Independent Expert Committee

Independent Environmental Review of the Moscow – St. Petersburg motorway project (15-58 km section)

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Expert Committee

Zlotnikova Tamara Vladimirovna	Chairman of Expert Committee, J.S.D., member of Russian Academy of Economics, merited environmentalist of Russia, Deputy Chairman of the National Ecological Audit Chamber, member of the Dissertation Board at the Institute of State and Law of the Russian Academy of Sciences (RAS) for environmental, natural resources and agrarian law
Blinkin Mikhail Yakovlevich	Cand. Sc. (Engineering), Center for Historic and Town Planning Research, research supervisor at Transport and Road Scientific Research Institute,
Blokov Ivan Pavlovich Veduta Elena Nikolaevna	Cand. Sc. (Engineering), Greenpeace Russia Doctor of Economics, Professor, Deputy Head of Economic Policy Department at Moscow State University
Grigorjev Aleksey Yurievich	Expert for Russian Bird Conservation Union
Emeljanova Ludmila	Doctor of Geographical Sciences, Moscow
Grigorevna	State University
Kavtaradze Dmitri Nikolaevich	Doctor of Biological Sciences, laboratory chief at Moscow State University, Transport Minister Adviser (on a voluntary basis), national coordinator IENE (Infra Eco Network Europe)
Karpachevskiy Mikhail	Cand. Sc. (Biology), Wildlife Conservation
Lvovich	Center, Transparent World, NGO
Maslov Aleksandr	Doctor of Biological Sciences, laboratory chief
Anatolievich	at Forest Research Institute RAS
Margulev Andrey	lawyer, International Social and Environmental
Igorevich	Union
Matveev Mikhail	Cand. Sc. (Physics and Mathematics), Save
Vyacheslavovich	Khimki Forest Movement
Pakhorukova Kseniya Aleksandrovna	Secretary of Committee, Russian Bird Conservation Union Cand. Sc. (Geography), senior associate at the
Podolskiy Sergey	Institute for Water Problems RAS, associate
Anatolievich	member of Russian Academy of Economics
Suslova Elena	Cand. Sc. (Geography), Geographical
Germanovna	Department, Moscow State University
Khmeleva Ekaterina	Master of laws, World Wildlife Fund (WWF)
Nikolaevna	Russia
Shvarts Evgeniy	Doctor of Geographical Science, World
Arkadievich	Wildlife Fund (WWF) Russia

Yaroshenko Aleksey Yurievich

Cand. Sc. (Biology), Greenpeace Russia

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Introduction

This paper presents a comparative urban planning, transportation, environmental, social and legal review of various options to address transport issues associated with 15-58 km section of Moscow – St. Petersburg route.

The attempt to construct the Moscow – St. Petersburg toll motorway in this direction sparked a major public outcry. Prospective European investors of the project decided to suspend consideration of project financing¹.

On 26 August 2010, Russian President Dmitry Medvedev has decided to halt operations on this project with the aim to conduct an additional expert and public discussions (Instruction No Pr-2511 dated 26.08.2010). At the meeting of the Public Chamber, on 16 September 2010, it was proposed to undertake a detailed analysis of various highway route options and, in broader terms, the various options to address transport issues concerning the section under review.

The policy of the leading international lending institutions, if they still plan to participate in the project, also requires similar analysis.

The Expert Committee was created on 13 Ocotber 2010 by the resolution of the NGO Coalition "Za lesa Podmoskovya" (For forests of Moscow Region) in accordance with the Instruction No.Pr-2511 dated 26.08.2010 issued by the Russian President, Dmitry Medvedev, to halt the construction of Moscow - St. Petersburg motorway in order to hold additional public and expert discussions.

List of materials reviewed by the experts:

The Committee had at its disposal the following materials:

- The Expert Opinion No.909-07/GEE-5074/04 dated 20.11.2007 issued by the Glavgosexpertiza of Russia, Federal State Institution (Main Department of State Assessment) on the Construction of Moscow St. Petersburg High-Speed Motorway Project (15 58 km section) (taking into account the subsequent operation of the road for a fee) in Moscow Region (amendments to projects on construction of the M-10 Russia federal highway from Moscow through Tver, Novgorod to St. Petersburg on the sections: the Moscow Ring Road near Businovsky road interchange to Sheremetievo-1 (km 29 +300) bypassing Khimki Town and Sheremetyevo-1 (km 29 +300) to km 100 bypassing Solnechnogorsk Town and Klin Town).
- Order No.89 dated 08.02.2006 issued by the Glavgosexpertiza of Russia, Federal State Institution (Main Department of State Assessment) on the approval of the Expert Opinion by State Expert Committee "EIA Report for the Construction of Moscow Ring Road – Sheremetyevo-3 Toll Motorway" and the Expert Opinion on the State Expert Committee materials "Justification of Investment into the Construction of Moscow Ring Road – Sheremetyevo-3 Toll High-Speed Motorway".
- The Expert Opinion No.311 dated 07.04.2006 on the State Expert Committee materials "Reconstruction of the M-10 Russia federal highway from Moscow through Tver, Novgorod to St. Petersburg on the section from Sheremetyevo-1 (km 29 +300) to km 100 bypassing Solnechnogorsk Town and Klin Town in Moscow Region.

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http://www.bankwatch.org/newsroom/highlights.shtml?x=2262335

- The Expert Opinion on the State Expert Committee materials "Justification of Investment into the Construction of Moscow - St. Petersburg high-speed motorway on the 15 - 58 km section" and the Expert Opinion No.829 dated 06.09.2006 on the State Expert Committee materials "Justification of Investment into the Construction of Moscow - St. Petersburg high-speed motorway on the 15 - 58 km section".
- Expert Opinion No.372-07/GGE-4633/04 dated 31.05.2007 issued by the Glavgosexpertiza of Russia, Federal State Institution (Main Department of State Assessment) on the engineering project "Construction of the M-10 Russia federal highway from Moscow through Tver, Novgorod to St. Petersburg on the section of the Moscow Ring Road near Businovsky road interchange to Sheremetievo-1 (km 29 +300) bypassing Khimki Town (Moscow St. Petersburg high-speed motorway), Moscow Region".
- Consolidated Expert Opinion No.809-04/GGE-3071/04 dated 05.10.2005 on the justification of investment into construction of Moscow Ring Road – Sheremetyevo-3 toll high-speed motorway.
- Environmental and social impact assessment of the Moscow St. Petersburg high-speed motorway construction project (stage-1, 15 - 58km), additional environmental and social analysis of alternatives for the projected motorway, prepared by North-West Concession Company LLC in October 2009 - January 2010.
- Expert opinion from the Moscow Ecological Federation dated 01.10.2009 on ecological value of natural communities within the Khimki Forest Area (Khimki Forest) in view of the construction of the Moscow St. Petersburg high-speed motorway.
- Greenpeace Russia Report dated 30.06.2010 and the Russian Bird Conservation Union Report dated 06.09.2010 on the environmental value of Khimki Forest.
- Codes, laws and other regulations of the federal level, Moscow Region, Moscow City, Khimki Urban District.
- Report No. 2502/10-1 dated 25.02.2010 of the independent expert review of the document "Environmental and Social Assessment. Additional environmental and social analysis of alternatives for the projected motorway" (construction of Moscow – St. Petersburg motorway, stage 1, 15 - 58 km) (initiated by the Biodiversity Conservation Centre, Charitable Foundation).
- Report dated 07.04.2010 on anti-corruption expert review of the Order No.1642-p dated 05 November 2009 issued by the Government of the Russian Federation "On the transfer of forest fund lands of Istra and Dmitrov Forests ... into the category of lands for industry, energy, transport, communications, radio, television, computer science, land for the space activities, defense lands, security lands and other special-purpose lands for construction of motorway" adopted as a part of the Moscow – St. Petersburg federal high-speed motorway construction project implementation. The anti-corruption expert review was conducted by NGO Transparency International – Russia, the Center for Anti-Corruption Research and Initiative).
- Responses given by the ministries and departments of federal and regional levels concerning the issues related to design and construction of Moscow – St. Petersburg highspeed motorway.

1. The evaluation of different options to address the transport issues

1.1. The review of existing and projected communication lines in Moscow - St. Petersburg direction on 15 - 58 km section as well as in the adjacent territory of Moscow

In the course of analysis of traffic situation in the specified direction the following communication routes have been considered (Fig. 1.1):

Motorways:

- M10 Leningradskoe Highway;
- Pyatnitskoe Highway;
- Novokurkinskoe Highway;
- Svoboda Street in Moscow City;
- Dybenko Street in Moscow City;
- Moscow Ring Road;
- Projected Moscow St. Petersburg high-speed toll motorway;
- Projected in the long term North Lateral Highway (Severnaya Rokada) within Moscow City, with the exits to Moscow – St. Petersburg toll motorway and in Nizhniy Novgorod direction.

Railways:

- Oktyabrskaya Railway;
- Railway branch line of Svavelovsk direction to Sheremetyevo Airport.

Underground:

- Zamoskvoretskaya Line (to Rechnoy Vokzal (River Terminal) Metro Station);
- Tagansko-Krasnopresnenskaya Line (to Planernaya Metro Station).



Figure 1.1. Existing communication routes (Metro Stations and Pyatnitskoe Highway are omitted).

Below is a brief description of the listed lines of communication.

M10 Highway has significant differences on the sections crossing the territory of Moscow and Moscow Region. From the Moscow side, the road has been expanded to consist of 10 to 12 lanes as a part of the Big Leningradka Project. In late 2010, the highway expansion operations on the section from the Moscow Canal to the Moscow Ring Road were nearing their completion. Obstructions of traffic have been largely eliminated (in particular, single-level intersections have been removed). From the Moscow Region side, the highway width is much smaller (the width is reduced to 6 lanes already within the Khimki Town area). The highway outside Khimki consists mainly of 4 to 6 lanes. In this case, the traffic through the Moscow Region is complicated by several additional factors.

Including:

- (A) a large number of ramps to trade facilities, located mainly on the south side of the highway within Khimki Town. The list of shopping malls adjacent to the highway is set out in Appendix 1.
- (B) deficiencies that lead to additional slowdowning of the traffic stream:
- bus stops at the points of roadway bottlenecks and / or entry / exit points (e.g. exit from Mayakovsky Street interchange in Khimki in the direction of Moscow).
- single-level crossing with other roads (both signal-controlled and non-controlled) on the section between Khimki and Solnechnogorsk.
- signalized pedestrian crossings and zebra crosswalks located directly on the traffic way.

Thus, the M10 highway section in the Region does not meet modern requirements and is unable to efficiently accept traffic from the existing Leningradskoe Highway in Moscow. In this case, the traffic capacity of the regional section of highway can be improved by removing (or minimizing) the above traffic impediments, as well as expansion of the roadway.

Pyatnitskoe Highway is a narrow (2 lanes), rather winding highway, bypassing the southwest areas of multistory residential buildings in Khimki, Kurkino, Skhodnya and Zelenograd. In general, it runs parallel to the M10 highway within the section under review.

Novokurkinskoe Highway is a relatively wide (6 lanes) highway in the area of high-rise residential buildings in Kurkino (near Moscow City). In general, it runs parallel to the M10 highway. From the Moscow side, the highway traffic capacity is limited by Molodezhnaya Street and Svoboda Street (4 lanes; the passage is impeded with numerous intersections and traffic lights). From the Region side, the traffic capacity is limited by Mashkinskoe Highway (4 lanes), which, in fact, has no efficient interchange with the M10 and Mezhdunarodnoe Highway. Quite recently, the construction of an additional exit road from Novokurkinskoe Highway to the Moscow Ring Road has started. In this respect, the valuable natural sites have been damaged, in particular the Setun River Valley State Nature Reserve and Aleshkinsky Forest. Despite these actions, the additional exit road still remains unfinished and its extension within Moscow is missing. Thus, the potential of Novokurkinskoe Highway is not used adequately due to the poor performance of adjoining roads, including, first of all, Svoboda Street.

Svoboda Street (Moscow City) has 4 lanes and a large number of single-level intersections with other roads, controlled by traffic lights, as well as pedestrian crossings, which limit the traffic.

Dybenko Street (Moscow City) is a four-lane highway (with the exception of Zelenogradskaya Street with 2 lanes) which is the only extension of Moscow - St. Petersburg toll

motorway (10 lanes) running through Moscow territory provided that the latter will be completed according to the officially approved project with the exit point to Businovsky road interchange. There are obstructions to traffic flow (single-level intersections with traffic lights and pedestrian crossings, roundabouts before the exit to Businovsky road interchange). It passes into Lavochkin Street which ends in a T-junction with Flotskaya Street and Kronstadtsky Boulevard, which prevents Dybenko Street from being considered as an alternative to Leningradskoe Highway.

As can be seen from the above, currently there is no effective extension of the projected high-speed toll motorway with the exit point to Businovsky road interchange in the territory of Moscow.

Moscow Ring Road generally is a modern highway with a large traffic capacity (10 to 12 lanes). Though, the uniform traffic flow is prevented by numerous ramps to shopping centers (primarily, from the outside of the Moscow Ring Road). The Moscow Ring Road traffic capacity is used almost in full, occasionally there are traffic jams.

Projected Moscow – St. Petersburg high-speed toll motorway is a ten-lane highway, which should start from Businovsky road interchange with the Moscow Ring Road and go northwest. By the end of the 15-58 km section some road narrowing is expected from 10 to 8 lanes. To lay the motorway the design engineers are going to use mostly the land of the State Forest Fund (see Fig. 1.2).

The authorized route option deviates from the main St. Petersburg direction towards Sheremetyevo Airport direction, which makes the highway to go through the central part of the Khimki Forest.



Figure 1.2. Projected route for Moscow – St. Petersburg motorway, 15 – 58 km section

Projected North Lateral Highway in Moscow: the accurate data on this object are not available. The requests to the Moscow authorities as regards the state and details of the project remained without response at the time of the signature of this opinion. In consideration of the available data on road construction in Moscow, the construction has not commenced and is not planned to in the near future².

Oktyabrskaya Railway: commissioning of high-speed trains between Moscow and St. Petersburg has reduced travel time between the two cities to about 4 hours. However, the overall quality of suburban service decreased due to the time-intervals release for high-speed trains handling. In November 2010, Russian Railways JSC has announced its plans to build separate tracks for high-speed trains by 2016 to carry up to 14 million passengers per year

Railway branch line of Svavelovsk direction to Sheremetyevo Airport was constructed to go through Lobnensky Forest Park (Sheremetyevo Forest) despite the public protests and legislative ban on the use of park lands for capital construction. The only purpose of the considered branch line is transport service to Sheremetyevo Airport. The interval between trains is significant (30 minutes), the fare is relatively high (RUR 300 as of December 2010).

Gorkovsko-Zamoskvoretskaya Line: the construction of the last station in this direction (River Terminal) was completed in 1964. After that, the line development has been stopped despite the multiple increase of passenger traffic.

Tagansko-Krasnopresnenskaya Line: The last station of this line (Planernaya) was constructed in 1975. After that, the line development has been stopped despite despite the multiple increase of passenger traffic.

Review Results

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The potential of existing means of communication in the considered direction is relatively low. Though, even available potential is not used properly. The avoidable traffic impediments are not identified and are not being eliminated over the years. There is no single service specifically responsible for the identification and elimination of short-term and permanent obstructions to traffic. No systematic analysis of traffic flows in this direction nor their optimization is carried out. Moreover, Rosavtodor (National Road Service) was found guilty of traffic jams on Leningradskoe Highway in summer 2010³.

The traffic capacity of existing roads is undergoing drastic changes at the intersection with the Ring Road. There are no extensions of the roads under construction or projected roads (Moscow - St. Petersburg toll motorway, access way to the Moscow Ring Road from Kurkinskoe Highway) from the inside of the Moscow Ring Road. **This speaks for the lack of coordination of transport development plans between the two entities of the Russian Federation.**

M10 highway section, running through the territory of the Region, needs renovation. The primary objectives of the renovation include highway expansion and removal of local obstacles of the traffic through the construction of interchanges, upgrading of existing bridges and overhead roads, construction of elevated and underground pedestrian crossings, the transfer / relocation of public transport stopping points outside the roadway borders, reducing the number of entries and exits, etc.

To fulfill the potential of Novokurkinskoe Highway it is needed to organize the effective exit therefrom to the territory of Moscow (e.g., by expanding and upgrading Svoboda Street) as well as to construct the additional interchange between Novokurkinskoe, Leningradskoe and Mezhdunarodnoe Highway.

http://mos.ru/wps/portal/WebContent?rubricId=15751

http://top.rbc.ru/society/27/10/2010/488744.shtml

A new high-speed toll motorway has no clearly defined purpose. On the one hand, according to numerous official statements, the route is planned as a toll motorway with a design speed of 150 km/h. This option excludes a large number of highway exits as well as imposes significant planning restrictions for the road route by the reason, firstly, of high requirements for turning radius, and, secondly, the need to locate toll collection points at the beginning of the motorway as well as at all entrances and exits.

