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Transport Integration into NEA: Russia Participation, State of the Problem and Basic Projects

Despite of a variety of national economies, they become interdependent from each other. Today, on a par with processes of competitiveness on the transport there are processes of transport systems integration.

Open international markets should exist on a qualitative basis. The advantage of the open markets for consumers and economy may outbalance all shortcomings if their regulation is planned correctly. Measures on liberalization of free trade and investments mean maximum free moving of the goods, services and capitals, decrease of barriers and tariff obstacles, including boundary and customs formalities, increase in "transparency" of taxes collection while crossing the borders, increase of safety and safe keeping of cargoes on all their route from loading place to discharge terminal. Processes of trade liberalization are continuously connected to necessity of elimination of barriers and obstacles for free trade.

Exponential example is the situation developed for the last decades in the European countries. According to the European conference of ministers for transport (EKMT) developing of the transport for the last decades has undergone essential fluctuations: growth of the international transport began occurring faster national. The volume of transport work in Europe has been 4-5 times increased.

This was promoted by developing not only competitive, but also partner relations that has resulted in reduction of number of barriers in trade, opening borders, significant financial investments in transport sphere infrastructure, and also resulted in strong legislative base approved on national and international level.

Similar problems have been put before the Asian community according to the Declaration accepted in 1994 at the Summit of the Asian-Pacific Economic Cooperation (APEC) in Bogor (Indonesia).

By 2010 it was supposed to generate a system of free and open trade and investments for developed countries in Asian - Pacific region, and by 2020 – for developing countries.

Signing the Bogor Declaration by leaders of APEC countries has opened a way for developing integration processes in the region, also by way of creation a full-fledged transport regional network.



Today significant success in developing national transport and logistic systems reached Japan, the Republic of Korea, China and other countries of Asia. But it is impossible to imagine the formation of a consolidated regional transportation network in the North-East Asia without participation of Russia, the Far-East region, Primorsky Kray and its southern part. It is impossible to imagine harmonious conditions of developing the whole region in the situation of political instability due to the actions of the North Korea.

The presence of several effective regional transport networks in Asia, which is used basically for the needs of the few states, is only a basis for transport integration of the region. Unification of transport systems is inspired by objective conditions of national economies development.

Development of transport being the conductor of integration processes in the region faces with the same problems, those other key branches of economy. The transport branch is interested in display of cooperation in all spheres and at all possible levels. In the field of financial, technological and other resources, transport integration in APEC requires attraction the resources of a wide circle of countries. The more partners in this sphere we deal with, the wider our opportunities are in the investment policy.

The Far-East and Eastern Siberian regions of Russia are interested in attraction of these investments as far as on their basis the export of production to APR countries can be essentially increased. Just in these regions the significant potential of hydrocarbon raw material is concentrated. There is a demand in this material in the Asian market. The South of Primorsky Kray has significant, but not realized opportunities in service of transit transportations, bearing in mind not only the Trans-Siberian Railway, but also local transportation between Northern China, Japan, the Republic of Korea and other countries.

Concrete ways of developing transport integration in ATR countries should become intensive developing of national segments of the transport and logistic systems, able to operate jointly. Development is claimed also in those countries where these transport and logistic systems have been still insufficiently developed. The availability of intergovernmental agreements determining a regional transport infrastructure for the prospects will make it possible to concentrate efforts on a number of concrete projects, including national. Only joint realization of these projects may result in significant progress in perfection of transport infrastructure in the Asian - Pacific region. Opening national borders and promoting thereby the growth of trade turnover of countries in the region - we shall increase the role of the entire region in the world trade that directly corresponds with the purpose of the World Trade Organization (WTO).

Today it is necessary to turn from direct lobbying the national interests to measures of the close cooperation, with an allowance for equal



interests of each APEC - participant countries. The help of regional community in strengthening of economic presence of these countries in the region, first of all, will strengthen positions of the Community in the world.

Realization of the provisions of Bogor Declaration by our country may be traced by the example of stage-by-stage development of transport infrastructure which basis is formed with a number of conceptual documents approved in recent years.

During the time period from the beginning of perestroika the transport system in the Russian Far East and in the South of Primorsky Kray as well experienced great development. One of the key results of this development is the following: transportation services became market-like.

The Far-East federal district is the gate of Russia to the countries of Asian - Pacific region. The Eurasian transport route which basis is the Trans-Siberian Railway and a highway Moscow - Vladivostok with branches to Kazakhstan, Mongolia and the Korean peninsula starts from here. Inland waters on the Amur river with ports Blagoveshchensk, Khabarovsk, Komsomolsk-na-Amure, Nikolaevsk-na-Amure and the seaports Vladivostok, Vostochny, Posiet, Zarubino, Nakhodka, Vanino, Holmsk handle overseas and transit cargoes. Regular air communication over 1115 air routes has been organized. On the Russian Far East there are 102 airports, 10 of them receive international flights: Vladivostok, Khabarovsk, Blagoveshchensk, Yuzhno-Sakhalinsk, Petropavlovsk-Kamchatsky, Anadyr, the Bay of Providenie, Neryungri, Yakutsk and Magadan.

To increase the potential of international transport routes, the Ministry of Transport of Russia works on creation a network of transport multimodal logistic centers, also in Khabarovsk and Vladivostok, seaports and the airports. It will reduce delivery time and cost for cargoes from Japan and Southeast Asia to Europe and back.

Making up a transport infrastructure of the Far East of Russia is considered jointly with future integration into the international transport system. In this connection the great interest represents the project of reconstruction the Trans-Korean Railway and its connection with the Trans-Siberian Railway.

Russia considers that this project has a great positive political and economic importance for the whole Korean peninsula, despite the possibility of appearing a competitive route to the Trans-Siberian Railway from Korea to Europe through China. Growth of cargo source makes preconditions for sufficient filling all transport routes. And though now this project has quite many problematic questions, according to the development of the northeast APR as a whole, it is obvious, that the creation of a uniform railway system will inevitably take place.

On March 16, 2006, in Vladivostok, in the context of the conference "Trans-Siberian Railway in XXI century: prospects for development of cooperation in rail transportation" the negotiations of delegation of the



Joint-Stock Company "Russian Railways" with representatives from the North Korea and the South Korea took place. During negotiations the basic consent concerning the need of making the international consortium for reconstruction the Trans-Korean Railway has been reached. Now Russia is practically engaged in this project.

In view of plans for reconstruction of the Trans-Korean Railway and its connection with the Trans-Siberian Railway, the construction of the highway bridge through the Tumen river to Korea seems to be promising. With a recently opened highway "Chita-Khabarovsk" it will give great opportunities for all motor transport in the region. A through travel from Lisbon to Pusan will be opened.

The highway "Chita-Khabarovsk" is a key element of a highway route Europe - Far East, and, with the existing railway allows not only to integrate the Far East countries into national transport system, but also to include Russia in the system of Asian - Pacific transport communications. Putting the highway into operation and the following subsequent improvement of pavement quality promotes further developing of trade between the Russian Far East and border areas of China, DPRK, The Republic of Korea and other APR countries.

The South of Primorsky Kray has reach transport infrastructure: railways, motorways, main ports and the airport located in the South of Primorsky Kray. It's clear that it is only a basis for further development. The South of Primorsky Kray has the greatest opportunity of integration into international transport network as a transit junction. The transport knot built up here could be an excellent partner of transport systems in Japan, South Korea and China that would result in increase of competitiveness of all NEA. It depends not only on the transport strategy of Russia, but also on the initiatives of NEA countries.

In the Russian Far East including Primorsky Kray a number of transport projects is being developed today. The interest of various companies to the construction of trans-shipping terminals in the ports of the Far East has increased. This is connected, first of all, with growing opportunities of production and sales in APR countries of fuel and energy resources of Far-East and East-Siberian manufacturers, including export of coal and ore, and also development of container shipping. Main objects of port construction are shown in the Table (The List of investment projects...).

