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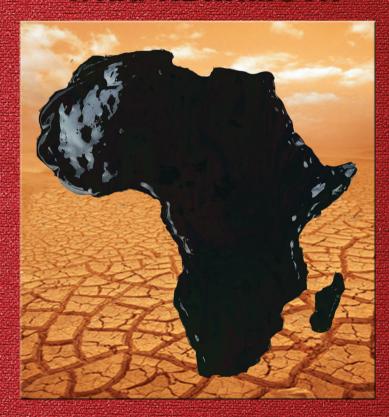
INTERNET and Africa: Parallel Realities (2001), Arab City on the Eve of the New Millennium (2005), Emerging and Failing States in the World Economy and Politics (2007), African Migration: an Exercise in Systems Analysis (2009), Germany in Africa: Reconciling Business and Development (2009, co-authored), Population of Africa in the New Global Economy (2010).

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Leonid FITUNI Irina ABRAMOVA



RESOURCE POTENTIAL OF AFRICA AND RUSSIA'S NATIONAL INTERESTS IN THE XXI CENTURY

RUSSIAN ACADEMY OF SCIENCES INSTITUTE FOR AFRICAN STUDIES

Leonid FITUNI and Irina ABRAMOVA

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L. Fituni, I. Abramova Resource Potential of Africa and Russia's National Interests in the **XXI Century.** – Moscow, 2010, 212 p.

The book represents an analysis of the past experience, the existing state and possible future scenarios of cooperation between Russia and African countries in developing their natural resource potentials. Written by recognized Russian experts on African economies, Prof. Leonid Fituni and Dr. Irina Abramova, it lays out a blueprint for a new cooperation strategy, which answers national interests of the Russian Federation and facilitates the achievement of the development goals by African countries. The authors named it *Project RUSSAFRICA*.

Фитуни Л.Л., Абрамова И.О. Ресурсный потенциал Африки и российские национальные интересы в XXI веке. – М., 2010, 212 с.

В книге рассматривается прошлое, настоящее и перспективы российскоафриканского сотрудничества в области использования природно-ресурсного потенциала в интересах модернизации. Авторы, ведущие российские специалисты по экономике африканских государств, разработали новую стратегию сотрудничества, названную ими «Проект РУССАФРИКА». Она учитывает реалии обостряющегося глобального соперничества за доступ к сырьевым ресурсам. Ее реализация призвана обеспечить национальные интересы Российской Федерации в Африке и расширить возможности ускорения развития стран континента.

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INTRODUCTION

IN THE GLOBALIZED WORLD of ours, it is neither a novelty, nor a surprise that a country would have strategic interests in areas quite remote from its borders. The underlying causes for such interests may be different – economic, ideological, political, military, etc. More often they are of synthesis. In this latter case, they are usually united under the term "national interests", meaning a combination of various types of vital interests of a given nation in this or that region.

In general, the existing system of International Law does not forbid for any nation to have fundamental interests in any part of the world. National interests as such are hardly a reason for concern to anyone as long as they are not perceived by someone as a threat – real, potential or imaginary.

The contemporary world knows two basic approaches to promoting and securing national interests: the old imperialist denial of legitimacy of any national interests save one's own, on the one hand, and a more modern recognition of pluralism of national interests in the globalized world, on the other.

This dichotomy forms the foundation of the subjective side of the contradiction between the existing concepts of the monopolar and the multipolar worlds. The objective side is based on the realities of material, financial, military, demographic, etc. potentials of the contenders to the role of the global leader (in the monopolar concept) or leaders (in the multipolar ones).

In the recent history Russia has underwent a spectacular metamorphosis: from being one of the two global superpowers under the Socialist system to becoming a zone of anomie, human strife and subordinacy during the post-Soviet transition, till it finally reached the current state of a dynamic though still volatile (re)emerging power.

The dismembered Soviet Union gave birth to 15 new states small and big, with varying levels of sovereignty, development potential, and sustainability. Some failed to assert themselves as independent players in the modern world and having abandoned one multinational union had to submit themselves to another to survive. Other, more sustainable states are exploring their new independent roles in the new global configuration of political, military and economic balance of power.

The Russian Federation officially pronounced itself the legal heir to the USSR, having assumed all the obligations of the vanished superpower under the international agreements, its external financial assets and liabilities. After the prolonged period of economic disruption and deterioration, in the beginning of the new Millennium, the nation reemerged as a strong upgoing force of global political and economic importance. Together with China, India, Brazil and South Africa it makes part to BRICS an international group of rapidly developing nations likely to occupy the key positions in the world economy of the 21st century.

Historically, typologically, culturally and politically these countries are very different. China, India and Brazil are classical Third world countries, which due to the magnitude of their resource base (population, land, natural riches etc.) and sage economic policies managed to break out from the vicious circle of poverty and reassert themselves as important global producers of manufactured goods. Russia and South Africa on the contrary are the nations, whose economies during the 20th century, despite all reservations, used to be a part of what at that time was the modern First World. They lost much of their relative economic might during the first decade of their respective years of democratization period, but have gradually restored their positions as regional economic leaders and unequivocally continue as leading global suppliers of mineral (South Africa) and energy (Russia) resources.

At certain stages of their history, both Russia (recently) and China (in the more distant past) enjoyed the status of a self-sufficient, independent and prosperous global power with a unique civilizational importance. Both went through periods of painful national humiliation on the part of the West (shorter for Russia and longer for China). Both are now looking for their own ways to restore the former might and importance adjusting themselves to modernity and the globalized economy. One of the manifestations of varying degrees of their success on this path is their increased inclusion into the economic fabrics of the world and rekindled interest on their part to economic relations not only with the more developed nations but with the regions of the global economic periphery, the poorer countries of Asia, Africa and Latin America.

This book provides a thematic study of economic relations between Russia and Africa from the perspective of mobilizing their respective resource potentials in the interests of modernization and development. This goal forms the essence of the strategic national interests of Russia and answers the demands of the current stage of African national economic systems evolution.

Of course, Russia abounds in natural resource of its own. By no means is it a nation deprived of God given riches. On the contrary, the country is one of the most important exporters of key commodities to the world markets. It is self-sufficient in the absolute majority of mineral products essential for modernization and innovative development.

Why would Moscow look abroad for fuel and minerals, when nearly everything can be found in abundance within the national borders? Wouldn't it be better to concentrate on the development of its human capital, which is believed to have become the main driving force of the global progress in the 21st century? Why would the authors find it necessary and justifiable to draw any comparisons between Africa and Russia in the sphere of exploitation of natural resources? Are such comparisons meaningful or even legitimate, taking into consideration enormous differences in the level of development of productive capacities, science and technology between Russia and Africa, or in their financial and investment capabilities?

The answers to these questions, of course, lie not in the geological but rather geopolitical and geoeconomic spheres. The authors postulate that partnership in the development of the natural resources potentials may be mutually beneficial for both Russia and Africa.

To put it in a more straightforward and practical way: it may be expected that Russia and Africa can gain much by sharing their respective experience and best practices in their efforts to benefit from the rich natural endowments of their soils.

However, the authors' hypotheses preclude that an intensive cooperation in the natural resource sphere may produce a synergetic effect and accelerate the development in the desired directions of each of them, provided that both sides would be prepared to look beyond perceived immediate goals and gains into a middle—to long term future.

The second approach, naturally, requires determining of the areas of overlapping interests and feasible interaction, followed by the in-depth study and understanding thereof. It is obvious, that some types and areas of cooperation in exploitation of natural resources may be more productive than other. Moreover, in the authors' view, wrongly selected areas of such interaction may turn into a liability, which may create more areas of tension than benefit for the parties involved.

While analyzing the respective natural resource potentials of Russia and Africa, the authors proceed from the general interpretation of a *resource* as any entity of limited availability that needs to be consumed to obtain a benefit from it. They share the basic precept that purely economic value of a resource is controlled by supply and demand. At the same time this study goes beyond the limits of purely economic categories and market determinants. Through the book the authors repeatedly show that there are many aspects that cannot be measured in money. That is why the present work, containing among other elements the assessment of the possible results of Russian – African interaction in the resource sphere, brings together the technological, commercial and political aspects.

Another important feature of this study is to research the issue in dynamics: from the retrospective, through the present to perspectives. The authors are not describing a snapshot, but rather observe and interpret a continuing process.

Africa undergoes a transformation from a depressive stagnant zone of poverty and backwardness to a widespread dynamic movement towards better performance indicators in production, consumption, education and health. Russia seems to have finally overcome the downward slide of the years of Gorbachev's and Yeltsin's rule and regained some of its lost international positions.

The end of the Cold War, and the fall of the Soviet Union in particular, have changed the role and the place of Russia in the world. In 1990s, a unipolar world was imposed upon the planet; Marxism as an ideology was in decline and Socialism as a system of government was discredited. The USSR disappeared and could no longer play an important restraining role for the neoimperialist ambitions of the victors. The newly emerged post-Soviet Russia was weak and dependent on the USA and in a broader sense on the West economically (the Treasury was virtually empty), politically (the new government remained in power only due to the strong overseas support) and ideologically (the new leadership had no political doctrines and concepts of their own but tried to implant western concepts, which it itself neither truly shared nor fully understand). International positions of the former Soviet Union were abandoned in panic. Relations with Africa were one of the first victims of this flee. China was now playing the dual role as the sole balancing power to the US and as torchbearer for the Third World. Economically stronger than ever, carrying out a profound modernization of its military and relishing its ascending international clout, China has redefined its geo-strategic vision, calling for multi-polarity and a new economic and political international order, and has re-engaged Africa at a scale never seen before.

In the Concept of the Foreign Policy of the Russian Federation approved by President Medvedev in July 2008, a goal is set to expand the multiform cooperation with African states on bilateral and multilateral basis, including dialogue and cooperation within the G-8 and G-20 framework.

Another goal set is to assist the efforts aimed to settle the regional conflicts and crisis situations in Africa, to promote dialogue with the African Union and subregional organizations. Russia is interested in the establishment of peace and security in Africa, in its stable socioeconomic development, because that constitutes an essential component of collective security system, offers new possibilities for the expansion of Russia – Africa economic and political relations.

In the field of economic cooperation it is the collaboration in the sphere of natural resources that enjoys a particularly dynamic revival. There are two tracks of such collaboration. The first one stems from the fact that Africa and Russia own over 60% of the world natural recourses and their interaction in this field is natural and can be of great benefit to both. The countries that God blessed with mineral wealth should join forces to safeguard their sovereign right to control this wealth especially in the face of attempts to declare it "an international asset" under a false pretext of "reestablishing justice". They have to coordinate their efforts in the global markets to counter, among other things, the speculative spasmodic leaps of prices.

This research is based mainly on international statistics and open source data. We relied on internationally acknowledged sources (such as UNCTAD, UNIDO, US Geological service, etc.) for the statistical information. Much help came from the Russian specialists and experts in the field of geology, prospecting and international economic cooperation with the countries of Africa, who work in relevant government agencies of the Russian Federation.

In analyzing the past Russian experience in economic cooperation with Africa the authors relied on the original Soviet statistics on foreign trade and international economic and technical cooperation with African countries and the research undertaken in the Institute for African Studies of the Russian Academy of Sciences (at that time Academy of Sciences of the USSR) in which both authors themselves took active part.

At that time the results of such studies took form of internal working memoranda prepared at the Institute for the Soviet external economic agencies and the Ministry of Foreign Affairs (usually at that time prepared as *confidential* or *secret* papers) and open publi-

cations, including monographs¹ and articles in periodicals, in particular monthly magazine Asia and Africa Today and the monthly journal Foreign Trade. Though the authors of this book as younger researchers took part in that work too, the leading specialists in the late Soviet Africanists Dr. E. Tarabrin. field were now Dr. G. Smirnov, Dr. G. Rubistein, Dr. V. Lopatov and D. Degtyar. Results of the Institute's research and findings are incorporated into elements of the 3d part of the second chapter and the first part of the 3d chapter. Where it proved possible and necessary the authors updated the Soviet materials and/or introduced necessary corrections. The names of the African states are given in the form that was in use during the times described. However, in case, when the country is named without a connection to a concrete time frame, the current name is used.

The authors would like also to express their appreciation of the support provided by the Russian Humanities Fund (PΓHΦ) in the form of research grants. Though provided not specifically for this publication, they allowed completing the necessary field studies and research activities in Africa, EU and Russia. Especially important for collecting and cross-checking the statistics was the support that allowed the research in the research centers, government and international organizations in Egypt, Morocco, Nigeria, South Africa, the European Union and in particularly the use of EUROSTAT and OECD data bases in Luxembourg and Paris. Some aspects of the research were funded by the Russian Humanities Fund ($P\Gamma H\Phi$) grant No. 09-02-00547a/P «The Imposed Images and Real Possibilities of Interaction in the Sphere of Natural Resources between Africa and Russia in the Multipolar World». The authors also wish to thank Sergei Kostelyanets, who read and corrected portions of the English language translation of the last chapter of this book.

¹ USSR and countries of Africa, Progress, Moscow, 1977; The USSR and Africa. M., 1983, Lopatov V., The Soviet Union and Africa, M., 1987; Российско-африканские отношения и образ России в Африке. М., 2007; Россия – Африка: новые ориентиры взаимоотношений. М., 2010.

CHAPTER 1

Africa in the Tangle of Increased Global Competition for Natural Resources

1.1. A Rekindled Scramble for African Resources in the 21st Century

THE RAGING WORLD CRISIS and the change of guard in America where the new president coined a new political term when he said it was time for the U.S. to "reset or reboot" its relations with Russia have made many international affairs analysts and commentators talk about an imminent fundamental restructuring of the global system. In their dreams, reformers began discerning a flicker of hope for the refashioning of strategic alliances, the introduction of alternative technologies, and moving away from confrontation and hegemonies. Yet, the underlying foundation of international confrontation and differences remains unchanged, unfortunately. The fundamental laws of nature, life and economics call for appropriate resources to maintain any system. Resources as an economic category have two intrinsic features: limited availability and the need to be consumed (i.e. to finally disappear) to obtain a benefit from them.

The growing depletion of natural resources is one of the true and fundamental reasons for the worsening and latent local, regional and global crises in the new millennium. The presence or absence of natural resources have direct effects on people's living standards, the prospects of social and economic development of states, stability of the world economy and international security.

The start of the current century has clearly shown that despite all attempts to disguise the actual motives of their behavior in the world arena by the loftiest goals and ideals – safeguarding peace, freedom, democracy, and opposing the proliferation of weapons of mass destruction – the basis of states' actions in the world arena is mostly their ambitions to secure control over the depleting natural resources which are in short supply.

The relative growth in importance of the "resources factor" in the world economy and, as a consequence, in world politics, is graphically illustrated by comparing the figures of the Earth's growing population and the extraction of the key types of natural resources. Whereas the number of people on the planet has grown between 1960 and 2009 from 2.5 billion to 6.6 billion (by a factor of 2.64); oil production has increased from 522 million to roughly 4,000 million tons (by a factor of 6.5); gas production, from 190 billion to more than 3,000 billion cubic meters (by a factor of 15.8), and this holds true for nearly all types of mineral resources.

The growth in per capita use of most types of natural resources is more than likely to continue in the foreseeable future. We cannot forget also that mineral resources are distributed very unevenly around the planet and, as a rule, their biggest users are not the countries, where they are found in abundance but where mineral resources are scarce or not found at all.

No monetary crises can reverse the trend, the scale and the rate of consumption of material resources on the planet. The latter can be only possible if the number of people on the planet becomes suddenly and unnaturally reduced. The lack of liquidity, which is being constantly discussed, can only reduce the extent of virtuality of a fraction of money markets. When the real world production stays on the slide for much too long, as we know from human history, it gets overcome, in the medium term, through big wars, "hot" or "cold."

In order to make sense of the key issues of global development in the 21st century, we ought to recognize, as one of the prime causes, the imbalance between the population size, the standard of socioeconomic development of countries and the availability to them of critical natural resources. Generally, this imbalance shows in that the population of developed countries accounts for 16 percent and that of developing countries, for 52 percent of the world popula-

tion whereas the developed countries consume 52 percent and develop 21 percent of all resources.

Lurking behind the average world figures are even more glaring dissonances and differences. It would hardly be too much to say that one of the strongest motivations for reordering the geopolitical realities has been the ambition to take control of resources on the global, regional, or sectoral level.

This is the backdrop against which leading economies of the world increasingly intensify their strategic rivalry for Africa's resources. The continent abounds in various types of natural resources, in nearly all known types of minerals. Africa leads the world in the reserves of manganese, chromites, bauxites, gold, platinoids, cobalt, vanadium, diamonds, phosphorites, and fluorite. It is second in the reserves of copper, asbestos, uranium, antimony, beryllium, graphite, and third in the reserves of oil, gas, mercury, and iron ore. It also has substantial reserves of titanium, nickel, bismuth, lithium, tantalum, niobium, tin, tungsten, precious stones and so on.

Despite being widely different and belonging to different subgroups in terms of socioeconomic development, Russia and Africa are similar for being among the few remaining world regions with plentiful and not completely depleted resources (in company, perhaps, with Brazil and smaller regions in Asia). All this, to a significant extent, determines their present position in the world economics and politics and makes them targets of expansion and international pressure, which, for the above reasons, is only bound to grow.

As the economic situation of Russia began to improve in 2001–2008 and its international positions began to grow stronger as a consequence, certain Western countries have come to actively use the propaganda thesis of the hypothetic threat of Moscow's "raw materials (alternatively, energy) diktat" and its ambition to "place under its control the vital energy resources and routes of their delivery."

At the same time, Russia's expanding economic cooperation with the developing countries is interpreted as a threat. The actual underlying reason for these claims is the intensifying global rivalry for access to the shrinking reserves of natural resources a considerable proportion of which are in Russia and Africa. As a conse-

quence, their role in the world economy of the latter, as the lead players, on the global market of natural resources is growing steadily. At the same time, Russia and African countries are building relations of cooperation and competition. The dialectics of these relations has not been sufficiently studied yet.

It is plain to see that, unlike Russia, the USA is actively and often openly interferes in the energy strategies (or even in the development strategies) of other nations and ascribes to itself the role of top arbiter in what is good and what is bad for the world as a whole and for individual countries in particular There are no convincing grounds to believe that the 44th president who succeeded the 43rd in Washington is going to change this fundamental approach in any meaningful way.

The current global crisis is only proving that the 21st century is going to be a century of fierce struggle for resources. The demand for raw materials is likely to grow 50 percent or 60 percent by the middle of the century – this despite the market recessions and the introduction of resources saving technologies. The USA, for example, has reduced the share of oil in GDP over the last 15 years by nearly 20 percent (incidentally, in Russia this share has grown by 30 percent). The growth in consumption of hydrocarbons, experts think, cannot be deterred either by the cyclic crises of the world economy of appreciable fluctuations in the price of natural resources. Even if the high prices of the mid-2008 persisted, according to estimates of the U.S. Energy Information Administration, the consumption of liquid fuels would have been up, by 2030, to 99 million barrels a day (in 2005, it was 84 million barrels a day). If the prices drop to the average world prices of 2008, the average consumption would go up in 2030 to as much as 113 million barrels a day.¹

This is why American transnational corporations continue to step up their efforts to take possession of new deposits of oil and other types of raw materials around the world. Being included in the category of promising deposits are even such forbidding areas as the Arctic and deepwater blocks offshore Africa. The U.S. government allocates bigger sums for geological surveys, 60 percent to 70 percent of which are funded from the federal budget. The African

Growth and Opportunity Act (AGOA Act) signed into law in 2000 virtually formalized the U.S. claim to an exclusive position in Africa This is a powerful economic lever enabling the U.S. to bypass many barriers set up by the EU to markets on this continent. Documents of the Congress state that Sub-Saharan countries abound in human and natural resources and the entire continent has a colossal economic potential and thus is of long-term political importance for the USA.²

According to some assessments, the putting into effect of AGOA made the USA the only Western country that has been increasing export from African countries every year. According to some estimates, it has increased early in 2005 by nearly 10 percent, whereas the share of EU countries has dropped by 2.5 percent. True, the structure of trade has not changed much during the eleven years AGOA has been in effect: the share of transport equipment in U.S. export is less than one third; the share of American electronic equipment is 12 percent; chemical products, 13 percent; food products, 14 percent. More than 70 percent of American import is oil and petroleum products with minerals and metals accounting for 14 percent and 15 percent. At the same time, there was a greater inflow of direct private investments from the USA into African countries. These investments totaled more than \$16 billion as of 1 January 2008

The USA does not depend on energy resources from Africa as much as Europe. Still the Congress considers this dependence to be too significant. With regard to five types of other than energy resources accounting for between 60 percent and about 100 percent of American import from Africa, the dependence of U.S. industry and even defense capability is critical. These are primary raw material used in the production of rare and rare-earth metals and also chromium, manganese, platinum and cobalt.

The following table (Table 1.1.1) shows the official US government (US Department of the Interior) public information concerning the nation's dependence on direct imports of certain mineral commodities in 2010. It is worthwhile to mention that the figures do not provide the full and exact picture of the situation, since in some cases the necessary imports come to the US via third countries (and

thus the last seller of the commodity was considered to be the exporter) or the commodity was imported in processed form. If the processing took place in a third country, the latter would figure as the country of origin. For example, Estonia, having no deposits of its own, was shown by US Geological Survey as an important niobium supplier to the US in 2010 (2%), while Mozambique, which secured nearly 48% of global production did not figure at all. The situation is the same with cobalt and its main global producers – Democratic Republic of Congo and Zambia.)

Table 1.1.1. U.S. dependency on direct imports of certain mineral commodities from Africa in 2010

Commodity	Percent	Major Import Sources (2006-09)
Arsenic (trioxide)	100	Morocco, China, Belgium
Bauxite and alumina	100	Jamaica, Brazil, Guinea, Australia
Fluorspar	100	Mexico, China, South Africa, Mongolia
Manganese	100	South Africa, Gabon, China, Australia
Gemstones	99	Israel, India, Belgium, South Africa
Platinum	94	South Africa, Germany, United Kingdom, Canada
Titanium mineral concentrates	81	South Africa, Australia, Canada, Mozambique
Palladium	58	Russia, South Africa, United Kingdom, Belgium
Chromium	56	South Africa, Kazakhstan, Russia, China
Beryllium	47	Kazakhstan, Kenya, Germany, Ireland
Vermiculite	22	China, South Africa
Phosphate rock	15	Morocco
Iron and steel slag	10	Japan, Canada, Italy, South Africa
Diamond (natural industrial stone)	3	Botswana, South Africa, Namibia, India

Source: U.S. Geological Survey, Mineral Commodity Summaries, January 2011 Washington, DC. P. 6.

High tech metals are often by-products of mining/processing, which means that their availability is largely determined by the availability of the main product. Due to its low or very low elasticity (sometimes as a byproduct of a byproduct, as in the case of rhenium and hafnium), production cannot adapt easily to demand, which increases the crisis risk, such as the rush for tantalum in 2000 due to the boom in mobile phones. For some there is a high degree of concentration of production at country level, and they are subject to various protective measures taken by third countries.³

With regard to chromium, the U.S. has been fully dependent on its imports since 1961. Notably, 98 percent of the raw material is supplied from two countries – South Africa and Zimbabwe. By the way, Zimbabwe has the world's richest deposits of this ore (although the total reserves in South Africa are bigger). This makes understandable the reasons underlying the U.S. concern over the human rights issue in the latter country and the desire to replace "in a democratic way" its leader for someone more loyal to the West.

The main sources for EU imports in 2006 were South Africa (approximately 80%, part of that being re-exported ores from Zimbabwe) and Madagascar (over 1.8%).

World resources are greater than 12 billion tons of shipping-grade chromite, sufficient to meet conceivable demand for centuries. About 95% of the world's chromium resources is geographically concentrated in Kazakhstan and southern Africa; U.S. chromium resources are mostly in in Montana. In 2009, the United States was believed to have consumed about 7% of world chromite ore production in various forms of imported materials, such as chromite ore, chromium chemicals, chromium ferroalloys, chromium metal, and stainless steel. Chromium has no substitute in stainless steel, the leading end use, or in superalloys, the major strategic end use. Chromium–containing scrap can substitute for ferrochromium in some metallurgical uses. Superalloys require chromium. The value of chromium material consumption in 2008 was \$1,283 million as measured by the value of net imports, excluding stainless steel, and was expected to be about \$320 million in 2009.

Table 1.1.2. World chromium production and reserves 2008–2009

	MINE PR	ODUCTION	RESERVES	
	2008	2009	(Shipping grade)	
World total (rounded)	23,800	23,000	>350,000	
including:				
United States	-	_	620	
India	3,900	3,900	44,000	
Kazakhstan	3,630	3,600	180,000	
South Africa	9,680	9,600	130,000	
Other countries	6,540	6,300	NA*	

^{*} NA – not available.

Source: U.S. Geological Survey, Mineral Commodity Summaries, January 2010 Washington, DC. P. 42.

This type of strategic material also matters to the EU and the Russian Federation. Chromium is found in many different minerals, but only chromite (FeO·Cr2O3) is used as commercial source for chromium.

Once the sel-sufficient USSR collapsed, Russia lost nearly all major deposits of chromites. Now it mainly imports them from Kazakhstan. The present crisis has temporarily cut back this demand, but the Russian government program unveiled in February 2009 in support of its defense industry complex prevented further cutback.

The EU meets only about 6% of the demand from local sources (mainly Finland and very small amounts from Greece). Its imports from Africa are over 75 percent (79.1% in 2006), the balance comes from Albania, Kazakhstan, Turkey and other suppliers.

Main end-use markets for chromium products (worldwide)are steel production (anti-corrosives, stainless steel); refractories: (for manufacturing bricks and other devices in the refractory industry); pigments and other (leather tanning, metal corrosion inhibition, drilling muds, cosmetics, for textile dyes, catalysts and for wood and water treatment. Emerging technologies requiring chromium (seawater desalination, orthopedic implants) are not expected to significantly increase total demand up to 2030.

African resources of cobalt represent another area of competition for Africa's natural wealth. More than half the cobalt for heat-resistant and high-strength alloys and jet engines used in defense and energy production in the U.S. and EU comes from Africa. Assessed by reference to the production of cobalt metal or cobalt chemicals from cobalt containing materials requiring further refining, was estimated at 56 400 tonnes in 2008. EU production accounted for 18% of this total amount. The EU cobalt industry is sourcing all of its *primary cobalt feed* from outside the Community, with a strong reliance on African and Russian producers as regards ores and metal.

The United States has its own cobalt ore deposits, but most of them are depleted and its further mining is proving too costly owing to which all cobalt for U.S. industry has been coming from other countries since 1971. Identified cobalt resources of the United States are estimated to be about 1 million tons, in Minnesota, Alaska, California, Idaho, Missouri, Montana, and Oregon.

The vast majority of these resources are in nickel-bearing laterite deposits, with most of the rest occurring in nickel-copper sulfide deposits hosted in mafic and ultramafic rocks in Australia, Canada, and Russia, and in the sedimentary copper deposits of Congo (Kinshasa) and Zambia. In addition, as much as 1 billion tons of hypothetical and speculative cobalt resources may exist in manganese nodules and crusts on the ocean floor.⁷

Fifty-two percent of the world cobalt reserves are in the four African countries – the Democratic Republic of Congo (DRC), Zambia, Morocco, and Botswana. The lion's share of the amount (60 percent of all world production, excluding the former USSR) belongs to DRC, which alone provides 65 percent of the U.S. internal demand for this metal.

In 2001–2008, before the crisis, Africa's share in the world production of purified metal was steadily falling (from 65 percent to 10 percent) while its production in Europe and China was growing, but the main supplier of primary material was DRC as before. The main part of cobalt mined in DRC is exported to the U.S. and Europe. China meets a considerable proportion of its demand from Zambia and Morocco.

Table 1.1.3. World cobalt production and reserves 2008–2009

	Mine pro	Reserves	
	2008	2009	ixeserves
World total (rounded) including:	75,900	62,000	6,600,000
United States	_	-	33,000
Australia	6,100	6,300	1,500,000
Brazil	1,200	1,000	29,000
Canada	8,600	5,000	120,000
China	6,000	6,200	72,000
DR Congo (Kinshasa)	31,000	25,000	3,400,000
Cuba	3,200	3,500	500,000
Morocco	1,700	1,600	20,000
New Caledonia	1,600	1,300	230,000
Russia	6,200	6,200	250,000
Zambia	6,900	2,500	270,000
Other countries	3,400	3,200	180,000

Source: U.S. Geological Survey, Mineral Commodity Summaries, January 2010. P. 46.

China is regarded by the West as the main global competitor for this type of mineral resources. African cobalt resources are the starting point for the continued global competition between the old and new economic powers in the world. The competitions is acute at four levels: a) for cobalt ores imported from the African continent, b) for cobalt containing materials for recycling, c) on metallic cobalt international markets, d) on the value added cobalt containing products markets.

The main contemporary uses of cobalt in the world include production of rechargeable batteries; superalloys and wear resistant alloys to produce to provide superior thermal, corrosion and wear resistance to a wide range of alloys developed for applications in e.g. jet engines, all types of turbines, space vehicles, certain parts of motors, chemical equipment, etc; hardmetals (as a powerful binder for the manufacture of carbide and diamond tools); catalysts, magnetic alloys and other.

Unlike nickel and chromium, for which there are some other substitutes, cobalt has no substitute in great many productions (including the manufacture of jet engines). The USA used nearly 70 percent of African cobalt in such productions. According to military strategic documents, the USA rules out losing DRC as its source of cobalt supplies. U.S. special agencies constantly monitor the situation in the region in order to keep the political developments under control.

A national human intelligence collection directive *National HUMINT Collection Directive (NHCD) on African Great Lakes* (paragraph 3 – end) as well as a request for continued Department of State reporting of biographic information relating to DRC, Burundi, and Rwanda calls for highly detailed and personal information on figures at top levels of society in Congo, Rwanda and Burundi. It asks for details on military facilities, such as airfields and army camps, and on military equipment, including numbers, operational status and procurement/refurbishment activity. In relation to Mineral Resources the following information is of particular importance:

- Details on mining of diamonds, copper, cobalt, uranium, other minerals, and oil extraction: number and location of mines, production statistics and revenue generated, and extent of control given to China and other foreign governments, companies or consortiums; export statistics.
- Details on mineral, oil and other resource exploitation by rebel groups and foreign elements to include type and location of resources exploited, and revenue generated through sales, customs duties, taxation, and access control.

Africa's and Russia's roles as producers of cobalt containing ores will increase in the first quarter of the 21st century due to the increased demand from Asian consumers and the growth of chemical applications. This means that the competition for the primary African sources of the raw material will become fiercer.

There's a similar situation with regard to manganese. Like the two mineral resources described above, manganese cannot be substituted for anything in steel production. On our planet, manganese deposits are not particularly rare. They occur both on land and off-

shore in many parts of the world. Land-based manganese resources are large but irregularly distributed. According to the Soviet estimates dating back to 1985, the Soviet Union used to have 51 percent of the world manganese reserves. Further 5 percent was found in South Africa. After the Soviet Union collapsed the main manganese deposits remained outside Russia – in Ukraine, Kazakhstan and in Georgia. The barbaric exploitation of the CIS located resources during the years which immediately followed the partition of the USSR brought about the exhaustion of once richest deposits of the world. What remained of the largest supplier of manganese ore now are low grade ore reserves which have to be upgraded for commercial use.

The current estimates by the US Geological service allege that South Africa accounts for about 75% of the world's identified manganese resources, and Ukraine accounts for 10%. The deposits in the United States are very low grade and have potentially high extraction costs. Manganese has no satisfactory substitute in its major applications.⁸

Table 1.1.4. World manganese production and reserves 2009–2010

Mine prod	Reserves13		
Australia	2140	2400	93000
Brazil	730	830	110000
China	2400	2800	44000
Gabon	881	1400	52000
India	980	1100	56000
Mexico	169	210	4000
South Africa	1900	2200	120000
Ukraine	375	580	140000
Other countries	1240	1400	Small
World total (rounded)	10800	13000	630000

Source: U.S. Geological Survey, Mineral Commodity Summaries, January 2011. P. 101.

The US depends on imports of manganese from overseas. The dependence on individual countries is as follows. All manganese

imports from (average annual percent of total manganese imports in 2006–2009): South Africa – 35%; Gabon – 19%; China – 11%; Australia – 8%; and other – 27%. The total includes manganese ore (with average annual share of Gabon – 54%; South Africa – 17%; Australia – 12%; Brazil – 6%; and other – 11%) and ferromanganese (South Africa, 52%; China, 21%; Republic of Korea – 7%; Mexico – 5%; and other – 15%).

The EU dependence on imports is 91%. In 2007, 128,000 tons of manganese were produced within the European Union, by Hungary (40% of EU production), Romania (38%) and Bulgaria (22%). In the same year imports added up to 1.3 million metric tons, which is 84% of the consumption of EU member states. Together they produced some 32,195 tones of manganese (content). Major African suppliers to the EU were South Africa (426,000 tons, which constituted 31,8% of the total imports of the Union) and Gabon (337, 000 tons and 25,1% respectively).¹⁰

Manganese deposits found in the RSA are extremely lean and would prove too costly to use with the current production standards. Import of African manganese is a sensible alternative. Today major deposits of the manganese ore are in China, India, Ghana, Brazil, South Africa, Gabon, Morocco, USA, Australia, Italy, and Austria.

Gabon, the biggest supplier of the high–quality pyroxide ore, accounts for up to 20 percent of world export. However, South Africa to this day (April 108) accounts for 39 percent of all U.S. demand. All imports of this material from Africa to this superpower meet nearly 50 percent of the demand.

In Russia, manganese is also a strategic material in a very short supply. Russia imports 1.6 million tons of marketable manganese ore. At the moment Russian industry requires 6.0 million tons of manganese ore (or between 1.7 million and 1.8 million tons of concentrate). This means that more than 90 percent of manganese consumed in Russia comes from other countries. Bringing this ore from Africa is by far costlier than bringing it from other places near home from former Soviet countries. Although there is an objective interest in cooperation with Africa in developing manganese ore deposits, it is not great enough to warrant Russia's rivalry with the EU and America. ¹¹

Though US totally depends on imports of bauxites to meet the domestic demand, Guinea the world's leading producer ranks only third among the major exports of this minerals to the US after Jamaica and Brazil, but is ahead of Australia, which ranks the forth.

Global bauxite resources are estimated to be 55 to 75 billion tons, major part of which is concentrated in Africa (32%). The rest is located in Oceania (23%), South America and the Caribbean (21%), Asia (18%), and elsewhere (6%). In 2008, aluminum metal was produced in 42 countries worldwide, including 13 EU Member States. Germany (13.4% of EU production) and France (9.5%) were the largest EU producers of aluminum in 2008, followed by Spain (9%), the United Kingdom (7%) and the Netherlands (7.1%). The largest foreign provider of aluminum for the EU (2006) was the Russian Federation (27%), followed by Mozambique (20%). Brazil and Norway each contributed 11% to aluminum imports into the EU. The largest African supplier of aluminum metal to the EU was Mozambique with 530,000 metric tons, which alone provided one-fifths of total metallic aluminum imports of the United Europe in 2006.

