

Chapter 7.

SCIENCE, CULTURE, EDUCATIONAL ACTIVITIES

1. General problems in education, science and culture

With the breakdown of the Soviet Union the state substantially reduced its support of education, science and culture. The local political elite for a long time did not give priority to these areas. There is no sense in investing in them and it is not possible to use them in PR campaigns. While these areas are the basis of the system potential of the country, the current authorities were largely underestimating them. According to objective criteria, in 2005 these alarming tendencies continued to remain in place and even developed further. The main problems are still insufficient financing as well as a lack of consistent and balanced government policy. Education, science and culture are still developing very sluggishly, which has to do not only with the fact that RF is a successor of the Soviet Union with all its advantages and disadvantages, but also with the absence of effective movements on the part of the state aimed at eliminating defects of the Soviet system. However, with the next *presidential and parliament elections approaching, interest of representatives of the nomenclature and political groups (NPG) to education, science and culture has substantially grown*. This can be explained by the fact that these areas employ a great number of people constituting the electoral base of the largest in Russia political party „Yedinaya Rossia”. Ignoring of their interests, maintaining low salary levels and low living standards may have a negative impact on the upcoming elections. With the approach of the next electoral cycle, representatives of NPG’s of both liberals and power agencies are starting to actively using the cultural sphere for implementation of their own PR-projects.

At the same time, the processes that are going on in Russia in the area of science and culture are very contradictory. On one hand, performers that are the most successful in the current social and economic conditions in Russia in the area of education, science and culture (first of all, with substantial financial and political support. On the other hand, a whole number of strategically important directions remain unclaimed and devoid of investments from the state and from private business. Still salient is the traditional problem of outflow of qualified specialists to other countries (the so-called „brain drain”). At the same time the reform of the educational system causes many discussions among the Ministry of Education and Culture officials, in the appropriate profile departments, among heads of universities and other educational institutions. Especially vigorous discussions are caused by the RF joining the Bologna Declaration and the need to make cardinal changes in the Russian system of education.

Therefore, the political elite in the country does not have a clear single idea of the direction in which the Russian education and science should develop. *Ideas dominating in the NPG regarding the need to reform these systems allow us to roughly single out*

supporters of Westernization, considering that we should count on foreign experience, unify the Russian education system pursuant to the European standards, use foreign methods of training and education etc., *and its opponents*, who think that it is important to maintain the national educational system with its centuries-old traditions, improve its financing, and selectively use the international experience in this sphere.

Since education and science reforms involves interests of various representatives of the political and business elite in the country possessing substantial resources and influence, it is quite logical that they engaged into a vehement strife that often was expressed in various public demarches. This confrontation was deployed both on the federal and on the regional level and led to the fact that the process of modernization of the Russian education and science has substantially slowed down. At the same time the existing problems in these two very important areas are not being resolved. At the same time the beginning of implementation of a priority national project in education became an important political decision aimed at improving the situation. Success of this project greatly depends on effectiveness of the use of government resources and resolving of other salient problems in the country.

We have to remember that the social, economic and demographic situation in the country is substantially influencing the Russian education and science. On one hand, this situation leads to commercialization of the education and science system, on the other hand, it results in substantial degradation in certain knowledge areas.

Processes that are going on in culture and art are also very controversial. On one hand the Russian culture is usually substantially influenced by the global world tendencies (first of all by the ones typical for the globalization process), and on the other hand in certain areas of culture we can see a process of pushing away the foreign value systems and norms. This is very obvious in music, literature, and to a less extent in cinema. At the same time reforming of the Ministry of Culture of the Russian Federation and redistribution of authority between the Ministry and the specialized federal agency actually lead to a public conflict between them. This not only had a negative impact on the image of the Ministry and its subdivisions, but also on the effectiveness of their work.

2. Educational Policies in the Russian Federation: Development Tendencies and Perspectives

The level of development of modern technologies and of the country in general first of all depends on the intellectual potential of the society, and, therefore, on the condition of elementary, high school and higher education. In 2005 the state allocated

for education 4.5% of the GNP. After a short recession in the beginning of 1990s, Russia has been going through an obvious boom in higher education. In the last 5 years the number of university students has almost doubled and admissions have grown by more than 1.5 times during the same period. The share of paid students is more than 50%. The share of universities and students in state universities and colleges has been growing mostly due to increasing the number of paid admissions, while the number of state-financed vacancies practically remained unchanged. The fact that paid education does not prevent the number of students from growing is an indication of a stable and even increasing demand for higher education. Pursuant to the data from numerous public opinion surveys (Public Opinion Fund, All-Russia Public Opinion Research Center, Levada-Center), more than 80% of the respondents between 15 and 35 years of age think it is absolutely necessary to have higher education. Higher education is viewed by the society as a social norm. Moreover, the country is going through a stage of establishing new educational priorities that require getting a second higher education for more successful career growth. This is the opinion of 20% of the respondents, and in large cities this number is reaching 25%, while in families of specialists this opinion was expressed by 28% of the respondents.

