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Policy in Transition: New Framework for Russia's Climate Policy

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Summary

In 2000s, Russia entered the second round of radical reforms of its economic and political system. These changes affect the institutions of the macro- and microeconomic policy, of the energy policy, as well as the institutions of the climate policy. Thus, the framework is currently being built in Russia within which the Climate Convention and the Kyoto Protocol are being and will be implemented. Success, or failure, in Russia's interactions with the international community in implementation of the UNFCCC and its Kyoto Protocol would depend, particularly, on whether it would be able to establish renovated climate policy institutions in the nearest future. Main provisions of the Kyoto Protocol open good perspectives for the climate policy of Russia. For these favourable perspectives to become a reality, Russia will have to accomplish quite a lot at the domestic, national level. Here, Russia is facing some serious problems. Among them are recently emerged problems with ratification of Kyoto Protocol.

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Policy in Transition:
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1. Evolution of Russia's Climate Policy: from the 1990s into the 2000s [1]

Today, climate policy of Russia is often evaluated in order to get an answer if Russia ratify the Kyoto Protocol. The search for this answer is based mainly on already formed stereotypes regarding this policy and its major features in the 1990s. However, recently the Russian climate policy is rapidly changing, and it seems that the rate of these changes is accelerating.

Ratification of the Kyoto Protocol is one among the most important items on the current agenda of the Russian climate policy. It cannot be regarded only within the framework of climate policy. The issue of ratification is a focal point where various interests are concentrated and collide: not only the interests of climate policy as such, but interests rooted in economic, energy and structural policies as well. Thus, adequate evaluation of current processes underway within Russia's climate policy, including the prospects for Kyoto ratification is possible only (1) within a broader socio-economic and political framework, (2) taking into account recent changes in economic and administrative structures, and (3) after identifying interests of major actors participating in the Russian climate policy formation, and their possible impacts on it.

Russia's climate policy has several specific features. The *first* is that its formation was, and still, is under the conditions of the transition period. Climate policy institutional structure remains to be fragmented, their thorough design has not been established yet, and many institutions are still to be formed. The major reason for this is not only that the Kyoto Protocol has not entered into force and uncertainties regarding the design of institutions to implement climate change international regime still exist. The main reason is that a number of important changes in the economic and political system of Russia started at the beginning of 1990s were not finalized during the last decade. Effectiveness of climate policy mechanisms and instruments is directly linked to functioning of economic and administrative mechanisms and instruments. In

[1] This article is prepared on the results of the study for the APN and IGES project "Policy Design of Climate Change Collaboration in Northern Asia: Possible Options and Constraints for Cooperative Effort between Russia, Japan, China and Korea."

case the latter ones have failures in their functioning, or are absent at all, the climate policy appeared to be powerless and has no means to rely upon. Thus, Russia's inclusion by the FCCC into a group of countries with economies in transition is not only of a formal character; it reflects the state-of-the-art in institutional capacity building in economic and administrative systems in this country.

Second peculiarity of Russia's climate policy in the 1990s was that its formation and implementation during the decade were developing in conditions of deep economic depression. History of developed countries has not testified such deep and long decline in industrial production, i.e. - 50 percent in industrial production, and - 45 percent in GDP during the decade. Such decline had a double effect on climate policy. First of all, the government was not able to fulfill its obligations in financing climate policy, including further development of climate science, GHG inventory compilation, and support of national reporting, etc. Another equally important implication of economic depression has been in carefree attitudes to quantitative limitations of GHG emissions, and to prospects of their possible growth. While other countries that have emission limitation targets, paid constant attention to problems of compliance with their obligations and to adoption of necessary mitigation measures, Russia was not in a hurry to adopt implementation measures, supposing that there was a significant reserve period to introduce them.

The *third* important peculiarity of the Russian climate policy is that the role of the problem of climate change and climate policy in public perceptions during the nineties was extremely low. I consider it as one of the main features of the Russian climate policy, not less important as the negative role of economic depression. Global warming and climate change mitigation appeared to be at the bottom of the public agenda in Russia while taking in account the public attitudes to this problem and the place of this issue in the programs of political parties, and in political competition. Recently, there has been certain activation of NGOs on the issue; but, according to many experts the activities of NGOs in Russia, unfortunately, are still of a decorative character, and public does not take a real part in their efforts which are mostly limited to activities of a narrow group of functionaries. The reasons to such state-of-the-art are on the surface: the public polls indicated that the population of Russia was primarily involved in solving the problem of survival, and it was first of all interested in solving the problem of extremely low salaries and pensions (which has been below the living minimum), of growing level of unemployment, criminalization, and insecurity.

The *fourth* important point is that in Russia the issue of its national interests in the climate policy was not clarified. In the 1990s, there was no public discussion about what is in the national interests of Russia in climate policy, and what the content of such national interest is. It

relates both to domestic and international climate policies. Indeed, inside the country the climate policy is also subjected to pressures and influences of many interest groups. Too many non-clarified, but important details remain. Without that, the climate policy of Russia would be lacking the necessary clearness in its realization, and would not avoid fluctuations and failures. That would reduce its effectiveness or even make it to strive for the goals that do not correspond to the national interests.

The *fifth* important peculiarity of the Russian climate policy in 1990-s is weakness of its major institutions, and especially, weakness of the institutions at the head of climate policy in the nineties, including its weakness in contrast to other institutions within the structure of the government. The governmental body that was responsible for climate policy implementation in Russia, i.e. the Interdepartmental Commission on Climate Change (ICC), was not able to perform solid and independent policy. The major reason was that ICC was headed by the institution with low bureaucratic resource (Hydromet). Weakness of the main subject of the climate policy was the reason for its passive stance, for the lack of its dynamics, and defined its lagging behind in institutional capacity building. As a consequence, the climate policy entered into the new millennium with inadequately developed institutional infrastructure, considerable gaps in its legislative basis.

Due to severe deficit of finance to support the prior measures of climate policy, the attraction of finance from foreign sources was initiated. Compilation of GHG emission inventory, and preparation of the National Communication were performed on through financial support from abroad. Maybe it was one of the reasons for passive behavior of the Russian delegation at international climate negotiations. The *sixth* peculiarity of the Russian climate policy in the nineties was in its one-sided orientation.

Thus, transitional period, especially its initial phase of the 1990s, had a negative impact on climate policy formation, and defined a number of its weaknesses and shortages, as well as incompleteness of its institutional framework.

However, at the beginning of the 2000s there have been significant changes in the Russian climate policy. Their consequences in some cases are of a long-term character, and these changes seem to proceed in the future.

The *first* change was associated with Russia's exit from the economic depression and shift to economic growth. In 1999-2000 GDP increased by 20 percent, and in 2002 and 2003 further economic growth is expected. The government has announced ambitious plans for speeding up the economic growth: its goal for the period 2000-2010 is the annual growth rates of GDP at 5-6%. The previous cabinets also put targets of shifting to economic growth. However,

none of them has been performed. It seems that current situation is different: the current governmental program of economic growth is supported by a number of radical institutional modifications, as well as by political stabilization which is already taking place.

Second change is associated with institutional reforms underway in Russia. In 2000, Russia entered the new round of radical reforms of its economic and political system, which have been stopped under the Eltsyn's presidency, and finally were able to be renewed with coming to power of the new president. The government managed to pass through the State Duma a set of liberal laws, which are able to influence the economic developments in Russia. Being liberal in their contents, they significantly simplify the business rules in Russia. They reduce the transaction costs, simplify or abolish many bureaucratic procedures, they strengthen the mechanisms of property rights with increase in owners' responsibility for results of decisions, and they withdraw the economy from shadow, and limit bureaucratic arbitrariness. It is the so-called "Modernization", and it might have a significant impact on enterprises behavior in climate related business. The recent changes seriously affect major investment institutions, institutions in the energy sector, as well institutions of the climate policy. Thus, the framework is currently being built in Russia within which the climate policy is being and will be implemented.

As to the Russian climate policy, the *third* change is of a particular importance. Opportunities opened by the Kyoto tools have turned the climate policy of Russia from the traditional environmental protection sector which did not result in nothing more than additional spending and a headache for the Russian government, into the potential sphere of big business. Potential incomes in this sector might be comparable with the most beneficial branches of the Russian economy, i.e. the oil and gas business.

Fourth change is in a shift of public attitudes to climate policy. When in 1994 the government of V.Chernomyrdin was deciding who should be in charge of Interdepartment Commission on Climate Change, and assigned this role to Hydromet, certainly, it was hardly expecting to delegate to it the leadership of such huge business. While the prospects for application of the Kyoto tools were becoming more realistic, the evolution of climate policy was developing along new tracks. In two quite narrow, but important groups of the Russian society, the interest to climate policy emerged. This interest is of a pragmatic and mercenary nature, and it is linked to opportunities opened by flexible mechanisms. These interested groups are, first, the directors of enterprises in such industrial sectors where application of the Kyoto tools promises considerable benefits, and, second, the bureaucrats at the federal and regional levels that might be involved in regulation of domestic application of the Kyoto Protocol in Russia. Forecasts regarding multi-billion "windfall" for Russia in case of the Kyoto entry into force excited the

entrepreneurs and bureaucrats. Through establishing control over climate business they try to provide benefits for themselves. Thus, the new feature of the Russian climate policy which started to emerge from the second half of the nineties is the competition between the interest groups for control over it.

It might be argued that interest groups affect climate policy not only in Russia, but in the countries of the West as well. However, in these countries, the public interest to climate policy is high, and powerful green movement is in existence there; climate policy plays an important role in political competition between political parties. Thus, in these countries, the actions of administration and enterprises would be under inevitable control of such forces that would try to realize national interest and to limit that way the impacts of the interest groups. The situation is completely different in Russia. As it was noted above, the public, green movement and political parties do not control climate policy implementation. Thus, climate policy was is under the risk to turn into the object of pressures and influences of the interest groups.

The *fifth* shift in the Russia's climate policy is that today the control over climate policy in Russia shifted into the hands of the RF Ministry of Economic Development and Trade (MEDT). The representative of this ministry became the co-chair of the ICC, and possible reorganization of this body with elevation of its status was announced. During the 1990s the Hydromet guided the climate policy into a deadlock, but not due to its bad-will, but primarily because of the lack in administrative resources. Entry into the scene of the ministry with high bureaucratic authority (as to this indicator, the MEDT is at the leading roles within the government) has been considered logical for a long time, and such changes could have a positive effect. Today, it became obvious that big money would be circulating in climate business, and interests of influential players would be involved, while the role of arbiter of these processes is not within the power of every actor. There is always a danger that without such responsibility influential actors might block climate policy implementation. As a result of establishing control of the MEDT over the climate policy the stance of the ICC has increased within the government bureaucratic hierarchy.

Of a particular interest would be the issue of interaction between the climate policy and Russia's policy of economic growth in 2000s. Certain conflict between climate policy goals and economic goals always exists. Such conflict was not of a danger for Russia in the 1990s, since it has been in a deep economic depression. The situation has been modified during 1999-2002 The goal of economic growth correlated particularly with the interests and aspirations of the public, which is tired from hunger and unemployment. Economic growth is one of the major priorities in the program of the new president. Under these conditions, it becomes obvious that climate policy

instruments are scarcely possible to be realized in Russia in case they are in direct conflict with economic growth. It seems that in the nearest future, not the climate policy with its instruments would have an impact on economic growth rates, but on the contrary, the policy of economic growth would subordinate to itself the climate policy, and would construct a certain corridor for its implementation. For example, in these conditions it is difficult to imagine introduction in Russia of a carbon tax due to climate policy considerations, especially, in case it has a negative impact on economic growth. The shift in the control rights on the Russian climate policy to the MEDT will not lead to its independence within the general system of the governmental policies. The extent of climate policy subordination to economic policy will be very high. Important specifics in Russia is that a number of energy and economic policy instruments which climate policy intended to use for GHG emission reduction (increase of gas and electricity prices, switch off for non-payers) face active social opposition, and their application depends on the government ‘s persistence.

