

RUSSIA IN THE BRICS: IMPERATIVES FOR SUSTAINABLE INCLUSIVE DEVELOPMENT

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The slogan of the 6th BRICS Summit in Fortaleza (Brazil) was “Inclusive growth: sustainable solutions”, which was meant to show that all five countries adhere to principles of inclusive macroeconomic and social policies and are aiming at responsible national growth strategies. One of the important manifestations of such resolve was signing of the inter-bank Multilateral Cooperation Agreement on Innovations within the framework of the high level meeting. While this is an important step for the sustainable path of development of the BRICS themselves, those steps also demonstrate growing South-South cooperation scheme and BRICS as a flagship development mechanism in respective regions, where those five countries come out as regional leaders.¹

At the 2002 World Summit on Sustainable Development (Rio+10), held in Johannesburg, countries agreed to develop national sustainable development strategies with implementation set for after 2005. Ten years later another UN Conference on Sustainable Development (Rio+20) was held in Rio de Janeiro from 20–22 June 2012, resulting in the declaration titled *The Future We Want*. Twenty years had passed since the first UN Conference or Rio Conference or the Earth Summit. The main message emerging from Rio+20 was the acknowledgement that ‘society, economy and nature are inseparable’.²

However, since then international progress can best be described as an enormous reversal – over 300 million hectares of forests have been destroyed, global emissions have increased by 50%, and the world’s population has grown by 30%, with around one-sixth of its 7 billion people being undernourished. Moreover,

natural disasters are occurring ever more frequently, with estimated losses to the global economy totalling about \$2,5 trillion over the past 15 years.³ Number of disasters, resulting from the ocean rise (from 1970 to 2010) grew by 95% with 270 million people suffering and 13 billion USD of financial losses.⁴

Currently the global ecological footprint surpasses earth biocapacity approximately by 50% - “overconsumption of energy and natural capital now exceeds the capacity of the planet to provide the resources used and to absorb waste, including greenhouse gas emissions”.⁵

SUSTAINABLE DEVELOPMENT: CHALLENGES AND OPPORTUNITIES

Over the past 20 years there has been a gradual shift in the understanding of the concept of sustainable development, with the emphasis moving towards the ‘green economy’ and introducing more environmental and social indicators in terms of sustainability and national well-being.

Although there is no generally accepted definition of the green economy, it is viewed through the lens of creating and increasing natural capital while eliminating or decreasing environmental challenges and threats. A green economy would thus be about low-carbon, resource-efficient and socially inclusive development.⁶ It also implies that waste should be managed and introduced back into the production cycle, thereby minimising its potentially harmful environmental impact.

Sustainable development based on the ‘green economy’ principle presents considerable opportunities for co-operation among the BRICS countries, as it entails tackling the problem of human development while restating the importance of innovative, energy-efficient growth. Currently the world is still largely developing within the ‘brown economy’ model. Although this type of resource- and natural capital-intensive growth does provide a number of people with a higher quality of life, it is unsustainable and leads to increased environmental degradation, resource depletion, an unbalanced biosphere, poverty and a lack of food, water and

energy, as well as the growing inequality among people, countries and regions. GDP per capita growth cannot simply be transformed into a higher quality of life, since the above-mentioned problems suggest a lowered quality of life, health problems and limited options for further development. Within the context of the green economy, the growing needs of the global population point to the necessity of lower levels of energy consumption and natural resource intensity, diversification and the modernisation of production. Thus, following UNEP findings, we would restate that the features of a green economy include:

- efficient use of natural resources;
- preservation of and increase in natural capital;
- decreased pollution;
- low carbon intensity; and
- increased revenues and employment.