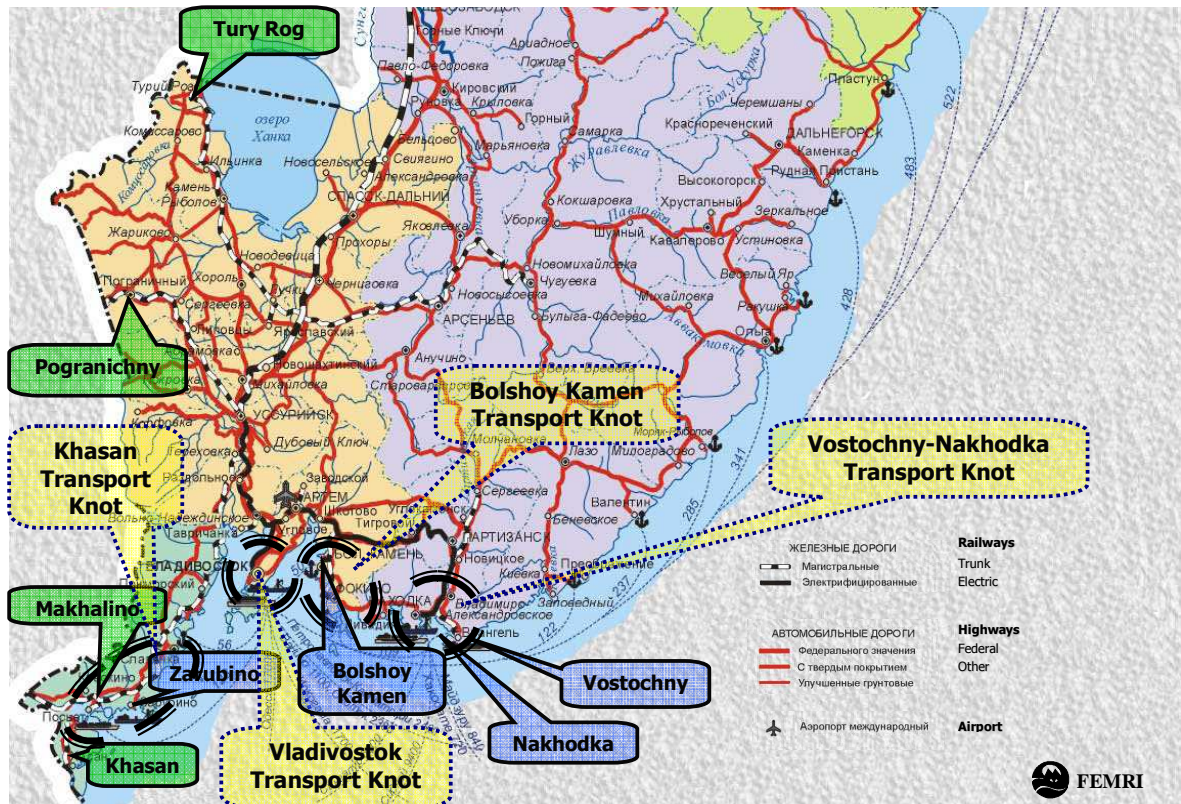
The work on analysis of prospects of creation other facilities for transshipping of containers, grains, oil and bulk cargoes is carried out. Thus developing of port powers is planned in all key transport knots (Vladivostok, Vostochny - Nakhodka, Khasan, Bolshoy Kamen, Vanino - Sovetskaya Gavan) Primorsky and Khabarovsky Kray.



The List of investment projects on construction of port powers in Primorsky and Khabarovsk Krays

No.	Name of investment project, main features	Investors	Possible terms of achievement	Terminals capacity (mil.t./year)
1	Vostochny port Construction of the 3-rd phase of coal complex.	State budget, Kuzbass coal company "Trade"	2012	6.0
2	Posiet port Construction of specialized coal complex.	JSC "Mechel"	2010	5.0
3	Sukhodol bay (Shkotovsky area, Primorsky Krai). Coal handling complex.	LLC " Holding Sibuglemet"	2012	8.0
4	Vanino port "Vanino bulker terminal" (Muchke bay) (south part of Muchke bay). "Trans-shipping terminal LLC "Sakhatrans" (north part of Muchke bay) Transshipment 18.9 mil. t. of coal, 5.5 mil. t. of iron ore.	LLC "Daltransugol" (JSC "SUEC" subsidiary company) Government of SAHA (Yakutia), LLC "SAHA" (Yakutia) forwarding company"	2008 2018	12.0 24.4
	Sovetskaya Gavan port Ore-concentrate trans-shipping complex in Sovetskaya Gavan bay, (ilmenite and magnetite concentrates).	JSC "Sovetskaya Gavan Sea Commercial Port" ("Aricom Co., LTD.")	2015	7.0
6	Vladivostok port FESCO Container terminal, piers 16,17 up to 500 thousand units TEU FESCO Container terminal, piers 16,17 up to 250 thousand units TEU	Commercial Port of Vladivostok Far-East Shipping Company	2010 2010	5.0 2.5

Researches made by FEMRI



Russian Transport network in South of Primorye:
 railways, highways, ports and airport



The analysis of transportation development through the given transport junctions, carried out based on the existing capacity, the new port complexes already built and planned to be built, shows that ports in the south of Primorsky Krai will be able to transship about 115 million t., and ports in transport junction Vanino – Sovetskaya Gavan - about 53 million t. by 2020.

It should be pointed out, that the potential cargo base having a bent to seaports of Primorsky Krai and Khabarovsk Krai considerably exceeds the shown cargo flows. The most important is the prospect of production and export of coal, ore and ore concentrates, especially from the areas, adjoining to Baikal-Amur Railway. Developing Vanino – Sovetskaya Gavan transport junction in this connection is interesting.

Ports Vanino and Sovetskaya Gavan have the significant advantages determining way of their development.

- availability up to 900 hectares of the free land area adjoining to marine harbor areas with depths from 12 to 22 meters, permitting to build piers practically without dredging works;

- direct output on two independent railway lines – Trans-Siberian Railway and Baikal-Amur Railway whereby the ports are linked to all points of Russia and CIS countries;

- the least remoteness from the centre of Russia through Baikal-Amur Railway that makes it possible to reduce delivery of cargoes by railway from western regions of Russia and gives economies of cost of transportation in comparison with ports in Primorsky Krai (distance of coal delivery from main deposits through Baikal-Amur Railway to Vanino port is 500 km less than to Vostochny port);

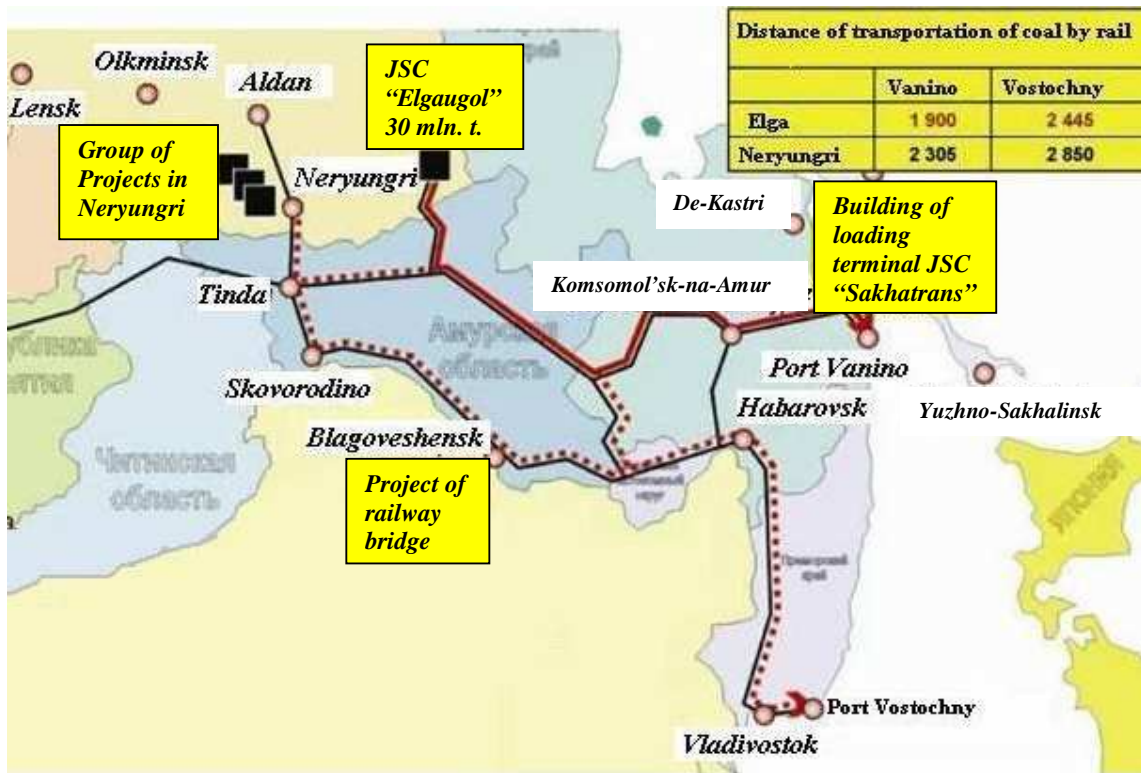
- proximity to mineral resources on the territory of Baikal-Amur Railway, Yakutia and East Siberia. On this basis Vanino is the most preferable port to arrange transportation of natural mineral cargoes and other bulk cargoes if arrange their production in Baikal-Amur Railway zone, etc.

Today the opportunity of 5 times increase of this transport knot power is under consideration. It will ensure development of a huge region in the Far East and Siberia, strengthen transport links of regions inside the country (especially it is important for Yakutia, Sakhalin, Kamchatka and Magadan) and will provide their stable relationship with APR countries. Thus, the problem of complex development of port facilities, a railway and a highway, and also power of region is ensured. So, the big importance for growth of intensity of automobile cargo and passenger flows will have the bringing the federal highway "Amur" in the direction Chita - Khabarovsk to the appropriate category and completion of construction of a highway Khabarovsk – Lidoga - Vanino with an entrance by Komsomolsk-na-Amure. The construction of power station having a power of 120 MWt near Vanino city is provided.