Thus, the new period of institutional changes Russia entered now is an extremely challenging period. Many forecasts of the development of Russia’s climate policy that were made recently and that appeared quite trustworthy are likely to become much less so. It does not mean that these forecasts were bad. It only means that the political and economic situation in Russia is changing now radically compared with the second half of 1990-s and, as the result, economic and institutional shifts are emerging that were hardly possible to take into account in advance.

2. Emission trends and economic growth: major scenarios for Russia

Decision of the US administration to exit from the Kyoto Protocol was argued by its inconsistence with the national interests: it was expected that quantitative limitations of the Kyoto Protocol might significantly slow-down the possibilities of the economic growth of this country. In June, 2001 the questions about relation between KP and economic growth were raised by the Ecological committee of the State Duma at the preliminary hearings on Kyoto ratification: 1) won’t Russia exceed quantitative GHG emission limitations set up for her by the Kyoto Protocol; 2) won’t these limits lead to imposing in the nearest future the barriers for economic growth in Russia. According to the representative of the government all possible scenarios of economic development in Russia, and possible emission scenarios have been analyzed, and conclusion was made that Russia won’t face any misfortunes in that respect: neither in 2010, nor in the first

budget period of 2008-2012 the emissions are predicted not to exceed their base level of 1990, and limits on economic growth won't be set up.[2]

In the 1990s, the problem of compliance (or, of non-compliance) with the Kyoto Protocol obligations has not been acute for Russia. The same refers to the problem of economic growth, since there has been no economic growth at all. However, the conditions changed and, today, it is necessary to make estimates of the economic growth rates and of possible GHG emissions. The reason is evident: Russia has exit from the economic depression, shifted to economic growth, and economic growth is among the major priorities in the policy of the new government. It resulted in increase of attention to those emission scenarios which had been developed previously, as well as to elaboration of new scenarios.

According to the IPCC Working Group III emission scenarios are the projections of anthropogenic gas emissions based on a coherent and internally consistent set of assumptions. In case there are several such scenarios, then inevitably a question arises which one among them is better and more reliable.[3] WG-III considers that uncertainty regarding future emission projections can be attributed "only to a certain extent" to differences in the models used: "Differences in the models serve as an explanation only for a small part of the wide spectrum of emission assessments published in the literature. To major extent the broad range is explained by the differences in the assumptions of the scenarios".[4] Assumptions regarding economic growth, quality of organic fuel, and growth rates in efficiency of energy use have the highest impact on emission forecasts. Since there are no commonly accepted criteria for evaluation of scenarios WG-III suggests as an alternative to analyze "reasonableness" of assumptions.[5] WG-III experts indicate at the necessity of renewal of scenarios and development of new scenarios. The process of renewal is of utmost importance for countries with economies in transition in order to take into account the recent information on economic transformation and possible technological modernization. Here new scenarios of economic development are necessary, as well as analysis of climate policy, of new mechanisms and programs, and GHG emission reductions achieved through their implementation.[6] This methodological approach WG- III is of a special importance for Russia as a country where serious institutional changes are still underway.

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[2] Climate Change ad the Policy of the Russian Government. WWF. Reference Information. www.wwf.ru/climate/kyoto 20.11.2001

[3] IPCC Report, Working Group III, 1994, pp.31, 34, 37; Russian version.

[4] Ibid., p. 36

[5] Ibid, p. 28

[6] Ibid. p. 33

Below I would like to compare the main scenarios of GHG emission in Russia. Not only their outcomes would be compared, but also assumptions they are built on. Comparison is suggested to be concentrated especially on scenarios of the First National Communication (FNC), of the Second National Communication (SNC), of the Study on Russian National Strategy of GHG Emission Reduction (SRNS), of the IIASA, and of the RF Ministry of Energy (ME). The main conclusions from these studies are the following:

1) The First National Communication of RF concluded with confidence that energy related CO2 emission in 2010 would not exceed their 1990 level.[7]

2) The Second National Communication of RF indicated that "only under favorable economic conditions and correspondingly increased investments into energy-saving (optimistic scenario) the emission level in 2010 might equal or comprise 90-92% from 1990".[8] FNC and SNC were produced with a time difference of 2, 5 years. However, in SNC, the prospects of GHG emission reduction by 2010 in Russia are not so optimistic, and reduction level is not so high; one of its scenarios even envisages increase in emissions from the 1990 base year.

3) The Study on Russian National Strategy of Greenhouse Gas Emission Reduction (SRNS) of the World Bank and the Bureau of Economic Analysis resulted in the following main conclusions:

(1) In absence of new technologies at all, but under rather rapid GDP growth (4, 5%) Russia will not have in 2008-2012 any significant volume of quotas for trade. There will be a problem with compliance with the national commitments under the Kyoto Protocol.

(2) Implementation of new technologies, but without introduction of carbon tax would not be effective enough. According to this scenario trading potential accounts for 1, 75 billion tons of CO2 eq.

(3) With carbon tax ranging from $2, 5 to $25 per ton of CO2, Russia would have excessive quota allowances that potentially could be sold in case of early start of transactions, i.e. before 2008. Trading potential during the five years is evaluated in this scenario up to 2, 7 billion tons of CO2 eq.

[7] First National Communication of the RF to the Secretariat of UNFCCC, 1995, p.51

[6] Second National Communication of the RF to the Secretariat of UNFCCC , 1998, p.93.

(4) The main conclusion of the SRNS: without special policy, under current business-as-usual development, Russia will have serious problems with meeting its commitments under the Kyoto Protocol. In case of implementation of additional intensive GHG emission reduction policy, including international cooperation, Russia could get substantial resources for climate change activity required by the Protocol and future mitigation measures.[9]

Comparisons between the SNC and SRNS scenarios pose a number of questions, and the major among them is how the SRNS was able to estimate the emission reductions at a level considerably exceeding the levels presented by SNC scenarios while the rates of economic growth in both studies were assumed to be almost equal (4,4% and 4,5%)?

It is well known that the size of emission reduction potential depends on what figures for rates of economic growth and energy saving were selected. Experts from both research teams selected similar rates for GDP growth. Both of them borrowed these figures from the official Medium-Term Strategy of the RF government. As to another important factor, i.e. energy intensity, not everything is completely clear. SNC scenarios envisage decrease in energy intensity (from -0,5% to -2% annually). In fact, all three scenarios of the SNC differ from each other, first, by the indicator energy-intensity.

SNRS mentions nothing about the size of coefficients for energy intensity. Instead, there is a reference to the lack of (in one scenario), or presence (in two another scenarios) of endogenous technical progress. From the references to the model, it is possible to find out the following: The general assumption of the model was that after the start of market reforms, gradual replacement of outdated technologies by more efficient modern technologies takes place. The latter are characterized by both lower resource-use and by emission reduction. During the adjustment period, "old" and "new" equipment operate in parallel. For "new" technologies corresponding data referring to the USA, Japan, Great Britain and some other developed countries were taken into account. The SRNS gives no information about the year from which new indicators with the more efficient technology are taken in the calculation and about the size of these indicators.

The capital turnover process was simulated by SRNS. "Old" capacities are depreciating, having two sources of depreciation: regular aging, and lack of competitiveness due to trade liberalization. Fixed investments are directed to the sectors, where available capacities are insufficient to produce goods in quantities required meeting expected demand. It was suggested,

[9] The Study on Russian National Strategy of Greenhouse Gas Emission Reduction (SRNS) of the World Bank and the Bureau of Economic Analysis, 1998, Section 1,pp.4-5

that all investments produce "new" efficient capacities. Thus, the SRNS model seems to have the following premises:

- "reforms" automatically lead to resuming of the investment process;
- all investments are transferred into so-called "new" equipment;
- the model incorporates this "new" equipment via very high efficiency indicators that exist in the USA, Japan and Great Britain;
- this equipment is characterized by both lower resource consumption and lower emissions (no concrete figures are indicated).

Thus, significant emission reduction, and hence significant level of emission trading potential seem to be accounted, primarily, due to the fact that extremely high levels of energy efficiency indicators have been incorporated into the model beforehand.

4) In October 1998, IIASA has published its forecast of the GHG emission dynamics in the countries of the Former Soviet Union (FSU), and particularly in Russia. The specifics of IIASA's scenarios is that it forecasts emission reduction potential in Russia not only in physical units (t/C), but also it estimates the value of this "surplus" or "bubble" (billion dollars).[10] The size and value of the "bubble", according to the IIASA, will depend on the level and timing of economic recovery in Russia relative to the first budget period (2008-2012) as well as on technological choices. As the authors of IIASA scenarios note it, other scenarios, in contrast to their own, underestimate the deepness and longitude of recession in the FSU countries.

IIASA employs six scenarios, which encompass three cases of future developments (A, B, and C) subdivided into 6 alternative scenarios (A1, A2, A3, B, C1, and C2). Case A envisions a future of impressive technological improvements and consequent high economic growth. It has three variants, which reflect alternative futures for fossil fuel resources that can be tapped and non-fossil technologies. In scenario A1, oil and gas are abundant and remain dominant fuel sources. In scenario A2, oil and gas are scarce, and, thus, coal becomes a dominant source. In scenario A3, improvements in non-fossil technologies (renewable and nuclear) lead to the long-term elimination of fossil fuels. Case B is a 'middle course' scenario. Case C envisions substantial technological progress. In scenario C1, nuclear power is a transient technology. In scenario C2, new reactor technologies lead to renewed growth in nuclear over the same period.

[10] International Institute for Applied Systems Analysis, Laxenburg, Austria. Interim Report. 1998/October. The Kyoto Protocol Carbon Bubble: Implications for Russia, Ukraine and Emission Trading. David G. Victor, Nebojsa Nakicenovic, Nadejda Victor, Gordon J. MacDonald; the term "bubble" in the text was changed by authors in the later publication to the term "surplus".

For the Kyoto period, the most important differences between the scenarios are the level of economic growth (high in A, moderate in B and C) and the technologies employed (high carbon in A2; medium carbon in A1 and B, low carbon in A3, C1 and C2).

In all scenarios, the countries of the former Soviet Union (FSU) are in surplus. However, only Russia and Ukraine, according to IIASA, are likely to sell substantial quantities of bubble permits. IIASA considers that other studies overestimate emissions from the countries of the FSU. One of the reasons for that is that «even the few available shorter-term scenarios have systematically underestimated the depth of economic recession». Each IIASA scenario for Russia yields a significant carbon bubble. The smallest bubble (9 Mt/C) occurred in scenario A2 (high economic growth and carbon-intensive technologies). The largest bubble (877 Mt/C) is in the middle course (B) scenario, which IIASA reviews suggest as the most likely outcome. In this scenario, continued weakness in the FSU economies dampens growth in emissions.

IIASA's scenarios are based also on long time spans for the rates in energy intensity improvements: -0.9% annually during the period of 1990-2020, and -0.7% annually during the period of 1990-2050 (scenario B). They are even higher in scenario C. In scenario A, they are also higher for the period 1990-2050, but lower for 1990-2020 (-0.3% annually during 30 years).[11]

According to IIASA, the emission targets adopted for Russia in the Kyoto Protocol far exceed the likely level of emissions from this country and Russia could sell its surplus if the Protocol enters into force. In the "middle course" scenario of IIASA the value of the total carbon surplus during the budget period 2008-2012 is 20 to 150 billion US Dollars (4 to 26 billion US Dollars per year; the surplus does not burst until 2040). This flow of assets could exceed Russian earnings from natural gas exports ($10 billion in 1997). Differences in the valuation of Russian potential within the framework of the same scenario are connected with the fact that amounts of GHG emissions in physical units are multiplied by different prices ranging from $ 20 to $150/tC. The authors explain variations in prices first of all by macroeconomic factors (supply-demand relation). Even under the conditions of a quite transparent market, prices for the lots of surplus permits sold by different countries will be different. These differences will result, primarily, from the variations in the level of organization of these countries' institutional structures and from the quality of their operations.