US domestic resources of bauxite are inadequate to meet long-term U.S. demand, but the United States and most other major aluminum-producing countries have essentially inexhaustible sube-conomic resources of aluminum in materials other than bauxite. Domestic aluminum requirements in the US cannot be met by domestic bauxite resources. Domestic nonbauxitic aluminum resources are abundant and could meet domestic aluminum demand. However, no processes for using these resources have been proven economically competitive with those now used for bauxite. ¹⁶

Hence, nearly all bauxite consumed in the United States is imported. Of the total, more than 90% is converted to alumina. Of the total alumina used, about 90% goes to primary aluminum smelters and the remainder went to non-metallurgical uses. In 2006-2010, annual alumina production capacity was 5.75 million tons, with three Bayer refineries operating throughout the year and one temporarily idled. Domestic bauxite was used in the production of non-metallurgical products, such as abrasives, chemicals, and refracto-

ries. In 2005–2008, main US import sources of raw materials for aluminum metal production were: Jamaica -27%, Brazil -16%; Guinea -15%, Australia -14%, and other -28%. The total consisted of two primary commodities bauxites (Jamaica -32%; Guinea -22%; Brazil -18%; Guyana -12%; and other -16%) and alumina (Australia -41%; Suriname -18%; Jamaica -16%; Brazil -12%; and other -13%).

In 2009, the year of acute phase of the global economic crisis, world production of alumina decreased compared with that of 2008. Based on production data from the International Aluminium Institute, world alumina production during the first two quarters of 2009 decreased by 12% compared with that for the same period in 2008. Reduced output from bauxite mines in Guinea, Guyana, Jamaica, Russia, and Suriname was partially offset by increases in production from new and expanded mines in Australia, Brazil, China, and India and accounted for most of the slight decrease in worldwide production of bauxite in 2009 compared with that of 2008.

Europe's dependence on getting cobalt, chromites, bauxites, manganese ore and many other ores from Africa is of long standing. During the colonial era, many former European states built entire extracting industry sectors in Africa precisely for the needs of their own companies. Hence, African economies still depend on exports of their natural resources to former metropolitan states. According to our estimates based on EU national sources, the European Union's critical dependence on African imports are, in terms of platinum, 80 percent; in terms of rhodium, 55 percent; chromium and vanadium, 45 percent each; and cobalt, 40 percent.

There are no economically justified alternatives to African sources with regard to the above types of resources. Besides, the EU is currently highly dependent on African supplies of the ores of ferrous metals, uranium, oil, gas, gold, zinc, bauxites and other ores, despite the existence of some other economically less attractive sources of import.

The European Commission has identified 14 critical raw materials at EU level. (see Table 1.1.5). According to EU approaches, *critical raw materials* are those which display a particularly high

risk of supply shortage in the next 10 years and which are particularly important for the value chain. The supply risk is linked to the concentration of production in a handful of countries, and the low political and economic stability of some of the suppliers. This risk is in many cases compounded by low substitutability and low recycling rates. ¹⁸

Table 1.1.5. Concentration of global production, EU import dependency and recycling and substitution rates of critical raw materials

Raw materials	Main producers (2008, 2009)	Main sources of imports into EU (2007, or 2006)	Import depend- ency rate	Substi- tutability	Recycling rate
Antimony	China 91%	Bolivia 77%	100%	0,64	11%
	Bolivia 2%	China 15%			
	Russia 2%	Peru 6%			
	South Africa 2%				
Beryllium	USA 85%	USA, Canada, China, Brazil (*)	100%		
	China 14%				
	Mozambique 1%				
Cobalt	DRC 41%	DRC 71%	100%	0,9	16%
	Canada 11%	Russia 19%			
	Zambia 9%	Tanzania 5%			
Fluorspar	China 59%	China 27%	69%	0,9	0%
	Mexico 18%	South Africa 25%			
	Mongolia 6%	Mexico 24%			
Gallium	NA	USA, <i>Russia</i> (*)	(*)	0,74	0%
Germa-	China 72%	China 72%	100%	0,8	0%
nium	Russia 4%	USA 19%			
	USA 3%	Hong Kong 7%			
Graphite	China 72%	China 75%	95%	0,5	0%
	India 13%	Brazil 8%			NA
	Brazil 7%	Madagascar 3%			
		Canada 3%			
Indium	China 58%	China 81%	100%	0,9	0,30%
	Japan 11%	Hong Kong 4%			

Raw materials	Main producers (2008, 2009)	Main sources of imports into EU (2007, or 2006)	Import dependency rate	Substi- tutability	Recycling rate
	Korea 9%	USA 4%			
	Canada 9%	Singapore 4%			
Magne-	China 56%	China 82%	100%	0,82	14%
sium	Turkey 12%	Israel 9%			
	Russia 7%	Norway 3%			
		Russia 3%			
Niobium	Brazil 92%	Brazil 84%	100%	0,7	11%
	Canada 7%	Canada 16%			
Platinum group	South Africa 79%	South Africa 60%	100%	0,75	35%
metals	Russia 11%	Russia 32%			
	Zimbabwe 3%	Norway 4%			
Rare earths	China 97%	China 90%	100%	0,87	1%
	India 2%	Russia 9%			
	Brazil 1%	Kazakhstan 1%			
Tantalum	Australia 48%	China 46%	100%	0,4	4%
	Brazil 16%	Japan 40%			
	Rwanda 9%	Kazakhstan 14%			
	DRC 9%				
Tungsten	China 78% (6,1)	Russia 76%	73%	0,77	37%
	Russia 5% (6,5)	Bolivia 7%			
	Canada 4%	Ruanda 13%			

Notes: (*) subject to strong fluctuations; Russia and African countries are printed in **bold italics**.

Source: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Tackling the Challenges in Commodity Markets and on Raw Materials. Brussels, 2.2.2011 COM (2011) 25 final.

Understandably, given the current shortage of resources in the world, the former metropolitan state cannot afford losing ground even to their strategic allies or partners in integration associations, let alone to the emerging rivals from Asia or Latin America. In other words, inter-imperialist contradiction in Africa, even if the term has

long been obsolete, do exist and tend to exacerbate. As Paul C. Write put it, "The United States' intervention in Africa is driven by America's desire to secure valuable natural resources and political influence that will ensure the longevity of America's capitalist system, military industrial complex, and global economic superiority – achieved through the financial and physical control of raw material exports". ¹⁹

The current scramble for African resources between America and Europe is, in fact, a long-standing rivalry between the transnational corporations on Africa's markets of goods and capital. We, however, cannot write off the political component of the rivalry. Late in the 20th century and early 21st century, a number flare-ups of internal unrest and armed conflicts of various intensity occurred consecutively or simultaneously in Burundi (1993-2005), Rwanda (1990-1994), Zaire/DRC (1998-2002), Chad (2006, 2008), Togo (2005), Cote d'Ivoire (1999, 2002, 2010). Since those countries were countries always regarded as zones of French influence, some analysts tend to regard the unrests as a covert form of the U.S. offensive against the positions of the EU (above all those of France) in Africa. Although outwardly these protests of "democratic forces" were never anti- rench, yet they were objectively directed against the pro-French regimes in these countries and pro- American forces were increasingly replacing them. In effect, those were African versions of "color revolutions." It turns out, on closer inspection, that even the humanitarian catastrophe in Rwanda was a byproduct of an outside support of the leaders of opposing ethnic groups struggling for power. Nearly all the above mentioned protest actions created problems for France.

France responded by heightening "anti-American activities among African businesses and on the intergovernmental level both on the bilateral basis and as part of the joint efforts of EU members. In 2008, a EU – Africa summit took place. France led the EU's efforts to set up a Mediterranean alliance of strategic importance above all to France. France began to steer a more active policy with regard to Africa, even more vigorous than the joint efforts within the framework of the EU. After all, the strategic interests of France in

Africa are much wider than the priorities of the European Union which makes no secret of prioritizing the questions of raw material and energy cooperation.

Regularly regretting the absence of a unified energy policy of the member countries, the EU is very consistently and rigorously shaping its own external resources strategy where Africa features prominently. The strategy's fundamental documents covering its principal areas, like The Green Book – the central strategy document in this area – recognize that, despite the active territorial expansion in recent decades, the main energy sources for meeting the European Union's demand (50 percent in 2006 and 70 percent in the next 20 to 30 years) continue to stay outside the European Union. The strategy emphasizes the dependence on three countries – Norway, Russia and Algeria – and says that energy security is its prime objective. The documents and practical activities aim at reducing the reliance on energy supplies from the above countries. Thus, the officially approved strategy aims at minimizing the role of the traditional partners instead of stressing wider cooperation and integration.

This fact points to the thinly disguised opposition from the EU to Russia which is trying to expand its cooperation with African countries in the area of raw materials. For example, despite all the public denials, diplomatic "eyes-widening" and "shoulder-shrugging" the EU on the practical level opposes the energy projects between Russia and Algeria, Russia and Nigeria, and tries to block Russia's participation in the Trans-Saharan Gas Pipeline project. Moreover, the corner stone of the EU's economic cooperation policy with Algeria is the view that this Arab country is an alternative source of natural gas as far as Russia goes. This is mentioned in plain terms in the Brussels strategy papers. In 2006–2008, Algeria and the EU exchanged a series of visits by high– profile delegations culminating in agreement on a strategic energy partnership and "convergence of the energy systems."

In July 2007, the European Commission decided to lift restrictions on reselling Algerian gas in the markets of EU countries and voiced readiness to participate in the Trans-Saharan Gas Pipeline project to carry Nigerian gas to Algeria. In 2007 again, Berlin hosted

a European–African energy forum; there was an official announcement in 2008 of the launching of African – European energy partnership.²² This partnership calls, among other things, for coordination of strategies in the energy area and a considerable number of cooperation projects where the Trans-Saharan Gas Pipeline (dubbed "the African Nabucco") holds pride of place.

As to non-energy raw materials, in 2008 the European Commission launched the "Raw Materials Initiative" (RMI) which established an integrated strategy to respond to the different challenges related to them as well as to non-agricultural raw materials. The RMI is based on three pillars describes in characteristic "eurospeak" as follows: "ensuring a level playing field in access to resources in third countries; fostering sustainable supply of raw materials from European sources, and boosting resource efficiency and promoting recycling. An element of the strategy is the need for a "raw materials diplomacy" anchored in wider policies towards third countries such as promoting human rights, good governance, conflict-resolution, non-proliferation and regional stability."²³ In simpler terms, the concept envisages a policy of unhindered access to resources outside the EU external orders, preferential treatment of domestic EU suppliers as compared to external competitors, and an elaborate use of political and ideological linkages and pressures in order to secure desirable terms and conditions of commodities' supplies to the EU.

In June 2010, in Addis Ababa the European Commission agreed with the African Union Commission (AUC) to establish bilateral cooperation on raw materials and development issues based on the RMI and the AUC's policy on mining and minerals, as expressed in the 2009 'African Mining Vision'. It is expected that this cooperation will focus on three areas: governance, investment and geological knowledge/skills. Under the Africa-EU Joint Strategy 2011-2013, agreed at the Africa-EU Summit held in November 2010, actions on raw materials are foreseen under the Trade, Regional Economic Integration and Infrastructure Partnership. The EU and its Member States agreed to work jointly on these issues.

The Commission proposed to:

- enhance European financial and political support for the Extractive Industries Transparency Initiative (EITI), and help developing countries to implement it;
- share best practice with international organizations such as the
 World Bank, IMF, and the African Development Bank;
- examine ways to improve transparency throughout the supply chain and tackle in coordination with key trade partners situations where revenues from extractive industries are used to fund wars or internal conflicts;
- promote more disclosure of financial information for the extractive industry, including the possible adoption of a country-by-country reporting requirement. The Commission will take into account progress made by the International Accounting Standards Boards on an International Financing Reporting Standard for extractive industries, as well as the current status of legislation of third countries active in the region;
- promote the application of EU standards by EU companies operating in the developing countries and the application of the Best Available Technique Reference document and by developing a code of conduct of EU companies operating in third countries; and
- support the work by the OECD on due diligence in the mining sector;
- continue to assess with African countries the feasibility of assisting further co-operation between both continents' geological surveys and to promote co-operation in this area in multilateral fora such as UNESCO's Geosciences Program.²⁴

Underdevelopment of African infrastructure is seen by Europe as a serious hindrance to more intensive exploitation of African natural resources. The lack of transport, energy and environmental infrastructure limits the ability of EU companies to secure a reliable and uninterrupted supply of the African mineral wealth to European plants and factories for the benefit of the local manufacturing industries. The old infrastructure facilities built for this purpose by the colonial administrations are no longer adequate for the industrial demands of the 21st century. However, the new resources related infrastructural cooperation projects are in their majority elaborated

upon the same ideology: the new roads, pipelines, communications facilities are being built not so much as to improve the internal territorial integrity of African counties and bring the peripheries closer to the centers, but in order to allow the African natural wealth to reach the sea ports or external borders.

The European Commission, the European Investment Bank (EIB), and other European development financing institutions, in cooperation with African national and regional authorities, continue to assess how to promote the most appropriate infrastructure, and related governance issues, that can contribute to the sustainable use of the resources of these countries and facilitate raw materials supply, using respective sector dialogues to steer this process. From its part, the European Commission promised "to assess (a) the feasibility of increasing lending (which may include grant-loan elements) to industry, including mining and refining projects and in particular post-extractive industries and (b) investigate the possibility of promoting financial instruments that reduce risk for operators on the basis of guarantees supported by EU, including by the European Development Fund. The existing EU-Africa Infrastructure Trust Fund could also assist African countries in this task."

1.2. South Atlantic Resource Base in NATO's Modernized Strategy

After the Soviet Union disappeared from the global arena, the United States and its NATO allies gradually renewed the old strategy of strengthening their presence and activity in Africa. Unlike the old days of the bi-polar world, the renewed recognition of Africa's growing strategic importance to U.S. interests was manifested openly. Since the main ideological and geostrategic rival had gone, there was no need for the US to camouflage the real reasons for the renewed interest by alleged concern about democracy and freedom in Africa. A more 19th century list of arguments was presented, such as the increasing importance of Africa's natural resources, particularly energy resources, and mounting concern over violent extremist activities and other potential threats posed by uncontrolled spaces,

including piracy and illicit trafficking. The old 20th century agenda was still present in the form of concern for Africa's many humanitarian crises, armed conflicts, and more general challenges, such as the devastating effect of HIV/AIDS. The real challenges of the 21st century were to be described in the NATO's modernized strategy adopted during the Lisbon summit in November 2010.

During the Lisbon Summit, President B. Obama and the other 27 NATO heads of state endorsed the new Strategic Concept which among other things stated: "We are firmly committed to the development of friendly and cooperative relations with all countries of the Mediterranean, and we intend to further develop the Mediterranean Dialogue in the coming years. We attach great importance to peace and stability in the Gulf region, and we intend to strengthen our cooperation in the Istanbul Cooperation Initiative." The Mediterranean Dialogue consists of NATO and seven nations: five in Africa and two in the Asian part of the Middle East: Algeria, Egypt, Israel, Jordan, Mauritania, Morocco and Tunisia.

The official NATO Lisbon Summit Declaration Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Lisbon devoted significant place and attention to Africa, though the direct interest of the alliance was not linked in its text to the continent's natural resources, but was rather explained by the Pact's concern about peacekeeping needs. The document stated that the Alliance was also contributing to peace and security through other operations and missions. The Declarations names three ongoing operations specifically in the following words:

- "Operation Active Endeavour (OAE), our Article 5 maritime operation in the Mediterranean, is making a significant contribution to the fight against terrorism.
- Operation Ocean Shield off the Horn of Africa demonstrates NATO's commitment to contribute to the sustained comprehensive international effort to help counter piracy and armed robbery at sea.
- At the request of the African Union (AU), we are providing support to its mission in Somalia and the development of its longterm peacekeeping capabilities, including the African Stand-by

Force. At the request of the UN Secretary-General, we are also escorting UN chartered vessels in support of the African Union Mission in Somalia."²⁷

The review of NATO's positions about the alliance's role on the continent was a natural continuation of individual policies of the leading members of the alliance, especially of the United States and those countries, which during the 19th and 20th centuries were colonial masters in Africa.

Up till the break-up of the Soviet Union, direct involvement of African states into military cooperation with the superpowers was always bilateral. NATO and its twin alliance in the East – The Warsaw Treaty Organization (WTO) – neither included African member countries, nor had their bases or formal missions on the continent. Despite continued confrontation, neither NATO, nor WTO ever had special head-quarters or military commands exclusively in charge of the African theatre of war. The situation changed after the disappearance of the bi-polar construction of the military balance in the world. The United Stated took the path of aggressive implantation of Washington-designed democracies in the global periphery, which might be used as handy front-screens for perpetuating American exploitation of countries' resources.

On February 6, 2007, the Bush Administration announced the creation of a new unified combatant command – U.S. Africa Command or AFRICOM – to promote U.S. national security objectives in Africa and its surrounding waters. Prior to AFRICOM's establishment, U.S. military involvement on the continent was divided among three commands: U.S. European Command (EUCOM), U.S. Central Command (CENTCOM), and U.S. Pacific Command (PACOM). The command's area of responsibility (AOR) includes all African countries except Egypt. AFRICOM was officially launched as a sub-unified command under EUCOM on October 1, 2007, and became a stand-alone command on October 1, 2008.

As envisioned by the Department of Defense (DOD), AFRICOM aims to promote U.S. strategic objectives by working with African states and regional organizations to help strengthen

regional stability and security through improved security capability and military professionalization. If directed by national command authorities, its military operations would aim to deter aggression and respond to crises.²⁸

DOD signaled its intention to locate AFRICOM's headquarters on the continent early in the planning process, but such a move is unlikely to take place for several years, if at all. Currently, the command operates from Stuttgart, Germany. Though DOD has stressed that there are no plans to have a significant troop presence on the continent, a creeping infiltration of American military is, in reality, taking place.

The U.S. have already established enduring infrastructure in Africa. At present, DOD's Combined Joint Task Force - Horn of Africa (CJTF - HOA) has a semipermanent troop presence at Camp Lemonier in Diibouti with more than 1,500 U.S. military and civilian personnel in residence. The U.S. military has signed a five year lease with the Djiboutian government for Lemonier, with the option to extend the lease for two more five- year terms. The command authority for CJTF - HOA, formerly under CENTCOM, has been transferred to AFRICOM, and it will continue to be used as a Forward Operating Site. The U.S. military has access to a number of foreign air bases and ports in Africa and has established "barebones" facilities maintained by local troops in several locations. The U.S. military used facilities in Kenya in the 1990s to support its intervention in Somalia and continues to use them today to support counterterrorism activities. DOD refers to these facilities as "lily pads," or Cooperative Security Locations (CSLs), and currently has access to locations in Algeria, Botswana, Gabon, Ghana, Kenya, Mali, Namibia, Sao Tome and Principe, Sierra Leone, Tunisia, Uganda, and Zambia.

In the case of Camp Lemonier in Djibouti, a key military outpost and strategically important piece of real-estate in the Horn of Africa, precisely where the Red Sea meets the Gulf of Aden, the United States government entered into an agreement²⁹ with the government of Djibouti that has several striking features:

- U.S. military personnel have diplomatic immunity.

- The United States has sole jurisdiction over the criminal acts of its personnel.
 - U.S. personnel may carry arms in the Republic of Djibouti.
- The U.S. may import any materials and equipment it requires into the Republic of Djibouti.
- No claims may be brought against the U.S. for damage to property or loss of life.
- Aircraft, vessels, and vehicles may enter, exit, and move freely throughout the Republic of Djibouti.

Such an agreement, whose above mentioned clauses are reminiscent of the conditions, imposed by the colonial powers upon China after the Opium wars, allows the U.S. to maintain a small permanent presence in Djibouti, but staff and stock up with as many military personnel and weapons as it deems fit for any particular operation inside or outside of Africa as needed. Additionally, the agreement gives the U.S. the flexibility it wants to operate freely without interference from or liability to the people and government of Djibouti.

DOD officials have stressed that the location in question would be a staff headquarters rather than a troop headquarters, and have suggested that they may consider a dispersed regional headquarters model, with several small locations spread across the continent to lessen the U.S. presence and burden in any one country. DOD may eventually try to co-locate those facilities with the headquarters of the continent's regional and subregional organizations to link AFRICOM with the AU's nascent regional security architecture. AFRICOM already has military liaison officers (LNOs) at the African Union headquarters in Ethiopia and with ECOWAS in Nigeria, as well as at the Kofi Annan International Peacekeeping Training Center in Ghana. Those presences are likely to expand, and additional liaison offices may be attached to other regional organizations.³¹ Unconfirmed reports from diplomatic sources alleged, that U.S. AFRICOM liaison officers took active part in assisting, consulting and coordinating ECOWAS tough response to the Coted'Ivoire post election crisis in late 2010. No independent confirmation of that information was available later, since the developments

in Cote-d'Ivoire were overshadowed by a series of "twitter revolutions" and unrests in Northern Africa and the Middle East.

Some analysts believe that though AFRICOM has certainly run into a number of roadblocks but it appears that the new command will flourish as a result of intensive diplomatic and public relations efforts by the United States government. The structure and domestic operations of AFRICOM also makes it more palatable to African leaders who can more easily claim that they have a harmony rather than a disharmony of interests with the U.S. while the U.S. is building roads, training military forces, and passing out textbooks to children. A leaner, smaller, less intrusive, and more culturally engaged network of military outposts is America's new blueprint for foreign intervention and global domination.³²

The military cooperation borders on another sensitive area of interaction between NATO and African people in uniforms. The EU and the U.S. maintain cooperation with African intelligence services. Mainly in two areas: receiving information on the security threats coming from Africa and for influencing the internal situation on the continent. Large segments of the African military elites received their training in the West and preserve long-standing ties with the former tutors.

On November 10th, 2010, Algerian and US military officials ended their 4th bilateral dialogue in Algiers with a multiyear accord to train personnel, conduct joint exercises and share counter-terror technology. Less than a fortnight later, in fulfillment of the agreements a joint naval exercise in the Mediterranean began. The parties also announced a training program in the US for Algerian officers. Washington stated that it was ready to "provide the necessary assistance to Algeria in order to eliminate terrorist groups and pursue the remnants of Al Qaeda in the Islamic Maghreb, which moves along the Sahara and Sahel region on the border between Algeria, Niger, Mali and Mauritania."³³

US officials also announced that the two countries agreed to establish a technical committee to consider Algerian requests for American weapons. The Algerian side expressed a desire to obtain new technology, in particular, – unmanned aircraft the US currently

uses to track terrorists. Algerian forces already use American C-130 transport aircraft in addition to radars, communication gear, missile systems and other military equipment

Britain and Algeria also stepped up cooperation on security with the creation of a committee on counter-terrorism in view of the "common threat from Al-Qaeda".

The West does not limit its efforts to preserve its centuries old domination over the African natural resources only to military means. Working with (and pleasing) local leaders and elites is one of the oldest instruments of securing the West's interests in the resources sphere. Such special relationships sometimes take the form of direct military support of puppet-regimes and corrupt leaders. (One of the longest serving and notorious examples was the case of the late Zairian president Mobutu Sese Seko). Such American and European policies are a crafty tool of power projection in Africa. Transnational corporations use mysterious connections and pseudonational affiliates to ensnare local political leaders in corruption, thus co-opting them. Investment projects and aid deals are used to entangle the local regimes, ensuring their political dependence on the West.

At the same time the leaders, who for some time actively cooperate with western companies both in shadow and in the daylight find themselves easy prey for Western governments and their agencies.

The money flows that are connected to various international mining projects or greenfield investment usually generate abundant legal, semi-legal and illegal wealth of members of local elites, including members of government of certain countries. Some transnationals actively bribe African politicians, military and officials in order to secure the needed preferences. Needless to say, that multibillion fortunes of such African leaders are not kept in their native countries or in local currencies, but in leading international banks denominated in some stable monies. For some time such 'cooperation' seems to proceed amicably and well, but as soon as the level of involvement of the local asset riches a certain level, the victim no longer is able to escape from the firm grip of the Western partners.

Non-cooperation on the part of entrapped members of the local elites inevitably results in making the information about their fortunes public, support to the opposition (anti-corruption, pro-democracy, etc) movements and non-recognition of the 'rigged" elections, that brought the failed partner to power. The worst case scenario involves freezing of the accounts, non-admittance of the person and his family in question to USA and EU and ultimately a case in an international court. All of these is revealed, as if there had been only one party in bribery, corruption and money-laundering. The major part of the frozen resources never makes it back to the African country but vanishes in endless investigations and court hearings.

Since the end of 1990s U.S. and allied intelligence services, law enforcement agencies, and independent experts increased cooperation to track state and private money of members of African elites usually under the pretext of their possible laundering activities, corruption, and unfair competition practices. The most well-known cases are those of former Nigerian president Abacha, former Liberian leader Charles Taylor and some current leaders of countries richly endowed in natural resources. The recent revolutions in Tunisia and Egypt resulted in immediate freezing of multi-million accounts with alleged relations to ousted ex-presidents and their associates. The collection of actionable intelligence on questionable activities of African elites is a working routine of many western law enforcement agencies. Under the 3d EU anti-money laundering Directive all European banks are strictly obliged to investigate the sources of funds belonging or connected with African (and other foreign) politically exposed persons (PEPs). Suspicion reports should be immediately sent to national financial intelligence units in case of unusually large or inexplicable money movements or operations. Suspicion is sufficient for freezing the funds. Unfreezing, if possible at all, may take years.

As a rule, the unfreezing of the funds is a long and cumbersome process. The amounts in question remain within the financial systems of the developed countries, actively or passively increasing its wealth. Quite often the ensuing litigation ends in a mutual agreement according to which the Western country preserves a part of the

sum, in exchange for terminating the legal investigation against the suspected African PEP.

It is clear, that such intelligence may be critical not only in gathering evidence necessary for achieving convictions in courts of law, but also as an effective bargaining tool for achieving strategic goals in the region. The banks that report such suspicious transactions on time are usually exempt from any responsibility for dealing with the money. Moreover, in some cases the funds, if frozen, may indefinitely remain on the balance sheets of the financial institution, and "work for it" till the decision of the court.

The US and its NATO allies have assumed leadership in expanding international cooperation among law enforcement agencies to prevent complex trans-border crimes, such as money laundering, including those that involve current or former African government officials; tycoons with close ties to African political leaders; military and intelligence operatives; and persons with ties to organized crime. Such a stand should deserve full approval and support, had it not been used selectively and inconsistently. When U.S. laws--such as the Patriot Act (especially Section 312, proceeds of foreign corruption), the Foreign Investment and National Security Act of 2007 (FINSA), the Defense Production Act of 1950 (DPA), money laundering laws, the Foreign Corrupt Practices Act, G-8 anticorruption initiatives, and similar laws in allied jurisdictions--are violated by African entities, the U.S. and its allies should not hesitate to vigorously prosecute the offenders and confiscate, through appropriate court proceedings, illegally laundered funds and properties acquired with illegally procured funds, and aggressively deny visas to those government and business figures involved in the illicit activities³⁴. Such approach should not be selective but comprehensive and address equally both African and western perpetrators and facilitators. To a certain extent such an approach was used by the Swiss and German bankers in relation to the funds believed to be controlled by the family members or close associates of the Egyptian and Tunisian leaders after the series of public uprisings in the beginning of 2011.

Questions remain as to the real role of NATO member states in those events. They started in Tunisia, then spread to Egypt and led to the downfall of the Egyptian President Hosni Mubarak. In a domino-effect, they enflamed public disorders and widespread, sometimes bloody, unrests in Algeria, Yemen, Jordan, Iran, Bahrain, Libya and Morocco. The seemingly spontaneous demonstrations and uprisings received crucial technological, infrastructural, political and organizational support from the West.

This support was crucial primarily in two aspects. One was the steadily increasing political pressure upon the African and Middle Eastern heads of state and governments by the leaders of virtually all Western democracies, who (a) expressed their support to the "uprising masses" and (b) restrained the local governments from taking any decisive measures to stop the demonstrations. The second was the provision of technical capabilities and financial support for spreading the unrests beyond their original limited nuclei. The media used for those purposes were formally "nobody's in particular" (Internet, mobile phones, social networks, email, satellite TV and short-wave radio, etc). However, it is an open secret, that the so called "social" media and many providers of information services are closely connected and dependent in many visible and invisible ways upon the official authorities and their agencies. The latter allow them to use servers, communication capabilities, manage the transcontinental networks or allow using satellites for their purposes.

The reality and the level of such influence is clearly visible in the situations, when the flow of "free' information is considered to be undesirable by the West. The recent examples of governments' capabilities to harness the free and "unmanageable" social media were the uniform controlled reporting on the wars in Iraq, Afghanistan, or Georgia.

In the case of Middle Eastern revolutions the West not only took a "pro-change" position, cold bloodedly betraying its decades-old allies and supporters (like moderates Ben Ali in Tunisia, or Mubarak in Egypt). Very serious financial resources were in the least not prevented from reaching the opposition. It is unclear, for example, what amounts of funds were paid to secure the expensive long distance international dial-up connections to telephone numbers in France, UK, Greece, Italy and Spain during the internet blackouts in the Middle East and who paid it. This is particularly strange, if one takes into consideration that since 1980s an intricate system of financial flows tracking works day and night within the global banking system, reporting every suspicious transaction to national financial intelligence units. The relevant information travels the world via the main server of this global financial monitoring system, located in the United States.

It is hard to say, what were the exact channels and purposes of these social upheavals. No doubt all of them had real fundamental basis in social and economic problems experienced by the masses of population in the above mentioned countries, particularly, by the younger people. Practically in all of those countries the share of people below 21 years of age is around 50 per cent. Their prospects for the future are grim and restricted. Many of them never worked and have low chances to find a job and to create and feed a family. The youths possess inadequate life experience and are more radical, militant and inflexible. Many are unable to understand, that their behavior only aggravates the economic situation in their respective countries not solving any of the fundamental problems. The latter are rooted in the unfair distribution of global wealth and the exploitation of the multi-billion majority of the population of the planet by the minority, which under the existing economic model consumes the major part of the resources of the Earth.

1.3. Balancing between the Old and Emerging Centers of Power

There is hardly anyone who doubts that China is one of the key economic players in Africa. Using clever diplomacy, assistance packages and attractive terms of commercial agreements, China has gained access to African resources in conditions of a tough competition. Beijing's foreign economic strategy is special in that, right from the start, it was trying to fill the unoccupied or "difficult" and less attractive resource niches on the continent while avoiding in every way direct confrontation with heavyweights like the USA and the

EU. There seems to be no further opportunities and, in fact, no need for expansion along such lines.

Chinese strategy in Africa proved to be quite effective, judging by reactions of both China's competitors and the partner countries of Africa. According to some reports, Africans were wary of the U.S.—China dialogue on Africa and felt Africa had nothing to gain from China cooperating with the traditional international donor community. Some representatives of African elites tend to share the opinion that Africa was better off thanks to China's practical, bilateral approach to development assistance. They are concerned about prospects that this would be changed by "Western" interference. They represent groups of African elites who are frustrated by Western insistence on capacity building, which translated, in their eyes, into conferences and seminars. They instead preferred China's focus on infrastructure and tangible projects. They are also worried that Africa would lose the benefit of having some leverage to negotiate with their donors if their development partners joined forces.

In 2008, trade between China and Africa came close to \$106 billion (in 2000, it was \$10 billion). Before the collapse of world prices for raw materials caused by the crisis that broke out in the West, Africa—China trade balance was slightly in favor of Africa. In 2009—2010, however, the plunging price of oil tipped it in China's favor.

China's trade with Africa is concentrated in a limited number of geographical areas there. In 2008, 61 percent of trade was with as few as five African countries. A quarter of all trade was with one country – Angola. South Africa and Sudan were second and third with 16 percent and about 9 percent accordingly. These three countries have remained in the lead since 2002.

The Sino-African co-operation formula differs significantly from Western patterns, as it is openly and strictly a business relationship: the trading of infrastructure for resources. What China lacks in terms of technology and capacity building, it makes up for in its willingness to provide these package deals to Africa. This funding arrangement, now referred to as the 'Angola model', is not, however, unique to China, as other Western countries and institutions have adopted similar lending practices in the past decade, us-

ing Angola's large oil resources to overcome its lack of creditworthiness in the international financial market.³⁵

While China mainly invests in oil, it also invests in iron ore, copper, manganese, cobalt, phosphates, platinum, and coal. China's oil strategy today gambles on Africa. China's oil imports reached 3.5 million barrels a day in 2006, placing the country next to the USA and Japan as the biggest oil importers. According to IEA predictions, China will be importing oil at the rate of up to 9.8 million barrels a day by 2030. China will be meeting through export 45 percent of its energy demand by 2045 and getting ahead of the United States as the biggest oil importer. African oil accounts for 28 percent of Chinese oil import. About a quarter of Chinese oil imports from Africa originate from the Gulf of Guinea countries and Sudan. China's investments in expanding oil and gas production in Africa amounted to \$4 billion by the end of 2006.

China's main trading partners are mainly oil-producing countries. The main supplier is Angola that replaced Saudi Arabia as the leader in the amount of oil delivered to China and became, in April 2008, Africa's leading oil exporter. There is a veritable battle for Angola's oil between Washington and Beijing. All in all, the United States has invested in oil production in Angola upward of \$4 billion; however, according to forecasts, China is bound to soon leave the USA behind to become the biggest buyer of Angolan oil (about 37 percent of Angola's oil export): accounting for 40 percent of Angola's oil production. The corporation Sinopec has bought a proportion of shares from Shell in one of Angola's offshore blocks.

Sudan is the second important source of oil for China. While Sudan is building up production of oil, there is a potential for discovery of more oil in areas that cannot be currently accessed because of the conflict in Darfur province. Sudan's oil industry became monopolized by China, India and Malaysia after the Western investors left the country. China is getting between 50 percent and 60 percent of Sudanese oil. For its part, Sudan is meeting 9 percent of Beijing's oil demand.

Sudan, a former importer of oil, has become with China's aid an oil exporting country with its own petroleum industry. At the same

time, it has paid for this cooperation by becoming listed by the West among the rogue states.

In 2011 Southern Sudan is to become an independent state. Many observers believe that the oil exports to China will continue as before. In advance of the referendum, China held talks on the construction of an oil pipeline to export oil from Southern Sudan.

In recent years, Beijing turned its gaze also on some other oil producing countries. In 2006, China came third after the USA and Spain in importing oil from Equatorial Guinea. Various Chinese companies are pursuing oil projects in Kenya's south, Sahara desert in Algeria, in Cote d'Ivoire, Nigeria, Congo (Brazzaville), northern Namibia, and Ethiopia.

Much of the furniture produced in China from African timber. China accounts for 46 percent of Gabon's timber export, 60 percent of wood exported from Equatorial Guinea and 11 percent of timber exported by Cameroon.

China is also interested in some other natural resources from Africa: It buys phosphates in Morocco; copper and cobalt, in Zambia and the Democratic Republic of Congo; iron ore, gold and platinum, in South Africa; platinum, uranium and chromium, in Zimbabwe.

