IFAT ENTSORGA - 2012
REGIONS OF RUSSIA
INVESTING in environmental projects
Today we discuss a lot in Russia how to work out and realize a correct environmental policy which meets the requirements of modern time. If we analyze all the ideas and trends which are supposed to form new approaches for modernization of the new ecological system of the country, I would underline the most important one: in Russia we have understood that ecology means first of all economy. Exactly the economic stimulation of the environmental activity facilitates the attracting of investments that can define the directions of the economic development of the country and modernization of its industrial production.

That is why nowadays in Russia much attention is paid to investment potential, providing of incentives and motivation of business to start up in the environmental sphere, along with the harmonization of national environmental and ecological norms and standards on the international level. Actually the dialog between business and politics in Russia on the issues of environment has just begun, but I am sure it will demonstrate positive results soon. Russia has established itself today not only as resource oriented state but as the platform for serious and profitable investments in the environmental policy.
The problem of safe disposal of solid waste has always been one of the most important environmental problems of large cities. Over the past few years it has become topical environmental issue for Moscow in connection with the ever-increasing population and increasing number of household waste. Awareness of the waste crisis, which has faced the capital, has led to the fact that waste from the secondary industry has turned into a full-fledged branch of the urban economy.

According to the statistics in 2010 over 17.8 million ton of industrial and domestic wastes were produced in Moscow. The most quantity of wastes is build up by the construction and demolition wastes, as well as by the contaminated building soils. Almost 3.5 millions of wastes were produced by the households in 2010 including the bulky wastes. Due to the increasing population of Moscow the quantity of the household waste rise every year, the composition of wastes change and the ways of transporting of wastes become longer. The most of household wastes in Moscow (nearly 60%) and the whole amount of bulky wastes are storage on the landfills, nearly 24% are being recycled and the rest wastes are incinerated with the purpose to generate electrical and heat energy.
OVERVIEW OF REGIONAL ENVIRONMENTAL PROJECTS IN RUSSIA

Regions of Russia: MOSCOW

RECYCLING IN MOSCOW

The main purpose of the treatment of municipal waste in Moscow is to organize the separate collection of industrial and household wastes in order to extract valuable components for reuse. However, the current system of selective waste collection in the city is practically absent both for the municipal sector (households) as well as for small businesses. In this area, only a limited number of organizations operate which are not able to occupy the millions of volumes of solid waste which emerge in the city. The number of fixed and mobile stations for the reception of secondary raw materials from the population in the city is not growing and shrinking. Typically, the small and medium sized companies are engaged in collection of waste paper and other recycled materials (glass, colored and black metal, plastic, textiles).

In 2008 the company LLC “ProfBiznesTelekom” installed about 3.5 thousand machines “Fandomat M” refunding aluminum cans and PET - bottles and thus 35 thousand m^3 of recycled materials were collected. However the number of the refund automates were decreased in 2009 and 2010, mainly because of vandalism and lack of city and suburb processing industries. The city needs to adopt a federal law “About the packages”, which establishes the refund value of the package materials. The implementation of this law will allow to accumulate funds for the disposal of products with exhausted consumer properties and to carry out production subsidies for its processing.

INVESTMENTS IN WASTE SECTOR IN MOSCOW

The modernization of the system of managing of solid wastes in Moscow has required enormous amount of investments which were provided both from the city government as well as the private investors due to the favourable investing climate in Moscow. The government of Moscow plans to attract further 2 billion of RUR till 2015 in the modernization and reconstruction of the system of wastes management, which will be mainly based on the selective collection, sorting and recycling of wastes. The government of Moscow is now working out the Program for treatment of household and industrial wastes till 2017 and plans to reduce the amount of wastes for landfills and for incineration, however to increase the quote of the secondary usage of wastes. Moreover the government is working out the program of integrating of the refund system for plastic bottles and there are already some experiments in several administrative districts of Moscow which integrated the PET bottles refund automates and demonstrated positive results.

LEGAL BASIS

The policy of Moscow city in managing of the household wastes is based on the Regulation of the Government of Moscow from 05.05.1992 N 239 “Concept for health treatment of city and management of household wastes up to 2010” which contained the following strategic tasks:

- Improvement of the system of collection and transportation of wastes, integration of the two-stage transport of household waste due to the construction of garbage-processing overload plants.
- Integration of the industrial methods of wastes’ processing on the basis of new waste-processing and incineration plants and reconstruction of the old ones.
- Reconstruction and rehabilitation of the existing solid wastes landfills as well as the erection of the new landfills according to the modern environmental norms.

Apart of this regulation the Government of Moscow has passed on another decree from 22.04.2008 N 313-PP “About the improvement of the technical base of the system of the solid wastes management in Moscow” in order to solve the acutest problems of the city waste system. This Regulation has adopted the Program for city cleaning up to 2012. The Department of Housing and Public Works of Moscow has now elaborated the new Sanitation and Solid waste Program for 2012 -2017 which is now being verified by the Moscow Government.

GUP ECOTECHPROM

The most important organization in the area of management of solid household wastes in Moscow is the State Enterprise GUP ECOTECHPROM which was created in accordance with Government Decree № 604 of Moscow on June 29, 1993 to perform the full range of work on the sanitation of the city from municipal solid waste and is now subordinate to the Department of Housing and Public Works in Moscow. GUP Ecotechprom is Russia’s first and largest company in Moscow which collects almost 45% of solid municipal wastes of Moscow.
Mosvodokanal, the biggest water company in Russia, is providing high quality and reliable water and wastewater services to more than 13 million citizens of the Moscow megalopolis which is equivalent to 10% of the population of the Russian Federation. The history of the water company in the Russian capital dates back to the 18th century when the empress Catherine II signed the Decree on the construction of public water supply in Moscow.

MISSION STATEMENT

We are committed to improving the quality of life of the Moscow citizens through the introduction of advanced and environmentally safe water and wastewater treatment technologies. We are striving to maintain the leading position in water industry. We make water clean!

PRIORITIES

- water conservation and water efficiency.
- environmental enhancement for the coming generations.
- introduction of innovative technologies;
- power conservation and alternative power sources.
- information technologies and automation.
- implementation of innovative projects through the use of efficient financial models.

STANISLAV V. KHRAMENKOV
Director of the state enterprise of Moscow „Mosvodokanal“

HIGHLIGHTS

- 4.5 mln cubic meters/day – drinking water production.
- 4 water treatment plants.
- 20 thousand kilometers of water distribution network and sewage collectors.
- 4 wastewater treatment plants.
- 3 sludge handling facilities.
- 35 snow disposal facilities.
- 1.87 l/day – per capita water consumption.
- 5.85 euro/month – water and wastewater charges per person.
- 2.8 billion euros – value of Mosvodokanal’s assets.
- 90 mlm euros/year – reported profit of the utility.

Standard & Poor’s Credit Rating BBB-/A-3/ruAAA with stable outlook

- First time in Russia advanced water treatment technologies using ozonation combined with activated carbon filtration and membrane filtration.
- World biggest facilities for UV-disinfection of effluent with a capacity of 1 million m3/day. By 2013 the total amount of municipal wastewater - 4 million m3/day – will be UV disinfected. Using sterlet fish (Acipenser ruthenus) as a biologic indicator for monitoring the effluent quality was implemented.
- 100% of the total amount of sludge from the treatment processes is digested with generation of biogas. Sludge is processed on industrial scale with the production of fertilizers rich in nitrogen (5%) and phosphorus (3%).
- First time in Russia the project of alternative power source was developed with the use of local biogas. Two up-to-date thermal power plants with a total capacity of 22 MW are generating heat and electricity from biogas supplying 50% of the treatment facilities’ energy demand.
- Moscow is the first world megalopolis where the snow removed from the streets is processed and melted at municipal sewers using wastewater heat. Environmental enhancement is ensured by eliminating snow disposal into the urban water bodies and reducing oil waste and suspended solids discharge.
- First time in Russia environmentally friendly sludge utilization technology developed in Mosvodokanal provided for the reclamation of 425 hectares of the former sludge beds and building of a new residential district.

Our philosophy -

Transparency of management and operation, openness to dialogue.
Regions of Russia:
MOSCOW REGION

COMMON INFORMATION

Moscow region is the federal subject of the Russian Federation which occupies the area of 45,900 km². This area is relatively small compared with other Regions of Russia, but is one of the most densely populated areas with the common population of approximately 7 million people in 2010. In terms of industrial production, Moscow region is second in Russia, after the Moscow city, and comprises together with the Moscow city almost 25% of GDP of Russia. The industry of the Region relies on imported raw materials, strong scientific and technological base and highly skilled workforce; it is closely linked with the industry of Moscow.

WASTE MANAGEMENT SYSTEM: COMMON INFORMATION

According to many years of statistical research Moscow region takes one of the first places in the Russian Federation in terms of producing and disposal of wastes. Public safety and the environment protection goals in terms of the “primacy” require the combined efforts of the legislative and executive branches of the Moscow region to organize the save sanitation system for efficient and environment friendly disposal of industrial and consumer waste, including hazardous medical and biological waste.

The complexity of providing of the sanitation services in the Moscow Region which actually consists of the two Russian entities – Moscow and Moscow Regions, exists due to the highest volume of waste generation in Russia, highest population density and area development. In addition, the capital status of the Moscow region imposes special requirements on the frequency and quality of work on the sanitation of its territory, and security of applied technologies.

According to the National Population Census 2010 the population of Moscow region is 7.1 million people. In the spring and summer there is an increase in its population to 9.8 million due to temporary accommodation of Moscow residents in their private households in the suburbs of Moscow. Simultaneously, the volume of the household wastes increases in summer periods in Moscow region for at least 40 percent.

WASTE STATISTICS

On the territory of Moscow and Moscow region about 9.7 million tons of municipal solid waste (hereinafter - the MSW) and bulk waste (hereinafter - MAG), including 5 million tons - in Moscow and 4.7 million tones - in the Moscow region are produced annually. In addition, in the Moscow region annually produces a large amount of waste from construction and demolition, sewage sludge from sewage treatment plants, as well as industrial, medical, biological, and wood-waste plant. Despite the emergence of the waste-sorting and waste-processing plants on the territory of Moscow oblast, the most amounts of wastes of Moscow and Moscow region still continues to be disposed at the landfills and dumps of Moscow Region. As a result, in the Moscow region the accumulated amount of
household waste has already exceeded 120 million tons, and continues to grow rapidly. However, the residual capacity of existing landfills is estimated at 34 million tons, which is designed for 3-4 years acceptance of waste. Currently, there are 41 landfills in the Moscow Regions with the total area of 689 Ha that meet the requirements of environmental legislation.

The main problems associated with waste disposal in the Moscow region are
- overloaded existing landfills, the majority of which ends life due to their complete filling.
- the lack of land suitable for construction of new landfills within 3 concrete ring (area which produces more than 95 percent of all waste in the Moscow region).
- the lack of funds for the reconstruction and restoration of waste disposal facilities.
- Incompliance of the existing landfills to the modern ecological and sanitary-epidemiological requirements.

In 2012 it is planned to shut down almost 18 landfills on the Moscow region because their capacities are overloaded, in the period 2013-2014 another 14 landfills in the Moscow Region should be closed.