5) The RF Ministry of Energy (ME) forecast is important due to a number of reasons. *First*, it is based on higher rates of economic growth in Russia. Thus, it takes into consideration

[11] It is to notice that during the 1990s in Russia, the energy intensity has not declined, but significantly increased (21%).

significant changes in priorities of government economic policy that have taken place recently. *Second*, the rates of economic growth in this forecast are tied up with changes in indicator of GNP energy intensity. *Third*, this is an official forecast.

During the period 1999-2001 the GDP of Russia increased by 20%, and the continuation of economic growth is expected also in 2002 and in 2003. According to estimates undertaken in a course preparation for hearings on KP ratification in the Ecological Committee of the State Duma, CO2 emissions in Russia in 2010, and in the first budget period 2008-2012 should not exceed their base level (1990).[12] According to the forecast of the RF Ministry of Energy carbon dioxide emissions from the energy sector even in 2020 won't reach the base level of 1990 though this forecast is based on the assumption of very high annual GDP growth rates of 5-6%.

The forecast of the RF Ministry of Energy envisages two options in CO2 emission dynamics from energy sector in Russia: "favorable"(option N1) and "low-emission" (option N2). According to option N 1, carbon dioxide emissions in the year 2005 will account for 1750 million tons, in the year 2010 – 1870 million tons, in the year 2015 – 2000 million tons, in the year 2020 – 2200 million tons. In the base year (1990), carbon dioxide emissions from energy sector were 2236 million tons. According, to option N 2, the level of carbon dioxide emissions would be even lower than under option N 1, i.e. by the end of the forecasted period (in the year 2020) they will account for 1840 million tons. Thus, no excess of emission limit set up for Russia by the international regime is expected according to the RF Ministry of Energy..

However, evaluating these scenarios of the ME is to take into account that future compliance of Russia with its commitments within international climate regime even under long-term economic growth is of a conditional character. Indeed, these scenarios are based on the assumption of extremely high (4-5%) growth in energy efficiency rates (decrease in energy intensity). Forecast of Ministry of Energy (based on annual GDP growth rates of 5-6%) envisages increase of GDP in 2020 not less than by 3-fold from 1998. "It is supposed that three-fold increase in GDP cannot be accompanied by corresponding growth of energy consumption. We consider the increase of energy efficiency of the national economy to be an **obligatory** factor in providing economic growth", - is noted in the document of the Ministry. "In other words, in case the 4-5% growth in energy efficiency is not provided, there would be no 5-6% increase in GDP"[13].

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[12] Papers of the State Duma prepared for hearings on Kyoto Protocol ratification 18.06.2001; RIIA Report on Moscow Workshop 14-15 May2001

[13] Papers prepared for hearings on KP ratification in the Environmental Committee of the State Duma, 18.06.2001. Annex 2: "Estimation of Development of Russian Energy Sector"

Thus, this forecast is (1) initially based on the desirable GDP growth rates, (2) the energy efficiency (decline in energy intensity) indicators were calculated that should be necessary for providing the GDP growth within these scales. Without improvement in energy efficiency the economic growth should not be expected. It means the considerable growth of CO2 emissions is also not to be expected.

Most of the scenarios analyzed above indicate at considerable non-used emission quota in Russia, although the size of such quota varies across scenarios. In order to evaluate the reliability of these forecasts it might be useful to apply the approach recommended by the IPCC WG-III, and to compare the assumptions on which these scenarios are based.

1. Depending on the assumption of economic growth rates used in a particular scenario they can be subdivided into two major groups. Three scenarios are based on high annual GDP growth rates. SNC envisages this rate at 4-4.4%, SRNS at 4.5%, and the RF Ministry of Energy at 5-6%. The basis for such assumptions is particular figures of growth rates indicated by governmental programme that has been in force at the moment when a scenario was designed. High rates of economic growth on which a particular scenario within this group is based define emerging the problem of Russia's compliance with GHG emission limitation.

Another sort of scenarios are the IIASA scenarios. Assumptions on economic growth are not based on the economic indicators suggested by the government programs, but seem to be based on authors' own estimates. IIASA's scenarios are based upon deeper GDP decline in Russia, and later exit of Russia from economic depression. As to the effects on GHG emission dynamics it is likewise the assumption of lower rates of economic growth. As a result, IIASA's scenarios predict that considerable surplus (bubble) would occur.

2. Neutralising the effects of high GDP growth rates on GHG emissions in a number of scenarios takes place in approximately similar manner as in case when high economic growth rates were introduced: these scenarios are based on high rates for energy intensity decline (or, increase in energy efficiency) that are borrowed from governmental programs (Second National Communication). RF Ministry of Energy faced certain problems while making its forecast: by borrowing the 5-6% GDP growth rate from the governmental program of modernization it had to introduce in its forecast extremely high annual energy efficiency growth rate of 4-5%. As to IIASA, it operates with GDP energy intensity decline in the interval of -0.3-0.9%, which is considerably lower than that of the RF Ministry of Energy.

3. Selection of rates for energy intensity decline needs to be substantiated, but not all scenarists accomplish that. The SRNS forecast is based on assumption that Russia would apply in its energy sector the most advanced energy-producing technologies available in the USA, Japan and Great Britain. These technologies are to be transferred to Russia together with significant investment flows into energy sector that would be possible as a result of institutional reforms and economic policy measures (carbon tax). Whether transfer of advanced technologies into the Russian energy sector from the West is realistic is not questioned by this forecast, it just assumes this fact. As it was mentioned above, the RF ministry of Energy based high growth rates in energy efficiency in its forecast just by declaring that there would be no economic growth of 5-6% if there would be no 4-5% energy efficiency growth. Simultaneously with such declaration the question about Russia's possible non-compliance with its emission reduction targets is closed quite successfully. In case GDP growth takes place, it will take place on the basis of increase in energy efficiency, and, hence, significant increase in GHG emissions won't occur. In case there will be no increase in energy efficiency, there would be no economic growth, and, hence, no emission growth.

4. The problem that emerges in this context is not only in reliability of a forecast. It is defined by how the results of forecast will be applied in a course of decision-making process. Rather often such models are used as a decisive argument in undertaking particularly important decisions. And policy-makers are sure that there are no lies in the models applied, and "group interests" do not take part in such models construction, because "mathematics only" operates in the process and it does not allow any interference or impacts of interests on the results of modeling. The policy-makers are sure that if scenarios indicate that Russia will not exceed GHG emission targets and these emission limits won't pose a barrier to economic growth, then it will be that way. Relativity of models and the role of assumptions are not taken into account by the policy-makers, since they are not aware about the insights of the modeling process, they are not informed about its mechanics, and they do not have enough time to go deeper into the subject.

5. Another problem associated with designing GHG emission scenarios for Russia is the problem of statistical data reliability and availability. It is important not only to have a good model design. It is no less important on what particular statistical base this model will be functioning. These problems emerge not only at the stage of GHG inventory compilation, but also at the stage of GDP accounting. It is associated with existence in Russia of significant non-formal sector, and lack of clarity on how it affects official data on GDP. There are various estimates of the share of informal sector in GDP, and they fluctuate from 10 to 40 %. Most of them are really

evaluations that are often politicized and serve as arguments for policy-makers within their political competition. The RF Committee on Statistics did not inform the public about results of its assessments in the subject. However, it is known that it regularly increases the initially calculated GDP level (recently by 20-25%), thus, incorporating into it the share of non-formal sector. It is difficult to assess to what extent the non-formal sector affects statistical data on energy production and consumption, and hence, energy intensity and GHG emission data, as official statistics on non-formal sector in energy production and consumption is non-transparent. But, there are indications that, for example, in petrol business, the shadow operations are of a huge scale (today, the petrol business is one of the most profitable in Russia)

3. Institutions of Russia's Climate Policy

3.1. Climate policy body.

Russia's climate policy (and ICC) in 1990-s was engaged in (1) negotiations within the framework of the Climate Convention, and the formulation of Russia's positions at these negotiations, (2) submission of National Communications (with GHG inventories) to the Secretariat of the Climate Convention, and (3) control on scientific research in the area of the global climate. The construction of the national institutional structure of the climate policy was oriented at the implementation of these functions. Thus, the climate policy of Russia was involved first of all in implementation of UNFCCC.

In the former USSR, the implementation of international environmental agreements was assigned to an institution specially created for this purpose - an interdepartmental commission. The same was done to implement FCCC domestically. An Interdepartmental Commission on Climate Change (ICC) was created with about two dozens ministries and state committees as its members.[14] The numerous group among them were industrial ministries - producers and consumers of fuel and energy. A high number of other ministries and committees were included into ICC also. According to the ordinance of the RF government, the key objectives of the ICC were as follows: (1) co-ordination of the ministries' efforts to reduce the negative impact of economic activities on climate, (2) co-ordination of the ministries' and organizations' efforts to fulfill the obligations of the RF under the Climate Convention, and (3) organization of the RF

[14] RF Government resolution №34, 22.01.1994

participation in the official bodies of the Climate Convention. To fulfill these objectives, the Interdepartmental Commission on Climate Change, according to the ordinance of the government, (1) gives recommendations on GHG emissions reduction on the basis of the use of environmentally clean technologies to enterprises; (2) organizes and co-ordinates the efforts of the ministries to undertake measures aimed at the fulfillment of the RF obligations under the Climate Convention; (3) defines the position of the RF delegation at COP and protocol negotiations; and (4) participates in the development of laws on the problems connected with the climate change.

At first glance, it is a construction of the institution entrusted with broad authority; the institution that is capable of pursuing an effective climate policy and of ensuring the fulfillment of Russia's obligations under the Climate Convention; the institution that possesses all the necessary instruments for it. Actually, it is far from true, and, more precisely, not true at all. This ordinance of the government created a very weak organization. Its weakness predetermined to a great extent weakness and inconsistency of Russia's climate policy in the 1990s.

Although the form of an interdepartmental commission remained the same as earlier, however the possibilities of this institution have changed. From this point of view, ICC in the 1990-s was a typical institution of the transitional period: old form but without old possibilities, a remainder of the old system not adapted to the new situation. Further, in the command economy each ministry - member of a commission - possessed enormous authority, especially towards industrial enterprises included into their structure: ministries controlled thoroughly their activities. Within the market economy, industrial ministries have lost the major part of their former power: enterprises united into them are being privatized, and became independent. That is why an Interdepartmental Commission with such ministries as its members also became a weak institution. Formerly ICC was able to give orders to enterprises via their ministries. Nobody can give orders to private firms today. That is why the government ordinance about ICC says only about recommendations from Commission to industrial companies, not more. Old methods of management do not function, but an Interdepartmental Commission on Climate Change has not mastered new management methods.

Another reason for the weakness of ICC was in the property of the organization that stays on the top of it. According to government decree, Hydromet (Russia's Federal service on Hydrometeorology and Environmental Monitoring) had to play the leading role in ICC. According to the decree, the head of Hydromet was put in charge of the ICC as well. Hydromet was not considered a powerful institution within the national bureaucratic hierarchy. Hydromet's influence and weight were clearly insufficient to pursue independent climate policy within the

ICC in order to co-ordinate differences in the interests of individual ministries in the climate policy, in order to ensure its financing and pass laws through the government and parliament, to force ministries to implement necessary measures. Work on GHG inventory was progressing with great difficulties owing to the shortage of budget financing, and the First National Communication was submitted to the Secretariat with considerable delay, while the quality of the first inventory also left much to be desired.[15]

3.2 Climate policy law.

A decade passed since Russia signed the Climate Convention and assumed quite serious obligations. It would appear that the creation of a legal base ensuring an effective climate policy would be the first thing that the parliament, the government and, subsequently, the body, which the government entrusted with national implementation of the international climate agreement signed by Russia, should have done during this period. Unfortunately, such legal support to the climate policy is still absent in Russia. Failures of the climate policy in this crucial issue are the best possible reflection of ICC position in the contemporary system of the authorities.