Growth of port facilities is stipulated at the expense of construction of modern transshipping terminals, first of which for transshipment of coal with a capacity of 12.0 million t./year will be put into operation in May, 2008. In future it is planned to increase a cargo turnover of the port as follows: by 2010 - up to 15.0 million t., by 2015 - up to 30.0 million t., by 2020 - up to 53.0 million t. By 2020 the port will transship not less than 26.5 million t. of coal and 12.0 million t. of ores and ore concentrates.

The special attention is given to development of railways. In the context of "The General plan of development of railway transport of JSC "Russian Railways" on prospect till 2010 and 2015" and the project "Strategic development program of Baikal-Amur Railway on prospect till 2020", it is planned the great amount of works through the whole Baikal-Amur Railway (Northern latitudinal way) from Taishet to Sovetskaya Gavan is stipulated. This is more than 4,300 km, and with adjoining pieces of railway – 5,676 km, including 849 km (15%) of double-track railway sections and 1,751 km (31%) of electrical railway sections.



The chart of transportation of Yakutia coals for export

After a long interruption the huge amount of works begins, including development of railway stations, railway and locomotive equipment is planned. The reconstruction of railway Selihin - Vanino, including section Oune - Vysokogornaya on Kuznetsovsky pass with construction of a new tunnel with a length of 3,890 m will start this year.



There are plans of significant development of ports in the south of Primorsky Krai for transportation bulk cargo and oils (by 2020 the gain on bulk cargoes will be 22 million t., on bulk - 23 million t.). The prospect of development of container transportations is of special interest here.

The total amount of containerized cargoes for a period from 2003 to 2006 via ports of Primorsky Krai increased by 44% and reached 4.44 million t. (475 thousand TEU). Thus the transit cargo flow lowered almost in 7 times (from 743 to 106 thousand t.). Rates of increase in main ports - Vostochny and Vladivostok keep at the same level in this year as well (about 11-14%). Different unspecialized berths, including Vladivostok Fishing Port, started actively handling containers. All the logistic companies engaged in this field have optimistic forecasts for intermediate future.

Vladivostok Transport Knot. The decisions on the development of Vladivostok as a business centre taken at government level determine the significance of this transport junction. But the development of the port of Vladivostok is limited by the city needs. It is necessary to change the technologies providing efficient movement of goods within the city and the transport system of the knot. This can be done by construction of a system of logistic terminals at free territories outside the city boundaries. There is project of this kind – this is the project of construction of South Primorsky Terminal in the region of Novyi settlement near Vladivostok.

The existing container terminals in Vladivostok port are close to a limit of their technical opportunities. Therefore the own program of updating all handling equipment has already been carried out in the ports. Organization and techniques of work are improving. After updating, the existing piers can receive up to 500 thousand TEU.

FESCO transport group plans to build own terminal in Vladivostok port, with a capacity of 250 thousand TEU. Design works and coordination have been completed. First of all, this terminal will be oriented to transit cargo flow which are carried out by the company "Russkaya Troyka" on the territory of Russia

Today FESCO transport group largely expands geography and increases efficiency of its container lines, expands its own park of fitting platforms and increases rail transportation volumes, participates in new long-range transport projects, aimed at further growth of transportation volumes of cargo transportations by all types of transport, with the use of the Trans-Siberian Railway connecting the ports of Russian Far East with APR ports.

Nakhodka-Vostochny transport Knot. Today the potential of the knot is 40 million t., if the existing projects on development of the terminals as well as the near-port automobile and railway infrastructure are realized the knot capacity can increase 2-3 times.

The infrastructure project on building the third stage of coal terminal in Vostochny port is ready to be realized. As soon as the terminal is



constructed the total coal transshipment capacity of the port will be 28 million t. The project on construction of the reversible grain terminal with the 3.5 million t. first stage capacity is being worked over. First of all the project is aimed at meeting the state need for grain export, but also it can serve grain transit from North-East China provinces by "Primorye-1" transport corridor.

The project of development of the seaport of Nakhodka is being realized, the oil transshipment terminal is being modernized.

The project of construction of near-port container logistic terminal in the framework of the program of "Nakhodka-Vostochny transport Knot Development" is at the stage of investments basing. The project is aimed at inside-knot logistics implementation that allows to increase the transport knot capacity by 15-20 million t. It is necessary to update four piers of a container terminal in Vostochny port. Today the depth at piers allows reception of container ships up to 3,000 TEU. The opportunities for development are replacement of handling facilities there and dredging for reception container ships up to 6,000 TEU.

The program of near-port railway stations development provides the increase of port approach capacity in the Nakhodka-Vostochny transport knot up to 75 million t.

Now the Ministry of Transport studies an opportunity of development the Vostochny port in the nearest future as base specialized port in the Far East. Its main purposes are containers and bulk cargoes. Upon this the priority is given to containers. With this purpose active development of a near-port infrastructures is planned, which permits investors to build new container terminals for providing overseas and transit cargo flows. Besides, the creation of a port-like free-economic zone is planned in this port. The law on creation of such zones should be passed in 2008, then a practical work on its implementation will be launched.

The marketing researches made by FEMRI this year show a real opportunity of ports Vladivostok and Vostochny to reach transportation volume of 2.5 – 3.5 million TEU by 2015 under condition of creation the appropriate infrastructure. Thus, up to 50% of these volume are Chinese transit cargoes through border crossings in Primorsky Kray (transport corridor "Primorye -1").

Khasansky transport knot is quite prospective. The kray program of highway construction in Khasansky region is being realized. The highway will join Kraskino and Vladivostok with roads to seaports in the bays of Troitsa, Posiet and Slavanka. The construction will be completed in 2009.

The port of Posiet is developing, the project of its development provides the increase of the port capacity up to 4 million t.

The seaport in Troitsa bay capable to transship 0.7 million t. of goods a year has a potential for development to the level of a modern port complex capable to transship 10-15 million t. a year.



This port has big prospects for processing some cargoes from Jilin province, free economic zone "Hunchun", Yanbian-Korean autonomous district and from other cities and industrial zones located close to ports of Hasansky area in Primorsky Kray. A small transportation distance from the Troitsa bay to many industrial centers in Jilin and Heilongjiang provinces, will promote the transportation cost lowering and increase of competitiveness of production of many enterprises from these provinces.

In this case the Troitsa bay as a regional transit centre has great prospects – the port will have its own stable cargo base ensuring trans-Pacific transportations in the route North-east provinces of China - Primorsky Kray - APR countries and Southeast Asia, that makes this port more attractive to shipping operators.

During transporting of Chinese cargoes through the Troitsa bay, trucks will be actively used, as a railway in this direction is insufficiently developed, so we believe, that the transport service zone of industrial centers will be located within a radius of about 500 km. from the port.

One of the variants for a complete long-range port development has already been worked out by JSC "FEMRI" before. It provided construction of a container terminal with a capacity of 7 million TEU annually, the grain terminal with a capacity of 9 million t. annually and the terminal for general cargoes with a capacity up to 2 million t. annually. Nowadays JSC "FEMRI" is working over the other variant of transshipping terminals accommodation in the Troitsa bay with a container terminal with a capacity up to 1.5 million TEU annually, the grain terminal with a capacity up to 5 million t. annually, the coal terminal with a capacity up to 10 million t. annually, the car terminal with a capacity 500 thousand cars annually, the passenger terminal with a capacity up to 350 thousand passengers annually, the terminal for handling rolled steel with a capacity 1 million t. annually, and also the terminal for shipment of sawn timber with a capacity up to 350 thousand cbm. annually.

The construction of transshipping terminals in the Troitsa bay has big prospects, because now there is rather big cargo stock in the North-east China. To convert it from potential to the real one, the cooperation is necessary, and first of all of China and Russia. We believe that our efforts will bring a significant benefit to the economy of not only these countries, but also all countries which cargoes will be handled at the piers of the Troitsa bay.

Near-frontier transport knot Pogranichny. The knot is one of the parts of Primorye-1 transport corridor, it includes near-frontier area and transport infrastructure of automobile check-points Sosnovaya Pad, Poltavka and railway frontier passage Grodekovo.

Russian near frontier station Grodekovo having modern facilities for customs and frontier control is capable to process 12 million t. of export-import goods. But still it has some essential limitations especially in



container transshipment which prevents to satisfy the requirements of the goods flow.

Automobile frontier check-points do not also satisfy the requirements of the goods flow and need fundamental reconstruction. Some effective measures have already been taken; for example, the project of provision of the necessary facilities at frontier check-points Sosnovaya Pad and Kraskino is being developed. The check-points will be set in operation in 2010.

16, June 2007 the governor of Primorsky Kray and the president of JSC "Russian Railways" signed the protocol including important decisions on the development of railway infrastructure aimed at establishing favorable conditions for development not only goods transportations but also passenger traffic.

