ВСМ И РАЗВИТИЕ АГЛОМЕРАЦИЙ: ПРЕИМУЩЕСТВА И СЛОЖНОСТИ

Кравченко А. А., Сухов А. А., Панкратов И. Н., Бусурманова А. К.

Московский государственный университет путей сообщения императора

Николая II

Москва, Россия

HSR AND AGGLOMERATIONS DEVELOPMENT: BENEFITS AND CHALLENGES

Kravchenko A.A., Sukhov A.A., Pankratov I.N., Busurmanova A.K.

Moscow State University of Railway Engineering

Moscow, Russia

A megacity is a term commonly used to describe a metropolitan area with a total population in excess of ten million people. A megacity can be a single metropolitan area or two or more metropolitan areas of that converge. The terms conurbation, metropolis and metroplex are also applied to the latter. An urban agglomeration is an extended city or town area comprising the built-up area of a central place (usually a municipality) and any suburbs linked by continuous urban area. As it can be observed from these definitions that good transport connection is essential for such developments.

In general the trend of development of cities near large centers has been observed from the start of the 20th century. The formation of agglomerations of New-York, London, Tokyo and Moscow was the result. The formation of such agglomerations positively influences the development of regions. Agglomeration economies are the benefits that come when firms and people locate near one another together in cities and industrial clusters. These benefits all ultimately come from transport costs savings: the only real difference between a nearby firm and one across the continent is that it is easier to connect with a neighbor. The concentration of people and industries has long been seen by economists as evidence for the existence

of agglomeration economies.

The crucial condition of big agglomeration's emergence is the existence of appropriate infrastructure. Only high-speed rail links are able to connect separated cities. International practice shows that cities of 3,5 hours in reach get the greatest impact on development in the presence of high-speed railways. With the increasing of transportation time railways give in to airlines. The only advantage of railways in far transportation is the connecting of regions, where an offer of other types of transport is limited.

The effect of regional development is the other advantage of high-speed lines. The same effect is essential to agglomerations with highly advanced economic centers and significantly resigning regions.

The existence of high-speed railway solves several problems of a big city and close territory. Firstly people's mobility increases and an agglomeration's area grows. Moreover people are getting a possibility to work in further places from their places of residence. The growth of mobility will increase work's efficiency and the level of economic activity.

High-speed railways can help to decrease traffic load on big centers. The building of "regional underground" will make easier lives of gardeners. Many of them will choose EMU for comfort, not big cost and a little time in way.

How "regional underground" can work was shown by 'Lastochka's during the Olympic Games in Sochi. Every day 38 of 'Lastochka' EMU provided transportation of 207 thousand of people in average. As a result more than 4,8 million people was transported. Guests of the Olympic Games highly estimate the absence of delays and the quality of transportation.

The construction of any high-speed rail in our country or abroad is a "national foreground project." These are thousands of workplaces, an order for multi-million building materials supply, etc. This will positively influence the development of the economy of the whole country. Huge number of companies will get new orders, and develop thereby.

Moscow is in great need of a high-speed rail. Moscow agglomeration is the

largest in Russia with over 17 million population. There are large regional centers such as Ryazan, Vladimir, Tver, Ivanovo, Kaluga, Yaroslavl and Tula in a close proximity to Moscow. Construction of high-speed rail will improve the economic situation of the regions, increase labor supply and so on. The necessity of improvement of the transport infrastructure has been long discussed by politicians and experts. Thus Vladimir Gruzdev, ex-governor of the Tula region, gives the following assessment: "Clearly, this is an important issue for us. The better transport links are, the more comfortable people feel, the more opportunities for expanding business ties with other regions, business development and tourism we get. There are two pairs of speeding trains "Lastochka" running on the route Moscow-Kursk with the stop in Tula already. These trains help Tula citizens to get to the center of the capital in just two hours. But these trains are not enough - we need our own "Lastochka" on the route Tula-Moscow. And it would be great if the "Russian Railways" made a decision on the resumption of the route from Moscow to Yasnaya Polyana (station Kozlova Zaseka), which was very popular with for Moscow and Tula citizens. "

Rough estimates have already shown the effect of regional development, because Nizhny Novgorod and Vladimir regions will get the greatest effect from the construction of the HSR-2 Moscow-Kazan: 76 and 58 percent respectively.

Construction of HSR for these regions will promote tourism. Vladimir, for example is a city of the Golden Ring.

Other agglomerations are also in need for HSR. Samara-Togliatti agglomeration is the third most populated in the country. It has huge potential: geographical location on the "North-South" and "Transsiberian" route corridors; presence of Kurumoch International Airport. Attempts of constructing have been taken for a long time.

Nikolai Merkushkin, the governor of the Samara region, said: "The Government of Samara region in common with Kuibyshev Railway has studied the possibility of establishing rapid transport link on the route Samara-Togliatti-Kurumoch Airport, which will connect Samara and Togliatti with the main airport in

the region. This route will be relevant both at the time of Samara football matches of the World Cup Championship in 2018 and in the future "

The cities of Siberia are also in need of HSR. It has long been worked out the plans for high-speed service between Novosibirsk and Barnaul, Novosibirsk and Omsk, etc.

The large industrial and economic centers such as Yekaterinburg, Chelyabinsk, Tyumen, Nizhny Tagil, may be tied in the Urals.

In conclusion we would like to mention that HSR is a very perspective project that provides great benefits, that can be illustrated by positive international experience. Lille could be one example. This city was fading away one time, but it got huge development due to the building of high-speed railways. And the convenient location of the city at the intersection of routes Paris-London and Paris – Brussels made Lille the third largest financial and economic centre of France. Another example is the plan of development of the London's County of 1951. Today many people live in cities staying in distance of 30-50 miles from London and work in the centre. And the most recent example is that unified urban area is forming in the delta of Yangtze by integration of 3 megapolises (Nanjing, Hangzhou and Shanghai) and 20 other large cities. Today more than 100 million of people live there, but GDP is more than 1 billion, not much lower than GDP of New-York. Emergence of this agglomeration is caused by developed transport infrastructure. High-speed railways united isolated parts in one entity (e.g. the time of transportation between all pairs of cities decreased from 5-12 hours to 1-2 hours). The effect of increased transport availability is enormous: the mobility of population is growing, the redistribution of economic activity is taking place, added value is increasing. The delta of Yangtze is transforming into the world's largest industrial, cultural and financial cluster.

References

- 1) http://www.pgups.ru/upload/sagruski/sagruski_news/lekcija_Mischarin_ 30012015.pdf;
 - 2) http://www.hsrai;

- 3) https://www.vedomosti.ru/newspaper/articles/2015/02/16/novii-mir-rozhdenie-gigapolisa.
- 4) E. L. Glaeser Agglomeration Economics. The University of Chicago Press, 2007