It also suggests that sustainable development based on the greening of the economy will require around 2% of world GDP for the 10 main energy-intensive sectors.⁷

Russia, along with the rest of the world, still faces several challenges in terms of the prevailing brown economy. When one considers the Russian approach, it is important to remember that the 'green economy' concept is still novel in the Russian context, and it is only recently that the term has started being used in official documents. Instead, Russia is more familiar with the concept of 'environmentalisation', which can be traced back to the 1960s and the Soviet scientific theories of the time.⁸

Experts believe that Russia, along with the other BRICS countries, could provide leadership in promoting sustainable development in line with the interests of emerging and other developing economies. When the concept was first introduced, emerging economies viewed the 'green economy' concept with caution, since many saw it as yet another instrument used by developed countries to rein in fast-

growing developing economies. The key to the success of the ‘green economy’ concept is the possibility of its being adapted to individual countries’ needs. This in turn should lead to the development of new strategies and policies to deal with the problem. Partnerships among various countries may be key to this process.

RUSSIA’S NATIONAL WEALTH AND CONTRIBUTION TO GLOBAL CAPACITY

Russia differs radically from many other countries in terms of structure and relative national wealth. In advanced economies, the contribution from natural capital in national wealth usually does not exceed 10%, but in Russia this figure goes up to 83–88%.⁹ Globally this potential cannot be overestimated. As will be argued later in this paper, Russia is the indisputable global leader in terms of cumulative energy resources; it holds up to 22% of the world reserves in all 17 rare earth metals,¹⁰ and has significant potential in terms of ferrous and non-ferrous metals, non-metals, precious stones, etc.

Russia finds itself in second place with regards to fresh water reserves (coming after only Brazil with around 4,5 thousand cubic kilometres), although per capita reserves are more modest with Russia occupying 26th place with 31.8 cubic meters.¹¹ However, the country still experiences problems in terms of water usage. Only about 10% of water resources are situated in the European part of the country, which houses over 70% of the population and has the greatest industrial potential. Only 75% of the population have access to centralised water supply networks, as opposed to 90–95% or more in developed countries. The sanitary quality of only about 50% of water is considered satisfactory.

Russia also holds a vast portion of global forests (about 20%, or 1,18 billion hectares), which act as hydrocarbon sinks and cover about 47% of its national territory.¹²

Land resources are another of its assets, estimated to be the biggest in the world (over 1,7 billion hectares) with around 13% being arable. Moreover, around 60%

to 65% of the land is undeveloped, which allows those areas to render ecosystem services globally in order to sustain the stability of the biosphere. Its considerable biodiversity also forms part of Russia's natural capital.

Even though Russia is known as the world's storehouse, the temptation to use all those resources should be resisted, since launchings industrial activities in once-virgin areas could lead to an environmental imbalance on a global scale.

Although the country's level of resource availability is unique, its main problem remains the inefficient use of natural resources.

CLIMATE CHANGE AND RUSSIA

It is known that probably one of the several areas, where all BRICS countries have very different interests is climate change. Moreover all of us have heard of the BASIC coalition within climate change negotiations of the four countries joining together without Russia. Nevertheless there might be much more similarities with regards to our long-term interests in that area. Primarily, it is believed that BRICS countries should concentrate on green technologies advancement and sharing, and this is primary interest of all the five states. Russia and Brazil, for example, could also find common grounds with regards to suggestions on the necessity to consider forests while considering each country contribution towards lower carbon emissions.

While among general public in Russia the issue of climate change seems to have low profile. More than that, there are some estimates, that Russia could in a way benefit from global warming if to take into account considerable permafrost areas (as stated by the then Russian Minister of Agriculture N.Fedorov¹³). But it is also agreed by most experts that this positive effect won't last longer than 2020, or 2030 at best.¹⁴ Annual reports "On Climate Features on the Territory of the Russian Federation"¹⁵ record growing anomalies due to climatic transformation, supported by relevant institutional studies of the Roshydromet on the territory of the Russian Federation. While main positions and approaches of Russia to the

problem where formulated most comprehensively in the Climatic Doctrine of the country adopted yet in 2009.