75 percent of university graduates in Russia are not employed in their area of specialization. Young graduates have to go through on-the-job training. Starting from 1996 the number of specialists with higher education increased by 2.5 times, which exceeds the demand by approximately two times, the number of community college graduates increased by 35%, but this number is less than demand by about two times. Therefore the outdated system of specialist training on all levels, from community colleges to higher education institutions, does not comply with the market requirements. Another problem is that the quality of education tends to deteriorate. In 2005 the Federal Education Monitoring Service conducted a series of extraordinary audits in universities in a number of Russian regions and returned with distressing conclusions. About 50% of the audited institutions have deficiencies in terms of quality of education. By the way, the results of this audit led to serious measures, such as revoking of licenses, canceling accreditation and other sanctions.

In the opinion of the experts and officials at the Ministry of Education and Science, lately Russia has been lagging more and more behind the developed countries in terms of education. This can be first of all attributed to the shrinking state support in this area. In 2005, for the first time since the beginning of the 1990's, the quota for budget (free) freshman vacancies was reduced by 8%. At the Board meeting of the Ministry of Education and Science on March 9, 2005, the Ministry officials approved the new quota for budget-financed freshman vacancies, in the amount of 567

285 students. This number amounts to 91% of the state plan for 2005. The admission quota for arts and sciences reduced by 7.2%, for economics and administration by 4.4%, education and pedagogy by 2.2%, however, the admission quota increased in the service sector (by 2.6%), and automation and management (by 1%).

Starting from January 1, 2005 due to the cancellation of land and real estate tax discounts for educational facilities we should expect an increase in cost of education for paying students. Furthermore, many private educational facilities may cease to exist. The problem is that in addition to the substantial taxes, the Law No. 122 known as the Law on Monetization of Benefits, the state ceased providing financial support to non-state schools and universities, which was guaranteed to them in the previous law. The only exception will be in Moscow, where the authorities are still continuing to finance private schools from the city budget, which means that private schools and universities in the capital should not be afraid of a wave of bankruptcies for now. However, the rest of the Russian regions do not have the resources for such payments. In general in Russia every year close down about 1 thousand various educational facilities.

For example, in 2004/2005 were closed 919 educational institutions, in 2003/04 – 1411, in 2002/03 – 1058. According to official data, an elementary school teacher with a university diploma from a teacher's college in Russia is paid about 1.5 thousand RUR per month, and a teacher with a community college degree is paid 1.25 thousand RUR. Because of the lack of financing many institutions have not been repaired for many years and are not in a very poor state. For example, by September 1, 2005 333 Russian schools were „completely forbidden for opening”, and 27% of all Russian schools (according to the Ministry of Education and Science) „were accepted conditionally: many of them did not have a sewage system, running water, fire extinguishing systems”. At the same time, substantial funds are allocated such experiments as the project of implementing the Single State Test (SST).

We have to mention that schools are being closed not only due to financial reasons, but also due to demographical factors. For example, according to the evaluation of the Ministry of Education and Science, in 2005 1.86 students graduated from the 9th grade, while in 2006 this figure will be only 1.59 million, and in 2007 – 1.43 million. In 2006 the number of 11th grade graduates will be 1.265 million, which is by 37400 less than in 2005, and in 2007 the number of graduates will be less by 176 thousand. In 2006 the Ministry is expecting a reduction in the total number of students by 10.2%. According to the forecast of the Ministry of Science, in 2010 the number of students in the budget-financed departments will be by 25-30% less than in 2005.

However, in the opinion of UNESCO experts, so far the Russian education is not degrading quite as rapidly. Russia is demonstrating „normal positions” almost in

all areas. The only exception is the problem of quality of education, especially elementary. The state financing of education is also not quite sufficient, according to the UNESCO specialists, the optimal level of government spending on education is about 5-6% of the local GNP. In 2005 Russia spent on education about 4.5% of GNP.

The last meetings of the board of the Ministry of Education and Science, as well as the Minister's speeches and a number of legislative bills submitted to the State Duma give a general impression about the direction of specific activities undertaken by the Ministry. Specifically, it was suggested to introduce „pre-school” education for five-year old children. This measure is aimed at leveling out the chances of children from different families in terms of their preparedness for school. It was suggested to divide the school subjects into „curriculum” and „extracurricular”. For the latter the parents will have to make additional payments. There is no exact list yet, but their share in the general program will reach up to 10-15% (according to some estimations even 25%). Making his presentation to the State Duma senators, Andrey Fursenko suggested „tying up the basic salary of the faculty to the basic study plan that provides for 75% of the total work load. The rest 25-20% will be paid for as extracurricular activities”.

The plan is to cancel mandatory curriculum in the high school standards. This means that schools will be fully independent in terms of what to teach and what not to teach depending on their own capabilities and financial conditions.

A legislative bill actually canceling the moratorium on privatization and liquidation of educational institutions was submitted to the State Duma and soon will be reviewed by the legislators. Pursuant to this bill, most of the schools and educational institutions will soon be turned into autonomous institutions, or state municipal non-profit organizations. Unlike the current status of educational institutions, it will be possible to privatize the latter and subject them to the bankruptcy procedure, change their profiles, sell them and close them down.

Higher education institutions are also on the way to a substantial reform. Soon they may be divided into three groups, national universities (10-20 institutions), federal universities (100-200 universities), and the remaining group amounting to more than two thirds of the total number. The state will fully finance only the first two categories. Budget financing to the largest group of institutions will be substantially reduced. This will be done, in particular, by the means of a simultaneous implementation of a two-step system of higher education (4 years for Bachelor's degree and 2 years for Master's). In the majority of Russian higher education institutions placed in the third category Master's program will be commercial. Bachelor's degree program formally will be free of charge. In the framework of this project most of the universities will be

transferred from the federal level to the regional level. The regions will have to finance the Bachelor's programs in their respective higher education institutions. Despite the promise to transfer the universities to the regions along with the budget funds, there are many doubts about the mechanism for such financing.