Notwithstanding the foregoing, the official development plans for Khimki Town (Appendix 1) identify numerous interchanges at intersections with local roads (e.g., with Vashutinskoe Highway), which is inconsistent with the status of the high-speed motorway. Originally the section of the road running to Khimki inclusive was intended as toll-free, with a large number of interchanges.

The project of Moscow – St. Petersburg toll motorway is linked with the plans to lay the North Lateral Highway (Severnaya Rokada) running through Moscow. At the same time, the construction of the road connecting two transit lines within the limits of the city seems to contradict the transport concept of the new Mayor of Moscow S. S. Sobyanin, which intends to remove all transit traffic flows outside of Moscow and Moscow vicinity region.

If the construction of the North Lateral Highway is not commenced in the near future, the entire traffic stream from the new toll motorway will flow through the Moscow Ring Road and Leningradskoe Highway, since Dybenko Street (located behind the Businovsky road interchange from Moscow side) is unsuitable to receive such a large traffic. The Ring Road is already overloaded, and the junction of roads without the effective extension over the territory of Moscow (e.g., a new exit to Novokurkinskoe Highway) and, especially, 10-lane high-speed motorway, **would increase traffic jams on the Ring Road.**

The expanded Leningradskoe Highway is the main modern highway in the city of Moscow running in the considered direction. Therefore, the only point which currently can accept the additional motor traffic from Moscow is (and will be in the next few years) the interchange between Leningradskoe Highway and the Moscow Ring Road.

Some projects have been already implemented on the route under discussion (the construction of an additional exit from Novokurkinskoe Highway to the Moscow Ring Road, the laying of a railway branch line to Sheremetyevo Airport), inflicting the significant damage to valuable natural sites. Implementation of these projects failed to provide principal improvement of the transport situation.

The development of public electric transport available to residents of the area under consideration was suspended in the 60-ies–70-ies of the last century. Meanwhile, suburban electric trains, which do not fully meet the minimum requirements of convenient communication, remain the only electric transport available outside Moscow. Since the Metro is extremely popular among the Moscow and Moscow Region population, it generates a strong flow of public and private motor transport plying between the Metro terminal stations and facilities in Moscow vicinity region. As a result, the load on existing roads, the capacity of which leaves much to be desired, will increase even more.

Opening new high-speed trains between Moscow and St. Petersburg (and, in the long term, the construction of separate tracks for them) will provide an attractive alternative to the proposed high-speed motorway in terms of express transit passenger service.

1.2. Description of the passenger and freight traffic on the route of Moscow - St. Petersburg (15–58 km section)

On the route of Moscow - St. Petersburg, where it's planned to lay the Moscow-St. Petersburg motorway, within the considered section (15 - 58 km) one may point out a range of basic components of traffic flows:

I – Local traffic (in the Northern Administrative District of Moscow and adjacent urban conglomeration sites: Khimki Town, Kurkino District, Sheremetyevo Airport Complex up to and including Zelenograd Administrative District). It can be divided into the following components:

Ia –**Passenger traffic between the residential areas and business areas.** The highest traffic can be observed between the residential areas in satellite towns and business areas in Moscow. Due to construction of a big amount of shopping malls, warehouses and offices in the Moscow vicinity region, as well as extension of Sheremetyevo, the reverse flow from residential areas in Moscow to business areas in the region has been observed. It is strongly misbalanced during a day.

Ib – Passenger traffic between Moscow and Sheremetyevo Airport.

Ic - Freight traffic between Moscow and Sheremetyevo Airport.

Id –**Passenger-freight traffic** between shopping malls (primarily in Khimki) and residential areas where buyers live (Moscow, residential areas of Moscow and Khimki).

II - Summer cottage traffic represented by the passenger-freight traffic between the residential areas of Moscow and summer cottages at the distance of several dozens to hundreds of kilometres from Moscow. It's extremely seasonal and, moreover, depends on the weekday and day time.

III – Inter-urban and international passenger traffic from/to Moscow. This route is primarily influenced by the traffic between Moscow and St. Petersburg.

IV – Inter-urban and international freight traffic from/to Moscow

 $\rm V-Transit$ passenger and freight traffic through Moscow and Moscow vicinity region.

Even now the local traffic covers over 50% of the total traffic in this direction (in summer it's combined with the summer cottage traffic). According to the Federal Government Facility "Roads of Russia", in 2004 the existing Moscow - St. Petersburg main road was loaded as follows:

#	Section	Vehicle load, vehicles per day
1	Moscow Automobile Ring Road – 29 km	117 000
2	29 km – Solnechnogorsk (65 km)	80 000
3	Solnechnogorsk (65 km) – Klin (87 km)	60 000
4	Transit section (Tver' – Torzhok)	40 000

Table 1.1 Vehicle load of the existing Moscow - St. Petersburg main road

Thus, the international traffic on the route of Moscow - St. Petersburg makes up only about one third of the total transport traffic within the considered section.

In the future, further reduction of the traffic flow is expected. On the one hand, it will happen due to the planned shift of the transport flows, as well as customs and warehouse terminals, outside the nearby suburbs of Moscow. Moreover, a significant share of the passenger traffic load will be taken by electrical trains. On the other hand, large-scale construction of residential and commercial real estate in the area of Khimki Municipal District, as well as plans to extend Sheremetyevo Airport Complex, will result in further growth of the local transport flow within the 15–29 km highway's section.

Table below shows results of the flow development analysis and best ways to resolve transport issues in each case.

		Ways to r	esolve the t	transport is	sue			Justification
Transport flow type	Forecast	Typical motorw ay (speed of 90– 110 km/h)	Toll motorw ay (speed of 150 km/h)	Metro or similar options (monora il, light- rail metro)	Railway	High- speed railway	Plane	
Ia – Passenger traffic between the residential and business areas	Sharp growth as a result of uncontrolled land development in the territory of Khimki municipal district.	+	-	+	+	-	-	Since the traffic is specifically determined in each case, it's advisable to use the public transport. Mass usage of private motor transport with one driver/passenger is not the best option to be encouraged as a priority measure to resolve the transport issue. Since the public motor transport drives at a speed of up to 100 km/h, the high-speed motorway is not considered as the priority measure to resolve the transport issue. Moreover, a limited number of entries and exits in the high-speed motorway do not allow arranging the effective transport supply to local facilities evenly distributed in the vast area.
Ib – Passenger traffic between Moscow and Sheremetyevo Airport	Aoscow and Sheremetyevo		-	+	+	-	-	Air travellers do not mainly plan to get back on the arrival/departure day. It complicates the usage of a private motor transport because of the required long-term parking. The public transport does not require any high-speed motorway (see above). The best option is electric transport requiring a shortened running spacing and train ticket prices lower than the current ones.

Table 1.2 Transport flows and preferable ways to resolve transport issues

		Ways to r	esolve the t	ransport is	sue			Justification
Transport flow type	Forecast	Typical motorw ay (speed of 90– 110 km/h)	Toll motorw ay (speed of 150 km/h)	Metro or similar options (monora il, light- rail metro)	Railway	High- speed railway	Plane	
Ic – Freight traffic between Moscow and Sheremetyevo Airport	Growth in case of the Airport area extension.	+	-	-	-	-	-	In this category the motor transport is unrivalled. At the same time, speed of the most of trucks being in use does not exceed 100 km/h. This fact discourages us from considering the high-speed motorway as a priority measure to resolve the issue.
Id – Passenger- freight traffic between shopping malls (primarily, in Khimki) and residential areas where buyers live (Moscow, residential areas of Moscow and Khimki)	Increase as a result of continuous construction of shopping malls in Khimki.	+	-	-	-	-	-	In this case, the motor transport is unrivalled too. However, the toll motorway is not reasonable due to fundamentally limited amount of ramps, which hinders the access to shopping malls, as well as due to a long distance from the road to shopping malls and places of residence.
II Summer cottage traffic	Moderate growth proportional to the population of Moscow municipal conglomerati	+	+	-	+	-	-	The toll motorway provides some timing advantage. On the other hand, it results in reduced safety level (the most of the accidents are fatal), stronger noise and higher environmental pollution compared to a typical road.

		Ways to r	esolve the	transport is	sue			Justification
Transport flow type	Forecast	Typical motorw ay (speed of 90– 110 km/h)	Toll motorw ay (speed of 150 km/h)	Metro or similar options (monora il, light- rail metro)	Railway	High- speed railway	Plane	
	on on the							
	whole.							
III Inter-urban and international passenger traffic from/to Moscow	Moderate growth proportional to the population of Moscow municipal conglomerati on on the whole.	-	-	-	+	+	-	On the route of Moscow - St. Petersburg, the historical preference has been given to the railway transport. The high-speed motorway is not competitive with Sapsan train (speed of Sapsan is 250 km/h, its safety and comfort level is higher than the car's level). Moreover, the railway vehicle is considered as the environmental friendly and priority transport by the EU regulations (global climate changes, energy consumption).
IV Inter-urban and international freight traffic from/to Moscow	It will remain the same or decrease if shopping and warehouse complexes are moved outside Moscow.	+	-	-	+	-	-	It's possible to use both the motor and railway transport. As for the motor transport, one should remember that the most of trucks do not exceed 100 km/h. If the speed is higher, fuel consumption will grow and transportation safety will be reduced.
V Transit passenger and freight traffic through Moscow	Practical reduction to zero in case of implementatio	-	-	-	-	-	-	This type of traffic should not be encouraged by the transport development strategy.

		Ways to r	esolve the t	ransport is	sue	Justification		
Transport flow type	Forecast	Typical motorw ay (speed of 90– 110 km/h)	Toll motorw ay (speed of 150 km/h)	Metro or similar options (monora il, light- rail metro)	Railway	High- speed railway	Plane	
and Moscow vicinity region	n of the well- advised transport strategy.							

Review Results

Construction of the toll motorway with planned width (10 lanes) and speed (150 km/h) in the considered section turns out **unpractical** for the following reasons:

- 1. In view of all traffic flows listed in Table 1.2, this option can be considered as a priority measure to resolve only the summer cottage traffic issue. However, even in this case, its advantage over a typical highway is at least unevident.
- 2. Local traffic prevails within the considered section; in the future its share will exceed 2/3 of the traffic flow with the predicted constant growth. Construction of the toll motorway is inefficient for the local traffic due to the following facts:
 - 2.1 Principally limited amount of interchanges and exits in highways of this level prevents from effective transport supply to sites in the territory with the development density which is close to the density in the city. Even with ideal highway parameters, the problems will be faced nearby exits, as well as local entries to the highway. It will result in frequent unevenness of traffic flows followed by the high accident risk, mainly with fatal outcomes, if the speed of 150 km/h is not kept to. In fact, it's unlikely that speed rates planned for this section will be followed if the highway is used for the local traffic.
 - 2.2 On the route chosen, the freeway distant from residential and business areas, as well as shopping malls, will not ensure effective transport supply to the most of local sites (except for Sheremetyevo Airport where the railway line has been constructed, and it's possible to develop the additional road due to completion of Novokurkinskoe Highway construction).
 - 2.3 Absence of a convenient access to Moscow makes the new road **practically useless** for management of the traffic flow between Moscow and the regions.
- 3. If the road is not used for the local traffic entering, it will be under-loaded and unfeasible since the international traffic flow in this direction is significantly lower than the local one. While the international traffic flow is mostly covered by large goods vehicles with the limited speed of 100 km/h, the potential of a road as a high-speed motorway will not be properly demanded, except for a comparatively short period of high summer cottage traffic.
- 4. An attempt to construct the highway with 10 lanes and 150 km/h speed rate within the considered section results in serious planning problems since it implies strict requirements to the spherical radius and easement area width (especially taking into account the fact that sections adjacent to the highway actually become useless for living and recreation). Additional problems arise from the necessity to reserve the area for placing a fare receiving office close to all entrances and exit points on the highway.
- 5. Construction of the high-speed motorway in the residential and recreational areas will result in unjustified increase of noise and chemical pollution compared to the typical highway.
- 6. The decision on the motorcar traffic flow speeding-up to 150 km/h turns out to be environmentally irresponsible. Even for cars optimized for high speed, the specific fuel consumption (in equivalent of 100 kilometres) at the speed of 150 km/h increases over 1.5 times compared to the optimal range 80 100 km/h in view of the fuel-saving and driving safety. We'd like to stress that based on these facts, as a rule, the limitation to 60 miles per hour (96 km/h) is imposed on cars driving on the US express freeways. If the limit is exceeded, it results in unreasonable environmental contamination, including a sharp growth of carbon dioxide emissions. Carbon dioxide emissions by the motor transport are generally considered as one of the causes to global climate changes. A danger is also

constituted by other pollutants' emissions (carbon monoxide, benzpyrenes, heavy metals, etc.). Speed mode's relation to severe effects is well-known.

- 7. Thus, the planned high-speed motorway, most likely, will function as a typical highway to transmit the local traffic. However, chosen location of the road (through the forest, at the long distance from most of service sites) will not allow doing it in the effective way. The only site in 15-29 km section, which can use the potential of such a highway, is Sheremetyevo Airport. However, it's likely that approaching roads to the Airport will be overloaded by the local traffic to other sites (residential districts, shopping malls, etc.). In the future it will require construction of additional entries and exits in the forest area (even if they are not constructed from the very beginning). Finally, it will create a strong incentive to commercial development of the forest land. Even now construction of another road passing through the Khimki Forest, between Vashutino and Starbeyevo settlements has been planned (Annex 2).
- 8. The only way for this new highway to be effectively used is its complete optimization for the local traffic in combination with speeded commercial development of adjacent forest land. There are some reasons (reflected in the official Plans of Moscow Region Territorial Development⁴) to believe that such use of the main road was planned from the very beginning since the Khimki Forest belongs to zones of concentration of the town-planning activity.
- 9. To resolve the issue of local traffic transmission, it's necessary to develop network of typical motorways in this direction (without any tough requirements to their speed performance). Moreover, it's preferable to have several alternative roads instead of one wide main road. It may ensure even distribution of the local traffic between service sites. Also, such a scheme will significantly increase reliability of the transportation system and help avoid situations when traffic is completely locked for a long period because of serious accidents (it often occurs on the Moscow Automobile Ring Road and the Third Ring Road).
- 10. Traffic optimization and upgrade of existing motor roads in the problem parts are required as the first priority measure (M10 Highway in the regional part, exits from the Novokurkinskoe Highway to Moscow through Molodezhnaya Street and the Mezhdunarodnoe Highway).
- 11. There is a necessity to construct roads for inter-urban traffic transmission by-passing Khimki and other settlements, but without any tough requirements to their speed performance and width. Their construction is useless without implementation of forward measures on transmission of the local traffic and development of the public transport.
- 12. It's necessary to develop the effective public electric transport system in this direction (Moscow Kurkino Khimki Sheremetyevo Zelenograd) since the share of Ia and Ib flows is very high. The obvious advantage of the public electric transport system, in addition to environmental safety, relative convenience and security, is practically complete independence on weather conditions. It's critical in view of traffic jams which constantly form on motor roads in a snowy and rainy weather. The world practice proves that the public electric transport allows creating a big amount of additional workplaces, including in technology intensive areas. It's very topical for Russia where the majority of motorcars are imported or assembled in Russia.

4

http://guag.mosreg.ru/norm_prav_acts/169.html

1.3. Analysis of environmental and social impacts caused by different options of Moscow-St. Petersburg routing

Considered options

As it was previously considered, the ten-lane toll motorway with the estimated flow speed of 150 km/h is not the best transport solution in 15-58 km section. Nevertheless, this subsection analyses different location options just for the ten-lane highway.

We do not pursue the goal of transmitting the flow at the speed of 50 km/h in the residential and recreational areas for reasons listed in the previous subsection.

The expert commission has analysed alternative options for the highway part covering the territory of Khimki, from the Moscow Automobile Ring Road to its crossing with the Sheremetyevo Highway. Since location of the next highways parts has negative impact on the environment as well (see Figure 1.7 below), in the future this analysis is necessary for 29-58 km section.

Initially, designers considered three highway options (hereinafter they are indicated as 1, 2, 3). These three options start at Businovskaya interchange on the Moscow Automobile Ring Road and more or less cover the Khimki Forest's area. Finally, without any persuasive justification, Option3 covering the central part of the Khimki Forest was accepted.

Since the analysis clarified a wider list of possible options, the additional options, which were offered by independent experts and public activists in the period of 2008-2010, were offered for consideration.

According to the design documentation of the selected option, the easement area width for the motor road is 100 m; therefore, all natural objects will be irretrievably destroyed within the mentioned zone. In fact, the surface width of the ten-lane highway totals about 50 m being an additional reserve upon road construction in the space-limited environment.

During assessment of the indirect impact on natural objects and residential buildings, the lane 200 m wide was considered.

Below you can find the list of options of the highway passing through 15-19 km section as it's considered in this subsection (Fig. 1.3 and 1.4). Fig. 1.3 demonstrates the highway options shown on the map chart, and Fig. 1.4 shows the same options presented in the satellite image.

Highway Options 1, 2, 3 comply with the ones initially proposed by the designer.