According to EU official documents, European cobalt producers meet increasing competition from the Chinese ones which are also out on the market for feed supplies, focusing on African sources. These producers derive a purchasing edge (they can overprice the raw materials they need) from their operating conditions in China (low financial costs linked to State support, low compliance with EHS legislation, etc) and generally take advantage of lower ethics in securing supply from "grey" channels. Terms of competition are therefore not "equal" and this is a serious cause for concern in view of the size of the Chinese cobalt industry and its rate of development under State incentive policies.³⁷

Chinese investment into the mineral commodities sector includes joint ventures, which up until now has been the preferred approach. More recently, the global trend has been towards mergers and acquisitions (M&A) by cash-rich Chinese firms. In the case of Africa, according to a 2008 report, between 1995 and 2007

China concluded two major M&A deals in the mining sector in Africa worth a combined \$3 billion, and five further M&A deals in the oil and gas sectors valued at \$3.9 billion, bringing the total M&A form of investment into the African resources sector to \$6.9 billion.45 This was lower than combined M&A investments in these sectors in Asia (\$15.3 billion) during the same period, but slightly higher when compared the next largest recipient, Latin America (\$6 billion).³⁸

It would be wrong to say that all cooperation between China and Africa consists in buying natural resources. In 2007, China earmarked \$4 billion for developing Africa's infrastructure, which is more than the total earmarked by all G8 members which made the solving of Africa's problems one of their priorities. In Angola, China has rebuilt 400 km of roads, laid two rail lines, and renovated the airport and Central Hospital in Luanda. In Nigeria, it has begun rebuilding the rail network. In Sudan, it has built a tanker terminal in the harbor near Port Sudan, a 1,600-km pipeline to carry oil from the oil field to the terminal, and an oil refinery.

China is in the process of realizing an \$13bn investment project in Mozambique to develop industrial, tourism, mining and energy sectors. Among the projects are a car factory and hydro-electric dams. Mozambique is also targeting 1m tourists from the Asian country each year. Meanwhile a US\$2bn investment fund for projects by Chinese companies has been set up.³⁹

China is South Africa's largest country to-country trade partner. It is also the biggest foreign investor in South African infrastructure. In 2010, the two countries signed four agreements in various fields of specialization, These agreements of cooperation are in the fields of geology and mineral resources, environment management, railways and transportation. One of the goals of South African President Zuma's 2010 visit to Beijing was to learn how China had succeeded in the beneficiation of minerals. It also emerged that Standard Bank could be the financial service provider of choice for a mooted high-speed railway line between Durban and Johannesburg. The bank's commercial relationship with the Industrial and Commercial Bank of China (ICBC) was cited as the main reason for its preference as a

local finance partner. ICBC acquired 20% stake in Standard Bank, worth about R36bn, in 2007.⁴⁰

Despite the fierce competition that Chinese companies have to wage, we can say that Beijing's strategy has been a success on the African continent in the last decade.

Over this time, China and African countries have made substantial progress in their bid to build a new type of strategic partnership established on the basis of "mutual trust and beneficial cooperation". The frequent exchanges of high-level visits and mutual support on international issues and bilateral affairs have further enhanced political trust. Remarkable achievements have also been made in the economic domain, with bilateral trade growing 35 percent year on year over the past decade. In 2008, bilateral trade volume reached \$106.8 billion, compared with a meager \$10 billion in 2000. China has now replaced the United States as Africa's second largest trading partner after the European Union. China's annual average investment in the continent has risen to \$1 billion from a mere \$50 million in 2001. Africa is China's second largest overseas labor and project contracting market. About 1,600 Chinese companies engage in economic and trade activities on the continent.

Progress has also been made in promoting bilateral cultural exchanges, security consultations, as well as coordination and cooperation in international affairs. In the realm of security, China has remained active in the United Nations peacekeeping missions in Africa and has dispatched more than 3,000 personnel on 12 peacekeeping missions.

Schools of Confucianism have successively been established across the African continent with the aim of popularizing Chinese culture and promoting bilateral cultural exchanges. The number of African students studying in China has also been on the rise in recent years.

The growing Sino-African ties have proved inseparable from the principle of "pragmatic cooperation". China has, from the beginning, adopted a series of concrete measures to reduce Africa's debts and increase its aid to African countries. It has also strived to expand its investments in Africa and to adopt zero tariffs on commodities from

the continent. To help African countries resolve their food security issues, some concrete quantitative targets were set with the aim of promoting Sino-African agricultural cooperation, human resource training, as well as bilateral cooperation on medical care, health and education. These efforts are an indication of China's desire to address some of the continent's most urgent problems.

China's commitments to reduce African debts proved positive in helping the impoverished continent reduce its colossal debts. The personnel training programs China introduced at the second forum held in Ethiopia in December 2003 helped African countries cultivate their labor forces for much-needed economic and social development. The measures put forward by China to promote Sino-African cooperation at the 2006 Beijing Summit, including debt reduction, China's investment in and assistance to Africa, and improvement of African people's livelihood, proved to be a big boost to bilateral ties. ⁴²

The Chinese government also launched several initiatives to balance the bilateral trade, so that African countries' exports to China also grew rapidly, from 5.6 billion U.S. dollars in 2000 to 43.3 billion U.S. dollars in 2009. In July 2010, to further open up China's market to Africa, China decided to exempt the tariffs of 60 percent of the exported items from 26 LDCs in Africa. The number of export items to China enjoying zero-tariff treatment from African LDCs increased from the previous 478 to over 4,700.

Within three years after 2010, 95 percent of the export items from all of African LDCs having diplomatic ties with China will receive zero-tariff treatment gradually. In addition to the growth of trade, China and African countries have also carried out pragmatic and efficient cooperation in infrastructure construction, energy, agriculture, finance, health and other areas. China's business activities in Africa have greatly boosted local economies and infrastructure, created jobs and improved people's living conditions. By the end of 2009, almost 2,000 Chinese firms have started doing business in African countries and created about 300,000 jobs. Their direct investments in the continent grew from 200 million U.S. dollars in 2000 to 1.44 billion U.S. dollars in 2009, an increase of nearly six times.

Africa's direct investment in China, on the other hand, increased from 280 million to 1.31 billion during that period. So far Africa is China's fourth biggest overseas investment destination. China's contracted projects in Africa cumulatively had amounted to 205.2 billion dollars by August 2010. Besides, Chinese companies have built some 60,000 km of roads and power stations with a total generating capacity of 3.5 million kw in Africa.

The success is attributable to a number of circumstances. One of them is that Chinese companies are prepared to take risks operating in countries ravaged by wars and conflicts, like Liberia, the Democratic Republic of the Congo, Sierra Leone and the zones of ethnic, political and religious conflicts where their workers were repeatedly attacked and kidnapped. Beijing sent to Africa 1,400 servicemen as part of the UN peacekeeping missions more than any other permanent member of the UN Security Council.

Work in the zones of conflict proceeds under very hard conditions but the companies are getting higher returns from foreign direct investments (FDI).⁴⁵

The latest developments expand cooperation to training and intelligence sharing. Security experts reckon that cyber warfare and espionage will be the 21st century's new battlegrounds. With that in view, China is now considering whether to allow the Nigerian government to shift a US\$500m preferential export credit agreed in 2009 for the rail sector to Beijing's state-owned telecoms company ZTE to build a security communications network. As a new era of currency wars, power politics and resource competition develops, the stability of oil-rich countries like Nigeria is of vital importance to China and the United States. Rapidly changing technologies mean that geopolitical battles are fought in new arenas, and sectors like telecoms take on greater strategic importance.

Besides other positive effects, investments in countries that suffered from conflicts result in the growing political influence, which also benefits business activities. China's advantage also lies in the fact that, working in the countries affected by Western sanctions, it positions itself as an alternative partner thus winning substantial economic and political dividends. This was exactly Beijing's strat-

egy with regard to Sudan and Zimbabwe. All these things make us expect further growth of Chinese investments in Africa.

India is one of the few new players on the African continent to compete with China for natural resources. India's relations with Africa receive far less attention in the West than China. Although India sees China as a competitor in Africa it has to date lacked the resources and infrastructure to compete directly but India says its 'soft power' engagement in Africa is different from that of the Chinese. According to a preparatory paper for India-Africa 2011 Forum, India's footprint in Africa has been private-sector-led and its diplomatic presence is limited, although is picking up. India must strike a balance between the South-South coordination promoted by its policy-makers and the economic self-interest of its businesspeople.⁴⁷ Most actively India is economically involved in Angola, Zimbabwe, Nigeria and Sudan. The key attractive sector is the energy one. The economic forecasts predict that the rapidly growing Indian economy will depend on the imported fuel source for over 90% by year 2030. This explains why India is so keen on developing oil extraction projects in various African countries. Currently about 12% of Indian oil is imported from Nigeria. Sudan and Angola are two other most important suppliers. Indian diamond cutting and polishing industry also depends on African diamonds. The key partners in the diamond sector are Angola and Zimbabwe. India pledged to build local cutting and polishing centers in the two countries. The total Indian exports to Africa rose from US\$83,536 million in 2004/5 financial year to US\$178,751 million in 2009/10. Imports from Africa also increased from US \$111,517 million to 288,373 million during the same period.⁴⁸

Of other BRIC countries Brazil is playing an increasingly active economic role on the continent. During the President Lula administration, Brazil's annual trade with African countries has quadrupled in value from \$6 billion in 2003 to roughly \$25 billion in 2010. These figures represent an extraordinary increase of exports by an average of 28 percent per year and imports from Africa of about 23 percent per year. In terms of total volume of bilateral trade, Africa is taken as a whole ranks fourth among Brazil's top

partners, ranking behind only the United States, China, and Argentina.

The primary partners in cooperation are the Lusophone countries of the continent. In Angola, the Latin American giant is involved in rebuilding of the war-damaged Capanda hydroelectric power plant, in joint ventures with Angola's state-owned companies in diamonds and bio-fuels as well as commercial and residential real estate. Brazilian company Oldebrecht is now the largest private sector employer in Angola. Brasilia extended lines of credit totaling \$580 million in 2005. Additional credits were subsequently extended to totals approaching \$2 billion in conjunction with semi-public Petróleo Brasileiro S.A. (Petrobras) acquiring stakes in several offshore blocks in joint venture with the state-owned Sonangol.⁴⁹

In Mozambique coal mining and agricultural projects are under way. Brazilian banks expand their networks in Northern and Tropical Africa. Brazil has written off a significant proportion of the African countries' debt.

Brasilia has also been a driving force behind a loose political alliance of India, Brazil, and South Africa, formally called the "India-Brazil-South Africa (IBSA).

Mirroring China's process of 'going out' by encouraging the development of internationally competitive companies, the Vietnamese government is pushing companies to explore export markets in Africa. State-owned PetroVietnam is one of Vietnam's regular representatives on the African continent. It operates in Algeria, Angola, Egypt, Libya, Madagascar, Sudan and Tunisia. Vietnamese investment is still a far way behind its Asian counterparts, but it is growing. PetroVietnam is in talks with Morocco's Office Cherrifien des Phosphates to set up a one-million-tonneper-year phosphate plant. In South Africa, Truong Thanh Furniture Corporation announced in July 2010, that it would invest \$30m in a timber processing plant in Umshwathi and 10,000 hectares of forest in KwaZulu-Natal.⁵⁰

So far China has been constantly ahead of any other competitor from the South. It is difficult to predict with certainty what the current monetary crisis would do to the China–Africa trade. The rate of China's yuan has risen together with the U.S. dollar creating

some price-related difficulties for China's exporters, but on the other hand, they have appreciably profited from the falling prices of raw materials and other components of their productions. Most likely, the growth rate of mutual trade will slow down but the volume of trade will continue to grow. The prices of and demand for Chinese goods in Africa are not expected to fall dramatically. The physical size of imports of African raw materials to China will depend on the extent the demand for Chinese products is going to fall around the world. In any event, the structure of imports from Africa (fuels, minerals, commercial timber, raw material for ferrous and non-ferrous metallurgy, diamonds, cotton, and tobacco) indicates that the demand inside China for the above commodities is not likely to change.

Africa's import of products from China is not likely to decline. It mainly includes textiles, consumer industry products, low-cost electronic equipment and other consumer goods affordable to buyers of modest means. By virtue of being little involved in the global economy, incomes of this group of consumers would not be affected too much by the crisis even if the incomes of the countries of their residence fall under the impact of lower world prices for raw materials. Not to be forgotten is the fact that African oil importers would substantially benefit from lower oil pieces.

The growth of influence of new players in Africa forces the old ones and particularly the United States to review there tactics and may be even strategy on the continent. One CSIS report wrote that in order to reverse the *decline of U.S. Influence* in Africa, the United States is to influence the development path of current producers like Angola, Chad, Nigeria, Equatorial Guinea, and emerging producers such as Ghana and Madagascar, a special effort will be needed to restore a respected voice in those countries. ...

Traditionally the U.S. and international institutions have effectively used their financial clout as leverage to compel developing countries to implement policies ... the U.S. will need a more nuanced approach to engagement, since resource rich countries now have ample funding on their own or through unconditional loans from China ⁵¹

The West is suspicious and fearful of Chinese and to a lesser extent Indian or other Third world (especially Muslim) countries' aid or other economic ties with Africa. USA and former colonial powers regards such links as useful instruments for both short- and long-term advancement of non-western interests, promoting bilateral economic ties and dependence on rival advisers and equipment. Accusations are often heard that such links also provide a cover for intelligence activities among other conducts through scholarship programs, which are regarded as a truly long-term "seeding" effort for future subversion.

In addition, much of Chinese, Indian, Brazilian, Malaysian Taiwan, Korean or even Vietnamese economic aid carries tangible economic returns to the these rapidly developing countries, supplying important commodities and some hard currency, thus indirectly undermining competitive positions USA, Canada or EU countries in the global economy.

In a structured form the perceived damage inflicted by the "newcomers/rivals" upon the traditional positions and influence of the First World economies in Africa may be described as follows:

- obtaining sources of strategic and other commodities. As shown above, a significant share of China's (other rival's) requirements in fuel, strategic metals, etc. is covered by imports from Africa;
- reducing possibilities of the Western alliance to command global resources of fuel, minerals and transportation routes and facilities;
- increasing "newcomer's" access to African governments and societies through the provision of "rival" (Chinese, Indian, etc.) advisers, doctors, and teachers in African countries. In countries, which established closer relations with the competitors of the traditional powers (e.g. Sudan, Angola, Equatorial Guinea, etc) 'newcomers' have achieved direct access to domestic policymakers, allowing them to influence day-to-day operations of the economy and to formulate/correct development plans;
- adding "rival"-trained personnel to the ranks of African elites through academic scholarships. Since the late 1950s, more than

100,000 students from almost every state in Africa have attended Chinese universities. The number of governmental scholarships has doubled between 2006 and 2009 to come to 4,000 students. In 2009 alone, over 12,000 African students were studying in China. Contacts and cooperation between the governments in such fields as culture, education, science and technology and tourism have also been expanded, providing intellectual motivation and cultural support for China-Africa cooperation⁵²;

– generating revenues/hard currency and opening new markets for rival's products.

The general conclusion that stems from this analysis is that the competition between the "old" and "new" actors on the African economic playground will increase in the coming decades. The rivalry will primarily develop and intensify in the primary commodities sector. Gradually, this sector will be saturated and the external players will turn to other sectors, sub-sectors, branches and industries. This cooperation in the value-added sectors will be used as a bargaining tool to achieve better terms of access to the much desired natural resources and raw materials.

In the New Millennium, Russia is neither a totally "new", nor an "old" player on the African continent. The old Soviet heritage, especially in the sphere of political support and sometimes unparalleled altruism, staunch anti-colonial stance and massive assistance in 1960s–1970s to the creation of national economies form a very positive environment for a possible reactivation of the nation's positions on the continent and bilateral relations with African countries. This opens for the Russian Federation a unique window of opportunity in the next ten to twelve years. On the other hand obvious stumbling blocks like the reduced economic potential, domestic problems, opportunism and profit-seeking of the bureaucracies may prove to become unsurpassable and would not allow the country to occupy a worthy place among the Africa's privileged partners.

The existing threats and challenges can be successfully tackled only by exercising a strategy, bases on a well elaborated system of measures and steps, which rely on three pillars:

1) Genuine mutually beneficial interaction;

- 2) Elaborate use of the still existing and reviving of forgotten gains and achievements of the Soviet-African cooperation;
- 3) Concentration on the areas of cooperation that would speed up and steady the pace of development in Africa, on the one hand, and boost the Russia's modernization efforts, on the other.

The joint cooperative work in the sphere of utilization of natural resources of both Africa and Russia, coordination of activity on the commodities markets may become the link, that will allow to pull out the whole chain of progress, development and prosperity.

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CHAPTER 2

Natural Resource Potentials of Russia and Africa: a Comparative Analysis

2.1. Structural Analysis of the Two Natural Resource Potentials

BASIC FEATURES OF RUSSIA's and Africa's resource potentials possess significant similarities but also demonstrate numerous differences.

The key uniting characteristics are the diversity, extraordinary comprehensiveness and largely unexhausted capacity of the two resource bases. Taken together these three features speak about the uniqueness of Russia's and Africa resource potentials. Being already well known and quite developed mining megaspaces of global importance, both are believed to be able to offer much higher level of involvement into integrated productive chains of the world. As mentioned in the first chapter, besides smaller (and consequently less important) geographic regions of our Planet, Russia and Africa remain the only vast geographic spaces that preserve hugely "unexhausted" potentials of natural resources.

There is still another uniting trait: namely, the role of the natural resource potentials in the economic development strategies of Africa and Russia, respectively. Despite all the differences, the developmental conceptual premises existing there preclude that revenues from the exploitation of their natural resources may with the government's guidance be turned into a foundation for accelerated development of sound diversified modern national economies. And,

still one more uniting feature – both failed (at least as yet), to translate this conceptual assumption into life. In the view of the others, there are lots of cultural and psychological similarities between the peoples of both areas in relation to their natural wealth. But these subjective subjects lie beyond the scope of this research.

Speaking about dissimilarities, the first and most obvious one that comes to minds is, of course, the disparity in the levels of socio-economic development of the former second global superpower and the world's poorest region. That would include differences in dozens of specific areas: incomes, health, education, cultural environment, history etc. Acknowledging all that, we still believe that the comparative analysis undertaken below is not only legitimate methodologically but useful practically.

From the point of view of political economy and geopolitics, the fundamental similarity of the African and Russian developmental paradigms lies with the fact that their natural resources are primarily used as sources of *financial* revenues. The proceeds from exploitation thereof are crucial for sustaining national statehoods, livelihoods, and to a certain extent for their economic progress. The domestic productive employment of the produce of their extractive industries for final consumption is very limited. Gone are the days, when the Soviet Union enjoyed the status of a self-sufficient economic giant, capable not only of extracting various mineral products from its soil, but also efficiently processing them to construct state of the art machinery, spacecrafts, and high-tech equipment.

The winners in the Cold War assigned Russia a distinct subordinated place in the global division of labor. Already heavily dependent on the oil and gas exports, having lost its superpower status, the democratized Russian Federation had to surrender its traditional markets (former Soviet republics and socialist states of Eastern Europe and Asia and the Third World) of its manufacturing industries to competitions. Moscow was stripped of its geopolitical zones of interests (which were its guaranteed markets), and with them separated from many buyers of its military hardware and high tech produce. Since 1991 Russia if confined nearly exclusively to the role of a supplier of raw materials, primarily oil and gas. This is the posi-

tion in the global division of labor which is very similar to that of Africa.

Since approximately the beginning of the 2000s, Moscow has been desperately trying to change this situation, but encounters strong resistance from old rivals (now main buyers of its export commodities), new competitors (which develop more dynamically and are more adroit and agile in occupying new opening market niches) and indigenous oligarchs, whose fortunes depend on the raw material specialization of their country. In may be a coincidence, but the general "disappointment" of the West with the end results of democratization processes in Russia coincided with the shift in the Russia's attitude of its subordinate role in the international division of labor

Though on the whole Russia's metamorphosis at the end of the 20th century was disappointing, that cloud had some silver lining too. In the 21st century, the global economy began to experience a more pronounced relative shortage of various kinds of natural resources. That means that international market prices are due to increase, thus broadening the opportunities for mobilizing the savings for development.

But with that came the first signs of the so called Dutch disease, though in our view it was a very specific type of the illness.

In accordance with the classical economic theory, in simple trade models, a country ought to specialize in industries that it has a comparative advantage in. So, theoretically, Russia, as a country rich in natural resources, would be better off specializing in the extraction of natural resources. But it is not. The reliance on natural resources under a free reign market economy is slowly killing the national manufacturing industries by making any investment alternative to mining less attractive. This challenge was manageable under the Soviet planned economy, since then it were the non-market factors, that determined the areas, types and levels of investment. At that time Gosplan's decision making was based on the priority of the macroeconomic efficiency of the Soviet economy as a whole. For that it was prepared to sacrifice the level of profitability of individual projects and even whole branches. The balanced development of

the diversified modern economic complex as a whole took priority over inflow of currency. The considerations of economic independence and self-sufficiency at that time were more important than a possibility to get additional incomes from selling raw materials abroad. The logic of the Soviet leadership was that the preference of currency inflows from abroad over the domestic material production would increase the level of USSR's dependence from the West and would support foreign producers on the expense of the national ones. As the evolution of the Russian economy showed later those fears were not entirely without foundation.

The situation became detrimental under the market economic conditions. The disappearance of central planning and the prevalence of the pro- (microeconomic) profit approaches brought about a shift away from manufacturing. A free investor in these conditions is less interested in putting his money into a manufacturing project, where the return on investment is lower and potentially riskier than the predictable extraction of raw materials easily sold at world markets.

But such an approach is detrimental in the long run. If the natural resources begin to run out or if there is a downturn in prices, competitive manufacturing industries do not return as quickly or as easily as they left. This is because technological growth is smaller in the booming sector and the non-tradable sector than the non-booming tradable sector. Since there has been less technological growth in the economy relative to other countries, its comparative advantage in non-booming tradable goods will have shrunk, thus leading firms not to invest in the tradables sector. Also, volatility in the price of natural resources, and thus the real exchange rate, may prevent more investment from firms, since firms will not invest if they are not sure what the future economic conditions will be.

In the Russian case, the problem lies not so much with the ruble getting stronger (it is still stably weak against major currencies), but with "excessive" amounts of inflowing foreign currency not used for productive purposes in the country. Under the "usual" Dutch disease an increase in revenues from natural resources (or inflows of foreign aid) will make a given nation's currency stronger compared to that

of other nations (manifest in an exchange rate), resulting in the nation's other exports becoming more expensive for other countries to buy, making the manufacturing sector less competitive. In the Russian case, deindustrialization comes primarily not from the price incompetitiveness for Russian manufactured goods, but because of the steady elimination of manufacturing per se as a result of privatization and the type of market economic reforms imposed on Russia by the IMF, the World Bank and many western advisers to president Yeltsin's government in 1990s.

The African case is somewhat different, though the IMF, the World Bank and western advisers played their ambiguous roles too – through their "one-recipe-cures-all" policies of structural adjustment, "aid-for-democracy" and "Washington consensus" projects.

Though the basic tenets concerning the effects of the Dutch disease are invariable, the effects in the African case may seem to be not as spectacular as in the Russian case. We do not observe significant and persistent shifts away from manufacturing on the Black continent. But this is explained in many cases by the fact that the sector itself was inexistent, in the first place. Still, macroeconomic consequences for the future are similar, if not identical. Nations are economically demotivated from diversifying and in particular from developing and/or modernizing their manufacturing sectors.

However, no matter how hard-hit Africa and Russia are by the Dutch syndrome, the situation will persist for years. Existing projections predict, that inevitably for the time being and in the middle—to long-term future. Their resource bases are heavily export oriented and weakly integrated into the production cycle for domestic consumption. Though their level of dependence on external markets may somewhat change in the future, both Russia and Africa will remain among the leading global suppliers of energy and mineral raw materials for the world economy.

For the purposes of the analysis we shall speak about natural resources in the narrow sense of the term. In other words, our study covers not all the resources derived from the environment (nature) but only about mineral and fuel commodities. We appreciate that a

significant part of biotic resources (i.e. obtained from biosphere, like forest and other flora resources, animals, fish and other marine bioresources) will thus remain beyond the scope of our analysis. In fact, we exclude a huge proportion of abiotic resources as well (land/soil, water, air, etc).

In fact, except for occasional exclusions, the study deals with geological resources of Russia and Africa. In this respect, we recognize our limitations, and that our research is incomplete. However, the authors do not doubt that even the current limited scope of analysis provides a reasonably true picture of practical opportunities open for Russia and Africa.

Natural resources potential of Russia is over 20% of the world's reserves. This fact places Russia in a special position among industrialized countries. Natural resources used by the economy of Russia account for 95.7% of the national wealth. There are large deposits of fuel and energy resources: oil, natural gas, coal and uranium ore. Russia is ranked first in the world by gas reserves (32% of world's reserves, 30% of world production), the second in oil production (10% share of world production), the third – in coal reserves (22 coal basins, 115 fields, including those in European Russia – about 15.6% in Siberia – 66.8% in the Far East – 12.9%, in the Urals – 4.3%). In terms of reserves of iron ores Russia occupies the first place, in tin – the second, lead – the third. Russia also occupies a leading position in the world in wood provision. In 2010, according to assessments of American intelligence sources, Russia was the richest country in gold reserves.

In Russia, there are five major oil and gas provinces located in European part of the country and in Western Siberia in 10 regions and 11 provinces and republics: West Siberian, Volga-Urals, Timan-Pechora, the North Caucasus and the Caspian Sea area.

In addition, iron, nickel, copper, aluminum, tin, polymetals, chromium, tungsten, gold, and silver ores are mined. There is a great variety of non-metallic ores: phosphates, apatites, talc, asbestos, mica, potash and salt, diamonds, amber, precious and semiprecious stones. Very common are construction materials: sand, clay, limestone, marble, granite and other materials.

The mineral resource base (MRB) of solid minerals plays an important role in the Russian economy. Four independent markedly different tectonic provinces distinguished in the district have peculiar structural/tectonic, magmatic, and metallogenic features that determine the MRB specificity and potentialities. The priority minerals are ferrous, non-ferrous, rare earth, and noble metals, apatite ore, and building and facing stone.

The comparison of the structure and fundamental issues characteristic to each of the natural resources bases provides us with a valuable tool for assessing their relative potential of Africa and Russia as players at the global commodities markets.

Natural resources potential of Africa is over 25% of the world's reserves. Unlike Russia, the majority of African countries have hardly reached the industrialization level, many of them remaining at earlier stages or being overwhelmingly agricultural. Natural resources account for over 97 percent Africa's combined national wealth. There are large deposits of fuel and energy resources and minerals. As noted above, Africa is a key global supplier of fuel resources, minerals, vital for modern industries, gold, platinum, diamonds, etc.

Although mineral production is widespread, mining of particular minerals is concentrated in a limited number of countries. Zambia and Zaire account for 69 percent of world cobalt and 12 percent of world copper mine production; Guinea is the world's second largest bauxite producer; Sierra Leone the world's second largest rutile producer; Zimbabwe the third largest producer of asbestos; and Gabon the third largest manganese producer. Three African countries, Gabon, Namibia and Niger, account for 24 percent of world uranium production.

Africa suffers from a large shortfall between geological potential and mineral development. This is directly related to insufficient exploration work. Most exploration is based on similarities of geological settings.

Exploration activity, as defined by African exploration budgets increased by 19% to \$1.9 billion in 2008 from about \$1.6 billion in 2007. The share of Africa exploration in the total worldwide explo-

ration budget decreased slightly to about 15% in 2008. In 2008, the principal mineral commodities of interest for exploration in Africa were base metals, diamond, gold, PGM, and uranium.⁴

Exploration was focused primarily in (in order of the number of sites being actively explored) South Africa, Zambia, Namibia, Tanzania, Congo (Kinshasa), Ghana, Burkina Faso, and Mali, but activity also took place in a number of other countries. Gold targets accounted for approximately 33% of reported African exploration projects; Platinum group metals (PGM) made up about 15%; copper and diamond each represented about 13%; uranium made up about 12%; and base metals made up about 7%. Based on the number of active exploration sites, early-stage projects composed about 53% of the 2008 activity, whereas producing projects accounted for about 24% and feasibility stage projects represented about 16%.⁵

Below, we provide a comparison of the structure and performance of competitive extractive industries, in respectively Africa and Russia, for the key strategically important minerals mentioned in the first chapter.

Bauxites and Alumina. In 2008, African production of refined aluminum decreased by 5% compared with that of 2007. South Africa accounted for about 47% of African aluminum output; Mozambique, 31%; and Egypt, 15%. Africa accounted for 4% of the world's aluminum production in 2008. In Mozambique and South Africa, production decreased because of power supply constraints.

African bauxite production increased by 5% in 2008. In Guinea, production increased at Compagnie des Bauxites de Guinée and Compagnie des Bauxites de Kindia's mines. Output decreased at the Sierra Mineral Mine in Sierra Leone. Guinea accounted for about 91% of African bauxite production, and Sierra Leone, 5%. In 2008, Africa's share of world bauxite production was 9%.

In 2008, world aluminum consumption amounted to 36.9 million metric tons (Mt) compared with 37.2 Mt in 2007. Africa accounted for about 2% of world aluminum consumption in 2008.

The production of refined aluminum is expected to increase by an average of about 3% per year from 2008 to 2015. Unrest in Egypt in early 2011 negatively affected production at the Nag Hammadi. In Nigeria, the smelter at Ikot Abasi could reach full capacity by 2013. In Ghana, the reopening of the Valco smelter by 2013 would depend upon reliable power supplies.

African bauxite production is likely to remain nearly unchanged from 2008 to 2015. Ghana's production is expected to increase by about 15% by 2013. Ghana's bauxite and aluminum industries have received a major boost, with the signing of a Memorandum of Understanding (MoU) with a Chinese Firm, Bosai Minerals Group, to invest \$1.2bn into the sector, by establishing a modern alumina refinery plant in Ghana. The investment is part of a four-year development plan to massively upgrade the production capacity of the Ghana Bauxite Company Limited in Awaso, in the Western Region, in which Bosai Minerals recently acquired 80% shares, with the government controlling the remaining 20%.

The memorandum of understanding (MoU), which was one of the significant outcomes of a state visit to China by President John Evans Atta Mills, is expected to revamp the country's bauxite and aluminium industries to become major exporter, with the initial annual production of two million tons of bauxite. Apart from the investment for the refinery, which is expected to be completed by 2014 when construction takes off early 2011, Bosai intends to invest in energy production to assist in providing sufficient power for the plant and other ancillary income-generating activities. Bosai has put forward an aggressive two-pronged investment strategy, with the objective of increasing bauxite production to 1.5m tons by 2011, and also establish the Alumina Refinery Plant in Ghana by 2014, to make good use of the bauxite.

Despite an undeniable progress in forming its own potential for production of metal, Africa still remains primarily a the leading global producer of primary raw materials for subsequent production of final product – aluminum metal elsewhere in the world.

Unlike Africa, Russia is a globally important of the metallic aluminum. It possesses huge productive capacities and secure energy resources to support it. RUSAL is the leading domestic aluminum producing company and the leading domestic bauxite producer. In March 2008, RUSAL merged with SUAL and with the Switzer-

land-based Glencore International AG to become United Company RUSAL. The merged firm employ 100,000 people worldwide.

RUSAL's Khakas aluminum smelter was the first aluminum production facility built in Russia in the past 20 years. The first batch of aluminum was manufactured at the Khakas smelter in December 2006. The total amount of investment in the project exceeded \$750 million. The Khakas smelter was projected to reach its installed capacity in October 2007. It had 600 employees.

In 2006, RUSAL began work to construct a 750,000-metric-ton-per-year (tons/yr) greenfield aluminum smelter in Taishet, which is a small town located near Irkutsk. The construction was expected to be completed in 2011. RUSAL also was carrying out large-scale modernization of the Irkutsk aluminum smelter, which was commissioned in 1962. After commissioning of a new potline no. 5, the total capacity of the smelter would increase by 50% to 450,000 tons/yr. The first stage of potline no. 5 was to start production in 2007, and full capacity for potline 5 was to be achieved in 2008. Construction of potline no. 6 was planned after the construction of potline no. 5. When the planned construction of potline no. 6 is completed in 2009, the smelter's production capacity would be 500,000 tons/yr.

Plans for RUSAL also called for modernizing the Sayanogorsk aluminum smelter in 2006 to increase output of aluminum and alloys and to modernize the Nikolayev alumina refinery in Ukraine to increase output to 1.6 million metric tons per year (Mt/yr) of alumina. RUSAL also planned to continue to expand production capacity at the Achinsk alumina refinery, which would enable it to increase its output to 1.1 Mt/yr of alumina.

Included in RUSAL's investment project portfolio was the Komi Aluminum project, which was initiated by SUAL. The project entailed the development, construction, and operation of a bauxite-alumina complex in the Komi Republic. The complex would be supplied by ore from the Middle Timan bauxite deposit, which was under development, and would include an alumina refinery to be constructed at Sosnogorsk. The design capacity of the complex was 6.5 Mt/yr of bauxite and 1.4 Mt/yr of alumina. Plans called for baux-

ite production at Komi to reach 6.5 Mt/yr in the 2009-10 period. Construction of the alumina plant in Sosnogorsk had not begun, and the functioning of the alumina plant would depend on its obtaining an uninterrupted supply of bauxite from the Komi project when it achieved its design capacity to produce 6.5 Mt/yr of bauxite. The completion of the Komi project would considerably reduce the Russian aluminum industry's dependence on foreign countries for bauxite and alumina.

RUSAL planned to increase primary aluminum production to 4.4 Mt in 2008 and to 6.2 Mt in 2013, and most of the increased output would go to China. RUSAL's acting director for marketing and sales said that Asia would account for 50% of RUSAL's aluminum sales by 2015, of which 70% totaling more than one-third of RUSAL's output would go to China. Also, the director predicted that Russia's consumption of aluminum could increase by an average of 11% per year until 2015.

The bauxite-alumina complex now under construction in the Komi Republic is an example of putting large mineral reserves into effective commercial development and simultaneous organization of their advanced processing, which is unique for present-day Russia.⁸

Despite existing problems, the bauxite-alumina complex is the most large-scale, fast-moving and promising project among the investment projects implemented in the mining industry of the republic. The main practical outcome of the project is obvious: the construction of the Sredne-Timansky bauxite mine that has been operating for over ten years. To date, over 11 million tons of ore have been supplied to Russian alumina and aluminum plants. Bauxite consumers are the Uralsky aluminum, Boxitogorsky alumina, Bogoslovsky aluminum, and Chelyabinsky abrasive plants. The implementation of the whole project will allow a reduction in alumina imports and meeting up to 70% of the Russian aluminum industry's demand with domestic raw material. Thousands of new jobs will be created in primary and related productions and in small business; regional domestic product of the Komi Republic will increase by 30% and Russia's tax base by RUB7 billion.

Chromites. The price of ferrochromium reached historically high levels in 2008, and then declined in 2009 with a weakening world economy. China's role as a chromium consumer grew along with its stainless steel production industry. China's importance as a consumer of raw materials used in stainless steel production increased owing to its strong economic growth and the expansion of its stainless steel production.

