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## **RUSSIA'S DEVELOPMENT. CHALLENGES OF PREDICTABILITY AND MANAGEABILITY**

Any self-aware society (country, region, sector of economy as well as culture and science) is striving for self-sufficient (self-supporting and sustainable) development in the environment of its geographical location and resource limits. State leaders, party and public group leaders, prominent figures in the fields of culture and science are thinking about that.

Each group works out conditions required for such development proceeding from its ideas and experience. It should be emphasized that there are many such conditions of manageability and predictability, but all of them are insufficient conditions. Sufficiency can only be provided by the whole complex of these conditions.

For example, economy's analysis leads to the necessity of establishing a certain share of government expenditures, payroll budget, progressive taxation, measures to decrease income inequalities between the rich and the poor, foreign currency market rules, measures to stimulate investments, arrangement of international cooperation to use the best in the world technologies, etc. But all those necessary measures will not bring results if corruption is not eliminated, the managerial potential of governmental officials and management of commercial companies is low, engineers' and designers' level is low, workers are poorly qualified.

Overcoming each of the said problems (necessary conditions) requires solving numerous other issues, demanding efforts of representatives of other professions. For example, overcoming corruption requires creation of the open-type society, political rivalry, developed juridical system besides efforts and the level of law-enforcement bodies. Because no matter how wise the leader of a country is, he is unable to

provide the necessary level of the anti-corruption climate. And uplifting the level of management is all about advancement of the system of education, teachers training, enhancement of the authority of knowledge, upsurge of the people's spiritual level. And all that means expenditures. Expenditures on the people. Expenditures on the development of science, both applied and fundamental.

All countries are trying to provide performance of the said necessary conditions for harmonious and balanced development, overcoming especially acute problems. But the state of affairs is especially drastic in respect of realization of the necessary (and even insufficient) conditions in today's Russia. And what is more, notwithstanding the "fanfare" in state mass media, unmanageability and unpredictability have become even more evident in the recent decade. And that poses threats of the loss of stability on decade scales. And such threats in decade prospects are usually underestimated by the majority of experts. Who among scholars and public figures could predict in 1982 that the USSR would disintegrate in 1991? There could have been a few, and very few believed them.

The great Russian scientist, academician, Noble Prize winner I. P. Pavlov demonstrated in 1918 that even scientific knowledge could not prevent the chaos of 1917. He regretfully stated: "The scholarly mind does not have a big impact on life and history. Only recently science has become important in life and taken a leading place in a few countries. And history went beyond the scientific impact, it was determined by the work of a different mind, and the fate of state does not depend on the scholarly mind." I. P. Pavlov writes about Russia as an example: "Ten years ago we buried our genius Mendeleyev, but that did not stop Russia from coming to the situation it finds itself in now." And D. I. Mendeleyev had become an economist besides being a great chemist. He had worked out economic development of Russian regions in detail. But everything turned to dust because it was not supported even by the academic community and was swept away by the revolution launched by liberals. I. P. Pavlov explained it by the fact that the scholarly mind "is a partial mind, referring to a very small part of the people" (and I could say their problems), and it could not characterize the whole popular mind as a whole.

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Unfortunately, this flaw of science is active till now. I spoke about that at the meeting of the Presidium of the Russian Academy of Sciences (RAS) on January 15, 2019, reminding N. G. Chernyshevsky's words: "Trust in tsars' good intentions has been ruining Russia for hundreds of years." Proceeding from this true insight, he called: "Call Russia to take an axe!"

Now we understand that this is not a call for correction but for tragic destruction and national calamity. The problem was not the bad tsars as much as their acting wrongly and making mistakes against which no state leader is insured. The matter was also in representatives of scholarly and cultural "elites" who speaking to the leader (tsar, General Secretary of the Communist party, President) tried to be nice instead of telling *the truth*, sometimes drastic, and doing everything to make the tsar take constructive decisions. That's exactly what a country leader *always* needs. Sure, it's much easier to be like Gogol's "lady nice in all respects, not sparing anything to become courteous to the highest degree."

An addiction has formed to say that everything is fine. And now it is *not fine* both in the country and science. And it's a sin to say that everything is fine with us in such a situation.

There has been no real economic growth in Russia for 10 years already. The announced 1% growth is not growth as every year we're losing about 1.5–2% of riches because of catastrophes, fires, floods, wear and tear, etc.<sup>1</sup> And economic growth required to overcome poverty of a big part of the people is not foreseen.

Academician A. A. Dynkin showed in his report at the last academic session of the General Meeting of the RAS in November, 2018 that in the opinion of the *expert* community, economic stagnation was the main problem of the country.