Russia is making an open step towards commercialization of education. The laws submitted for review to the State Duma are aimed at substantial limitation of the state responsibility (including financial responsibility) for the situation in educational institutions.

On the other hand, these innovations violate the interests of wide groups of population that are not ready for paid education, of management at educational facilities, as well as of a number of governors voicing their protests against cutting down financing of educational institutions. Using their authority and lobbying potential, they have been actually sabotaging decisions of the Ministry of Education and Science and blocking approval of the appropriate legislation in the State Duma. This conflict of interests between supporters and opponents of „Westernization” of the Russian education often puts up substantial obstacles in the way of any reforms in this area.

However, the most heated discussions among politicians and scientists are caused by implementation of the Bologna Agreements. On June 19, 1999 in Bologna (Italy) at the Conference of European Ministers of Education there was signed a joint Declaration. On September 19, 2003 Russia approved it and as a full-fledged participant in this process was faced with the tasks of integrating into the pan-European higher education system. ***The main goal of the Bologna Process is to create a pan-European system of education complying with the „requirements for ensuring economic potential of integrated Europe”.***

Bologna reforms have a complex, systematic and at the same time a controversial nature. These reforms are being very unevenly implemented not only in Europe in general, but also within the limits of certain countries and various sectors of their educational systems (university, non-university, academic and professionally oriented). Most (80%) of the countries that signed the Bologna Declaration, announced that right now there are no legal reasons for setting up a two-level structure of degrees, and they are only starting to set it up.

According to the results of research performed by the RAS Institute of Psychology, 11% of the respondents approve of including our country in this process, 7% disapprove of it, 18% are indifferent, 15% have a special opinion, and 49%, i. e. almost one half of our science community, do not know anything about it. In general, even the respondents that are aware of the Bologna Declaration admitted that they „do not know the details”.

In order to reach the goals of the Bologna Process until 2010, Russia must implement the following basic measures:

- Set up a single structure of clearly defined and comparable degrees (qualifications);
- Introduce multi-level systems of higher education comparable with the European norms (bachelor, master);
- Implement a credit system based on difficulty of the subject instead of the currently accepted system of study hours;
- Set up a state system of quality control and certification (accreditation of educational programs and universities) that would comply with the European requirements;
- Develop systems and mechanisms for monitoring quality of educational process at universities, that would assume participation of students, faculty and external experts;
- Introduce the system of transcripts accepted in Europe;
- Create financial mechanisms of ensuring mobility of students and faculty.

It is important to mention that both in the RF Ministry of Education and Science and in the administration of various universities and in the expert community there is no single opinion about the advisability of implementing in Russia the Bologna reforms. The Russian Academy of Sciences (RAS), rectors of the majority of largest universities (especially in the Moscow region), and leaders of many regions are voicing numerous arguments against the Bologna agreements, they are applying substantial pressure on the profile ministry and other state authorities. Subsequently implementation of the Bologna Agreements in the RF is actually being sabotaged.

Furthermore, there is a number of social and economic problems to a large extent preventing development of this educational system in the Russian Federation and rendering senseless further implementation of the Bologna Agreements. Among the negative factors that became especially obvious in 2005, we can single out the following ones:

- Teaching staff is rapidly aging; there is a substantial shortage of young professionals;
- Many teachers have to seek additional sources of income (tutoring and other work), and don't have the time for scientific and mentoring work;
- Many teachers (especially of the older generation) do not know how to use information technologies;

- Many teachers do not have sufficient knowledge of foreign languages, which limits their professional mobility and usage of the Internet and information resources of European universities;
- Administrative and technical staff turnover is very high due to low level of labor remuneration;
- Teachers are not sufficiently interested in development of modern study and training materials, electronic text-books, application and development of long-distance education systems;
- Laboratories in many (especially technical) universities is outdated and worn out.

One of the fundamental statutes of the Bologna Declaration is the indivisibility of the education process and scientific research. In the meanwhile the Russian legislation is actually stipulating differentiation between education and science research. Formally universities are not legal subjects of scientific activities. Alienation of Academy of Science agencies, sector Academies and scientific research institutes from higher education institutions deprives both groups and brings about inefficient use of financial resources on scientific research.

At the same time it is important to mention that in the last few years the Russian educational system has made substantial progress in terms of automation. In universities some departments are equipped with computers and software almost by 100%. The number of students that have personal multimedia resources is also growing. In many universities students have access to the Internet and to the university Intranet resources which provides them with access to long-distance education technologies.

There are also many arguments and discussions at the Ministry of Education and Science as well as in the expert community regarding problems involved in implementation of a Single State Test (SST). SST is an attempt to reproduce the Western experience adjusted to the Russian specifics. According to the idea of its developers, it would allow to solve the problem of corruption in high schools and at the university entrance exams, ensure equal access of residents to higher education and will ensure selection of the most talented and capable students. Other experts think that replacing high school finals with SST will negatively influence the basics of high school education, because it is diminishing the role of a school teacher who is capable of evaluating not only formal knowledge but also a student's ability to logical, analytical thinking and creative abilities of students.