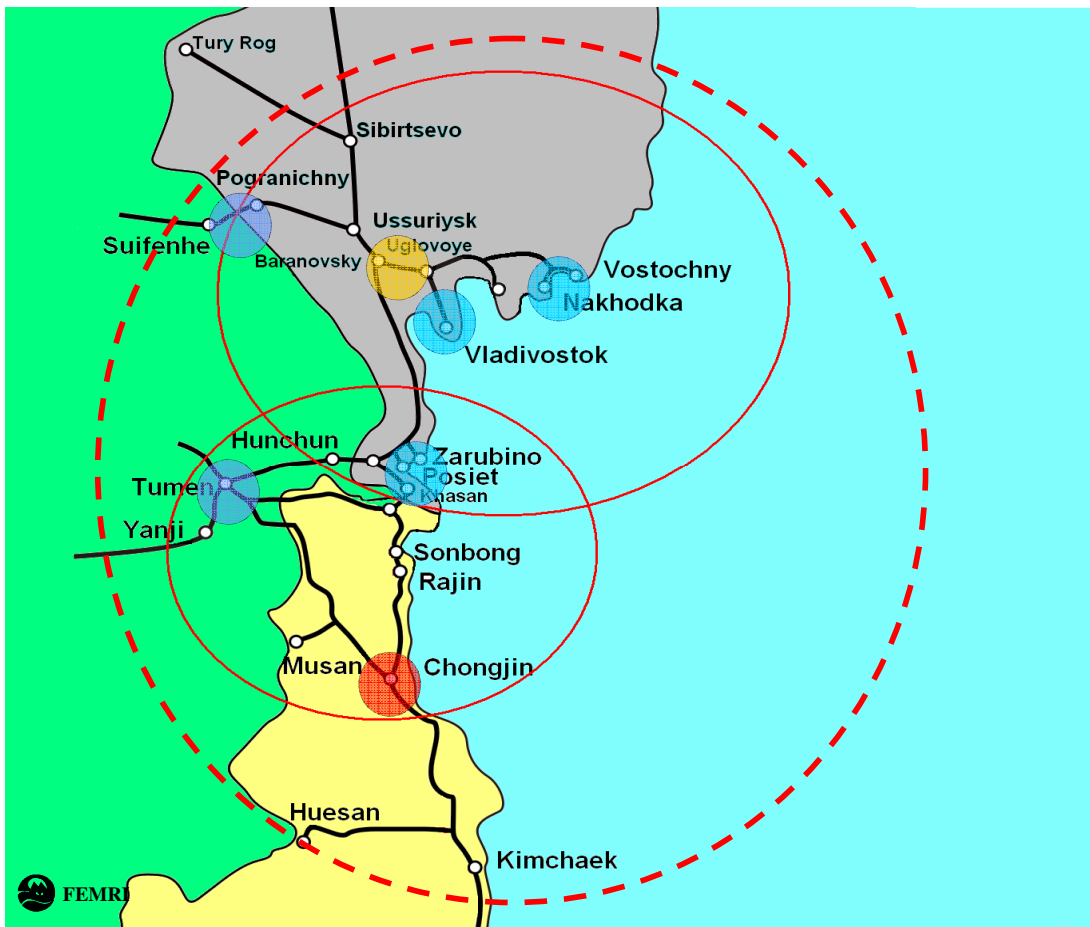
The possibility is under investigation to establish high-speed and super-high-speed passenger railway traffic at Vladivostok – Artyem – Ussuriysk rout with extension to Khabarovsk in sight, as well as Vladivostok – Nakhodka rout.

Along with the sea shipping development projects realized today the problems of further development of cargo-and-passenger shipping between Japan, the Republic of Korea and Primorsky Kray coast with a call at Sakhalin port are being worked out.

Taking into account insignificant transit volume, export is a ground for the integration transport system of Primorsky Kray to the international transportation network. But such integration is unilateral and can not result in harmonious development of transport system of the Far East, besides in our opinion, NEA as well.

In particular, transport function of Primorsky Kray may be realized in the market of transit cargo flows.

To realize effectively the available potential, Primorsky Kray, having an obvious market transport niche in APR, must have the up-to-date transport and logistic system that corresponds to a level of surrounding countries. Integration of transport system in the south of Primorsky Kray to the international transportation network and increase in the volumes of cargo turnover of the separate participants is impossible without increase of competitive rates of transport complex of Primorsky Kray, and this is impossible without creation of regional transport and logistic system (RTLS).



DPRK / China / Russia Transport Network: main railways and ports knots

On this slide you may see **potential** knots which positioning is done on the basis of the existing transport circuit. These are knots in China (Suifenhe, Tumen), in DPRK (Chongjin), in the Primorsky Krai of Russia (Ussuriysk - Uglovoye and port knots in the south of Primorsky Krai: Khasan Transport Knot, Vladivostok Transport Knot and Vostochny - Nakhodka Transport Knot). Knots should handle with traffic control of various cargoes in different routes, and also should optimize operation of ports. Interaction of knots in future should result in consolidation of the transportation network of three countries.

Using of complex approach will make possible to coordinate between each other development of both separate parts of transport branch (railway transport, seaports and airports, highways, warehouse terminals, etc.) and necessary transport functions, including organization of operation of the services involved in transport process (customs, health service, security service). At present we have a task of transport infrastructure development in the south of Primorsky Krai to the condition of current transport and logistic system capable to acquire the international status.



Today transportation projects in Primorsky Kray are systematized according to their priority. It is important that the projects are oriented at new management technologies such as state-private partnership and budgeting, directed forward the result and effective logistics.

It is necessary to note a significant progress in implementation of both separate projects and development programs of sea transport infrastructure in the Russian Far East. Directions of this process agree with the purpose of integration of Russian transport systems in the Far East and adjacent countries, first of all China, the Republic of Korea and Japan.

Development of transport systems of the NEA countries has its own intrigue; all of us want to know the answer to a question: when we shall see the integration of transport systems on the effective practical level? Results of this integration depend on efforts of NEA countries, from balance of a respectable competitiveness and mutually beneficial cooperation of transport business. When the transport logistics of NEA countries will be consolidated? When a traveler or a businessman from Russia, China, Korea and Japan can safely, reliably and with pleasure drive through the several countries by car?

In the Decree No.1536-p of November 8, 2006 the government of the Russian Federation approved the project of the inter-governmental agreement on the Trans-Asiatic railway system presented by the Ministry of Transport agreed by the Russian Ministry of Foreign Affairs and other involved federal executive authorities. The RF Ministry of Transport was entrusted to conduct the appropriate negotiations and after coming to agreement sign the given inter-governmental agreement with a permission to introduce non-principal changes to the enclosed project.

Under the project a railway system with total length over 81 thousand km. is supposed to be made. The Trans-Asiatic railway system includes the railway lines which were now in use for regular international transportations; ferries; border crossings, railway junction points with different track width, ferry terminals and connected to the railway container terminals. The railway system crosses the territories of Russia, Armenia, Azerbaijan, Bangladesh, Cambodia, China, DPRK, Georgia, India, Indonesia, Iran, Kazakhstan, Kirghizia, Laos, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, Korea, Singapore, Sri Lanka, Tajikistan, Thailand, Turkey, Turkmenistan, Uzbekistan, and Vietnam.

Participant countries of the UN Economic and Social Commission for Asia and the Pacific (ESCAP) agreed to join the project of creation the Trans-Asiatic railway system, its realization will facilitate free traveling of people and cargoes between Asia and Europe. The appropriate agreement was signed in Pusan, at the conference on transport by ministers of ESCAP-participant countries. During the conference its participants discussed a question of necessity of standardization the container terminals at large railway knots that will promote the development of international trade and



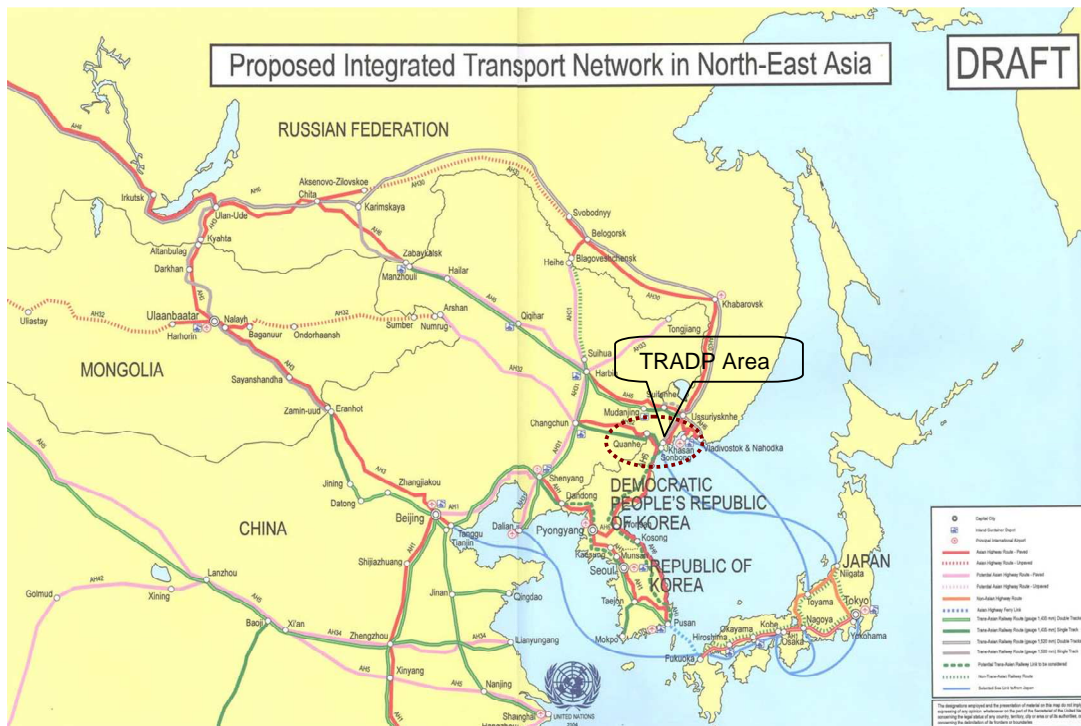
travels. It is indicative, that DPRK representatives have been invited to the conference, but nobody arrived from Pyongyang. Russia and ESCAP actively work on participation of the North Korea in this project.