Ferrochromium production is an electrical energy-intensive process. South Africa, which accounts for about 40% of world chromite ore and ferrochromium production, experienced electrical power shortages that South Africa's electrical power utility dealt with by rationing. Indian ferrochromium producers, which accounted for about 15% of world ferrochromium production, dealt with limited electrical power supply by putting up dedicated electrical powerplants. Kazakhstan, which accounted for about 15% of world ferrochromium production, expected increasing electrical power demand and reduced production capacity owing to aging infrastructure. World financial problems relieved electrical power demand; however, with economic recovery, the electrical power supply constraint will return unless electrical power capacity is increased.

Much of the electrical power currently produced is coal-based, a carbon dioxide gas-producing process that is currently being considered for regulation because of its impact on global warming. These factors suggest that the electrical energy cost of ferrochromium production will rise in the future.¹⁰

Copper¹¹. Africa's mine production of copper increased by about 15% in 2008 compared with that of 2007. In 2008, Zambia accounted for 58% of African copper mine production; Congo (Kinshasa), 24%; and South Africa, 11% (table 7). Africa's share of world copper mine production was 6% in 2008. The production increase in Congo (Kinshasa) was attributable to increased output from the Etoile, the Frontier, the Kalumines, the Kinsevere, the KTO, the Ruashi, and the T17 Mines. The Dikilushi, the Kulu, the Luiswishi, and the Tilwezembe Mines were shut down in late 2008 because of the worldwide economic crisis, and the Lonshi Mine was shut down because of resource

depletion. In South Africa, output increased at the Palabora Mine. Production also increased in Zambia.

Africa's refined copper production increased by 5% from 2007 to 2008. In 2008, Zambia accounted for 72% of African refined copper production; South Africa, 17%; and Congo (Kinshasa), 8% (table 8). In Congo (Kinshasa), the Ruashi solvent extraction-electrowinning (SX/EW) plant opened in 2008 and production increased at the Etoile, the Luilu, and the Luita SX/EW plants. Production also increased in Zambia. Decreased output in South Africa was mostly attributable to reduced output from the Palabora refinery. Egypt was the only producer of secondary refined copper in Africa; primary production accounted for most African production.

In 2008, Africa's share of global copper consumption amounted to about 2%. South Africa's consumption decreased to 68,000 tons in 2008 from 77,000 tons in 2007.

The production of refined copper is expected to increase by between 12% and 13% per year from 2008 to 2015. In Congo (Kinshasa), new SX/EW plants could open at Tenke Fungurume in 2009 and at Kinsevere in early 2011. Increased production is also expected from the Etoile, the Luilu, the Luita, and the Ruashi plants. The first phase of expansion at Luita is likely to be completed in 2011, and the second phase, in 2015. Congo (Kinshasa), which produced less than 1% of Africa's refined copper in 2007, could account for 52% of the continent's refined copper output by 2015.

Russia contains 10% of the worlds' copper reserves with most reserves located in Siberia (70%) and the Urals (20%). The copper industry of the former Soviet Union. comprises more than 25 mines, 18 concentrators and ten smelters and refineries. Most Russian copper operations are located in the Urals, the exception being the Urup enterprise in the Krasnodar region. In 2008, Russia was the world's sixth largest producer, with 55% of its production coming from Norilsk Nickel, which is also a significant nickel and PGE producer. Almost 98% of Russia's copper production are exported. More than 50% of Russia's copper reserves are undeveloped. New copper mine developments such as the Aleksandrinskoye (reportedly contains 6.4 Mt of copper – zinc ore), Letnyeye and Safyanovskoye deposits are

being developed in the Urals. However, the general grade of these deposits is low, averaging only 1.5% copper. Four broad categories of ore are mined and processed. The Dzhezkazgan No 1 and No 2 plants, and the Kafan and Turjin concentrators, treat copper-only ores; the Almalic and Balkash concentrators process coppermolybdenum ores; the Nickolsk (Dzhezkazgan No 3) complex processes copper/lead/zinc ore; while ten plants – Akhtal, Bashkir, Buribai, Gai, Kirovgrad, Krasnouralsk, Madneuli, Sredneuraslsk, Urup, and Uchali – treat copper/zinc ores. Copper concentrates are also produced as a by-product at a number of plants treating ores mined primarily for lead/zinc, wolfram/molybdenum and tin. 12

During the period 1985–1993 a number of new plants were put into operation, namely Nickolsk, and a section of the Almalyk concentrator, while refurbishing and reconstruction were carried out at the Kranouralsk and Bashkir plants. However, most of the concentrators were built in the 1930s and because of this a number of them are in poor condition, with obsolete equipment. Because of their age, and also in some cases a lack of ore, a number of concentrators have been shut down, namely Karabash, Pyshma, Akhtal and one section of the Sredneuralsk plan. Norilsk's copper production is sourced from its operations at its Norilsk and Urals mining and beneficiation complexes. The Oktyabrskiy mine in the Norilsk complex produces 70% of Norilsk's copper output, producing an average 240 000 tons copper each year.

In January 2003, Severonikel, a member of the Norilsk Nickel group from the Kola peninsula, commercially launched a Rb480 million hydrometallurgical facility to produce copper. The facility will be in a position to produce 15,000 tons/y of copper by the end of 2003. It will probably produce 15% of all copper produced by Kola Mining and Metals Co., which directly controls Severonikel. The facility is currently producing about 20 tons/d of copper. Minproc supplied and built the facility. The company is also introducing cascade leaching to process burnt copper cinders and metallurgical dust. The new facility should greatly reduce production costs and stages of production, and also reduce environmental pollution. Copper production reached about 364–365 thousand tons in Russia and

25–26 thousand tons of copper concentrates and intermediate products in the international divisions of the Norilsk Nickel Group.

Urals Mining and Metallurgical Co. (UGMK) is the second major copper producer in Russia. The holding company includes a number of the largest copper smelters in the Urals, and controls a total of 22 companies. UGMK produces 40% of Russia's copper, and exports more than 70% of output. Uralelektromed, Mednogorsk Copper-Sulphur Combine, Svyatogor, the Sredneuralsk Copper Smelter, Gaisky and Uchalinsky GOKs are key enterprises of UGMK. Uralelektromed from Sverdlovsk region, operates the Safyanovskaya copper mine which is the core enterprise of UGMK.

The third-largest Russian refined copper producer is Kyshtym Copper Electrolyte Works (KMEZ) in the Chelyabinsk region. In 2002, it decreased production of refined copper by 14% to 70,290 tons. Uchalinsky GOK, a copper mining company in Bashkortostan, produced 328,967 tons of copper concentrate in 2002, up 47.3% from 2001. ¹³

Uranium. The global uranium mining industry has been on the rise over the past five years preceding the global crisis. High uranium prices and stable growth prospects for the nuclear power industry's demand have allowed uranium mining and exploration companies to enter a new stage of development. Russia has staked on the intensive development of the nuclear power industry and also rapidly develops its own uranium mineral resource base.

Uranium resources are classified by a scheme (based on geological certainty and costs of production) developed to combine resource estimates from a number of different countries into harmonized global figures. "Identified Resources" (RAR and Inferred) refer to uranium deposits delineated by sufficient direct measurement to conduct prefeasibility and sometimes feasibility studies. For Reasonably Assured Resources (RAR), high confidence in estimates of grade and tonnage are generally compatible with mining decision making standards. Inferred Resources are not defined with such a high a degree of confidence and generally require further direct measurement prior to making a decision to mine. "Undiscovered Resources" (Prognosticated and Speculative) refer to resources that

are expected to occur based on geological knowledge of previously discovered deposits and regional geological mapping. *Prognosticated Resources* refer to those expected to occur in known uranium provinces, generally supported by some direct evidence. *Speculative Resources* refer to those expected to occur in geological provinces that may host uranium deposits. Both Prognosticated and Speculative Resources require significant amounts of exploration before their existence can be confirmed and grades and tonnages can be defined.¹⁴

Depending on the costs of production of 1 kilo of U_3O_8 uranium reserves are split into 4 major groups with production cost of 1) USD 260/kgU (most expensive) 2) <USD 130/kg 3)USD 80/kgU 4) <USD 40/kgU (least expensive).

In the global distribution of identified resources (<USD 130/kgU) African countries jointly accounted for over 16% of the total fgures for 2009. The leading positions were occupied by South Africa (6%), Namibia and Niger (5% each). Russia accounted for 9%, but together with Kazakhstan, now Russia's partner in the newly created Customs Union member, this share has increased to 21%.

As of 1 January 2009, **Identified Resources** (i.e. RAR + Inferred, recoverable resources tons U, rounded to nearest 100 tons) of CIS and African countries were as follows (Table 2.1.1):

Table 2.1.1. Identified Resources of uranium in Africa and CIS

Country	Cost Ranges								
	<usd 40="" <br="">Kg U</usd>	<usd 80="" <br="">Kg U</usd>	<usd 30="" <br="">Kg U</usd>	<usd 60="" <br="">Kg U</usd>					
Africa, including	170300	316400	911100	325400					
Algeria	0	0	19500	19500					
Central African Republic)	0	0	19100	19100					
Congo, Dem. Rep.	0	0	0	2700					
Egypt	0	0	0	1900					
Gabon	0	0	4800	5800					
Malawi	0	8100	15000	15000					

Country	Cost Ranges								
Namibia	0	2000	284200	284200					
Niger	17000	73400	272900	275500					
Somalia	0	0	0	7 600					
South Africa	153300	232900	295600	295600					
Tanzania	0		0	28400					
Zimbabwe	0	0	0	1400					
CIS, including	50100	773300	1351700	1736500					
Kazakhstan	44400	475500	651800	832000					
Russian Federation	0	158100	480300	566300					
Ukraine	5700	53500	105000	223600					
Uzbekistan	0	86200	114600	114600					

Totals may not equal sum of components due to independent rounding. Source: *Uranium 2009: Resources, Production and Demand.* OECD 2010, NEA No. 6891. Paris, 2010. P. 19.

The uranium market is characterized by a relatively high degree of concentration of uranium capital assets. Seven companies have slightly more than a half of global uranium reserves and annually mine about 80% of total global output. Australian BHP Billiton and Russian Uranium holding ARMZ rank first and second, respectively, in uranium reserves; they are followed by French Areva. In 2007 seven uranium majors mined 31,277 tons of uranium, or 76% of its global output.

Virtually all world companies announced their plans to develop their resource base and substantially increase uranium output. However, a number of factors hinder their implementation.

In 2007 Russian Uranium holding ARMZ jointed the uranium top five. Its companies in Russia and Kazakhstan mined 3,527 tons of uranium, or 9% of global output. The holding company plans to achieve output of 10,000 tons by 2015 due to the development of operating enterprises and those under construction and 20,000 tons/year by 2015 after the projected enterprises are commissioned.

Uranium output forecast for 2011 is 53,400 tons; during 2007–2011 it will increase by 30%. The output growth will somewhat re-

duce the gap between the raw material requirements of the nuclear power industry and their supply; however, the natural uranium shortage in the market will persist.¹⁵

In the last decade, the burgeoning nuclear power industry has given rise to a steady increase in world uranium consumption; in 2005 it reached 69 thousand tons with its production being 40 thousand tons only. A shortage of about 30 thousand tons is covered by stock resources. Russia faces similar problems as other countries all over the world: uranium demand considerably exceeding its production; a rapid depletion of natural uranium stocks that are enough for less than 10–15 years, and a lack of sufficient geological reserves prepared for commercial development. In this connection the RF Government made a decision to substantially facilitate the development of the nuclear power industry and accelerate the development of its mineral resource base.

At present, Russia's total explored uranium reserves of B+C1+C2 categories are 656 thousand tons with the lowest C2 category dominating (67.7%). However, the quality of the reserves leaves much to be desired because of a low uranium grade of ore and insufficient infrastructures in ore districts. Development of about 600 thousand tons of the reserves may be considered practicable in the near future. Besides, there are expected uranium resources, which are also considerable and are estimated at about 830 thousand tons under the most reliable P1+P2 categories.

In Russia, the region of Eastern Siberia and the Far East stands out for the total mineral resource potential; it accounts for 93% of explored uranium reserves and 56% of total uranium expected resources. A number of districts concentrating main uranium reserves and resources are located just within this region.

The Streltsovsky district, Chita Oblast, contains 15 U-Mo deposits. They are mined by the Priargunsky Production Mining/Chemical Association. Total uranium reserves of the district are 22% of its total reserves in the Russian Federation. The Vitim district, Republic of Buryatia, unites 8 uranium deposits in erosional paleovalleys. The district with reserves accounting for 8% of Russia's total uranium reserves is developed by Khiagda OJSC.

The Elkon district, Southern Yakutia, contains numerous Au-U deposits localized in extensive faults. Uranium reserves of this district exceed half of all Russian reserves. Total estimate is 650 thousand tons allowing to consider it as one of the world's largest uranium ore districts. The development of the district has recently been started. In 2007, exploration and development licenses were issued for 8 ore prospects.

The Eastern-Transbaikalian uranium ore district encompasses four deposits that may become an additional resource base for the Priargunsky mining/chemical enterprise. Three of them, Gornoye, Berezovoye, and Olovskoye, are located in Chita Oblast, and one, the Imskoye deposit, in the Republic of Buryatia. Deposits of Eastern Transbaikalia will be developed by Atomredmetzoloto OJSC, the head uranium mining organization set up recently by the Atomenergoprom Corporation. In the Far East, several districts with standby uranium deposits are distinguished. Among them, the Kamenushinsky district in the southwestern part of the Khabarovsk Krai and Chukchi potential uranium ore province draw particular attention. The development of new mineral deposits is always associated with a number of specific problems inherent in a given mineral only. This is particularly typical of new uranium deposits because of the ore radioactivity. ¹⁶

Uranium deposits of the Elkon ore field were discovered as early as the 70s of the last century but they were not developed at that time due to economic reasons. Now, when the demand for uranium has risen steeply and the metal has gone up in price, the development of the Elkon deposits has become commercially viable.

Among a great many problems that are to be addressed when designing and developing the above deposits, the analysis of the geodynamic situation in the region, selection of a mining method and radiation safety of miners during ore mining are of great importance.

To analyze the geodynamic situation it is necessary to create a geodynamic test area in the territory of the deposits in order to study horizontal movements of the earth crust entailing rock bursts and inrushes and other failures using space geodesy (GLONASS or GPS observations).

As concerns the radiation problem, high radon flow rates are estimated within the Elkon ore field in mine workings of all deposits of the future Elkon Hydrometallurgical Works. This is caused by a high ore emanation rate at Elkon and broad areas that will be exposed during planned uranium ore mining (up to 5,000 tons/year of uranium).

When mining methods for the future uranium deposits in South Yakutia (which is a permafrost zone) are selected, it is advisable to consider the advantages of a new advanced mining system with ice and ice/rock stowing. The system enables to reduce the environmental stress and obtain economic benefits through a decrease in material and labor costs per 1 tons of mined mineral.¹⁷

In Africa, many countries renewed their efforts in developing uranium mining after the world prices for this commodity began to grow. This growth came as a result of the increased demand from developed countries and fast growing economies.

In recent years (2007–2010), Egypt Nuclear Materials Authority of Egypt (NMA) concentrated its exploration and development activities in four of its uranium prospects in the southern **Egypt** and northern parts of the Eastern Desert and southwest Sinai Peninsula. These activities mainly included exploratory deep trenching and shallow drilling works supported by ground integrated geophysical and geochemical investigations to follow-up subsurface extensions of the tectonic structures and geologic formations hosting the uranium mineralisation in these occurrences which displayed good uranium resources. Intensive underground exploratory works supported by deep drilling facilities are still urgently required to reach a reliable evaluation of these uranium resources.

Early 2009 Egypt started a comprehensive geological, geophysical, and geochemical exploration works in the southern part of the Eastern Desert and Red Sea region. These activities are currently concentrated on exploring potential uranium resources in new target environments mainly include the Cretaceous volcanic rocks (e.g. Natash Volcanics) and Cretaceous Nubia sandstone basins (e.g. Kom Ombo Basin) located in the southern part of the Eastern Desert in addition to the unconformity contacts between the younger gran-

ites and Miocene sediments extending along the Red Sea coast. These recent exploration activities represent the first step in a long-term future plan aiming at diversifying and maximizing Egypt uranium resources, urgently required to support its national program of peaceful uses of nuclear energy needed to secure its energy resources for development projects. The upper Cretaceous phosphate deposits represent one of the promising unconventional uranium resources in Egypt. Confirmed estimates of these phosphate ore deposits amount to about 700 million tonnes. Uranium content in these deposits ranges between 50–200 ppm, with an average value 60 ppm. Although no reliable estimate of the uranium resources in Egyptian phosphate ores has been made, it is possible that the deposits contain up to 42 000 tU. ¹⁸

In Egypt, exploration and development activities were focused on four uranium prospects in southern and northern portions of the Eastern Desert and the southwest of the Sinai Peninsula. In early 2009, comprehensive geological, geophysical, and geochemical exploration works in the southern part of the Eastern Desert and Red Sea region were initiated, concentrating on potential uranium resources in new target environments. Unconventional resources, including phosphorite deposits, are also under investigation. Total expenditures in Egypt have steadily increased from USD 1.76 million in 2007 to USD 2.38 million in 2007 and 2008, respectively. Expenditures are expected to increase further to about USD 2.8 million in 2009.

In **Niger**, uranium is produced by two companies, Somaïr and Cominak, which have been operating mines in sandstone deposits since 1970 and 1978 respectively. A third company, the *Société Minière de Tassa N'Taghalgue* (SMTT) assigned its mining rights to Somaïr in 1996 and was subsequently dissolved. The total production capability of the two production centres in Niger is in the process of being increased from 3 800 tU in 2006 to 4 500 tU in 2009

The Government of **Botswana** reported exploration expenditures of USD 0.377 million in 2008 as regulations for uranium mining and milling were being developed.

In **Malawi**, the Kayelekera uranium project, located in the Karonga district of the Northern region about 600 km by road from the capital city of Lilongwe, was successfully brought into production by Paladin Energy Ltd. in 2009. Transport of the first product to Walvis Bay, Namibia, via Zambia, took place on 17 August 2009. Uranium production, by open-pit mining, with an annual production of 1270 tU, expected to be achieved in 2010, is expected to continue for some nine years. The Keyelekera uranium deposit is being mined by open pit. Operations are programmed for an approximate nine-year life, with an annual production of 1270 tU. Total uranium production is expected to amount around 11500 tU. Processing of marginal ores at the end of mine life is expected to add an additional 3–4 years to the mine life. ²⁰ Infill drilling amounting to 9 955 m was conducted in 2008 on the Kayelekera deposit, where open pit mining began in April 2009, but expenditures were not reported

In Namibia, extensive exploration activity takes place, mainly in the Namib Desert. Two major types of deposits have been targeted; the intrusive type, associated with Alaskite, as at Rössing, and the surficial, calcrete type, as at Langer Heinrich. Substantial growth in uranium exploration has occurred in Erongo area of west-central Namibia, focusing mainly on previously-known deposits with considerable historical data. Over 60 exploration licenses had been issued up until early 2007, when a moratorium on new licenses was imposed by the Namibian government.

Major drilling programmes were conducted in support of proposed expansions of the Rössing and Langer Heinrich mines, ongoing development of the Trekkopje mine and continuing evaluation of several deposits for possible mine development, including Husab, Etango, Marenica, Rössing South and Omahola deposits. However, the Government of Namibia reported expenditure and drilling activity details for Rössing only.

The uranium resources of Namibia, including both identified and undiscovered, occur in a number of geological environments and consequently are hosted in several deposit types. The Identified Resources are mainly associated with intrusive and surficial deposits. In addition to the Identified Resources in the Rössing, Rössing

South, Etango and Valencia alaskite deposits located in the Precambrian Damara Orogenic Belt, and those associated with surficial calcretes at Langer Heinrich and Trekkopje, there is continuing exploration that may reveal large undiscovered uranium potential. Although not quantitatively assessed, the uranium potential is considered greatest in the 5 000 km2 granitic terrain of the Damara Belt, Tertiary to recent surficial sedimentary terrains in semiarid areas, where further potential for calcrete deposits is thought to exist and sandstone basins that include the Permo-Triassic Karoo sediments²¹

In **Niger**, activities focused on resource development in and around the existing mine sites in an effort to expand the resource base in the western Arlit area. Several deposits in this area are also under development (Ebba, Tamgak and Tabele). New exploration and development projects, with intensive drilling campaigns on the Azelik, Imouraren and Teguidda deposits, continued through 2009. Exploration and development expenditures reported by the Ministry officials in Niger amount to USD 153 million in 2007 and USD 207 million in 2008, with USD 312.1 million expected in 2009.

In South Africa, the Witwatersrand Basin contains the majority (about 73%) of South Africa's Identified Conventional Resources recoverable at less than USD 80/kgU. It has been the site of extensive prospecting activities and is currently the only source of uranium production in South Africa. Less than 10% of the total South African Identified Conventional Resources recoverable at less than USD 40/kgU and 13% of the Identified Conventional Resources recoverable at less than USD 80/kgU are associated with South Africa's only uranium recovery facility. there are at least eight companies actively exploring for, developing, or already mining deposits. The majority of these uranium resources are associated with gold resources within the Witwatersrand Supergroup. However, since only one mine, Vaal River Operations, has a uranium recovery plant in operation, large amounts of uranium are presently being discarded into tailing dams. South Africa's uranium production amounted to 1400 tU₃O₈ (1185 tU) in 2007, representing a 3.7% decrease compared to 2006. In 2008, the total production was 1 700 tU₃O₈ (1440 tU). South Africa's uranium production is set to increase to over

 $5000 \ tU_3O_8 \ (4240 \ tU)$ over the next 10 years dominated by projects in the Witwatersrand Basin and in the Karoo Uranium province. South Africa is planning to build four to six new nuclear reactors by 2030 and in order to secure nuclear fuel supplies for South Africa's growing electricity needs gold miners are now looking into the possibility of reviving their old mine dumps to extract uranium and spur investment in expansions, new capacity, new projects and grass roots exploration.

Of significant importance is the fact that in many South Africa production centers uranium is mined in conjunction with gold. Gold alone is processed in the metallurgical plants and all costs are attributable to gold. Although the uranium passes through the processing plant, there is no uranium recovery and the residue is deposited into the surface tailings ponds.²²

In South Africa, a stronger market and supportive government policy stimulated at least eight companies to actively explore, develop and mine deposits in recent years.

In **Tanzania**, about 70 licenses have been issued to companies interested in uranium exploration and investigations of Karoo-age sediments in southern Tanzania (the Mkuju River, Mbamba Bay and Southern Tanzania Projects) and paleochannel associated calcrete and sandstone hosted uranium targets within the Bahi catchment of central Tanzania (the Bahi North and Handa Projects), but expenditure and drilling details were not reported by the government. Updated resource estimates and pre-feasibility studies have been published by the companies involved.

Exploration activities are also known to have been conducted in Burkina Faso, Cameroon, the Central African Republic, the Democratic Republic of Congo, Gabon, Guinea, Madagascar, Malawi, Mali, Mauritania, Mozambique, and Zambia, although details and associated costs were not reported by the governments of these countries.

Lithium. During the perestroika years, the Russian lithium industry switched to imported lithium carbonate supplied mainly from South America^{23.} This was caused by the intended price policy of lithium products producers who used cheap hydrominerals and loss

of competitiveness by similar products produced from crude ore. A virtually complete dependence on foreign sources of strategic raw materials has an adverse effect on the national economic security, and continuously increasing prices for imported raw material deprive domestic lithium metal producers of competitive advantages.

The method of simultaneous production of lithium products and cement using a universal lime technique may turn out to be suitable for processing of lithium-bearing aluminosilicate raw materials. The proposed complex processing of low grade spodumene ore has the following advantages: eliminates the multistage ore preparation; allows the use of low grade spodumene ore containing 0.6–0.8% Li₂O; combines the production of lithium products and cement; enables to produce lithium-containing cement clinker and then cement with improved characteristics. The method has been subject to pilot testing using crude spodumene ore from the Zavitinskoye and Polmostundrovskoye deposits.

The cost-effectiveness analysis of the complex lithium ore processing shows that the use of the associated sludge to produce cement clinker contributes to the profitable lithium products production from low grade ore. High economic parameters of the complex processing allow a considerable reduction in the cost of both lithium products and cement and enhance the competitiveness of their production.²⁴

Norilsk Nickel confirms production forecast for 2010 at a rate of 234–235 thousand metric tons of nickel by Russian companies of the group, 50–52 thousand tons of nickel on the company Norilsk Nickel Harjavalta and 15–18 thousand tons of nickel in concentrate on African Group's assets, reported in the record company. Also in 2010, the Group plans to produce about 2715–2720 thousand ounces of palladium in Russia, and 140–145 thousand ounces of palladium in concentrate and intermediates in the international divisions of the Group. Production of platinum is about 655-660 thousand ounces in Russia and 35–40 thousand troy ounces of platinum in concentrate and intermediates in the international divisions of the Group. These production figures do not include the results of the Stillwater Mining Company – a subsidiary of Norilsk Nickel.

Lithium producers in Africa include **Zimbabwe**, **South Africa** and **Namibia**. The peak production years were in mid-1980s. And in the case of Zimbabwe even earlier in the days of self-proclaimed independent Rhodesia. Bikita Minerals was the dominant source of lithium minerals for direct use in glass, glass ceramics and enamels because of the low iron content of the minerals. The deposit has an exceptionally high grade and comprises a classic zoned pegmatite at its southern end passing northwards into a complex mixture of petalite, quartz-spodumene intergrowth and small quantities of eucryptite. Currently, the different minerals are separated by a heavy medium system with stockpiles of undersized material from earlier picking as the principal source.

Proved, probable and possible resources (grading 1.4% Li) were estimated by the Panel at 56,700 tons Li. There is considerable upside potential in this figure and numerous petalite-containing pegmatites are known in Zimbabwe and there is no published data on reserves at the large Kamitivi tin-spodumene deposit located in the northwest of the country.

In **DRC**, the largest known lithium-containing pegmatites occur in the vicinity of Manono. Each of a pair has a length of 5,000 meters and a width of approximately 400 meters. The weathered zone has been worked for tin and columbite. Assuming a depth of only 50 metres the pegmatites could contain 2.3 million tonnes of Li.²⁵

Diamonds. Basic parameters of the Russian and global mineral resource bases of diamonds are approximately the same. At the same time, the reserves production/additions ratio and shift in the reserves structure towards underground mining are evidence of certain negative trends that may entail a serious deterioration in the economy of the Russian diamond mining industry.

Two main (optimum and negative) scenarios are forecast for the development of the mineral resource base in the short term (up to 2012) and long term (up to 2025).

The optimum scenario for the period until 2012 calls for discovery of at least one new large primary diamond deposit in Yakutia with reserves of no less than 380 million carats and the beginning of underground mining of the Udachnaya pipe deposit. Under the nega-

tive scenario, the above goals will not be achieved, and the situation will become aggravated in both the Russian and global diamond mining industries near the year 2012 when an excess demand in the global diamond/brilliant complex is forecast.

The main long-term goal is to discover new large primary deposits of high-grade diamonds with the chief problem being low exploration efficiency²⁶.

In Namibia production has increased substantially over 2010. Namdeb, the joint venture between De Beers and the Namibian government, doubled production of diamonds in the first six months of 2010 from a year earlier. A total of 795,000ct were recovered, compared with 385,000ct in the half year to end-June 2009. Diamond sales increased by 22% from N\$1.51bn (US\$209m) to N\$1.8bn. Profit after tax improved to N\$259m, compared with an equivalent loss of N\$396m in 2009.

The operations, which include land and marine, generated N\$280m in cash, four times more than in 2009, with a net generation of N\$109m. At the land operations, 257,000ct were produced as 20.33Mt were stripped or treated, compared with just 7.85Mt during the comparable period in 2009. Some 3,655m² were mined at the marine operations, just over double the 2009 figure.²⁷

In 2010 (on July 16th), Zimbabwe finally obtained official authorization from an international diamond trade watchdog to sell its gems, blocked over violation of mining and marketing rules. World Diamond Council unblocked its embargo on Zimbabwe diamonds at a meeting in St Petersburg, Russia. The council, through its monitoring arm, the Kimberley Process (KP), had embargoed diamonds from Zimbabwe over alleged widespread looting and killings of illegal miners by troops at government-controlled mines in the east of the country.

The council's decision to lift the embargo followed recommendations by a Kimberley Process monitor in June 2010, certifying that the country had addressed its concerns, and could resume diamond trade. The country had reportedly stockpiled more than four million carats of diamonds, worth more than US\$2bn, since the embargo was imposed.²⁸

The comparative analysis of the structures of mineral resource bases in Africa and Russia shows that the two occupy approximately the same niche in global reserves and production. Moreover, the nomenclature of the mineral commodities extracted from their soils is nearly the same. This fact puts the Russian Federation and the countries of the Black continent into the situation, where they either have to enter a fierce competition at the world commodities markets and by doing so, inevitable bring down the prices for the commodities thee export, or look for ways of cooperating with each other. The latter option allows besides other benefits to seek jointly for solutions, that would enhance the positions of both parties.

2.2. Developmental Efficiency of the Resource Base Use

The efficient use of the existing resource base is an issue of crucial importance for both Africa and Russia. The multiplication effect of mining for the development of the whole of the nation's economy is very significant. On the macroeconomic scale it varies between the factors of 2 and 3 and in the employment aspect – between 4 and 8.

In Russia's case the direct contribution of mining into the formation of the nation's GDP (without secondary impacts) is slightly less than 20%. Its share in the revenues of Russia's consolidated budget is about 30%, and in the revenues of the federal budget of the Russian Federation, it is nearly 50%.

Extractive industries and their relationship to natural resource management are at the heart of some of the most significant challenges facing Africa, too. There is evidence that natural resource abundance has often proved to be a 'curse' rather than a benefit for many developing economies.²⁹

There has been increasing concern about the social and economic impacts of resource exploitation as the search for new sources of oil, gas and minerals has intensified, particularly in fragile states of Africa. The livelihoods of many poor people, especially in the least developed states of the continent, are dependent on renewable natural resource systems whose sustainability is under threat as a result of population pressure and climate change.

The concept of resource efficiency is well known and widely applied at the microeconomic level in both developed and developing countries. Though efficient use of natural resources is universally accepted as standard "best practices" at the macroeconomic level, its practical implementation is usually limited to the environmental aspects. Nations often explain the necessity to deal with natural resources more efficiently not because such approach is more cost-effective, but for the reasons of sustainable development, protection of the environment, and occasionally for the reasons of national security.

Africa's mining industry is experiencing an undeniable boom, and as more international companies scramble for a lucrative piece of the continent's rich resources, there is genuine concern that competing countries are overlooking and even completely neglecting the impending impact on Africa's fragile environment. In Africa, the mining and oil exploration industries have come under increasing global scrutiny in the past two decades. Mining does have a positive effect on ancillary infrastructure, has attracted considerable foreign direct investment into Africa, and has generated and boosted export earnings.³⁰

The goal for the mining industry is to focus on the wealth of opportunities available and still continue to apply improvements to safeguard against an environmental regression. There is no better place to do this than within an industry that has faced scrutiny over the last decade. Mining's link to primary resources doubles as its function, while other industries have layers of production between their product and primary resources, making the extent of their impact less visible. Mining and other primary industries deliver the energy and raw materials that fuel human activity and economic development.

The mineral raw material sector, which includes mineral extraction and processing, in Russia produced about 30% of the country's gross domestic product (GDP) and in 2009 contributed about 70% of the country's budget revenues.³¹ The same year, over 1 044 000 were employed in mining. Analyses from the International Monetary Fund (IMF) and The World Bank have estimated that the oil and gas

sector accounted alone for about 20% of the country's GDP, while the rest 10% are accounted for by production of coal, ferrous and non-ferrous metals and non-metal minerals. According to estimates by the IMF and The World Bank, Russia's oil and gas sector accounted for 64% of Russia's export revenues in 2007 and 30% of all foreign direct investment (FDI) in the country. The metallurgical sector accounted for about 5% of the GDP, 18% of industrial production, and 15% of exports. In 2010, 1,043,000 workers that made up 1.6% of the labor force were engaged in mining. The sector accounted to the labor force were engaged in mining.

Russia, however, ranked among the lower 20% of mineral extracting countries in its per capita consumption of metals. Domestic consumption of mineral products was increasing, however. Growth in domestic demand took place because of increased demand in the fuel, domestic machine manufacturing, and transport sectors. Owing to the need in these sectors for high-quality metals or a specific assortment of products not produced domestically, such as zinc-coated and alloyed steels and a variety of steel pipes, these industries still imported a percentage of these metal products .

In 2007, out of total of 849.5 billion rubles (\$33.21 billion) invested in fixed capital for medium- and large-scale organizations engaged in the extractive industries, 774.5 billion rubles (\$30.28 billion) was invested in the fuel sector and the remaining 75 billion rubles (\$2.9 billion) was invested in the non-fuel mineral extraction sector. Investment in fixed capital in the mineral extraction sector accounted for 17.3% of total capital investment, of which investment in the fuel sector made up 15.8%, and in the non-fuel minerals sector. 1.5%.³⁴

At the end of 2007, Russia had 16,100 enterprises engaged in mining and quarrying, which was an 8.7% increase compared with the number of enterprises in the previous year Russia had more than 100 large-capacity mining and beneficiation and mining and metallurgical enterprises that mined and processed ferrous and nonferrous metals. The country had 238 coal mining enterprises, which mined coal at 104 underground mines and 134 open pits. Coal processing took place at 42 beneficiation plants, 27 beneficiation installations, and 17 sorting stations. Almost all coal mining enterprises were pri-

vately owned. The leading enterprises in the nonferrous metals sector included RUSAL for aluminum and MMC Norilsk Nickel for cobalt, copper, gold and other byproduct metals, nickel, and PGM. In the ferrous metals sectors, the major metallurgical enterprises were "EvrazHolding Group Ltd"., Holding Company "Metalloinvest", "Mechel" Steel Group, OJSC (Open Joint Stock Company) "Novolipetsk Steel" Co., OJSC 'Magnitogorsk Iron and Steel Works", and "Severstal" enterprises.

For assessing the developmental efficiency of resource base use in Africa and Russian we have to appraise the levels of their respective self-reliance and self-sufficiency in various kinds and categories of natural resources. For such purposes the existing natural resource base (NRB) is usually divided into three groups: relatively satisfactory, problematic, and critical. The basic differentiation criterion would be the degree the particular kind of natural resources ensure the expansion and development of the resource base as whole, on the one hand, and the achievement of domestic developmental goals, on the other.

For both Russia and Africa the relatively satisfactory component of the NRB comprises natural resources that are of great importance for the national economy: oil and gas, coal, uranium, iron ore, copper, precious metals, diamonds, potash salts, apatite, etc. Their reserves are large enough to meet both current and future domestic and export needs (Table 2.2.1).