Some people say that the situation with the legal support of the climate policy is not so dismal. An opinion is expressed that certain elements of the climate policy legal support are contained in other legal acts adopted recently. According to this view references are made to the legislation on environmental protection, on atmospheric air protection, the law on the Climate Convention on ratification, the Forest Code, a number of government ordinances and instructions in the energy sphere, and, first and foremost, to the Federal Climate Program. As far as the above-mentioned environment protection laws are concerned, their study clearly shows that they do not create any specific legal base for the regulation of GHG emissions. Nothing similar to the legislation on atmospheric air protection or the Water Code with their regulatory mechanisms has been created in the sphere of GHG emissions regulation yet. If an urgent need in such regulation and in the adoption of measures to limit emissions emerges in the nearest future, it remains absolutely unclear how to do that on legal grounds. Application of GHG emission reduction mechanisms entails a number of stumbling blocks, and the creation of the legal base for these

[15] See, Kotov V., Nikitina E. To Reduce or to Produce? Problems of Implementation of the Climate Change Convention in Russia. In: Verification 1996. Poole J., Guthrie R. (eds.), West view Press, 1996, Boulder, Colo/ Oxford, England

mechanisms will require much time and will be attended by serious difficulties because it will find itself in the center of group interests.

3.3. Federal Target Program on Climate Change

In 1996, a special climate program was approved by the ordinance of the RF government. It was awarded a status of the federal target program and was promised budget financing.[16] The Federal Target Program on Climate Change, according to its provisions, should have ensured (1) «fulfillment of the RF obligations under the Convention» and (2) "implementation of a complex of measures aimed at the prevention of negative consequences of the climate change in the RF". Thus, one of the declared goals of the Federal Climate Program should have been the climate policy implementation. However, it became clear quite soon that it was a program that was supposed to deal with the design of measures on paper rather than with the implementation of concrete measures of climate policy. Only after these measures within the Federal Target Program are developed in 1997-2000, the next special program should deal with their implementation. The organizations and the personnel that worked within the framework of the Federal Target Program constantly complained that the state did not fulfill its obligations concerning its financing: «...current funding of the Program can not be considered as satisfactory even for the first steps of activity».[17] Unending problems with funding forced the R&D institute of Hydromet that should have developed the new federal program to use the American sources of financing. Preparation of the "Climate Change Action Plan Report" was started in 1997 with the support of the US Department of Energy and EPA. The Climate Change Action Plan that would probably become a basis for the new climate program.

The institute of the state programs is not a novelty for Russia: it was well known already during the Soviet period. However, such programs were also in great abundance in Russia during the 1990s. It would be a delusion to believe that this institute can be fully transferred from one system to another: in contemporary Russia other methods of rare resources allocations moved to the foreground. The most of these programs had one common inherent feature in the 1990-s: they

[16] Federal Target Program "Prevention of dangerous climate changes and their negative consequences"; ordinance of the RF government, №1242, 19.101996

[17] "Climate Change Action Plan Report", Executive Summary. Hydromet, 2000

were not implemented, remaining paper instruments. Lack of financing was the reason for their failure. The new RF government intends to reanimate the institute of state programs. For this purpose, the government reduced drastically the number of federal target programs, leaving only 61 programs in 2002 and simultaneously improving their funding. It seems that the Program on Climate Change was not among the programs that survived. According to Y.Izrael (the former head of Hydromet) the Federal Target Program on Climate Change was abolished.[18]

3.4. Climate policy institutions: future configuration

The Kyoto Protocol, after it is ratified by the Parliament, will become a new important (external) factor that will affect the formation of Russia's climate policy.[19] In order to realize the provisions of the KP, Russia will have to adopt a whole range of legal acts to create a necessary legal framework for the climate policy. Primarily, Russia will have to identify a state body (bodies) that will be responsible for the implementation of the Protocol. The identification of the body responsible for the efficient functioning of emissions trading mechanism and the joint implementation projects will represent a special issue in this context. Legal regulation of allocation both inside the state bodies and between legal entities (enterprises and organizations) that are sources of GHG emissions, on the one hand, and state regulating bodies, on the other hand, will assume a special importance. It is deemed necessary to resolve first the following issues:

1) who will own rights of property in AAU: a) the state, b) municipalities, c) enterprises (or some combinations of these actors);

2) if the state acts as the owner of AAU the following question inevitably arises for Russia as a federative state: what level of the state authority will the owner of these rights represent, i.e. the Federation, the regions (Federation subjects), or the Federation and the regions (here the question arises on the sharing of these property rights);

3) who will carry out trading transactions from the Russian side: the state or legal entities (enterprises and organizations) and citizens (or a combined system will be chosen);

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[18] Izvestia, 8.02.2002

[19] The Kyoto Protocol contains both norms with hard obligations (Article 3 with the quantitative obligations on limiting GHG emissions) and soft obligations of participants. The latter are formulated in the form of recommendations. In particular, this form is applied to the domestic climate policy. The element of flexibility is achieved in this case by the "parties aim at" formula. This gives Russia as the country with economy in transition the opportunity to use the policy with instruments and measures corresponding to the greatest extent to the specifics of its transition period.

4) what will be the legal regime that will serve as a framework for undertaking trading transactions: clearly, in the case of Russia it will involve foreign economic deals, since, first, the parties to the deal will have a different state affiliation, and, second, foreign currency will be used for settlements.[20]

One of the reasons for Russia's delay with the institutional capacity building in the climate policy has been the lack of the necessary balance of interests between different agencies for the control on the regulation over the future climate business. Each adversary proposed its own plan of institutional construction. However, these proposals on the design of the future institutional structure though remained unrealized yet are of considerable interest. The institutional structure that should be established in Russia in the nearest future, with increasingly less time remaining for its construction, will be built not from scratch. This aim will be accomplished by (1) using the intellectual reserves that were already accumulated; (2) using, at least partially, the regulatory mechanisms that are available in certain other areas, but that could prove necessary for the regulation of the climate sphere; (3) taking into account interests of the agencies that will manage to preserve their influence on the institutional capacity building. Thus, the proposals on the institutional construction already available in the past can form the basis for the configuration of the climate policy institutional structure that will appear in Russia in the nearest future. Or, on the contrary, they can mark an unacceptable pathway in the future institutional capacity building.

During 1998-1999 two main projects of the future domestic institutional structure were competing with each other. The first was the project of the former RF Committee of Environmental Protection (CEP). The project announced that CEP had mechanisms for rationing atmospheric emissions and issuing licenses for these emissions, as well as the system of emission sources inventory and monitoring, at its disposal. This claim actually constituted a declaration that this agency already possessed a necessary basis for the creation of the national quotas trading structure, at least its most important components. Just a mere trifle was needed to supplement the already available instruments.

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[20] O.Orlova. Certain legal issues of adoption of the Kyoto Protocol. The Russian-American Workshop on Quotas Trading. Moscow, 1998, pp. 53-60

Atmospheric emissions management at the disposal of the CEP is a block of institutions establishing the norms of atmospheric emissions. The process of rationing is based on medical standards of the state of the atmosphere; they determine maximum allowable concentrations (MACs) of pollutants. The territorial bodies of the CEP establish maximum allowable emission norms for each physical source of emissions (there can be several sources of emission at one enterprise) taking into account other sources of pollution located nearby. These norms serve as a basis for granting emission permits to each source by these bodies, as well as for the subsequent control over the fulfillment of obligations established by these permits. Today, MACs are established for a great number of gases. But if we take greenhouse gases, there are norms available only for methane and some ozone-depleting substances (and these are medical norms). Each enterprise having stationary sources of atmospheric pollution submits a report on its atmospheric emissions to the territorial body of the CEP, in accordance with the form "2-tp (air)" which is well-known for each enterprise in Russia. Besides, an ecological passport of an enterprise is compiled based on an inventory that is made once every five years. This passport contains important information on technologies, raw materials and fuel utilized by the enterprise, including per unit of products, harmful emissions, etc.

The idea of the CEP was to use the instruments it had at its disposal, and, primarily, the form "2-tp (air)" and the ecological passport of an enterprise with the aim of managing GHG emissions. The existing system of enterprises' reporting should have been supplemented by more detailed information on their fuel and energy consumption, by the system of GHG emissions reduction stimulation, by the establishment of a system of limits for their emissions for stationary sources and by the tax on emissions by mobile sources. This plan included an important item whereby it was envisaged to allocate allowances not only among enterprises, but among regions as well. Subsequently, regional authorities became important players in the crucial issue of AAUs allocation. This preposition was made in order to ensure the passage of the project domestically.

Other interesting points were to be found in this plan: a scheme of functions distribution in the control of climate business between different departments. Seven main agencies were supposed to take part in this management, including such bodies as the Ministry of Fuel and Energy, the Ministry of Economy, the Ministry of Finance, the Ministry of Transport, as well as the Russian Forest Commission and the State Committee for Statistics. It is interesting that Hydromet that was the chair of the ICC was not mentioned in this scheme at all, as well as the ICC itself. The scheme allocated the following functions to the Ministry of Fuel and Energy: 1)

primary inventory of emissions (together with three other agencies); 2) development of the monitoring system (together with three other agencies); 3) development of sectoral forecasts (together with two other agencies); and 4) implementation of investment projects (together with three other agencies). The Environment Protection Committee intended to retain the execution of the following crucial functions: 1) transactions certification (solo); 2) accounting of quotas use and registration of deals (in duet with Goskomstat who was bound to deal with purely technical accounting functions in this duet); 3) primary allocation of quotas (in trio with the Ministry of Finance and the Ministry of Economy); 4) organization of financial flows (in trio with the Ministry of Finance and the Ministry of Economy); 5) primary inventory of emissions and development of the monitoring system (in quartet with three other agencies); 6) development of the control system (in duet with the State Forest Commission that would have performed this work only for its sector, while the Environment Protection Committee would have done this monopolistically for all other sectors). Therefore, the Environment Protection Committee would have enjoyed main positions in the institutional structure of GHG emissions domestic regulation under this project.[21]

This plan was not fated to be carried out. In August 1998, the deepest financial crisis broke out in Russia. Nobody had time to spare for the issues of the institutional capacity building in the climate policy. However, Russia began to recover from the consequences of the 1998 crisis amazingly quickly. In addition, since post-Kyoto period already began, the pause ended. In early 1999, the RF Ministry of Fuel and Energy published its design of the institutional structure[22]. Key features of this project were as follows[23]:

Distribution of functions of the control on climate business between the Federation and the regions. The functions of the future quotas market regulation were supposed to be concentrated at the Federation's level. Therefore, the regional authorities were excluded from the

[21] "The Russian-American Workshop on Trading in GHG Emissions Quotas. Moscow, July 1998, pp. 71, 73". "The RF State Committee of Environment Protection is the main body of the GHG emissions state management. It is the principal federal body responsible for the policy in the sphere of atmospheric pollution reduction. The regional divisions of the State Committee are charged with the practical implementation of this policy. Proceeding from practical considerations, the regional divisions often work with the regional and city administrations and under their control", said the project.

[22] it was made via publication of its research institute

[23] *"Just the Government of the Russian Federation is finally responsible for distribution and use of quotas".* "Post - Kyoto Energy". Ministry of Fuel and Energy of the Russian Federation. Institute of Energy Strategy. March 1999

management of climate business. There was a reasonable apprehension the regional authorities would have regarded financial resources generated by the sales of quotas as an administrative rent that they rightfully owned, and not much of these revenues would have been invested in energy saving. It is true that the Charters of the regions contain a provision that the management of the regions' natural resources is in the competence of the Federation and the regions. However, the natural resource that the climate policy deals with cannot be tied to a regional territory. It falls under the category of federal natural resources that are envisaged by the RF legislation.[24]

The issue of property in natural resources demarcation and management thereof is rather painful for the RF. A prolonged litigation on this issue is underway between the Federation and the regions; the legislation created a considerable confusion in this sphere; and there is a serious overlapping of competence here. Presumably, it will be possible to avoid all this confusion in the AAU issue; otherwise, the quotas market and the RF climate policy will encounter numerous uncertainties and risks unknown to other countries. The greatest trouble can be in store for the Kyoto mechanisms in Russia primarily if these instruments will become an object of the competition between the Federation and the regions. However, the progress in political stabilization allows hoping that it will not happen.