In the medium-term (until 2008) social and economic development forecast for Russia prepared by the Ministry of Economic Development it is openly stated that

implementation of the SST is one of the key measures for resolving the main tasks in the area of education, including improving its quality and accessibility, as well as development of a system of continuous professional education (the process of growth of life-long personal educational potential).

In 2005 78 Federation subjects participated in the SST experiment that was launched in Russia in 2001. However, many of the subjects participated only in the formal sense because the number of SST eligible students in those regions did not correspond with the total population numbers and the total number of potential university students.

Analysis of the results of SST implementation experiment for the last 5 years demonstrated that this form of knowledge evaluation cannot and should not be used as a single and decisive criterion for accepting students to higher education institutions.

Actually, SST is a trivial system that tests the students for a certain aggregate of isolated formal knowledge, and fails to evaluate the student's creative potential and ability to logical thinking in certain areas.

Furthermore, the selection system based on the Single State Test does not provide for any mechanisms objectively assuring selection from the number of candidates with equal rights: what is to be done in the event if, for example, there are 200 candidates with equal highest SST scores for 100 budget vacancies in a specific university. There are doubts about objectivity of the SST results in the main subject areas in various Russian regions, as well as their dynamics. Thus in a number of Russian Federation subjects there were confirmed cases of corruption that reflected on the testing results. In many regions SST results in many basic subject areas were improved by dozens of percents, while practice shows that an improvement for even one percent requires substantial system-level changes in the level of training the student candidates.

In general, experience of implementing the experiment demonstrated that none of the declared advantages of the Single State Test, i. e. equal access to higher professional education, a higher degree of objectiveness during entrance tests, better level of knowledge demonstrated by the student candidates, was confirmed on practice.

Deteriorating quality of teaching is a serious problem in the Russian educational system, especially in the elementary and high school. Low salaries lead, on one hand, to drainage of highly qualified specialists from the educational sphere, on the other hand this situation forces school teaching staff to seek additional sources of income. Consequently, bribery in schools is becoming more and more widely spread, furthermore, schools are forcing on students „additional educational services”, when in order to get a higher grade (and better knowledge) the students are required to attend extracurricular tutoring with their regular teachers but for a separate fee.

Another very important problem is corruption in universities. According to various estimations, entering a university may cost from 1 to 40 thousand US Dollars, depending on the level of the institution's prestige. One test or final may cost up to 3 thousand dollars, term paper or thesis up to 2 thousand dollars, Master Thesis – up to 15 thousand dollars, etc. Measures undertaken by the law enforcement agencies do not have sufficient effect. It is quite logical if we consider the extremely low level of salary paid to university employees as well as to employees of the Ministry of Internal Affairs.

In the meanwhile, forgery of diplomas, certificates, elementary and high school diplomas is becoming more and more widespread. According to a survey conducted by the Public Opinion Fund (Survey undertaken in December 2005 in 100 settlements of 44 oblasts, krajs and republics of Russia, with 1500 respondents that had to answer the following question: „For what purposes RF citizens might want to buy fake university diplomas?”, 49% of the respondents think that such diplomas are usually purchased due to practical reasons, in order to gain an opportunity to get a good, prestigious and well-paid job, to build a career, to improve one's life and become successful. Results of the survey demonstrated that Russians think that fake higher education diplomas help their owners to become successful and build a good life. This opinion share 61% of the respondents. The younger are the survey participants, the more tolerant they are to this practice. In the older generation only 19% of the respondents think about the practice of purchasing fake diplomas „indifferently, without blaming”, in the group from 36 to 54 years old this figure is 33%, and in the youngest group 52% of the respondents checked this option. The opinion that in certain circumstances purchase of a higher education diploma is acceptable is shared by 11% of the older respondents, 22% of middle-aged respondents, and 35% of the younger respondents.

3. Russian Science: Modernization or Degradation?

The aforementioned tendencies in the area of education are directly impacting the situation in the higher education and therefore on the Russian science. ***Modern Russian science is going through very difficult times related to cardinal reforms and transformation.*** Changes are happening not only in approaches to organization and implementation of scientific research and development works, but also in the requirements to the level of their expected results. Situation in the Russian science in 2005 is characterized by a number of important tendencies stemming from the end of

the 1980's – end of the 1990's. Effective organization of scientific research, state support, development of optimal mechanisms for implementation of the latest developments, all of this today presents a very complicated and salient problem, and the fate of the Russian science to a great extent depends on finding a solution to this problem. Critical factors, most vividly expressed in the lack of funds for scientific research works, demonstrate themselves not only in HR, but also in a whole range of other problems.

One of the multi-faceted problems in the Russian science and education is problem of brain drain. So far there is no single opinion about it in the society. Opinions about Russian scientists and professors moving to foreign countries differ in the range from definitely negative to positive. Educational Committee at the Council of Europe thinks that Russia is losing about 50 billion US Dollars due to the brain drain. According to their calculations, the loss of every scientist costs the Russian Federation about 300,000 US Dollars. At the same time, the internal disproportions in Russia are becoming more and more drastic. First of all, this has to do with the drain of the most qualified and demanded employees from the subsidized RF subjects to the regions where the social and economic situation is relatively good. This might aggravate the existing differences in the social and economic development of the regions. Secondly, highly qualified specialists are moving from the public sector to the private sector of economy. Third, specialists from sectors with low salaries, unsatisfactory labor conditions etc are moving to more attractive occupation areas.