Table 2.2.1. Level of capacity utilization in the Russian mining sector (percent)

	1980	1990	1995	2000	2002	2003	2004	2005	2006	2007	2008
Coal	94	93	72	84	82	85	84	85	84	82	81
Coal processing at enrichment enterprises	93	94	72	71	68	73	81	77	71	75	71
Commercial iron ores	93	98	84	92	90	93	94	97	93	94	90
Non-mineral construction materials	85	91	52	56	57	61	63	67	61	71	66

However, the level of efficiency of the use of the resources base is declining. In accordance with official data the extraction of the majority types of mineral resources is higher than the increment in reserves. The only exclusions are: molybdenum, gold and coal. Especially alarming is the situation with zinc (extraction 5 times higher than the increase in reserves), wolfram (nearly 8 times) and bauxites (13 times). These figures indicate that the owners of the now privatized mining companies are over-exploiting the natural resources of the nation. Zinc, lead, tin, antimony, barite, fluorite, and graphite show a less uniform situation.

The situation in Africa varies from country to country, but on the whole looks healthier. Africa is rich in practically all of the above mentioned mineral resources and plays an important role as a globally important exporter. From the point of view of NRB utilization efficiency African nations face a problem of different nature: the mined ores are consumed locally to a very limited extent. The demand on the part of national manufacturing industries is negligible. The Russian situation may be considered as both similar and different. Though Russia is one of the world's leaders in reserves of these minerals, their production is often not enough to satisfy even the low domestic consumption, still some producers find it more profitable to export them, than to sell at the domestic market. Selling the product abroad through specially designed intricate schemes, which use employ off-shore proxy companies may allow to shelter some of the proceeds from taxation and stash away significant amounts of thus illegally preserved funds in the West, secure from the government scrutiny and possible investigations.

On the whole the host economies are interested in such investments, since they increase the financial base and of their credit institutions, such flows are predictable and usually remain with the same account for many years. On the whole such investors tend to be conservative, with preference of relatively low income, predictable and reliable assets. Much of that money is invested into status assets: expensive real estate in high-end or historic areas, football clubs, yachts, objects of art etc.

In this respect African and Russian private owners of extractive industries have a lot in common. The differences usually lie in the sphere of cultural, educational or psychological background. But on the whole, the lack of interest in the consequences of continual depletion of their nations of necessary natural or financial resources is characteristic to the majority of African and Russian owners of export-oriented mining enterprises. Many opinion polls show that they are more inclined to consider themselves to be World Citizens, rather than national.

The third component of the Russian and African natural resource bases is formed of the types of geological resources that are critical for development but are acutely in deficit. For Russia these are minerals much needed by industry: bauxites, titanium, zirconium, and chromium and manganese ore. Consumption of these minerals strongly depends on their import. Their production meets only a minor part of the demand for them. At the same time, Russia exports their derived products: aluminum, titanium and titanium sponge, and ferrochrome produced mainly from imported raw materials.

Africa as a whole is in this respect more self-sufficient than Russia, but the situation changes dramatically as soon as we start analyzing the situation on the country to country basis. The requirements of individual national industries there are of course lower than in Russia. But nearly two thirds of African countries are net importers of oil and petroleum products.

The mineral resources of Africa have not been fully charted by prospecting. But even the data available testify to the presence of great mineral deposits on the continent. Being rich in various mineral deposits, Africa, however, remains a most insignificant consumer of these raw materials. The bulk of the mineral raw materials mined in Africa are exported, satisfying one-third of the requirements of industrially advanced countries.

Quite naturally, like Russia, the African countries do not want to reconcile themselves with the role of a raw-material appendage of industrialized countries, a role which has been assigned them under the current global economic model. Their struggle for the establishment of sovereignty over their natural resources, for the right to independently develop and utilize them in their own interests is becoming ever more resolute and effective. It is waged in various forms and at various levels: national, regional and international.

This struggle is facilitated by the changes in the character of external economic relations of the developing countries caused by the collapse of the world colonial system and the establishment of economic relations various countries of the multipolar world. These processes were accelerated recently by the hardest global economic crisis since the Great Depression of 1930s. The crisis significantly reduced the financial basis for prospecting and investment in African and Russian mining. On the other hand the global demand for many types of mineral resources remained relatively high due to two factors: emergence of new consumers (primarily China, India, Brazil and other) and continued search for safer investment by the operators on financial markets.

During the crisis, the emerging big economies, first of all China turned into locomotives of foreign investment into African and Russian extractive industries. After the most acute phase of the crisis was over the old transnational mining corporations gradually resumed investing in some areas (off-shore oil and gas production, rare metals etc). The other major sources of exploration financing in Africa are governments, multi-lateral agencies (such as UNDP and EEC), bilateral agencies (based in France, UK, Germany and Sweden).

The government sector in most African countries is poorly-equipped both technically and financially to carry out effective exploration, and prospectors and small-workers have limited capabilities. Only in a handful of instances (for example Burkina Faso, Burundi, Ethiopia and Mali) has multi-national and bilateral assistance been effective in finding important new reserves or ore bodies. To achieve a significant upturn in exploration, the region will need to encourage private investment from major international mining companies, a growing group of technically competent "juniors", venture capitalists, and joint-ventures between these groups.³⁵

Table 2.2.2. Distribution of capital funds by types of economic activity in Russia

Mining	2003	2004	2005	2006	2007	2008
Existing capital funds; bn. Rubles	ı	2618,0	3310,6	4081,1	4976,9	6366,1
The structure of capital funds by types as percentage of total on the end year date						
Buildings	9,4	8,8	8,5	9,5	9,1	9,2
Constructions	60,8	61,5	61,2	60,3	61,2	61,8
Machines and equipment	24,0	24,7	25,2	25,3	24,8	24,4
Means of transport	4,5	4,2	4,3	3,9	3,9	3,6
Other	1,4	0,8	0,8	1,0	1,0	1,0
Wear and tear;%, end year	_	54,8	53,3	53,3	53,4	50,9
Share of completely depreciated capital funds as% of total	22,6	22,6	21,9	21,5	20,8	20,4
Introduction of new capital funds (current prices); bn. Rubles	-	290,7	345,2	432,7	612,5	974,1
Liquidation of capital funds (current prices); bn. Rubles	-	25,0	33,3	35,1	43,1	48,5

A feasibility study is required for a number of minerals (titanium, zirconium, chromium, manganese, and bauxite) to select one of the two alternative options (or their combination in definite proportions): to create a domestic mineral resource base of a mineral or import it to meet its requirements.

In Russia the expanding financial crisis of 2008–2010 lead to the suspension of 2/3 of investment projects. Business focuses on current problems and optimization of already operating enterprises³⁶. New projects are shelved. What shall be done with the projects already in progress but not yet completed?

A mining project based on project financing may be examined as a case study. This kind of projects is a classic of project financing. However, in Russia banks have been skeptical about such projects mainly because of a misconception of the industry and subjec-

tive reserve estimation of deposits. A gold mining project, in addition to its specific risks, has risks of a project trapped in the grip of the financial crisis: the investment risk associated with the commissioning of the project and unpredictable fall in prices of finished goods or decrease in demand for them. In that context the bank that has already started project lending may suspend financing in order not to lose even more funds.

Africa as a region figures prominently in the project investment values in the mining sector (see Table 2.2.3).

Table 2.2.3. Mining project investment by region 2008

	Investment Total (U.S. \$ billion)	Share (per cent)
Africa	57	14
Asia	47	11
Europe	50	12
Latin America	125	31
North America	62	15
Oceania	68	17
Total	409	100

Two ways to overcome the crisis situation for the investment project are as follows: loan restructuring or the sale of the project. Variations with their elements are also possible. (see Table 2.2.4). For example, the loan may be prolonged and in the meantime a share in the project should be sold to the investor at a high price. It is worthy of note that the restructuring will be conducted under conditions when banks are short of funds and the market is weakening. This means that non-traditional ways of financing and financing sources must be found. One of such ways is asking project suppliers and contractors for help. Commodity loans are a usual practice, but the contractors may be used in a different way. For instance, if the bank is doubtful about the project's credit-worthiness, it is possible to request the bank to grant a tied loan to the contractor who will perform the work on credit but this

will allow the project to overcome the highest-risk investment phase.

Table 2.2.4. Investment in capital funds of the mining sector in Russia 1995–2008 (in current prices, 'billion Rubles; 1995 – trillion "old Rubles")

	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008
Mining sector, Total	38,0	211,4	285,2	297,9	348,7	442,0	501,9	690,7	929,8	1234,0
Including:										
Fuel mineral extraction sector	34,8	195,0	262,4	273,8	315,6	401,6	447,0	627,2	838,4	1118,7
Non-fuel mineral extraction sector	3,2	16,4	22,8	24,1	33,1	40,4	54,9	63,5	91,4	115,4

Compiled on the basis of: Российская Федерация в цифрах. М., 2010.

The renewal of the minerals resource base and its development on the basis of mineral resource complexes is of major importance for Russia. The economy of a great many regions and the country as whole substantially depends on the development of raw material industries. In 2007, commercial products of mineral processing industries accounted, in terms of value, for 37.8% in the common structure of the raw material industries. At the same time, the large mineral resource base prepared during the Soviet period has decreased considerably.

Those investment projects that initially provided for a minimum margin of safety will be terminated. The excess money in the market during its growth period promoted unsound investments and gave rise to marginal projects. Such projects are economically viable when the market is advancing but their margin of safety is very low. In the event of a slight slowdown in the market, they will face a default. In fact their termination is not bad as only those projects are to survive that are based not on market expectations but on the need to meet the actual demand of the economy in resources and production capacities.³⁷

The renewal of the mineral resource base and increase of capacities of mineral resource complexes form the foundation for development of natural source industries, which now needs strengthening. This process requires focusing efforts of the state and private investors on the strategic lines of development selected by the multiple factor analysis of regional features: geological, geographical, socioeconomic, and others. Based on the comprehensive study of the regional features and economic-geological zoning of the territory, 29 priority areas for the development of the minerals resource base have been chosen as economic development centers.

The choice of the economic development centers was caused not only by the availability of deposits of scarce, marketable, and strategic minerals but also by potentialities to develop mineral resource complexes, infrastructure, and socioeconomic basis. Projects for the development of mineral resource complexes are coordinated with state regional development programs and included in the draft *Concept of long-term socioeconomic development of the Russian Federation until* 2020.

Resource projects of strategic importance are aimed to ensure a reliable supply of raw materials and further development of industry and strengthen the country's economy. Building of new mining and processing enterprises is accompanied by the development of infrastructural facilities, creation of more jobs, and improvement of the social situation. This in its turn prevents the drift of the population from "problem" regions, which have a rich resource base of solid minerals, in particular from remote and border areas in Siberia and the Far East. 38

Mineral resources conservation is one of the aspects of the broader notion "geological environment protection". It includes the achievement of the most technically practicable and economically feasible recovery of minerals. The concepts of the mineral resources management and protection have undergone no changes in connection with the transition to the market conditions though certain difficulties have emerged. They are caused by different interests of the state and subsoil user, which are the most complete recovery of reserves and obtaining the maximum commercial effect from deposit mining.

World prices on all types of minerals are subject to substantial fluctuations with time. During the last 27 years, for example, the minimum and maximum gold and copper prices differed by a factor of about 3.5 and 4.6, respectively; the time amplitude varied from 2-3 to 5–8 years. The use of permanent quality requirements is inadmissible under such conditions.

To reduce excess profits when prices for a mineral rise sharply, it is highly advisable to use temporary quality requirements with a respective decrease in its cutoff grade and minimum economic content.

One of the problems frequently associated with a nation's rich resource endowment is alleged widespread corruption linked with the abuse and manipulations by the government officials in the mining sphere. African countries and Russia are often presented as possibly the worst examples of wide spread corruption.

However, this stereotype is not fully applicable in the field of natural resource management. While the Corruption Perception index of Transparency International for the Russian Federation continued to be quite negative in 2010, another important indicator, which refers to the level of transparency in research management, was among the best in the world.

The Russian authorities have made their country the world's third most transparent nation in the management of mineral resources, including the production of oil, gas, diamonds and gold. According to the Revenue Control Index, the most open nation is Brazil, followed by Norway. The least open is Turkmenistan. The main exporters of mineral resources, such Saudi Arabia, Qatar and Algeria, are also trailing the majority of the nations on the list.

The rating is compiled by Transparency International, a nongovernmental international organization to fight corruption and inquire into corruption rates the world over and the Revenue Watch Institute, an international centre for economic analysis. The research concentrates on the countries making open financial reports on the production and sale of mineral resources.

Almost all of the 41 countries on the list see the entrails of the earth as public domain, yet in many of these the general public is only vaguely aware of the way the authorities dispose of the national

wealth. True, openness alone cannot offer guarantees against inappropriate management of mineral resources, but it is nonetheless an important element of the corruption-fighting effort. Experts point out the importance of the Revenue Control Index and emphasize the fact that the oil and mining industries in the countries on the list account for 80% of their GDP. Russia has curiously moved to the third place in the world transparency ratings. The fact that Russia forms part of the leading troika in terms of transparency provides for certain preferences on the world market and is a signal that it is safe to invest in Russia.³⁹

The above analysis of the exiting situation in the African and Russian mining sectors shows that the efficiency of the use of their natural resource bases for the purposes of development depends in the first place on domestic policies. The latter form the local business climate for the growth of the industry in the long run. In this respect, like in many others, Russian experience and the African one are akin.

The main factors substantially affecting the expansion and development of the two natural resource bases (NRBs) are:

- the non-uniform distribution of reserves and mining/production targets within the territory of the country/continent;
- the dependence of the efficiency of the NRB development on infrastructure:
 - the impact of market conditions on deposits development;
- the concentration of most of the reserves of a great many minerals and their production in a small number of deposits;
 - the absence of the demand for a great many large deposits;
- the common remoteness of mining/ production targets from processing facilities and consumers.

Very large and large objects generally play a crucial and often defining part in the formation of the natural resource base (reserves) and its development (production). This feature is less pronounced for more widespread natural resources as despite a great number of their deposits/fields, which is typical of gold, crude oil, and natural gas, their medium and small deposits/fields play a relatively large role both in reserves and production.

2.3. Competitors or Partners? Russia's Role in Developing the Mineral Resource Base of Africa

For more than 50 years assistance in investigating and developing the mineral and raw-material resources of African, Asian and Latin American countries was an important sphere of the USSR's technical and economic cooperation with these states. Such cooperation began in early 1930s, when the then young Soviet state assisted its Southern neighbors to explore and develop their natural resource bases. The cooperation at that time was limited to the immediate bordering states – Turkey, Afghanistan, and Mongolia. African countries were able to establish such ties with the Soviet Russia only after achieving independence. The earliest bilateral agreements refer to 1950s; among the first to receive such assistance were Egypt, Ghana, Guinea (Conakry) and Mali.

In accordance with inter-governmental agreements signed with those states, USSR dispatched specialists to provide assistance in geological prospecting as well as to work at respective state agencies and companies. Soviet organizations also supplied special equipment and helped to set up national geological services, educational institutions and mining enterprises which constituted the basis of the state sector in the mining industries of young African states. The Soviet Union has made the emphasis on the assistance in the geological survey, thereby creating the foundation for their subsequent industrial development.⁴⁰

The Soviet assistance in the survey and development of mineral resources has been especially intensive in the Northern Africa. Relevant agreements have been signed with all countries in the region.

A systematic survey of mineral deposits on the territory of **Algeria** began soon after the two countries had started to cooperate. Under an inter-governmental agreement signed on December 27, 1963, Soviet geologists were dispatched to Algeria to implement a broad program of prospecting for ferrous, non-ferrous, rare and precious metals, rock products and other minerals. They rendered assistance in preparing and expanding the mineral raw-material base for such

metals as lead, zinc, mercury, antimony, tin, tungsten, iron, gold, as well as barium and rock salt.

Soviet organizations helped to reconstruct and enlarge Algeria's biggest lead and zinc mine in El Abadia. The ore mined was processed at the lead and zinc dressing factory also built with the Soviet assistance. In the Hoggar Upland new industrial deposits of tungsten, and tin have been discovered. Prospecting was completed of the already known Nahda (Launi) tungsten deposit, containing about 17,500 tons of tungsten trioxide.⁴¹

Antimony-polymetallic deposits have been surveyed near the already operating Hammam–N'bails mine, and in Northern Algeria rich mercury deposits have been discovered (Ismail, Mrasma, Guenicha, Fendek). On the basis of the Ismail deposit, a mining and metallurgical integrated plant was built in the beginning of 1973 with the Soviet assistance, its initial capacity being more than 300 tons of mercury a year. As a result, Algeria has become one of the leading producers of mercury. In the late 1970s, more than 1,000 tons of liquid metal was produced in the country annually, more than in any other African country. Mining in Ismail is opencast, and is continuously expanded.

In the Betna district Soviet geologists discovered and completed preparatory works for industrial development a deposit of high-quality barytic ores (about two million tons). In 1978, Soviet specialists discovered large deposits of iron ore, dolomites, etc. At the very end of 1979, copper was found in the North-West Sahara.

Close cooperation with the USSR has contributed to the consolidation of the state sector in the Algerian oil industry. The first Soviet oil experts arrived in Algeria at the end of 1963 to aid in studying and generalizing geological and prospecting materials, compiling programs, conducting geological survey, elaborating development projects and organizing protection of oil and gas deposits. Beginning with 1967, Soviet specialists have been working in the SOHATRACH–Algeria's biggest government company. Since 1971, it has been extracting and transporting gas and oil, controlling the survey and development of oil and gas deposits.

Soviet organizations supplied Algeria with drilling rigs capable of making the then deepest wells, as well as turbodrills, geophysical, seismic, geological-prospecting and other equipment. Many Soviet oil specialists were dispatched to Algeria to help commission and operate the machines and equipment supplied. In the second half of the 1970s, about a quarter of the entire amount of oil extracted in Algeria was pumped from wells drilled with Soviet equipment and with the assistance of Soviet experts. The increment of oil output in the country, after introduction of Soviet experts' recommendations, has amounted to at least five million tons.

Not long before the collapse of the USSR, SONATRACH with the assistance of Soviet organizations has expanded the network of oil and gas pipelines in the country. For this purpose Algeria had been supplied with Soviet pipelayers, bulldozers, excavators, etc. These machines were used in building the Beni Mansour – Algiers oil pipeline which was the first to be built independently by SONATRACH. The pipeline connects the port of Bejaia with an oil refinery near the capital, Algiers.

The range of functions performed by Soviet experts in the SONATRACH company was quite broad. Of great importance was the preparation of scientific treatises on the oil and gas geology of the Algerian Sahara and Algerian Atlas, that is, a comprehensive evaluation of oil and gas deposits in the entire territory of Algeria. Thus, since 1968 and till today a major part of oil and gas deposits in Algeria have been discovered on the basis of Soviet geologists' recommendations.

Soviet geologists have assisted in the elaboration of a program for the comprehensive development of the Algerian oil industry. It defined the real possibilities of increasing the mining of oil up to 1990 and the rational volume of oil survey.

The Soviet Union helped Algeria to set up the Central Combined Research Laboratory for the Survey and Development of Oil and Gas Deposits, equipped with the most up-to-date instruments. It included a technological innovation, unique for that times and then new even to many advanced European states – electronic computers,

which were to be operated by Algerian specialists. When in 1966 Algeria nationalized its mining industry and foreign specialists began to leave the country, Soviet geologists rendered assistance to Algeria in organizing the SONARM (Société Nationale de Recherche et d'Exploitation des Ressources Minières). Later, the Algerian government set up the Central Geological Base with chemical, spectral and mineral-petrographic laboratories equipped with Soviet-made equipment.⁴²

After the break up of the Soviet Union, the assistance to Algeria in the oil and gas industry has been provided in prospecting for new deposits, projecting their development, drilling wells and supervising survey.

The Algerian company SONATRACH signed an agreement in August 2007 with Gazprom Netherlands, a Gazprom subsidiary, to transfer the rights to explore and produce hydrocarbons in the El Assel area of the Berkine Basin. Gazprom holds a 49% share in the project. The area covers 3083 square kilometers. This came to be Gazprom's first hydrocarbon exploration and production project in Algeria. The partnership deal is wide-ranging. It covers the LNG business, "upstream asset swaps", and joint bidding for E&P and downstream assets in third countries.

In 2007, the term of the Memorandum of understanding between GAZPROM and SONATRACH expired, removing important legal support from cooperation in oil and gas extraction and production of liquid natural gas (LNG). Certain difficulties emerged in the course of interaction of SONATRACH and LUKOIL.

However, in 2009, Gazprom expressed interest in participating in the construction of a gas pipeline across the Sahara Desert that is due to link Nigeria and Western Europe and to cross Niger and Algeria. The estimated cost of building the 4128-km pipeline is \$13 billion. It is scheduled for completion in 2015.

It appears that the potential for cooperation with Algeria to define a common international market policy on natural gas has not yet been fully realized. In this regard, it is worth noting that in early 2009 Algeria supported Moscow in its gas dispute with Kiev. At the time, Algeria's Minister of Energy and Mining, Chakib Khelil, found

that the gas crisis between Russia and Ukraine was "commercial and not political." ⁴³

If they have the will, Russian oil and gas companies can look forward to significantly expanding their presence in the Algerian hydrocarbon production market as part of the plans of the Algerian state company SONATRACH to invest up to \$63 billion in developing the industry during the period up to and including 2012 using both Algerian funds and funds of foreign partners.

Soviet assistance to **Egypt** in exploring its mineral resources began soon after the signing in 1958 of a general agreement on economic and technical cooperation as a part of measures to develop heavy industry in the country whose mineral raw-material base had been investigated rather inadequately. The country mined small quantities of oil, phosphorites, manganese, polymetallic ores, soda, rock, salt and some other minerals.

Soviet oil experts provided assistance to the Egyptian General Petroleum Authority in geophysical and prospecting work for oil in the Suez Gulf area. In 1958, two new oil deposits were discovered with their help in the region of Bakra and Karim on the western coast of the Suez Gulf.

Soviet experts have reviewed the available geophysical materials on the northern part of the Western Desert with an area of about 200,000 square kilometers. On the basis of that work aeromagnetic surveys over an area of 184,000 square kilometers were carried out in western sectors of the desert in 1966–1968, and seismic and drilling work was conducted in accordance with the methods used in the USSR. Egyptian state agencies have been provided with elaborate materials about the geological structure of the territories surveyed, with evaluations of their oil reserves.

Soviet equipment has also been supplied to the Central Laboratory of Mineral Raw Materials in Egypt. Besides, Soviet organizations have supplied Egypt with 20 mobile laboratories for analyzing raw materials in field conditions.

An important aspect of Soviet experts' work in Egypt was prospecting for iron ore, the demand for which had considerably grown with the enlargement of the Helwan Iron and Steel Works up to 1.5

million tons. In the early 1960s, Soviet specialists helped to thoroughly charter an iron ore deposit in the Baharia Oasis in the Western Desert. Soviet geologists took part in prospecting for poly-metallic ores and alumina in the Eastern Desert along the Red Sea coast.

They also participated in prospecting work for rare metals deposits at Abu Dabbab and Nuwaiba, with the estimated amounts of ore reaching 40 million and 60 million tons, respectively, as well as comprehensive geological prospecting in the central part of the Eastern Desert, where the presence of more than 40 types of minerals was established: tin, tantalum, niobium, gold, etc. Mercury has been discovered in Egypt for the first time. In the Western Desert, Soviet geologists did preliminary prospecting for a big deposit of phosphorites at Abu Tartur.

The post-Soviet cooperation in the mineral resource sphere is concentrated around participation in infrastructural (transportation by pipelines of Egyptian natural gas to Syria and Lebanon) and energy projects. Russian private companies may also take part in prospecting for oil, gas and various minerals, applying modern Russian technologies, which have no analogues in the world. They may create joint ventures in oil and gas production and processing of byproduct gas. However, in this sphere they have such strong competitors as the Amoco of the USA and Agip of Italy, which dominate the Egyptian oil and gas market.

Among Russian energy companies LUKOIL and Novatek are the leaders in exploring Egypt's potential. The main LUKOIL project in Egypt is West Esch El Mallaha (WEEM, Red Sea coast). A concession agreement on the WEEM block was reached in 1993 and commercial launch was announced in January 1998. LUKOIL currently holds a 50 percent stake in the concession. Other parties to the concession agreement are the Egyptian state petroleum company EGPC and the Government of Egypt. Total WEEM oil production increased by 404% in 2002 to 363.8 thousand tons (compared with 72.1 thousand tons in 2001). Oil production forecast for 2003 is 535.3 thousand tons. The project has generated positive cash flow since May 2002, and income last year totaled \$14 mln. Proved reserves at WEEM are 4.4 mln tons.

The second LUKOIL project in Egypt is the Meleiha field development in the Libyan Desert, carried out jointly with Italian ENI-Agip. Residual field reserves are about 3 mln tons. Field production fluctuates between 600 and 700 thousand tons. Oil production forecast for 2003 is 656 thousand tons. The LUKOIL share in the concession is currently 12%. In July 2003 the Egyptian Ministry of Petroleum and LUKOIL signed a concession agreement on exploration of the Northeast Geisum and West Geisum off-shore blocks in the Suez Gulf. Seven promising structures have been discovered with total area of more than 175 square km. An exploration program is planned over 4 years, including 3D seismic work and drilling of 8 exploratory wells. The minimal initial investment program for exploration is \$27.8 mln. Exploration work on these new blocks will facilitate integration of infrastructures with nearby WEEM, giving a synergy effect. The amount of oil extracted and exported from Egypt by LUKOIL amounted to 600,000 tons, in 2009^{45}

In 2008, the second largest Russian gas company Novatek started exploration and drilling for gas in Egypt. One year before that it had bought 50% in a concession agreement for oil and gas exploration and development of the El-Arish offshore deposit from Tharwa Petroleum S.A.E. The other 50% are held by Egypt's Tharwa Petroleum. Financial details of the deal were not disclosed. The offshore block with an area of approximately 2,300 sq km (888 sq miles) is located along the Mediterranean coast to the north of the Sinai. Half of the block lies at depths of up to 50 meters (164 ft) with the remaining area reaching up to 500 meters (1,640 ft). The agreement provides for a minimum exploration period of four years, which will include geophysical studies and the drilling of two wells. Under the deal, Novatek, Russia's largest independent gas producer, can extend the exploration period to nine years if preliminary results require further study. The concession agreement provides for a 20year development period for each commercial discovery with a possible five-year extension. Until 2010, Novatek remained a relatively small player inside Russia, with only 4% of country's gas production and a geographically concentrated reserve base. Gazprom holds

a 19% stake in Novatek, which gives the state-controlled energy giant some influence on the company's strategy. However, since the end of 2010 its positions began to expand due to the government drive to support competition on domestic markets. In 2009, Novatek achieved what international analyst called "one exciting success" by getting both the green light and the backing to proceed with projects ahead of schedule, beginning operations for two wells in 2009 instead of the scheduled 2010⁴⁶.

The interest in Egyptian energy resources markets was manifested by two other Russian giants – GAZPROM and Stroytransgas. The latter completed in 2010 construction of a leg the Arab Pipeline, which brings gas from Egypt to Syria and Lebanon.

As for other branches of mining, in 2009, Russia signed a cooperation agreement with Egypt in the exploration and mining of uranium.

Soviet-Libyan economic, scientific and technical cooperation played an important role in the development of the oil and gas deposits in **Libya**. Beginning with 1979, Soviet and Libyan organizations have been successfully cooperating in drilling work on the Sarir deposit, Soviet organizations have evolved the General Scheme for the Comprehensive Development of the Libyan Gas Industry up to the Year 2000, They have also started construction of the Marsa el Brega – Misurata gas pipeline stretching for about 570 kilometers.⁴⁷

In August 2009, the company Tatneft began commercial oil production in Libya. In all, Tatneft has signed four contracts in Libya for oil production on a production sharing basis in areas covering a total of 18 thousand square kilometers. Two exploration wells were drilled in Area 82-4 in Lybia with commercial oil flows received. Drilling of the first exploration well was started in Area 82-1. 48

In 2009, Gazprom and the Italian energy company Eni agreed on terms for the Russian company to join the Libyan project Elephant. Libya has not objected to Gazprom's inclusion in the project for development of the Elephant oil field, in which Eni is participating on an equal basis with its Libyan partners. Thus, Gazprom has acquired half of the Italian stake in the project.

The agreement was finally signed during President Medvedev's visit to Italy in 2011. The document paves the way for the future handover to Gazprom of the 50% of Eni's stake (33,3%) in the consortium developing the Elephant oilfield in Libya, located in Libya's south-western desert some 800 km from Tripoli. The value of the stake to be handed over by Eni to Gazprom is around 170 million dollars. The agreement was still to be signed in the competent sees and then submitted to the approval of Libyan authorities. Weeks later severe unrests disrupted all oil production in the African country. The US and its allies introduced economic sanctions against Libya. The developments in Lybia in early 2011 made the prospects of bilateral cooperation unclear.

The mining industry of **Morocco** plays an important role in the country's economy as a source of currency incomes. The extraction of phosphorites and lead and zinc ores are the main sub-sectors of the national mining industry. Morocco's economic development plans devote much attention to the expansion of the mineral raw-material base, particularly, to the mining of phosphates and non-ferrous and rare metals. The Soviet Union helped to implement those plans beginning from 1967. Soviet specialists carried out extensive and fruitful theoretical and practical work in Morocco and participated in compiling a program of geological prospecting for oil and gas.

Besides, Soviet experts have made recommendations on comprehensive geological research on the rare metal deposits in Azegour and Djebilet and given preliminary evaluation of a deposit of combustible shales. As a result of prospecting work conducted with the Soviet assistance in the southern part of Morocco, in the Bou-Azzer district, new industrial deposits of metallic ores have been discovered. The reserves of cobalt in this region are estimated at 13,000 tons of metal in ore. Thanks to a discovery of new deposits of the valuable raw material the mining of cobalt in Morocco, which diminished in the late 1960s, has been restored to its former level.

Recommendations drawn up by Soviet geologists on the basis of their research work make it possible for the Moroccan state organization "Bureau de Recherches et de Participations Minieres" (BRPM) to better plan prospecting work for solid minerals, singling out more promising fields. In March 1978, a long-term intergovernmental agreement on economic and technical cooperation in the filed of phosphates mining was signed, which was called a Deal of the Century.

Under the agreement the Soviet Union was to take part in the development of the Meskala deposit whose reserves were estimated at 8 to 10 billion tons of phosphorites. The initial productivity of the mine – two million tons of marketable ore; the designed productivity – 10 million tons. The development of the Meskala deposit proceeded on a compensatory basis, on "turn-key" terms.

In the post-Soviet period, the relations between the countries were stable though cooperation in the mining sphere was reduced to practically zero level. However, by 2005 Russia became number one oil supplier to Morocco, replacing Iran. President Putin's visit in 2006 gave grounds to expect that such cooperation may be renewed on a new level. During that visit an agreement on cooperation in the nuclear sphere has been signed, which envisages construction of the first nuclear power plant in Morocco. Most likely the phosphate deposits will become the resource base for the nuclear fuel production. According to an International Atomic Energy Agency study, the country has expressed an interest in recovering uranium from phosphate rocks during fertilizer production. The total uranium reported as unconventional resources, contained in Morocco's phosphorite deposits in amounts to about 6526000 tU. 50 Russian specialists from "Atomredmetzoloto (ARMZ) Uranium Holding Co" consider these figures to be a conservative estimate of the nation's existing unconventional uranium resource base.

On the territory of **Sudan**, one of the biggest African countries, Soviet experts have assisted in conducting a gravimetric survey of the Red Sea Mountains covering an area of 130,000 square kilometers and aeromagnetic survey over an area of 100,000 square kilometers. Surface geological survey was conducted in some areas, where new deposits of iron, manganese, gold, gypsum and other minerals were found.

In the post-Soviet period Russia's cooperation with Sudan was minimal. In 2001, it was announced that a Russian-Belarus oil com-

pany "Slavneft" would join a consortium of oil companies to prospect for oil in Sudan. The move was part of the Sudanese government's effort to diversify the oil industry and open it up to all investors. It was planned that "Slavneft" would operate in northern and central Sudan in the Melut basin, and would start work by December 2001 According to the Sudanese "Wiqalat Anba' as-Sudaneeya", the joint USD 200 mln worth project envisaged that Slavneft would invest \$180 million into the 126,000 square kilometer potential oil field, while the Sudan Petroleum Company (Sudapet) was expected to provide the remaining \$20 million. Exploration was expected to begin in March or April 2002.⁵¹

The agreement with "Slavneft" was part of Sudan's plan to double its oil output by 2006. At that time Sudan produced over 81.9 million barrels of oil annually and was striving to reach 146 million barrels per annum, because based on exploration completed by that date, Sudan's proven reserves of crude oil were estimated at about 270 million barrels. But only eight months after it had signed a 25-year agreement for the exploration of oil and gas in Block 9, in the centre of the country "Slavneft" announced that it was pulling out of Sudan. ⁵² The decision was rumored to have been connected with the rapid expansion of Chinese oil business in the country and the privatization of "Slavneft" in 2002. The new private owners were allegedly afraid of negative reactions in the west to the company's activity in Sudan, and possible repercussions in other parts of the world for the private company now belonging to them.

A typical feature of Soviet-African cooperation with the countries of Sub-Saharan Africa in the mining sector was the predominance of preliminary and early stages of exploitation of the mineral resources (regional geological surveys, chartering, geophysical, geochemical investigations, etc.). This could be explained by a very poor knowledge and level of exploration of the regions where Soviet geologists operated. At the same time, just as in North Africa, a number of countries receive allround assistance at all stages of geological prospecting, as well as in the development of mineral deposits.

An example is the cooperation with **Guinea** (Conakry) in developing bauxite deposits which play a major role in country's long-

term economic development. The nation possesses the world's richest bauxite deposits. However, more than three-quarters of all bauxites have been obtained on the basis of the Guinean government's joint participation with foreign capital.

In the first years after gaining independence geological work has been conducted in Guinea by foreigners alone. During the period of Soviet-Guinean cooperation a Polytechnics Institute has been opened in the country and Guinean specialists have gained a wealth of experience in geological work. In 1971, the Guinean National Geological Organization decided to ensure the necessary conditions for organizing work to explore the country's mineral resources. Soviet organizations were assisting Guineans in this field; *inter alia*, by setting up the Central Geological Laboratory.

The country's first national mining enterprise was the Kindia mine with a capacity of 2.5 million tons of bauxites a year, built with Soviet assistance on a compensatory basis. All units of the complex (mine itself, railway stretching for 100 kilometers, loading and unloading installations in the port of Conakry, workers' communities, etc.) have been financed through Soviet credits.

A considerable part of bauxites mined there was purchased by the USSR as a form of repaying the credits granted to Guinea, and also under a trade agreement. As a result, Guinea's capacity to repay its debt and to buy commodities in the East were broadened considerably. This cooperation was to mutual advantage. The Soviet Union now had stable source for importing bauxites used in the production of aluminum and abrasives.

