Russian Urban Transport Strategy Today: Three Approaches

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1 ABSTRACT

Transport problems of Russian cities have become an important constraint on business development. The situation is most complicated in Moscow, where standing in hours-long jams has almost become a rule. Nearly in all Russian cities there are sites where traffic is congested on a regular basis. Even in small settlements traffic on the main arteries is hampered either due to the housing located straight on the road, or due to the large number of accidents occurring at the junctions. This is caused by the post-Soviet society being oriented to individual initiative (which is reflected in specific mobility), by the motorization boom (car ownership has grown seven to tenfold in 15-20 years), as well as by the lack of social infrastructure. Transport problems have been around for over 10 years, but it was not until 2010 that the discussion of transport solution strategies has reached the national level. Two approaches have been applied in solving these problems: a) "Construction" approach, whereby the priority is construction – road widening, interchange construction, subway development; b) "Road-Organizational" approach, whereby theemphasis is on improving traffic organization. We suggest augmenting the above with the third (or first?) approach – the "Social-Organizational" one, whereby the priority is given to the establishment of acting commissions for organizing city traffic, creating Internet portals for discussing ways to solve transport problems, training specialists in the field of transport planning and developing mobility culture. The paper gives examples of projects implementing the proposed approach.

2 CONSTRUCTION APPROACH

"Construction Approach" was applied in the Urban Planning Code of the Russian Federation (2004). Territorial and urban planning documents were aimed at outlining "territorial zones" (including housing, public, business and industrial ones) designed for placement of groups of homogeneous structures. "Project placement zones", on the other hand, are designed for allotment of construction sites for individual projects. The city space proper, as well as the functional features of the social and transport infrastructure, remain beyond the urban planning framework. There is no mention of territory improvement or traffic organization, just construction. The reason for such "reductionist" view of urban planning are that the new land owners have come to replace the Soviet ones. For them, real estate costs and site attraction are not determined by the rigid urban planning regulations of the 18th to 20th centuries. Elaboration of the "strategies for city traffic development" in the framework of the "Construction Approach" has resulted in the predominance of large-scale construction projects. For instance, the "Program for Solution of Moscow Traffic Problems" (2010) prioritizes projects concerned with adding one lane to the Moscow ring road and radial roads, as well as construction of new underground lines. Such approach requires huge investment in terms of both money and time. Completion of the projects can result in augmenting the traffic flows and deterioration of the traffic situation.

3 ROAD-ORGANIZATIONAL APPROACH

The focus here is on the city road-and-transport complex. The purpose of the undertakings within this approach is improvement of road capacity, accelerating the traffic flow and road safety enhancement. The objectives are all adequate, but, as a rule, this approach does not consider any long-term urban planning tasks. It does not consider the feedback, that is, the influence of road improvement on territorial development. It does not consider any alternative traffic, like pedestrians, cyclists, and off-road traffic. Also, it leaves out a wide range of urban community interests - for instance, pedestrian traffic, social infrastructure, and the opportunity to solve traffic problems through "non-construction" methods. While it is true that application of this method has given impetus to the work on improvement of road traffic organization, it is only limited to individual junctions and parts of the network, without involving the urban traffic organization as a whole.

The typical points we see in the documents on development of the road-traffic complex involve construction projects and projects aimed at developing the traffic organization system. If there is a problem of a junction overload, it means that a by-pass should be constructed at two (three) levels. If there is a bridge overload, it

is necessary to build another one next to it. If we are planning to build a new bridge, it must have maximum width (6 to 8 lanes). It is the road builders and designers who are the stake-holders under this approach.

4 SOCIAL-ORGANIZATIONAL APPROACH

Because implementation of large-scale construction projects can lead to ambiguous results, and major road-building projects are impossible to implement, we are forced to look for new methods of improving road traffic situation. In many places city managers are turning their attention to complex projects of transport system development, where the latter is closely linked with the social and cultural prospects as well as the urban development strategy. Priority is given to urban development strategy, as well as requirements of urban and regional communities. The first to be implemented are institutional transformations, including formation of transport councils, road organization and traffic planning departments and development of geo-informational systems for traffic monitoring.

A good example is the approach described in the Transport Strategy in Russia, which is a political document. The task set is to improve the population's mobility, preserve the country's territorial integrity, increase the trade turnover and enhance road safety. At the same time, the country's main political document does not consider development of urban transport systems. They remain beyond the government's scope of interests.

No.	Indicator	Targets
1	Population size and structure	Increase in the numbers of socially active people (of all ages) who are of interest for the new information-oriented society
2	Life expectancy	Creating conditions for increasing life expectancy
3	City status in the global city network (ranking in the industrial sector, influence on other cities, etc), as well as in the regional settlement pattern	Improving city status in the global city network. Increasing the role of agglomeration
4	Volume of passenger transportation by external (air) transport	Increase of passenger transportation by external transport
5	Accessibility of national and international business centers	Increase in the number of air flights, expansion of flight geography. Speed acceleration on railways and motorways along the East-West and North-South transport passages
6	Freight turnover of the transport junction..	Increase in the share of containerized cargo. .
7	Accessibility of the central business area, as well as other business areas and the airport (with and without transportation costs)	Providing 1-hour accessibility of the central business area, as well as other business areas and the airport from all the residential area, as well as the suburban zone
8	Accessibility of social and entertainment facilities, as well as recreational zones (with and without transportation costs)	Providing a walking distance from day-to-day facilities, as well as public transportation to the city and regional facilities of social importance
9	Population mobility, mobility ratio to cultural and entertainment targets	Providing mobility increase
10	Quality of communication space (improvement of means of communication, easy orientation in the city, traffic safety and reliability, negative effect of traffic on urban life, attractiveness for active population segment)	Restoring improvement works in all city streets. Organization of state-of-the-art pedestrian and cycling ways. Decreasing accident rate. Improvement of informational support for population mobility