There is no doubt that railways and highways are necessary. But there are basic questions which solution will promote its full operation, such as quality of services, safety, transportation cost, etc.

The idea of creation of free economic zone in the Northeast Asia (NEA) has been discussed since 1985.

The idea of the Tumen Project has allowed us to communicate, study the NEA countries point of view, actively to be engaged in developing of cooperation ...

Till now the Tumen corridor is a potential transport route in which China, Russia, Japan, the Republic of Korea, Mongolia, the North Korea and other countries are interested. Significant results of our cooperation are reflected in the Hunchun Declaration of 2003.



Development Area boundary of Tumen River Area Development Programme (TRADP)

We are doing a lot to open wide opportunities for developing transport, economy, increase of competitiveness between the countries, but we understand that realization of this project, or the other projects involving a great number of participant countries, is a very hard job.

Lately we have considerably promoted both in the information exchange and in developing mutual trust in our relations, **but could not practically solve the problems** stated in the Declaration.

One of the key goals is to involve the DPRK in process of joint development that should give this country not only positive economic



effect, but also produce a desire to develop with the help of neighboring countries. We understand that the terms of integration of transport abilities of the North Korea in the international market depend not only on technical or economic parameters. In this matter all participants of the project will need a lot of wisdom and patience.

Idea of international cooperation in the Tumen river basin was based on the possibility of unification of natural resources from the Russian Far East, manpower and mineral resources from China and DPRK, capitals and technologies from Japan, the South Korea and other countries. The favorable geographical position of the Tumen river estuary near the crossing of several transport routes, connecting various regions of the world, favored to this project.

Various plans of realization of this Program were supposed, but today it is also at the initial stage due to insufficient competition of transportation routes for the Chinese cargoes through the ports of Russia and the North Korea in comparison with Dalian route having regular sea transportations.

The transport infrastructure of Russia and the North Korea is badly developed. A level of investments in development port infrastructure in DPRK is low, and in Russia the situation with investment in the Russian ports changed.

At the same time the Government of DPRK shows the big interest in the project implementation. DPRK offers to carry out the development of transport infrastructure necessary for realization of the Tumen Project, on the basis of its ports of Rajing, Songbong and Chongjin. There are projects on reconstruction and expansion of these ports. In 1993 the government of DPRK accepted the law on creation the FEZ Rajing - Songbong. The strength of DPRK is disciplined and low-paid manpower that makes a cargo handling in FEZ ports much cheaper.

Attractive route from China to the Sea of Japan and a unique way from FEZ to China is the route Yanbian - Rajing - Songbong. The main highway here is: Hunchun - Huanghe - Wonong - Songbong - Rajing which has been opened in 1997 for passengers from a third country. Another route is the railway.

Tumen - Namyang - Songbong - Rajing. This route tends to Rajing port which throughput is roughly evaluated in 4 million t.

In 1995 Dong Long Shipping Co. Ltd - the joint venture of the company of the Republic Korea and the company from Yanbian has opened marine container route Rajing - Pusan that gave this port the status of transit. In 1999, more than 5 thousand containers TEU has been transported through this route. In 1999 Niigata appeared in this route. Intensive growth of cargo flow on this route restrains by insufficient technical condition of the railway and the motorway. This fault is eliminated by construction of new broad-lane road with hard cover. Also the problem of the railway reconstruction is under solution.



The transit route to the Russian ports (Zarubino, Posiet) through the border-crossing Hunchun - Kraskino has a geographical advantage meaning that this route is shorter than the route to Rajing and technical condition of the railway and the motorway is more attractive. The motorway is under reconstruction. The railway requires reconstruction. In 2000 the reconstruction of the railway line Hunchun - Mahalino was completed.

Weak link are port structures and procedures of crossing of border. Now on the Khasan route there is only railway communication between DPRK and Russia. Till 1990th the transportation volume was about 5 million t. annually. However for the last years this cargo flow has sharply decreased. If in the beginning of 1990th the Rajing port was used for handling alumina from Australia to Russia, now this flow is switched to Vanino port.

During economic developing the Tumen Project zone will face with a power supply problem.

One of economically viable projects in the nearest future may become an effective utilization of oil refinery plant in Songbong (Ungi city), as the only plant located in the zone of Tumen river development. This factory worked on the oil delivered from the Soviet Union. Since 1992 this plant works for less than 5% of the possible capacity. Now the project of its reconstruction is under development.

The second source may be export of the electric power to Rajing - Songbong zone from Primorsky Krai. The main problem is the difference in the current frequency (in DPRK - 60 Hz, in Russia - 50 Hz).

Representatives of China, evaluating results of the Tumen Program, have noted the difficulties arising at developing of multilateral cooperation. They have offered to divide the program of developing into parts, namely: to construct bilateral zones of cooperation Russia - China, and China - North Korea.

The following problems are obvious to us:

1. The Tumen Program has a big history, but plans trend to become outdated. The program requires actualization to a present-day level.

2. The level of adopted decisions in connection with realization of the project as a whole is a little bit above the practical business, but is lower than a government level. To take the effective measures it is necessary simultaneously to do the following:

- raise their level to the updated multilateral intergovernmental decisions,
- approach the adopted decisions to opportunities of the specific transport companies of countries participating in the program.
- improve the existing architecture of intergovernmental economic complementation NEA.

3. Complexity of the program with participation of many countries is obvious. Simplification of its realization using "the separation of a complex



into several parts” may be done both on a principle of separation the participation of countries, and on a principle separation the specific projects. In all cases it is necessary to understand, how the cargo flows can develop and how they really will develop. Teamwork is necessary for this purpose. Expressed in logistical terms, forecasting of cargo flows will make it possible to specify an optimum location and the functions of transport junctions.

I want to note, that not long ago great efforts have been spent for researches the possibilities of developing the transport corridors. Today interest to the theory of transport corridors has decreased, because the transportation practice turned to be wider, than the transport corridors. It is necessary to create **the transport space** having unified standards and legal regulations. The way of developing separate transport sites, including corridors, may result in appearance of different and uncoordinated standards that will not allow achieve the necessary efficiency on real cargo transportation routes.

Decrease of interest to transport corridors in many respects explains increase of interest to transport junctions (including logistics, corridors and other infrastructure), to tendencies of developing through service, globalization of transportation routes, integration and enlargement of transport infrastructures, improvement of service quality, etc.

While speaking of logistic development people often imply the development of container, intermodal and multimodal traffic. But other cargos, such as bulked cargoes, for example, are transported by means of transport-logistic infrastructure. I believe it is necessary to discuss in detail the formation of transport-logistic infrastructure of Russian hydrocarbons market in APR.

Basic elements and strategic goals of the development of Russian hydrocarbons market are coordinated and aimed at decreasing economic and political risks. These elements include:

- hedging the risks of the world market of hydrocarbons and increasing the energy safety of states in the framework of global system of energy supply distribution;
- diversification of marketing outlets and export routes;
- entry to APR prospective market;
- stimulation of the development of Far Eastern and Eastern Siberian oil and gas fields;
- the development of the territories, economy, domestic industry, transport and its infrastructure etc.

Let us generalize the problem to the simplest aspects. In order to establish an effective market it is necessary to have the following:

- raw material, industrial infrastructure, goods;
- sellers and buyers;



- sale infrastructure, that is a trade area with an attendant service infrastructure;
- infrastructures for storage, revision, transportation etc.
- infrastructures for purchasing and consuming...

All the necessary infrastructure elements must be coordinated and “put together” into controllable logistic system.

The practice is much more difficult because in addition to wish to sell and buy there is a versatile external environment, interaction of geopolitical interests and military-strategic priorities, struggle for control of transportation routes. The later is characterized by loosening the possibilities for control of sea routes and, consequently, strengthening the role of development of land routes and pipelines. Their designing, construction and maintenance in spite of modern technologies and high safety and reliability are in the state of “pipeline wars” where quite cynical political and ecological means are used.

The world market of oil and oil products. On the whole the world oil production is constantly increasing since 2002. In 2005 the world's proven resources of oil in spite of increase in its production was continued to grow and was 191.5 milliard t. in the middle of 2006.