In the period of 2004-2010 23 waste sorting complex were constructed and put into operation in the Moscow Region and financed with the funds from extrabudgetary sources in order reduce the volume of wastes stored at the landfills in the Moscow Region. Currently, these waste sorting facilities, as well as pressing and sorting stations are not loaded and operate ineffective using less than 20 percent of its capacity, some of them were closed due to low efficiency or technical imperfections. The main constraint the development of the waste processing industry in the Moscow Region is the imperfection of environmental legislation which provides insufficient economic incentives for waste management. Separate collection of waste were integrated only in three districts of the Moscow region and thus is developing very slowly.

LEGISLATURE
The legal norms of treating of industrial and household wastes are regulated by the federal Russian decrees, as well as the regional norms. On the 7th Feb-

regions of Russia: Moscow Region

February 2012 the Ministry of Public Housing of the Moscow Region has drafted the Program “About utilization and neutralization of production and consumption wastes for 2012-2020”. The purpose and objectives of the Program: The aim of the Program is to ensure environmental safety and the prevention of the harmful effects of waste production and consumption on the environment and human health, as well as to involve wastes into the economy as a secondary resource for sustainable development of the Moscow region. To achieve this goal the Program foresee the implementation of the following tasks:
- provide opportunities to create a modern waste management industry in the Moscow region for the period 2012-2020 period and in the future;
- improvement of the regional waste management (including improving the regulatory framework governing the treatment of waste production and consumption, and increase revenues, the creation and maintenance of an information management system for waste treatment in the Moscow region);
- reduce and prevent environmental pollution during the formation and distribution of waste production and consumption;
- reducing the number of disposed waste, and their involvement in the economic turnover;
- raising environmental awareness and education of the population of Moscow region.

By an expert assessment, for normal functioning of system of the waste management in the Moscow region systems of collecting, processing, neutralization and landfilling of waste should be created: installation of containers and acquisition of garbage trucks, construction of waste sorting plants and over load stations, construction of objects of thermal processing of a waste and landfills. For the organization of separate collecting on the scale of all area about 50 thousand pieces of containers is required. At average cost of one container of 5 thousand roubles the general costs of acquisition of containers will make 250 million rubles. The park of garbage trucks should make not less than 100 units. At cost of one garbage truck of 1.4 million rubles the general costs of acquisition of garbage trucks will make 140 million rubles. «Utilization and processing of a household waste in the territory of the Moscow region for 2004-2010» is supposed the program of the Government of the Moscow region construction of 35
EXAMPLES OF THE PLANNED PROJECTS
ON THE TERRITORY OF THE MOSCOW REGION

- Construction of the ecological industrial Park “Dubravnaya” (hereafter – Industrial Park) which includes capacities for recycling and sorting of domestic, construction and industrial wastes on the territory of the municipal district Taldom for 200-300 Thousand tons of wastes.
- The plant for processing of medical and hazardous biological wastes using pyrolysis technology for 80 Thousand tons of wastes in Klin.
- Waste recycling complex for sorting and compacting of solid wastes with the capacity of 150 Thousand tons of wastes in Khimki district.
- Ecological industrial park for different types of medical wastes, sludge and solid wastes in the municipal district Stupino.
- Waste sorting complexes for solid municipal wastes in Volokalamsk and Sergeev Posad for 190 Thousand and 100 Thousand tons annually.
- The fuel and energy complex for treatment of the organic wastes on the basis of the deep hydrogen plasma technology to produce motor fuel grade Euro 4 and Euro 5, heat, energy and construction materials in Solnechnogorsk Chekhov (the technology will be at first tested as the pilot project in the innovation center Skolkovo).

DEVELOPMENT AND IMPLEMENTATION OF THE PROGRAM
WILL ALLOW TO SOLVE THE FOLLOWING PROBLEMS:

- To improve a social and economic and ecological situation in the Moscow region, to promote creation of additional workplaces.
- To increase recreational capacity of the Moscow region and level of conditions of accommodation of the population.
- To develop actions separately by each type of the waste, being formed (saved up) in the Moscow region.
- To develop systems of separate collecting separate types of waste (the tire, the fulfilled oils, accumulators, luminescent lamps etc.).
- To promote branch creation on processing of a waste and their involvement in economic circulation.
- To promote release of the territories occupied with fulfilled dumps and elimination of saved-up industrial wastes.
- To reduce issue of hotbed gases in the atmosphere that will promote implementation of the Kyoto Protocol in the territory of the Moscow region.

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TERMS OF REALIZATION OF PROGRAM:

1st Stage 2012-2013 contains following measures:

- Drafting of the general scheme of sanitation of Moscow Region.
- Introduction of a system controlling the movement of wastes in the Moscow Region with the satellite navigation system GLONASS.
- Development and implementation of the automatic information system “Waste Cadastre of the Moscow Region”.

2nd Stage 2014-2020 contains the package of measures aimed at constructing of capacities for processing and sorting of different types of wastes.

The anticipated results of the Program are to be:

- To increase the quote of the recycled and neutralized wastes up to 65% in the whole amount of wastes produced in the Moscow region.
- To attract investments in the sector of the treatment of industrial and domestic wastes on the territory of the Moscow Region.
- Construction of the following capacities: 11 waste-processing plants, 4 waste-sorting plants, 4 waste-overload stations.
- To increase the number of jobs in the waste sector up to 1525
Regions of Russia: SAINT PETERSBURG

MUNICIPAL AND INDUSTRIAL WASTES

According to the statistical data provided by the Government of Saint-Petersburg, almost 8 million m³ of municipal and industrial wastes are produced annually in Saint-Petersburg and its surroundings. Approximately 60% of the volumes of wastes are the municipal solid wastes which are produced by the households and non-industrial organizations. According to the forecasts the common volumes of wastes will increase annually and will reach 12.9 million m³ in 2015 and 16.5 million m³ in 2025. In this connection the problem of the efficient and environmental friendly treatment of domestic and industrial wastes is the primary strategic task of the Government of Saint-Petersburg.

Almost 87% of wastes are utilized on the landfills around Saint-Petersburg in the most cases without any pretreatment. And only 13% of wastes are being processed at the waste incineration plants or for the treatment of the organic wastes the method of biological aerobic composting is applied.

PROBLEMS OF THE WASTE INDUSTRY IN SAINT-PETERSBURG:

- There are no comprehensive uniform system for supervising, managing and control for emergence, collection, transport and placement of solid municipal wastes.
- The separate collection of domestic wastes with the purpose to extract secondary materials does not function.
- The landfills are used inefficient and are overloaded, the sanitation of landfills does not take place.
- The existing waste processing capacities are out of date, the new modern and efficient waste-sorting and processing plants have to be constructed.

THE SYSTEM OF WASTES MANAGEMENT IN SAINT-PETERSBURG IS BASED ON TWO IMPORTANT LEGAL ACTS:

- Conception for waste management in Saint-Petersburg for the period 2006-2014 (adopted 02.08.2005).

COMMON INFORMATION

Saint-Petersburg is the city and the federal subject of Russia which is located on the Neva River on the top of the Gulf of Finland on the Baltic Sea. St. Petersburg is the second largest city of Russia with the population of almost 5 million people (Census 2010). Saint Petersburg is a major trade gateway, financial and industrial centre of Russia specializing in oil and gas trade, shipbuilding yards, aerospace industry, radio and electronics, software and computers; heavy machinery and transport, including tanks and other military equipment, mining, instrument manufacture, ferrous and nonferrous metallurgy (production of aluminum alloys), chemicals, pharmaceuticals, medical equipment, food and catering, wholesale and retail, textile industries, and many other businesses. Saint Petersburg has the second largest construction industry in Russia, including commercial, housing and road construction.
Regions of Russia: SAINT PETERSBURG

PPP PROJECT IN THE AREA OF PROCESSING OF SOLID WASTES IN YANINO

The goal of the project is to plan, construct, finance and put into operation the modern waste-processing plant in Yanino (Leningrad region) on the basis of PPP between Partner and City administration.

The task of the project is to achieve the maximal quote of the waste processing and recycling by the minimal costs and under the terms of meeting all the environmental norms.

THE MAIN CHARACTERISTICS OF THE PROJECT:
- The capacity of the plant – 350 thousand tons of wastes annually.
- The recycling quote – minimum 70%.
- The duration of the project – 30 years (including planning and construction).
- The open two-round tender for the project started in November 2009.
- Helektor S.A. won the commission and the PPP agreement was signed between the government of Saint-Petersburg and Partner.
- Currently projecting and planning stage, the plant hast to be put in operation in 2015.
- The costs of project are estimated by 300 millions of euro, the technology is mechanic-biological method.
- Saint-Petersburg is obliged to provide the Partner with 350 thousand tons of communal solid wastes annually and to pay the determined fee for the processing of wastes.
- The Partner is obliged to provide the funds to finance the project and to launch the plant within 3.5 years on singing the agreement; to provide the recycle quote of minimum 80%, observe the ecological and economical norms and standards.
- The plant will be passed in the ownership of Saint-Petersburg in 30 years after the singing the agreement.

The plant will be built by the Greek consortium “Helektor”. Technologies of a consortium offer the automated sorting of garbage, sorting out of metals, plastics and other raw materials, garbage processing by means of aerobic and anaerobic bacteria with receiving combustible gas (methane) for power installation and firm fuel. Depth of processing – not less than 70 percent.

Regions of Russia: SAINT PETERSBURG

ANOTHER INVESTMENT PROJECTS IN PLANNING ACCORDING TO THE GOVERNMENT OF SAINT-PETERSBURG:
- Construction of waste processing complex in the Vyborg district of St. Petersburg, located in Levashevo, the area adjacent to the landfill PTO-3.
- Recultivation of landfill PTO-3 located in Levashovo and landfill Novo-selki.
- Planning and construction of the processing plant for scrap tyres (2012).
- Planning and construction of 3 complexes for processing of construction wastes (2010-2011).

KRASNY BOR

Industrial toxic waste generated in the region, are placed for utilization at the landfill Krasny Bor. Polygon Krasny Bor was organized in 1970 and is located 30 km from Saint-Petersburg and occupies the area of 73 Ha. Landfill construction site is selected in relation to the occurrence of the surface in this impervious area of Cambrian clay. During its functioning polygon took over more than 1.5 million tons of toxic industrial waste.

Currently, Krasny Bor has exhausted its resources. The current method of neutralization and dumping of toxic waste does not ensure effective protection of the environment. overcrowded pits with liquid toxic wastes pose a threat to the city water supply and a potential source of anthropogenic pollution Baltic Sea.

In 1995, the Government of the Russian Federation supported the proposal of St. Petersburg and Leningrad region to establish the first Russian company to process toxic waste on the basis of the existing landfill and has instructed the Ministry of Economy to include financing of the construction of the plant at the landfill in the federal program.