RUSSIA'S ENERGY

One of Russia's biggest problems is its hydrocarbon-oriented economy, even though it has recently had moderate success in dealing with this problem. According to statistical data, the share of crude oil exports in the overall supply of fuel resources in 2013 dropped by 2.4% when compared to 2012 and reached 46.7%, while the relative percentage of oil in total exports for the same period also went down by 1.5%, and accounted for 33%.¹⁶ Unfortunately this trend cannot be described as either stable or heading in the desired direction.

The other disadvantage is the persisting high energy intensity of the Russian economy. Its energy efficiency potential is evaluated at around 40–45%, with 18–19% in the residential sector; 15–30% in electricity generation; up to 40% in industrial production and transport; 9–10% in heating, services and construction; 5–6% in fuel production, gas flaring and energy provision in public offices; and 3–4% in agriculture.¹⁷

At governmental level it seems the problem only started to receive official attention towards the end of 2009, when the previously mentioned federal law on energy savings and energy efficiency was adopted. In accordance with this law, the Ministry of Energy, along with other agents (such as the Agency on Forecasting Balances in Electric Power Industry,¹⁸ the Centre for Energy Efficiency and the Russian Energy Agency), developed and in 2010 adopted the state programme on 'Energy Saving and Improving Energy Efficiency until 2020'. This programme is meant to be an instrument to lower GDP energy intensity by 40%. The Russian Energy Agency is tasked with the programme's operative implementation.

An updated version of this programme was adopted in April 2014 that projected increased financing by RUB¹⁹ 6,84 billion (approximately \$200 million) for the

period 2014–2016, with lower figures for the next period until 2020. It is expected that GDP energy intensity will drop by 12.7% because of this programme.²⁰

While it has been suggested that the revenue potential from Russian energy efficiency could reach around \$300 billion, thus far few investors are found in this area, mainly due to weak legislation and the absence of examples of practical energy-efficient technologies.

In order to address these problems, the Ministry of Energy plans on creating a federal energy service company that, being 100% state owned, will initiate new projects and carry all the accompanying risk. This company is also set to acquire shares and participate in activities of the regional energy service companies join in the venture capital of regional energy service companies tasked with the modernisation of the energy aspects of Russian enterprises. The fuel and energy complex has huge potential for energy efficiency. One measure that comes to mind is the overall modernisation of the electricity generation complex, with a possible twofold reduction in losses.²¹

However, all of these goals remain little more than wishful thinking, and practice lags behind theory. There is still not enough attention being paid to the problem at governmental level, at least in terms of practical implementation. Another major problem is the absence of a systemic approach when taking decisions.

Nevertheless, contrary to the general perception of energy intensity having remained constant, a number of experts, including those at the Centre for Energy Efficiency, believe that Russia can and does contribute positively to lower emissions and practical decoupling outside a negative scenario of de-industrialisation, such as the one the country experienced after the break-up of the Soviet Union. They argue that, if this had not been the case, emissions would have surpassed the 1990 level in 2011. They see results from the structural reform of the Russian economy (accounting for up to 84.1% of the neutralisation effect), higher use of gas (4.2%), the use of energy-efficient technologies (8.8%), a higher

capacity load (2.3%) and pricing (0.5%). They also claim that each per cent of GDP growth has been accompanied by a mere 0.35% of energy-related CO₂ emission growth.²²

It should also be noted that while Russia, during its G-20 presidency in 2013, talked of the lack of long-term financing for the sustainable recovery of the global economy, similar reason of lack of long-term financing could be attributed to the Russian case of energy efficiency improvement.

The main reason why theory have thus far not necessarily worked in practice is that conditions need to be developed to ensure that green technologies hold economic benefits for businesses. An energy-efficient economy also implies the urgent introduction of energy-saving measures at all levels – from households to transport to industry. In terms of households, government policies advise the general installation of water and electricity (two- and three-phase) meters that offer benefits for lower usage, and there is also an incentive system for energy-efficient industries.