Option 1 starts at Businovskaya interchange in Levoberezhnyy Microdistrict of Khimki. It passes through the forest belt located between the municipal solid waste landfill and residential buildings, and then it crosses the Moscow Canal nearby Starbeyevo Village, passing through water protection zones on the Canal banks. Then it passes through the oak-wood of the Khimki Forest Park (special protected natural area under design) resulting in actual destruction St. Georgiy's Wellspring nearby the Khimka River, and passes along the forest park border while bending Khimki. Also, the route partially passes through the industrial area of the Fakel Plant, and it's likely that designers have not planned it. The main road crosses the southern part of Vashutino Village, and then it goes along the forest border again. At the access to the Mezhdunarodnoe Highway it crosses the natural monument of the regional significance called Vashutinskoe Mesotrophic Moor in Molzhaninovskiy District (Moscow city). Having reached

the Mezhdunarodnoe Highway, the route bends to the corridor of the existing M10 Highway, while partially crossing the settlement areas (Novoselki settlement, etc.) adjacent to M10.

Option 2: coincides with Option 1 in the initial section (from the Moscow Automobile Ring Road to the crossing with Vashutino Village): it starts at Businovskaya interchange in Levoberezhnyy Microdistrict of Khimki. It passes through the forest belt located between the municipal solid waste landfill and residential buildings, and then it crosses the Moscow Canal nearby Starbeyevo Village, passing through water protection zones on the Canal banks. Then it passes through the oak-wood of the Khimki Forest Park (special protected natural area under design) resulting in actual destruction St. Georgiy's Wellspring nearby the Khimka River, and passes along the forest park border while bending Khimki. Also, the route partially passes through the industrial area of the Fakel Plant. Then it crosses the southern part of Vashutino village and heads for the north end of the route following Option 1 and going along the forest border. At the same time, it follows the garden suburb's border causing unreasonable demolition of several houses. After the Mezhdunarodnoe Highway has been crossed, the route passes through the Molzhaninovskie Fields (where it was planned to put the golf club), to the north from Burtsevskie Ponds. Then, from the northern end, it crosses the natural monument of the regional significance called Burtsevskoe Mesotrophic Moor in Molzhaninovskiy District (Moscow city), which could have been avoided by a slight correction of the route.



Figure 1.3. Possible options of the motorway passing nearby Khimki (map)



Figure 1.4. Possible options of the motorway passing nearby Khimki (satellite image)

Option 2a is the modified Option 2 which allows mitigating the environmental impact. To cross the Moscow Canal nearby Starbeyevo Village through closing gates #73, it's necessary

to cross the section affected by the construction activity (there are no completed and populated buildings). Crossing the Canal affects water protection zones on both banks of it. This option envisages bypassing the area from the south end of the oak-wood in the Khimki Forest Park and the Fakel Plant's industrial area, as well as minimized demolition of summer houses in the garden suburb nearby Vashutino Village. The option is very close to the road configuration called Bypassing Khimki Town indicated in the General Plan of Moscow. The natural monument of the regional significance called Vashutinskoe Mesotrophic Moor in Molzhaninovskiy District (Moscow city) is bypassed from the south end before accessing the Mezhdunarodnoe Highway. Having crossed the Mezhdunarodnoe Highway, the route goes to the south from Burtsevskie Ponds along the northern border of Novoselki settlement, along the planned passway shown in the General Plan of Moscow. At the same time, the road approximates the natural monument of the regional significance called Molzhaninovskoe Highland Moor (Moscow city), bending it from the south.

Option 2b is similar to Option 2a, except for the fact that the route passes through the area of Molzhaninovskiy District of Moscow. In this case, the road goes more the north, as distinct from the previous Option, bypassing Burtsevskie Ponds across the Molzhaninovskie Fields (similar to the first version Option 2). The natural monument of the regional significance called Burtsevskoe Mesotrophic Moor in Molzhaninovskiy District (Moscow city) is bypassed from the north.

Option 3 is the officially accepted route construction option. In the initial section (from the Moscow Automobile Ring Road to the southern part of the Khimki Forest Park), this Option coincides with Options 1 and 2: it starts at Businovskaya interchange in Levoberezhnyy Microdistrict of Khimki. It passes through the forest belt located between the municipal solid waste landfill and residential buildings, and then it crosses the Moscow Canal nearby Starbeyevo Village, passing through water protection zones on the Canal banks. Then it passes through the oak-wood of the Khimki Forest Park (special protected natural area under design) and, first goes along the southern border of the Forest Park. Opposite the Fakel Plant's industrial area, the route sharply turns the north going deeper to the area of the Khimki Forest Park, it crosses the mesotrophic moor (special protected natural area under design), as well as sections with valuable mixed coniferous-broad leaved forest, and crosses the valuable overflow land of the Klyazma River (special protected natural area under design). Then the route crosses the forest land practically the whole way to Sheremetyevo Airport and, heading to the south from the airport, it follows the general direction along Leningradskoe Highway. The route crosses the Klyazma River twice.

In addition to the oak wood (to be mostly destroyed if either of Options 1-3, except for Option 2a, is chosen), this route is the threat to other three valuable natural sites (the level of the special protected natural area): the mesotrophic moor, the overflow land of the Klyazma River, and the St. Georgiy's Wellspring. Among other valuable natural sites under threat of complete or partial destruction, one should mention areas of the mixed coniferous-broad leaved forest with oaks. These listed sites are remarkable by the highest level of biodiversity among all ecosystem types and are wildlife habitat areas of many rare species of plants, animals and mushrooms. Because of development of the edge effects, fragmentation will negatively affect the condition of the most valuable natural sites: the Khimki Oak Wood, mesotrophic moors, overflow land of the Klyazma River, areas of the mixed coniferous-broad leaved forest with oaks.

If Option 3 is implemented, due to fragmentation the Khimki Forest will stop being a single ecosystem, and the condition of its fragments will significantly worsen (Fig. 1.5, see Section 2 for more details).



Figure 1.5. After-effect of the high-speed motorway construction across the area of the Khimki Forest according to the approved Option 3.

Options 4a and 4b have been offered by public activists based on the analysis of available data under the North Lateral Highway (Severnaya Rokada) Project in Moscow. Since in Moscow construction of the highway was planned in the common transport corridor from the Oktyabr'skaya Railway, the same solution was offered for consideration in the section crossing Khimki. It's represented by two sub-options:

Option 4a starts at intersection of the Oktyabr'skaya Railway with the Moscow Automobile Ring Road and passes along the rail tracks. Also, roadways are spaced apart to different sides of the railroad bed. In the area before intersection with the Moscow Canal the route passes through the forest land. After intersection with the Moscow Canal, the railroad precinct covers the trading area nearby Khimki Station adjacent to the railway, part of Lev Tolstoy Park, garages and similar unpopulated objects. After intersection with the motor overhead road (area of Mayakovskogo Street in Khimki), it's planned to build both trackways through the industrial area to the north from the railway. The designed route will turn from the railway to the north opposite the natural monument of the regional significance called Vashutinskoe Mesotrophic Moor in Molzhaninovskiy District (Moscow city) and bypasses the special protected natural area from the south, partially passing through the area of the building complex of the Institute for Medical and Biological Problems of the Russian Academy of Sciences. After Mezhdunarodnoe Highway has been crossed, the route goes to the south from Burtsevskie Ponds along the northern border of Novoselki settlement, along the passway designed per the General Plan of Moscow. In addition, the road passes nearby Molzhaninovskoe Highland Moor, the special protected natural area, bypassing it from the south.

Option 4b is similar to the previous Option in the section passing from the Moscow Automobile Ring Road through Khimki Town. Turning to the north comes earlier than per Option 4a (in the Kommunalnyy Passway area), which ensures bypassing Vashutinskoe Mesotrophic Moor in Molzhaninovskiy District from the north, but not from the south. As a result, there is no need to demolish facilities in the territory of the Institute for Medical and Biological Problems of the Russian Academy of Sciences. Then, per option 4b, the route passes across the Molzhaninovskie Fields, to the north from Burtsevskie Ponds. The natural monument of the regional significance called Burtsevskoe Mesotrophic Moor in Molzhaninovskiy District (Moscow city) is bypassed from the north.

Group of Options 5 (5a–5d) covers construction of the road to the south from the existing Leningradskoe Highway. Four suboptions are possible here.

Option 5a covers construction of the road right to the south from the existing Leningradskoe Highway. In fact, it creates the highway's extension with further access to Molzhaninovo District. The route turns to the north from the corridor of the existing motor road in the area of Mezhdunarodnoe Highway. Then the route passes across Molzhaninovskiy District of Moscow, heading for the south from Burtsevskie Ponds along the planned passway per the design. Meanwhile, the road passes nearby Molzhaninovskoe Highland Moor, the special protected natural area, bypassing it from the south.

Option 5b covers construction of the road right to the south from the existing Leningradskoe Highway. In fact, it creates the highway's extension similar to the previous option. The route passes in parallel with Leningradskoe Highway only up to Kommunalnyy Passway, then it turns to the north while bypassing Vashutinskoe Mesotrophic Moor in Molzhaninovskiy District (Moscow city), and accesses the Molzhaninovskie Fields, to the north from Burtsevskie Ponds. The natural monument of the regional significance called Burtsevskoe Mesotrophic Moor in Molzhaninovskiy District (Moscow city) is bypassed from the north.

Option 5c covers the road construction at the distance of several hundred meters to the south from Leningradskoe Highway, with the dispossession belt for 110 kW power transmission

line (PTL) and the area occupied by non-permanent structures along the 9th of May Street. When passing under the PTL, the route partially crosses Maria Rubtsova Park in Khimki. Access to Molzhaninovo District is provided from the south of Burtsevskie Ponds, along Novoselki Village, following the planned passway. Meanwhile, the road passes nearby Molzhaninovskoe Highland Moor, the special protected natural area, bypassing it from the south.

Option 5d covers the road construction at the distance of several hundred meters to the south from Leningradskoe Highway, with the dispossession belt for 110 kW power transmission line (PTL). When passing under the PTL, the route partially crosses Maria Rubtsova Park in Khimki. Following this Option, it's planed to make the turning to the north with the crosspoint at Leningradskoe Highway in the area of the Kommunalnyy Passway in Khimki. Then the route bypasses Vashutinskoe Mesotrophic Moor and accesses Molzhaninovskiy District to the north from Burtsevskie Ponds. The natural monument of the regional significance called Burtsevskoe Mesotrophic Moor in Molzhaninovskiy District (Moscow city) is bypassed from the north.

Option 6 covers the road construction to the north from the Khimki Forest. In the first section, the route passes along the eastern bank of the Moscow Canal following the industrial area along Likhachevskoe Highway. Not reaching Dolgoprudnoe, the road crosses the Moscow Canal and completely passes along the existing roads heading for Sheremetyevo Airport. In the area of Sheremetyevo Airport, after the overflow land of the Klyazma River has been crossed, the route accesses the corridor according to the project.

Below you can find the summary table with the analysis results for all listed options.

Table 1.3. Damage to the natural sites and property upon implementation of different options of the Moscow-St. Petersburg high-speed motorway construction (for 15–29 km section, all calculations have been made excluding construction of interchanges)

		Damage	e to the nat	ural sites	Need to demo within 100 m	lish buildings	Extension to the area of Moscow (existing/planned)		
Option	Route Area, ha length, numerator: km within 100 m; denominator: within 200 m *		ator: 100 m; nator:	Damaged valuable natural areas	Low-storey residential buildings, demolishing	Multi- storey residential buildings		Large commercial and industrial buildings,	
		forest	other**				demolishing		
1	12,8	44/87	5/9	 Destruction of 2 sections of the water protection zone on both banks of the Moscow Canal. Moderate fragmentation of the Khimki Forest. Destruction of the St. Georgiy's Wellspring nearby the Khimka River. Destruction of the natural monument of the regional significance called Vashutinskoe Mesotrophic Moor in Molzhaninovskiy District. 	90	0	59	absent/ if constructed, North Lateral Highway	
2	12,4	47/57	8/16	 Destruction of 2 sections of the water protection zone on both banks of the Moscow Canal. Moderate fragmentation of the Khimki Forest. Destruction of the St. Georgiy's Wellspring nearby the Khimka River. 	19	0	20	absent/ if constructed, North Lateral Highway	
2a	13,1	27/55	9/18	 Destruction of 2 sections of the water protection zone on both banks of the Moscow Canal. Minimum fragmentation of the Khimki Forest. 	14	0	38	absent/ if constructed, North Lateral Highway	
2b	12,7	35/69	10/21	 Destruction of 2 sections of the water protection zone on both banks of the Moscow Canal. Minimum fragmentation of the Khimki Forest. 	15	0	38	absent/ if constructed, the North Lateral Highway	

		Damage	e to the na	tural sites	Need to demo within 100 m	lish buildings	Extension to the area of Moscow (existing/planned)	
Option ler	Route length, km	length, Area, ha		Damaged valuable natural areas	Low-storey residential buildings, demolishing	Multi- storey residential buildings	Large commercial and industrial buildings, demolishing	
3	13.9	92/179	7/15	 Destruction of 2 sections of the water protection zone on both banks of the Moscow Canal. Strong fragmentation of the Khimki Forest with partial destruction of the Khimki Oak Wood and several valuable areas of the mixed coniferous- broad leaved forests with oaks and the multiyear spruce forest. It partially affects the designed Vashutinskoe Mesotrophic Moor and some other mesotrophic moors. In two sections it affects the overflow land of the Klyazma River (including the designed special protected natural area). It obstructs the animal migration pathes between the Khimki Forest and other natural sites. 	2	0	19	absent/ if constructed, North Lateral Highway
4a	12.9	10/19	5/10	 Destruction of 2 sections of the water protection zone on both banks of the Moscow Canal. It affects the forest on the Canal's left bank. It affects Lev Tolstoy Park in Khimki. 	1	0	52	absent/ if constructed, North Lateral Highway
4b	12.9	15/29	6/13	 Destruction of 2 sections of the water protection zone of the Moscow Canal nearby the railway bridge. It affects the forest on the Canal's left bank. It affects Lev Tolstoy Park in Khimki. 	1	0	59	absent/ if constructed, North Lateral Highway

		Damag	e to the na	tural sites	Need to demo within 100 m	lish buildings	Extension to the area of Moscow (existing/planned)	
Option	Route length, km	Area, ha numerator: within 100 m; denominator: within 200 m *		Damaged valuable natural areas	Low-storey residential buildings, demolishing	Multi- storey residential buildings		Large commercial and industrial buildings, demolishing
5a	12.4	0/0	1/3	n/a	0	0	17	Big Leningradka Project /in the future, access to North Lateral Highway by using the PTL dispossession belt is possible
5b	11.9	6/14	7/12	n/a	0	0	27	Big Leningradka Project /in the future, access to North Lateral Highway by using the PTL dispossession belt is possible
5c	10.7	1/7	5/8	It partially affects Maria Rubtsova Park (under the PTL) in Khimki nearby Leningradskoe Highway.	0	0	19	Big Leningradka Project /in the future, access to North Lateral Highway by using the PTL dispossession belt is possible
5d	10.7	9/19	11/21	It partially affects Maria Rubtsova Park (under the PTL) in Khimki nearby Leningradskoe Highway.	0	0	29	Big Leningradka Project /in the future, access to North Lateral Highway by using the PTL dispossession belt is possible

		Damag	e to the nat	tural sites	Need to demo within 100 m	lish buildings	Extension to the area of Moscow (existing/planned)		
Option	Route length, km			Damaged valuable natural areas	Low-storey residential buildings, demolishing	Multi- storey residential buildings	Large commercial and industrial buildings, demolishing		
6	15.4	46/91	10/19	 It affects the section of the water protection zone of the Moscow Canal nearby Dolgoprudnyy. Minimu fragmentation of the Khimki Forest. It encourages fragmentation of the forested area nearby Sheremetyevo Airport. In two sections it affects the overflow land of the Klyazma River. 	31	0	48	absent/ if constructed, North Lateral Highway	

* Fragmentation excluded, at the quality level fragmentation has been included in description of separate routes. **Trees, shrubs, floodplain plants, swamps, etc.