The measures on the improvement of ecological situation in the area of the landfill Krasny Bor are carried out in two directions:
- Increasing the current stable operation of the State Unitary Enterprise of environmental Polygon Krasny Bor.
- Creating a pilot plant for processing and disposal of toxic industrial waste.
Regions of Russia: NIZHNY NOVGOROD REGION

WASTE SYSTEM IN NIZHNY NOVGOROD

The sources of solid wastes on the territory of the Nizhny Novgorod region are mainly households, organizations and industrial enterprises. According to the statistics approximately 1.2 million tons of solid municipal wastes and 2.5 million of industrial wastes are produced annually. Morphological composition of solid waste generated in the Nizhny Novgorod region, is the following (wt%): 23.56 food waste, paper, cardboard - 30.24; tree - 2.27; metal color - 0.91; metal black - 1.36; Textiles - 1.14; bone - 0.57; glass -9.68, leather, rubber - 0.54 -12.79 plastics, etc. - 10.55; screenings - 6.39.

The total mass of scrap fractions of MSW, which can be sorted and used as a secondary raw material lies by 39% of the total, the rest shall be stored on the landfills. Currently there are 246 landfills on the territory of Nizhny Novgorod region, but only 8 of them meet the ecological requirements.

The largest waste disposal facility in Nizhny Novgorod Region (and according to some estimates the largest landfill in the whole Europe) is the landfill “Igumnovo” with 111.5 hectares, including the area of the landfill body (17 cards) - 41.1 hectares. By the beginning of 2007 the volume of accumulated waste was more than 37 million m3.

The industrial wastes are disposed on the special landfills and on the sites of the companies where they emerge, as well as in the special dumps. The task of the organizations engaged in the design and construction of industrial waste on the territory of the Nizhny Novgorod region - to ensure optimum use of land with the greatest possible reduction in the size of buffer zones.

LEGAL BASIS

The principles of the waste management in Nizhny Novgorod Region are determined in the regional Program “Development of the system of industrial and domestic wastes in Nizhny Novgorod region for 2009-2014” which was adopted by the local authorities in 2008.

The program targets the improvement of ecological situation in the Nizhny Novgorod region and establishing effective mechanisms in the sphere of waste management. The Program proposes the new logistical system according to each the territory of Nizhny Novgorod region should be divided in separate districts with the centralized system of waste collection, transportation and disposal.

COMMON INFORMATION

Nizhny Novgorod is an important economic, transport and cultural center of the Russian Federation, the center of the Volga Federal District. Nizhny Novgorod is the fifth largest city of Russia with the population of 1.25 million of people. Nizhny Novgorod is one of the centers of the IT Industry in Russia. There are 25 scientific R&D institutions focusing on telecommunications, radio technology, theoretical and applied physics, and 33 higher educational institutions. Nizhny Novgorod has also been chosen as one of four sites for building an IT-oriented technology park—a special zone that has an established infrastructure and enjoys a favorable tax and customs policy.

Investment rating of the region – 2B that means average potential - moderate risk. Among regions of Russia on investment risk the area takes the 9th place, on investment potential – the 9th place.
### Regions of Russia: NIZHNY NOVGOROD REGION

**FINANCING OF THE PROGRAM**

Financing of the Program is carried out using a variety of sources: from the regional budget, budgets of municipalities, private sources.

**Total funding of the Program makes up approximately 12 billion rubles, including:**

- The regional budget - 491353.46 thousand rubles. (4.06%).
- From the budgets of municipalities - 840269.54 thousand rubles. (6.94%).
- Other sources - 10778952 rubles (89%).

Other sources, attracted to finance the program include: targeted loans from banks and other borrowed funds, funds attracted from domestic and foreign investors, EU investments.

**THE IMPLEMENTATION OF THE PROGRAM SHOULD REACH THE FOLLOWING:**

- Integration of a unified system for collecting waste throughout the Nizhny Novgorod region.
- Construction of 16 waste-processing plant.
- Construction of seven waste treatment plants based on the technology of mechanical-biological treatment.
- Construction of eight modern sites for wastes placement.
- Creation of two systems for the disposal of hazardous medical waste.
- Recultivation of 46 existing landfills for solid wastes (another 200 should be closed).

**SOCIO-ECONOMIC RESULTS OF THE IMPLEMENTATION OF THE PROGRAM ARE:**

- To prevent the unauthorized placement of waste in the environment.
- To attract extra investment of 10.8 billion rubles.
- To achieve environmental improvements, sanitary-epidemiological well-being, quality of life in the Nizhny Novgorod region.
- Decline in the area of land under the allotment grounds, stockpiles, and storage facilities for industrial and domestic wastes.
- An additional economic benefit from the implementation of the Program will be obtained by increasing the tax revenue to the regional budget of the organizations involved in its implementation.

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**EXAMPLE OF THE INVESTMENT PROJECT IN NIZHNY NOVGOROD REGION**

The investment project of construction of a new landfill to serve the Nizhny Novgorod, Dzerzhinsk and Volodarsky district is being realized by Nizhny Novgorod holding «MAG Group» in conjunction with the companies union “AGZHO” and OOO “REP2.” The landfill will occupy nearly 15.668 Hectares, with the depth of storage of 7.5 m. The capacity of the landfill is 500-629 thousand m³ annually; the landfill will employ 38 employees.

**Construction of the landfill, «MAG-1» will be implemented in three phases. The first phase is planned to be completed by December 15 of 2011, it includes construction of:**

- Start-up phase includes construction of the technological site number 1 with the area of 5.0 hectares, the subsequent sites will be developed successively during the operation of the landfill as soon as the existing sites are overloaded.
- Construction of the administrative-residential buildings, fuel storage tanks, parking capacities for machinery, baths for disinfecting the wheels, truck scales, intra-engineering services.

During the second stage which occupies 2012-2013 planning and engineering works for construction the waste sorting and processing complex have to be completed. Construction of the third stage of the landfill will begin in 2014, it includes the construction of the waste treatment plant with deep quote of waste processing.

**ECOLOGICAL CATASTROPHE IN DZERSHINSK**

Dzershinsk is the second largest city in Nizhny Novgorod and former chemical capital of Russia. Almost 60% of companies of chemical industry are based here. According to some experts Dzershinsk belongs to the top ten of cities with the poorest ecological situation in the world.

Dzershinsk’s environmental agency estimates that almost 300,000 tons of chemical wastes (dioxins, siren, phosgene, lead, cyanide, phenol etc.) were dumped in the city between 1930 and 1998 and pollute ground water and air. Overwhelming of the bad consequences of pollution in Dzershinsk is the Federal Program of Russia.
OVERVIEW OF REGIONAL ENVIRONMENTAL PROJECTS IN RUSSIA

Regions of Russia:
ROSTOV-ON-DON

 COMMON INFORMATION

Rostov-on-Don is a city and the administrative center of Rostov oblast and the Southern Federal District of Russia, located on the Don River just 32 km from the Azov Sea. The population of Rostov city is approximately 1.1 mln of people. Rostov-on-Don has experienced considerable economic growth in recent years. Numerous start-up companies established headquarters in the city, the median income is increasing, and the city is being transformed into a modern, industrial and technology-rich hub. Ministry of Regional Development of Russia has prepared a program to create eight “Super Cities”, i.e. agglomerated centers with the multimillion population. The project applies to Rostov Oblast as well. “The Greater Rostov” metropolitan area will include the cities of Rostov-on-Don, Novocherkassk, Taganrog, Aksay, Bataysk, and Azov.

ENVIRONMENTAL SITUATION IN ROSTOV CITY

The long-term Program “Environmental Protection in the City Rostov-on-Don for the period 2010-2013” was adopted by the city Duma of Rostov on 15th December 2009 and contains the number of measures to be implemented in order to improve the ecological situation in the region.

The long-term strategic targets of the Program are:

- To improve the quality of water and water supply sources by means of modernization and sanitation of the sewerage network.
- To reduce the air and soil pollution by strengthening the control over the industrial companies.
- To increase the efficiency of the municipal sector, reduce the resource usage.
- To improve the ecological education of the population.

The affiliated funds of the Program make up almost 16 million rubles:

<table>
<thead>
<tr>
<th>Types of funding</th>
<th>Stages of the program (millions of rubles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment fund of RF</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>7176,6</td>
</tr>
<tr>
<td>Regional fund (cofinancing)</td>
<td>3934,7</td>
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<tr>
<td>City budget</td>
<td>2677,3</td>
</tr>
<tr>
<td>Private investors</td>
<td>2250,4</td>
</tr>
</tbody>
</table>

However the focus of the investment programs of Rostov-on-Don is the water treatment and purification and modernization of sewage networks.

THE REGIONAL INVESTMENT PROJECT CLEAN DON (CHISTY DON)

Aim of the regional investment project is creation of elements of utilities infrastructure of the system of water discharge of the city of Rostov-on-Don, providing for:

- connection of new consumers to the centralized water discharge system in the city of Rostov-on-Don.
- increase of level and of quality of sewage treatment at the treatment facilities, as well as utilization by way incineration of sewage treatment sediment.
Region of Russia: Rostov-on-Don

**Environmental Situation in Rostov City**

The long-term Program “Environmental Protection in the City Rostov-on-Don for the period 2010-2013” was adopted by the city Duma of Rostov on 15th December 2009 and contains the number of measures to be implemented in order to improve the eco.

Preparation of the regional investment project Clean Don was initiated by CJSC Azov-Baltic Water Company with the support of OJSC Yevrasiyskiy and OJSC PO Vodokanal of the city of Rostov-on-Don. Another participant of the project is the subject of the Russian Federation Rostov region acting jointly with the bodies of local self-government of the city district of Rostov-on-Don.

**The structure of the investment project comprises five interrelated components:**

- Construction of sewage collector No. 62 (1 stage) with the length of 6,256 km.
- Reconstruction of the second stage of sewage treatment facilities with the capacity of 230 m³/day.
- Construction of the unit of ultraviolet treatment of sewage with the capacity of 500 m³/day.
- Construction of a plant on sediment burning with the capacity of 84 tons of solid substances per day.
- Construction of elements of engineering infrastructure for the sediment burning plant (corresponding to technical conditions for connection).

Total cost of the regional investment project (including VAT) in the prices of the year 2008 amounts to 3,415.88 mln roubles, cost of the project in the prices of the corresponding years amounts to 4,172.51 mln roubles. It is planned to use both funds of the private investor, as well as budget funds for the project implementation.

**Comprehensive Programme Dugino**

**Aims of the Project are:**

- Development of infrastructure of water supply and water discharge of Rostov-on-Don and South-West of Rostov Region.
- Increase of quality of water supply and water discharge services provision.
- Decrease of negative effect on the river Don and watershed of the Azov Sea and Black Sea.

**Participants of the Project:**

- Ministry of Regional Development of the Russian Federation.
- Administration of Rostov region.
- Administration of the city of Rostov-on-Don.
- OJSC Yevrasiyskiy.
- OJSC PO Vodokanal.

The first stage of the Program has began in 2007 and finished in 2011. This stage had the approved budget of 13.7 billion roubles: amount of state support from the Investfond of the RF made up 6.6 billion roubles, share of the private investor – 4.8 billion roubles.