The financial scheme was developed by the Soviet *GKES* specialists and customized to meet the requirements of the Guinean side. Curiously enough, as many other ex-Soviet know-hows, this very scheme is currently used by China in its business dealings with African economic partners. Western analysts call it now "Angola model" and many believe it to be an innovative Chinese invention⁵³. They call it "Angola model" because PRC used the scheme in order to finance the delivery of oil from that country. Since 2004 Angola received US\$5 billion worth of Chinese loans for delivery of oil to China. The model was also used in a US\$9 billion contract with the

DRC to extract copper and cobalt in return for the construction of roads, hospitals, schools and the rehabilitation of two major mineral deposits.⁵⁴

As in the Soviet-Guinean case the financing scheme envisages the repayment of a loan through the exporting of natural resources. In modern cases, China allocates loans for infrastructure projects and is granted the exploitation of mineral resources in return. The EXIM Bank uses the scheme when confronted with countries that cannot provide adequate collateral to their loan commitments. Instead, a framework agreement is signed. The EXIM Bank provides finances to a Chinese construction company that works for the beneficiary government. In exchange, the government renders some oil or mineral concessions to Chinese extractive companies that service the debts to the EXIM Bank.

The identity of the Soviet and Chinese financing schemes becomes obvious from the visual presentation of the so called Angolan model in one of the World Bank publications (see Fig. 2.3.1).

The assistance to Guinea in exploring its mineral resources since 1960 has been broad and varied. Geological surveys have been made over a territory of 30,000 square kilometers. As a result, deposits of limestone and various building materials have been discovered. One of them, near the border with Mali, could supply raw materials to a plant producing up to 200,000 tons of cement a year. Soviet geologists took part in surveying new bauxite-bearing regions in Guinea. Promising deposits have been discovered. Technological and economic recommendations were compiled for the construction, on a compensatory basis, of a second national enterprise on the mining and processing of bauxites in the district of Goual, with a capacity of four to six million tons of bauxites a year.

Private companies that replaced USSR state owned entities took over the former Soviet inheritance. One of them, Moscow-based "RUSAL" corporation is the largest foreign employer in Guinea with 2,300 people working at various locations. It relies on the African nation for 40 percent of its bauxite needs. The aluminum producer has said it plans to invest \$5.5 billion in a new mine there, Dian Dian

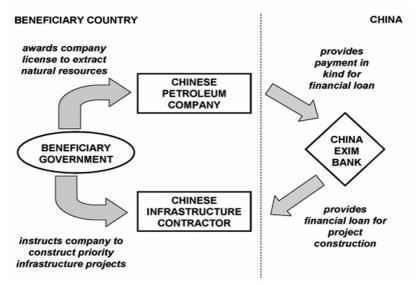


Fig. 2.3.1. The "Angolan model (mode)" investment and export financing scheme.

Source: Foster V., Butterfield W., Chen C., Pushak N. Building Bridges. China's growing role as infrastructure financier for Sub Saharan Africa. World Bank, Washington, D.C. July 2008. P. 43.

In May 2001, Compagnie des Bauxites de Kindia (CBK) was transferred to RUSAL for a 25-year term. The CBK mining complex develops one of the world's largest bauxite deposits. The design capacity of the complex is 3.1 mln tonnes of bauxite per annum. CBK includes the Debele mine, a railway, a mine port and a repair centre. Over 2 mln tonnes of bauxite are delivered to the Nikolaev alumina refinery, while over 500,000 tonnes are supplied to other locations. CBK employs 915 people there.

In April 2006, RUSAL and the Government of Guinea have reached an agreement on privatisation of the refinery. The estimated capacity of this refinery is 640,000 tonnes of alumina and 1.9 mln tonnes of bauxite per annum. The management of the Alumina Company of Guinea (Friguia Refinery) was taken over by RUSAL

for 22 years in 2002 Friguia refinery is one of the largest employers in Guinea with 1,099 people. The volume of the bauxite reserves under exploration has reached 35 mln tonnes; the volume of the explored resources is 361 mln tonnes. The refinery's infrastructure includes a 160 km long railway network used for transportation of products, raw materials and fuel.

In 1978, a Soviet geological expedition started prospecting for bauxites in **Guinea-Bissau**. After completing prospecting work and evaluating reserves, Soviet organizations produced technical and economic substantiation for the development of the deposit, with an account of Soviet assistance to be given on a compensatory basis.

The **Republic of the Congo** (Brazzaville) was another country of Tropical Africa where cooperation in the field of geological prospecting also resulted in the industrial development of the prospected deposits of minerals.

Soviet geologists carried out surveys in the middle reaches of the Hiari River, where rich deposits of zinc and lead ores were mapped out, and also gold placers and other minerals found. Assistance was rendered on a compensatory basis in the industrial development of the prospected deposits of polymetallic ores in Gengile estimated at 300,000 tons and gold placers in Sunda Kakamoeka. In the vicinity of these deposits a state ore-dressing enterprise in M'Vouti and a gold mine have been built. The ore-dressing enterprise in M'Vouti was the first in the country. Its rated capacity is 30,000 tons of lead concentrate a year.

Prospecting of another deposit of polymetallic ores in Yanga Kibenga was completed not long before the break up of the USSR. The exploitation began after the Gengile deposit had been depleted. According to preliminary estimates, its reserves amount to 2.1 million tons. Its development made it possible to obtain a considerable quantity of valuable raw materials, Soviet-Congolese cooperation in investigating the natural resources of the People's Republic of the Congo continued even after the demise of the USSR with Russian geologists doing prospecting work in the Boko-Singo region.

Prior to the coup of February 24, 1966, the Soviet Union had been providing broad assistance to **Ghana** in chartering its mineral

and raw material resources. Soviet experts had conducted geological surveys and prospecting work over a territory of 30,000 square kilometers, hydrogeological research in the country's north, discovered deposits of manganese and iron ore and gold placers. Carbonate deposits had been found in a number of regions, which are the initial raw materials for the production of Portland cement. Several bauxite deposits had also been discovered.

In December 2010, LUKoil, Russia's largest independent oil producer, has held top-level meetings with representatives from three West African states, as a part of a \$9 billion overseas investment program. The president of LUKoil Overseas, Andrei Kuzyayev, met Ghana's energy minister, Joe Oteng Adjei, for discussions about the expansion of the company in Ghana, including the development of new projects. After leaving Ghana, Kuzyayev held talks in the capital of Sierra Leone, Freetown, and LUKoil Overseas senior vice president Dmitry Timoshenko visited Liberia's capital of Monrovia. 55

An overseas investment program of LUKoil envisages investing \$3 billion each year in projects outside Russia from 2011 through 2013. Africa is believed to occupy a significant place in these investments. As a private oil company competing against state-run monoliths, LUKoil has limited access to new Russian resources and is therefore forced to diversify abroad in order to spread the risks of working in Russia. In partnership with the U.S. company Vanco Energy, LUKoil is currently working on two projects in the Gulf of Guinea – the Cape Three Points Deep Water block in Ghana and CI-401 in **Ivory Coast** waters. The blocks are a part of the Tano oiland-gas basin and cover some 15,000 square kilometers of deep water. LUKoil is eyeing Sierra Leone and Liberia, which have significant, largely untapped offshore oil reserves. LUKoil's potential resources in the area currently consist of up to 35 million barrels. The company said in September 2009, that it might have more petroleum in West Africa than in West Siberia. Moreover, LUKoil's drilling experience in the deep West African waters is unique. Acquiring expertise in working on continental shelves at any depth may be a way of gaining the edge in domestic Russian competition for new

licenses. They are the only Russian company who are working offshore at such depths. LUKoil also works in the Caspian Sea. Although Russian continental shelves are not as deep as the West African one, LUKoil is gathering very useful experience for future drilling operations.⁵⁶

The Soviet Union's assistance to the **Republic of Benin** in investigating its natural resources included laboratory research of samples of non-ferrous and rare metals-copper, lead, zinc, molybdenum, cobalt, nickel, chromium, tungsten, niobium, lithium, etc. Soviet specialists undertook geological prospecting and surveying work for solid minerals in that country. They were helping to compile the first geological map of Benin, which made it possible to study further the republic's natural resources.

Considerable aid in prospecting for minerals has been given to the Republic of **Mali.** During the colonial period no geological investigations had been conducted there. After the signing of an agreement in 1961, an important aspect of Soviet-Malian cooperation was Soviet assistance in geological surveying and studying mineral resources in Mali.

The first stage of the investigations consisted in aero-magnetic surveys over an area comprising about three-quarters of Mali's territory. Geological prospecting for cement, combustible shales, iron ore, gold, etc., has been carried out. As a result, in the Bafoulabe-Kai regions in the southwest of Mali deposits of high quality limestone have been discovered, estimated at 18.5 million tons, as well as clays and silica, necessary as additions in the production of cement. On the basis of these deposits Mali's first cement factory was built in 1969. Prospecting for combustible shales in the Agamor-Bourem-Islufen regions in the north-east of the country made it possible to reveal their resources comprising, according to preliminary estimates, up to 800 million tons.

An important stage in preparing conditions for the development of a mineral and raw-material base in Mali has been the organization in 1969 of the National Society for Prospecting and Exploitation of Mineral Resources (SONARM) whose production and technical foundation was created with Soviet help.

The discovery of gold deposits in the Kalana region made it possible to organize its industrial development and continue geological prospecting for gold in the region. The Kalana concession covers an area of some 387.4 sq. km. in South West Mali and includes in the Northern parts of the concession the Kalana Mine covering a surface area of 2 sq. km. The concession permit was transferred to AGL on 30 December 2003 and confers the right to exploit and explore for precious and base minerals for a period of 30 years and renewable thereafter so as to be co-terminous with the life of any mine on the concession area, which is unusually favourable in Mali. It is believed that the permit in respect of the concession area is one of two on these terms.

The concession and in particular the Kalana mine was thoroughly explored in the period 1962-1982 by two Malian National companies, SONAREM and SOGEMORK, as part of a Soviet Technical Assistance Program to Mali. A production decision was taken in 1982 to develop the Kalana mine as a small underground mine using a process flow sheet based on crushing, milling and gravity concentration. Production commenced in 1985 and over the following six years until 1991 a total of 270,000 t were treated at an average head grade of 12.9 g.t to product 2,534 kg of gold. With the break up of the former Soviet Union in 1991 Soviet personnel as well as technical and financial resources were withdrawn and the Kalana mine was placed on care and maintenance. The Kalana concession was held by AGL under permit no. 03147/PM/RM dated April 7, 2003 ("the permit"). In accordance with the Foundation Agreement concluded with the Government of Mali the permit was transferred to a Malian company, SOMIKA SA, a 80% subsidiary of AGL.

The permit was originally granted to SOGEMORK in 1984 and after the dissolution of SOGEMORK in February 1992 following the Soviet withdrawal the permit reverted to the State.

In 1994 the Malian Government embarked on a privatisation program with the assistance of the World Bank. As part of that program the Malian Government launched an international call for tenders for the Kalana concession. The invitation to tender stipulated

that the main aims were inter-alia the re-starting of the existing gold mining operation at the Kalana mine and the exploration for further resources in the Kalana concession.

In February 1995 a joint venture of Ashanti Gold Fields Co. Ltd. ("Ashanti") and Johannesburg Consolidated Investments Ltd. ("JCI") was awarded the tender and therefore the right to acquire an 80% interest in the Kalana concession with the Government of Mali holding a 20% carried interest. Ashanti was to be the operator of the Kalana concession. JCI withdrew from its joint venture with Ashanti in 1996 and in 1997 Ashanti mandated Rothschild Natural Resources LLC (Washington DC) to seek a suitable mining company to develop, operate and acquire a majority interest in the Kalana concession. Exploration of the Kalana concession commenced in February 2004.

Referring to the prospects in 2010–2015, it will be possible to carry out a number of joint mining industry projects with Mali. However, they will only become possible after security in the country has improved; the country is targeted quite regularly by militias of Al-Qaeda in the Islamic Maghreb operating in the region. But again, this condition can be satisfied through the expansion of bilateral and multilateral ties in the fight against terrorism and in military-technical cooperation.

The first agreement between the USSR and **Nigeria** on cooperation was signed on November 21, 1968. In June 1970, an intergovernmental protocol was signed which envisaged rendering technical assistance to Nigeria in geological prospecting for metallurgical raw materials, in setting up educational centers for the training of skilled personnel for heavy industry, particularly, for the metallurgical and oil industries.

In accordance with these documents Soviet specialists have carried out a broad range of research which enabled them to reach a conclusion about the expediency of building a metallurgical plant in that country. The first stage of that work was a search for promising regions for prospecting for iron ores. As a result of aerial surveys over an area of 194,800 square kilometers and the subsequent aeromagnetic survey of 70,000 square kilometers it was found that the

most promising region for prospecting for iron ore was Okene-Lokoja. Geological prospecting work carried out by Soviet and Nigerian specialists shows that overall coal reserves amount to approximately 320 million tons.

Later, on the basis of these deposits of iron ores and coking coal the largest steel plant in Tropical Africa was built in Ajaokuta, with a capacity of 1.3 million tons of steel a year. Simultaneously, a training complex consisting of a specialized secondary technical school for 675 students and a vocational centre with a total number of 1412 trainees is being set up. The complex was planned to train specialists in the production of pig iron and steel, agglomeration and caking of ore. The Soviet foreign-trade organization "Tsvetmetpromexport" built, during the 1979–1980 period, two systems of oil pipelines stretching for more than 900 kilometers. One of them was commissioned in 1979, which made it possible to increase oil products deliveries to the towns of Benin, Ore and Lagos. Since 1978, the Oil Institute in the town of Warri has been graduating specialists for the oil industry – one of the leading branches of the Nigerian economy.

In March 2009, a memorandum of understanding (MoU) was signed by Russia's Rosatom Deputy Director General Nikolay Spassky and Special Adviser to the Nigerian President Emmanuel Egbogah, in Moscow during the third meeting of the Russian-Nigerian Intergovernmental Commission on Economic and Scientific Technical Cooperation recently.

The agreement for cooperation in the peaceful use of nuclear energy includes the construction of nuclear power plants and establishment of uranium mining in Nigeria.

Rosatom said that the MoU could lead to bilateral cooperation on the development of nuclear energy infrastructure, including on nuclear power plants and research reactors in Nigeria. Russia would also assist Nigeria in the field of nuclear research and in the production and use of radioisotopes. The memorandum also covers the joint prospecting and development of uranium deposits in Nigeria.

The two countries will draft a full intergovernmental cooperation agreement soon. To solve the increasing electricity demand, Nigeria has sought the support of the International Atomic Energy Agency to develop plans for up to 4000 MWe of nuclear capacity by 2025. Nigeria is Africa's most populous country and its power demand is expected to reach 10,000 MWe by 2007 – current grid-supplied capacity is 2600 MWe.

In 2009 Gazprom and the Nigerian Oil Corporation (NOC) signed founding documents to create a joint venture for exploration and production of oil and gas. Gazprom plans to invest \$2.5 billion in the project. It has something worth fighting for–Nigeria has the world's seventh largest reserves of natural gas–5.2 trillion cubic meters. It has already been announced that as part of the joint venture Gazprom will participate in a tender for development of two of the three largest gas fields in Nigeria.

Russia's GazpromNeft, the Ministry of Mines, Industry and Energy of Equatorial Guinea and the national oil company of Equatorial Guinea GEPetrol signed a production sharing agreement (PSA) for two offshore exploration blocks. The contract may lead to the implementation of GazpromNeft's first offshore drilling project. According to the PSA, during the exploration period GazpromNeft will hold an 80 percent stake in the joint project. The share of GEPetrol will be 20 percent. As the operator of the project, GazpromNeft is to fulfill necessary financial obligations, including state bonus payments, purchasing seismic data, as well as carrying out a compulsory geological survey. GazpromNeft intends to start its exploration activities and begin the formation the managing body of the project until the end of this year. The two offshore blocks are expected to amount to some 110 million tonnes of oil. The first exploration wells of the each block may be drilled within two years after the agreement signed. The exploitation period for oil is 30 years, for gas it is 35 years. Signing the production sharing agreement with Equatorial Guinea allow GazpromNeft to strengthen its presence in West Africa. Joining the project in Equatorial Guinea will significantly extend the company's abilities in the sphere of underwater drilling and will permit the company to improve the management skills of offshore projects, and in the future – to set up the oil production spot in West Africa".57

Senegal is an African country where Russian presence in the mining and prospecting sphere in not very pronounced. At a request of the Senegal government Soviet geologists surveyed in 1971–1973 en area of 2,000 square kilometers in Eastern Senegal and prospected for gold in the area between the Paleme River and the Gambia River, and for gold placer deposits in the middle reaches of the Paleme River; two promising deposits were discovered – Sabodala and Kerekunda.

Along Senegal's Atlantic coast black sands can be found bearing titanium minerals. However, due to depletion of many deposits, the government of Senegal contracted Russian company "Tsvetmet-promexport" to investigate coastal sands more thoroughly. The materials presented to the Senegal government point to the expediency of mining and processing titanium-bearing sands.

With a view to creating requisites for the development of the mining industry the government of **Tanzania** has drawn up a program of a systematic exploration of natural resources. In the early 1970s, with the participation of Soviet specialists, geological surveys were carried out over an area of 42,000 square kilometers, maps were compiled and prospecting work was conducted for gold, lead, zinc, copper and other solid minerals in the Luna and Mranda regions, which provided a basis for planning further geological work.

In the last years of its existence the Soviet Union participated in geological work in Angola, Mozambique, Madagascar, Ethiopia and other countries, which allowed to carry some of the results into post-Soviet bilateral cooperation.

For example, with regard to current facilities, it can be said that in the 2000s development of **Angola's** diamond deposits has become one of the main areas of economic cooperation. The country has successfully operated the Katoka and Luo diamond mines with the involvement of the Russian company ALROSA; joint exploration of the Kakolu deposit is underway.

In **Botswana**, Norilsk Nickel acquired 85% shares of Tati Nickel as a result of the LionOre Mining International Limited acquisition on 28 June 2007. The Botswana government owns the remaining 15% in Tati Nickel. Tati Nickel includes the Phoenix open

pit nickel mine and the Selkirk underground nickel mine, which put on care and maintenance.⁵⁸

Table 2.3.2. Norilsk Nickel interests in Southern Africa

Region / Category	Deposit	Ore type	Ore tonnage	Metal Grade			Contained Metal		
				Ni	Cu	4PGM	Ni	Cu	4PGM
			'000 tonnes	%	%	g/tons	'000 tonnes	'000 tonnes	'000 ounces
BOTSWANA	BOTSWANA								•
Selkirk depos	it								
Measured and indicated mineral resources (resources)			124,000	0.23	0.27	0.57	285	335	2,272
Probable mineral resources (resources)			11,300	0.27	0.3	0.56	30.2	34.3	203
Phoenix depo	sit		•		•	•	-	-	
Probable ore re	Probable ore reserves			0.22	0.18		245.6	206.8	
Measured and indicated mineral resources (resources)		208,900	0.21	0.19		435.1	391		
Probable mineral resources (resources)			9,000	0.23	0.2		20.8	18.3	
SOUTH AFRICA									
Nkomati deposit									
Proven and probable ore reserves		159,092	0.32	0.12	0.83	509	191	4,245	
Measured and indicated mineral resources (resources)		249,480	0.34	0.14	0.87	848	349	6,978	

The Phoenix mine is located 35 km east from Francistown (the second largest city in Botswana, located in the north east part of the country). This open pit mine is built on a sulfide deposit of copper and nickel ores. The Phoenix open pit mining operations started in 1995 and include the concentrator which processes ore mined using the traditional flotation technique. The concentrator capacity is 5 million tons of ore per year.

The Selkirk mine is located 15 km from the Phoenix mine and the underground mining operations began in 1989. In 2002, the un-

derground mine was put on care and maintenance due to the depletion of copper and nickel ores accessible for underground mining. As the Selkirk deposit also contains disseminated ore reserves, a feasibility study is now being prepared for the open pit mining of these reserves and test operations are run.

Tati Nickel concentrates are processed on a tolling basis by the BCL smelter located in 200 km from Phoenix. BCL's high grade matte produced from the Tati concentrates is delivered for further processing into refined metal to customers. Currently, the first stage of dense media separation plant (DMS) project is operating on the Tati Nickel site.

In 2009, the Tati Nickel produced nearly 17,500 tons of nickel in concentrate. (See production history on a 100% basis in Table 2.3.3.)

Saleable metal	2009	2008	2007	
Nickel (metric tons)	17401	20769	20861	
Copper (metric tons)	13352	13297	12908	
Platinum ('000 ounces)	17	19	24	
Palladium ('000 ounces)	100	95	152	

Table 2.3.3. Tati Nickel production history

In **South Africa**, Norilsk Nickel acquired 50% interest in the Nkomati joint venture as a result of the LionOre Mining International Limited acquisition on 28 June 2007. The remaining 50% is held by African Rainbow Minerals (ARM) – a leading mining company in South Africa. Nkomati is located 300 km east of Johannesburg in the South African province of Mpumalanga and is the only primary nickel producer in South Africa. It also mines other byproduct metals, such as copper, PGMs and chromium.

The Nkomati deposit includes several ore bodies, the key ones being the rich sulfide ore body (ore with high nickel content, with reserves currently depleted) and the Main Mineralized Zone which contains significant volumes of disseminated ores with lower metal grades. The Main Mineralized Zone opens new production opportunities following the depletion of the rich sulfide ore body reserves in mid 2007. The

deposit also contains a Peridotite-Chromite Mineralization zone with lower metal grade as compared to the Main Mineralized Zone.

The extracted ore is processed at own concentrator using the traditional sulfide flotation technology with a capacity of 320 thousand tons of ore per annum. The plant produces up to 5,500 tons of saleable nickel concentrate per year.

In 2009, the Nkomati produced more than 3,000 tons of nickel in concentrate (see Table 2.3.4. describing Nkomati production history on attributable basis – 50% share of Norilsk Nickel)⁵⁹.

Saleable metal	2009	2008	2007	
Nickel (metric tons)	3005	2642	2072	
Copper (metric tons)	1436	1347	1195	
Platinum ('000 ounces)	3	5	5	
Palladium ('000 ounces)	11	13	14	

Table 2.3.4. Nkomati production history

Evraz Group S.A. has increased its stake in South Africa's Highveld Steel to 54% after purchasing a 29.2% interest in the vanadium producer from Anglo American for \$238 million. In 2006, Evraz Group, one of Russia's largest steel and mining companies, and Credit Suisse bought 24.9% each in Highveld Steel and Vanadium Corporation Limited from Anglo American plc. mining group, the company said in a statement. Evraz had an option to purchase Anglo American's remaining 29.2% shareholding as well as the 24.9% holding of Credit Suisse once regulatory approvals were received from the anti-monopoly authorities in South Africa and the European Union. Under the terms of the clearances granted to Evraz in February and April 2007 by the European Commission and antitrust authorities in South Africa, Evraz has committed to divest certain vanadium production facilities and related assets, the statement said. The deal will enable Evraz Group to turn into a global vanadium producer, the statement said.

With its stake in the vanadium producer augmented to 54%, Evraz is required under South African law to make a mandatory general offer to all Highveld shareholders once its ownership position has exceeded 35%. The offer will be made within the next 30 calendar days, the statement said. Strategic Minerals Corporation, part of the Evraz Group, is one of the world's leading vanadium producers and suppliers of vanadium alloys and vanadium chemicals. These vital ingredients, sold under the Stratcor® trademark, are used by the steel, chemical, titanium, and turbine-coatings industries to improve their products and/or processes.

Among Stratcor® vanadium products used by the STEEL industry are ferrovanadium and VanoxTM vanadium. Stratcor® products used by the TITANIUM industry include vanadium-aluminum and a complete line of master alloys. Stratcor® vanadium chemicals and vanadium catalysts used by the CHEMICAL industry include vanadium pentoxide (V2O5), ammonium metavanadate (AMV), vanadium trioxide (V2O3), vanadium oxytrichloride (VOCl3), vanadium tetrachloride (VCl4), and specialty vanadium catalysts and vanadium chemical products.

In Namibia, in 2008, Russian company "Atomredmetzoloto (ARMZ) Uranium Holding Co". together with VTB Capital Namibia (Pty) Ltd. and Arlan Invest Holdings established a joint venture SWA Uranium Mines. ARMZ owns part of the project via RUNEX Uranium (Pty) Ltd., a daughter company formed on a parity basis with VTB Capital Namibia (Pty) Ltd. ARMZ, part of the Rosatom state nuclear agency, is the world's fifth largest uranium producer has most of its operations in Russia and Kazakhstan, and it is in the midst of expansion drive as it seeks to tap growing demand for the nuclear fuel.

SWA Uranium Mines' stated goal is to prospect for, discover and develop new types of uranium mineralization, primarily those relating to sandstone mineralization amenable to in situ recovery.

Two licenses have been granted to SWA Uranium Mines – EPL 3850 and EPL 3851, and exploration work in on-going on the properties. Electromagnetic probing and gamma soil logging of licensed properties along the span of over 60 miles were performed in 2008.

The results of field work completed in 2008 points to potentially prospective uranium mineralization structures in the South-Eastern

and Eastern parts of the EPL 3850 property. This, in turn, has allowed SWA Uranium Mines to target priority areas for exploratory drilling.

ARMZ Uranium plans to acquire Mantra Resources for \$1.15 billion in cash to add to its portfolio of African uranium assets, Australia-based Mantra. Its board recommended that shareholders accept ARMZ's bid. Mantra's principal asset is the Mkuju River Project in Tanzania, which holds 101.4 million pounds of uranium. It is believed to be a world class deposit. ⁶⁰

In May 2010, and his Namibian president Hifikepunye Lucas Pohamba paid an official visit to Moscow, where he held fruitful talks with President Dmitry Medvedev on strengthening cooperation between the two countries. The leaders signed a memorandum on cooperation in exploration and development of Namibian uranium deposits. The document stipulates opportunities for creating joint ventures in exploration, development and processing of uranium ore as well as uranium enrichment. The memorandum is effective for five years and may be automatically prolonged. "In the course of the negotiations the the possibilities of expanding the Russian investment participation in the major projects in Namibian economy, including developing of the mineral resources, hydrocarbon raw material, development of electro-energetics, collaboration in the region's fishing industry, transport, tourism, in the humanitarian sphere were analyzed.

According to the head of the Russian State Atomic Energy corporation Sergei Kiriyenko, Russia is ready to invest some \$1 billion in developing the deposits.

Russian state gas and oil giant Gazprom in cooperation with Namibia's Namcor company may head a consortium to develop a large gas field in Namibia. Besides that the Namibian government has proposed Gazprom to build an electric power plant in the country which will process the produced natural gas into electricity.

The large layer of natural gas is investigated. Though the project cost may exceed \$1 billion, the management of Gazprom finds the costs reasonable. It is expected that half of the electricity produced by the plant will be exported to South Africa, and the Russian party

expressed its readiness to construct two hydroelectric power stations in the southwestern African state.⁶¹

We can see that despite obvious difficulties of the first post-Soviet decade, the bilateral cooperation between the Russian Federation and African countries is recovering steadily. The success is still rather limited. Therefore, the newly emerged euphoria among some analysts (and fear among other ones) about the "possible merger of Russia's and Africa's resource potentials, that would enable Russian companies to control the markets where they are already leaders in the world – first of all, the markets for platinum, diamonds, and primary aluminum" is more than groundless. Neither the African, nor the Russian elites see any expedience in such domination. Though technically possible, it would most likely generate such a negative backlash on the part of other players that the benefits of such domination will be many times offset by its negative asymmetrical consequences.

On the other hand, some analysts point out that Russian companies have a great advantage versus their western rivals - Russian investments in production of raw materials abroad, with rare exceptions, are not connected with imports. Hence, cooperation with the Russians leads to less economic and political dependence on importers. Given this fact, a list of competitors with the same advantages as Russian companies is getting shorter: Canada, Australia, and South Africa. South African companies are now the main pole of consolidation in Sub-Saharan Africa, However, the South Africans' weakness is closely tied to its strength. South Africa is part of the region. Some analysts underscore that for this reason, South African investments in other African countries are inherently political. It is worth mentioning another specific feature of the African raw materials: low production costs that are on average (except for South Africa) are considerably lower than in Russia. This is not due to cheap labor, but to the specific characteristics of minerals.⁶²

Despite all the difficulties Russian-African cooperation in the sphere of exploitation of their respective resource bases is destined to intensify. A number of objective and subjective factors make such a development nearly inevitable. Objectively, the recuperation of the

Russian economy and the specifics of the current type of development of the global economic model make it both easier and more natural for Moscow to explore less competitive international markets, like African ones. On the other hand, the West would be less inclined to wage fierce battles for the peripheral markets than for European or rapidly growing Asian ones.

Despite all the difficulties major Russian corporations manage to establish alliances with western capital and in some cases Russian capital enters African markets under American or European colors.

Finally, a whole new page of interaction between African and Russian capital may begin after the Republic of South Africa has become a member of the BRICS club. Joint strategies in mutually attractive areas are likely to produce breakthrough results in the sphere of technological innovations, including the mining sector.

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CHAPTER 3

Project RUSSAFRICA: Towards a Strategic Partnership for Modernization and Development

3.1. Lessons Learnt but Forgotten? Squandered Treasures of Soviet-African Cooperation

THE CONTEMPORARY economic relations between Russia and Africa became more dynamic only 3–4 years ago. Otherwise, the last twenty years of the Russian – African economic cooperation were as sleepy and difficult as the first twenty were energetic and fruitful.

For economic and political ties with Africa Gorbachev's "perestroika" and Yeltsin's "democratic reforms" meant a steep downward slide. The last leader of the Soviet Union tried to win the sympathies of the West by retreating from peripheral areas of the superpowers' confrontation. The first president of the democratic Russia surrendered the remaining global positions in exchange for political and financial support that allowed him to topple Gorbachev and to remain in power for the next decade.

In 1992, one of the first international initiatives of the new democratic regime was to close 9 embassies, 3 consulates and 20 trade missions of the Russian Federation in Africa. Even enfeebled Russia still could have preserved significant positions on the continent, so strong were the achievements after the decolonization. But Moscow rulers lacked the political will and their economic interests lay elsewhere. Africa's significance as an economic partner sharply deteriorated.

In was only in the first decade of the new Millennium that Moscow started to resuscitate the old economic and political links. There is still much argument about what was the real cause for the unexpected revival of interest. Was it a self-confident stride und successes of Beijing there, which by that time began to assume the role model for the Kremlin – the role of a *de facto* leader of the BRIC countries? Or, on the contrary, was it a result of a brief "love affair" between Moscow and London at the times of preparations for G-8 meetings in Saint-Petersburg and Gleneagles?

No matter, what was the cause, too much time and too may positions have been lost. In 2010, Russia's trade turnover with Africa was about 2 billion US dollars, whereas in 1989 (not the best year to compare with, but the last for which we have reliable foreign trade statistics) it was nearly 3.4 billion USD. The data are in current prices. That means that the figure of 2 billion refers to inflated contemporary US currency, while the purchasing power of the dollar twenty years ago was much higher. In fact, 3.4 billion USD in 1989 (domestic US) prices are equal to 5.8 billion USD in 2009 prices. For comparison, the current volume of the Chinese turnover (excluding Hong Kong) with Africa is 10 times higher than the Russian one.

We have to acknowledge that the shortsightedness of some Soviet and post-Soviet politicians resulted in an unprecedented loss of achieved gains of the Soviet-African economic cooperation, the cooperation, which had been mutually beneficial and which, unfortunately, is still surrounded with huge amounts of myths, lies, and prejudice. Therefore, having considered the current shortage of factual information on non-ideological aspects of Soviet-African relations, we found it expedient to review that cooperation in more detail. This analysis would allow us to see clearly what has been lost or squandered irreversibly, and where the last crumbs remain that can still be used at the current stage of Russian-African cooperation.

Before the Second World War economic relations between Africa and the USSR were hardly existent. That does not mean that African commodities never reached the Soviet market in those years. In fact, a stable inflow of such African products as cocoa,

copra, spices, other products of tropical agriculture, natural rubber and some ores and fuels took place even before the war. However, it is very difficult to establish the volume of such trade, since all of it was effectuated by European colonial companies and the imported goods were usually registered as originating from UK, France, Belgium, and more rarely, from Italy.

As to the Soviet pre-war exports, only unsystematic records of occasional grain deliveries to Egypt, Algeria and Tunis are available.

After the Second World War the Soviet Union signed its first agreements on economic and technical cooperation with the countries of the African continent: Egypt (1958), Guinea (1959) and Ethiopia (1959). Those were later followed by similar documents with the majority of newly independent African countries.

By the year 1989 (the *de facto* end the Soviet visibility in Africa) such agreements have been signed with 36 African countries, including Algeria, Angola, Benin, Burkina Faso, Burundi, Cameroon, Republic of Cape Verde, the Central African Republic, Chad, the People's Republic of the Congo (Brazzaville), Egypt, Equatorial Guinea, Ethiopia, Gabon, Ghana, Guinea-Bissau, Kenya, Libya, Madagascar, Mali, Mauritania, Mozambique, Morocco, Nigeria, Niger, Rwanda, Sao Tome and Principe, Senegal, Somalia, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe. Those agreements played an important role in stimulating mutual economic exchanges and in Africa's efforts to transform the colonial structure of its economy.

Though today both in Russia and abroad much is written about the "ideological nature" of that co-operation, in our view any honest and competent researcher, would have to acknowledge, that by the 1980s the promotion of Marxist-Leninist ideas, played a secondary, if not even a less important role in USSR's relations with Africa. In any case, that component of the Soviet foreign policy was gradually losing its importance for the Kremlin.

Already during the Khrushchev period and further on till the fall of the Communist regime in the USSR, the fundamental motives for cooperation with African countries were: geopolitical,

military, economic and only after all that – ideological. It was absolutely true that the main objective of the USSR's economic and technical cooperation with the independent states of Africa, as well as with other developing countries, was to support their efforts in achieving economic independence by means of supporting the construction of their national economies. But the motivation for that support was neither purely ideological, nor totally altruistic.

The strengthening of Africa's economic independence fell in line with the basic interests of the Soviet Union as one of the two then existing superpowers. Each of them was trying to consolidate the ranks of its allies. Consolidation and enhancement of national sovereignty and economic independence of African countries narrowed the raw materials and resource base of the main Western competitors of the Soviet Union, which at that time were identified by both the Soviets and the Third world as the "world imperialism". This assertion is easy to prove. The Soviet Union never limited its cooperation exclusively to relations with pro-Marxist African governments. Moscow successfully developed diverse and mutually beneficial ties with such "pro-capitalist" states as Nigeria or Morocco. Even in cases, when the former pro-Moscow regimes suddenly changed their orientation (e.g. Egypt under A. Sadat) strong economic ties often remained in place. The political (to a lesser extent ideological) sympathies of African leaders, though, were not insignificant to the Kremlin, either.

Marxist-Leninist dogma identified the national liberation and national democratic movement in the Third world as one of the divisions of anti-imperialist struggle (together with "states of real socialism" and communist and workers' movement in the capitalist countries). Soviet economic theoreticians of 1970s – 1980s alleged that the principal means of enhancing the economic independence was the rational use of the opportunities and economic benefits provided by the participation in the international division of labor. This postulate served as the scientific justification of the necessity to develop economic ties with developing countries in general, and African states, in particular.

This theoretic and scientific aura helped to present economic links with Africa not just as a utilization of economic opportunities but rather as a fulfillment of ideological obligations and duties by the allegedly more developed and mature working class of the Soviet Union to peoples that only embarked on the way of the struggle for progress and freedom.