Analysis results

Environmental impact assessment

- 1. Maximum damage which is vastly superior to the effects from other options (see Table 1.3; Fig. 1.6) is caused by Option 3 (chosen as of today).
 - 1.1 Devastation of forests caused by the road construction under Option 3 will destroy almost a triple amount of the forested land compared to Options 2a and 2b (bypassing the Khimki Forest). In terms of the forest land destruction, Option 3 is followed by Options 1 and 6 causing a half of the abovementioned damage. There are Options 5c and 5d (extension of Leningradskoe Highway) which do not imply any destruction of the green belt.
 - 1.2 Option 3 (approved by the project) will cause the strongest damage to particularly valuable natural sites among all considered options: it will destroy several designed special protected natural areas: the Khimki Oak Wood, the overflow land of the Klyazma River, the mesotrophic moor, St. Georgiy's Wellspring, as well as affect other areas of the mixed coniferous-broad leaved forest with oaks and mesotrophic moors. Among the considered alternative options, only the official Options 1 and 2 affect the Khimki Oak Wood.
 - 1.3 If Option 3 is implemented, due to fragmentation, the Khimki Forest will stop being a single ecosystem, and the condition of its fragments will significantly worsen (Fig. 1.5). When choosing this Option, designers ignored the fact that the Khimki Forest is currently ensuring the most important ecosystem functions within the municipal agglomeration: climate, water regulation, biodiversity preservation, environmental framework maintenance, recreation. As a result of road construction following this Option, the mentioned functions will be unavailable in the same scope.
- 2. It's reasonable to consider the highway construction options not by sections, but from the point of environmental impact on the whole. Thus, the chosen option in **15–58 km section mainly crosses protection forests and forests of the 1**st and 2nd zones of Moscow drinking water source protection. In fact, this Option implies the highway crossing through the head river of the Klyazma and partially the Skhodni. The construction only will result in destruction of about 700 ha of forests nearby Moscow (Fig. 1.7). It's the effect without regard to any fragmentation, degradation and the increased risk of development of unfavourable environmental phenomena (plague, forest diseases, and massive windfalls) within the forested area along the highway. In view of the fact that the Moscow-St. Petersburg high-speed motorway is supposed to cross the Central Ring Road of Moscow Region (in the area of Bukharovo Village) (Fig. 1.8), the possible environmental impact may double at least.



Figure 1.6 Damage to the green belt caused by implementation of different options of the road construction (fragmentation excluded)



Figure 1.7 Damage to the forest range in 15-58 km section following the chosen Option, fragmentation excluded


Figure 1.8 Fragmentation of the forested area in 29-58 km section as a result of construction of the Moscow-St. Petersburg high-speed motorway in combination with the Moscow Automobile Ring Road.

Assessment of the need for demolishing buildings and facilities

- 3. None of the considered options imply demolition of the existing multi-storey buildings.
 - 3.1 Only Option 1 requires massive demolition of residential buildings upon construction of the highway bypassing Khimki. Most probably, this option was developed in light of demolition of Novoselki Village in course of implementation of the residential building project and, partially, of Option 6 (to bypass the Khimki Forest from the north, it's necessary to extend the existing road passing through Trakhoneevo and Svistukha settlements). **Offered options 2a and 2b imply demolition of no more than 15 individual private houses** (Table 1.3; Figure 1.9).
 - 3.2 Proposed options of the highway passing through Khimki (4, 5) do not require demolition of the residential building at all.
- 4. With respect to the abovementioned facts, **Option 3 causes the highest number of social problems**. According to the sociological studies, more than two-thirds of the population of Khimki and Russia in general (according to Levada Center) are against implementation of this Option. 76% of Khimki habitants support the Khimki Forest Defence Movement (according to Levada Center).
- 5. The Group of Options 5 (along Leningradskoe Highway) turns out to be the most attractive in terms of the fastest solution of the transport issue since these options will result in the quickest improvement of the transport situation, as well as connection of traffic flows in Moscow and Moscow Region. Proximity of the constructed road to the service sites is also optimal in terms of the local traffic transmission. Moreover, these options are environmentally safest (they minimize the environmental damage) and the most cost-efficient for the budget.
- 6. The problem arising from the **potential demolition of parking places nearby the shopping malls along Leningradskoe Highway**, upon implementation of Options 5a and 5b, can be resolved, in particular, by construction of different traffic areas on different sides. In this case, one of the traffic areas will be constructed under Option 5a, and the second one under Option 5c. Area of parking places will be insignificantly reduced, and proximity to the residential buildings (in options 5c and 5d) will be eliminated. Environmental loading on Khimki will decrease only if the speed of up to 80 km/h is provided for new traffic areas.
- 7. Construction of a separate road for the international traffic transmission is possible, for example, according to Options 2a and 6. It has a sense only in combination with forward measures on the local traffic transmission (see the items above), as well as implementation of the high speed electric transport. The width of this road should be reduced in compliance with the actual transit traffic intensity (4–6 lanes), thus ensuring further reduction of damage to the nature and private property.



Figure 1.9. Damage to the private property as a result of implementation of different highway laying options

As a matter of fact, materials serving as the basis for development of the project options do not afford grounds for solution of the task formulated by the government: harmonization of the growing Russian motor transport system with the European one.

Implementation of the proposed project will cause damages and losses, in the middle and long-term outlook, mostly reflected at the national level.

Khimki Option is an out-of-date way to resolve a typical transport problem. It's based on the approach called "resolving by means construction" which does not work within complex systems. Such efforts based on "detached information pieces" cause delayed and tremendous risks; the independent expert review did not assess damages from the highway construction following the considered Option.

For the forward identification and mitigation of delayed risks, it's required to build the dynamically integrated model and use it as the basis for choosing the lowest risk scenario. However, it was done 15–20 years ago for reduction of transport risks in Vienna (Austria) and capitals of other world countries.

For the Russian transports system to be included in the EU system, the IBRD requires taking into consideration and complying with the basic scientific and engineering principles of the habitat defragmentation due to motor roads (COST 341, 2003).

The road transport infrastructure demands qualitatively new tools of motor highway planning and designing, including systematic dynamic models of long-range effects, and participation of globally recognized independent experts in the design process.

The RF is a member of the World Road Association (PIARC) and Infra Eco Network Europe (IENE). It gives the RF a chance to involve experts of these organizations for consulting services at the concept design stage and later on.

2. Environmental consequences for Khimki forest of constructing the motorway according to the selected variant

2.1. Khimki forest – description, environmental value

The woodland of Khimki forest (hereinafter referred to as – Khimki forest) is part of the forest park protective belt (hereinafter referred to as – FPPB) around Moscow city. Khimki forest is limited by Klyazma River from the north, in the west and north-east it is surrounded by agricultural lands, from the other sides it is limited by human settlements and infrastructure objects. The area of Khimki forest, including the forests growing at the agricultural lands and settlements, makes up about one and a half thousand hectares. Khimki forest is located at the lands having different categories as well as different departmental subordination, so there is no uniform system of its management. The major part of the Khimki forest territory belongs to forest resources lands.

The name «Khimki forest» is a popular name and is unequivocally understood by Khimki urban district residents as well as all the nature conservation organizations and denotes the territory consisting of sections 1-25 of Khimki district forestry, of Istrynskoye forestry, of sections 86 and 89 of Lobnnyenskoe forestry, of Dmytrovskoye forestry and of the adjoining forests, situated at the lands of different categories of usage, and the natural complex of Klyazma River Valley. Khimki forest territory is divided into two parts by Vashutino settlement and local road, going between sections 4 and 5. The local road has small width and traffic volume that doesn't prevent Khimki forest from functioning as the united nature territory. The forest age is estimated at centuries, its configuration has changed a little since 18th century. (ill. 2.1).

Officially Khimki forest is situated outside the administrative boundaries of Moscow, but it is half surrounded by local settlements and industrial objects that are part of Moscow agglomeration and that's why the forest is of great importance for maintaining comfortable environmental conditions for Moscow and Moscow area residents. **Taking this fact into consideration, Khimki forest should be regarded as the element of the greenery and urban forests of Moscow agglomeration, rather than an ordinary forest plot in the vicinities of Moscow. Within the framework of this system Khimki forest and national park « Losiny Ostrov » represent woodlands, which are structurally most similar to natural forests of Moscow area and are capable of self-maintenance and self- regulation.**

There is no possibility to extend Khimki forest boundaries at the expense of adjoining territories, because all the lands bordering on with the forest are developed and used for different types of economic activity, except for few minor plots. It means that there is no possibility in principle to repair the damage from any impact that leads to Khimki forest area reduction or its fragmentation.

Khimki forest is one of the biggest unfragmented nature massifs belonging to Moscow FPPB (without regard for Losiny Ostrov). There are two comparable in area forest massifs in the northern segment of FPPB, which are partially fragmented by local roads and other linear features; the other segments do not contain nature massifs of an analogues area.

Diverse ecosystems, including rare ones as well as the high biodiversity of Khimki forest still remain intact precisely because of the comparatively big area, compactness and unity of the forest massif, due to which the edge effects, destructive for Khimki forest ecosystems, are relatively small. Such effects can be regarded as minimal for Moscow area environmental conditions.

Khimki forest is very important regulator of purity of the atmospheric air, mainly as absorber of harmful suspended solids and gaseous substances, emitted by plant facilities of Khimki, by Sheremetyevo airport, by motor-vehicle transport, by the landfill for solid domestic waste disposal, and by other sources. The central role of Khimki forest in maintaining the purity of the atmospheric air in the adjoining territories consists in dust absorption. Oak forests purify air absorbing dust much more efficiently than other species – their annual filtration comprises 56 ton per hectare (in fir groves it is 32 ton per hectare, in pine forests – 36 ton per hectare), oak trees emit oxygen in the amount of 14 ton\hectare, whereas a pine forest emits only 10 ton per hectare.

Khimki forest is an important place for recreation of the residents of the northern part of Moscow, Khimki urban district and the adjoining areas of Moscow Region. The woodland is situated in the vicinity of walking tour (it takes one about an hour walk to get there) from main places of the residence of more than three hundred thousand people. According to approximate estimation Khimki forest is the most accessible forest for more than a million people (considering the possibility of approaching to it by local transport). Thereby, as a place for recreation Khimki forest is of great real as well as potential importance for about 5 % of the residents of Moscow and Moscow Region.

The intensity of Khimki forest territory recreational usage is rather high, but the dense network of roads and paths embraces only the borderlands of its area, inside parts of the woodland are crossed by few paths, which do not cause serious harm to valuable forest ecosystems. Damp places and wetlands as well as ravines do not undergo considerable recreational influence at all.

The existence of oak grove areas (5% of the massif territory) as well as the plantations with considerable part of oak trees in the prevailing layer of forest stand (20%) imparts special value to Khimki forest. For comparison: according to the Forest Resources State Accounting data as of January 1st 2003 the share of oak groves in the forests of Moscow Region comprises 1,7% in whole. Khimki forest oak groves represent long-boled forest stand of seed origin that has the highest resistance and durability. Only 55% of oak groves of Moscow Region are long –boled. Besides, there is viable young oak growth almost everywhere in Khimki forest.

The existence of oak groves as well as the plantations with considerable part of oak trees enables the high level of this woodland biodiversity and supports its resistance to unfavorable external effects. In particular, long extreme drought in Moscow Region in July and August of 2010 seriously weakened Moscow FPPB forests as well as in other areas of the vicinities of Moscow. Fir groves suffered in the first place. At the same time oak plantations had very big amount of growth and unusually rich for the middle part of European Russia crop of acorns, owing to the oak tree ability to get water from deep levels. At the end of December of 2010 the forests of Moscow Region suffered substantially from the so called « ice rain », which caused icing of trees crowns and trunk incurvation or breaking (especially in the middle –aged plantations with birches prevailing). Oak groves proved to be highly resistant to the natural phenomenon and did not receive appreciable injuries.

In 2010 the forests of Moscow region suffered from next in turn increase in the number of bark beetle, which threatened to almost all old –aged fir groves of the region, especially to the

one that are situated in unfavorable conditions within Moscow FPPB boundaries. The study of the dynamics of the fir groves damaging by bark beetles in the 90th of twentieth century proved that the mixed stand of broad-leaved and fir trees have higher resistance to such damage than plain old-aged fir groves. This fact was confirmed by observations in Khimki forest: there were no substantial foci of withering because of bark beetles assault in spite of the existence of big foci around. (in the forest belt, adjoining to newly built railway branch leading to «Sheremetyevo» airport).

Taking into consideration that local climate conditions of the central part of Moscow region, appearing as a result of urbanization, construction works and different pollutions add to overall climate fluctuation, forest ecosystems sustainability gains in importance. **Due to the high percent of plantations with oak trees as well as to the multiple composition of plant species Khimki forest has high resistance to uncomfortable environmental conditions** and, owing to that factors, it can ensure favorable environment for the residents of neighboring settlements and urban blocks.



Illustration 2.1. Khimki forest at the land surveying plan in 1797

2.2. Valuable nature objects and biodiversity

The forests with prevailing or high quantity of oak trees with the age over 150 years cover mainly the south-eastern part of Khimki forest. The system of ravines is also located there. Some plots have complicated system of forest stands characterized by the existence of several generations of trees, successful second growth of fir and broad-leaved trees as well as the occurrence of big trees having reached their biological age limit. The existence of large-scale dead fallen wood with varying degrees of decaying create rich substrata for multiple species of living organisms, specific to old forests. Natural rotation of tree generations leads to formation of the complicated mosaic structure of the forest stand and the abundance of ecological conditions under the forest crown layer. The system of ravines in the south-eastern part of Khimki forest as well as the adjoining territories, covered with forests containing high percent of broad-leaved trees should be regarded as one of the most valuable and biologically sustainable areas within the Khimki forest boundaries.

In the north of the woodland near Klyazma river bottomland, between Trakhoneevo micro-district and village Melkisarovo on the ravines divided territory the sections with valuable old-aged fir groves are situated (the diameter of individual trees reaches 1 meter, their age is more than 150 years.).

Beyond the system of ravines Khimki forest territory is the woodland, typical of close Moscow vicinities but much better preserved in comparison with many other forests of Moscow FPPB. The species composition of the forest sylva is congeneric with indigenous coniferous and broad –leaved forests of the central part of Moscow area. **These forests are characterized with prosperous sanitary condition, indicating their stability in unfavorable environmental conditions.** There are many fallen trees, twigs and branches at the part of the forest territory, in the first place it is because of their limiting biological age and, partially, because of lowering of ground water level that is typical of near vicinities of Moscow. Falling of single old trees doesn't pose a hazard to forest ecosystems' existence in the whole, but provides conditions for the formation of the more mosaic structure of a tree level as well as the formation of substrata variety under the forest cover (fallen trees, twigs and branches, soil complexes on the basis of the wind –fallen trees) that favors maintaining of the high biodiversity of the territory.

The valley of Klyazma river is situated in the northern part of Khimki forest, the place which almost hasn't been transformed by modern intensive human activity. The degree of the territory preservation is unique for near Moscow vicinities. There are no valley complexes of such degree of preservation as the right bank of Klyazma river within the boundaries of Khimki forest in Moscow FPPB (except Losiny Ostrov). The left bank of Klyazma river opposite Khimki forest is more transformed by human economic activity, as there are several villages and cottage areas nearby, but the river itself has preserved its natural character in this sector and supplements the natural value of Khimki forest.

This area of Klyazma river bottomland provides the connection between Khimki forest and the woodlands of Nearby Moscow Vicinities (the nearest forest is between villages Parshino, Chernaya Gryaz, Pikino). The existence of this ecological corridor, though narrow and vulnerable, to a large degree determines the wealth of Khimki forest animal world. According to 2009 observations, animals (boars, elks, badgers, martens, foxes, hares and others) crossed Klyazma river exactly at the place of the projected future highway bridge according to the selected option N_{2} 3. Further they followed along Klyazma river streamside brushwood, going under the existing road bridges at night. Most of forest, marginal and amphibian species including the rare ones (adders, grass snakes) use this way. Khimki oak grove is the spot of winter concentration of small passerine birds: the degree of crowding consists about 1200 birds per 1 square meter (the density in the oak groves of Lenin Gorkys is no more than 450 birds per 1 sq. m). It is explained by the fact that small passerine birds migrate for the winter from the considerable area of nearby Moscow vicinities to Khimki forest.

In view of their importance for the protection of suburban forests from vermins, Khimki oak-grove destruction can negatively affect the level of sanitation of the green belt north sector.

The small areas of mesothrophic bogs, partially woodless and open small meadows, are located within the boundaries of Khimki forest. The existence of such places as well as transitional (forest border) areas favors the additional advance in the level of biodiversity and natural sustainability of Khimki forest.

At present the biodiversity of Khimki forest is studied insufficiently, but even the obtained information proves that it is one of the most valuable forest areas within the boundaries of Moscow and nearby Moscow vicinities from the point of view of species diversity. At the territory of Khimki forest there are :

- rare animal species, registered in the Red Book of Moscow region insects (cranberry blue (Vacciniina optilete), fritillary northern (Speyeria), emperor moth (Saturnia pavonia), ammobates punctuated), birds (white-backed woodpecker (Dendrocopos leucotos), nutcracker, honey buzzard (Pernis apivorus)), true viper (Vipera);
- rare animal species, registered in Appendix 1of the Red Book of Moscow region azure idas (*Athene*), badger (*Meles meles*), marsh owl (*Asio flammeus*);
- rare plant species, registered in the Red Book of Moscow region sheikhtzeria paludosa, malaxis monophyllous, Dactylorhiza sanguinea, European snakeroot (Sanicula);
- rare plant species, registered in Appendix 1of the Red Book of Moscow region lily-of-the-valley, European globe flower (*Trollius europaeus*), Dactylorhiza sanguinea, garden strawberry (*Fragaria moschata*), peach-leaved bellflower (*Campanula latifolia*), broad-leaved bellflower (*Campanula persicifolia*), february daphne (*Daphne mezereum*);

- rare plant species, registered in the Red Book of Moscow – 25 species.

