when bike lanes are salted to melt the snow, it is very likely that vehicles are damaged by the snow. About the velobike, it is not operated in winter because it is not profitable in winter.

By conducting interviews, I considered the ideas to solve the problems mentioned above and improve the situation that surround cyclists in Moscow.

## (1) Promoting the use of bicycles as a feeder transportation

It is impossible for most people to commute only by bicycles, so for promoting bicycles, it would be effective to let people regard bicycles as a feeder transportation. Feeder transportation means the transportation that connects houses and nearby public transportation stations. If the number of people who use bicycles as a feeder transportation increases, the number of cars decrease and it is good for relieving traffic congestion and environmental problems. To give people an incentive to use bicycles, the government should set a preferential treatment system in tax or subsidies for those commute by bicycles and public transportation like Netherlands. Also, developing a parking lot for bicycles is necessary.

## (2) Developing the network of the bike lanes

Many professionals pointed out that the bike lanes are non-continuous and it prevents bicycles to reach the destination in the shortest route safely. Therefore, setting bike lanes

also on bridges and many other roads is important to enhance the convenience of cyclists. Also, improving the condition of the bike lane is very important. The removal of the steps and slippery objects on the bike lane and the physical separation between bike lanes and car lanes using blocks would be effective to protect cyclists.

### (3) The application for cyclists

For beginner cyclists, it is difficult to set the shortest route with safe bike lanes. Therefore, I think the development and the installation of the application to show the route for cyclists can be helpful. In the application, it would be useful if when we feel some dangers or inconvenience on the road, we can mark on the map and if many people mark on the place, the route is chosen to avoid those places. The city official can also use the application to know the places to be improved. Also, the application would be more enjoyable if it has options. For example, if we registered that I like cycling in quiet places with nature, the application would try to set the route passing near parks.

### (4) Advertisement

The advertisement of the bike promoting policy of Moscow city is necessary, because bicycles have not been the major transportation for Moscow citizens. I asked some Russian friends if they know the fact that Moscow city is promoting the bicycle use, but none of them had not acknowledged that. Therefore, to let people understand what is being done to make Moscow city friendly to bicycles, the advertisement on posters and TV can be effective. Some people would be interested in riding bikes by seeing the advertisement even if he had not come up with the idea to use bicycles in the car-centered city before.

Not only the study, the daily lives I spent with Russian friends were very enjoyable. My friends took me to the museums, the skate link, the delicious restaurants and even the Russian bath. I went to the grandmother's house of Tatiana, who is my best friend in Russia, and she welcomed me with a lot of cuisine. I was really impressed by her hospitality. All Russian people I met during my stay were all very kind and they helped me with many things using gestures even though I can hardly speak Russian.

During my stay, I was able to deepen my understanding about the bicycle infrastructure by making the interviews to many professionals and walking around Moscow with my own feet. Also, I was able to make friends with many Russian people and touch their kind-hearted characters.

Last but not least, I really want to say thank you to Prof. Mazurov, who helped me a lot both with my study and with my daily lives. It was my pleasure to study under him for a month. Also, I want to express my gratitude to Tatiana, who took me to many places in

Moscow and became good friends with me. Thank you for all the people who helped me during my stay.



1. The picture with Prof. Mazurov



2. At the dance party with Tatiana



3. The interview



4. At the festival in the university