At the same time Russia needs a wide resource base of alternative and renewable energy. It has enormous potential in the wind energy sector. One Russian invention is the wind-diesel hybrid power system, which is mostly appropriate for internal use, especially in the sparsely populated areas that account for up to 70% of its territory.

Russia finally joined (along with the other 32 states having status of the “signatory/state in accession”) in the Dutch-German creation of International Renewable Energy Agency (IRENA), which it is believed will allow Russia’s access to the renewable energy R&D and ensure prompt introduction of renewable energy technologies in Russia, as well as allow to participate in elaboration of international standards in this area. Out of all BRICS countries today only Brazil remains outside this organization.

Inside the country a few steps forward were made with regards to wider use of renewable energy. September 2014 saw the first of the five solar electric stations (also the largest in the country up to date with 5 MWt and total electric power achieving 45 MWt when all five are in operation) put into operation in Altai Republic (Kosh-Agach solar electric station (SES)). The first combined solar-wind electric station was also opened in July 2014 in Buryat Republic.

While there are a few achievements in this area it could be said that much more needs to be done to ensure sustainable energy and environmentally friendly path of the country.

WHERE DO WE GO

It is past time that the government and business recognise that the country will only keep its competitive edge through green economy. In ignoring the green economy and clean technologies Russia is bound to see a growing gap between itself and advanced economies. At the same time, the new green economy presents a viable incentive for further modernisation and technological renewal in Russian industry.

Since it has been demonstrated that the main obstacle to establishing a green economy in Russia is its heavy reliance on mineral resources (fuel and metals), it is only logical to see how it can diversify its economy to support greener and less environmentally damaging sectors. One of the most obvious imbalances is taxation. While the main tax burden is currently being carried by the labour and capital sectors (ie, the less energy-intensive sectors), it would make more sense to shift this burden to natural resources (as shown above, about half of the state budget comes from taxes to the oil and gas sectors). For example, the tax rate for manufacturing machinery and equipment is 11.1%, construction 11.3%, metallurgy 3.3% and oil refinery 5%.²³

Fuel subsidies are another *bête noire* for sustainable development. Although Russia did come up with some initiatives in this area, including at the G-20, the state

continues to subsidise mineral resource industries. According to World Wildlife Fund estimates, oil and gas sector subsidies in 2010 came to \$14,4 billion, or the equivalent of 14% of all federal income derived from taxes on and other payments by this industry.²⁴

Instead the government should support the wider implementation of green technologies through 'green' public contracts. Such policies could establish a long-term and sustainable demand for 'green' goods and services and create incentives for private companies to invest in that area. While this will require national political will and consistency, other measures, such as forming international partnerships and promoting best practices, can be achieved only together with the world's leading economies – the champions in green technologies. However, for as long as the provision of advanced technologies, including energy-efficient and green technologies, falls victim to political expediency, this task will be daunting.²⁵ This proves once again that the impartiality and 'political correctness' of the BRICS countries makes this grouping ever more important as a foundation for partnership among those countries, and between BRICS and other developing countries, in order to share and promote best practices and encourage unhampered development.

Another important aspect in the formation of a green economy is the widespread use of alternative and renewable energy. Looking at the global picture, it is clear that even the recent economic crisis did not halt funding for research on and development of renewable energy sources. This can be attributed to the fact that, according to some estimates, every dollar invested in renewable energy will bring a tenfold profit²⁶, with the European Union and China being the biggest players in this area.

Russia lags far behind global trends. When it was regarded as an energy superpower in 2006, this was due not only to its hydrocarbon resources but also to its cumulative potential in terms of alternative and renewable energy, since those sectors have not been developed to the full. While Russia could have a competitive

advantage in geothermal energy, it does not widely use or share tidal energy technologies. When one considers that Russia is rich in water resources, another prospective development could be the use of small hydroelectric stations. This makes it even more unsettling when one sees about one-third of these facilities abandoned and not used for their intended purposes.