Khimki forest is beyond the limits of the city, and officially the Red Book effect can't be applied to it, but, in fact, the forest is an integral part of the united urban agglomeration, that is why it is necessary to take into account its importance for the nature of Moscow and give consideration not only to the species, registered in the regional Red Book but in the Moscow Red Book as well.

Besides, the area of Khimki forest comprises ecosystems that are unique or rare for the Moscow agglomeration territory e.g. sectors with old-aged broad-leaved and mixed forests, transitory bogs. There are viable, though partially isolated, population samples of big hoofed animals like elks and boars at the territory of Khimki forest. Khimki forest fragmentation as well as its total isolation may lead to the extermination of these groups.

The composition of forest and other ecosystems of Khimki forest park suggests that within its boundaries there may be several dozens of other species, registered in the Red Books of Moscow and Moscow region in addition to already known rare and protected animal and plant species.

2.3. Negative consequences of Moscow-Saint Petersburg motorway construction through Khimki forest territory

The motorway construction through Khimki forest (according to variant 3) will inevitably entail destruction of the majority of valuable natural complexes and objects. The suggested alignment of the road goes through the south-eastern part of Khimki forest, containing the most biologically valuable sectors of old–aged forest with prevailing or high percent of broad-leaved species of trees. Besides, the motorway is going to cross the ravines, existing in the south-eastern part of Khimki forest, currently being under minimal recreational impact and playing a key role in the whole forest massif biodiversity preservation.

The suggested motorway rout (variant 3) will cross Klyazma River exactly within the limits of the unique, as for its preservation degree, valley complex, having no analogues within Moscow FPPB boundaries (except the national park «Losiny Ostrov»).

The motorway will destroy the only ecological corridor, going along Klyazma river flood plain and connecting Khimki forest with neighboring woodlands. In that case the territory of high nature conservation value will inevitably be destroyed – thoroughly or mostly. Elks, wild boars, badgers and possibly some other animal species are going to disappear forever in Khimki forest.

The motorway construction through Khimki forest will lead to the large natural area fragmentation into several isolated sections (see Part. 1, Ill. 1.5). The area of fragments, situated between village Vashutino, the existing local road and the planned motorway as well as between village Trakhoneevo, the local road and the planned motorway will be too small for any valuable natural complexes and objects preservation. Two relatively big forest sectors (approximately 300 hectares each) will remain intact in the north-western and south eastern parts of Khimki forest, with a string of the most valuable nature objects being destroyed. In fact it will entail the sharp rise of adverse edge effects influence on the preserved ecosystems (pollution, noise exposure, alien species of living organisms intrusion, disintegration of the forest walls, abutting on the motorway, changing of the area hydrological regime etc.).

Consequently, one of three (or four, if one takes into consideration Losiny Ostrov) the largest and biologically sustainable forest territories within the boundaries of Moscow FPPB will inevitably be lost.

3. Legal aspects of preparing and implementing the project of Moscow – Saint Petersburg toll road construction in section 15–58 km

The project of Moscow- Saint Petersburg motorway construction was developed within the framework of the federal target program "Russia's transportation system modernization" (2002-2010)", approved by the RF Government Ruling № 848 of December 12, 2001.

In 2006 «GiprodorRI» PC worked out Construction investment feasibility studies «Moscow-Saint Petersburg motorway in section 15-58 km», approved by the summary resolution of the Federal State Institution "Chief Directorate of Russia's State Expertise" "Glavgosexpertiza Rossii" № 333-06/ГГЭ-3639/04 of April 28, 2006.

3.1. Civil rights violation in the process of the Environmental Impact Assessment study and the State ecological examination

The legislation on ecological examination (hereinafter referred to as - EE), providing for conducting of the public hearings on the findings of the assessment of the projected activity impact on environment (hereinafter referred to as EIA- Environmental Impact Assessment) was violated as far back as the investment feasibility studies stage in 2005.

The open public hearings of the document «The environmental impact assessment» were organized by the project client MA «Mosautodor» and took place in Khimki on May 12, 2005 within the framework of conducting the state ecological examination (hereinafter referred to as–SEE) for the studies of investment feasibility of the toll road construction and were used for preparing the affirmative conclusion of SEE Nº 89 of February 8, 2006, approved by K.B. Pulikovsky, the Chief of Federal Service on ecological, technological and atomic supervision. (hereinafter referred to as – Rostekhnadzor).

The mentioned discussions were held with the admittance of significant violations of the order and the procedure of their conducting, stipulated by the Ruling on EIA (the order of Goskomprirody N_{2} 372 of May 16, 2000 in pursuance of the FL «On ecological examination» and the FL «On environmental protection»).

First of all, it was the discussion of the project of the motorway «MRAR– Sheremetyevo-3», but not the discussion of the toll road project «Moscow – Saint Petersburg 15– 58 km», which appeared later on. Therefore, the criteria according to which the participants were to estimate the road routing, in particular, were a fortiori misrepresented, and the rout of the motorway through Khimki forest turned out to be « the shortest » in this case. **So , there was the substitution of the materials of the missed public hearings on the motorway project** «**Moscow- Saint-Petersburg 15 – 58 km» with the materials of the public discussion regarding the motorway project** «**MRAR – Sheremetyevo-3**», which abusively and unfairly were included as a component of the justifying documentation on demand of the expert commission.

Secondly, the information regarding the hearings was published in the municipal newspaper « Khimki News » of April 16, 2005. It should be mentioned that it was not the motorway «Moscow – Saint Petersburg 15–58 km», which was specified in the project name, but the highway «MRAR – Sheremetyevo-3» (III. 3.1).



Puc. 3.1. The fragment of the newspaper «Khimki News» containing the announcement of public hearings

The procedure of informing and citizen's opinion accommodation is stipulated by p. 2–4 Art. 31of the RF Land Code («Building plots selection»), which provides for public disclosure of the information on possible or forthcoming parceling out of the land for development by bodies of local self-government. Besides, citizens and public associations have the right to participate in the process of making the decisions concerning their interests and connected with the land confiscation for state and municipal needs and parcelling out of land for development.

But, according to p. 4.3 of the Regulations on EIA the information on public hearings **should be published in the official journal of a federal body of executive power,** if the object of federal level is the point of issue. Besides the substitution of the EIA object in the examination findings document contradicts the requirements of the mentioned Ruling on EIA and consequently is the violation of p. 3 Art. 32 of FL «On environmental protection » as well as some regulations of the FL «On the ecological examination» (Art. 3, p. 1 Art. 14).

As a result of these violations, only 44 residents participated in the so called «public hearings», and they were mainly the representatives of the gardening comradeship "Poyma", interested in the discussion on the road sector, going in the immediate vicinity of the comradeship.

Thirdly, as follows from «The report of the public discussion...» of May 12, 2005, the EIA findings were not properly presented for public acquaintance, though it is provided for by the law.

Only during the public hearings on May 12, 2005 in Khimki the participants came to know that they may get acquainted with the EIA findings in the state administration "Mosautodor" (paper 6 of the Report), there were some abridged display materials represented at the hearings (paper2 of the Report), which did not give objective and sufficient information on EIA. So, also p. 4.8 of the Regulation on EIA was violated, according to which the information on the place of public hearings as well as the information on the location of

the exposure draft of EIA findings for public inspection must be published 30 days before the discussion.

According to Art. 3 of the FL «On ecological examination», EE should base on :

- the complex assessment of the impact of economic and other activity on the environment as well as the consequences of such an activity;
- credibility and completeness of the information, submitted for the ecological examination; publicity, participation of public organizations (associations);
- responsiveness to public opinion.

Besides, item 1 Art. 14 of the same law stipulates the conduction of SEE «on condition that the form as well as the content of the findings, submitted by the client, correspond to the requirements of the Federal law and the procedure of state ecological examination conducting».

All the above-listed facts evidence the violation of the stated requirements of the environmental legislation.

According to item 2 Art. 32 of the FL «On environmental protection», in the process of EIA study the client (executor) is obliged to consider the alternative options of achieving the goal of the projected economic or other activity as well as the environmental and connected to them consequences of the implementation of each option, including the option of the activity abandonment, e.g. «zero option».

At the stage of the investment feasibility study the project developers offered and regarded **3 alternatives** of the motorway routing.

As follows from the data of «The additional environmental and social examination of the project», made by the North-West Concession Company, the EIA findings point to the great danger of the official option for Khimki forest ecosystems. But it was precisely the variant that was recommended for the further development in violation of many regulations of the current legislation.

Fourthly, according to the RF Government rulings $N_{\text{P}} 400 \text{ M} N_{\text{P}} 401$ of July 30, 2004 which approved of the Regulations on Rostechnadzor and Rosprirodnadzor, the fact that SEE was conducted by Rostechnadzor instead of Rosprirodnadzor seems to be ambiguous from a legal point of view, because it was Rosprirodnadzor that not only was the authorized body for SEE but also fulfilled the supervision over the compliance with the forest legislation.

The above –mentioned violations have made impossible the implementation of civic right to participate decision-making processes on matters concerning the environment, that is the breach of item 1 Art. 12, item 1. Art. 13, item 2 Art. 32 and items 2, 3 Art. 35 of the FL «On environmental protection», Art. 3 and item 1 Art. 14of the FL «On ecological examination», as well as item 4 Art. 1 of the RF Land Code, item 7 Art. 1 of the RF Forest Code, item 5 Art. 2 of the RF Town Planning Code.

The stated legislative regulations not only determine the opportunity, but also provide for the mechanism of the implementation of civic right to participate public hearings on matters concerning the construction of the objects that may cause damage to the environment by their economic or other activity; the regulations **also set the procedure of informing the public** on the objects projected by the client and executive power authorities, **as well as of the organization and conduct of the hearings (discussion) of the EIA of the project and the** **investment documentation on alternative options, of** summing up and fixation of the results of hearings, the accommodation of the opinions and comments.

But the existence of a large quantity of the regulations, providing for the public participation in making economic or other decisions doesn't facilitate the efficient protection of the constitutional rights of citizens on the matters concerning environment because there is no single normative act which secures the mechanism of such citizen's participation.

There is no single legislative act regulating the procedure of citizen's participation in economic and other decisions adoption in Russia, as opposed to many other countries. Such a participation is provided for by the Constitution of the Russian Federation, by the FL « On environmental protection », « On ecological Examination », « On the particularly protected nature territories», by the Land, Forest and Town Planning Codes as well as other legislative acts.

Besides, the European Convention on environmental impact assessment in transboundary context as well as the Recommendations to the governments of the countries of the European economic committee on the methods of environmental impact assessment prognostication, the Aarhus Convention on Access to Information and Justice in Environmental Matters, Luzern Declaration of the Ministers on environment also contain the information on the procedure and forms of public participation in environmental protection.

Unfortunately, the Russian Federation as opposed to the majority of European countries, including the countries –members of the Commonwealth of Independent States (former USSR republics), has not acceded to and hasn't ratified the mentioned international agreements.

3.2. Analysis of the application, changing and violation of the forest and land legislation

At the stage of the motorway construction investment feasibility studies, including SEE of the project, the motorway routing through the forest park was carried out in defiance of the existing legislation, but it did not evidently contradict the forest legislation, which existed in that period.

But the type and degree of the projected decision danger for the forests, situated in the territory of Moscow forest park protective belt were pointed out in the letter N_{2} 313 of April 20, 2006 of A.V. Kuznetzova, the director of Moscow municipal forest administration (the special authorized state body on the matters of use, conservation and protection of municipal forests and the forest resources of Moscow forest park protective belt at that moment), and the letter was sent to FSB "The Roads of Russia", the state client of the motorway project:

«The routing of the road is performed to use the most of forest resources lands. The projected motorway completely divides Khimki forest park massif within the sections 2, 4, 5, 10, 15, 16, 18, 21, 22, 23.

The project implementation according to the selected option of routing will **severely damage the forest resources** as a result of the cutting trough the broad glade, as well as divide the forest massif into parts that is going to **entail disintegration and degradation of the forest plantation astride the motorway**. Because of the sharp change of growth conditions and negative impact of the road on the adjoining territories, the old-aged plantation, not ready for such stress, are going to perish in the first years of the motorway exploitation (experience of MRAR reconstruction). That is why, in addition to the direct huge forest clearance for the motorway itself, which is about 60 hectares, it is necessary to take into consideration the further degradation and death of the Khimki forest park sections, adjoining to the motorway. And all that is going to happen in the immediate vicinity to Moscow and Khimki. **The plantations degradation will entail worsening of the environmental conditions in the region**. /.../ Taking into consideration the above-mentioned, the Administration **strongly objects to the affirmation of the selected motorway routing.**» (*set off by the IEE*).

This opinion of the representatives of the special authorized state body on the matters of use, conservation and protection of forests was ignored at all the stages of conciliation and licensing procedures, including the SEE affirmative conclusion receiving in 2006.

The legal situation changed on January 1, 2007 when the RF Forest Code and many connected with it land legislation regulations joined into force and,, as a result of that the grounds and the procedures of confiscation (transfer) of the suburban zones for the purposes of linear objects construction as well became tougher.

Besides, the Land Code imposed the legal regime of the forests, which performed the function of protection of suburban and other objects (Art. 10, 12, 102, 105 and others of the RF Land Code). The green areas and forest parks were included in the category of protective forests (Art. 12 of the Forest Code).

Thus the regulation of item 5 p. 3 Art. 105 of the new Forest Code **prohibits** «**placing the objects of capital construction, with the exception of hydraulic structures**» in forest **parks.** (*set off by the IEE*).

The corresponding changes were introduced into the land legislation as well.

Thus, Art. 86 of the RF Land Code was supplemented by item 6, according to which transfer of the forest resources land, comprising forest parks, into other categories of land is prohibited.

So, at that time the federal legislation prescribed the rules, **creating legislative obstacles to the transfer of forest land, comprising forest parks, into other categories.**

The mentioned legislative changes put rigid obstacles to the already agreed-on project implementation in the part, concerning the motorway building through Khimki forest.

Now the motorway routing through Khimki forest became impossible not only because of the ecological necessity to preserve unique massif of Moscow Forest park protective belt and avert irreparable harm to its biodiversity, but also due to its prohibition by many requirements of the two codified acts.

However, the lack of strict regulation of legislative changes accounting in the operational law enforcement in economic activity, in particular, and specifically legal nihilism and the poor efficiency of prosecutor's supervision, obliged to prevent law violations, led to the situation when the project of the motorway routing through the forest park, which already didn't correspond to the law, underwent no changes.

Even more, «Moscow Region territorial planning scheme - basic provisions of the town planning progress», approved by the Moscow Region Government resolution N_{2} 517/23 of July 11, 2007 not only legitimated the roads, projected in forest parks, but also almost rated forest parks territories as «areas of town planning activity concentration».

Then, in 2009 new alterations were introduced into land and forest legislation. They in fact, began to « cut out » the legislation again, «adjusting and fitting» it to the possibility of the motorway routing through Khimki forest as well as routing of other planned roads through forest parks in future. It is hard to think up any other explanation to the introduced changes.

The innocent in the beginning draft bill on the registration description «on the matter concerning legal regulation of logging by public institutions as well as the adjustment of the terminology of many federal laws to the forest legislation», before its second reading was supplemented with conceptual amendments, concerning not only forest but also land legislation.

According to the Federal law № 32-FL of March 14, 2009 «On introduction of changes into the Land Code of the Russian Federation and separated legislative acts of the Russian Federation» articles of the Land Code 81, 82, 102, 105 and the corresponding regulations of land legislation were altered.

Thus, items 5 and 6 of the Article 86 of the RF Land Code have expired. And the Article 11 of the Federal Law «On transition of land or land plots from one category to another» got **new revision**, according to which item 2 of the article expired, item. 1 stipulated that the transfer of forest resources lands, occupied by protective forests or the land plots, included into such lands, in other land categories is allowed in case of nationally or municipally important object location if there are no alternatives for possible location of these constructions.

Before the introduction of the mentioned alterations there were **3 main legislative** "obstacles" which prevented road routing through forest parks. After the elimination of the obstacles through the alteration of the mentioned regulations of the Land Code and the Forest Code there was only one left namely Art. 11 of FL No 172 of December 21, 2004 «On transfer of lands or land plots from one category to another», prohibiting the transfer of protective forests land for the allocation of any other objects except the state and municipal ones in case of absence of other options of possible location of the objects. (set off by the IEE). So the obvious weakening of the legal regime of forest parks, which have protective, ecological and aesthetic functions, especially in the conditions of Moscow megapolis, makes it possible to raise the question of the examination of the constitutionality of the legislative changes introduced, notably of probable violation of parts 2 and 3 Art. 55 of the RF Constitution.

After enactment of the mentioned alterations on March 17, 2009 the only obstacle interfering with road construction through **forest parks** (which has become "**forest park zones**") is **the prohibition of transfer forest resources land** into other categories, including for linear objects construction in case of the existence of other (alternative) variants of their location.