Table 1. Urban transport system indicators relevant for implementing the Social-Organizational Approach (a proposal)

An example of complex approach can also be seen in the documents called "Complex Transport Schemes" (KTS). During the recent 5 years (2005 – 2010), over 10 cities in Russia have ordered and completed work

on these documents. We can see that the number of customers for complex documentation is growing. A number of cities has resorted to the help of foreign consultants. Thus, in early 2011, on the order of the City Administration, the World Bank consultants developed "The Strategy for St.Petersburg Transport System Development". The problems with producing and implementing complex documentation are caused by the lack of legal support for such documents, as well as by the city management not being prepared to administer such programs. Foreign technologies are based on the values of the society that, unlike Russia, has already passed the stage of market economy formation and motorization earlier. In order to accept the modern transport strategies of Europe and Northern America, we need to "grow" the urban community value complex in this country.

We believe that the Social-Organizational Approach requires development of a new city transport system model. This model should reflect the targets of the transport system as the city component, as well as the spatial model of city transport system linked with the overall city space. The city should be considered as a hub of global transportation and communication network. It is necessary to apply the scenario approach to the possible transformations, as well as develop the ability to take into account the probabilistic nature of the activities undertaken by those engaged in urban development. It is also necessary to rethink many standards and rules, as well as methodologies and calculation procedures. The model should be open for the city community to participate in taking non-standard decisions.

This approach can be thought of as "a strategy of process thinking", which has been discussed by Jane Jacobs. We call it "growing" the cities and their transport systems.

Table 1 shows a set of urban transport system indicators, which are relevant for implementing the Social-Organizational Approach.

The Diagram below the Table shows the place taken by the complex documents for transport planning in the existing documentation system for territorial and transport planning.

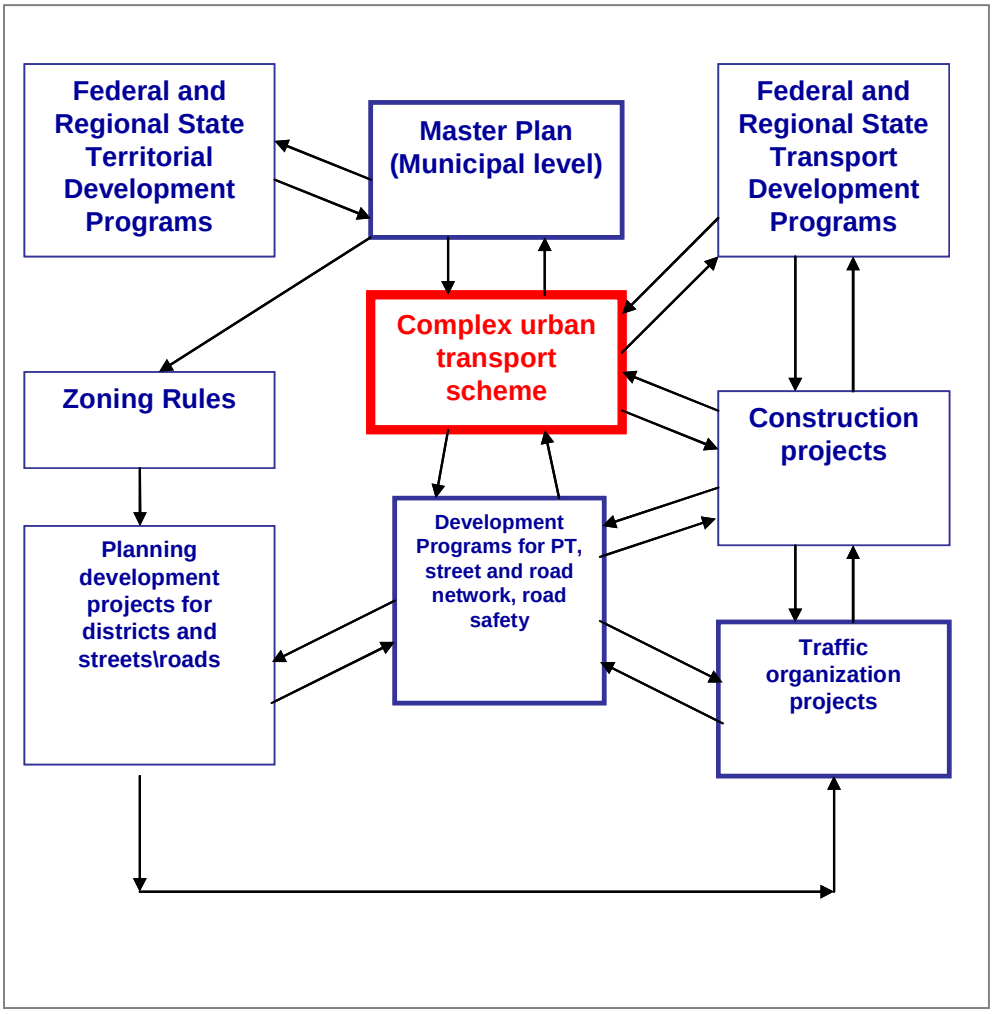

Figure 1. Diagram of documents for complex territorial and transport planning (a proposal)