The role of the ICC. The project of the Ministry of Fuel and Energy treated the ICC quite delicately: "The high level body might be the Interdepartmental Commission on Climate Change…" [25] However, one bureaucratic nuance should be taken into account: the project considers the possibility of preserving the ICC only under the chair of a Minister. It is known that the ordinance of the Government on the establishment of the ICC charges the head of Hydromet with its chair. However, the head of Hydromet does not hold a ministerial rank, and neither does the head of the CEP. Thus, this item in the latter project severs these two competing departments from the governance of the Commission and practically proclaims the replacement of its chair. One cannot ignore the obvious fact that Hydromet, as the head of the ICC clearly did not have enough bureaucratic weight. Hydromet was unable to play the role of an arbiter in the conflicts that occurred in the past and will undoubtedly occur in the future between Russian bureaucratic

[24] It is possible that disputes will emerge in the future between the Federation and the regions on the issue of revenues from sinks as the result of reforestation and restoration of forests. Besides, the Russian Federation received an AAU quota under the Climate Convention and Kyoto Protocol. The majority of big enterprises that could become sources of carbon credit in the future are also in federal, rather than regional, property.

heavyweights. As far as the perspectives of creating a specialized institute managing the Kyoto Protocol implementation activities are concerned, they will be connected largely to whether the abilities to control this new organization will correspond to the plans of the strongest bureaucratic players.

Introduction of the intermediate level in the climate policy management. [26] This level is extremely important. It is clear that the interests of individual ministries in the climate policy will be realized through the activities of these sectoral intermediate bodies. It is also clear that these sectoral bodies will draw upon themselves a certain proportion of functions that the high-level body (the ICC or a specialized body) would have assumed otherwise, as well as a proportion of functions of the lower level, i.e. the level of enterprises. This project, on the one hand, created a space for reaching an agreement between different departments, and, on the other hand, strengthened the positions of the Ministry of Fuel and Energy itself. The enterprises of this Ministry account for the lion's share of CO2 emissions, and it maintains its control over the climate policy owing to this intermediate body.

Limited role of enterprises. [27] Free access of enterprises to the international quotas market is not envisaged in this project, though enterprises and organizations are mentioned in its plan only in one context, i.e. solely as project participants (of joint implementation projects). However, according to this outline even in this status they will not enjoy the right to offer their share of carbon credit for sale. It is possible to conclude from this project that enterprises and organizations will be unable either to buy or to sell quotas at the international market. As far as the domestic market is concerned, the character of enterprises' participation therein is not clarified.

"Order of organization of AAU quota transfer".[28] It is noteworthy in this point that the "Order" is established through the approval by an ordinance of the government, rather than by the

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[25] "The high level body might be the Interdepartmental Commission on Climate Change or a new body especially responsible for activities under the Kyoto Protocol which could be chaired by one of the Ministers or Deputy Prime Ministers".

[26] "Intermediate level is Russian ministries and agencies, which serve as general authorised organisations and use quotas in sectors (their volumes should be agreed on the high level body)»; «ministries and agencies can also nominate their authorised organisations for relevant parts of the work".

[27] "Lower level is enterprises and organizations"; "on the early stage of trading in Russia it is practically impossible to organize free access of separate enterprises and organizations on international quota market".

[28] "It is suggested that, authorised Russian organisations work under guidance of its curators - ministries and agencies and also in accordance with Government's "Order of organisation of AAU quota transfer".

adoption of a law. There is nothing unusual for the Russian practice here; it was done this way many times when countless provisions and instructions developed in the depths of the government were approved. This practice actually means that an interested department develops rules of the game for itself, and this approach was regularly criticized. Nevertheless, it was decided to use this mechanism once again. It is hardly worthwhile to forecast for how long it will be necessary to wait after that for the adoption of the law that would have placed this mechanism on a stronger foundation independent from departmental interests.

Bilateral cooperation.[29] An emphasis on bilateral co-operation is clearly visible in the project. It corresponds to the general approach to this issue prevalent in Russia: a marked interest in co-operation in the climate sphere on the bilateral or multilateral basis but with a limited number of participants is manifested here. Certain comments to the Kyoto Protocol that appeared in Russia proceed from the assumption that the Protocol envisages four, rather than three (quotas trading, joint implementation projects and CDM), mechanisms of co-operation, and include a mechanism of bilateral co-operation therein.

Mechanism of CO2 emissions monitoring. This point played an important role in the project initiated by the CEP. Its project was based on the claim that the CEP possessed technical mechanisms for rationing of atmospheric emissions of gases, of their accounting and control at the level of enterprises, of their licensing, etc. The proponents of a different approach to this issue proceed, however, from the assumption that, in contrast to other harmful atmospheric emissions, CO2 emissions do not require physical measuring by special metering devices and gas analyzers. Volumes of these emissions are calculated based on different types of fuel consumption. However this information is regularly collected and calculated by the State Statistics Committee, and it is supplemented by sectoral statistics of the Ministry of Fuel and Energy. The famous form "11-ter" serves as a source of primary data on this issue. All big and mid-size enterprises are obliged to fill it in, i.e. all stationary producers of energy and heat, and it allows the accounting in accordance with the methodology of IPCC. When Russia has to submit this data on CO2 emissions in the

[29] "The important issue for institutional arrangements could be practical steps on bilateral basis. If the Russian Federation will start practical activity by some agreement with some country the rules of game could be developed especially for this practical activity"; "If the Russian-US Commission for Economic and Technological Development (Gore-Primakov Commission) will create good incentives for development and use of Kyoto mechanisms it can be a start for creating of special institutional structure"; "If the RF will reach an agreement with some Annex I country to develop a special program for project investments using the Kyoto mechanisms there could be created a separate structure for implementation of this program".

National Communication under the FCCC the calculations will have to be carried out anyway in accordance with the methods recommended by IPCC. Thus, the form "11-ter", rather than "2-tp (air)", is of crucial significance for CO2 emissions calculation. The Ministry of Fuel and Energy and the State Statistics Committee control just these figures. As far as other GHGs are concerned, an extension of the form "2-tp (air)" will probably be needed. Alternatively, if this operation proves to be expensive, these types of gases will have to be excluded from the list of gases that Russia is going to trade in the nearest future.[30]

In the preliminary hearings in the Environmental Committee of the State Duma 0n the KP ratification it was recommended to the government to prepare and to introduce into the State Duma the projects of the following legislation:

- quota allocation at different levels, including from the national level to the level of an enterprise;
- property rights on certified GHG emission reduction and rules for their transfers (amendments to existing legal acts);
- certification of GHG reduction;
- national monitoring system of anthropogenic GHG emission and their absorption by sinks;
- incentive mechanisms for elaboration and implementation of projects of GHG emission reduction and of their sequestration according to the procedures of the climate change regime.

4. "Modernization" and Climate Policy

4.1. New Approaches to Economic Growth in Russia

If the authors of GHG emission scenarios, which have been analyzed above, did not calculate the meaning of the rates of the economic growth and energy efficiency by themselves, they usually used to borrow them from the governmental macroeconomic and energy programs, which were developed in the 1990s. However, today, most of these programs became invalid. Their substitution for other programs was initiated. The most important among them is the "RF Development Strategy up to 2010", which announces the "Modernization" plan.[31] The

[30] Russian-American Workshop on GHG Emissions Quotas Trading. Moscow, 1998, pp. 76-77

[31] Strategy of the Russian Federation's Development till 2010, Centre for Strategic Developments Foundation, 2000. In 2001, on the basis of the Strategy the "Major directions of social and economic

government has changed its goals, its priorities, and the instruments for achieving the goals. Russia's transition to a radical modernization of its economy envisages renewal of macroeconomic and energy policies, changes in institutional structure and, subsequently, will inevitably have an impact on Russia's capabilities in emission reduction and quotas trading.

Changes that are to take place in Russia one can find out from the Modernization programme of the government. declaring the following priority tasks:

- In contrast to all previous periods, a qualitatively new situation emerged in the country for the solution of fundamental problems. Political situation stabilised, the economy is recovering, and the population is ready to accept changes. The objective of the RF Development Strategy is to use this chance for radical economic renewal of the country and to undertake modernisation.
- Key goals of Russia's Development Strategy are to prevent the further widening of the gap between Russia and developed countries in the mid-term perspective, and to re-establish Russia's positions as one of the leading countries in international development in the long-term perspective.
- The Development Strategy believes that it is possible to achieve these goals only as the result of economic modernisation. Economic growth with rates consistently exceeding the growth rates of the world economy is the only way to narrow the emerged gap between Russia and the well-developed countries.
- The implementation of the Strategy should ensure GDP growth rates of *at least* 5% per year on average for a ten-year period. This will make it possible to increase GDP volume by some 26-28% by 2005 and by 70% by 2010 (as compared to 1999). In certain years, the rates of growth can increase to 8-10%; in that case there can be a greater growth of GDP volume by 2010.
- The Development Strategy intends to ensure the financing of economic growth to a considerable extent by preventing capital flow from the country. Illegal capital drain exceeded 10% of GDP in 1999. It represents an enormous and currently unutilised

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development of the Russian Federation in long-term perspective" and "Program of social and economic development of the Russian Federation for mid-term perspective (up to 2004) were adopted. *Kommersant*, 2001.23.03; *Kommersant*, 31.05.2001

domestic potential for economic growth. The decrease of capital flow volumes by 50% could permit to increase investments by approximately 30%.

- Foreign investments will represent another source of growth financing. However, significant inflow of foreign capital will be possible only with a certain lag, after the activity of domestic investors becomes sustainable.[32]

4.2 Institutional Modernization

Institutional modernization represents a decisive prerequisite for the implementation of the economic growth program and for the changes that will serve as its basis in the energy sphere. At the same time, it will be a new framework for Russia's climate policy, which creates the external circle of institutional environment for its implementation. Tax reform, deregulation and reform of property rights play a key role in the strategy of modernisation.

"Anti-bureaucratic laws". The major goal of the package of so-called anti-bureaucratic laws is to simplify the procedure of access to the market, and to make it easier to perform activities for the small and medium size enterprises. Another goal was to counterforce the corruption in the government apparatus, but not through establishing additional control over bureaucrats', but through reducing possibilities for their interference into economic life.

According to the new law the registration of the new established companies is to be passed on the principle of "a single window". It means that a high number of organs and their officers won't participate anymore in registration procedure. All actions for registration are concentrated in a single body responsible for keeping register books on formation, liquidation and reorganization of companies. After submission of registration documents during the following five days the answer that either a company has been incorporated into a register, or its has been denied due to particular reasons.[33]

Now, only activities that potentially might threaten the rights and health of the public, and national security and defense are to be licensed by the state. In the draft of the law presented by

[32] RF Development Strategy, 2000. Summary
[33] *Kommersant*, 13.07.2001

the government the number of the activities subjected to licensing was reduced from 2000 to 104. During the discussion in Duma the proposed number increased only by a dozen.[34]

Tax reform. Poor rate of tax collection represented the key problem. Tax reform envisages, on the one hand, lightening of fiscal burden, and, on the other hand, limitation of opportunities for tax evasion.