As a follow-up to the mentioned legislative change the RF Government Resolution N_{2} 1007 of December 14, 2009 «On affirmation of the Regulations concerning identification of functional zones in forest park zones, of the area and boundaries of forest park zones, green zones» was adopted.

Item 23 of the mentioned Regulations states that the changing of the area and the boundaries of a forest park zone and a green zone as well as functional zones of the forest park zone should be performed by the decision of a body of state authority of a subject of the Russian Federation in accordance with the procedure, established by the Regulations.

But the change of the boundaries of forest park zones and green zones, that may entail reducing of their area is not allowed. When changing the boundaries of forest parks and green zones, the area of the excluded plots should be compensated for by including the forest sectors, which have the area not less than the excluded ones, in the boundaries of these zones. In this case the included plots should be situated at the territory of the same forestry (forest park), or at the territory of the nearest forestries.

Then the RF Government Ruling $N \ge 1642$ -r of November 5, 2009 was adopted. According to it the transfer of forest resources land with the area of 144,8821 hectares into the category of land of industry, energy sector, transport sector ... and land for other special purposes for the motorway construction was fulfilled.

So there are good grounds for asserting that this decision of the RF Government contradicts, besides the mentioned regulations, a string of the fundamental principles of the forest legislation, stipulated by Art. 1 of the RF Forest Code:

- 8. sustainable forest management, forest biodiversity preservation, forest potential enhancing;
- 9. preservation of environment-making, water protection, protective, sanitary and hygienic, health-improving and other useful functions of forests for the benefit of every person's right for a favorable environment;
- 10. usage of forests with a glance to their global ecological importance as well as the long duration of their growth and other natural properties of forests;
- 11. ensuring multipurpose, efficient, continuous and non-exhausting forest usage in order to satisfy the needs of society in forests and the resources of forests;
- 12. ensuring forests conservation and protection;
- 13. participation of citizens and public associations in making the decisions, the implementation of which may have an impact on forests in course of their usage, conservation, protection, reproduction in accordance with the established by the Russian Federation legislation procedure and forms;

The mentioned RF Government Ruling was disputed juridically by the persons concerned.

But by its decision on case $N \cong \Gamma K \Pi H 09$ -1767 of March 1, 2010 the Supreme Court did not satisfy the citizen's action group application for the annulment of the RF Government Ruling.

The determination of cassational panel of judges of the RF Supreme Court № KAC10-181 of April 27, 2010 kept in force the decision of the Supreme Court of March 1, 2010.

But the RF Supreme Court fairly admitted that «in the process of issuing of the act on the forest resources land for nationally important objects allocation the **RF Government should** account for the requirements concerning the variability of the objects possible location. It is impossible for the law to provide for every variant or case which may occur, that is why the public authority, which is to take the decision on the forest resources land transfer, should inquire about all the possible variants of nationally important object allocation». (*set off by the IEE*).

But the Supreme Court failed to give impartial and juridical assessment, corresponding to citizens' constitutional rights as well as to the long-term interests of the community and state.

And more, according to item B) Art. 71 and item e) Art. 114 the RF Constitution as well as art. 18 of the FCL «On the RF Government», it is precisely the RF Government which should adopt «the measures on ensuring justice and protection of citizens' rights and freedoms» and take the responsibility for «ensuring law and order, natural and legal persons rights» in the sphere of ecological relations as well.

Really, at the stage of investment feasibility study of the project 3 variants of the motorway routing were considered, including the one, connected with the existing highway M-10 « Russia » reconstruction (namely « zero » variant), that can't be considered as the absence of alternative options. Moreover, as stated in other chapters of the conclusion, there exist not 3 but more 10 variants of the motorway routing.

By virtue of the above-mentioned regulations of Art. 11 of the FL « On transfer of land or land plots from one category to another » it is obvious and definite that the RF Government's transfer of land is incompetent, as there are alternative variants of the object location.

But, in the Supreme Court judgment, the applicants' arguments that the RF Government had no right to issue the argued ruling, as there were the alternatives to location of the motorway section « Moscow-Saint Petersburg 15 km-58 km » can't serve as the basis for satisfying a claim, as they **rely on incorrect understanding of the Federal Law**.

This attitude of the Supreme Court is not indisputable, as in this case the matter should concern not « incorrect understanding of the Federal Law" but its constitutionality, that comes within the competence of the RF Constitutional Court, according to item 4 Art. 125 of the RF Constitution as well as Art. 101 of the FCL «On the RF Constitutional Court» («If the court of any instance during the consideration of a case comes to the conclusion of non-compliance of the law, subject to the application in the case, with the RF Constitution it should submit to the RF Constitutional Court the inquiry about the law constitutionality examination»).

According to item 2 Art. 125 of the RF Constitution as well as to Art. 101 of the FCL « On the RF Constitutional Court »the Supreme Court could and had to address the Constitutional Court.

Bogolyubov S.A., Doctor in Law, Professor, the Honored Science Worker of the Russian Federation, the Head of the department of agrarian, environmental and natural resources

legislation of the Institute of legislation and comparative jurisprudence and Khludneva N.I., candidate of juridical science of the same department, gave fair comments to the importance of public interests in the relations, concerning forest matters, in the Commentary on the Federal Law N_{2} 7- Φ 3 «On environmental protection» as well as in the Commentary on the RF Forest Code (ed. Bogolyubov S.A., M.: Prospect, 2008):

«In the RF Constitutional Court Decision \mathbb{N} 1- Π of January 9, 1998 on the case of constitutionality examination of the Forest Code of the Russian Federation (though this FC RF expired on December 4,2006) the public character of forest fund is formulated, because of its vital multifunctional role and significance for the society, and because of the necessity to ensure sustainable development (balanced development of the economy and the improvement of the environmental conditions in the situation of the growth of global importance of forests of Russia within the framework of fulfillment of the relevant international obligations), and also because of the necessity of the efficient use of this nature resource for the benefit of the Russian Federation and the federal subjects".

This principle **of ecological and social importance of forests** is preserved in Art. 1 «The fundamental principles of forest legislation», Art. 5 «The conception of forest», Art. 11 «Forest stay of citizens» and others of the Forest Code of the Russian Federation» (*set off by the IEE*).

But, apparently, at all the stages of making decision on the motorway routing through Khimki forest the responsible officials were guided by some other principles.

3.3. Analysis of the application and violation of the legislation on investment activity and concessional agreements

After introduction of the above-mentioned alterations, which have weakened the federal forest and land legislation (the beginning of 2009), the RF Government adopted the Ruling N_{2} 511-r, of April 24, 2007, on the ground of which the concessional agreement was concluded between Russian Federation (Federal Road Agency) and «North-West Concession Company» LLC of July 27, 2009 N_{2} K-2 on financing the construction of Moscow – Saint Petersburg motorway in the section 15km – 58km and further exploiting it as a toll road.

Although before the adoption of the above –mentioned legislative changes, the project client FSB «Roads of Russia» concluded the State contract No 18- Γ K/08 of December 16, 2008 with the preferred bidder, namely the production association «Teplotechnik» LLC on fulfillment of work on the investment project «Moscow-Saint Petersburg motorway construction in section 15km – 58km". Phase I. Preparing of the territory for construction work». At that moment the construction of the motorway through the forest park was prohibited strictly and absolutely according to the Land Code and the Forest Code.

It is the violation of p. 2 Art. 3of the FL № 39-FL of February 25, 1999 г. «On investment activity in the form of capital investments» that prohibits «capital investments in the objects, which construction and usage do not correspond the Russian Federation legislation...».

The contract implementation is to be carried out within the framework of the concessional agreement that sets definite requirements to the procedure of the motorway rout changing.

Article 13of the FL № 115 of July 21, 2005 «On concessional agreements» stipulates, in case, if the concessional agreement is implemented within the framework of the investment project, enlisted in the approved by the RF Government list of the investment projects of state importance, the concedent of this concessional agreement is the Russian Federation or a subject of the federation, and the concessional agreement determines concessional agreement. The terms of the concessional agreement, formulated on the base of competitive bid and fixing project investment cost and the technical features of the concessional agreement object by the mutual agreement of the parties can be altered for more efficient technological decisions implementation if positive expert report on the project documentation of the concessional agreement object is available and if the following provisions are complied with :

1) measure of concedent's expenditures on the construction and (or) reconstruction, and (or) using (exploitation) of the concessional agreement's object can be reduced as a result of more efficient technological decisions implementation;

2) the quality and use properties specifications of the concessional agreement object should not be changed;

3) other conditions of the concessional agreement, determined on the basis of competitive bid should not be changed.

At the same time the inevitable expenses, connected with the introduction of changes in the concessional agreement, should be compared not only with organizational expenses, caused by the public protests against the motorway construction according to the selected variant.

The sober evaluation of socioecological consequences inside the country as well as international country's battered image abroad can reveal that they will exceed the expected expenses on the revision of concessional obligations.

3.4. The anticorruption examination results

The resolution to conduct the anticorruption examination by means of the Autonomous Non Commercial Organization (ANO) Anticorruption Investigations and Initiatives Centre «Transparency International – R» was adopted during the round table, organized by the Council on Development of Civil Society and Human Rights Institutions under the auspices of RF President with TI-R Centre participation on February 9, 2010.

The results of the anticorruption examination are documented in « The statement of the anticorruption expertise on the RF Government Ruling N_{2} 1642-r of November 5, 2009 «On transfer of the forest resources land of Istrynskoye and Dmytrovskoye forestries...into the category of the land for industry, energy, transport, communications, television, broadcasting, informatics, the land for the space activity supporting, the land for defense, security, as well as the land for other special purposes for motorway road construction», adopted within the framework of the implementation of the Moscow- Saint Petersburg federal motorway construction» of April 5, 2010.

The expert examination was carried out on the basis of « Methodology for expertizing of normative legal acts and normative legal acts drafts », approved by The RF Government Ruling № 96 of February 26, 2010 as well as according to the Federal Law № 172- FL of July 17, 2009 "On anticorruption expertise of normative legal acts and normative legal acts drafts".

The TI-R Conclusion cites the string of facts, proving multiple infringements of the legislation and revealing the persistent ignoring of the public opinion as well as the corruption component existence in the process of making the decisions, promoting the motorway construction project development according to the selected alternative.

1) The broad interpretation of the authorities' power when making executive decisions without clear criteria of adopting such decisions.

According to current legislation, the head of the municipal formation of the category which Khimki belongs to, has no power to make decisions on the motorway routing. The adoption of such decisions is in the authority of the bodies of state power of the Russian Federation subjects, in this particular case – Moscow Region.

The head of the city government had no power to approve the acts on the forest resources land selection, and the deputy chief of the district authorities had no legal right to chair the commission on the forest resources land plot selection. The Act was cancelled by the Ruling of the Head of the Town district №1695 of December 18, 2008, but it is important to note that an attempt to complete the formalities for the motorway construction launching by illegal means took place.

2) The low level of transparency in the process of decision making as well as the discrepancy of the documents, given by different authorities.

Not all the documents are available on the corresponding departments' websites. As a result, at different stages of the motorway project discussion the documents, which have grave discrepancies of contents but the same document entries, were tendered. In particular, the content of Act of Preliminary Choice of the Timberland №03-227 of July 3, 2007, appended to the Appellation by Federal State Board (FSB) "Roads of Russia", does not correspond to its own copy, tendered by the Federal Service of environmental, technological and nuclear supervision as

the documentary evidence on the case N_{2} 2-2344-07, tried by the Tagansky district court of Moscow.

3) The evident potential conflict of interests of some officials, participating in the motorway construction decision making.

TI-R Center has come to the conclusion that the administrators of state power bodies and the government institutions, involved in the RF Government's Ruling adoption may have a personal, a corporative or other interest in the Ruling's goal achievement.

Among the officials, mentioned in this context was Russia's Minister of Transport Igor Levitin, at the same time holding a post of the Chairman of the Board of Directors of Open Joint Stock Company "International airport Sheremetyevo". It is precisely the company that has a direct interest in routing the motorway through Khimki forest.

4) The decision, underlying the Ruling, cannot be considered as the one, adopted for the public benefit and regarding the opinion of the public concerned as well as of the competent state power bodies.

The statement mentions the string of the facts indicating that the public opinion was actually ignored in the decision –making process as well as the opinion of state and other expert bodies, that gave negative conclusions on the project many times. There were categorical protests expressed in some cases. The impressive list of the organizations is separated in the subsection 5 of this part.

5) «...The point on the existence of the alternative variants of the motorway routing as well as their approving or rejection wasn't considered at all by the authorized bodies in the process of the Ruling adoption ».

The quotation proves again that alternative variants of the motorway construction were at hand, so the examined RF Government Ruling was adopted with the breach of current legislation.

6) The resume of the Statement is :

«The TI-R Centre believes that the examined Decision on the transfer of the Istrynskoye and Dmytrovskoye Forestries forest resources land into the category of the land for special purposes for the motorway construction, enclosed in the RF Government Ruling № 1642-r of November 5, 2009,

- that was adopted according to the provision of law, containing corrupting factors,
- that did not have full and exhaustive motivation,

in the process of adoption of which the breach of current legislation, including the attempts to achieve the goal of the Decision by illegal means, took place,

- that doesn't account for large protests of citizens, public and competent state power bodies,
- under the condition of personal interest of the officials, involved in the decision-making process, contains definite signs of corruption component». (*set off by IEE*)

3.5. The facts of disregard for public opinion, as well as the opinion of state and other expert structures

Besides Khimki and Moscow citizens, that made large and severe protests against the motorway routing through Khimki forest, special authorized state structures and supervisory agencies of nature and environmental protection, forest and land relations sphere as well as representative authority bodies expressed their negative opinion many times.

1) On July 16, 2008 Moscow municipal Duma sent to the Prime Minister of the RF Government Vladimir Putin «The appeal on inadmissibility of the motorway construction on Khimki forest park territory» (N_{2} 8 of July 16, 2008). In its document Moscow municipal Duma emphasized the existence of the alternative variants for the motorway construction and asked to make the government decision on giving the Particularly Protected Natural Territory rank to Khimki forest park.

2) The RF Ministry of nature declared against the project of groundless massive deforestation of Khimki forest in connection with the motorway construction (the Answer to Naumov A. V. N 12-50/8629, of June 25, 2009).

3) The RF Ministry of regional development calls the massive deforestation of Khimki forest «inadmissible violation of civil rights and the legislation in whole». (the Answer to Chernyshova A. N. N 19885- Λ /02 of August 12, 2008).

4) The Russian committee of nature supervision (Rosprirodnadzor) claims that « the motorway construction project implementation will lead to an inevitable destruction of the considerable area of recreational forest massif of Khimki forest park in Moscow Region » and in this connection asks the Prosecutor General's Office "to assume the measures preventing the violation of the forest legislation in the course of Moscow-Saint Petersburg motorway construction project implementation at Moscow Region Khimki forest park territory». (Application to the RF Prosecutor General's Office № OM-93-28/92010f September 15, 2007).

5) MA «Moscow municipal forest administration» believes that, «the project implementation according to the selected motorway routing will cause a large-scale damage on the forest resources... besides the direct huge deforestation for the motorway itself...it is necessary to take into consideration the subsequent disintegration and destruction of the Khimki forest territories, adjoining to the motorway». There is also the conclusion that «the forest greenery degradation will entail aggravation of environmental conditions in the region» μ «the authors of the project design even made no attempts to reduce considerably the expected damage to the forest park» (Answer N 313 of April 20,2006 to the Application of FSB « Roads of Russia »).

6) On April 10, 2009 the participants of Moscow municipal duma round table passed the resolution, containing the demand « to recognize as unsound the practice of the development of large-scale constructional projects of the socially important objects of a regional significance as well as the practice of adopting the decisions on these projects implementation without conducting open public hearings with participation of scientific establishments and the public». Also the round table participants decided to submit for Moscow Duma consideration the appeal «On inadmissibility of illegal transfer of Khimki district forestry land into the other category of land».

7) On June 6, 2009 the participants of XVI Moscow city conference of the Regional public organization « Ecological Civil Society Organizations Union » addressed a request to the RF Prime Minister Putin to give the Ministry of Transport and Rosautodor an assignment to

assume measures to the motorway project routing change, by repeating the selection of the motorway rout «according to open procedure with independent experts and members of the public participation».

8) More then 20 000 citizens of Russia signed the appeals on Khimki forest protection to the RF President and Prime Minister. But the appeals produced no results, because they were redirected for the consideration to the state structures, against the actions of which the complaint was lodged.

Despite the repeated and timely applications, containing the cited above facts of multiple violations of the current legislation in the different stages of the development and preparation of the motorway constructing according to the selected variant, sent by citizens, public associations and nature protecting structures (Rosprirodnadzor) to General Prosecutor's Office, it has not assumed the measures of prosecutor's response for the purpose of infringements abatement and protection of citizens' rights and freedoms. stipulated by the law.

3.6. FPPB legal status and importance

It is necessary to dwell on the legal status of the **Forest Park Protective Belt** (hereinafter referred to as FPPB) and its importance for Moscow Region. It was established in 1935 by the Resolution of the USSR People's Commissars Counsil within a radius of fifty miles around Moscow.