The independent African states were trying to accomplish the tasks facing them, first of all by creating multi-sectoral national economies and restructuring them. However, they came up against enormous difficulties on this course. Though the fact is rarely mentioned these days, but under the conditions of the Cold War, governments of young African states faced much opposition from internal pro-Western forces, former colonial powers and transnational corporations.

In those circumstances, many countries applied for assistance to the Soviet Union. A distinct group of African states emerged, that identified their strategic developmental goals with the experience of the Soviet Union and other socialist countries. Sometimes the leadership of those African nations had also shared the Marxist ideological platform, though, as real life showed later, sometimes their choice had been driven by opportunistic considerations.

On the other hand, some leaders, not necessarily Marxists, like Kwame Nkrumah, Sekou Touré, Julius Nyerere, Agostinho Neto were original philosophers and profound thinkers, whose personal principles and understanding of Good and Evil brought them to the rejection of capitalism in the forms they knew and turned them to this or that form of Socialist vision of the future for their countries.

No matter how the Soviet past is assessed today, they found in the USSR a reliable partner, friend and ally, ready to help them solve the problems facing their countries. This assertion should be considered in the context of the situation that existed in 1960s and 1970s, but not now.

Many western democracies, which today are keen on protecting human right anywhere in the world, at that time fiercely opposed the prospects of ending the colonial rule of European masters. For years, and even decades they waged bloody wars, accompanied with atrocities against the peaceful African population, they created concentration camps for local, who, in their view, might provide assistance to freedom fighters. They would wage diplomatic wars in the United Nations and military interventions in the liberated zones. They kidnapped, imprisoned, tortured and murdered leaders of national liberation.

In 1950s and early 1960s the Soviet Union was nearly the only internationally recognized force that confronted such policies and deeds of the European colonial powers: on the diplomatic level, by providing various kinds of assistance and offering shelter and support.

Not surprisingly many African countries regarded the USSR as their tried-and-true friend.

It is important to stress that despite continued accusations of attempts of exporting socialism to Africa, when building relations with those states the Soviet Union, constantly emphasized that the efforts of Africans were the principal means of solving their fundamental economic, social and cultural problems and that foreign aid was an auxiliary means. Quite often Soviet counterparts had to restrain some African leaders in their willingness to transpose the Soviet experience on the African soil without due attention to specific conditions and realities of African economies, culture and traditions.

One of the positive aspects about the organization of the USSR relations with African countries was the existence of a well defined and widely declared set of principles on which such relations were to be developed.

The basic principles of the USSR's economic and technical cooperation with African countries included the equality of partners, mutual benefit, respect for sovereignty and non-interference in each other's internal affairs. Though usually described as based on common ideological foundation that cooperation had in reality little political or other strings attached in the strict sense of the word (i.e. those, which would have infringed upon the young states' national interests). As stated above, the Soviet Union on the whole maintained economic

and technical cooperation with African countries irrespective of their state system or orientation of their social development. At the same time, it would be dishonest not to acknowledge that, where possible, the Soviets tried to obtain certain political, economic, or military gains from this cooperation. As a result, in exchange for assistance the Soviets would get access to warm water ocean ports and supply bases, some types of raw materials and products of tropical agriculture or support from African states at the UN.

In defining the contents of agreements on economic and technical cooperation, the USSR proceeded from the basic requirements of its partners, their capacities and considerations of mutual advantage. In accordance with the wishes of the governments of independent African states, the USSR provided assistance to them in the construction and exploitation of industrial enterprises, agricultural, transport, and other projects, in prospecting, mining and using natural resources and in training national personnel. Soviet-African economic and technical cooperation envisaged:

- execution by Soviet organizations of design and prospecting work, granting of scientific-technical and technological documents, deliveries of equipment, machines and mechanisms, spare parts and materials for the projects under construction;
- technical assistance provided by Soviet specialists in building, mounting, commissioning and exploiting enterprises, as well as in geological prospecting;
- assistance in setting up national geological, designing, building, research and other organizations;
- assistance in working out national socio-economic development plans and in organizing national economic management;
- aid in training national personnel, including skilled workers and specialists for the construction and exploitation of industrial enterprises and other projects built with Soviet assistance;
- dispatching Soviet specialists as consultants and experts at the request of various state bodies of African countries.²

All in all, the Soviet Union provided assistance in building industrial enterprises in African countries with an overall capacity indicated in Table 3.1.1.

Table 3.1.1. Aggregate Capacity of Industrial Enterprises Built with Soviet Assistance (January 1, 1981)

Type of products	Measurement unit	Production capacity		
Pig iron	million tons	4.09		
Steel	million tons	4.50		
Iron ore	million tons	3.5		
Oil products	million tons	3.0		
Cement	million tons	2.0		
Bauxites	million tons	2.5		
Machine tools	units	1,600		
Electric power station (declared capacity)	million kw	3.34		

Source: Внешняя торговля. 1982, № 11. С. 35.

Soviet aid contributed, first and foremost, to the creation of the industrial base of a number of African states. Along with that enterprises of the light and other industries were constructed.

The Soviet Union helped to set up over 70 agricultural projects in Algeria, Egypt, Ghana, Guinea, Mali, Morocco, Somalia, Sudan, Tanzania, Tunisia and Uganda. Among those projects were irrigation systems, state seed and animal farms, agricultural machinery repair shops, veterinary laboratories, experimental stations, grain elevators, etc.³

The Soviet Union also rendered assistance in setting up research centers in African countries. For instance, an atomic reactor in Cairo enabled Egypt to establish and develop national nuclear research. A veterinary research laboratory in Sudan, a laboratory for testing oil and experimental agricultural stations for studying food and industrial crops on irrigated lands in Algeria, a research centre incorporated in oceanographic and heliotechnical laboratories in Guinea and a multipurpose laboratory in Nigeria were all a result of joint efforts by the Soviet Union and the respective countries.

Of great importance for Soviet-African economic and technical cooperation was the Soviet assistance in training national cadre of skilled workers. The USSR helped to establish in Africa numerous higher and specialized secondary educational establishments and vocational training centers. (Table 3.1.2.)

Table 3.1.2. Number of Educational Establishments Built, Under Construction or to Be Built with Soviet Assistance in African Countries (January 1, 1981)

Total		Including						
		Higher educational establishments		Specialized secondary educational establishments, schools		Educational centers		
by agree- ment	in opera- tion	by agree- ment	in opera- tion	by agree- ment	in opera- tion	by agree- ment	in opera- tion	
142	96	18	10	22	8	102	72	

Fifteen hospitals and six maternity homes were built in African countries with Soviet aid. Hundreds of Soviet medical personnel were working in African countries where they enjoy deserved respect.

The main functions in implementing economic and technical cooperation with foreign countries have been assigned to the USSR State Committee for Foreign Economic Relations which was in charge of negotiations with foreign partners on economic and technical cooperation, prepared inter-governmental agreements, protocols and other documents. Along with the Committee, practical work on the implementation of cooperation was carried out by ministries-general suppliers, design bureaus, all-Union foreign trade organizations of the Soviet Union. Enterprises in all Soviet republics manufactured machinery and equipment for the projects under construction in African countries.

The economic and technical cooperation between the USSR and developing countries was implemented, as a rule, on the basis of inter-governmental agreements. There were three main types of such agreements:

- Agreements on economic and technical cooperation which envisaged a full list of the objects of cooperation (projects); mutual obligations of the parties concerned; the size and conditions of the credits granted by the USSR; or other forms of payment for the assistance provided. One of the earliest examples agreement between the USSR and Egypt of January 29, 1958, could be cited as an example;

- Agreements which envisaged the size of the interstate loan but did not specify the concrete, cooperation projects and other obligations of the parties. Those obligations were to be defined later in additional protocols. An early example of such an agreement the exchange of the official letters to this effect by the USSR and Ethiopia, which took place on July 11, 1959;
- Agreements of general character. They, as a rule, defined the areas and types of cooperation which the sides were ready to provide each other, whereas the volume, terms and objects of cooperation were negotiated separately and specified by additional documents. The USSR signed such agreements with Nigeria, Cameroon, Senegal, the Central African Republic and some other states.

Apart from these three types of agreements, inter-governmental agreements on individual spheres of cooperation were practiced – geological prospecting, designing, training national personnel, dispatching of Soviet specialists, etc.⁴

The deliveries of materials and equipment, as well as the services rendered by Soviet organizations were covered:

- by Soviet long-term state credits;
- by installment of firm credits;
- in cash, in convertible or local currencies;
- by clearing agreements;
- by the grants of the UN and its specialized agencies.

In granting firm credits the following system of payment was usually envisaged. An advance payment was made at the signing of contracts, the delivery of machines, mechanisms and materials. The remaining part was paid in installments. The duration of the repayment period was usually up to eight years. Repayment on Soviet long-term credits payments usually began either after the completion of the deliveries of equipment for the project under construction or after its commissioning. The repayment period was usually 12 years. The interest rate was 2.5 per cent annual but only on the actually

used and repaid part of the credit. In the construction of industrial projects Soviet long-term credits could be repaid out of the gross profits of the enterprises built with Soviet assistance.⁵

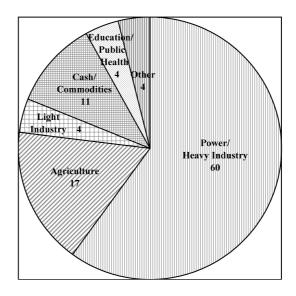


Fig. 3.4.5. Structure (in %) of Soviet aid to countries of Africa by sectors and industries (1959–1984).

The USSR agreed to favorable terms of settlement, considering the difficult financial situation in the majority of African developing countries and the limited character of the inner accumulation sources and possibilities of financing capital construction. This flexibility and certain level of "softens" with African partners was later, during Gorbachev's and Yeltsin's rules, used as one of the main accusations in their criticism of the preceding communist regimes' policies and presented as an example of "squandering of Soviet people's money".

Such accusations found a lot of response and approval on the part of the democratic anti-communist movement in Russia and were deftly used in propaganda technologies during various election campaigns to topple the old system. The relations with poor developing countries came under particular fire. Particular anger of the new liberal leaders was aimed at such practices like granting especially favorable loans and providing grants to those African countries, which, according to the UN classification, were included into the category of "the least developed among the developing countries" (for instance, Guinea and Mali). These countries, which inherited from colonialism an especially low development level of the productive forces, were granted credits on special most favorable terms. This type of relationship was had been completely severed already during Gorbachev's rule and renewed on much smaller scale only after President Yeltsin abdicated.

Till *perestroika*, Soviet-African economic and technical cooperation had certain specific features. The priority in the USSR's assistance programs was given to creating industrial enterprises and other projects in the state sector of the African economies. This, according to the vision of Soviet economists, enabled the recipient countries to more rationally use manpower, financial and natural resources contributed to the progress of the socio-economic structure of these countries and strengthened the positions of the anti-imperialist forces waging the struggle for the implementation of urgent radical socio-economic transformations.

Industrial enterprises built with Soviet assistance yielded substantial profits in Algeria, Egypt, Ethiopia, Guinea, Sudan and elsewhere.

One of the points that Moscow never failed to underscore in its propaganda efforts was that USSR's economic and technical cooperation with developing countries was distinguished by its comprehensive character. This meant that cooperation on each project, included, as a rule, an entire range of work, that was, prospecting, designing and account evaluation documents, the construction of premises and installations, mounting of equipment, its commissioning and, if necessary, assistance in exploitation until the full development of rated capacities. Such type of cooperation allegedly made it possible for developing countries to adopt and use the technical know-how of Soviet specialists at all stages of the construction and

exploitation of projects. Soviet exports of equipment and materials for the construction of complete enterprises amounted to 339 million rubles in 1961–1965; 444 million rubles in 1966–1970; 553 million rubles in 1971–1975; 894 million rubles in 1976–1980 and to 2,2 billion rubles in 1989.⁶

Moscow prided itself for having undermined the monopoly of industrial capitalist countries on the sales of machines and equipment, transfer of technical knowledge and granting of credits to developing countries of Africa. And indeed, maneuvering between the West and the East African countries were able to negotiate better terms or relations with the developed world. Under the conditions of global ideological competitions between communist and capitalism, and due to the impact of the economic cooperation between the USSR and other socialist states and the developing countries, western powers had, in some instances, to agree to lower interest on credits granted to the developing countries.

Though Soviet companies often were losing on overall investment competition and scale of purchases of African goods (especially those, which usually were not considered to be of higher order of necessity for the Soviet consumers – exotic fruit, expensive types of timber etc), Moscow could offer for Africans business benefits of its own. One of them was long term nature and predictability of terms and conditions of mutual cooperation. Another important aspect of African countries' economic cooperation with the Soviet Union was its stability. This was determined by the planned nature of the Soviet national economy and by the fact that the agreements signed by the USSR with African states were long-term ones. Stable cooperation enabled African countries to envisage Soviet assistance in building major projects in the key branches of their economies not only in their current but also in their long-term national economic development plans-A greater part of all the assistance rendered by the USSR to African states went to the countries of socialist orientation. They displayed initiative and readiness to develop multilateral and ever deepening cooperation with the Soviet Union in all branches of their economies and create the necessary requisites for it. At the same time, cooperation successfully developed with a

number of other African states that were interested in it, for example, with Nigeria, Morocco, Tunisia and Libya.

Closer to the demise of the Soviet Union, new trends have emerged in the development of the USSR's economic cooperation with African countries. For one, stable economic ties were taking shape with several African countries planned for even longer than usual periods, which enhanced trade and the efficiency of production at macroeconomic levels – something in which both the USSR and African states were interested. Such an approach allowed overcoming the shortcomings of 'single-project efficiency" approach. Sometimes the African partner would sacrifice a possibility to receive immediate profits from a completed project in order to guarantee a stable inflow of revenues on a later stage from a broader complex project or to provide stable permanent employment for large masses of population. Such an approach was mutually beneficial. So called compensation deals allowed African countries to acquire industrial enterprises, which produced required goods and had an opportunity of guaranteed sales of part of their goods to the USSR thus ensuring timely repayment of Soviet credits. In turn, the USSR received goods it needed for its national economy (see pp.100–101).

Cooperation with the USSR in some cases introduced the young states to the latest achievements in science and technology. Soviet organizations in general supplied them with the most up-to-date (at least by Soviet standards) machinery and equipment, technologies, licenses and other technical documents, while Soviet specialists shared their expertise with them. It was universally recognized that the overwhelming majority of the Soviet engineers, technicians, doctors and teachers working in African, just as in all other, developing countries, not only conscientiously fulfilled all terms of their contracts, but also shared their knowledge and experience with all local citizens working next to them. Thanks to the cooperation with the USSR the developing countries of Africa consolidated their economic and political positions, create foundations of modern industries and reduced their dependence on the imported goods and world markets.

At the same time we recognize that a constant problem facing Soviet-African cooperation was that of raising its efficiency. The wish to combine geopolitical and ideological gains with commercial profit became an obsession in the late days of the Soviet Union. It was believed that under socialist conditions such combination would be possible. However, this dream never came true. The Soviet Union collapsed under the combined pressures of external competition, increased incompetence of its rulers and internal rivalries of the degenerated elites. The epigones and diadochi, who followed, were never able to bring back the former Soviet influence in the Third world as a whole and in Africa in particular.

3.2. Project RUSSAFRICA

However, since early 2000s, Africa again is one of the key directions of the Russian foreign policy and to a lesser extent economic activity beyond the former Soviet territory and neighboring countries. During the first decade of the New Millennium the nation's multilateral partnership with African states was significantly enhanced. Politically this was demonstrated first by Vladimir Putin's visits to Algeria, Morocco and South Africa and later Dmitri Medvedev's visits to Egypt, Nigeria, Namibia, Angola in 2009 and to Algeria in 2010. It gave the right impulse to the overall development of the ties with the region.

In order to trigger economic partnership with the continent, additional improvements in the trade and economic relations with African countries were introduced. Bilateral inter-parliamentary commissions on economic, scientific and trade cooperation are gradually becoming more effective. Contacts between Chambers of Commerce and business structures are strongly encouraged. The all-Russian Chamber of Commerce and Industries – a powerful lobby of post-Soviet industrialists – became a strong advocate of intensifying economic relations with Africa. Overall, a lot is being done and positive results have been achieved.

As a result the growth rate of mutual trade with the African countries has reached 20-30% a year. In 2008 it was \$2 billion US, which

is, of course not much compared to the figures of the Soviet African trade or those of Chinese trade turnover with the continent. However, there is huge growth of a quarter to one third annually. And there's more to come. The potential of cooperation is far beyond these numbers. Unfortunately, the recent financial and economic crisis had a negative effect on the growth indicators of mutual trade. However, it only emphasized the necessity to continue combined efforts in order to enhance cooperation between Russia and Africa.

Russia is set firm to have new principles when it comes to dealing with Africa. Moscow wants to participate in providing assistance and aid not only on a bilateral basis, but also within the frame of the existing international platforms, including the UN, G-8 and G-20.

At the same time, more and more politicians, diplomats, business people and academics have come to the conclusion that the bilateral relations with Africa (not in a strict country-to-country sense, but in more general terms: meaning Russia as one side and combined interests of the peoples and nations of Africa, as the other) need a new start. A possible symbiosis of joint efforts is visualized in a new development concept, which received a conventional name of Project RussAfrica.

The essence of the concept is to build a system of relations that would be mutually favorable for achieving developmental goals and solving semantically similar problems on the way of their achievement. The objective conditions that make those aspirations feasible lie in two spheres. Both Russia and Africa found themselves outside the existing acute competition and opaque rivalry of the new centers of power in the emerging model of world economy and politics. Unlike North America, the EU or China, Russia has no proprietary "intentions" vis-à-vis African natural resources or the continent's military and strategic values.

The history of mutual relationship is not clouded by the burden of colonial rule, enslavement and genocide of millions of Africans. On the contrary, the achievement of independence by African peoples was to a significant extent the result of persistent struggle of the Soviet Union against the pro-imperialist forces and the coalition of Western metropolitan/colonial governments.

For the Soviet Union, solidarity with the oppressed peoples of the Third World, the liquidation of colonial system and support of newly liberated countries were among the battlefields of this struggle. Hence, the USSR was Africa's natural ally in the Just Cause. And it was quite a helping one. It was on the Soviet Union initiative that in 1960 the UN General Assembly adopted the Declaration on the Granting of Independence to Colonial Countries and Peoples, while some leading Western democracies refused to vote for it.⁸

Today, Russia continues to support the important role of the United Nations, of which now independent African states constitute nearly a quarter of members. Moscow never turned its back to multilateral assistance and efforts, which have a goal to alleviate the more difficult problems of African development.

As a permanent member of the Security Council of the UN Russia has its significant share in the peacekeeping process on the continent – working out strategies to settle armed conflicts and setting the peacekeeping missions' mandates. Russian forces and militia men – currently, about 370 people – are taking part in the UN peace maintaining operations in Africa (DRC, West Sahara, Sierra Leone, Cote D'Ivoire, Liberia and Sudan).

Russia leads the way in the process of cutting state debts of African countries. It resolved the problem of the formidable African debts to the former USSR in a most generous and altruistic way. It has simply written of the lion's share of those multimillion debts.

The calculation of the exact sum of the full African debt to the former USSR is hardly possible today. The main reason for that was the existence of multiple currency parities and of the disparities in domestic and export prices for the same types of goods and assets loaned to African states. Therefore, if the Soviet aid had been delivered in natural form (e.g. commodity loans, say, 100.000 tons of wheat), its estimated value would depend on whether the calculation had been done in domestic (low) prices or export (high) ones. Moreover, depending on the currency conversion rate the final value might deviate further from the world prices for comparable goods. The initial conversion factor of 0.60 Rubles for 1 US dollar might

have been recalculated on the basis of different parity, or even in accordance with the USSR State bank exchange rate for national currencies of African countries.

It was not a rare case that Moscow would "make a gift" of unused military reserves (it could be armaments, tanks, trucks, etc.) whose time of warehouse conservation expired or which became morally old. Those would be fully functioning, unused items (say, cannon shells, or mortars, kept somewhere in East Germany) whose utilization or even transportation to utilization factories in Siberia would have been more costly than selling them at a huge discount and on long term credit terms, or, sometimes, as mentioned above, even offering them as a gift. Such practices were not limited to military hardware either, but would include many export items of Soviet-made machinery or means of transportation.

The complex system of multiple exchange rates and parities should not create an impression that the calculations were totally subjective and had no economic foundations under them. Unfortunately, with time technical "foreign currency" specialists of the Soviet system pass away and in some cases with them disappears the true knowledge about how, why and on what basis this or that calculation had been done, or even the methodologies of such calculations.

Besides this, after the demise of the Soviet Union, the new liberal authorities were not too keen on making the precise figures from Soviet ledges and account books known to outsiders. Within a number of years a significant part of former Soviet claims on the Third world countries were sold at discount, first to a number of favored intermediaries, who then resold them at premium on secondary debt markets. This was allegedly the fate of parts of Ghanaian, Ugandan, South Yemeni and other liabilities to the USSR.

The sellers were companies with access to the first Ye.Gaidar government of Russian Federation. The buyers were often sham companies working in the interest of major western financial groups and transnational banks. The looted property of the former Soviet Union later became the foundation capital of newly emerging private commercial banks in democratic Russia. Some of those banks

disappeared together with their assets during the hand-made financial crisis of 1998, but a few exist to this day.

Officially, out of the total Third world debt to the former Soviet Union (estimated as of 01/01/1992 at 45,531.8 million HCR, or "hard currency roubles") claims on African countries amounted to HCR 13,936.6 million. This sum was split into HCR 12,347 million of military debt and HCR 1,589.6 million of civilian debt. Nominally, since 1991 this sum has been gradually increasing due to the unpaid debt service. However, only a few African countries were really servicing the debt, and practically none of them did that on time.

On joining the Paris club of creditor nations in 1997, Russia assumed obligations to write of the debts of highly indebted developing countries. Since it was this type of foreign debt that constituted the bulk of the Russian claims on Africa, Moscow undertook the broadest program of Third world debt write-offs (compared to cumulative sovereign claims) in the history of the Club and in fact in the world history as well. By 2002, Russia wrote off nearly 35 billion dollars, i.e. practically all the debt for military supplies and nearly two thirds of the total African indebtedness to the USSR. By 2008, the Russian Federation further canceled African debts to itself that were 20 billion US dollars total, and forgave more than 500 million US dollars in 2009.

At the same time, the sum of Russian contributions to international programs providing address help to Africa has increased. Since democratic changes in Russia, about 5,000 students have been educated in Russian universities. Moscow also provides specific humanitarian aid. For example, the Russian Federation assisted Zimbabwe (2 million US dollars), Ethiopia (2 million US dollars), Namibia (more than 500,000 US dollars), and DRC (2 million US dollars).

The global economic crisis of 2008-2010 has brought difficult ordeals for all countries of the world. It has affected all states without exception, dealt a tangible blow to the stability of the world economic system and had serious adverse effects on the situation of developing, including sub-Saharan African, countries.

Despite these negative trends, work on strengthening the traditionally friendly relations with the states of the African continent has remained one of the important components of Russian foreign policy. Moreover, in the current conditions the need for continued diversification of foreign ties increases. Russia is interested in developing multifaceted cooperation with the countries of Africa, which the Russian side regards to be not only valuable and timetested, but also as very promising partnership of mutually interested partners.⁹

Priority attention has been paid to intensifying the Russian-African dialogue and agreeing mutual positions on the key aspects of the international agenda, including the issues of promoting strategic stability, constructing a multipolar world, strengthening the central UN role, and countering new challenges and threats, primarily terrorism and extremism.

An important role has been allotted to regular contacts with top leaders of African states. The objective of advancing Russia's dialogue with the continent's community is confirmed in the renovated version of the Russian Federation's Foreign Policy Concept, approved by the President of Russia on July 12, 2008; it is also reflected in Dmitry Medvedev's address to the Federal Assembly and became the subject of discussion in the ambassadors' meeting at the Russian MFA in July 2009.

A number of key accords on promoting the many-sided cooperation with Africa were reached when Russian First Deputy Prime Minister Sergey Ivanov made a trip to South Africa and Foreign Minister Sergey Lavrov visited Senegal for the OIC summit and established contacts with heads of foreign affairs agencies of African countries in Moscow and New York. In 2010, he visited Kenya, Egypt, and Nigeria. Some useful practical benefits ensued from the visits to Moscow of ministers of foreign affairs from South Africa and Kenya, leaders of the foreign affairs agencies of Cameroon, Gabon, Madagascar and other officials from a number of African states.

Steps to strengthen links with the African Union (AU) and sub-regional integrative associations were taken. Useful was the participation of Russian delegations led by Alexei Vasiliev, Special Representative of the President of the Russian Federation for Relations with African Leaders, in the work of AU summits.

Inter-parliamentary links made an important contribution to the further development of Russian-African relations. Visits to Russia by parliamentarians from Gabon, DR Congo, Zambia, Madagascar, and South Africa constituted noticeable events.

Religious organizations' ties received a new impetus. The visit to Angola, Namibia and South Africa by Metropolitan Kirill of Smolensk and Kaliningrad served to strengthen the positions of the Russian Orthodox Church in African countries and to develop interfaith links.

The contacts held facilitated expanding the "geography" of Russia's interaction with Africa, and solving a number of specific issues in bilateral cooperation, both with large and with small states of the continent. Among Russia's principal partners are Angola, Guinea, Namibia, Nigeria, Ethiopia and South Africa. There are quite good prospects for the advancement of cooperation with DR Congo, Gabon, Zimbabwe, Cameroon, Cote d'Ivoire, Kenya, Madagascar, Mali and other countries.

Despite the unfavorable tendencies linked to the global economic and financial crisis, purposeful work was conducted to reinvigorate economic and trade cooperation with the countries of Africa, whose current level, as we believe, does not yet match the available considerable potential. Great significance was attached to raising the effectiveness of the activities of bilateral intergovernmental commissions (IGCs) in this context.

Considerable reserves lie in the promotion of direct economic ties between representatives of small and medium-sized business, including under the auspices of the constituent entities of the Russian Federation. Fresh examples are the understanding reached during the visit of a delegation of entrepreneurs from St. Petersburg to major South African cities on the conclusion of a cooperation agreement between St. Petersburg and Johannesburg, and the study of the possibility of establishing twin-city relations between Krasnodar Territory and the South African province of Kwazulu Natal.

Assistance to the expansion of activities of Russian business circles is one of the major components of the Russian foreign policy, including that on the African continent. The Russian Foreign Ministry continued providing necessary political and diplomatic follow-up to the activities in Africa of such leading Russian companies as Alrosa, Gazprom, Lukoil, Rusal, Renova, Gammakhim, Technopromexport, and VEB and VTB banks, which are engaged in large-scale investment projects on the continent. Positive dynamics are evident in the development of Russian-African cooperation in the minerals & raw materials, infrastructure, energy and other spheres, which has helped create conditions in the region for the successful tackling of the socioeconomic problems facing it.

The first, but important steps are being taken to develop cooperation with African countries in the realm of high technologies (nuclear energy, astrophysics, exploration and development of outer space for peaceful purposes). They appear to have a great future.

After a prolonged period of uncertainty, the obvious trend is for trade to grow between Russia and the sub-Saharan African countries; in the first ten months of 2008 trade turnover surpassed the corresponding period of the previous year by 30%, amounting to 1.9 billion dollars. At the same time it has to be stated that economic cooperation with African countries still encounters a number of difficulties due to, inter alia, insufficient information available to Russian and African partners about mutual possibilities and requirements. Undoubtedly, these bottlenecks of a practical character can be overcome by joint efforts. Much has to be done to ensure that Russian cooperation with African states continues to develop along an ascending line. All the necessary conditions exist for that.

One of the main components of the African vector of Russian foreign policy is active participation in the coordinated steps of the international community to provide comprehensive assistance to the continent. For the purpose of the intensification of the war on poverty and the achievement by African countries of the UN Millennium Development Goals, at the International Conference on Financing for Development held in Doha in December 2008, Russia proposed a number of measures to stabilize the situation in African

countries and minimize the adverse consequences of the present financial crisis.

It is, first of all, about the fulfillment of the pledges already made by the donor community to provide aid and additional financial resources to the countries worst hit by the crisis; about assistance in the elaboration and realization of a macroeconomic and fiscal policy with a view of making more effective use of both internal and attracted resources; about the removal of barriers in the path of movement of goods and services from African countries; and about consideration of the interests of African countries in the process of the elaboration of decisions to reform the international financial system by increasing their representation and stepping up their participation in activities of international institutions.

In accordance with the president the Concept of participation by Russia in international development assistance (IDA) was approved; measures are currently being taken to create a national IDA system. It can be noted with confidence that we have achieved significant progress in this endeavor. The level of provided aid was increased from 50 million dollars in 2003 to 210 million dollars in 2007 – not counting written-off debts, in the amount of which Russia holds one of the leading places among the G8 countries. Russia has by now canceled debts of African countries amounting to 20 billion dollars. Negotiations are being conducted with Benin, Guinea, Zambia, Madagascar, Mozambique, Tanzania, and Ethiopia to write-off their debts in the amount of more than half a billion dollars.

Russia has stepped up its participation in realizing international initiatives and crafting new approaches and mechanisms for development assistance. We have committed ourselves to provide more than 1 billion dollars in aid to the poorest, including African, countries, during the period to 2010–2011 to fight infectious diseases, "energy poverty" and to bolster education, of which amount more than half has already been allocated. We are actively involved in international efforts to provide humanitarian aid to African states, particularly under the auspices of the United Nations World Food Program, the Office of the United Nations High Commissioner for Refugees and other entities. Our donor contributions are being used

to provide food and humanitarian aid to Guinea, DR Congo, Zimbabwe, Kenya, Somalia and Ethiopia. Despite the world economic and financial crisis, which has also affected Russia, Moscow is not reneging on its obligations to render support to developing, including African, countries and plans to bring up the volume of our aid to 400-500 million dollars a year in the near future.

One more important thrust of the "African vector" is political work in the UN on assistance to Africa's development and on strengthening peace and security in Africa. A landmark stage in collective efforts in this field was the high-level meeting of the UN General Assembly on Africa's development needs held in September 2010. 11

Russia continues to participate actively not only in developing a strategy to resolve particular armed conflicts and in determining the mandates for the appropriate peacekeeping operations in the region, but also in "practical peacekeeping" on the continent. Russian troops and policemen (about 230) are involved in all UN peacekeeping operations in Africa, including in the Democratic Republic of Congo, Western Sahara, Sierra Leone, Cote d'Ivoire, Liberia and Sudan. In 2008, Russia joined the European Union's peacekeeping operation in Chad and CAR. The transfer of a Russian military contingent (120 troops with 4 military transport helicopters) to Ndjamena has been practically completed.

Russian assistance in the training of African peacekeepers has been built up. Hundreds of Russian-trained civilian policemen and law enforcement officers from African countries are already serving in hot spots, making an important contribution to the maintenance of peace and security on the continent.

One cannot fail to notice a significant contribution of Russia to the collective efforts of the Group of Eight in providing assistance to Africa. The Russian side has been consistently implementing all the G8 accords on African problems. Russian entrepreneurs actively participated in the discussion of the continent's problems during the meetings of the Group of the G8 Leaders' Personal Representatives on Africa and in the format of the "enlarged dialogue" – the Africa Partnership Forum.

The principled line in support of Africa, which is going to be continued, has helped to tackle tasks in ensuring global stability and in creating more favorable conditions for developing fruitful interaction with African countries. The first consideration now is by relying upon the amassed experience and acting hand-in-hand to work towards a fuller unfolding of the cooperation potential in the interests of our states and peoples. ¹²

3.3. The Current Level of Economic Relations between Russia and Countries of Northern Africa

Certain differences exist between the current level of Russia's economic cooperation with Northern Africa and with those countries which lie south from the Sahara. Geographic proximity, higher level of economic development, relatively diversified structures of their economies and longer traditions of mutual trade and investment are the main factors that favored deeper and more intensive economic cooperation between Russia, on the one hand, and the countries of Northern Africa, on the other. At the same time the level of economic cooperation with individual North African countries is not uniform either, with Algeria and Egypt occupying the leading positions among other partners in the region.

Algeria. From the legal point of view the commercial exchanges and economic cooperation between Russia and Algeria are still regulated by the trade agreement between the USSR and Algerian People's Democratic Republic signed on 17 November 1979. The agreement envisages mutual granting of the most favored nation regime. A number of new documents have been signed during the visits by two Russian presidents, respectively in 2006 and in 2010. Though business relations between the two countries are still far from what they used to be until the 1990s, the cooperation is steadily increasing its pace.

Before the collapse of the Soviet Union mutual economic ties were extensive and profound. But in the 1990s they shrunk significantly. The visit to Algeria of the then president Putin in 2006 gave a new impulse to these relations. It brought about a number of quan-

titative and qualitative shifts it the trade and economic relations between the countries. Those shifts in their turn caused an increase in the volume of mutual trade.

Table 3.3.1. Trade between Russia and Algeria (Russian Customs Statistics), million USD

	2002	2003	2004	2005	2006	2007
Turnover	175,4	315,0	184,4	208,7	643,8	1 338,4
year on year						
increase in%	82,7	179,6	58,5	113,2	308,4	207,9
Exports	174,9	313,8	183,0	206,0	643,5	1 327,8
year on year						
increase in%	84,5	179,4	58,3	112,5	312,4	206,3
Imports	0,5	1,2	1,3	2,7	0,3	10,6
year on year						
increase in%	9,1	269,4	107,8	205,5	12,3	3 154,8

In 2001–2005, the average annual turnover of Russian-Algerian trade fluctuated around 200 million USD. After the visit, in 2006 it jumped to 643,8 million USD (thus increasing three times) and doubled again in 2007 reaching 1 327,1 million USD.

The beginning of deliveries of goods by the Russian military industrial complex (MIC) significantly changed the structure of Russian exports to Algeria. Already in 2007 the share of manufactured goods (machinery, equipment, various appliances and devices amounted to 94.2% of the value of Algerian imports from Russia as compared to 30.5% in 2005, the year when no military equipment had been delivered.

This increase compensated the reduction in deliveries of rolled ferrous metals, sawed wood, paper, plain glass, fertilizers and other traditional Russian exports to the Algerian market.

Thus, in 2007, the share of food and alimentary products fell to 1.3% (from 36.5% in 2005), that of metals to 3.6% (from 19.3%), sawed timber and planks to 0.5% (from 7.7%), chemical products to 0.3 (from 2.7%). Imports of asbestos, iron ores and concentrates and some other commodities ceased completely.

Exports of Russian raw materials to Algeria began to shrink after the 2006 agreement of the Association of Algeria with EU had come into effect. In accordance with the Agreement the parties assumed the obligation of launching a Free Trade Zone by 2012. Due to this obligation already in 2006 Algeria removed or reduced custom duties for over 2,000 commodity items originating from the EU. Many of these goods had been previously imported from Russia, and formed about 50% of Russian exports to Algeria. In September 2007, in accordance with the relevant program of transition to the Free Trade Zone the import duties for 1095 items were reduced by 20% and for 1858 by 5%. Such reductions will take place on the regular basis till the complete abolition of the customs duties in 2012. ¹³

Though formally a measure to open markets, these reductions negatively affect Russia's trade with Algeria, making Russia's goods (even those of superior quality) less competitive than those from the EU). This non-market price competition directly affects economic security of the Russian Federation by not only undercutting possibilities for Russian manufacturing industry to earn foreign currency, but also potentially forcing Russian companies to restrain production and dismiss redundant workforce. An obvious measure would be to look for ways of counterbalancing the economic security threats posed by Brussels' expansionist maneuvering and to work out a coherent road map in order to protect the renascent Russian industries from non-market competition.