In the expert opinion the most serious brain drain happens in the group of programmers and IT designers. Russian graduates are hired by Western companies not only because they are considered to be a rather cheap labor force. Both Europeans and Americans admit the power of Russian physics and mathematical education, the wide range of knowledge and ability to learn. By the way, all of this is what makes Russian education different from the Western, narrowly specialized approach that is actively lobbied by Minister Andrey Fursenko.

As we have already mentioned earlier, the problem of „brain drain” is very multifaceted. One of its aspects is that ideas of the specialists that stayed in their own country are not being implemented. Russia every year loses inventions in various areas that could seek international recognition. All of this is explained by the lack of funds for applying these ideas. In the meanwhile, these ideas acquire practical application abroad, and later on are sold to Russia as ready products.

Entire groups of scientists are joining foreign companies, which is very indicative in this situation. In the opinion of many researches, one of the ways of promoting high technologies in Russia is to contact foreign companies and bring here new ideas. Many

experts note that the result is that scientists raised in the Russian Federation are actively working for the West. In Russia the state spends on science about 1% of GNP, while in the rest of the world this figure is at least 3%, and these resources are absolutely necessary to maintain high level of development in the country. There is also a problem with young scientists, their salaries are extremely low. This lack of financing is mixed with the feeling of uselessness both to the state and to the society. So far the students have been studying according to the program designed back in the Soviet Union (maintaining the traditions of pre-revolutionary education in the Russian Empire), and in many respects it is very different from the Western narrowly specialized education. Our traditional system allows the graduate to be familiar with other areas as well. Steve Chase, President of Intel Company in Russia, mentioned the uniqueness and high potential of Russian education in his speech at one of scientific forums.

Nevertheless, pursuant to the signed Bologna Convention RF is moving towards unification according to the Western examples, and the plan is to cancel everything that does not fit the program according to their parameters. In the meanwhile, there are many interesting innovations and a foundation for training talented scientists.

This made the launch of a national priority project in education very significant. The best schools, teachers and universities will be awarded with substantial amounts of cash on competitive basis. The state is expecting from them a breakthrough that would bring about positive changes in the situation in the national education. In 2006 the state will give 500 million RUR each to 20 innovational universities. The Ministry of Education and Science is planning to seek candidates for grants among the natural science, engineering, medical and agricultural schools. The selection procedure will have two stages, at first the jury will evaluate the general potential of the university, and then its competition projects. The list of winners will be announced in February or March, and financing will start in the second quarter of the new year. In 2006 the state is planning to allocate 5 billion RUR for awarding innovative educational facilities, and in 2007 this amount will exceed 15 billion RUR. Selection criteria for the future grant recipients have been actively discussed in the past few months by the pedagogical community. The RF Ministry of Education and Science thinks that candidates should be evaluated under five main criteria: 1) general results of operations in 2000-2005; 2) management (with special attention paid to community and monitoring councils); 3) educational programs; 4) scientific research, experimental and design, and innovative activities; 5). International activities.

Nevertheless, today many science facilities are forced to rent out their premises, sell a part of their equipment and inventions, cooperate with foreign companies, funds

etc., in order to find financing for maintaining their staff potential and sustaining at least a relatively acceptable level of the material and technical base. Defenselessness of the scientific research institutes, rich assets of laboratories and universities make very attractive attempts to claim their property. Today more than 40% of rectors are complaining of infringements on university property. Unfriendly absorptions of scientific research institute, when a research facility is forced to declare bankruptcy and subsequently liquidated, are becoming more and more frequent. Measures undertaken by the law enforcement agencies are often belated and not very effective.

However, the system potential of the Russian science school is still very significant, which allows the Russian scientists to conduct successful research in various knowledge areas, and contribute to development of the world science. Not all scientific research institutes and educational facilities are in a poor state. Currently scientific research institutes specializing in IT, oil and gas sector, geological survey, defense contracts, civil aviation, propulsion engineering and instrument-making are successfully operating and have access both to the state financing and to investments from the private sector.

The Russian Academy of Sciences (RAS) is playing an important role in development of Russian science. Its main goal is to organize and conduct fundamental research aimed at acquiring new knowledge about the laws of natural development, society, humans, and to facilitate technological, economic, social and moral development of Russia. Thompson Scientific, a consulting company, published an international rating of the most influential research organizations in the world, and the Russian Academy of Sciences was in the fifth place in the rating of the most influential research facilities in the world in physics. During the period from 1995 to 2005, RAS published 29.7 thousand scientific works in the area of physics, and they were cited in scientific magazines all over the world 126.1 thousand times.

RAS participated in such programs as „2000 Russian Federal Space Program”, „Children of Russia”, and especially in environment-oriented programs: „Rebirth of Volga”, „Development of the Federal System for Seismological Observations and Earthquake Forecast”, „Environmental Safety in Russia in 1996-2000”, „World Ocean”, „Treatment of Radioactive Waste, Utilization and Burial in 1996-2005”), „Annihilation of Chemical Weapons Stock in the Russian Federation in 1995-2009”.