**Waste Management in Rostov-on-Don**

Annually almost 700 Thousand tons of household and industrial wastes are produced on the territory of the city Rostov-on-Don and Rostov region. In order to improve the waste management system the Government of Rostov has adopted in 2008 the “Long-term city target program for the phased establishment of a new waste management system in Rostov-on-Don 2008-2010”. For the financing this program approximately 264.4 millions of roubles were invested from the city budget and 29 million roubles from private companies during the period of implementation.

The first target of the program was to modernize the car pool of garbage trucks of the city, to replace the old metal garbage container with the new plastic ones, to increase the recycling quote of wastes as well as to decrease the volumes of wastes for landfilling.

As a result of the comprehensive measures of the Program, 15 new garbage trucks, 3094 plastic Euro containers were acquired. Moreover the waste processing plant for waste sorting and pressing was designed in the base of the municipal company “Clean City”, as well as 7 garbage overload stations.
Regions of Russia:
REPUBLIC OF TATARSTAN

According to the statistical data over 9 million tons of industrial and domestic wastes were produced on the territory of Tatarstan in 2010 whereby the wastes of cattle-farms make almost 60% of the whole wastes’ volume.

The most of emerging wastes are disposed at the landfills without any preliminary sorting or treatment. Only 10% of both industrial and municipal wastes such as the best fractions of metal scrap, cardboard, paper, polymers and textiles are sorted out and used as secondary resources, the mixed municipal wastes are mainly landfilled in the way they come from the households.

Thus it can be stated the waste management system in Tatarstan is mainly based on landfilling. The landfills in Tatarstan occupy the area of almost 373.13 ha which makes up 0.005% of the territory of Tatarstan. The most of landfills are overloaded, and do not meet the modern ecological and sanitary requirements and thus have to be shut down.

In order to change the poor situation in the waste management sector, the government of the Republic of Tatarstan drafted and adopted in 2011 the long-term Program “Management of domestic and industrial wastes in the Republic of Tatarstan for 2012-2015”. The goal of the Program is to establish the environmental friendly sustainable innovative and resource saving system of the waste management in Tatarstan.

THE PROGRAM DETERMINES THE IMPLEMENTATION OF THE FOLLOWING MEASURES:

1. Introduction of the separate collection, transport and disposal of municipal wastes in Tatarstan:
   - creation of the garbage sites with different containers for different sorts of garbage.
   - organization of recycling depots for recyclable materials.
   - modernization of the garbage collection trucks.
   - integration of the monitoring system for trucks on the basis of GLO-NASS GPS.

COMMON INFORMATION

The Republic of Tatarstan is the federal subject of Russia located in the Volga Federal district with the population of almost 3.8 millions of people.

Major natural resources of Tatarstan include oil, natural gas, gypsum, and more. It is estimated that the Republic has over one billion tons of oil deposits. Tatarstan is one of the most economically developed regions of Russia. The republic is highly industrialized, and ranks second only to Samara Oblast in terms of industrial production per km2. Tatarstan’s GDP per capita was USD 12,325 in 2004, with GDP in 2008 at about 930 billion rubles.

Industrial production constitutes 45% of the Republic’s GDP. The most developed manufacturing industries are petrochemical industry and machine building. The truck-maker KaMaz is the region’s largest enterprise and employs about 1/5 of Tatarstan’s work force. Other important industries are chemical industry, pharmaceutical, food industry, biotechnologies.
Regions of Russia: REPUBLIC OF TATARSTAN

2. Designing and construction of the facilities for recycling and processing of wastes:

- facilities for recycling of organic wastes from cattle farms.
- waste-sorting complex for solid municipal wastes and polygon in Naberezhnie Chelny and Nizhnekamsk, recultivation of 6 polygons in other administrative regions of Tatarstan.
- complex for cremation of hazardous biological wastes as well as dead cattle in Kazan.
- complexes “TermoTek” using the method of thermolysis for processing of residual wastes.

FINANCIAL FUNDS FOR THE PROGRAM, IN THOUSAND RUBLES:

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget of Tatarstan</td>
<td>30,716</td>
<td>29,903</td>
<td>40,800</td>
<td>24,350</td>
</tr>
<tr>
<td>Other sources</td>
<td>716,000</td>
<td>1,081,115,2</td>
<td>803,615,2</td>
<td>3,615,2</td>
</tr>
<tr>
<td>Common</td>
<td>746,716</td>
<td>1,111,018,2</td>
<td>844,415,2</td>
<td>27,965,2</td>
</tr>
</tbody>
</table>

It is planned to invest over 2.73 billions of Russian rubles in the period 2012-2015 in this Program, almost 95% of the financial means have to be attracted from the external sources. These are for example:

- long-term credits and loans of banks as well as other borrowings granted and attracted from the domestic and foreign banks under the guarantee of Cabinet of Ministers of the Republic of Tatarstan.
- own capital of the companies implementing the Program as well as the capital which they attract from foreign or domestic investors.

BIOTECHNOLOGY

Another important trend in the development of the Republic of Tatarstan is the long-term target program “Development of biotechnology in the Republic of Tatarstan for 2010 - 2020 years”. The program was developed at the initiative of “Tatneftekhiminvest-holding” with the participation of the Association of Russian biotechnologists with a broad range of specialists.

The purpose of the program is to establish the innovative bioeconomy in the Republic of Tatarstan for 10 years and will be implemented in two phases - 2010-2015 and 2016-2020. In the first phase biotech cluster will be formed in Tatarstan, which includes existing and newly created enterprises with biotechnological focus, building of relationships with the scientific, educational, and industrial structures, identifying of consumers of products and markets. At least 100 specialized companies with a total volume of products - 1.5% of GRP are expected to participate in a cluster. At least 30 districts of the republic are planned to be involved in the Program.

In the second stage 100-percent involvement of the regions of the Republic should be achieved and the share of biotechnological products should make up about 3-5% of the GRP.

The main tool of the program is development of new instruments of public-private partnership, government funding and public order mainly based on the joint funding of projects. The total funding for the program is 30 billion rubles; 70% of funds should come from extra-budgetary sources. The total accumulated effect of investment for 2010-2020 will be about 400 billion rubles, additionally at least 10 thousand new jobs for bio-technology professionals and related industries will be created in this period.

Thus, one of expected results of implementation of the Program is emergence on the basis of successful biotechnological productions of a biotechnological cluster of “Tatbioregion” integrated into economy of the Republic of Tatarstan. For state economy the cluster plays a role of a point of growth, uniting segments of economy entering into it and branch in «the uniform, complete and interconnected complex». In the Republic of Tatarstan within implementation of the Program of development of biotechnology the conditions promoting emergence of a territorial and production cluster in biotechnological branch are created. Interaction of a biotechnological cluster with petrochemical, machine-building, agroindustrial, pharmaceutical clusters, with the food industry, an education system and sciences will strengthen competitive advantages of the Republic of Tatarstan in the markets of hi-tech and knowledge-intensive production.
Regions of Russia: REPUBLIC OF TATARSTAN

THE PROGRAM DETERMINES 7 DIRECTIONS WITH A LARGE NUMBER OF PROJECTS AND MEASURES. THE MOST IMPORTANT OF THEM ARE:

1st direction: “Biotechnology for human health” (pharmaceutical industry, new medicines and drugs).

2nd direction: “Biotechnology in agriculture” (integrating of new innovative biotechnological methods in agriculture).

3rd direction: “Biotechnology in wood industry (designing and constructing of complexes for deep processing of wood wastes and biomass, concept of fast regenerating forests “fast wood”).

4th direction: “Biotechnology in chemical and petrochemical industries” (designing and constructing of plants with the deep processing of biomass with the purpose to win components for chemical industry like biodegradable polymers.

5th direction: “Biotechnology for environment” (construction of facilities for recycling of organic wastes, as well as the solution of the problems of air, water and soil pollution with the help of biotechnology).

6th direction: “Bioenergy” (designing and construction of the complexes for producing of biofuels (biogas, bioethanol, biobutanol, biodiesel, as well as waste-to-energy complexes based on the biomass and organic wastes).

7th direction: “Biotechnology for residential building construction” (designing of the Pilot model of BioEcopolice and integrating of this model in some regions of the Republic of Tatarstan, integration of biotechnological methods in the sector of communal housing.

The main result of implementation of the Programm is the formation of innovative bioeconomy in the Republic of Tatarstan that will allow to solve the vital economic and social problems.

In detail, the Programm shall reach following results:

- creation and mass production of socially significant domestic biotechnological production.
- formation of the perspective, stable, import-substituting market of production and services of the increased demand (a food, drugs, a stern, fuel, fertilizers, etc.).
- preservation and rational use of bioresources, ensuring ecological wellbeing of the Republic of Tatarstan.
- preservation of staff and the solution of problems of a trudozanyatost in Republic scales.

KEY TARGET INDICATORS OF THE PROGRAMM:

- construction and commissioning of 2 bio pharmaceutical plants with total amount of release of 60 million packings of preparations a year.
- construction and commissioning of a biotechnological complex on deep processing of grain in volume of 1 million t.
- output of the chemical industry on the basis of renewable raw materials in volume not less than 10 % from republican volume.
- creation of plantations of the fast-growing wood on the area about 5 % from wood grounds.
- production of biogas in volume of 500 million m³, motor fuel with volume of 3 % from consumption volume in the Republic of Tatarstan.
- creation of effective system of bioagriculture on the area of 15-20 % from the total cultivated areas.
- production of forages and food additives for animal husbandry and poultry farming with import substitution of 70-80 %
- increase of level of import substitution of preparations for veterinary science to 90 %.
- utilization not less than 30 % of an organic waste on the basis of biotechnological processes.
- creation not less than 6000 new workplaces for experts of a biotechnological profile and allied industries.

At level of the Government of the Republic support of the innovative enterprises is recognized as a strategic objective.

Key task is search and implementation of industry innovative projects. With a view of stimulation of innovative activity now in the Republic of Tatarstan with support of the state 14 science and technology parks are created and successfully work.
OVERVIEW OF REGIONAL ENVIRONMENTAL PROJECTS IN RUSSIA

Regions of Russia: Krasnojarsk Krai

COMMON INFORMATION

Krasnoyarsk Krai is the second largest federal subject of Russia after the Sakha Republic, Russia’s largest krai and the third largest subnational governing body by area occupying an area of 2,339,700 square kilometers which is 13% of the country’s total territory. The administrative center of the krai is the city of Krasnoyarsk. Population: 2,828,187. Over 95% of the cities, a majority of the industrial enterprises and all of the agriculture are concentrated in the south of the krai.

For the last 10 years the Krasnoyarsk Region’s GRP has grown more than tenfold. The main sphere of the Krasnoyarsk Region’s economy is industry. Extractive and processing industries, fuel-energy and machine engineering companies prevail in the economic structure. Oil industry has become one of the key industries of the Region since the launch of the Vankor oil and gas field in commercial operation in 2009. In terms of investment volume per capita the Krasnoyarsk Region ranks 1st in the Siberian Federal Region and 10th among the RF regions.