Russia and OPEC in Oil Production

In million t.

Countries	2000	2001	2002	2003	2004	2005
World	3346,6	3301,8	3259,8	3400,7	3524,1	3563,8
Including OPEC	1394,9	1342,0	1214,3	1330,3	1420,0	1456,6
OPEC share, %	41,7	40,5	37,2	39,1	40,3	40,9
15 largest oil producing countries	2534,1	2509,4	2439,1	2630,7	2773,8	2755,7
Including Russia	323,2	348,1	379,6	421,4	460,0	470,0
Saudi Arabia	412,5	382,0	340,0	421,0	441,3	454,4
USA	289,0	288,0	285,2	282,0	268,1	254,2
Iran	182,8	183,5	170,3	187,8	193,6	192,6
China	160,7	163,6	169,1	170,0	173,4	180,4
Mexico	149,5	155,2	157,7	167,3	169,3	164,8
Norway	159,4	161,1	156,3	152,2	146,0	134,5
UAE	110,7	106,9	93,0	113,5	121,7	122,5
Nigeria	100,8	103,4	96,6	106,5	113,3	120,4
Canada	101,0	101,9	109,8	115,0	121,1	144,2
Kuwait	103,2	85,1	79,4	92,8	103,7	106,2
Venezuela	150,3	133,3	113,4	99,6	127,6	105,5
Irak	127,4	116,9	100,0	65,9	93,5	91,3
Great Britain	124,8	115,7	114,5	104,4	90,8	82,6
Libya	70,0	67,8	65,3	70,9	76,4	81,4
Brazil	56,0	64,7	74,2	76,2	74,0	80,7
15 largest countries world production share, %	75,7	76,0	74,8	77,3	78,7	77,3

The source: according to Oil&Gas Journal



According to «MWV» German industrial group more than 70% of increase in oil consumption in the world is ensured by developing countries. Among them China takes the first place, in six years (2000-2005) it increased oil consumption up to 326 million t., that is 1.5 times.

World capacities of oil preliminary processing increased by 135 million t. in 2005, it was the largest increase since the early 1990s. At the same time 14 petroleum refineries closed in the world. The expansion of the existing refineries and closing of small and not sufficiently profitable ones are characteristic features of the last years. This trend is particularly apparent in the USA and Asia which have a half of the refineries and its facilities.

The World's oil Processing

Countries	By 01.01.2001		By 01.01.2006	
	The number of oil refineries	The capacity of preliminary distillation, million t.	The number of oil refineries	The capacity of preliminary distillation, million t.
Africa	46	162,1	45	160,4
Asia	205	1001,0	155	1102,3
Eastern Europe and former USSR	92	531,7	93	508,5
The Middle East	45	297,5	42	349,2
North America	179	991,3	158	1033,9
South America	70	331,4	66	328,5
Western Europe	105	718,3	103	743,2
World	742	4033,3	662	4225,7

The source: according to Oil&Gas Journal

The situation at the market during the last years stimulates large importers to support national companies to buy oil and gas assets abroad. The similar trends become apparent in the oil-exporting countries.

Last five years saw great changes at the world's oil market, which influenced the whole world economy. On the whole oil consumption has increased by 9% since 2000. APR has taken the first place. Europe and CIS oil market rate of growth remains behind both APR and North America markets.

Rates of Growth of Main Oil Markets in 2000-2005

Market	2000 г., млн т в год	2005 г., млн т в год	2005/2000, %
APR	1053,1	1205,5	114,5
North America	1206,0	1273,2	106,6
Europe and CIS	988,7	1038,0	105,0
Total	3858,4	4205,9	109,0

The source: EIA, February, 2006

Russia is the second largest oil exporter. While the export of crude oil is decreasing the country increases the export of oil products. The export of oil from Russia depends on oil resources and oil production as well as oil consumption at the domestic market. In 2005 Russian companies managed to overcome negative trends in natural resources base recovery.



According to Federal Agency on Resources Use the volume of growth of oil reserve increased its production for the first time in many years (the production was 470 million t., the recovery was 585 million t.). From 2000 to 2005 Russia provided the largest oil production growth in the world (45%).

Oil and Oil Products Export from Russia

Year	Total		to the foreign countries		to the CIS countries	
	Million t.	Million dollars	Million t.	Million dollars	Million t.	Million dollars
Crude Oil						
2000	144,4	25271,9	127,5	22911,0	16,9	2360,9
2001	164,5	24990,3	140,8	22020,4	23,7	2969,9
2002	189,5	29113,1	156,5	25444,6	33,0	3668,5
2003	223,8	38907,1	186,8	33960,2	37,0	4946,9
2004	257,4	56271,5	217,3	50391,9	40,1	7879,6
2005	252,5	83438,6	214,4	73826,5	38,1	9612,2
2006	227,5	96675,2	211,2	90755,5	16,3	5919,7
Oil Products						
2000	62,6	10918,8	59,0	10150,8	3,5	768,0
2001	63,3	9374,5	60,8	8831,7	2,5	542,8
2002	75,5	11253,2	72,9	10826,7	2,6	426,5
2003	77,8	14089,1	74,3	13440,9	3,5	648,2
2004	82,1	19163,4	78,0	18197,4	4,1	966,0
2005	97,0	33779,5	93,1	32348,8	3,9	1430,7
2006	102,3	44217,7	97,7	41998,9	4,6	2218,8

The source: Commercial Foreign Information Bulletin, 2001-2007 ("Russian Foreign Commerce")

According to Fuel and Energy Ministry forecast oil production in Russia will increase 550-590 million t. by 2020 first of all due to bringing new fields into development. The home market need will constitute 235-240 million t. and export potential will be 340 million t. by 2012. By the end of the next decade the potential of Russian oil sale is forecasted to be 384-415 million t.

Russia is connected with all three main oil markets: Europe, the USA and APR. APR markets including energy market are the fastest developing ones. According to International Energy Agency estimation energy supply demand in Asia is growing quicker than in other countries: oil consumption is growing by 3-4% annually, gas consumption – 4-6% annually. On the whole it is forecasted that Asian share in Russian oil export will increase from present 3% to 30% in 2020. (The volume will increase to 100 million t.)

Large oil and gas fields of Eastern Siberia and Far East are geographically closer to the main Asian consumption centers than the Middle East ones. Up to 1/3 of the world's oil consumption growth falls to the share of China where its estimated rate will be 500 million t. in 2030, which is five times more than the rate of 2003. The demand in India and other fast developing Southeast Asia countries also increases quickly.

Owing to appearance of a new threat of world terrorism including sea terrorism there arose some anxiety about the guaranteed oil supply from



the Near and Middle East countries. Many countries try to minimize their dependence from energy resources import from these countries.

The development of Russian infrastructure of oil and oil products supply to APR countries. The development of such oil production centers as Sakhalin shelf, Sakha Yakutia and Eastern Siberia fields is of high importance nowadays.

To ensure the entry to the APR market the construction of Eastern Siberia – Pacific Ocean oil-pipeline and terminal for 300 ths t. deadweight tankers loading in Kozmino bay were provided for. The total capacity of the system will increase from 30 to 80 million t. a year.

Stage-by-stage realization of all projects of the transport infrastructure development will provide for formation of flexible logistics of oil supply to the international market and its steady growth.

Retrospective review. The export of bulked cargos through the Far Eastern ports increased 2.7 times from 1995 to 2004, first of all due to the increase of oil products traffic to China. Since 2004 the volume of oil and oil products traffic by sea has stabilized, the growth of oil traffic volume to China has increased due to railway oil traffic from 3.5 to 6.6 million t.

The main buyers of the Russian oil transported through the Far Eastern ports for many years have been China, the Republic of Korea and Japan (86-90% of the total supply volume). Since 2002 Taiwan has become a patron, and in 2003 Thailand and the Philippines bought Russian oil for the first time. For all these countries Russia is an alternative oil and gas supplier.

Bulked Cargos Export Directions through the Far Easter Basin Ports in 2006

In ths t.

Departure ports	Total	Japan	The Republic of Korea	China	Thailand	The USA	Others
Total	12911,4	1968,9	2406,5	7012,3	239,7	168,5	1115,5
Nakhodka	3065,4	146,5	164,9	1638,5	-	-	-
Vladivostok (Pervaya Rechka petroleum storage depot)	1202,9	88,4	159,7	954,8	-	-	-
Vostokbunker (Slavanka)	168,8	-	168,8	-	-	-	-
Total from Primorye	4437,1	234,9	493,4	2593,3	-	-	1115,5
Vanino (Transbunker)	2800,5	30,0	40,0	2730,5	-	-	-
De-Kastray	3175,6	-	1524,6	1651,0	-	-	-
Total from Priamurye	5976,1	30,0	1564,6	4381,5	-	-	-
Pogranichnoe	124,9	-	87,4	37,5	-	-	-
Vityaz	2373,3	1704,0	261,1	-	239,7	168,5	-
Total from Sakhalin	2498,2	1704,0	348,5	37,5	239,7	168,5	-

Researches made by FEMRI



Forecast. It is predicted that by 2015 the total traffic of the export bulk-oil cargos through the ports of Primorye and Priamurye will be 60 million t., including:

- crude oil from the regions of the Western and Eastern Siberia in the volume of 20 million t.
- crude oil from Sakhalin shelf in the volume of 22 million t.
- oil products in the volume of 18 million t (oil refineries of Khabarovsk, Komsomolsk-on-Amur and others).