Institutes at the Russian Academy of Science were the most active in such subprograms, as „Astronomy. Fundamental Space Research” (39 institutes, the share of RAS participation is 54%), „Physics of Quantum and Wave Processes” (33 institutes, the share of participation 64.2%), „Salient Issues in the Physics of Condensed Environments” (28 institutes, 36.8%) „Promising Information

Technologies” (21 institutes and 44.2%), „Automation” (14 institutes, 41.2%), „New Materials” (16 institutes, 29.4%), „Global Changes in Natural Environment and Climate” (31 institute and 57.2%). Only the academic institutes are working on subprograms „Newest Bioengineering Methods”, „Priority Vectors in Genetics”, „Human Genome”, as well as on such international projects as „Physics of Solid Body Nanostructures” and „Physics of Microwaves”, because the share of RAS participation in these projects is from 77,5 ã 95%. However, along with many virtues, RAS has a number of substantial flaws, being a rather conservative and stubborn structure actively opposing any reforms and changes. This often prevents it from fully applying its potential.

4. Cultural and Educational Activities in the Russian Federation – Development Dynamics

Economic reforms at the beginning of the 1990s brought along a substantial reduction in financing of the cultural sphere. Consequences of this phenomenon are showing themselves already and hardly will be remedied in the next few years. At this time the RF Ministry of Culture is responsible for 51435 libraries, 1979 museums, 539 theatres, 20 Zoos, 554 parks and other objects. Lately the situation with financing of culture in the RF has substantially improved. This can be attributed to the upcoming presidential and parliament elections. Political elite representatives more and more often use the cultural sphere for PR activities. *Increasing support from the state is turning culture into a more and more sophisticated propaganda tool having a substantial impact on the population.*

At the same time, effectiveness of budget spending met with controversial opinions from the society and experts. Specifically, there were many *discussions regarding reconstruction of the Bolshoy Theater in Moscow*. The last tender for the right to become the general designer for the main building of the Bolshoy Theatre was organized in 1999. There were five participating companies. The 1st place was taken by Kurortproject, the 2nd by NPRP Simargl Consortium, the 3rd by Hohtif AG-Mabetex Consortium, the 4th by Mosproject-2, and the 5th by Merkata Trading and Engineering SA. Prior to this tender, the cost of the winning project coming out first in the open competition for reconstruction of the Bolshoy Theater had been estimated to be 25 billion RUR. It was submitted by JSC Industrial Insurance Company Kurortproject. This was the amount that Michael Shvydkoy, head of the Federal Agency for Culture, asked from Vladimir Putin, who visited the Theater at the

beginning of 2005. However, this amount was not approved, the President stated that the reconstruction budget is too padded and recommended to the Theatre to „try to be more economical”. After this, the State Expertise Administration (Glavgosexpertise) calculated was of reducing the cost of works. It was decided to postpone renovation of the design and production shops and to cancel construction of the multi-level parking with the state funds. The final list of works approved by the Ministry of Economic Development includes reinforcement of the foundation, upgrading the stage mechanics, renovation of the lobby, and installing a smoke-deflecting channel. The total budget amount is 15 billion RUR. And 2 billion RUR for reconstruction of production and warehouse facilities. These works will have to be financed from non-budget funds.

However, in the course of the meetings conducted at the Ministry of Economic Development regarding the Theater reconstruction program, at the beginning of August 2005 was voiced a figure of 9 billion RUR. In addition to other items, German Gref suggested changing the design company drafting the project (JSC Industrial Insurance Company Kurortproject) and the contractor (SUI-Holding). Finally, this very attractive project could be given to Merkata Trading Company controlled by Viktor Stolpovskih (in the past Stolpovskih, together with Pavel Borodin, the current State Secretary of the Union State of Russia and Belorussia, was one the defendants in a number of criminal case hearings in Russia and in Switzerland). Alexander Sokolov, Minister of Culture and Mass Communications, also had his doubts about the advantages of this project approved at all stages. He announced that his Ministry has nothing to do with regulating the issue of reconstruction at the Bolshoy Theatre. Sokolov was not the only one at his Ministry who doubted the need for such an expensive reconstruction of the Theatre. Back in March 2005, Dmitry Amunts, Deputy Minister of Culture and Mass Communications, also spoke against the approved project. Actually, all arguments around reconstruction of the Bolshoy Theatre are related to the fight about financing and appointing a contractor. This is exactly the reason which the cost of works was constantly changing. Results of tenders were reviewed several times. However, despite of all these conflicts, reconstruction works at the Bolshoy Theatre are in progress and scheduled for completion at the end of 2008.

Regular conflicts within the Ministry of Culture also pose an important problem. These confrontations negatively impact its operations. In 2005 one of such conflicts became public.

On June 25, 2005 Andrey Sokolov, the Minister of Culture, announced in the Postscriptum program on TVC that at the Federal Agency for Culture and Cinematography (FACC) supervised by the Ministry,” bribery is flourishing on all

floors". On June 26 Michael Shvydkoy, head of the Agency, announced that he and his Agency are filing a court suit against Sokolov. It is important to mention that after the RF government reform in March 2004 President Putin appointed Alexander Sokolov, who does not belong to any NPG, to the position of the Minister of Culture instead of Shvydkoy. At the same time, members of the Old Moscow NPG Michael Shvydkoy and Michael Seslavinsky headed two of the most important agencies within the structure of the Ministry, Federal Agency for Culture and Cinematography (FACC) and Federal Agency for Mass Media and Mass Communications. Seslavinsky immediately started arguing with Minister Sokolov regarding responsibility for mass media licensing. Initially victory was in Sokolov's hands, but later this authority was transferred to Seslavinsky's team.