LEADING ENTERPRISES OF THE REGION’S INDUSTRIES

Metallurgy:
- JSC “MMG Norilsk Nickel”
- JSC “RUSAL Krasnoyarsk Aluminium Plant”
- JSC “Krasnoyarsk Non-Ferrous Metals Plant named after V.H. Guldov”

Extractive industry:
- CJSC “Gold-mining company “Polus”
- CJSC “Vankorneft”
- JSC “SUEK”

Machine Building:
- JSC “Information Satellite Systems named after the academician M.F. Reshetnev”
- JSC “Krasnoyarsk Machine Building Plant”
- JSC “Krasnoyarsk Combine Plant”

Energy industry:
- JSC “Yeniseisk Regional generating company (TGC-13)”
- JSC “MRSK of Siberia”
- JSC “Krasnoyarsk HPS”

Timber processing industry:
- JSC “Lesosibirsk LDK-1”
- CJSC “Novoeniseysky Timber Chemical Complex”
- CJSC “Yeniseysk Plywood Plant”
- LLC “MC “Mekran”

INVESTMENTS IN INNOVATIVE SECTOR

The Government of the Krasnoyarsk Region pays special attention to innovations in economic development, integration of institutions of higher learning and companies.

In 2010 the Krasnoyarsk Region joined the Association of innovative regions.
Regions of Russia: KRASNOJARSK KRAI

Of Russia, this association being a coordinator of the activities of different Russian Federation bodies. The Regional venture fund, managed by “Troika Dialog” stock exchange with funds of 90 mln rbl is functioning to support innovative projects in the Region in terms of financial infrastructure. In the frames of “Small and medium-size enterprises” regional program of the support of innovation projects is being provided in two directions: subsidizing expenses on the design commercialization; capital expenses subsidizing.

INNOVATIVE CLUSTER OF SOLAR ENERGY

- the Project matter: creation of the innovative solar cell manufacturing in the Krasnoyarsk Region.
- the Project organizers and participants: the Government of the Russian Federation and the Government of the Krasnoyarsk Region; LLC “KONTI group” of companies; the state corporation “Bank for Development and Foreign Economic Affairs (Vnesheconombank)“.
- the Project stages: preparation for the project implementation, search for investors, providing the project with the energy infrastructure, initial modernization of the semiconductor silicon plant in ZATO Zhelezno-gorsk town.

THE PROJECT IMPLEMENTATION STAGES

- i stage (2010-2012): modernization and expansion of the production of solar quality polycrystalline silicon up to 1,200 tons per year.
- ii stage (2012-2013): increase in production of solar quality polycrystalline silicon up to 2,400 tons per year, launching of solar cell production (2013 — 1,300 tons of polycrystalline silicon, 180 megawatt solar cells).
- iii stage (2013-2015): gradual rise in the rate of polycrystalline silicon production up to 3,600 tons per year as well as solar cells up to 500 megawatts.

THE EXPECTED PROJECT RESULTS

- tax payments to the budgets of all levels — 4.8 bln rubles (2010-2015).
- tax payments to the consolidated budget of the Region — 2.7 bln rubles.
- new jobs: from 180 in 2011-2012 to 1,200 in 2015.

WASTE SECTOR

The waste sector of Krasnoyarsk Krai demonstrates the typical problems of other Russian Regions: almost 95% of waste are not sorted and are disposed on the landfills; the majority of the landfill does not meet the modern ecological and sanitary requirements. Only 53% of the population of Krasnoyarsk Krai who live in large cities or districts participate at the organized collection of wastes, another part of population dispose their wastes illegally on the illegal wastes dumps or bury these in the environment.

On the territory of Krasnoyarsk Krai almost 300 million ton of wastes are produced annually, the majority of wastes emerge from industrial enterprises and forestry. The territory of wastes’ disposing reached in 2010 1252 ha, 320.3 ha are occupied with landfills and 931.7 ha are waste dumps and places where the wastes are buried illegally.

In order to change this poor dramatic situation the government of Krasnoyarsk Krai has designed and adopted the long-term target Program “The system of managing the industrial and municipal wastes for 2012-2014”. The main purpose of this Program is to establish the well organized, sustainable and environmental friendly system of waste management, to involve the most types of wastes (glass, paper, cardboard, scrap metals, plastics) in the production cycle.

The Funds of the program for the period 2012-2014 are 439.2 million rubles, which will be mainly attracted from the regional funds of Krasnoyarsk Krai.

THE ANTICIPATED RESULTS OF THE PROGRAM:

- designing and construction of 5 landfills for waste disposal meeting the modern norms and standards;
- designing and construction of complex for producing briquettes from municipal solid wastes with facilities for wastes pressing;
- modernization of container and car pool for waste collection and transport;
- to increase the investment attractiveness of the waste communal sector with the purpose to attract private funds for construction of waste sorting and waste processing facilities;
- to create 100 additional workplaces.
THE MAIN INDUSTRIES OF KRASNODAR:
- Agriculture and food industry - 42.8%.
- Energy sector - 13.4%.
- Fuel industry - 10.5%.
- Machine construction - 9.4%.
- Forestry and chemical industries - about 4%.

Krasnodar has a highly developed commercial area. Krasnodar has the largest turnover in the SFD. Retail trade turnover in 2010 reached 290 billion RUB. Krasnodar is the first in Russia in the number of malls (per capita). Note that in the crisis year 2009 turnover of Krasnodar continued to grow, while most of the cities showed a negative trend of circulation of goods.

COMMON SITUATION IN WASTE SECTOR
In the Krasnodar region annually more than 2 million tons of municipal waste is produced represented mainly by municipal wastes.

During the last period (15 years) the region of Krasnodar has seen a steady excess of the allowable level of waste disposal at landfills, at an average annual growth of waste volumes made up about 3-5%. From the total amount of wastes 60% emerge in the households and 40% through the activity of enterprises, institutions and organizations. In the Krasnodar Territory there is practically no industrial processing facilities and the most amount of wastes are buried in the environment.

The majority of objects on the placement and disposal of municipal solid waste do not meet current health and environmental requirements. Only on rare objects environmental monitoring of air, groundwater and soil are carried out. In order to change this situation the Concept for waste management was designed and adopted.

GENERAL PROVISIONS
The concept of management of municipal (municipal solid waste and certain types of solid industrial) waste in the Krasnodar Territory in 2008 - 2012 (hereinafter - the Concept) defines major tasks and activities of public authori-
Regions of Russia: Krasnodar Krai

ties of the Krasnodar Territory and local authorities in the Krasnodar region in the waste management in the region.

The concept was prepared by the regional Department of Housing in accordance with the guidelines of the Programme on economic and social development of Krasnodar region. The Concept provides features to reduce the negative impact of production and economic activity on the environment by implementing an effective system of waste management, and business development activity and is basically aimed at improving the management of municipal solid waste treatment.

- collection, analysis of detailed information describing the situation in the field of waste management in the Krasnodar region.
- identifying of the main sources of pollution of waste, priority issues in the field of waste management and their causes.
- developing an overall strategy and policy in the sphere of waste treatment are carrying out of institutional reforms aimed at creating regional and municipal regulatory framework in the field of waste management to meet the requirements of federal law and local conditions.

STAGE 2 OF THE PROGRAM (2010-2011)
- organization of the selective collection and pre-sorting in the settlements of the Krasnodar Territory.
- territorial planning of the regional system and the industry of collecting, processing and disposal of waste.
- carrying out economic, social and environmental assessment of projects to improve the efficiency of the regional processing industry, waste disposal and use.

- implementation of investment projects in the construction of facilities for waste treatment as part of a production infrastructure needs of the region in providing treatment, neutralization and utilization of wastes.
- Implementation of measures for rehabilitation and reclamation of existing landfills with municipal solid waste.

Regions of Russia:

QUANTITATIVE INDICATORS (ENVIRONMENT AND RESOURCE CONSERVATION):
- increased use of waste as secondary material and energy resources from 3% to 90%.
- reducing the amount of waste disposal in landfills, landfills, storage facilities from 97% to 10%.
- return to the commercialization of 2.5 hectares of valuable agricultural and recreational land occupied by landfills.
- obtain additional sources of energy (gas, heat, biofuels) and organic fertilizers.

QUANTITATIVE INDICATORS (ECONOMIC AND SOCIAL):
- attracting investment to the economy of Krasnodar region.
- the creation of additional jobs for at least 1800.

PROPOSALS FOR RESOURCE MAINTENANCE AND FUNDING SOURCES
The basis for resource support of the Program funds can be credited to the budget of the Krasnodar Territory and the budgets of municipalities from charging entities for negative impact on the environment, including charges for waste disposal, investment funds, attracted by the business entities, funds from other sources, including non-profit organizations for programs directed at environmental protection.

The second most important financial resource is waste generation fee (farmstead, apartments, retail outlets, businesses, organizations, etc.) for the sanitary cleaning of the territory of the settlement in any form of its implementation - a complete collection of this fee is a significant reserve of the program as currently used by 30-40%.

Another important financial mechanism is attraction of the extra capital in type of long-term and low rate loans from the Russian and foreign commercial banks to finance designing and construction of objects of waste recycling to be granted under guarantees of the regional budget.
Regions of Russia:  
REPUBLIC SAKHA (YAKUTIA)

YAKUTIA – THE TERRITORY UNIQUE POSSIBILITIES

The special place among regions of Russia on the potential of development is occupied by the Republic Sakha (Yakutia). Its extensive territory and low population density, the rich resource potential is created by preconditions for formation here a strategic outpost of Russia in the Far East.

On the instructions of the President of Russia the Scheme of complex development of productive forces, transport and power of the Republic of Sakha (Yakutia) till 2020 which is successful is developed the fourth year is realized. The scheme defines strategic priorities and the directions of rational use unique mineral and raw capacity of the republic.

The republic wins first place in Russia on a rating of the general stocks of all types of natural resources which are estimated at 78,4 trillion rub (2 trillion euro). It is the share of a share of Yakutia 47 % of explored reserves of coal, 35 % natural gas, oil of Eastern Siberia and the Far East, 22 % of water resources as a whole across Russia. The greatest share in VRP of the Republic of Sakha (Yakutia) makes the industry – 37,8 %, construction – 15,4 %, trade – 8,7 %, transport and communication – 11,9 %.

Today Yakutia on size gross regional product per capita takes the 5th place among subjects of the Russian Federation also is one of leaders of investment activity in Far East: during 2006-2009 investments into fixed capital made up totally 554,5 billion rubles with real growth in 4,5 times in comparison to 2005.

On an index of the human potential the Republic of Sakha (Yakutia) borrows 15 place in the Russian Federation.

Considering stable social and economic development, the international rating agencies regularly raise a credit rating of the Republic of Sakha (Yakutia).

INVESTMENT CLIMATE

Investment climate of the Republic of Sakha (Yakutia) is defined by set following key factors:
- existence of considerable stocks raw and energy resources.
- sustainable economic growth.
- stable positive dynamics of the main macroeconomic indicators.
Regions of Russia:
REPUBLIC SAKHA (YAKUTIA)

- political stability.
- youngish economically active manpower.
- advantageous geographical position – proximity to the fast-growing consumer markets of the countries of ATR and the USA.
- convenient logistic scheme air and cargo transportation between the countries of South East Asia and USA.
- unique tourist potential.