In 1960 the Presidium of The USSR Supreme Council by its Resolution reaffirmed this decision and gave the description of FPPB boundaries.

The main predestination of FPPB is providing inhabitants of Moscow and its vicinities with favourable environment : the belt fulfils the function of environmental protection, preserves the recreational resources of Moscow region, its positive influence on temperature and weather conditions is proved.

Before 2008 FPPB forestries' management, including forest care, sanitary felling and the fire prevention were fulfilled by special forestry enterprises, financed for Moscow municipal budget account. But according to the regulations of the Budget Code, the Land Code and the new forest Code, Moscow already has no right to maintain these territories, that is why the city stopped their financing in 2008. The special forestry enterprises were eliminated, and the forests near Moscow passed into the jurisdiction of federal authorities.

Whereas the conditions as well as the usage of the forests near Moscow undergo a crisis: the auctions, where forest plots are leased for the period of 49 years, are still going on. At the same time new tenants do not ensure forests preservation and fire protection measures.

According to the data of the official website of the Moscow Region Forestry Management Administration, after the Forest Code adoption more than 1,5 thousand of forest plots with the total area of 5,6 thousand hectares were let on long lease.

According to Moscow municipal duma commission on environmental policy, from 250 to 300 hectares of FPPB territories were developed illegally, and the pace of such construction is accelerated at the time 5 .

In 2010 more than 2000 fires were reported to occur in the Moscow Region forest park territory. They destroyed above 23 thousand hectares of forest⁶.

The total area of the forests of Moscow vicinities, lost in the past 20 years as a result of fire, unauthorized development, voluntary forest land seizure, transfer of land from the category of forests and leasing, comprises more than 110 000 hectares, which can be compared to the area of Moscow city territory⁷.

At the same time in about 10 years that have passed since the adoption of the RF Land Code the regulation of Art. 86 item 4 was not implemented. It stipulates that **the boundaries and the legal order of the suburban zones of cities of federal importance Moscow and Saint Petersburg are to be approved or changed by federal law. But so far there is even no draft of such federal legislative act of great importance for the protection of the preserved part of FPPB.**

It is necessary to preserve FPPB for creating comfortable environment and favorable climate conditions in the city. The boundaries and the legal order of the suburban zones of cities of federal importance Moscow and Saint Petersburg are to be approved by the federal law, according to the requirements of item 4 Art. 86 of the Russian Federation Land Code.

The legislative fixation of Moscow Forest Park Protective Belt will satisfy the requirements of part 3 Art. 44 of the Federal Law «On environmental protection», according to which «For the purpose of the environmental protection of town and rural settlements the protective and conservation zones are estabilished, including sanitary protection zones, green areas, green belts, and other protective and conservation zones with restricted limit of nature management on lands taken from use in intensive economic activity».

Considering the fact that the current Land Code doesn't prohibit to lease protective forests, and lacks the regulations on the management and conservation of protective and municipal forests, there appear to be sufficient reasons for taking measures of Khimki forest special protection, that is arrangement of the Particularly Protected Natural Territory, with the regiment banning any construction or other activities, that are out of the line with nature protection purposes. The status of such a PPNT and administrative distribution of the functions of its management are to be approved by Moscow Region authorities and Rosleshoz (Russian administration of forestry management).

The offer to give to Khimki forest as the unique preserved part of FPPB the status of the Particularly Protected Natural Territory of regional or even federal importance were submitted by the public, scientists as well as the representative and legislative authorities of Moscow. The status will ensure protection and safety of the forest.

⁵ The speech of Moscow municipal Duma environmental policy committee chairman Stepanenko V.S. in the parliament hearings of RF State Duma on the subject of «Municipal forests. Forest conservation and usage. Legal security» of October 21, 2010.

⁶ Ibidem.

⁷ Ibidem..

3.7. Analysis of the application, changing and violation of other legislative regulations on environmental protection (including Russia's Ecological Doctrine)

Article 2 of the RF Constitution reads that, a human being, his rights and freedoms are of supreme value, and their recognition, observance and protection is regarded as a government responsibility. It concerns all the human rights, including the environmental ones.

According to **Art. 42** of the RF Constitution, every person has the right for favorable environment, reliable information of its condition and for the compensation for health and property damages as a result of ecological offence.

According to Art. 58 of the RF Constitution, every person is obliged to preserve nature and environment and take good care of natural resources.

These postulates of the Fundamental Law are also stated in the enacting clause of the Federal Law «On environmental protection» and serve as the basis for legislative regulation of environmental protection.

It should be noted that on the strength of the Constitution supremacy over federal and other legislative acts, (according to **Art. 15** of the Fundamental Law it has the highest legal effect and direct action on the Russian Federation territory), the legal definition of the above mentioned Art. 58 on the obligation to preserve nature undoubtedly and in the first place concerns the RF President as well as the officials of the Government, the Ministries, the Supreme Court and the General Prosecutor's Office, which ignored the statement and adopted the decisions on the motorway construction through Khimki forest or on the legitimization of the construction at different levels of authority.

According to **Art. 15** of the RF Constitution the universally recognized principles and rules of international law as well as the RF international agreements are an integral component part of Russia's juridical system and, in connection with this fact, the international treaties and agreements with Russia's participation take on special significance.

Being a Party to the Convention on biodiversity, Russia has assumed liabilities for preserving ecosystems and natural habitats, support and renewal of viable populations of species in their natural conditions (Art. 8), which also will be violated in case of the project implementation according to the selected variant. As stated in preceding chapters, the provided for by the road construction fragmentation and loss of the major part of Khimki forest will entail considerable damage for several dozens of rare and disappearing flora and fauna representatives, registered in Moscow and Moscow Region Red Books.

The analysis of some regulations of the environmental legislation is already given in the first subsection, but it should be noted that the situation of violent confrontation between the protecting Khimki forest citizens and the authorities, at all costs trying to construct the road along the rout causing maximal damage to the forest, was programmed by the new Town Planning Code (2005) and the amendments to it (2006) with parallel direct introduction of the changes into 36 legislative acts, including 6 codified acts (FL-232 of December 18, 2006).

Such a lawmaking approach per se contradicts the foundations of a law-governed state existence.

The regulations, stipulating the necessity of public ecological examination conduction were excluded from about forty legislative acts, including : the Land Code, the Water Code, the Forest Code, the Civil Code ; Federal laws «On sanitation and epidemiological wellbeing of people», «On protection of the population and territories from natural and anthropogenic extraordinary situations», «On land transfer from one category to another», «On environmental protection», «On ecological examination », «On production and consumption wastage», «On investment activity in Russian Federation, fulfilled as capital expenditures», «On security of hydraulic facilities », «On special economic areas in the Russian Federation», «On chemical weapons annihilation».

In spite of the fact that the practice of 11-year application of the law «On ecological examination» proved the vital importance of public ecological examination institute (PEE) as preventive and high-performance measure of the state's environmental security ensuring, that has averted implementation of the great deal of environmentally dangerous projects, the above mentioned legislative changes have almost eliminated the conduction of PEE in the course of objects designing and construction.

Besides, a lot of the following kinds of the public expertise of project documentation were liquidated, in spite of the fact that they provided for different kinds of state security, such as : sanitation and epidemiological expertise, fire security, the protection of population and territories from natural and anthropogenic extraordinary situations, industrial security, security declarations of hydraulic facilities; nuclear facilities security. These alterations contradict the string of the articles (1, 12, 13) of the Federal Law «On security» and endanger vital interests of a person, society and country. It is impossible to provide for the state and population security, having liquidated all the mechanisms of its support.

Moreover, state ecological and sanitation and epidemiological supervisions have been cancelled for all the stages of any construction works, they have been replaced by building supervision.

Thus, the paragraph of the following content is included in item 1 Art. 65 «State ecological supervision» of the FL «On environmental protection»:

«In case, if in the process of construction, reconstruction, capital repairs of the capital development objects the procedure of conducting the state construction supervision is provided for, the state environmental protection supervision (state ecological supervision) is carried out within the framework of the state construction supervision by the executive bodies, authorized to fulfill state building supervision, according to the town planning legislation».

Item 3, stipulating taking into account referendum results in the process of making the decision on the construction, concerning citizens' interests, has been excluded from Art. 35 «The requirements of environmental protection in the process of designing of buildings, structures, installations and other objects» of the Federal Law «The law on environmental protection».

According to part 2. Art. 55 of the RF Constitution **«The legislative acts, which abolish or diminish individual's and citizen's rights and freedoms, should not be issued in the Russian Federation**».

Part 3 Art. 55 of the RF Constitution states that, **«human's and citizen's rights and freedoms can be limited by the federal law insofar as it is necessary for the protection of the foundations of the constitutional system, morality, health, rights and legitimate interests of other persons, for the country's defense ensuring and national security**». That is citizen's rights can't be limited for any other purposes except the above stated ones.

The indicated changes created prerequisites for the violation and limitation of citizenship rights for favorable environment (Art. 42 of the Constitution), for health protection (Art. 41 of the Constitution), and consequently, right to life (Art. 20 of the Constitution).

The considerable alteration of the legal regulation of the environmental requirements observation and the procedure of economic decisions adoption have come into contradiction with the international legal obligations of the Russian Federation on environmental protection.

These alterations contradict the principles of sustainable development of Rio de Janeiro UN Declaration on environmental protection and development as well as the provisions of the Conventions «On biodiversity», «On universal cultural and natural heritage protection»), which establish the obligatoriness of environmental evaluation and examination before projects' implementation.

The radical reforming the RF subjects competence as well as the local self-government in the framework of the administrative reform entailed the introduction of multiple changes into almost a hundred of legislative acts. At the same time the federal authority power was delegated to regions without sufficient budget financial support, and this circumstance in conditions of regional financial sources deficit led to failure to implement some functions. Only two well-known federal laws $N_{\rm P}$ 122 of 2004 and $N_{\rm P}$ 199 of 2005 considerably corrected almost all the regulations on ecological and natural resources matters in the way of deecologization.

The irreparable harm for Russian forests and citizenship because of forest fire in the summer of 2010 is the evidence of the consequences of ill-conceived reforming and legislation change.

The RF Ecological Doctrine is the fundamental strategic document that determines state ecological policy of Russia for a decade (the RF Government Ruling № 1225-r of August 31, 2002).

The nature preservation and environment improvement are stated by The Ecological Doctrine as the priority directions of state and society activities.

And the **long-term goal** of public ecological policy is «**natural systems preservation**, the maintenance of their integrity and life supporting functions for ... improvement in public health ... country ecological security».

At the same time among the **basic principles** underlying state ecological policy are :

- the priority for the society of life supporting functions of biosphere over a direct usage of its resources;
- prevention of negative environmental consequences resulting from economic activity, note of distant environmental consequences;
- cancellation of economical and other projects, connected with influence on natural systems, if the consequences of such impact on the environment are unpredictable.

Preservation and renewal of the landscape and biological diversity, enough for maintaining natural systems ability to self-regulation and compensation of anthropogenic consequences are stated among main **tasks in the** sphere of preservation and renewal of natural environment.

In particular, the document claims the necessity of preservation and renewal of natural systems integrity, including prevention of their fragmentation in the process of

economic activity when constructing... motor roads... and other linear facilities, as well as the preservation and renewal of natural biodiversity and landscapes.

It is no mere chance that such a detailed analysis of the fundamental strategic document on state ecological policy of Russia is given here.

Russia's Government, which, according to Art. Art. 71, 114 of the Constitution and Art. 18 of the FCL «On Russian Federation Government», is responsible for ensuring and conducting united public environmental policy in the country, for the measures to implementing citizenship right for favorable environment, for people's ecological wellbeing provision; for organizing the activity on the preservation and sustainable use of natural resources, in practice not only ignores but also repeatedly violates all the above-listed statements of Russia's Ecological Doctrine in the process of implementation of the selected project variant of the motorway construction.

3.8. Analysis of the application, changing and violation of the Town Planning Code

The current Town Planning Code has considerably limited citizens' rights for the town planning activity participation in comparison with its previous version of 19998. The previous version of the main town planning law contained separate chapter 2 «Ensuring of the citizen's right to have favorable environment for vital functions», consisting of 14 articles. According to Art. 18 of the mentioned code citizens and their associations had the right to conduct independent expertise of town planning documentation. The same chapter provided for a wide range of forms of people's participation in preparing town planning decisions.

The modern Town Planning Code doesn't contain not only a chapter but also an article, dedicated to the citizen's right for town planning activity realization. The string of the articles of the current code ensures obligatory open public hearings on the projects of settlements general layouts, urban district development plans, on drafts of the regulations of land use and development, on territory planning etc. (Art. 24, 28, 31, 39, 40, 46) and provides for mandatory public hearings with citizens participation. But it should be noted that the possibility of public participation in the process of town planning decisions adoption is restricted by the legislation. The secure legal mechanism of the public opinion accommodation is absent, and that is why in practice public hearings turn into formality and profanation, and frequently are falsified as in case of constructing the motorway through Khimki forest. Intentionally synchronously and in connection with the changes, introduced into the Town Planning Code in 2006, the regulation of Art. 35 of the FL "On environmental protection", concerning the consideration of referendums' results in the process of making decisions on the location and construction of environmentally important objects was abolished.

As stated above, the Federal Law № 232-FL of December 18, 2006 «On introduction of changes into the Russian Federation Town Planning Code and some other legislative acts of Russian Federation» the considerable alterations were directly introduced into 36 legislative acts, including 6 codes.

«The principal changes into the current environmental and natural resources legislation as well as the legislation on sanitation and epidemiological welfare of the population and others were based on the assumption that «raise of the residential building **is considerably restrained** by the absence of available and infrastructure- provided land plots as well as the existence of administrative obstacles dragging out the allotment of land plots for residential building» (explanatory note to the draft bill of the FLN 232)

The introduced changes of legislation are directed to create the legal relations, based on the current sectoral goals of the town planning sector, not taking into account other ones, including lasting needs of society.

Such private intrusion in other areas of law destroys the unity and integrity of the functioning inside it principles, provisions and mechanisms.

It is significant that, under the pretext of residential building pace acceleration the new Town Planning Code eliminated the string of expert evaluations of the preproject and project documentation, including SEE.

According to item 6 of article 49 of the Town Planning Code, enforced on January 1, 2007, «It is not allowed to make state examination of the project documentation, except the examinations, stipulated by the article».

The suggested by the law mechanism of «bureaucratic barriers» elimination has withdrawed from under ecological examination and public control the objects of big environmental importance: all the kinds of the town planning documentation; the documentation on changing of the federal territories status, including the materials, justifying transfer of forest lands into other categories; earthwork documentation etc.

The modern version of the Town Planning Code allows the dangerous disbalance for benefit of the construction interests priority over the environmental security of the population.

Thus, p. 3 Art. 4 of Town Planning Code runs as follows: « The land, forest, water legislation as well as the legislation on particularly protected territories, on environmental protection are applicable to the town planning relations,... unless the relations are regulated by the town planning legislation».

This legal regulation of Art. 4 π o in fact **declares the Town Planning legislation** supremacy over all the legislation on nature resources as well as the environmental legislation, that endangers the interests of one of the national security components, notably ecological security and contradicts many constitutional andvested rights of citizens⁸.

The changes, entailing negative environmental consequences, are introduced into land legislation: the RF Land Code and the Federal Laws «On state land cadastre», «On land management», «On enactment of the RF Land Code», «On transfer of lands or plots of land from one category to another», «On land melioration», «On agricultural lands rotation ».

In particular, changes were introduced into the RF Land Code; they specify that land usage for residential building is allowed without their transfer into the category of town land, if it is stipulated by the territory development documentation, the regulations of land usage and development.

Such changes violate the principle of land legislation on the priority of preserving the particularly valuable lands and the lands of particularly protected territories, according to which the change of designated purpose of valuable agricultural lands, the forest resources lands, occupied by the forests of the first group, the lands of particularly

⁸ See in detail. The conclusions of public ecological examination on Federal Law draft N_{2} 317064-4 «On introduction of changes into Russian Federation Town Planning Code and some other legislative acts of Russian » 2006.

protected territories and objects, the lands, containing cultural heritage objects, other particularly valuable lands and particularly protected territories for other purposes is restricted or prohibited according to the federal law regulations. Such changes also contradict the concept of land division into categories according to designated purpose, which defines land legal order on the basis of their category and allowed usage in compliance with territory zoning and the requirements of a law.

Despite all above-listed, the string of law violations took place in the attempt of project implementation.

The contractor, production association «Teplotechnick» LLC, appointed to fulfill work under the State contract N_{2} 18- Γ K/08 of December 16, 2008 on the investment project «Moscow-Saint Petersburg motorway construction in the section 15 km- 58 km. Phase 1. The preparation of territory under construction», proceeded to work (deforestation, subgrading, bridgework) without building permission as well as in defiance of the RF Town Planning Code.

As it stated in part 1 Art. 51 of the RF Town Planning Code «The building permit is a document, confirming the compliance of the project documentation with the requirements of architectural planning of the land plot and enabling the developer to fulfill construction works...».