In 2000, the parliament adopted the law on reduction of income tax. It lift of progression in income tax, and envisaged introduction of the flat income tax with a single and drastically reduced rate of 13%. Shift to the flat income tax has been quite risky, and the government had many doubts before this decision was made. But, soon it appeared that risks have been justified: revenues from the income tax increased by 70 percent[35]. Simultaneously, the statistics noted annual increase in average salaries during this period by 45.2 percent. It indicates at the start of rejecting the illegal schemes of salaries, and at their withdrawal from shadow.

New regulations on profits of enterprises have been introduced: tax on profit has been reduced from 35 to 24 percent. Simultaneously, all privileges on this type of taxes have been removed.[36]. New tax on profit creates conditions for increase of transparency in activities of the Russian corporations.

Changes of the property rights. Privatisation did not result in noticeable investments in Russian enterprises. It happened to a considerable extent because the old rights of the state ownership in the Russian economy were eroded, while new mechanisms guaranteeing ownership rights were not completely formed. New legislation on privatization foresees a number of innovations. It lacks the privatization privileges to the personnel of enterprises. Managers of enterprises made the personnel to transfer the shares into their managers with extremely ineffective results for these enterprises: the managers have not been the owners of an enterprise, but at the same time they have not been under control of the owners. This ineffective mode of privatization will not be applied in the future.

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[34] *Nezavisimaya Gazeta*, 12.07.2001
[35] *Kommersant*, 23.07.2001
[36] *Kommersant*, 23.07.2001

New edition of the law "On share-holding societies" entered into force on 1 January 2001. Its amendments envisage important corrections into the rules of corporate management[37]. They intend to protect owners of a company, i.e. its shareholders, against tyranny of its own managers.[38].

The new land code is already entered into force. It means that the new market has been created in Russia, i.e. the market of land. The new land code has cardinal changed the rules for the land turnover in the country. It significantly enlarges the list of land lots that can be the objects for sale and purchases. These are not only the land plots under buildings in rural areas, but also land cites in the cities, including not only land under the dwelling buildings, but also lands with industrial and other facilities on them. The code does not limit the size of such lots. New regulations assign the foreigners similar property rights for non-agricultural lands as to the Russian citizens.[39]

New Labor Code has been a result of a compromise between the government and trade unions. The formerly acting code envisaged a dismissal with consent from trade unions. The new code contains 14 basic items according to which an employer can be expelled without notification of a trade union, and 3 item according to which he has to take into account trade union position. In all these cases a trade union, after getting the draft order from administration about worker's dismissal, has its right to disagree and apply for arbitrary decision of the Federal Labor Inspection, or go into court. According to the new Labor Code not all trade unions on an enterprise have the right to conclude collective agreement, but the largest among them.

4.3. Modernization in the Energy Sector

Energy problems and energy policy. In the 1990-s, the energy sector of Russia encountered a number of serious problems in its development:

- In the 1990s, domestic consumption of fuel and energy in Russia declined considerably, by 30% for primary energy resources and 23.7% for electrical energy. At the same time, the decline of domestic fuel and energy consumption was significantly smaller than the decline of industrial production (about 50%).

[37] About 436 thousand shareholding societies have been registered in Russia
[38] *Kommersant*, 06.2001, 8.08.2001

- In the 1990s, energy intensity of the GDP (energy consumption per GDP unit) increased considerably. Currently, this indicator in Russia exceeds the level of energy intensity in industrially developed Western countries by 3,5 fold. In the 90s, the domestic industries that were characterised by low energy intensity, i.e. machine-building, light and food industries were displaced from economic structure. In addition, energy consumption per GDP unit grew as the result of insufficient loading of facilities. Therefore, energy intensity of the economy grew by 21% in the 1990s.
- Distortions in the state pricing policy for energy resources deprived energy producers of financing opportunities.
- The fuel and energy sector continues to play the main role in subsidizing enterprises and population through low tariffs.
- The oil and gas sector of Russia is highly dependent on the state of the world energy market. Fluctuations of oil export prices and subsequent changes in natural gas export prices made the financial position of fuel and energy sector extremely unstable.
- The amount of investments in all sectors of fuel and energy complex in 1999 decreased by 70% versus its 1990 level. This makes it impossible to offset natural ageing of production facilities. Taking into account high capital intensity of the fuel and energy complex, this trend can turn the energy sector into a major obstacle to the economic growth in Russia.

The Strategy of RF Development orients the state energy policy at the achievement of the following objectives:

(1) Reliable fuel and energy supply for the needs of the growing economy is the key goal of the fuel and energy sector development. The fuel and energy complex should not be allowed to become a factor limiting envisaged economic growth. (2) Fuel and energy sector development should be aimed at the increase of fuel and energy efficiency. The transition to the energy saving mode is based on the following measures:

- growth of prices for fuel and energy resources to the level stimulating energy saving measures;
- changes in the structure of the Russian industry and GDP; state support of the development of the sectors with low energy intensity;
- implementation of organisational measures aimed at energy saving;
- reorganisation of natural monopolies in fuel and energy production (Gazprom and RAO UES)

[39] *Kommersant*, 16.07.2001

Measures on initial stage. According to the Strategy of RF Development the transition from the dominant role of the fuel and energy sector to the prevalence of high technology resource saving industries appears to have no alternatives. However, the economic growth at the initial stage will be supported mainly with the previously created potential of free facilities in combination with their upgrading. At this stage, economic restructuring and increase of energy efficiency will be manifested rather weakly, and Russia will have to continue its inertial development with the predominance of the fuel and energy complex in the economic structure. Substantial increase of investments in the energy sector can hardly be expected during the initial period of reorganisation. The measures that should be implemented at this stage include the following:

(1) solution of the problem of non-payments by consumers of energy resources, elimination of non-cash forms of settlements and guarantee of budget organisations' payments for energy;

(2) elimination of cross-subsidising of energy resources consumers;

(3) increase of prices and tariffs to the level of costs reimbursement with a gradual increase of their investment component;

(4) achievement of monopolies' transparency in the energy sector;

(5) restructuring in RAO UES Russia and Gazprom; development of competitive relations in the oil industry; completion of the coal industry restructuring;

(6) introduction of energy use standards;

(7) implementation of energy saving programmes at municipal and regional levels and in residential sphere.

Pricing policy. In the 1990-s energy prices came down relative to other prices. According to the Strategy energy prices will begin to play their crucial role when the following conditions are fulfilled:

- Prices for fuel and energy resources will grow approaching world prices level.
- Energy tariffs regulated by the state should be raised to the level ensuring costs reimbursement. The investment component in energy tariffs should be increased.
- Cross subsidising should be terminated.
- Tariffs for industrial consumers will become equal to tariffs for public. The growth of prices should be accompanied by the creation of the system of subsidies to the poorest groups of population.

- Subsidising of inefficient enterprises through low energy tariffs should be terminated.
- The problem of non-payments for fuel and energy will be solved (including non-payment problem of the budget organizations).
- The RF government develops mid-term (up to 5 years) balances of fuel and energy resources production and consumption envisaging the decrease of the natural gas share in the domestic consumption.
- Prices for energy resources should be differentiated by regions.

Taking into account forecast dynamics of the exchange rate, an average price for kWh of electricity will amount to 2.5-2.6 cents in 2005, while an average price for a cubic meter of gas will amount to 2.8-2.9 cents. The growth of tariffs for population will outpace significantly the growth of tariffs for enterprises.

Energy monopolies' restructuring. It is believed that it will be impossible to resolve the problem of energy intensity and of attracting investments without restructuring of natural monopolies in the electricity and gas sectors. Restructuring would represent a basis for decreasing energy production costs in these industries. The policy of the state that holds control interest in natural monopolies will be aimed at the solution of the following tasks:

- separation of natural monopolistic and potentially competitive types of business activities; improvement of costs transparency;
- preservation of integrated systems advantages, i.e. technological unity, manageability and reliability;
- division of tariffs into monopolistic and competitive component;
- levelling out of taxation conditions for producers and consumers of different types of fuel;
- creation of conditions for emergence of new market participants;
- ensuring access of independent producers and consumers to the services of energy monopolies.

Energy reform: provisional results. The analysis of results of energy reform implementation in Russia indicates that so far it is developing according to its scenario contained in "Modernization program". However, there is an important difference from this program as well: reforms in energy sector are underway in a conflict. This conflict is extremely sharp. Reform is very unpopular among the public, and its implementation is hindered by constant social resistance. This is

skillfully used by non-payers (the municipal authorities, the heads of the budget organizations, and the directors of enterprises). The RF president is constantly being involved in such conflicts: he is expected to play a role of arbiter. The opponents of the president and of its liberal reforms expect that as a result of energy reform and reforms in the residential sector the president would loose its popularity.

Currently, energy reform is developing according to four major directions: 1) increase in prices and tariffs, 2) liquidation of non-payments for energy, 3) reorganization of energy monopolies, and 4) revision of the energy balance. So far, the Russian energy policy failed to attain the goal of increasing energy prices and tariffs up to their world level; the gap between world and domestic prices is still considerable. In 2002, the government planned to increase prices and tariffs up to the ceiling of 35% (it's necessary to take into consideration the high level of inflation at 14-18% annually). But, then it had to take a step backward and decreased this ceiling to 20%. Obviously the government was afraid of the possibility of the Argentinean scenario in Russia, and was cautious in its behavior.

There is serious success in liquidation of non-payments, and they are achieved especially by RAO UES through application of strict and unpopular measures. There was an impression that nothing could be done to find a solution to liquidate non-payments for energy that became a stable institution within Russian economy and a norm in energy consumers' behavior. However, RAO UES managed to change this trend: the major tool has been electricity switch-offs. But, simultaneously its application caused bitterness in the public.

As to reform of energy monopolies, for a long time the state-of-the-art has been at the stage of concept elaboration. Such concept envisaging corporate restructuring is finalized only for RAO UES. Its pass through the government has been not easy and was accompanied by a great deal of conflicts. Concept of Gazprom's restructuring is not elaborated yet. Recently, the RF president managed to renew the heads of this company, and progress is expected to develop more rapidly. General principles of energy monopolies restructuring remain to be the same as they are envisaged in Modernization program.(selection inside a company of a competitive sector, and sector where tariffs would be regulated by the state).

4.4. Modernization: Impacts on Emission Trends

The RF Development Strategy 2010 does not contain an outline of the Russia's climate policy. (The mid-term governmental program, although in a laconic form, indicates at the climate

policy goals). Nevertheless, the RF Development Strategy is directly related to the prospects of Russia's climate policy and its mechanisms. It is the specifics of the climate change problem and of mechanisms for its solution - they are closely linked to economic mechanisms. RF Development Strategy contains a number of projections for such economic development parameters that serve as a basis for elaboration of emission scenarios. Particularly, it relates to such parameters that are used as assumptions in these scenarios. Among them are the rates of economic growth, changes in GDP structure, its energy intensity, the structure of energy balance, prices on fuel and energy, subsidies to the industry and public through the level of tariff's, investment mechanisms, etc. The Strategy of RF Development outlines the major directions in development of these parameters (but not always it contains data on their particular level). Thus, a question emerges: what is the interrelation between the most important parameters (assumptions) that served as a basis for the former scenarios and current parameters that are used as key elements of the RF Development Strategy.

Parameters of Economic Growth: Rates of economic growth that are laid into the RF Strategy are higher than those were used for the most of the former emission scenarios. The Second National Communication was based on the growth rates of 4,4%, the scenario of the World Bank and BEA - on 4,5%. IIASA scenarios were based on the assumption of the lower rates of economic growth. RF Strategy envisages the rates of growth accounting for 5% only as a minimum and desirable growth rates account for 8% or even for 10%. According to World Bank the growth of Russia's GDP during 1999-2001 was 20%.[40]. The continuation of economic growth is expected in 2002 and in 2003 (approximately +4% annual growth of GDP).