Crude oil from the regions of the Western and Eastern Siberia is supposed to be transhipped at terminal in Kozmino bay (Primorsky Kray). Crude oil from Sakhalin shelf will go for export through De-Kastrы (12 million t.) and Prigorodnoe village (Near Korsakov) – 10 million t. The considerable part of oil will be sent through the ports of Vladivostok, Nakhodka, Vanino (closed joint-stock company "Transbunker"). Vostochny Port will be added to the existing shipping terminals.

The main factors considered in the forecasting:

- export cargos will constitute the main part of the traffic;
- the volume of Russian fuel resources export will largely depend on the state of the world's energy industry and prospective of its development;
- considerable oil price rise was initiated by the reform of the world's energy industry: the world economy tries to compensate price rise by large oil production and transportation projects, by new participants at the oil market and by turning to other energy sources;
- according to the international energy organization forecasts world demand for energy sources will rise by 2-2.5% a year in the period to 2020;
- the economy of the eastern part of Russia and its transport potential are of vital importance for the most countries and territories of the Eastern Asia;
- the development of the elements of the Far Eastern oil and oil products transportation infrastructure is realized or planned: to cope with the increasing traffic of export bulked cargos the provision is made for construction of new berths and terminals and reconstruction of existing ones.

The geography of sea transportations. The following main routes of sea transportations of export bulked cargoes are in sight:

- crude oil to South Korea and Japan;
- oil products to China,
- LNG to South Korea and Japan,
- petrochemistry products to Japan.

The lack of capacities for crude oil transportation in the Far East will require new port construction. As a result of analyses, calculations and design work it was determined that the development of the traffic volume growth will require:



- construction of stationary berths in the new area near Vostochny Port (Kozmino bay) for Western and Eastern Siberian crude oil;
- opening of new terminal constructed in the framework of Sakhalin-2 project in Prigorodnoe village (near Korsakov) and setting in full operation the terminal in De-Kastrы village in the framework of Sakhalin-1 project for crude oil from Sakhalin shelf;
- to increase operational capacity in the ports of Vladivostok, Vanino (Transbunker closed joint-stock company), to complete the construction of transshipping complex in Vostochny Port for oil products from oil refineries in Khabarovsk and Komsomolsk-on-Amur, that will provide in full for traffic development of 2010 and 2015.

The world market of natural gas. According to the international authoritative sources the world's proven resources of natural gas amounted to 180.6 trillion cbm in 2004. Decreasing of gas reserves in the fields of the North Sea and Australia was compensated by their growth in other countries, mainly in OPEC ones – Nigeria, Libya, Saudi Arabia and Venezuela.

Russia is a large source of hydrocarbon gases and is a leading gas production state in the world community.

Proven Natural Gas Resources of the Main Regions of the World on 01.01.2004

Region	Volume, milliard cbm
Russia	47811
Including "Gazprom"	28006
North America	7526
South America	7349
Europe	7834
Africa	13849
Near and Middle East	71611
Asia – Oceania	24656
Total	180636

The source: "The Main Resource" Magazine (On Line version), July 2005 r.

Expected reserves of gas in Russia are estimated to be 127.0 trillion cbm. The proven and expected reserves provide for support of gas production at the present level for the next 77 and 206 years consequently.

The unique and large by reserves fields provide 90% of gas production. On the whole the regions with developed infrastructure have more than a half of explored reserves.

In 2006 Russia produced 656 milliard cbm of natural gas which is 2.3% less than in the previous year. The supply of Russian gas to the foreign market decreased to 202.8 milliard cbm (in 2005 r. – 207,3 milliard cbm).

The main buyer of Russian gas is Western Europe. Its share in total gas export from Russian Federation is about 50%.



The existing contracts provide for the stable growth of natural gas export to the European market till 2010. Later on the main export growth is expected to be in the Eastern direction. If the serious technological, ecological, investment and commercial problems of development of Eastern Siberia and Far Eastern infrastructure are solved the export in the eastern direction according to Gazprom estimation will be 110 milliard cbm in 2020. Gas export to Europe and CIS will also continue to grow. By the end of the considered period the total potential of Russian natural gas export is estimated to be 350-420 milliard cbm, including:

- Europe – 230 – 250 milliard cbm,
- CIS – 45-50 milliard cbm,
- APR – 70-110 milliard cbm,
- the USA – 5-10 milliard cbm.

Natural gas demand growth is stimulated by high oil prices, which in its turn attracts consumers' interest to other energy sources and energy-saving technologies. According to International Energy Agency (IEA) natural gas demand growth rate will be 2.2% a year in the next decade. That will happen due to the growth of capacity of thermoelectric power stations working on gas, the energy produced by these stations is twice cheaper than the one produced by black oil combustion. But at this point coal and possibilities of improving technologies of its effective economic use must be taken into consideration.

Natural gas is distributed on Earth more nonuniformly than oil, more than a half of its world's supply concentrated in three countries – Russia, Iran and Qatar. It is more difficult to transport gas by sea, but it is the most efficient way of its transportation. Natural gas can be transported only in the form of liquefied natural gas (LNG) which requires construction of special compressor terminals in the export points and decompressor terminals in the importing countries. There exists a connection: the cheaper the oil, the cheaper the gas and the lower the profitability of the gas projects.

Most projects on gas export and compression from about 25 new ones are planned to be put in operation in 2007-2009. In a number of countries projects on developing the existing LNG production lines or putting into operation new ones have been completed or are at the final stage. In Trinidad three existing LNG production lines are being developed and the construction of the fourth one has begun. New production line has been put into operation in Qatar. The construction of the first line of Snohvit project at the shelf of the Barents Sea has begun in Norway.

At the same time construction of new LNG decompressor terminals and developing the existing ones takes place in Spain, Portugal, South Korea and China, four existing LNG decompressor lines are being developed and the regulating authorities have approved the construction of at least five new decompressor terminals in the USA. In India the



construction of the first LNG decompressor terminal with the capacity of 5 million t. a year completed in March. In OPEC countries together with Iran and Venezuela more than a dozen of new projects with the total capacity of 80-85 million t. a year are at the various stages of completion. India and China signed contracts on LNG supply from Indonesia, Malaysia and Iran. Long-term agreements on Sakhalin LN gas supply to Japan, South Korea and China have been signed, consumption of natural gas is expected to grow quickly in these countries.

In the future prospect possibilities of Russian natural gas export will depend a lot on gas demand growth in Asia. Thus gas demand growth rate is expected to be in China 7.9% a year (from 28.1 milliard cbm in 2000 to 126 milliard cbm in 2020), in India 6.1% a year (from 26.9 milliard cbm in 2000 to 87 milliard cbm in 2020), in the Republic of Korea 3.9% a year (from 19 to 48 млрд milliard cbm consequently).

At present the projects on construction of a large gas-main pipeline from the Eastern Siberia to China are under consideration. The construction of the plant with the annual capacity of 9.6 million t. of LNG continues in Sakhalin.

Large projects on LNG export development from Russia to the USA are at the stage of study. According to the Department of Energy (data for June 2004) the USA demand for gas import will increase to 60 milliard cbm in 2010, and to 115 milliard cbm in 2020, the average annual growth being 15.8%

According to "Energy Strategy of Russia" natural gas export from the country in 2020 will reach 273-281 milliard cbm. If all existing projects of export potential development will be realized in time natural gas export will be at the level of 350-370 milliard cbm in 12-15 years.

The development of Russian Gas Supply infrastructure. At the Ministry of Industry and Energy of Russia the meeting of the interagency task force (IATF) took place. The force is engaged at the revision of the program on establishing uniform system of oil production, transportation and supply in the Eastern Siberia and Far East taking into account the possibility of exporting gas to the markets of China and other APR countries.