Regarding wind energy, while Russia has been the source of several innovations in this area, most importantly wind-diesel (which could allow energy savings in small towns with irregular access to fuel), not only is this not widely known in the international arena but it is hardly used in those Russian regions that could greatly benefit from it.

All of the above is of great importance in a country that has such a wide range of climatic belts and that experiences such a variety of weather anomalies. Alternative energy sources could also be of great use in distant regions with a low population density and problematic access to well-developed infrastructure.

CONCLUSION

In conclusion it should be stated that while there is a growing realisation in Russia's governmental, academic and business circles of the importance of the development of a green economy, practice lags behind theory. Today there are a number of federal and regional programmes in this area, but tangible results are yet to be seen. The biggest problem the Russian economy faces – a disproportionate reliance on hydrocarbon exports – remains as acute as it was a decade ago or earlier. Energy intensity, despite some optimistic research findings, is seemingly still the same as 10 years ago – two to four times higher than in advanced economies. A lot needs to be done to introduce transparent and comprehensive legislation and reform tax policies in order to encourage green development and make it attractive and competitive to business. While Russia is facing the right direction, it still has a long way to go and not much time to get there.

ENDNOTES

¹ BRICS/Africa: Partnership for Development. Driving Inclusive Growth and Transformational Change. United Nations Economic Commission for Africa, 2014. http://www.uneca.org/sites/default/files/publications/africa-brics_2014_fin.pdf

² Statement by H.E. Mr. Dmitry Medvedev, Prime Minister of the Russian Federation, at the United Nations Conference on Sustainable Development (Rio+20), Rio de Janeiro, 21 June, 2012. <http://sustainabledevelopment.un.org/content/documents/3136Statement%20by%20H.E.%20Prime%20Minister%20Medvedev%20at%20Rio20%20-%20ENG.pdf>

³ UN (United Nations), Global Assessment Report on Disaster Risk Reduction. Paris: UN, 2013, p. 246.

⁴ Vneshekonombank Quaterly Bulletin, # 3, 2014. Principles of sustainable development in the activities of the financial development institutions and international organizations, p. 3. (<http://www.veb.ru/common/upload/files/veb/analytics/sd/2014q3.pdf>)

⁵ UN (United Nations), Global Assessment Report on Disaster Risk Reduction. Paris: UN, 2015, p. 231.

⁶ See UNEP (UN Environment Programme), *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*. UNEP, 2011, http://www.unep.org/greeneconomy/Portals/88/documents/ger/ger_final_dec_2011/Green%20EconomyReport_Final_Dec2011.pdf.

⁷ See UNEP (UN Environment Programme), *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*. UNEP, 2011, http://www.unep.org/greeneconomy/Portals/88/documents/ger/ger_final_dec_2011/Green%20EconomyReport_Final_Dec2011.pdf.

⁸ At the end of the 1950s the Soviet Union saw a worsening in environmental conditions, which led to a new round of scientific research and legislation. In 1960 the government adopted the Law on Environmental Protection, which was aimed at resource use regulation rather than protection. In 1968 it introduced a legal framework for rational agricultural production, in 1969 health policies in terms of the prevention of pollution were formulated, the following year a suggesting framework for water management was developed, and legislation on subsoil and forests was introduced in 1975 and 1977 respectively.

⁹ World Bank figures put this at about 70%, which still exceeds the global average by far, allowing for 20% to human capital and 10% to manufactured capital. All data, Russian and WB account for nature capital etc was taken from Navstrechu “zelenoi” ekonomike Rossii (Towards a green economy in Russia), study under the auspices of the Institute of Sustainable Development of the Civic Chamber of Russian Federation, Center for environmental policies of Russia, 2012, p.14.

¹⁰ Russian statistical data in this regard differs from American geological surveys, which give different estimates. The problem with rare earth metals (REM) is that China has the monopoly on production and exports (at around 97%) and Russian REM production degraded after the collapse of the Soviet Union.