And several weeks later, President of the RAS academician A. M. Sergeyev said at the meeting with V. V. Putin that "the country has entered the stable growth stage." This is not only wrong. This is a big *lie* lulling the country's leadership. There will be no economic growth in the next years if the socioeconomic course is preserved. And this is dangerous because real incomes of the middle class have been decreasing for over five years already. Neither the Government nor the President of the Russian Federation understand this problem though the calls to invest and promises to make Russian economy the 5th in the world (i.e. out-run Germany, the population of which is 2 times less) have been repeated by them for more than 10 years. And it follows from the above said that experts from all departments of the Academy of Sciences should work at the challenge of economic growth provision.

Degradation takes place in science as well. Every year, we're losing about 2% of researchers. This problem is not spoken about at the meetings with President Putin. It is necessary to save the post-graduate education, providing young scientists training.

The only one who definitely pointed at this problem was the Rector of the Mineral Resources University Professor Litvinenko. He was right to say at the meeting of the

Council for Science that the key for solving the problem of young scientists training was to raise a post-graduate student's salary up to the average salary. A grown-up person with a higher education degree can't live on 4–6 thousand rubles per month. The Rector warned that soon there would not be anyone to work at complex devices and teach. With this state of affairs, the President of the Academy of Sciences should have only confirmed this thought asking the President of the Russian Federation to give a respective order to the Government.

V. V. Putin reproached the Academy of Sciences at the meeting of the Council for Science that we had not built a transparent and objective expert examination of the results in fundamental sciences. He agreed that the main indicators were not those published or "quoted" but those "based on the reputational responsibility and *assessment by the professional community*." The President's answer is in these words as well. This has always been done in the Academy of Sciences. Every year the most important results were emphasized in institutions, departments, reports at the annual meetings of the departments and the General Meeting of the RAS. Every 5 years we certified all research fellows. We checked up all RAS institutes in complex. And that means that the decisive influence of the Academy of Sciences and its departments on planning and assessment of scientists' and institutes' activities should be restored. Scientists should be assessed by scientists and not bibliographers. That's how it was necessary to answer the President, to say that we had all that but it was destroyed by the army of officials. And officials should be guided by *only* these assessments. And academicians are trying to advance "biometric" criteria at the meetings of the Presidium of the RAS, where publications in foreign magazines are considered the highest virtue.

And now untrained officials from the science coordination department are making up state orders for the RAS institutes with many-fold increase of the number of publications though M. M. Kotyukov told them in my presence that it should not be done like that. State orders should be made up by the institutes themselves together with thematic departments of the RAS. This and only this is research and methodological supervision by the RAS.

And the Ministry of Education and Science as an economic agent should plan financial and economic activities based on state orders approved by the Academy of Sciences.

Only the precisely developed viewpoint and stand can provide positive impact of the academic community on manageability and predictability of the country's development. And the authority of science is not increasing.

First, it's related to I. P. Pavlov's statement "...Our Russian effective output is insignificant. It is tens of times less than effective output of the leading cultural European countries" staying urgent till now, a century after it was said.

Second, this is related to the academic community's not wording its viewpoint and stand as to the most important issues discussed by people. I'll give the Catholic Church stand in respect to the seven social sins as an example. They were presented by Bishop Girotti in 2008 on behalf of Vatican. He emphasized that all of them were the consequence of globalization. If a sin was considered one's private business in the past, now it entails public attention and outcry. I'll mention only three of them with the decisive impact on the life in Russia:

<sup>1</sup> According to academician V. I. Osipov, annual accident damage in Russia amounts to 1.4% of its GDP, and global damage amounts to 0.5% of global GDP. Risk to die in a plane crash in Russia is 4 times higher than globally and to die in a fire is 9 times higher than in the United States.

- increase of income inequality;
- excessive riches;
- actions leading others to poverty.

And what morals of our Government can we speak about if monthly wages of ministers, deputies, governors amount to several million rubles while a half of the working people get less than RUB 20,000 and incomes of only 7% of the working people exceed RUB 70,000. The abnormal poverty of a half of the working people with abnormal luxuries of the rich including state officials, as a background, leads to power instability, downfall of its authority, development of amorality in power circles. And the loss of manageability and predictability comes with that.

Russia again has a tragic problem like in the 19th century – the problem of redistribution. This is the *incomes redistribution* problem. It should be solved from the top. If the lower classes are pushed to solve it, this is a riot, most likely a “senseless and merciless riot.” In order to prevent it, prominent figures in the field of science and culture should, following N. A. Nekrasov not only “sow the reasonable, kind, eternal” but also culturally and persistently “exert pressure” on the higher and lower classes.

The main idea is to tell people the basic things that can be always explained simply if they are understood. But exactly the simple things are forgotten and not understood. Great Russian composer Georgy Sviridov said: “It’s not so easy to understand simple things.”