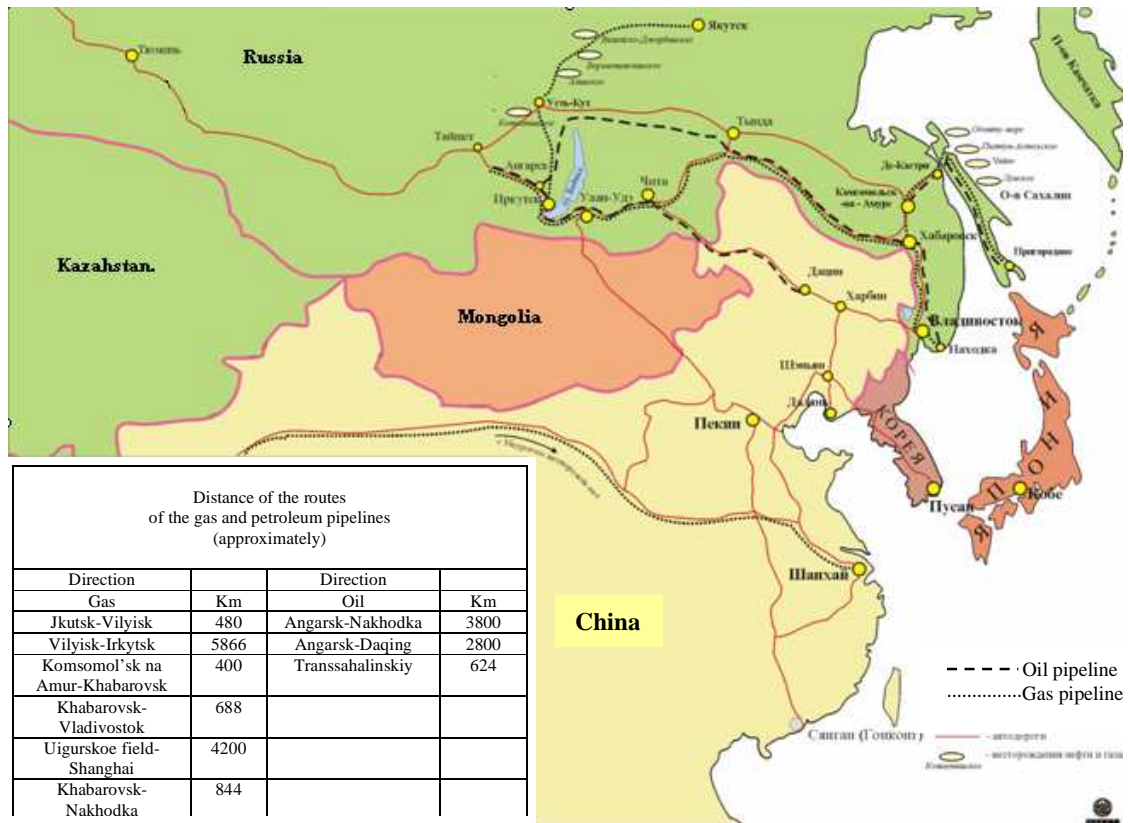
The following principles are applied in designing new pipeline systems:

- expediency of establishing uniform transport passages for oil, gas and condensate;
- provision for alternative external markets entry ways;
- provision for guaranteed supply for consumers in Russia.

At the present stage of the program revision IATF considers three variants of the Eastern Siberia and Far East exploration. In each variant IATF works over schemes and routes of natural gas transportation, schemes of gas and oil-gas condensate field development, makes forecasts for gas



production from now to 2030 and the dynamics of gas consumption in the Eastern Siberia and Far East and at APR markets to 2030.



Transportation of oil and gas from Siberia and the Far East to APR countries

By 2008 new bulked cargo traffic rout is planned to open, 9.6 million t. of liquefied natural gas (LNG) will go through Prigorodnoe village. The first supplies are planned to begin in November, 2007, contracts for shipping not less than 7 million t. of LNG had been signed by the beginning of 2005. The main LNG buyers are Japan, South Korea and Mexico.

The directions of crude oil refining infrastructure development.

There exists a paradox in Russia today. According to some calculations the gain from one ton of crude oil export is 25% higher than that one of oil products produced by Russian refineries. The reasons are the following:

- oil refining is not drastic enough at Russian oil refineries,
- the difference in tariffs for crude oil pipeline transportation and oil products railway transportation.

All these make it necessary to build new modern refineries with drastic oil refining for export at the areas of sea ports where crude oil is to be transported by pipes.

And the decisions are made. First of all the case in point is construction of 20 million t. capacity oil refinery in the Primorye near Nakhodka. While meeting the needs of the energy industry and inhabitants of the region the refinery will give 16 million t. of oil products for export.



Another refinery with the capacity of 9.2 million t. is planned to be build in Sakhalin. The needs of the Island do not exceed 0.6 million t., thus remaining oil products will go for export.

The development of sea transport. Russian tanker companies such as «SOVCOMFLOT», «NOVOSHIP» (the companies has been consolidated by the decree of the President of Russia), «PRISCO» etc., develop their fleet according to demand for transportations. The fleet expansion is provided by appearance of new high-tech vessels. Some of them are built abroad but the part of necessary vessels is built in Russian shipyards.

The exploration of the energy potential of the Eastern Siberia and Far East and entry of Russian resources to APR market will increase energy safety of the region and improve energy resources production-consumption balance. This will ensure not only the development of economy and energy industry of Russian territories but also provide for diversification of oil, gas and their products supply for APR markets which will beneficially affect decreasing economic and political risks of the region.

Concerning rather high risks of doing business in Russia. One of the measures, invoked to reduce these risks and to make Russia more attractive to foreign investors, was an approval in Russia the Law on the special economic areas. Since August 27, 2005 this law has come into force.

The purpose of approval of the law is the following:

- creation of favorable investment and business climate,
- economy diversification by means of developing branches with a high degree of processing and high-end technology branches,
- creation of the tool for developing of depressive regions,
- alignment inter-country competitive conditions,
- developing branches of "new" economy,
- commercialization of scientific and technical development.

The basic approaches incorporated in the law:

- first of all, this is simplification of the parcellation procedure and creation there a high-quality infrastructure;
- second, decrease of administrative obstacles and, accordingly, costs on their overcoming and the possibilities for corruption, simplification of dialogue between business and authorities;
- third, decrease of taxes and granting the preferential and simplified customs procedure.

The law defines several types of the special economic zones:

- industrial and production special economic zones,
- technical and promotional special economic zones (techno parks),
- traveling and recreational special economic zones,
- preparation of corrections for creation of such zones of port type is being finished.



The Federal agency on management of the special economic zones which effects registration, licensing and control functions concerning the special economic zone has been set up and operates.

The law about special economic zones (SEZ) - the Russian precondition for a deepening of international cooperation. The Russian party is interested in political and economic stability in APR and in making an effective economic space that is impossible to reach without the effective transport.

Thus, the problems of transport integration seem to be clear to the Russian transport experts and administrative circles and the country has started developing the transport branch. We have analyzed numerous problems and tasks and have generalized them in four key ways of activity:

1. Realization **of measures to increase competitiveness** of the Russian transport system;

2. **Elimination of inconsistency in actions** on supervision, management and maintenance of transport process on the part of federal bodies. It is necessary to develop and realize a set of measures **on perfection the state supervision of commodity circulation and strategic planning** of developing transport infrastructure;

3. Solving the problem **concerning structural inadequacy of fleet, port facilities and infrastructure**;

4. Elimination the **defects of personnel potential** in quality and quantity.

These problems and ways of their solution have been sounded **on May 2, 2007**, in Murmansk, by the Governor of Primorsky Kray on the joint session of Presidium of the Russian Federation **Council of State** and the Marine Collegium on the problem of developing an infrastructure of sea transport in Russia and increase of its competitiveness. In the Marine Doctrine of Russia adopted for the period till 2020, this problem is referred to a priority ones, because the efficiency of development the Russian economy and integration of Russia into the global transport system depends on its decision. Holding the Council of State on these questions means that the Russian sea transport has overcome the crisis caused by separation of ports, transport infrastructure and fleet between former republics of the Soviet Union, the period of stabilization the development has been completed. Now we are in the beginning of the stage of intensification the development. We see reserves for the transport development. Their significant part is connected to the solution of existing problems, such as:

- shortage of modern and effective port facilities,
- existing limitations on developing port and near-port infrastructures,
- unsatisfactory work organization of check points through border,
- absence of a developed logistic infrastructure,
- insufficient normative and legal regulation of seaports activity and some questions, relating to their development.



The decision of these problems will allow remove limitations on developing territories of Russia and intensify economy development.

The president of Russia formulated Instructions, directed to acceleration the development of all transport infrastructure of Russia with a stress on development of ports and marine infrastructure, in the Far East as well. Execution of these Instructions, among other, presumes:

- development of the Russian seaports by means of construction new and reconstruction existing ports, increase of competitiveness of the Russian maritime fleet,
- improvement of the state management of cargo flows and strategic planning of development the transport infrastructure,
- realization of the project of complex development of sea transport on the Far East, including an infrastructure of sea transport and adjacent types of transport, creation of the Russian shipping company with the participation of state to ensure transportation of cargo and passengers, to carry out work on development the natural resources on a shelf, rescue operations, including development of shipbuilding and ship repair, science and marine education.

Instructions of the President of Russia also mean strengthening the attention of the state to development the Arctic transport infrastructure, to creation of the special port economic zones and to development a logistics, to creation of the conditions for acceleration the containerization of cargoes and transport processes, to development of service for navigation and the transport as a whole, to accelerated development of sea transport infrastructure, using also the instruments of the state-private partnership. All this is claimed to ensure the necessary economic growth rate of Russia.

The tasks being placed testify about aspiration of our country to the prompt integration into global transport system.

Materials of the Council of State are displayed on sites www.kremlin.ru and www.morskayakollegiya.ru.

We shall be grateful to the Russian and foreign specialists for long-range offers and participation in the formation of the Russian transport system.