Eventually tension started rising in the relationships with the Ministry that was supposed to set up priorities and seek money from the budget, and with the Federal Agency for Culture and Cinema (FACC) that was charged with managing the funds. Shvydkoy himself has many times complained in public that the Ministry apparatus is trying to interfere in allocation of funds under the projects implemented by the agency. Therefore, the tension between the two organizations was constantly growing, because the Agency formally supervised by the ministry did not want to share control over the budget funds allocated to its projects. Furthermore, there were other disagreements between the conservative Minister and the liberal head of the Agency, for example, regarding the restitution issue, which the Minister was opposing, while Shvydkoy was actively supporting it. In the end, the conflict turned into an open confrontation, because the Minister accused Shvydkoy of using corruption mechanisms. In his turn, the head of the Agency announced that he is planning to sue the Minister for 1 RUR as compensation of moral damages and for dissemination of claims damaging his reputation. However, soon after the start of the court proceedings the parties reached an amicable settlement.

Actually, in this case an experienced state official Michael Shvydkoy tried to take the maximum possible advantage of the failure of his opponent in the establishment in order to minimize his influence on budget funds allocation. Seslavinsky, Shvydkoy's ally from the Old Moscow NPG, with substantial ambitions and interests in his own sphere, was helping the former in his struggle with Sokolov. Under these conditions the Minister outside of the system tried to find himself allies from other nomenclature political groups. Considering the patriotic views propagated by Sokolov and the establishment arrangements in the government, his sponsors in this case became representatives of the power agency NPG.

In this situation the rather mild approach of the state government is quite revealing. In this unique case a high-ranked official launched an official complaint

against his boss, and this not only brings about certain HR decisions, but even did not cause any comments from the Prime-Minister or the President. The only reaction came from the government press-service, which published the following statement: „The RF Government does not approve of the public conflict among the leaders of the executive federal agencies in the cultural sector”. This reaction to the conflict is another proof of how serious are the conflicts within the elite circles in the Russian state authorities, if such scandals do not lead to serious staff changes.

Nevertheless, the face of contemporary Russian culture is not determined only by the government officials. ***Certain success has been achieved in terms of rebirth and development of its certain branches.***

The local film industry has reached certain success. After the breakdown of the Soviet Union, the State Cinema Committee controlling film production was disbanded. Centralized financing nearly stopped, and by 1997 in Russia was being made only 12 films per year, while the movie theatres were staking on showing only Hollywood films. However, by 2003 government assistance to the film industry had increased by 14%, and the number of Russian films had grown up to 75 per year.

Due to the approaching electoral cycle, the film industry is more and more used by representatives of political elite for propaganda purposes. Therefore many state structures (Presidential Administration, Ministry of Internal Affairs, Federal Security Service, Ministry of Defense, State Anti-Drug Committee etc.) are actively participating in financing and supporting the local film industry. In 2005 one of the most unusual ways to support this area became a meeting of high-rank officials headed by Vladimir Putin, the RF President, with the director and actors from Fyodor Bondarchouk's film „9th Company”. After viewing the film, Vladimir Putin and Sergey Ivanov, the Minister of Defense, shared their impressions about the movie, which was translated by most of federal channels and actually helped to additionally promote the film. All these efforts help the Russian film industry to be more and more successful in its competition with the foreign film makers, especially in the domestic market.

This was confirmed by the box-office return in 2005. A Timur Bekmambetov's „Day Watch” released by 600 movie theatres in the country in one day has already become the biggest box-office hit in Russian history. In a little more than one week „Day Watch” in Russia has been seen by more than 5 million viewers. Box office returns have already reached 21 million US Dollars, but the final figure is rather likely to be over 30 million. We can compare it with Fyodor Bondarchouk's „9th Company”, which in three months in distribution earned 25 million US Dollars. Thus „Day Watch” left behind such Hollywood blockbusters as „Harry Potter” and „Lord of the Rings”.

The most popular films that received the highest awards on various competitions and film festivals (Golden Eagle – prize of the Russian National Academy of Cinema Arts and Sciences, the Golden Ram etc.) were „9th Company” by Fyodor Bondarchouk, „Turkish Gambit” by Janik Fayziev, „State Advisor” by Philip Yankovsky, „Escape” by Yegor Konchalovsky, „Personal Number” by Yevgeny Lavrentiev, „Ne Khlebom Yedinim” by Stanislav Govorukhin, „Space As a Premonition” by Alexey Uchitel, „The First on the Moon” by Alexander Fedorchenko, „The Italian” by Andrey Kravchouk, and „Garpastum” by Alexey German, Jr., as well as the „Fight with a Shadow”, „Mirror Wars: Reflection One”, „Men’s Season: Velvet Revolution”, „Make to Your Heels (*Smatyvay Udochki*)”, „Poor Relatives”, „Hide and Seek”, „The Italian”, „Soldier’s Dekameron” etc.