The permits for building public federal roads or their sections are issued by the RF Federal Road Agency (Rosautodor) according to Art 5.4(3) of the Statute of the Federal Road Agency, approved by the RF Government's Ruling № 374 of July 23, 2004.

According to p. 4 Art. 52 of the RF Town Planning Code, if a party fulfills the construction under the contract with the developer or a client, the mentioned developer or client should prepare the land plot for the construction work and give to the party all the findings of engineering survey, the project documentation and the building permission.

According to the context of the regulations, stated in Art. 51, 52 of the RF Town Planning Code, the building permissions are given before launching the construction.

So, the contractor fulfills preparatory construction work, including land clearance, earthwork and bridgework without building permission, that is not only the violation of the mentioned regulations of the Town Planning Code, but also administrative infraction (part 1 Art. 9.5 RF Code of administrative violations).

4. The Conclusions and recommendations of the independent ecological examination on the project of Moscow –Saint Petersburg motorway construction in the section 15-58 km.

For the purpose of mitigation of the negative consequences for the ecology, society economy and international image of Russia, the Commission suggests NGO Coalition « For the Forests of Podmoscowye (the vicinities of Moscow) » sending The Conclusions and Recommendations, on the results of independent ecological examination of the project of constructing Moscow –Saint Petersburg motorway in the section 15–58 km to the RF President Dmitry Medvedev, the Prime Minister of RF Government Vladimir Putin, to the both Chambers of the RF Federal Assembly, to the RF Public Chamber, to S.S. Sobyanin, the Moscow Mayor, to the Moscow Region Governor B.V. Gromov, as well as to the RF General Prosecutor Y.Y.Chayka for taking the measures of prosecutor's supervision.

4.1. Conclusions on project of Moscow- Saint Petersburg, section 15– 58 km

- 1. The existing grave transport problem at the regarded section is called forth by the lack of local means of communication at first as well as by the unsatisfactory usage of the existing roads potential and discrepancy between the road characteristics and up-to-date requirements. The public electric transport development is still at the level of the 60s –70s of the last century, despite the urban agglomeration population size increase over the last 10 years.
- 2. The selected way of transportation problem solution (a ten-lane toll road with the speed limit 150 km per hour) doesn't meet the requirements of the accommodation of traffic flows. At present the local traffic prevails at the regarded section (about the 2/3 of the total traffic flow), and its share is going to rise in perspective. The toll road with its declared operation factors is absolutely useless for efficient local traffic accommodation. An interurban traffic doesn't require the projected lanes width in this section, and will not in the future, taking into consideration the planned withdrawal of the transit traffic flows beyond the boundaries of Moscow and its vicinities.
- 3. Taking into consideration the overload of the existing communication lines by local traffic, the motorway will be used for accommodating the local traffic. It is going to entail the inevitable transport collapse in the places of few entries and exits the both at the motorway itself and the adjoining local roads. As a result, the urgent need in the construction of additional entrances and exits as well as the adjoining road network development will appear. Taking into consideration the motorway routing through forest territories, the above-mentioned will mean the progressive involvement of these territories into town planning activity, no matter what have been said in this regard in the beginning.
- 4. There is no need in the first and foremost construction of the highway, that sets against the «dead end» of the Businovskaya road interchange with MRAR, as far as there is no continuation of the road behind MRAR, and MRAR is not able to accommodate an additional traffic flow of such a volume. The first and foremost modernization of the existing communication lines is needed for the improvement of transport situation namely, the reconstruction of the highway M10 and exits to Novocurkinskoye highway in the first place. The construction of the bypass road in order to accommodate the transit traffic

around Khimki with the exit to the Businovskaya road interchange should be considered with the project « Severnaya Rokada » in Moscow as a whole. The rout, causing the minimum damage should be selected in this case, for example, 2a or 2b. Raising the overstated demands to width and speed limit of the bypass road is unreasonable and should be ruled out.

- 5. The approved option of the routing of Moscow- Saint Petersburg motorway in section «MRAR- Sheremetyevo» going through the central part of Khimki forest is unacceptable on the strength of all the ecological and social factors:
 - 5.1 Multiple infringements of the land, forest, town planning and ecological legislation, already admitted of in the process of the project implementation according to the selected option, lead to mass abuse of the constitutional right for favorable environment and health of more than a million of people (Art. 41, 42 of RF Constitution) see Parts 2,3 of the Examination.
 - 5.2 Maximal damaging of recreational and aesthetic properties of the landscape, which is admitted by the concessionary as well.
 - 5.3 Fragmentation of Khimki forest massif into several isolated parts most of which will have the area too small for preserving valuable natural complexes and objects. The remaining fragments of the north-western and the south-eastern parts of Khimki forest will irreparably degrade under the edge effects influence.
 - 5.4 The loss of about 200 hectares of forest as a result of the clearance for the motorway construction and the destruction of the abutting on to the road forest walls.
 - 5.5 The destruction of unique old-aged oak-grove. The area of oak-groves totals about 5% of Khimki forest territory (including the oak-groves, situated outside the lands of forest resources), and the area of plantations with considerable percent of oak –trees included in the prevailing layer of forest stands is about 20% (for comparison: according to State accounting of forest resources, the part of oak-groves constitutes 1,7% of the Moscow Region forests as of January 1, 2003).
 - 5.6 Negative influence on the mesotrophic bog the habitat for some rare and disappearing species.
 - 5.7 Destruction of the habitats of more than 30 species of plants and animals, registered in Moscow and Moscow Region Red Books.
 - 5.8 Double crossing of Klyazma river bottomland in its relatively well-preserved part, which is the only ecological corridor for elks, boars, martens, badgers and other animals. The fragmentation and total isolation of Khimki forest will lead to destruction of these groups.
 - 5.9 The disbalance of well-established ecosystems and ecological corridors –the natural ways of animals' migration leads to sharp reduction of biodiversity.
 - 5.10 In case of the implementation of the project which contradicts to public opinion (according to data of «Levada-Centre» and VCIOM (All-Russian Public Opinion Research Center), about 2/3 of Russia's citizens including Moscow and Khimki are against the construction on the basis of the selected variant) the negative social consequences are inevitable, that can't be compared with the case if the other variants of transport problem solution are chosen.
- 6. The substantial reparation of damages to the Khimki forest ecosystem is impossible in case of implementation of the current variant of construction because of the lack of large undeveloped areas adjoining to Khimki forest territory as well as owing to the impossibility of replanting of old-aged oak trees (see Part 2 of the Examination).
- 7. The chosen motorway routing causes unwarranted damage to the nature objects not only within the boundaries of Khimki forest but also along the whole section 15-58 km, in particular to the woodlands, protecting the sources of drinking water supply for Moscow.

- 8. There are no less than 11 variants of the motorway routing in section MRAR-Sheremetyevo highway, the majority of which exceed the selected option 3 on the strength of all characteristics. Most of them (including the extension of the existing motorway M10, the construction of the additional carriage ways running parallel to it, using the right of way near the high-voltage transmission line) weren't considered at the investment justification stage. So, there was no earnest study conducted so far on the motorway routing variants making it possible to mitigate the damage to natural territories and improve conditions for local traffic passing.
- 9. Neither of the regarded 11 variants needs multistoried residential buildings demolition as well as the expropriation of the land of particularly protected natural territories. Some of the variants (including the motorway construction along the Leningradskoye highway the group of variants# 5) doesn't need residential buildings demolition at all. For the suggested modifications of the variant #2 (around Khimki and further through Molzhaninovo) no more than 15 single-storey private households can be demolished even in case of constructing the ten-lane road. In case of narrowing the bypass road to the reasonable width (4–6 lanes) the amount of demolished private households will not exceed 10.
- 10. The project of Moscow-Saint Petersburg motorway construction in its current state doesn't correspond to the requirements of EU Directive 661/2010/EU and the principles of international network IENE (infra-eco-network of-Europe, the organization researching into problems of habitats' fragmentation as a result of the development of big thoroughfares). In the process of the project implementation the requirements of EU directives on the environmental consequences evaluation 85/337/EEU, 97/11/EU, 2001/42/EU, 2003/25/EU were violated as well. First of all, these infringements are connected with the absence of proper informing the population and environmental NGO's of the project as well as with disregard for their opinion when making decisions. The project's contradiction to EU Directives can hinder the attraction of project investments from the international financial institutions as well as the financial institutions of the countries where the Directives operate.
- 11. The RF Government Ruling of November 5, 2009 «On transfer of forest resources lands into the other non-forest category...» that made clearance of Khimki forest legal, contains all the signs of corruption component on part of the officials of the federal and municipal levels, having participated in adopting the decisions on the approved motorway project implementation (according to the conclusions of the anticorruption examination of April 7, 2010, conducted by « Anticorruption Investigations and Initiatives Centre «Transparency International R» on the ground of the Federal Law of July17, 2009 « On anticorruption expertise of normative legal acts and normative legal acts drafts» N 172-FL).
- 12. The cancellation of the toll motorway construction according to the approved project (« zero option ») appears to be the most acceptable for actual transportation problem solution as well as the implementation of the package of measures on the problem of local traffic solution in the first place and the division of local and interurban traffic flows in perspective.

4.2. General conclusions on the system, environmental, social, technical and legal problems, revealed in the process of examination

13. The decision on construction of the Moscow – St.Petersburg highway in section 15-58 km can't and shouldn't be considered as separate private project, disconnected with the solution of the transportation system problem of Moscow and adjoining regions as the

whole. The excessive concentration of traffic streams, in the first place automobile and railway ones, in Moscow Region leads to social and environmental losses, sharp rise of construction costs and threatens to national security. It is vitally important to make strategic ecological evaluation and develop the integrated plan for solving transport problems of the European region of the country, concerning in the first place environmental and social situation of Moscow region, so that the application of the plan could be extended to Moscow, its region and neighboring regions.

- 14. The new motorways construction policy needs fundamental revision in order to prioritize the development of road network outside the limits of Moscow and Saint Petersburg urban agglomerations.
- 15. When solving the transport problems of megalopolises and urban agglomerations, the preference is to be given to organizational and technical arrangements, directed at the existing communication lines optimization, social electric transport development, carrying transit traffic lines beyond the boundaries of residential and recreation areas and at bringing all land development plans in balance with the real possibilities of the transportation services.
- 16. The situation around the regarded project has taken a dangerous turn for an acute socioecological conflict as a result of the adoption of the whole number of faulty managerial decisions in recent years as well as systemic changing of the ecological, forest, land and town planning legislation to its deecologisation and the removal of the parties concerned and in the first place the public from the participation in the process of important decisions adoption:
 - 16.1 The modern version of the Town Planning Code not only allows for dangerous legal disbalance of town planning interests to the prejudice of the population environmental security but its Art. 4 actually declares the supremacy of the Town Planning Code over many other kinds of legislation, including the environmental, PPNT, forest and land legislation.
 - 16.2 Actually the liquidation of the legal institution of the state and public ecological expertise came about for the last decade.
 - 16.3 In 2009 the amendments allowing for confiscation and the development of the forests of former Moscow forest park shelter belt and suburban forests in whole were introduced in the Forest Code.
 - 16.4 Failure to adopt the Federal Law on the legal regime of the suburban zones of federal cities Moscow and Saint Petersburg as specified in the Article 86 of the Land Code, arises legal uncertainty and prevents from solving the acute land and environmental problems of the megapolices' outskirts.
 - 16.5 The modern Russian legislation has the tendency to fix legally the limitation of citizens' and NGOs' possibilities to participate in the processes of making economic decisions and influence their adoption as well (see P.3 of the Examination). Such a tendency aggravates socioecological contradictions and favours disintegration with EU, where diametrically opposed process takes place.
 - 16.6 When preparing the technical and economic assessment, the cadastral value of lands is usually applied for calculations, but the land cadastral value is a thousand times lower than the real one.
- 17. It is environmentally and ecologically inefficient to apply speed limit of 150 km\h (instead of standard 90-110 km\h) when constructing new motorways. Speed rising to 150 km\h causes unjustified increase of specific fuel consumption that leads to environmental pollution (including greenhouse gases emission), as well as to rising the severity of road accident consequences.

4.3. Suggestions on solving the transport problem, existing in the direction Moscow - Saint Petersburg, 15 – 58 km

- 18. The implementation of the project of the Moscow-St. Petersburg toll road (km 15-58) in its present day condition should be rejected because it is ecologically harmful and economically groundless construction, which doesn't solve transport problems, but creates the source of social tension.
- 19. It is necessary to design and implement on a priority basis the complex of primary arrangements for the improvement of transportation services in the regarded section, including:
 - 19.1 improvement of the riding quality of the existing arterial road M10 so that it could equal the Leningradskoye highway in its riding quality through the roadway broadening, additional roadways construction (see. Group of options 5), elimination of one-level intersections with other roads and crosswalks;
 - 19.2 provision with the efficient passages to Novokurkinskoye highway from Moscow and Sheremetyevo;
 - 19.3 improvement of the usage convenience of the commuter electric trains, running between Moscow-Khimki Zelenograd and Moscow Sheremetyevo by shortening of traffic intervals between the suburban electric trains in the first place;
 - 19.4 arrangement of the additional electric transport, e.g. by extension of Zamoskvoretskaya and Tagansko-Krasnopresnenskaya subway brunches outside the limits of Moscow Ring Auto Road.
- 20. The status of Khimki forest park lands, confiscated for the Moscow-St.Petersburg motorway construction should be reinstated.

4.4. General provisions on the results of examination

- 21. All the forests of the Forest Park Protective Belt around Moscow, remaining intact, are recommended to be given the Particularly Protected Natural Territory rank of federal importance with the prohibition of site development and leasing of these lands.
- 22. It is necessary to work out and pass the Federal law stipulated by Art. 86 of Land Code «On regulation of the legal order of federal cities Moscow and Saint Petersburg suburban zones».
- 23. The Land Code regulations which strengthen forest guarding and provide for the protection of forest park and green zones, the municipal forests, as well as the sheltering forests, situated by towns, should be reinstated.
- 24. It is recommended to accelerate the process of Russia's accession to the Aarhus Convention "On Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters".
- 25. The legal institution of the state and public ecological expertise that had been functioning by 2007 in the Federal Law "On ecological examination" should be reinstated.

- 26. Provide for the application of the real commercial value of land instead of relative estimates like "cadastral valuation" anyway when assessing the damage from forest land confiscation.
- 27. Bring back to the Town Planning Code, the Forest Code, the Land Code and the Federal Law "On environmental protection" the regulations that grant obligation of the responsiveness to the opinion of the parties concerned on matters of concerning citizens' environmental interests.

APPENDIX 1. List of building objects to the west of Leningradskoye highway in the section from MRAR to Mezhdunarodnoye highway

Table Π 1-1 the building objects to the west of Leningradskoye highway in Khimki town territory	
(MRAR - Mezhdunarodnoye highway)	

Number and conventional denominations of the construction projects	Distance roadside – the site territory (usually parking lot) meters*	Distance roadside – building meters*	Notes
X-1 Construction site «Office block construction»	23		There are no evident active building works. According to last information, the work was activated in October- November of 2010.
X-2 Shopping centers Grand-1 и Grand-2	3	28	The first shopping centers in the area between MRAR and Mezhdunarodnoye highway. Began to function in 2003.
X-3 Shopping center «Liga»	16	37	
X-4 Switching station № 400 Butakovo in Skryabina park	22	60	
X-5 There are banners on the fence «AutoSpesCentr» Closed Joint-Stock Company «Intergroom», automobile sales centres «Infinity», «Sitroen», «Shkoda»	30	45	
X-6 Automobile sales centre «Subaru» Khimki	40	40	
X-7 Automobile sales centre «Nissan» of the	0	50	

company			
«AutoSpesCentr»			
http://www.autonissan.r			
<u>u/about/</u>			
(X-08)	30	40	
Automobile sales centre			
«Germanika-Khimki»			
(«Folkswagen»)			
company «Avtomir»			
http://www.avtomir.ru/			
X-9	20	construction	The site is under construction since
«Lerua Marlen»	20	construction	2007. The company-developer is
«Lerua Warten»			«Eurostroy». At present the
			construction works are well under
			way. On September 12, 2010
			workers moved part of the fencing
			from construction site in the direction
			of the road bed of Leningradskoye
			highway.
X-10	5	35	
Automobile sales centre			
«Rolf Khimki»			
X-11	2	30	The parking lot is partially situated
KIA Center			under elevated bridge for crossing
Sheremetyevo			Leningradskoye highway by people
http://sheremetyevo.kia.			
ru/			
X-12	10	35	
Automobile sales centre			
«Toyota -			
Sheremetyevo» (owner -			
«Major Auto»)			
X-13	35	45	
	55	43	
Filling station «Lukoil»	70	100	
X-14	70	100	
MEGA			

*- there may be probable deviations in estimation of the distances nearly 1-2 m.

APPENDIX 2. Khimki transportation services scheme



Moscow- Saint Petersburg main traffic artery and an additional road through Khimki forest at Khimki transportation services scheme.