Creation of the favorable and stable investment climate in the region is one of the main objectives of the Government of the Republic of Sakha (Yakutia). Priorities of the republican authorities are a diversification economy and attraction of investments into priority branches of economy: an oil and gas complex, including production and oil refining and gas, production of a number of metal ores and coal, production of construction materials, processing of production of agriculture, timber processing complex. On the 22nd March, 2010 Standard & Poor’s changed forecast on ratings of the Republic of Sakha (Yakutia) from “negative” on “stable” also confirmed a long-term credit rating of the republic at level of “VV-” and a rating on national to scale at «ruAA-» level.

Improvement of investment climate in the republic for 2002-2009 led to essential dynamics of growth of investments into fixed capital, investments in which following the results of 2009 made 219,7 billion rubles that in 3,8 times exceeds indicators of 2006. Growth of investment activity is connected with strategic investments of the largest Russian companies in republic economy – construction of the Yakut site of pipeline system “Eastern Siberia-Pacific Ocean”, pipeline JSC Transneft company, arrangement of underground mines on production of diamonds of kompaniyy ALROSA (JSC) and Talakansky NGKM, JSC Surgutneftegaz company, construction of a railway line of Berkakit-Tommot-Yakutsk by the JSC RZhD company.

WASTE

On the territory of Yakutia about 200 million tons of waste are produced annually. In general, the sources of waste are manufacturing and distribution of electricity, gas and water - more than 54%, and mining. The biggest “waste pro-ducers” in 2008 were of “Aldanzoloto GRK” 21 million tons, of “Yakutugol” 27 million tons.

The country has accumulated more than 1.7 billion tons of waste production and consumption, which are dispised in 527 landfills and waste dumps, one-third of which are unauthorized.

The amount of the solid municipal wastes is due to the low density of population in Yakutia very inconsiderable.

On January 1, 2009 area of disturbed land in the Republic of Sakha (Yakutia) was 34.3 thousand hectares, including the development of mineral deposits - 23.4 hectares (71.3%), and construction - five thousand ha (15.5%).

The most significant areas of disturbed lands are concentrated in the areas of mining: Mirny Ulus - 8.92 hectares, Neryungri - 11.2 thousand ha, Aldan - 4.8 hectares. In Yakutia there are no companies on integrated waste management.

In order to solve ecological problems, the Ministry of Ecology of the Republic Yakutia designed and adopted the federal complex on measures for environmental protection in the region. 2.18 million rubles - the volume of program activities for environmental protection in the Republic of Sakha (Yakutia) in 2009-2011 (1.736 million rubles from the federal budget and 383 million rubles from the budget of the Republic Sakha, 64.7 mln from extrabudgetary sources).

Major industrial companies spent in the period 2007-2011 1302 million rubles for environmental protective measures annually.

Now in the republic subprogrammes “Waste” and “Preservation of hazardous waste depots” in line with the state target program “Environmental protection of the Republic of Sakha (Yakutia) for 2007-2011” operate. Subprogramme actions “Waste” are directed on arrangement of existing waste dumps, creations of new advanced landfills, integrating of separate collection of valuable resources.

The subprogramme “Preservation hazardous waste depot” considers preservation of hazardous waste depots from the liquidated mining enterprises posing threat to ecological safety.

Actions of the subprogramme are calculated on financing from the republican budget at a rate of 78000 thousand roubles.
Regions of Russia: ARKHANGELSK, PSKOV AND VOLOGDA REGIONS

Focus Area: Environment
Priority Area: Sustainable Energy
Project Title: Building energy efficiency in the North West of Russia

Budget and Source of Funds:
- Full-sized project resources US$ 5,840,000 (Global Environment Facility (GEF).

Starting Date and Duration: January 2009 - December 2015
Project Status: ongoing

Description:
Project objective is to build local capacities for and demonstrate local solutions to improved energy efficiency in construction and maintenance of buildings in the North West of Russia: Pskov, Vologda and Arkhangelsk Oblasts.

Expected Outcomes:
- Outcome 4 "Low carbon transport": An integrated strategy and action plan for reducing GHG emissions from transport during preparations and convening of the Olympics.
- Outcome 5 "Carbon offsets": Sochi Carbon Offsets Programme.
- Outcome 6 "Public awareness and advocacy strategy": A comprehensive public awareness, advocacy and outreach program.

Regions of Russia: SOCHI, KRASNODAR REGION

Focus Area: Environment
Priority Area: Sustainable Energy
Project Title: Greening 2014 Sochi Olympics: A Strategy and Action Plan for the Greening Legacy, Medium-sized Project

Budget and Source of Funds:
- Medium-sized project: Total budget US$ 14,417,000 of which from the Global Environment Facility (GEF) US$900,000, from the UK Government US$65,000.
- Project Preparatory Grant (completed): US$ 125,000 (of which US$ 55,000 - GEF).

Starting Date and Duration: 2011-2013
Project Status: ongoing

Description:
The project aims at addressing climate change mitigation through greening a large international event in Russia – the 2014 Sochi Winter Olympic games. The project Objective is to produce a Greening Strategy and Action Plan for the 2014 Winter Olympics in Sochi. The project will develop greening recommendations and action plans in six specific sectors. By introducing an early Climate Change planning the project will help setting up a “carbon neutral” event and unleash the potential for greenhouse gas (GHG) emissions reduction during the preparation to and conduction of the Sochi Olympic games. In doing so the MSP project will produce an integrated programmatic approach (a set of project proposals) for the Greening of Sochi Olympics.

Expected Outcomes:
- Outcome 1 “Green building standards”: An Action Program for introducing green standards for Sochi Olympics construction and further replication.
- Outcome 3 “Renewable energy technologies”: Reducing GHG emissions through increased application of renewable energy technologies at 2014 Olympics.
Regions of Russia: KAZAN AND KALININGRAD

Focus Area: Environment  
Priority Area: Sustainable Energy  
Project Title: Reducing GHG emissions from road transport in Russia’s medium-sized cities, Project Preparatory Grant.

Budget and Source of Funds:
- Project Preparatory Grant: US$ 400,000 (of which US$ 150,000 - Global Environment Facility (GEF), US$ 250,000 - Government of Russia in kind).

Starting Date and Duration: May 2011 - March 2012  
Project Status: ongoing

Description:

The Global Environment Facility (GEF) is currently funding the Project Preparatory Grant (PPG) phase of full project “Reducing GHG Emissions from Road Transport in Russia’s Medium-sized Cities”, addressing reduction of greenhouse gas (GHG) emissions from urban transport system in medium-sized Russian cities (Kaliningrad and Kazan) through the sustainable integrated transport planning, promotion of a long-term shift to more efficient and less polluting forms of transport, and demonstration of sustainable low-GHG transport technologies.

The project will achieve this through the following outcomes:
- Policy, planning, institutional and stakeholder analysis.
- GHG analysis: baseline analysis, GHG modelling and feasibility of GHG monitoring system.
- Design of pilot/demonstration projects.
- Project strategy and scoping, M&E plan.

The major objective of the PPG is to develop a full project document for a UNDP/GEF project in Climate Change focal area addressing barriers to GHG emissions reduction in the urban road transport systems in medium-sized cities.

The project will exchange information, lessons and best practices with the GEF/UNDP/EBRD/UNIDO Umbrella Programme “Energy efficiency in the Russian Federation”.

Regions of Russia: NENETSK AUTONOMOUS OKRUG, KHAKASSIA REPUBLIC, YAKUTIA REPUBLIC, KEMEROVO REGION, SAKHALIN REGION, NORTHERN CASPIAN REGION

Focus Area: Environment  
Priority Area: Biodiversity  
Project Title: Mainstreaming biodiversity conservation into Russia’s energy sector policies and operations, Full-sized Project.

Budget and Source of Funds:
- Full project: US$ 39,150,000 of which US$ 7,200,000 from the Global Environment Facility (GEF).

Starting Date and Duration: December 2011 - December 2016  
Project Status: ongoing

Description:

A significant share of Russia’s biological wealth will continue to exist outside the network of protected areas. And, economic development will continue to place pressure on biodiversity outside protected areas.

Most importantly, Russia’s regions of globally significant biodiversity – namely the Arctic, Siberia, Far East, and Caucasus – are increasingly becoming the focus of energy development.

The expected exponential growth of Russia’s energy sector means a potential further rise in threats to biodiversity. Whether and to what extent these threats materialize depends on if the baseline course of action is corrected to address biodiversity risks.

The desired long-term solution is for Russia to adapt its legislation and policies to include legal requirements for energy sector actors to take into considera-
Regions of Russia:
ASTRAKHAN AND VOLGOGRAD REGIONS, REPUBLIC OF KALMYKIA

Focus Area: Environment
Priority Area: Biodiversity
Project Title: Conservation of Wetlands Biodiversity in the Lower Volga Region
Budget and Source of Funds:
- Full project: USD 6,488,000 (Global Environment Facility), USD 9.4 million (parallel and in-kind co-financing).

Starting Date and Duration: January 2006 - December 2012
Project Status: ongoing

Description:
The project development objective is to ensure protection of the globally significant wetland biodiversity of the Volga Delta through an integrated conservation and sustainable-use approach. The protected areas of the Lower Volga require a thorough reorganization and strengthening programme based upon the new realities of the day (including the sea level rise of the Caspian Sea) and the latest thinking in integrated conservation and management approaches.

Expected Outcome:
- Legislative and political basis improved.
- Capacity enhanced of the local government and non-governmental agencies active in the fields of biodiversity conservation and wetland management.
- Improved protected areas system.
- Demonstration projects for the community participatory and integrated management of key wetlands and their biodiversity resources in the Lower Volga implemented.
- Water quality monitoring programmes to reduce industrial pollution developed.

Global biodiversity benefits will be realized through safeguarding long-term ecological stability of the Arctic, Tundra, and Boreal Forest biomes, as well as of the fragile ecosystems of the Caucasus and Far East regions.

Mainstreaming biodiversity conservation considerations into energy sector operations at project demonstration sites alone will ensure population stability of a number of International Union for Conservation of Nature (IUCN) Red List species, including: Hooded Crane, Siberian Musk Deer, Siberian Grouse, European Otter, and Atlantic Salmon.
1. LEGAL FORMS OF PPP IN RUSSIA

In Russia, a private public partnership (PPP) may exist in various legal forms, depending on whether a project is implemented at the expense of budget funds or funds provided by a private investor. As a rule, the subject matter of a respective agreement is the creation (reconstruction) of a real estate facility determined therein.

As there is currently no uniform federal legislative instrument regulating PPP issues, they are regulated not only at the federal level, but also at the regional and municipal levels. PPP forms may be divided into three groups, which are described below.

1.1 Concession Agreements

Concession agreements are one of the basic forms of PPP project implementation, which stipulate the joint financing of projects by the state and a private investor, and the operation of the concession facility by the investor for a certain period of time upon the creation of such an agreement.

Concession agreements are entered into on the basis of a tender, and provide for the granting of rights to state or municipally owned property to investors, for the purpose of the creation or reconstruction of a concession facility and its further operation by the investor (concessionaire). The parties to a concession agreement are the concessionaire (as a rule, a commercial company or consortium comprised of the banks who are providing the finance, and the companies who are directly implementing the project) and the grantor (the Russian Federation, an RF subject, a municipal entity).