Parameters of Energy Intensity: These have been parameters that particularly predetermined the major differences in emission scenarios. The SNC used for its scenarios the coefficients of changes in energy intensity borrowed from the governmental RF Energy Strategy. The parameters of energy intensity in the World Bank and BEA scenarios played the key role, but no information was provided on their particular level, although some information on the procedures (not always transparent) of their calculations was supplied. Energy Section of the RF Strategy indicates the new parameters of energy intensity. The scenario of the RF Ministry of Energy envisage very high growth of energy efficiency (4-5%). The changes in these parameters look quite impressive, and even some questions regarding the methodologies for its calculation might emerge. According to the concept of the ministry, the growth of GDP would take place

either under insignificant increase in organic fuel consumption, and very high rates of energy efficiency , or it will face an obstacle of lacking additional energy resources.

Energy Balance: There are considerable differences between the scenarios and modernization plan. The RF Strategy is based not on the increase in the share of the natural gas in energy balance (that was the assumption of former emission scenarios), but on the contrary, on decline of its share. The share of the natural gas is expected to decrease, while the share of coal and black oil is expected to increase. Inevitable, it will negatively affect GHG emission dynamics now.

Prices and Subsidies: The RF Strategy envisages significant increase in energy prices, as well as lifting of subsidies. Similar assumptions were also compounds of the former scenarios and of energy programs from which they have been borrowed. There is nothing principally new on this issue, except one very important item, i.e. price of the natural gas. According to the former scenarios, the price of the natural gas had to remain at considerably lower level in comparison with other types of fuel. In the Strategy of RF Development, the price of the natural gas would not only grow, but it would be at the same level as prices for other types of fuel, or it might even surpass them. It would be a result of changes in the concept of energy prices formation, i.e. previously the formation of prices was based on costs, from now on they are supposed to be based on the quality of fuel.

Recent estimates of the carbon dioxide emissions. According to estimates undertaken in a course preparation for hearings on KP ratification in the State Duma, CO2 emissions in Russia in 2010, and in the first budget period 2008-2012 should not exceed their base level (1990).[41] According to the forecast of the RF Ministry of Energy prepared by the parliamentary hearings on the Kyoto Protocol carbon dioxide emissions from the energy sector even in 2020 won't reach the base level of 1990. This forecast envisages that in "favorable option" carbon dioxide emissions in 2005 will account for 1750 million tons, in 2010 – 1870 million tons, in 2015 – 2000 million tons, in 2020 – 2200 million tons. In 1990, carbon dioxide emissions from energy sector were 2236 million

[40] Kommersant, 30.01.2002
[41] Papers of the State Duma prepared for hearings on Kyoto Protocol ratification 18.06.2001; RIIA Report on Moscow Workshop 14-15 May2001

tons. However, this forecast is based on the assumption of extremely high growth in energy efficiency rates.

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Modernization program with its goals and instruments is the main among current priorities which guide Russian policy. It might be naïve to expect the climate policy to be an exception, and will stay not under its impact. Today, the main parameters determining the volume of GHG emissions in Russia turned out to be beyond any control of the instruments of climate policy. Currently, the Russian climate policy is determined by economic goals, rather than by environmental constraints. In case Russia ratifies the Kyoto Protocol, it won't be done not due to environmental reasons, but due to economic and foreign policy considerations. The same applies to the case if the protocol won't be ratified. Apparently, the policy of economic growth and energy policy subordinate to it will determine the GHG dynamics, at least in the mid-term perspective. Therefore, the economic growth policy, energy policy and their institutions make a direct impact on the volume of GHG emissions. They form the distant institutional environment of Russia's climate policy.

The climate policy became subordinate to the economic (and energy) policy, which has its own objectives: to speed up economic growth, and to eliminate all obstacles to it. The problem of Russia's climate policy is that all the actions undertaken within the framework of the economic (and energy) policy were beyond influence of the climate policy. On the contrary, the key parameters defining the volume of GHG emissions today are directly dependent on the policy of economic growth and energy policy. It is hardly surprising that the issues of the climate policy turned out to be at the periphery of the supreme state authorities' attention. An overwhelming majority of the population that cannot withstand any longer horrible consequences of a lengthy depression supports the goal of economic growth as a key priority. Russia, having formulated its main strategic objective as the transition to high and sustainable rates of economic growth, did not simultaneously take care of the construction of the mechanisms of domestic climate policy that would have provided an opportunity to control the volume of GHG emissions under the conditions of economic growth. Today, it is necessary to admit that a certain gap exists between the new macroeconomic goals and new macroeconomic policy, on the one hand, and the availability of a necessary institutional infrastructure for the conduct of the national climate

policy, on the other hand. Meanwhile, further delays with the institutional building of Russia's climate policy will result in the exacerbation of its problems.

5. Prospects for the Kyoto Protocol Ratification

For the Kyoto Protocol to come into effect, it must be ratified by more than 55 countries, and total amount of GHG emissions from industrialized countries of FCCC Annex I (developed countries and countries with transition economies) ratifying the protocol must exceed 55 percent of the total amount of gases emitted by all industrialized nations in 1990. It means, for example, that in case such two countries with big share in the world emissions (in 1990) as. the USA and Russia will not ratify the Kyoto, it won't enter into force. Today, it is clear that the USA will not ratify the protocol. Thus, the further fate of KP depends on ratification by Russia.

I will analyze now the ratification issue in the context of major shifts in climate policy of Russia. Particularly, it is important to analyze the prospects of the Kyoto ratification from the standpoint of interests of those main actors who take part in ratification process. As we know recently, the interests of the major actors in the international climate policy are not constant; the understanding of the national interest is changing. KP was in accordance to the national interests from the point of view of one administration in one country, and the same treaty appeared later not to be in accordance to them from the point of view of another administration of the same country. Thus, the shifts in the interests are not so unusual in the international climate policy.

Assessments of the Kyoto Protocol and Marrakech Accord in Russia. At the end of the 1990s, positive assessments of the Kyoto Protocol prevailed in Russia. According to this point of view, the Kyoto Protocol was signed in the form that corresponded to the Russian interests:

1) Carbon credit became a legitimate method of realization of CO2 emissions limitations.
2) Unutilized quotas for CO2 emissions can be sold at the international market in addition to the carbon credit acquired as the result of the implementation of the projects aimed at emissions reduction.
3) The 1990 level was fixed as the base line.
4) The Russian emissions quota was established at 100% of the 1990 level.

5) Quite lengthy five-year effective period of the quotas was established.
6) The term “hot air” is absent in the Kyoto Protocol.
7) Sinks (though in a limited form) were taken into account while meeting obligations on emissions reduction.
8) A joint fulfillment of quantitative obligations concerning GHG emissions (item 1 of the Article 3 and Article 4 of the Protocol) that should be based on the agreement between the countries was allowed.

At the same time Russia disagreed with a number of positions presented by the European Union. First, it related to the EU positions on “additionality”. Russia believed that this instrument imposed unjustified quantitative limitations on quotas trading, that the term “ceiling” of the trade introduced a limitation under which it will be impossible to sell a greater number of GHG emission units than were received owing to the realization of national measures. Second, it related to the issue of “eligibility”. Within its framework, it was supposed to organize preliminary inspections of the country in addition to the use of the national system of monitoring, annual inventory and submission of reports, as well as the activity of the body on deal registration. A “group of experts” should carry out this inspection with regard to the correspondence of the national system of trading to certain international requirements. The Secretariat of the Convention will inform the participants of the Convention on the eligibility of the country to participate in trading only after such an inspection.

Russia supposed that the groups of experts were endowed with control and permit functions by this proposal of the EU that they do not have under the Kyoto Protocol. According to Article 8, they should only review information contained in the inventory and national communications and confirm (or not confirm) the adequacy of information provided by the countries in these documents. Russia believed that expert inspections always provide an opportunity for arbitrary interpretation of these or that rules and the degree of their observation by the countries, especially in the event of political or ideological engagement of the experts. Hence, the approach from the position of deregulation in this area will safeguard the Climate Convention from excessive debates and transition to an extremely unstable situation. It is necessary to inspect, but to inspect only what is subject to unambiguous assessment and does not leave room for arbitrary interpretation. It should not be allowed to transform inspections and assessments into the method of blocking the mechanisms of the Kyoto Protocol that their opponents were unable to block at the stage of negotiating process, but trying to retaliate, will block at the stage of implementation.

Thus, the special emphases in Russia's position were aimed, primarily, at preventing an arbitrary interpretation and arbitrary application by the Convention bodies of the rules that permit their unfair construing and transform the procedures of "assessment" and "compliance" into the instruments of faultfinding and pressure. A direct threat existed that the positive results that Russia achieved in the course of negotiations on the Kyoto Protocol will be eliminated at the stage of the protocol implementation through purely technical and procedural measures.

However, all the differences in positions Russia tried to settle in negotiations, i.e. within the framework of the Kyoto protocol. The Russia's position was aimed to "improve" the Kyoto Protocol and its rules, and thus, to shape it towards more comprehensively meeting Russia's interests. But, Russia did not put a goal to break the Kyoto Protocol, and its position had been of a constructive, but not of destructive character.

The results of negotiations, which have been underway for many years and finalized by adopting "The Marrakech Accord", were also perceived in Russia as contributing to its general interests:

1) Russia as a country with economy in transition is not obliged to finance the funds on developing countries assistance formed within climate change international regime.
2) Documents adopted in Marrakech indicate at activation of GEF in providing assistance to transition economies for construction of their national GHG inventory compilation systems, for building the emission forecasts, for assessments of various economic sectors vulnerability to climate change, for performance of research education, and monitoring programs.
3) Excessive limitation on international emission trading was avoided.
4) The concept of emission quota reserve for the commitment period (2008-2012) was adopted, and according to it, it is possible to sell all "free quotas" calculated on the basis of last inventory, or 10% from country's emissions in 1990 (depending on which level appears to be higher).
5) All quotas, excluding a number of limitations on forestry quotas and quotas attributed to performance of international projects, can be banked and transferred to the next commitment period, which will allow Russia to store quotas for the next period of 2013-2017 when its emissions might approach, or exceed the level of its commitments.

6) Conditions for the start of international emission trading, i.e. ratification, inventory, national register, national reporting were constructed in a simple form.
7) Introduction into international emission trading rules of special units for sinks accounting, in order to distinguish them from emission reduction quotas as in important measure hindering the collapse of the international market through invasion of cheap forestry quotas from tropical countries.
8) Limitations for developed countries in getting forestry quotas through CDM (to not more than 1% from their national emission quota) were introduced.
9) The high volume of CO2 accounting through its absorption as a result of forestry measures (33 million tons of carbon per year, or 4% of emissions in 1990)
10) Compliance regime does not envisage financial sanctions.[42]

Preparation for Ratification of the Kyoto Protocol. The Kyoto Protocol signed by Russia is an interstate agreement that will become binding for its members after its ratification and entry into force. The Russian Federal Law establishes the procedure for the ratification of international agreements.[43] The State Duma should adopt the Federal Law on the ratification of the Kyoto Protocol, and, after that, this Law should be considered by the Federation Council, another chamber of the Russian Parliament. Then, the ratification law has to be passed for the RF President for its signature (he may sign the ratification law, or decline it).

Until now, it was supposed that the Kyoto Protocol would hardly be ratified in atmosphere of intense struggle in Russia. The preliminary hearings on the Kyoto Protocol organized by the Ecological Committee of the State Duma were held in the parliament 18 June 2001, and their results totally confirmed this assessment. Most of the participants supported the idea of Kyoto entry into force. The Ecological Committee did not support US actions towards Kyoto protocol. At the same time, a number of conditions have been put forward by the parliamentarians:

1) the Kyoto text is not subjected to any revisions;
2) the door for the US return back should not be closed;
3) principles, norms and rules of the Kyoto should not impose additional financial burden;

[42] A.Kokorin. One more successful step to practical realization of the Kyoto Protocol. WWF official website, 12.11.2002
[43] "On International Agreements of the Russian Federation", 15.07.1995

4) the mechanisms of Joint Implementation and International Emission Trading should not be discriminated in contrast to the Clean Development Mechanisms;

5) the early start in application of Kyoto mechanisms would allow establishing the preconditions for stable progress in global reduction of GHG emissions.