Therefore, in 2005 there could be observed a substantial growth of the Russian film industry, and this shaped up a tendency of pushing out foreign film productions (films, TV series, cartoons etc), and replacing it with Russian-made films. To a great extent this success was related to direct and indirect government support provided to the Russian film industry. In its turn, this „stage paternalism” was conditioned not so much by the government’s desire to facilitate cultural development in the country, but by political motives. Lately NPG started using films and TV series to popularize various ideological concepts. For example, Gosnarkokontrol (State Anti-Drug Committee) headed by Victor Cherkosov attempted to create a positive image of the Russian special services (at the same time improving their own image) by financing a TV series „Men’s Season: the Velvet Revolution”. By the way, there are rumors that liberal management of Gasprom is planning to purchase one of the leading Russian film studios, the Gorky Film Studio, probably in order to make films with ideological contents.

Distribution of artistic preferences among the population in Russia is almost notable. According to numerous surveys (respondents were supposed to name the most interesting film, book, TV program and magazine), the most interesting film became „The 9th Company”. In the second place was „The Turkish Gambit”. The most interesting TV program for RF residents in 2005 became a melodramatic TV talk-show „Wait For Me”. According to the survey, the most interesting magazine was the Liza Magazine, however, almost one half of the respondents failed to name any known to them periodical whatsoever. The second and third place belongs to the magazines „Za Rulem” and „Vokrug Sveta”. Almost half of the respondents failed to answer a question about their favorite book, and 8% named novels by Daria Dontsova, while 5% mentioned Michael Bulgakov, and 3% preferred Alexander Marinina. All of this demonstrates certain cultural degradation of the Russian society, because its preferences are sliding more and more towards mass literature and cinematography.

However, not only the Russian film industry is developing successfully. In 2005 the following music groups and performers reached substantial success (in terms of profit and popularity): „DDT”, „Aria”, „Picnic”, „Alice”, „Korol i Shut”, Kipelov, Zemphira, „Nochnye Snipery”, Mara, „Masha i Medvedi”, „Nogu Svelo”, „Krematory”, „Surganova i Orkestr”, „Delphin”, „Lyumen”, „Splin”, „Akvarium”, „B-2”, „Yu-Piter”, „Neschastny Sluchay”, Valery Meladze, VIA-Gra, „Korni”, Lolita, Valeria, Glyuk’oza, Katya Lel”, Phillip Kirkorov, Alla Pugacheva etc. Here we can once again note that the most successful are pop-groups of entertaining nature. More serious music is traditionally less popular.

Similar processed are observed in literature as well. Russia has a rich literary heritage and still remains to be one of the most „reading” countries in the world. However, in the past ten years there have been substantial changes in the quality of literature demanded by majority of the local population. At the same time, the number of young people regularly reading books and other printed matters is starting to reduce. On one hand, this can be attributed to the wide use of the Internet where one can find any literature in electronic form, and the rising prices on high quality editions (including scientific publications). On the other hand, demand is growing for literature with low quality of style and language. Bright examples of such literature are dime novels authored by „businessmen writers” (such as Daria Dontsova, Tatiana Tolstaya etc.). So-called literary works that they are publishing usually do not contain any deep thoughts of the author and are purchased to be read once and thrown out afterwards. Mass production of low price and low quality pocketbooks is a very profitable business, and these books are pushing out of the shelves less promoted literary works with higher quality.

As to the „serious” writers’ community, here we are also witnessing an ideological conflict. The Union of Russian Writers set up in 1991 in the framework of the former USSR Writers Union was rather liberal. The goal of URW is to unite professional writers in order to facilitate protection of their rights and legal interests. At the same time, despite the tremendous potential of this organization, the lack of effective interaction between its regional branches and the rather weak local branches with the power and business structure result in shortage of resources, especially financial. Consequently the majority of male population hardly knows anything about SPR.

The RF Writers Union headed by a well-known Orthodox writer Valery Ganichev is a more „weighty” establishment. Despite its general oppositional and patriotic tendency, the RF Writers Union is favored by the most part of the Russian ruling elite, especially the power agencies. At the same time, in order to make sure that this Writers Union is under control, even representatives of liberal NPG have to cooperate with them.

We must mention that *piracy is a rather complicated problem* of contemporary reality in Russia influencing development of cinema, music and art. According to official data in the USA, in 2005 American companies lost 1.7 billion US Dollars because of the Russian pirate market, and for the last 5 years this figure exceeds 6 billion US Dollars. Losses of the Russian film industry and performers can be estimated only very approximately. In 2005 the Russian law enforcement agencies failed to achieve any notable success in termination of companies with the volume of sales approximately 250 million disks per year, with 90% of them being pirated. Unlicensed products are openly sold in any kiosk near metro stations or in the marketplaces. RF Ministry of Internal Affairs discovered that millions of pirate DVDs, computer and music CDs are manufactured even in the secret military facilities. The problem is that the law enforcement authorities do not have jurisdiction rights there. Considering that many companies in the Military Industrial Complex are in dire straits for cash, it is very advantageous for them to cooperate with the pirates. Accepting this money, security guards of the secret enterprises are actually guaranteeing safety to the manufacturers of counterfeit production. Even if the pirates are caught, they are rarely punished. From the beginning of 2005 on 11 out of the 446 persons that were ruled guilty, got time in prison, and the rest of them were conditionally released or fined.