The basic legislative instrument regulating the procedure for entering into and fulfilling concession agreements is Law No. 115-FZ “On Concession Agreements”.

The only possible concession model described in the Law is the BTO (“build – transfer – operate”) model. The ownership right to the created (reconstructed) facilities is held by the grantor. This, without question, limits the applicability of concession agreements.

In 2010 a number of amendments and addenda were made to the Law “On Concession Agreements” (hereinafter the “Concession Law”) aimed at facilitating the implementation of public utility projects, in particular at facilitating the raising of funds for PPP projects and the possibility for state and municipal enterprises to participate in PPP projects on the side of the grantor and exercise certain powers of the grantor, which is specific to the housing and public utility sector.

However, the PPP model under the Concession Law is rather unattractive for private business, due to the complexity of the legal procedures involved, and also the lack of legal provisions guaranteeing the recoverability of personal or raised funds.

In terms of investment attractiveness, special attention should be paid to the tariff regulation of the concessionaire’s activities, implemented upon the creation (reconstruction) of concession facilities in the housing and public utility sector, electric power supply sector, and other regulated types of activities. It is operating profit that is usually the main source of return on such investments. In this case, guarantees in the sphere of state price (tariff, rate) regulation have substantial significance. This issue is reviewed in more detail in the section devoted to the specific features of particular PPP areas.

1.2 Public Procurement

The issue in question is the 100% budget financing of a project. In the course of implementation of such a project an authorized public customer (a state or municipal authority, a state enterprise) selects, on the basis of a ten-
Depending on the scope of rights granted to an investor with respect to an investment facility, there are various types of investment agreements:

(a) Agreements stipulating that the investment facility shall be returned to the state upon the expiration of a certain period of its operation by the investor (build-own-operate-transfer (BOOT) agreements) or rehabilitate-own-operate-transfer (ROOT) agreements.

(b) Agreements providing for the preservation of the investor’s rights to the investment facility (build-own-operate (BOO) agreements) or rehabilitate-own-operate (ROO) agreements.

(c) Operation and management agreements.

Within the framework of an investment agreement, entered into with a regional administration and providing for construction of a new facility, the investor is granted the right to construct real estate on a state-owned plot of land. Rights to real estate may be granted on the basis of a tender or for intended purpose.

The specificities of entering into investment agreements are established by regional legislation, and may differ in various federal subjects.

The laws of Russian Federation subjects provide for various additional support measures aimed at raising investment in the respective regions. Such measures include:

(i) administrative support, including assistance in obtaining permitting documentation; ensuring interaction with competent authorities; informational support;

(ii) financial support in the form of subsidies and tax concessions granted at the regional level.

As a rule, such concessions are granted subject to the conclusion of an investment agreement with the administration of the respective region, that may determine the conditions with respect to the investment amount and key performance indicators of the investor, special restrictions regarding the types of activities, as well as requirements for the accounting and reporting of the taxpaying company.
2. INFRASTRUCTURE PROJECTS IN CERTAIN AREAS: TYPES AND REGULATORY CONSIDERATIONS

2.1 Road Construction

Motor roads are one of the most common areas where PPP schemes, mainly based on the Concession Law, are applied.

Implementation of PPP projects in the road construction sector became possible relatively recently, after the adoption of Federal Law No. 257-FZ dated November 8, 2007 “On Automobile Roads and Road Activities in the Russian Federation and Making Amendments to Separate Legislative Acts of the Russian Federation” (hereinafter the “Road Law”). The Road Law, firstly, provided for the possibility of private ownership of motor roads; secondly, it regulated the existence of toll motor roads; thirdly, it expressly identified PPP as a mechanism for the creation, reconstruction, and use of Russian roads.

Investment attractiveness is increased by the provisions of the sector-specific legislation, which stipulates that if the traffic intensity and vehicle fleet composition indicators (agreed upon in the respective concession agreement) are not achieved, the state may pay compensation to the private investor.

Excluding public authorities, the state-owned company “Russian Motor Roads” manages some federal highways (including toll highways), and can act as a grantor under concession agreements.

The recoverability of investments is guaranteed by the procedure for, and conditions of, determination of and change in toll rates, and the procedure for toll collection is established in a concession agreement. In accordance with a legislatively mandated regulation, specialized services and agencies have the right to use toll roads on preferential terms (free of charge), and a concession agreement may also stipulate additional preferential terms. If a road is owned by a private partner, the toll rate is thereby determined subject to the obligations under the respective PPP agreement (such a calculation is made in accordance with approved methods which take into account both road users’ economy and the budgeted costs of the company operating the road).

The development of PPP in the road construction sector is significantly constrained by the requirement established by the Road Law, in accordance with which any route that has a toll road should also have a free alternative road. The length of such a free road may not exceed the length of the respective toll road by more than three times. Taking into consideration the undeveloped road network, this requirement very often cannot be fulfilled. The possible cancellation of this requirement is currently being discussed at the highest level, but the political aspect involved in this decision makes it difficult to make any predictions.

2.2 Public Utility Complex

In accordance with Russian legislation, the public utility complex includes household solid waste management, water supply, water discharge and wastewater treatment. On one hand, the following features are specific to the public utility complex: a significantly dilapidated public utility infrastructure and the obsolescence of the technologies used, which entail a low quality of public utility service provision and substantial costs for the providers of such services. On the other hand, there is the high capital capacity of renovation projects. Also, it should be noted that public utility facilities, and the networks and plots of land on which they are situated, are not fully and properly registered. The specific features of this sector also include newly established requirements for electric power supply, energy efficiency, and the environmental safety of the activities of public utility companies.

Public utility infrastructure is municipally owned (in St. Petersburg and Moscow it is owned by the respective subject of the Russian Federation) and is transferred for management purposes to municipal and state unitary enterprises (MUP/GUP), which are incorporated and owned by the state administration. The rights (in terms of economic management) of such enterprises to the public utility infrastructure are not an impediment to the transfer of property for the implementation of a project.

The regulatory basis of PPP in the sector in question is Federal Law No. 210-FZ dated December 30, 2004 “On the Principles of Regulation of Tariffs of Public Utility Companies” and the Concession Law. Most regional PPP laws include the public utility complex within the framework of possible partnership.

The financial basis of the operational and investment activities of public utility companies is the proceeds from public utility services rendered. Service fees are established in the form of tariffs, subject to the principle of afford-
ability of such tariffs for consumers. Free pricing is impossible. The process of establishing these tariffs involves federal, regional and local authorities. It has been declared that the RAB method (a method for ensuring a return on invested capital) is applied, but in reality it is impossible to apply due to a lack of proper bylaw regulation and practice.

Investment projects may be implemented under both the concession scheme and other schemes. A concession agreement may stipulate long-term parameters of regulation, which are binding upon all competent authorities when establishing tariffs. If established tariffs do not comply with such long-term parameters, the terms and conditions of the concession agreement may be reconsidered at the concessionaire’s request (a reduction in the concessionaire’s obligations, an extension of the operational term of concession facilities, etc.). There is no mechanism for compensation by the grantor for the concessionaire’s shortfall in income. The sources of investment project financing are determined in accordance with the terms and conditions of a concession agreement. The state (municipality) is entitled to assume an obligation to partially finance a public utility company’s expenses upon the implementation of investment projects.

The state guarantees the return of invested capital once the concession agreement ceases to be in effect. This guarantee, however, applies only to the amount of funds stipulated in the investment programmes of the public utility company participating in concession relations approved by the regulatory authorities.

2.3 Waste Processing

The most important problem in the waste processing sector in Russia just now is the absence of a legislative framework that would regulate the main principles of, and the procedure for, environmentally safe, in contemporary terms, waste processing and management, as well as the attraction of private investment to this sector. The basic sector-specific legislative instrument is Federal Law No. 89-FZ dated June 24, 1998 “On Production and Consumption Waste”.

A prerequisite for advanced waste processing and recycling is a separate waste collection system. Current Russian legislation does not contain any provisions for mandatory waste segregation; in practice, household waste is also very rarely sorted.

Current legislative initiatives in the waste processing sector are aimed, first of all, at the imposition on manufacturers of responsibility and expenses related to waste management and, in particular, the drafting of a packaging law. With separate waste collection being impossible, many Russian regions have chosen an alternative way, involving the construction of waste sorting and recycling plants. In this regard, it should be noted that practical aspects, such as the existing tariff regulation, hinder development in this area of the waste processing sector: the cost of waste dumping is still significantly lower than the tariffs of waste sorting and recycling plants. As a result, the “proper disposal” of waste, i.e. waste processing and waste clearance before dumping, is not financially incentivised. However, it is evident that such calculations do not take into account the expenses related to landfill maintenance, as well as compensation for damage caused to the environment.

Generally, legislation related to this sector has only started to take shape, which offers hope for the development of legislative measures to induce the establishment of waste processing and sorting enterprises at both the federal and regional level.

2.4 Heat Supply

Prior to Federal Law No. 190-FZ dated June 7, 2010 “On Heat Supply” coming into effect on January 1, 2010, this sector was part of the public utility complex. Therefore, the current situation in this sector is similar to that in the public utility complex: the dilapidated state and obsolescence of heat supply networks and heat producing facilities, state and municipal ownership rights to the production facilities, heat supply networks managed by MUP/GUP, and tariff pricing.

At present, a major problem is the lack of bylaws regulating tariffs. However, PPP projects in the heat supply sector are more attractive in terms of investment, in comparison with the public utility complex, owing to the trend declared by the law that assumes a transition to free pricing with respect to heat energy (power) and, before conditions for such a transition have been provided, owing to tariff regulation using the RAB method (the method for ensuring a return on invested capital).

First of all, the Law stipulates the transition to free pricing within separate heat supply systems (of a city, district), provided that there is a competitive
market in heat supply services in this territory. Secondly, the conclusion of long-term heat supply agreements at non-regulated prices is permitted, with respect to facilities put in operation after January 1, 2010.

The RAB method is expected to become the basic method of regulating tariffs for services provided by heat producing and heat network companies (with the exception of small enterprises in this sector). Such tariffs will remain valid for at least 5 years (3 years when first applied). When establishing tariffs, both the long-term parameters of activity regulation and obligations under concession agreements should be taken into account.

3. BEITEN BURKHARDT

BEITEN BURKHARDT is represented in Russia by offices in Moscow (since 1992) and St. Petersburg (since 1996) and has significant experience in consulting foreign investors in Russia on legal and tax issues.

OUR SERVICES:

- corporate law, including establishing representative offices and branches of foreign companies, subsidiaries and joint ventures, conducting legal due diligence on target companies in Russia, current advise on company management and financing, corporate restructurings aimed at optimizing taxation and business structure.

- commercial and contract law, including drafting, negotiating and checking contracts, structuring transactions from the legal and tax perspective.

- tax law, in particular advising on issues related to tax planning and structuring of investment projects, analysis of tax consequences of agreements concluded or to be concluded, drafting recommendations on reducing possible tax risks, representing clients’ interests in tax disputes.

- customs issues, including optimizing the customs registration process, support on the issues of reducing customs duties and import VAT relief.