Thus, positive assessment of the Kyoto Protocol that was characteristic for Russia during the recent number of years, as well as positive assessments of "The Marrakech Accord", and also results of preliminary hearings on Kyoto ratification in the Ecological Committee of the State Duma – all that seemed to indicate that positive decision on ratification is predetermined, and ratification turns to be just purely technical issue.

The question on preparation to ratification was at the agenda of the regular meeting of the RF government for 14 March 2002. The meeting took place, but Kyoto ratification has not been considered on it. Initially, it was interpreted as a result of excessive agenda overburdened with many other issues. In fact, it was overburdened: Kyoto ratification has been under N5 at the agenda, and prior to it such important issues as Russia's positions regarding entry into WTO and introduction of turnover of agricultural land cites have been discussed. Mass media even guessed that discussion on Kyoto ratification has been transferred to the next meeting of the government.

Not a single meeting of the government has been held since then, but ratification issue has not been considered. Although the press service of the government did not announce any delays in discussion of this issue, it became clear that the delay of the ratification issue was not incidental. Indeed, at the eve of its discussion in the government a number of publications appeared in the Russian press seriously criticizing the protocol, and indicating directly that it contradicts with the interests of Russia. Also a number of declarations of high ranking officials appeared. The head of the Ecological Committee of the State Duma, Vladimir Grachev, who recently has been among its active supporters noted that "the Kyoto Protocol for industrial gas emissions cuts has turned into 'a smoke screen' for dictate in international trade and it no longer promotes improvement of the ecological situation in the world… One might get the impression that countries of the EU believe that Russia is simply obliged to ratify the protocol but this position is deeply erroneous. "[44] It was followed by a declaration of Alexander Popov, the head of the environmental department at the RF Ministry of Energy who noted that if we cannot secure buyers (for our carbon dioxide

[44] EU policies could mean Russia backs out of Kyoto climate agreement. *BBC Monitoring Service*, UK, March 22, 2002

emission credits), it will be meaningless" suggesting that Russia will not hurry to ratify the agreement until it can secure a way to make up for the gap caused by the US exit.[45].

Arguments of the opponents of ratification. The most serious arguments that have been offered by mass media at the eve of the supposed meeting in the government can be summarized as follows:

1) The Kyoto protocol is worth not so much without US, China and developing countries participation in GHG emission limitations. Increase in emissions in these countries significantly exceeds the decline that could be achieved by the members of the protocol, which undertook quantitative emission limitation commitments. Thus, the value of the commitment seems to be even negative, as it creates the illusion of problem solving without its solving in reality.
2) The legal construction of the Kyoto and FCCC is unique: Kyoto implementation procedures are voted by the countries taken the quantitative limitations, and by countries without any of them. Within this strange legal framework the countries without any quantitative limitations come forward with initiative of severe sanctions for their non-compliance.
3) The Kyoto Protocol is a classical example of double standards. Especially, it is applied against those real emission reductions undertaken in Russia during the period after 1990. Real emission reductions in Russia are declared as a fiction. It happens as if Russia has to excuse itself that its emissions were undertaken by means that are not desirable by other countries. Simultaneously, CDM emission reductions in developing countries are acknowledged of value disregarding rapid increase in the total emissions of these countries.
4) Ratification is the major trump of Russia, and it might be a political failure to loose this chance. This opportunity might be utilized to solve the economic problems of Russia, particularly of its external debts. They cannot be solved within the context of the Kyoto Protocol; however there is a chance to meet the goal within political bargaining process. There has been a similar precedent of "debts for nature swaps" that was applied and tested in Poland. [46]

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45 Russia may drag feet on Kyoto. *The Yomiuri Shimbun/Daily Yomiury,* March 28, 2002

[46] "Expert", #10, 11.03.2002

Discussion on Kyoto Protocol ratification was at the agenda of the meeting of the government one month later, on 11 April 2002. What are main decisions of the government on KP ratification in this meeting?

First, it was indicated that "active participation of Russia in activities aimed at preparation of a decision about Kyoto Protocol ratification is reasonable". And *second* "a directive was passed to elaborate the plan of measures necessary for taking the decision on ratification of the Kyoto Protocol". In particular, this plan has to envisage development of drafts for legal acts for Kyoto protocol implementation in Russia. It also envisages "preparation and submitting to the government of the draft of the National Report on climate change".

In this case it is important to look at the deadlines: for "plan of measures" it is one month, for "the draft of National Report" it is three months. Hence, it is obvious after this meeting of the government that the issue about ratification of KP is not ready yet to be passed for ratification to the State Duma. Government in its meeting took its decision not about ratification (which is a necessary step for submitting the draft of ratification law of KP into the State Duma). It took a decision about preparation for ratification. It means that it has postponed again the governmental decision about ratification. Thus, ratification process remains yet at the stage of decision-making by the government, and not yet of the State Duma.

Taking into consideration that after decision of the government about preparation of National Report on climate change the State Duma will not consider ratification issue without such Report (three months are given for its preparation), it is clear that the current session of the State Duma is not due to consider ratification before its closure for vacations. Realistically Duma is believed to be able to start ratification process only in autumn. Preparation for Kyoto ratification by the State Duma is an important undertaking. And if it is not well prepared there might be serious losses at this crucial stage. The issue of national interests in climate change mitigation still is not completely clarified in Russia, there is a great deal of uncertainties. Opponents of Kyoto use this situation, and there is no general consensus regarding this issue. Thus, the preparation stage, and elaboration of National Report on climate change is absolutely necessary (another question why this work was not done earlier).

Prospects for Ratification: Role of Economic Interests. How serious is the newly emerged situation regarding Kyoto Protocol ratification by Russia? What are the prospects of ratification within this new context?

Absence of environmental concerns among the top priorities of the Russian public (its main goal remains to be the goal of survival) plays the sad role in the ratification story, as ratification does not have a strong support due to ecological concerns from the public, political parties, green movement, and mass-media. So far, the success in the Kyoto Protocol for ratification can be attributed to economic interests and to actors guided especially by economic interests. That's why it seems rational to base the assessment of the prospects of ratification on analysis of expectations of the main actors interested in ratification, and to compare them with the recent estimates of economic results for Russia of KP entry into force.

However, there are two important groups of the Russian society, which had interests to ratification of Kyoto protocol. These interested groups are: *first*, the directors of enterprises in such industrial sectors where application of the Kyoto tools promises considerable benefits, and, *second*, the bureaucrats at the federal and regional levels that might be involved in regulation of domestic application of the Kyoto Protocol. The possibilities in Kyoto tools application and perspective to have considerable reserve of unused quotas have turned the climate policy in Russia from traditional environmental protection area into the sphere of the future climate business. Income of this sector might be comparable with the most beneficial branches of the Russian economy. The USA were considered as the major potential buyer at future international emission trading market. Now it is obvious that at least during the first budget period (2008-2012) this buyer would be absent at the market. It should significantly affect demand-supply relation, and, hence, it would result in considerable price reduction on tradable permits. In this case there would be no any "windfall" for Russia. During the second budget period (2013-2017) Russia might have no surplus in non-used quotas due to changes in macroeconomic situation as a result of GDP growth. Increase in demand for natural gas deliveries to Western Europe, which used to be considered as additional benefit for Russia from the Kyoto Protocol entry into force, is believed not to turn into a significant gain as the EU reorganizes its gas market transferring to suppliers all risks for investments into construction of transcontinental gas pipelines.

While in spring 2001, preparations for Kyoto ratification in the State Duma were held under the sign of significant expectations, after the US exit such expectations might be altered. Scenarios for the price dynamics on this market are gloomy. As a result, incentives for Russia's ratification of KP became smaller. Today, it became evident that significant emission reduction that has taken place in Russia won't be compensated for Russia economically. That caused not only a feeling of disappointment in economic benefits associated with the Kyoto Protocol, but a

feeling of unfairness and application of double standards. All these considerations taken together explain the disappointment towards the Kyoto Protocol that can be seen in the arguments of the opponents of Kyoto protocol. At the same time the government hopes as before that quotas can be used for attracting foreign investments into Russian enterprises in the framework of JI projects, and quotas formed within such projects can cover credits for these projects. Russia is believed to ratify KP in 2002. But it would not be in a hurry to do that by a special date (for instance, by the beginning of June, in order for KP to enter into force during the World Summit on Sustainable Development).[47] Of coarse, new actors and new interests could change the framework of Russia's climate policy in the future; the ratification would make this framework much more stable.

[47] The head of the department responsible for climate policies in the Ministry of Trade and Economic Development, Vsevolod Gavrilov mentioned that "We will try to ratify the pact within the year, but we cannot make it by the time the World Summit on Sustainable Development is held…" See: Russia may drag feet on Kyoto. *The Yomiuri Shimbun/Daily Yomiuri*, March 28, 2002

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(xlv) This paper was presented at the International Workshop on "New Ports and Urban and Regional Development. The Dynamics of Sustainability" organised by the Fondazione Eni Enrico Mattei, Venice, May 5-6, 2000.

(xlvi) This paper was presented at the Sixth Meeting of the Coalition Theory Network organised by the Fondazione Eni Enrico Mattei and the CORE, Université Catholique de Louvain, Louvain-la-Neuve, Belgium, January 26-27, 2001

(xlvii) This paper was presented at the RICAMARE Workshop "Socioeconomic Assessments of Climate Change in the Mediterranean: Impact, Adaptation and Mitigation Co-benefits", organised by the Fondazione Eni Enrico Mattei, Milan, February 9-10, 2001

(xlviii) This paper was presented at the International Workshop "Trade and the Environment in the Perspective of the EU Enlargement ", organised by the Fondazione Eni Enrico Mattei, Milan, May 17-18, 2001

(xlix) This paper was presented at the International Conference "Knowledge as an Economic Good", organised by Fondazione Eni Enrico Mattei and The Beijer International Institute of Environmental Economics, Palermo, April 20-21, 2001

(l) This paper was presented at the Workshop "Growth, Environmental Policies and Sustainability" organised by the Fondazione Eni Enrico Mattei, Venice, June 1, 2001

(li) This paper was presented at the Fourth Toulouse Conference on Environment and Resource Economics on "Property Rights, Institutions and Management of Environmental and Natural Resources", organised by Fondazione Eni Enrico Mattei, IDEI and INRA and sponsored by MATE, Toulouse, May 3-4, 2001

(lii) This paper was presented at the International Conference on "Economic Valuation of Environmental Goods", organised by Fondazione Eni Enrico Mattei in cooperation with CORILA, Venice, May 11, 2001

(liii) This paper was circulated at the International Conference on "Climate Policy – Do We Need a New Approach?", jointly organised by Fondazione Eni Enrico Mattei, Stanford University and Venice International University, Isola di San Servolo, Venice, September 6-8, 2001

(liv) This paper was presented at the Seventh Meeting of the Coalition Theory Network organised by the Fondazione Eni Enrico Mattei and the CORE, Université Catholique de Louvain, Venice, Italy, January 11-12, 2002

(lv) This paper was presented at the First Workshop of the Concerted Action on Tradable Emission Permits (CATEP) organised by the Fondazione Eni Enrico Mattei, Venice, Italy, December 3-4, 2001

(lvi) This paper was presented at the ESF EURESCO Conference on Environmental Policy in a Global Economy "The International Dimension of Environmental Policy", organised with the collaboration of the Fondazione Eni Enrico Mattei , Acquafredda di Maratea, October 6-11, 2001

(lvii) This paper was presented at the First Workshop of "CFEWE – Carbon Flows between Eastern and Western Europe", organised by the Fondazione Eni Enrico Mattei and Zentrum fur Europaische Integrationsforschung (ZEI), Milan, July 5-6, 2001

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