¹¹ For more information see Torkunov A V (ed), *Problema presnoi vody: globalny kontekst politiki Rossii. Ekspertno-analiticheski doklad (Problems of sweet water: global context of Russian policies. Expert-analytic report)* MGIMO-University, 2011.

¹² Altogether Russia holds 20.1% of world forests, it also has 70% of the world’s boreal forests and 25% of its primeval forests. See Annual Report on Conditions and Use of Forests of the Russian Federation for 2012. Ministry of Natural Resources and Ecology of the Russian Federation. October 28, 2013.

<http://www.mnr.gov.ru/regulatory/detail.php?ID=131589&print=Y>

¹³ Today there’s a new Minister of Agriculture, appointed in April 2015, Alexander Tkachev.

¹⁴ Expert: Positivnyi effect of izmenenii klimata dlia RF budet nedolгим. 12.06.2013. <http://ria.ru/eco/20130612/942952608.html>

¹⁵ A series of reports since 2005 are prepared by the Institute of global climate and ecology of Roshydromet and Russian Academy of Sciences and could be found at http://climatechange.igce.ru/index.php?option=com_docman&Itemid=73&gid=27&lang=ru. First most comprehensive Evaluation report on Climate Change and its Consequences on the Territory of the Russian Federation was prepared in 2008 by Roshydromet and could be found at <http://voeikovmgo.ru/ru/otsenochnyj-doklad-izmenenie-klimata-na-territorii-rossijskoj-federatsii>

¹⁶ Itar-Tass news agency, Rosstat: dolia eksporta nefiti is RF v obschih postavkah produktsii TEK sokratilas' do 46.7% (Share of oil exports from the Russian Federation in the general supply of products of fuel and energy complex went down to 46.7%), 21 February 2014, <http://itar-tass.com/ekonomika/991399>.

¹⁷ Energy Strategy of the Russian Federation till 2030, Government of the Russian Federation order of November 13, 2009, # 1715

¹⁸ The agency (3AO «АИБЭ») was created in 2005 with the main aim of offering the government and energy enterprises analysis on the state of the electricity-generating sector and its influence on the country's economy and environment, as well as forecasts for short- and long-term decision-making.

¹⁹ Three-letter currency code for the Russian rouble.

²⁰ FESCO (Federal Energy Service Company), <http://www.fes-com.ru/newsensrv/490-pravitelstvo-rf-uvelichit-finansirovanie-programmy-energoeffektivnost-i-razvitie-energetiki>.

²¹ More information on what the federal energy service company offers to clients (mainly government and municipal departments and agencies) in terms of energy savings and energy efficiency can be found at <http://www.fes-com.ru/>.

²² See Bashmakov I (ed), *Costs and Benefits of Low-Carbon Economy and Society Transformation in Russia. 2050 Perspective*. Centre for Energy Efficiency, Moscow, 2014, p. 11, <http://www.cenef.ru/file/CB-LCE-2014-eng.pdf>.

²³ *Sustainable development in Russia*.

²⁴ ²⁴ I.V.Gerasimchuk, Gosudarstvennaya podderzhka dobychi nefiti i gaza v Rossii: kakoi cenoi? (State support of the oil and gas production in Russia: what is the price?) WWF Russia in partnership with IISD, Moscow – Geneva, 2012.

²⁵ During the recent Ukrainian crisis, White House officials pressured the leadership of several big transnationals not to attend the St Petersburg Economic Forum (thus far only Alcoa has acknowledged that this was the reason for its non-attendance), while Microsoft joined in sanctions against a number of Russian enterprises.

²⁶ Among others estimates could be found in Energy Vision 2013. Energy Transitions: Past and Future. World Economic Forum with IHS CERA. January 2013. http://www3.weforum.org/docs/WEF_EN_EnergyVision_Report_2013.pdf