- labor and migration law, including drafting employment agreements, developing internal local acts and regulations, consulting on issues of hiring, transferring and dismissing employees, on issues of sending employees to work in Russia, consulting on issues of Russian migration law, obtaining permit documents and visas to perform labor activities.

- real estate and construction law, in particular conducting legal due diligence on real estate objects, providing legal support for acquisitions of Greenfield and Brownfield sites, drafting contractual documentation regarding acquisition of rights to land plots and buildings and performance of construction works.

- dispute resolution, including legal expertise of documentation, pre-trial and out-of-court resolution of conflicts (mediation, claim handling); representing the clients’ interests at state and arbitration courts; representing the clients’ interests in the framework of enforcement proceedings.

- consulting on legal and tax aspects of infrastructure projects implementation in the form of a PPP with participation of international financial institutions, governmental organizations and private companies.

- administrative coordination – communication with local government bodies, authorities of subjects of the Russian Federation, and federal administrations, including within the framework of implementation of investment projects and making amendments to regulatory acts.
CLOSE-END UNIT INVESTMENT FUND EURORUSS

CLOSE-END UNIT INVESTMENT FUND AS A TOOL FOR IMPLEMENTATION OF PRIVATE FINANCIAL INITIATIVE

BALTINVEST AM, LLC, BALTINVESTBANK, PLC and NOWATELL GmbH offer you to consider the possibility to take a part in the implementation of the projects what are socially important on the territory of the Russian Federation (hereinafter referred as Projects).

MAIN SPHERES OF PROJECTS IMPLEMENTATION ON THE RUSSIAN TERRITORY:

- water supply and wastewater removal;
- waste treatment and recycling;
- industrial infrastructure development.

THE CONCEPT:

- Project implementation is considered on the terms of the PPP with the use of a Closed-end Unit Investment Fund (hereinafter referred as CUIF).
- The State as an executive authority, Russian Regional Authority or Russian Local Authority (hereinafter referred as Public Partner) cooperates with the one legal entity (hereinafter referred as Management company) which represents the interests of investors and credit organizations (hereinafter referred as Private Partner).
- The management company solves all organizational and legal questions concerned with the project.
- Priority model is a BOLT model (Build-Own-Lease-Transfer).

TERMS FOR THE PROJECT IMPLEMENTATION:

- Initiative of the Public Partner to implement the project.
- Project implementation according to the PPP using the CUIF as an alternative way to establish an legal entity- SPV (Special Purpose Vehicle).
- Attraction of the qualified investors to found CUIF with the funds, which are necessary for construction and investment project implementation in the considered Subject of the RF.

FUNDING SOURCE FOR PPP-PROJECTS
CLOSE-END UNIT INVESTMENT FUND EURORUSS

CUIF IS AN EFFECTIVE PLAN OF COOPERATION AND FINANCING ACCORDING TO THE PPP-PROJECTS

INVESTMENT COMMITTEE

Shareholders 1

Investors, CUIF

Shareholders...n

CUIF

CUIF FEATURES:

SAFETY

PROFITABILY

PROJECT SECURITISATION

TOTAL INFORMATION AWARENESS

OPTIMAL WAY TO MANAGE THE PROJECT

CONTROL

- Federal Financial Markets Service
- Registrar (maintains registry)
- Custodian (holds and safeguards property)
- Appraiser (provides appraisal of property)
- Auditor

CUIF SAFETY

- Registration of the Rules of trust management of CUIF
- Control the management company work
- Other CUIF asset transaction
- Infrastructure
- Investment declaration
- Approval of asset transactions
- Asset management company
- CUIF assets
- Management company
- CUIF assets
- CUIF assets
- Rights to transact with CUIF
- Market value of CUIF assets
- CUIF assets
OVERVIEW OF REGIONAL ENVIRONMENTAL PROJECTS IN RUSSIA

CLOSE-END UNIT INVESTMENT FUND EURORUSS

PROJECT SECURITISATION

Shareholders 1 
Shareholders ...n

Investors, CUIF founder (shareholders)

Stock Exchange

MICEX

CUIF

Rental projects

Regional projects (in subject of the RF)

Branch projects

TOTAL INFORMATION AWARENESS

Shareholders 1 
Shareholders ...n

Investors, CUIF founder (shareholders)

Reports of fund manager 
Auditor's report 
Appraisal report 
Reports of registrar

Close-end unit investment fund

CLOSE-END UNIT INVESTMENT FUND EURORUSS

OVERVIEW OF REGIONAL ENVIRONMENTAL PROJECTS IN RUSSIA

Reporting form is approved by the regulatory act of the RF FFMS.

Shareholder has a right to choose appraiser and auditor by himself.

How to inform shareholders (about volume, time schedule) is decided by the participants of CUIF.

Reports are made by the managing company, checked with custodian and given to the RF FFMS.

Shareholders has right to get information from auditor and custodian.

OPTIMAL WAY TO MANAGE THE PROJECT

Shareholders 1 
Shareholders ...n

Rules of trust management

CUIF GENERAL MEETING

ELECTION OF FUND MANAGER

QUOTABLE AT STOCK EXCHANGE

CUIF INVESTMENT COMMITTEE

NOT FULLY PAID SHARES

ADDITIONAL SHARES

It is possible to attract into the project other participants – natural and legal person, nongovernmental pension funds, investment funds, banks and etc., and also in foreign jurisdiction.
CLOSE-END UNIT INVESTMENT FUND EURORUSS

SCHEME OF PRE-IPO PROJECTS IMPLEMENTATION

- **Investment agreement**
  - Non-residents of the Russian Federation
  - BALTINVESTBANK and partners
  - RUSNANO, PLC

- **Investment committee**
- **Pre-IPO CUIF**
  - Capital investment
- **Project companies**
- **Go for IPO**
- **Stock sale within IPO**
  - International funds
  - Investment companies
  - Other investors

- **IPO Stock Exchange (MICEX)**

CLOSED-END UNIT INVESTMENT FUND (CUIF)

- CUIF is a property complex (not a legal entity) which is separated from the legal risks of a shareholder and a close-end investment management company.
- CUIF incorporates:
  - property given to CUIF founders (real estate, funds and etc.);
  - property received in the process of fund (real estate, funds and etc.).
- A share held in the title to the property of the CUIF is certified by a security (share) issued by the CUIF registrar together with the close-end investment management company.
- Both ordinary and qualified investors may be CUIF founders (unit holders). **Qualified investors CUIF** has an extended tooling for comprehensive project implementation and entitled its unit holders to approve and/or make strategic decisions in property management via an **investment committee of the fund**.

Closed-end Unit Investment Funds have been operated in Russia since 2003. Along with cash and securities CUIF will also accept other assets specified in the investment declaration (depending on the class of the fund). For instance, CUIF classified as real estate funds may incorporate real estate (buildings, structures or land plots), rights to real estate and construction and reconstruction in progress of real estate, design and estimate documentation, etc.

CUIF can combine for participation in the project implementation investors of different categories – state, credit institutions, industrial organizations, funds, other legal entities and individuals (**residents and non-residents of the Russian Federation**). Other ways of saying, investors who are ready to invest in the project can feel safer owning investment shares than concluding an agreement on joint activities.

PROTECTION OF RIGHTS AND CUIF PROPERTY

- Governmental control. The supervisory authority for the UIT management companies is FFMS of Russia.
- Control by a special custodian in the form of record of the CUIF property and approval of transactions therewith.
- Control over unit holders rights to the units by a special registrar keeping the unit register.
- Control by the General Unit Holders Meeting (reelection of the management company, custodian, registrar, appraiser, auditor; modifications in
CLOSE-END UNIT INVESTMENT FUND EURORUSS

The Company has been operating on the unit investment fund market for more than 6 years. The managing team responsible for investing the fund assets has proven its proficiency and expertise in dealing for years with fairly big moneys either during recession or stability periods on financial markets.

At present, the Company controls unit investment funds pursuing various investment strategies. These are open-end investment funds of shares, bonds and mixed investments, closed-end real estate funds, risk bearing (venture) investment, mortgage and credit funds.

For more information on the funds and for review of the Fund Guidelines or other documents stipulated by Federal Act No. 156-ФЗ dated 29.11.2001 On Investment Funds, and regulatory acts of FFMS of Russia, please contact BALTINVEST MC, LLC at 197101 St. Petersburg, Malaya Monetnaya St., 2, Letter G, or call at the company phone number: (812) 644-44-35 (-36, -37), or visit the company website at: www.pifbaltinvest.ru

PROFITABILITY

The profit gained in the CUIF is tax free. This enables it to be reinvested.

Unincorporated business:
- without establishment;
- it is not necessary to establish a cooperative company to participate in projects with other legal entities and natural persons and also foreign investors;
- without representative body in Russia – for non-residents of the Russian Federation.

BALTINVEST AM, LIMITED LIABILITY COMPANY

BALTINVEST AM, Limited Liability Company has been managing investment funds, unit investment funds and nongovernmental pension funds under License No. 21-000-1-006664 issued by FFMS of Russia on October 27, 2009.

BALTINVEST AM, LLC is a subsidiary of BALTIVESTBANK, PLC and a member of the National League of Management Companies.
OVERVIEW OF REGIONAL ENVIRONMENTAL PROJECTS IN RUSSIA

CLOSE-END UNIT INVESTMENT FUND EURORUSS

ers have a serious experience in organization and placement of the bond issues of more than 40 corporate issuers, the territorial subjects of the Russian Federation, municipal corporations and also experience in cooperation with the state registrar.

For more information about BALTINVESTBANK please contact BALTINVESTBANK, PLC at 197101 St. Petersburg, Malaya Monetnaya St., 2, Letter G, or call at the company phone number: (812) 326-1-326, or visit the company website at: www.baltinvestbank.com

MAIN REGULATORY ACTS

- Order by the RF FFMS No. N 10-79/пз-н dated December 28, 2010 On Approval of the Regulation for Composition and Structure of Assets In Open-End Investment Funds and Unit Investment Funds.
- Order by the RF FFMS No. 05-21/пз-н dated June 15, 2005 On Approval of the Regulation for the Procedure and Term of Measuring Net Asset Value in Unit Investment Funds, Estimated Value of Investment Units in Unit Investment Funds, and Net Asset Value of Open-End Investment Funds per Share.
- Order by the RF FFMS No. 05-23/пз-н dated June 22, 2005 On Approval of the Regulation for the Procedure and Term of Disclosing Information on Business of Open-End Investment Funds, Management Companies and Unit Investment Funds, and the Requirements to the Disclosed Information.
- Order by the RF FFMS No. 08-17/пз-н dated April 15, 2008 On Accounting Rights to Investment Units in Unit Investment Fund.
- Order by the RF FFMS No. 08-5/пз-н dated February 7, 2008 On Approval of the Regulation for Additional Requirements to the Procedure for Preparation, Call and Convention of General Unit Holders Meetings in Closed-End Unit Investment Funds.
- Order by the RF FFMS No. 08-56/пз-н dated December 9, 2008 On Contribution of Property to a Closed-End Unit Investment Fund and Term for Establishing a Closed-End Unit Investment Fund.

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