One has to acknowledge that on the whole the EU managed to neutralize through various means Moscow's attempts to translate into life Algeria's and Russia's good-will and intention to develop mutual economic relations. Intensive 'personal work' with a number of representatives of the Algerian elite and business circles restrained the efforts of the two countries to coordinate their energy policies on the global arena. The results of cooperation in the oil and gas sector proved to be more modest than practically with any other energy exporter in Northern Africa. The EU in general and some EU members in particular still regard Algeria and other Afro-Mediterranean states if not as their backyard, then at least their zone

of influence. These countries seem to have entered a prolonged period of attempts of external manipulations with the help of modern technologies. It seems that the "subjective factor" plays now extremely high and predominantly negative role in many spheres. In this context economic relations with Russia are among the first victims.

Having encountered difficulties in the Algerian market, a number of important Russian companies decided to leave it. Among those are: "Zarubezhstrymontazh", "Tyazhpromexport", "Aviaexport", "Zarubezhchermet", 'Machinoimport". Having not participated in the First international conference on mineral resources of Algeria held in December 2007, Russian companies ignored a good opportunity to improve their positions. During the Conference international tenders for prospecting and exploitation of deposits gold, iron ore, wolfram, lead, rare earth metals, as well as copper and polymetallic ores took place. Only one Russian company (CHETRA, Cheboksary Tractor) took part in such an important international oil and gas forum as SIHGAZ 2008, which was held in the nation's "oil capital" Hassi Massaoud from 30 January to 2 February 2008.

Recently the Rosneft-Stroytransgas consortium has reached some positive results. Relatively active and successful are "Zarubezhvodstroy" (water supply infrastructure) and "Techpromexport (4 contracts for delivery of equipment for the electric power plant Gigel completed in 1994).

The cumulative Russian investment in Algeria is about 90 million USD (mainly investment in Bloc 245 sud).

Russia and Algeria are bound by a Strategic Partnership Agreement. For a number of reasons, however, bilateral trade and economic cooperation is significantly lower when compared with Algeria's other partners with similar relations. In 2009, as in previous years, engagement in the spheres of military-technical cooperation and petroleum production saw the most dynamic development.

In particular, Russian military industry companies fulfilled contracts to deliver 28 Su-30MKA fighters, 16 Yak-130 operational trainers and two Type 636 (Kilo Class) submarines, and to repair four patrol ships. In 2009, Algeria inquired about an additional batch

of Su-30MKA fighters. At the same time, Russian companies lost the contract to build six frigates for the Algerian Navy. The contract went to Italy.

Cooperation in university level education has also undergone positive development. In particular, the Ural State Mining University and the university in the Algerian city of Annaba have concluded an agreement to conduct scientific research and train personnel. It is worth noting that Ural universities and Annaba University worked closely together during the Soviet era. At that time, many higher education instructors worked in Annaba. Now, they are prepared to teach Algerian students in Yekaterinburg. At present, there are over 13 thousand graduates of Soviet and Russian civilian and military institutions of higher learning in Algeria.

In 2009, the two countries in a number of official documents announced their intention to diversify trade and economic cooperation.

Despite numerous declarations of intentions voiced previously at various levels regarding the participation by Russian companies in infrastructure development and housing construction in Algeria, these declarations have generally not been pursued in practice. Those cooperation niches were immediately occupied by Russia's competitors from the West and the East. Even the former sister USSR republic of Ukraine managed to secure enviable positions.

Speaking about missed opportunities in Algeria one must not forget about seemingly exotic, but in fact quite realistic areas of cooperation like space exploration. Although Algeria's first satellite was launched with Russian assistance, in the end Algeria chose non-Russian companies to produce subsequent satellites and provide launch services.

Other companies will also find opportunities on May 25 the Peoples National Assembly approved a five-year government action plan under which the state intends to invest \$150 billion for the social-economic development of the country by 2014. Among other features, it allocates about \$14 billion for agriculture development and construction of 6 thousand kilometers of railroads, 1 million apartments and 10 desalination plants.¹⁴

Atomstroyexport has good prospects in connection with Algeria's intention to build its first nuclear power plant by 2020, followed by construction of similar plants at the rate of about one every five years.¹⁵

Russia tries to counter balance the negative developments by improving the organizational and business-to-business part of economic cooperation between the two states. On December 10, 2007, the organizational meeting of the Russian-Algerian Business Council was held in the Chamber of Commerce and Industry of the Russian Federation. Heavy weights of the Russian foreign policy and business are well represented in the governing bodies of the institution.

The list of the participants included Evgeny Primakov, President of the Chamber of Commerce and Industry of the Russian Federation, Viktor Lorents, President-Chairman of the Board, Board Member of JSC Stroytransgaz, Tatiana Gvilava, Adviser to the President of CCI of the Russian Federation, Director of the Russian-Arab Business Council, Amar Abba, Ambassador Extraordinary and Plenipotentiary of the Democratic People's Republic of Algeria in Moscow, Lotfi Sebuayi, Counselor of Cultural and Economic Issues of the Embassy of the Democratic People's Republic of Algeria in Moscow, Leonid Barkovsky, First Counselor of the Department of Middle East and North Africa in the Ministry of Foreign Affairs of the Russian Federation, heads of companies – members of the Russian-Algerian Business Council.

Opening the meeting, Dr. Primakov, the President of the Russian CCI, underscored that after a short period of stagnation the Algerian market is now witnessing a reactivation of investment and commercial activity of Russian businessmen. The trade turnover between Russia and Algeria amounted to 643,8 million USD and during the first eight months of the year 2007 this indicator equaled 692,1 million USD. It should be noted that 90% of the cost of the imported Russian goods was contributed by machines and equipment. Speaking about companies working in the Algerian market the President of the Russian CCI mentioned JSC Stroytransgaz, JSC Rosneft, JSC Zarubezhvodstroy, the state unitary enterprise Technopromexport,

etc. He also remarked that since the establishment of the Russian-Algerian Business Council in March 2006, a lot of work had been done for setting up business relations and currently it was important to activate the cooperation with Algerian partners. Dr. Primakov also called for involving small and medium businesses and Russian regions in the activities of the Council. ¹⁶

Viktor Lorents, President, Chairman of the Board, Member of the Board of JSC Stroytransgaz was nominated for the post of the Chairman of the Russian part of the Russian-Algerian Business Council. The leaders of the Russian gas and oil industry used the services of Stroytransgaz, and the share of foreign orders, which equaled 20% in 2006, was increasing. The company united 29 construction and engineering companies and employed more than 25 thousand people. Mr. Lorents draw special attention to the activities of Stroytransgaz in Algeria, where the company had accumulated extensive experience, studied the Algerian legislation and fiscal documents. The Co-chairman of the Council marked the existence of good conditions for broadening business contacts with Algerian partners, suggested that the programme of the Council activities should be developed and its objectives and tasks should be set.

Leonid Barkovsky, the First Adviser of the MENA Department at the Ministry of Foreign Affairs of the Russian Federation, stressed the importance of the development of the Russian-Algerian trade and economic relations and increase of the trade turnover between the states. He informed the participants of the Meeting about the preparation of the intergovernmental agreements in the sphere of sea and air transportation, and agreements in the power industry, standardization and information. Mr. Barkovsky pointed out the need to diversify bilateral contacts and to implement particular joint projects and expressed hope that the Council would be the locomotive of the Russian-Algerian cooperation.

According to the agenda, the participants of the Meeting approved the draft provisions on the Russian-Algerian Business Council and confirmed the list of the members of the Russian part of the Council. Participants of the Meeting expressed confidence that the

work of the Russian-Algerian Business Council would promote the development of the trade, economic and investment cooperation and lead it to a new level, corresponding to the political dialogue between the countries.¹⁷

Egypt. Egypt is one of the most dynamically developing states of the Middle East and Africa. In the 1990s and particularly in the 2000s, it pursued a policy aimed at overcoming ineffectiveness of the economic system and improvement of market mechanisms. A special importance was attached to the comprehensive support of the private sector, which plays the key role in the formation of Egyptian exports, and to the creation of a favorable investment climate for foreign partners. Before the reforms, the public sector accounted for 70% of the industrial products (98% in mining, 68% in manufacturing industry and 100% in power production). 80% of the total investment in economy was allocated to the public sector.

Against the background of African-Russian economic relations as a whole, Russia and Egypt were active economic partners traditionally. At the same time, the mutual relations had their ups and downs. Up to the late 1980s, Egypt was among the most important partners of the USSR in the developing world. The main items of the Soviet export to Egypt were machines, equipment, timber, cellulose, plywood, cardboard, paper, chemical fertilizers, coal, cast iron, frozen fish, etc. The bulk of Russian import consisted of cotton, cotton yarn, cloths, natural essential oils, perfumery, cosmetics, citrus fruits, garments, household chemicals and furniture. Trade was based on the trade turnover protocols concluded by the governments and barter deals on supplies of our machines and equipment in exchange to Egyptian consumer goods and raw materials for their manufacturing. By the late 1980s, the total turnover of the Russian-Egyptian trade reached \$1 billion¹⁸.

The recent decade witnessed a recession in the Russian-Egyptian business cooperation, caused mainly by the difficulties of the transitional period and transformation of economic systems in both countries. In the late 1980s and early 1990s the amount of the bilateral trade went down three times. The participation of Russian companies in economic projects in Egypt drastically decreased.

However, there are harbingers of a revival of the Russian-Egyptian trade and economic cooperation, both in the sphere of the public sector and between private entities. The latter is considered a priority in Egypt. Visiting Moscow in September 1997, President Mubarak said: 'In the economic cooperation with Russia we will stake on the private sector, on the development of cooperation with non-state-run enterprises'.¹⁹

The present economic situation in Russia and Egypt, the possibility to realize large-scale investment projects with the participation of foreign capital, the financial capacities of Russia and Egypt, their current investment legislation and banking policy make the prospects of Egyptian private companies operating in Russia and of Russian entities doing business in Egypt quite promising.

Till 1992, the trade between the USSR and Egypt was regulated by the trade and payment agreements signed on June 23, 1962. They provided for mutual granting of the most favored nation regime in trade and navigation. After the disintegration of the USSR, the development of the Russian-Egyptian trade required a regulatory basis. The negotiations held in Cairo resulted in an agreement on the trade and economic, scientific and technological cooperation signed on May 14, 1992; it provided for mutual payments in hard currency (as opposed to the clearing agreements of the Socialist era). On November 5, 1993, the agreement was supplemented by a special protocol about mutual granting of the most favored nation regime and the use of national currencies in bilateral trade in addition to hard currency.

On November 9, 1994, a new agreement on the economic and technological cooperation was signed by Russia and Egypt with a list of branches and projects in industry, electric power generation and irrigation, in which the parties intended to cooperate. In addition, the same year an agreement was signed in Cairo on the mutual debt settlement.

The first meeting of the joint Russian-Egyptian commission for trade and economic, scientific and technological cooperation was held in Moscow on September 18–22, 1997. Soon thereafter, President Mubarak visited Russia and signed a series of agree-

ments about scientific and technological cooperation, mutual encouragement and protection of investment, cooperation in the sphere of marine transport and avoidance of dual taxation. He also signed a treaty about the preferential customs duties, reduced from 50% to 25% of the value. Another agreement dealt with export guarantees. In 1998, Russia and Egypt negotiated opening of a direct shipping line with ships of the 'river-sea' type, which made it possible to carry cargoes to the ports on the Volga, the Don and the Caspian. The Egyptians Co. and the administration of Nizhegorodskaya oblast (region) of Russia took part in the negotiation. A considerable progress was achieved in 1998 in the negotiation between Ingosstrakh, a Russian insurance company, and the Egyptian Company for Export Credit Guarantees, which signed an agreement about the guarantees against commercial risks in foreign trade. In early 1999, Russia presented to Egypt a draft longterm Program (road map) for trade, economic, industrial, scientific and technological cooperation. In March 2000, the Egyptian-Russian council for business cooperation was set up. It is headed by Ahmed Diga, an Egyptian entrepreneur.

In 1991–1993, the volume of Russia's trade with Egypt drastically decreased, owing to the disintegration of the USSR. Most of the Black Sea ports remained in Ukraine, which led to an increase in the cost of transportation of the exported and imported goods and risk of damaging or losing cargoes. Another reason was payments in hard currency, reserves of which are quite limited in the state-run companies of both countries. The situation began to somewhat improve in 2000. The total volume of Russian exports reached the precrisis level.

The increase in Russian exports to Egypt after 1993 was accompanied with some changes in its structure; its main feature was a high share of machines and equipment (33.4% in 1993), including aviation equipment (helicopters produced in Kazan and navigation and radio location equipment). Egypt was interested in purchasing Tu-204-120 aircrafts with RV-211-535 engines supplied by the Rolls-Royce of Britain and avionics supplied from the USA. This deal is financed by I. Kamel, an Egyptian businessman.

There was a good demand in Egypt for VAZ cars, Ural and KAMAZ trucks, road construction machines and Ural motorcycles. In 1999 Russia supplied machines and equipment to Egypt in the amount of \$150 million.

Russia's share in the supplies of semi-finished goods of iron and steel to Egypt is 55%, in plywood supply 43%, in newsprint 56%, in timber 20% and in polymers $15\%^{20}$.

The Egyptian government considered the size of Egyptian exports to Russia impermissibly low. Egypt's share in the total import to Russia is just 0.05%. The structure of Russian imports from Egypt is relatively diversified (as compared to other African countries). But on the whole, first of all, Russian companies import Egyptian consumer goods and foodstuffs. Oranges account for 20% of this import. Russian shops are full of Egyptian rice, onions, garlic, spaghetti, prepared soups and broths, karkade tea, razor blades, perfumery, cosmetics, furniture, clothes and knitted garments.

So called Egyptian Weeks are held regularly in Moscow and other major cities of the Russian Federation. The activity is a fair-like event with the participation of major Egyptian exporters, quite often those, who earlier had never entered the Russian market. Egyptian weeks became the gateway for stable deliveries for such (now established Egyptian trade partners) as Bella Donna (knitted garments), Nounou Bros (cotton cloths and garments) and Nefertiti Cosmetics (creams, shampoos, lotions). They began their successful work in the Russian market with the contracts signed at those fairs.

The Egyptian Federation of Industries works to promote the sales of fruit juices, tomatoes, dry and fresh fruits, flowers, car tires, cigarettes, cotton and leather articles, yarn and quilts to Russia. A quite promising field of trade is the supply of Egyptian medicines: in the last 15 years Egypt achieved major successes in pharmaceutical industry. It manufactures 90% of the main medicines applied in all branches of health care. Annual purchases of foreign medicines by Russia amounted to 1.6 billion rubles, of which Egypt accounted for just 0.5 million (0.03%).

In addition, Russia can import chilled vegetables, which are much cheaper in Egypt than in Europe. Russia imported this mer-

chandise for the sum of 145 million rubles, including 37 million (25%) from Egypt²².

Notably, almost all Egyptian goods are supplied to Russia by private companies, quite interested in expanding the cooperation with their Russian partners. In 1997, an Egyptian-Russian joint venture was founded to export Egyptian agricultural products to Russia with an authorized capital of \$100 million, of which 60% was invested by the Egyptian party.²³

The Egyptian guarantor of the company was the Bank for Export Development. In 1998, four Russian-Egyptian private companies were founded in Moscow to export and import various goods and services, from supplying Egyptian oranges to Russia to transferring modern Russian technologies in light and food processing industries to Egypt.²⁴

Russia was and is a promising market for Egyptian goods. Russian private companies may get a fair return by creating joint ventures for manufacturing the following goods to be imported to Russia: medicines; light industry products, especially cotton articles, whose quality on average is much higher than those of China or Turkey; food products, including chilled vegetables and fruits, which are much cheaper than in Europe; household chemicals.

In turn, Egypt can make a good use of Russian equipment and advanced technologies. The most promising items are cars, trucks, equipment for chemical and gas industry, metal-working machines, agricultural equipment and planes. The activation of the Russian-Egyptian trade heavily depends on the normal functioning of the port in Novorossiysk and cooperation in the transportation and customs clearance.

The creation of joint ventures and realization of investment projects are important spheres of the cooperation between Russian and Egyptian businessmen. In the future, they may become the main fields of cooperation. Since 1958, Russia has built 97 industrial, power and agricultural projects, including the Aswan High Dam, Helwan metallurgical plant and Nag-Hammadi aluminum plant, which play an important role in the Egyptian economy.

Another promising sphere for Russian entrepreneurs' activity in Egypt is the reconstruction of the projects built with the Soviet aid. In the late 1990s Russian state-run and private companies took part in two dozens of tenders for their modernization.²⁵

The Egyptian government is interested in foreign, including Russian, investments in the reconstruction of the Aswan High Dam²⁶.

In addition, Russian private capital may take part in major Egyptian investment projects related to the reclamation of new lands, such as the Toshka canal and New Valley project.

One of the major Egyptian projects in Russia is the agreement between the Aviastar (Ulyanovsk) and Sirocco Aerospace International on the joint financing of the manufacturing and supply of 25 Tu-204 aircrafts by the private Egyptian aviation company Sirocco. Three such liners already fly from Cairo, and five more were purchased by Egypt in 2000. As far as Tu 204-120 is concerned, Sirocco Aerospace is integrating class-leading design, engineering and systems technologies from around the world into an aircraft, which translates into major financial benefits to operators and passengers comfort. The combination of significantly lower acquisition and operating costs will ensure that Tu 204 provides all of the benefits of established western manufactured aircraft with many additional features and at the same time offers an unbeatable cost per (seat x mile) to airline customers. Tu 204-120 is the first commercial aircraft to combine fully the best of the East and of the West. First three Tu 204-120 aircraft (2 passenger and 1 cargo) were delivered in 1998-1999 to the Egyptian operator Cairo Aviation – "Air Cairo". Currently a contract to deliver 5 planes to a Chinese buyer is being fulfilled. An agreement was concluded with the European Bank for Reconstruction and Development to open a credit line for financing the project. An operating cost comparison between A321, Boeing 757 and Tu-204-120 reveals that Tu-204 has fuel, maintenance and finance seat-mile costs about one-third less than A321 and 757. Tu-204 partially gains from lower Russian labor rates used for airframe and heavy component maintenance, but massively from a lease rate equivalent to two-thirds of its competitors'. Over time lengths studied, Tu-204 has 18% to 27% lower fuel maintenance and finance

seat-mile costs than A321 and 27% to 30% lower charges than 757. Tu-204 still requires JAA and FAA certification before this operating cost has any relevance to a western carrier.²⁷

In 2000, a joint Egyptian-Russian company was created to produce new Russian land-rovers on the basis of the technologies of the Ulyanovsk vehicle plant. Its authorized capital is 50 million Egyptian pounds. Amal Foreign Trade Company and Lada's parent company AvtoVAZ signed a joint venture agreement to assemble Ladas for the North African market in 2000. However, as they did not have their own factory, space was found at a local Suzuki plant in Cairo to assemble the 2107 version of the Lada Riva. In 2006, production continued at Suzuki with an additional model, 2110, being produced.

The contract between AvtoVAZ and Amal Foreign Trade Co. to supply VAZ-2107 car parts for assembly in Egypt was signed in May 2001. It was expected that cars assembled by Lada-Egypt would be sold not only in Egypt, but in other African countries. Now Lada Egypt Motor Vehicles Industry&Assembly is a rapidly developing business. The global crisis unexpectedly revived interest in inexpensive and economical cars like Lada the world over.

Later, in 2005, a joint car assembly plant owned by the Volga Automobile Plant (AvtoVAZ) and the Egyptian firm Amal Foreign Trade Co opened in the 10th of Ramadan City. The Lada-Egypt factory started assembling VAZ-2110 cars from parts supplied by the Volga Automobile Plant.

In 2009-2010, about 2,000 Russian cars were assembled annually. The first shipment of VAZ-2107 parts was sent from Togliatti to Egypt. In the future, once VAZ models have been modernized, the number of sets of parts to be shipped to Egypt will increase to 5,000 per year.

In 2007, a Lada Servicing Station was launched in Alexandria. Until then, there was only one Lada service centre in Egypt in Cairo. However, that usually did not create much of a problem with spare parts and servicing, since the local Egyptian Nasr car is, like Lada, based on the Fiat prototype. Local owners often had used Nasr service stations and spare parts if necessary. The new business concept of the Russian auto producer envisages more direct services for

Lada users in Egypt. In 2010, a new state of the art Lada service centre is to be inaugurated in Cairo district of Katameya for the guarantee and post guarantee service of Ladas.

The rapid development of tourism in Egypt and interest of many Russians in visiting the country make it suitable to establish mixed tourist companies and joint ventures for the construction of hotels, motels, holiday guest rooms, tourist centers and entertainment facilities. It is quite promising to build container terminals, refrigerator warehouses, water-purifying facilities and granaries. An important new sphere for Russian investments is the development of modern kinds of communications, such as cellular telephone networks and creation of software and internet services. Russia has accumulated a vast experience in this sphere in the recent five years, and the charge for these services is below the world level.

The main methods of attracting investments to Egypt are the schemes called BOT (build-operate-take profit), BOOT (build-operate-own-take profit) and BOO (build-operate-own). The credit and financial conditions offered to foreign participants of investment projects are quite attractive: 40% – donation, 20% – a soft credit (an installment plan for 17–20 years, the interest rate in first ten years is 2.5–4%) and 20% – budget financing plus the opportunity to supply a part of the manufactured equipment to Egyptian plants²⁸.

At the same time, the Egyptian investment legislation is characterized by some shortcomings, which should be taken into account by Russian investors. They will have to compete with Western and Arab investors. US, European, Japanese, and rapidly developing South-East Asian companies are quite active in Egypt.

On the other hand, Russian citizens are traditionally treated favorably there, since the Egyptians remember the fruitful cooperation with the Soviet Union and the flow of tourists from Russia is a key source of currency for the country. To achieve success, Russian entrepreneurs must attend annual international fairs in Cairo, where they already have demonstrated their activity. The 32nd International Fair was held in Cairo on March 9–19, 1999. Russia was represented there by ZAO Expocentre. The main exhibitors were 15 enterprises: the OAO BKMPO (a metallurgical plant), JV Kalitva

from Belaya Kalitva (Rostov oblast), the Degtyarev plant from Kovrov (Vladimir oblast), OAO Sparkplug Plant from Engels (Saratov oblast), OAO Klinvolokno (a fibre factory) from Klin (Moscow oblast), OAO Krasnyi Yakor from Nizhnii Novgorod, OAO Lenprodmash (food processing equipment) from St. Petersburg, OAO Omskshina (tyre plant) from Omsk, OAO Rusich from Kurgan, ZAO Tyazhpressmash from Ryazan, FoMos Co. from Moscow, Fesko match factory and the Cherepovets plywood and furniture factory (Vologda oblast),

Russian-made goods and services are still insufficiently promoted in Egypt. It is impossible to penetrate the Egyptian market without spending money on advertisement, marketing and a reliable agent. Notably, some Russian state-run and private companies are already active in Egypt. Russia exports machines and equipment to Egypt in the amount of \$ 130.8 million (Table 3.3.2).

Table 3.3.2. Export of Russian machines and equipment to Egypt, 2005

Items	Amount, \$ million	Supplier	
MI-17-IV helicopters	50.0	Aviaexport	
Metal-cutting machines	2.0	Stankoimport	
Ural dumpers	2.9	Avtoexport	
KAMAZ trucks with spares	6.3	KAMAZ	
VAZ-2107, 2109, 21213 cars	5.7	Ladaexport	
Ural motorcycles	3.0	Uralmoto	
Ship diesel engines	3.7	Zvezda	
Ship equipment	0.8	Sudoexport	
Tractor equipment	3.2	Traktoroexport	
Excavators	0.6	Stroidormashexport	
Diesel locomotive spares	0.3	Energomashexport	
Communication equipment	1.3	Mashpriborintorg	
Medical and optical equipment	0.2	LOMO	
Military equipment	50.0	Rosvooruzhenie	

All these companies have permanent representatives in Egypt, who work in cooperation with the Russian trade representation. They maintain multiple-year contacts with experienced agents and have a good knowledge of the situation on the Egyptian market.

Tourism is an important and dynamically developing sphere of the business cooperation between Russia and Egypt. The latter pins great hopes on the Russian tourist market, since tourism is a major source of hard currency proceeds there. In 1995, 113,000 Russians visited the country of pyramids; in 1996 they numbered 130,000 and in 1997 200,000 After November 1997, when a terrorist act committed in Luxor led to a drastic reduction in the number of Western European tourists, Russians saved the Egyptian tourist business from a catastrophic recession. In 2000, the number of Russian tourists was 400,000 to 500,000. In 2001 this number further increased by 25%.

Tourism develops particularly rapidly. The annual number of Russian tourists visiting Egypt constantly increases. The tourist industry contributes to the state budget some 11 billion USD per year. Out of this sum over 2,0 billion USD is the contribution of the Russian tourists. This significant currency surplus more than compensated the imbalances in commodity trade between the countries.

In 2010, nearly 3 million Russians visited Egypt as tourists. They stayed for 9.4 nights on average. Russians account for slightly less than a quarter of the total number of foreign tourists in the country. For a brief period of time Egypt overtook Turkey as the preferred overseas tourist destination for visitors from Russia. However, in the winter season of 2010/11 is lost its leadership due to the increased number of fatalities on Egyptian roads and incidents with sharks attacking tourists in Sharm-el-Sheikh.²⁹

In the late 1980s there were just three tourist agencies in Egypt that received Russian tourists; official Russian-speaking guides numbered eight. Nowadays, over 500 private agencies deal with Russia. The leaders are Lucky Tours, Intergulf Travel, Misr Travel, etc. over three hundred Russian-speaking guides can hardly cope with the inflow of tourists. In 1999, there were 240 agencies in Russia that offered tours to Egypt, these days their number ex-

ceeds 400; in Hurghada alone, there are dozens of Russian hotel employees.

The most promising spheres of Russian-Egyptian cooperation in tourism are: further development of traditional tourism in such new areas as the Red Sea and Mediterranean coasts of Sinai, Western desert oases and Aswan; construction and operation of hotels and other facilities for Russian citizens; combination of different kinds of tourism, introduction of new routes and development of elite tourism; business tourism, organization of various conferences, seminars and business weeks in Egypt.

As for the cooperation in science and technology, Egypt is interested in Russian proposals concerning projects in environment protection, geology, natural resources and agriculture (perfection of the operation of reclamation and drainage systems).

In January 2000, a seminar on the higher education in Russia was held in Cairo. It discussed the opportunities for training Egyptian students in Russia, above all, in engineering and sciences. Egyptians want their students to undergo practical training at Russian enterprises, including private companies. This is a promising sphere for the Russian-Egyptian cooperation. In addition, Egypt is interested in inviting Russian scholars and experts to Egyptian scientific research institutions.

Notably, other CIS countries actively compete with Russia at the Egyptian market. One of them is Ukraine, which inherited almost all Black Sea ports after the disintegration of the USSR.

Despite objective and subjective difficulties, the cooperation between Russian and Egyptian businessmen has fair prospects. Russian entrepreneurs have expanded the geographical limits of their activity and demonstrate interest in Africa.

Commercial and economic ties with Egypt have a solid legal foundation. In 1992 (14 May), the Agreement on Trade, Economic and Technological Scientific Cooperation was signed. On 5 November 1993, it was supplemented with a protocol which provided for the transition to monetary settlements in freely convertible currency between the countries and envisaged mutual granting of the status of the most favored nation. In accordance with the Decision of the Govern-

ment of the Russian Federation \mathbb{N} 1057 as of 13 September 1994 Egypt was included into the ranks of countries enjoying the benefits of a special preference scheme in trade with the Russian Federation. Russia unilaterally reduced the import custom duties for the bulk of Egyptian goods by 75 per cent (compared to the basic level).

Lately, the trade and economic cooperation with Egypt develops in a dynamic way (Table 3.3.3). Between 2004 and 2008 foreign trade between the countries grew 2.5 times. The Russian exports increased 2.5 times. However, Egypt's share in the overall turnover of Russian foreign trade remains insignificant (0,3–0,4%) and does not correspond to the real potential of trade between them.

In 2008, the trade turnover shrank by 2.8 per cent compared with 2007. During the first nine months of 2009, despite the global economic crisis the trade turnover between the countries increased by 15,4 per cent. Russian exports grew by 19,1 per cent.

Table 3.3.3. Trade between Russia and Egypt in 2004–2010 (according to the Russian customs statistics), million USD

	2004	2005	2006	2007	2008	2009	2010*
Turnover	830.2	1125.8	1373.0	2124.8	2064.7	2036.4	2103.1
year on year increase in%	199.4	135.6	122.0	154.8	97.2	98.7	117.5
Exports	774.1	1048.5	1241.4	1951.6	1856.3	1487.3	1855.6
year on year increase in%	205.0	135.4	118.4	157.2	95.1	98.3	115.6
Imports	56.1	77.4	131.6	173.2	208.4	182.3	247.5
year on year increase in%	145.0	137.9	170.1	131.6	120.4	103.1	133.9

^{* 11} months.

The current structure of Russian exports is as follows. Predominantly it consists of: food and raw materials, mainly of agricultural origin (38,4% in 2008 r.), timber, cellulose and paper goods (24,6%), metals and metal products (23,0%), machines, equipment, means of transport (4,3%), chemical industry products (2,2%). The share of each group and/or commodities varied significantly from

year to year. Thus, during the first half of 2009 the share of alimentary products and food increased to 62,3% of the total, the major part being wheat and maize.

Russia imports from Egypt predominantly agricultural products (83% in 2008): citruses, potato, rice, onions, garlic, and tea. Russia also imports manufactured consumer goods (textiles and textile products, footwear -4.5%, carpets -3.2%) produce of the chemical industry -1.7%, including pharmaceutical goods -0.9%.

The cooperation between the countries in the investment sphere is not as developed as commodity trade or trade in services. In 2008, Egypt invested some 16,4 million USD in Russia. The accumulated amount of Egyptian investment in Russia equaled 53,6 million USD, out of which direct investment amounted to 52,7 USD.

The major part of Egyptian investment in Russia goes into manufacturing – 14,8 million USD out of the 16,4 million USD total, in 2008. The volume of Russian investment in Egypt is insignificant. In 2008, only 900,000 USD were invested. However, there are good perspectives for expansion in the nearest future. One of the areas that particularly interest Russian companies is Egypt's oil and gas sector (see Chapter 2).

Russians understand that Egypt is not among the world's oil and gas leaders in terms of prospected and proven reserves and production of hydrocarbons. Nevertheless, revenues from oil and gas sales are of primary importance to the country's economy: oil exports were 65 percent of Egypt's total national export volume in 2001-2002.

Egyptian proved reserves at the end of 2002 were 3.7 billion bbl of oil (508.2 million tons) and 58,500 bcf of natural gas (1,660 bcm). The country's primary fields are located in the Suez Gulf region (about 60% of total reserves), the Libyan Desert, the Eastern Desert and Sinai. Oil production in 2002 was 37 million tons

Over 20 multinational companies are already working in Egypt, including Royal Dutch/Shell, British Petroleum, ENI-Agip, ChevronTexaco, ExxonMobil, TotalFinaElf, British Gas, Norsk Hydro, Marathon, Apache, Deminex, Dover Petroleum, Dublin Oil, Novus, Repsol, LUKOIL and others.

As of mid 2010, other areas of economic cooperation between Russia and Egypt included banking, tourist sector, quality control of exported commodities of agricultural origin, pharmaceutics, and peaceful space exploration.

On 25 March, 2008, the Intergovernmental Agreement on Cooperation in the Field of Peaceful Use of Atomic Energy was signed between the two countries. Signing of this agreement was particularly timely because the Egyptian ministry of Electric Energy concurrently adopted a plan for construction of nuclear power stations along the country's Mediterranean coast. The first plant may enter into exploitation in 2015–2016. The estimated cost of the planned project is 1,5 billion USD.

Russian President Dmitry Medvedev's 2009 visit opened up new prospects for cooperation between Russia and Egypt. During the visit Cairo paid Moscow the courtesy of supporting its initiative to convene a Middle East peace conference in Russia's capital before the end of 2009 (the conference did not take place). In Cairo, Russia and Egypt signed a strategic partnership agreement between the two countries. It, in particular, has every chance of success because Cairo is becoming increasingly irritated at the constant criticism from Washington, especially on the human rights issue. Under the circumstances, Russia may again get access to an area which the Americans have held sway for almost 40 years, namely military sales. Specifically, according to available data, the Egyptian military is looking at the possibility of acquiring Russian S-300 or S-400 air defense missile systems in view of the increasing missile threat from Iran.

A noteworthy event in bilateral relations was the September 15, 2010 announcement of the establishment of a working group to consider agro-industrial complex within the framework of the Russian-Egyptian intergovernmental commission on trade and economic cooperation. At the same time, Egypt proposed a long-term agreement for the sale of Russian wheat to Egypt that must clearly spell out mechanisms for determining compliance with the phytosanitary requirements of Russia and Egypt, and must also specify the authority responsible for oversight and inspection in this area.

In 2009, it was announced that in 2008 the volume of mutual trade in goods and services amounted to \$4.1 billion (in 2007 it was \$4.2 billion), of which \$1.7 billion was for goods turnover. Cooperation in the field of tourism increased dramatically in 2008, 1.84 million Russians visited Egypt. In this regard, Russia obtained Egypt's agreement to provide tourist and transportation services comparable to generally accepted standards.

Energy, transportation and space have been determined to be the most promising areas for bilateral cooperation. In particular, Russia has already received an official invitation to participate in the tender for construction of a nuclear power plant in Egypt. The tender is to be announced in late 2010. According to available data, Rosatom is proposing to build a plant in Egypt with a minimum of two and a maximum of four reactors. The starting price for a single reactor at the beginning of negotiations is the same as across the world – approximately \$2.5 billion.

The Russian and Egyptian space agencies are preparing two cooperation agreements – on the GLONASS system and for overall cooperation. Specifically, the discussion concerns the Estar project for remote sensing of the Earth. The first Egyptian satellite is planned for launch in late 2011; it will be followed by three more.

Moscow and Cairo are continuing negotiations on a project to establish a Russian economic zone in Egypt and a free trade treaty; however, according to Medvedev, "they are not moving as quickly as the parties would like" due to legal complications.

Libya. Russian President Medvedev believed that Russia's relations with Libya are on the upswing. "During recent years we have made significant progress on many fronts. Our political dialogue has become deeper and richer. Regular high-level meetings are taking place. Economic cooperation is improving," said Medvedev on October 12 at a credential presentation ceremony for ambassadors from a number of countries. He noted that "new joint investment projects and the development of humanitarian ties are on the agenda", but in March 2011 Russia joined UN sanction.³⁰

With regard to trade and economic relations with Libya, in 2009 Russia achieved progress in the areas of military-technical

cooperation and hydrocarbon production. The two countries worked closely together in the UN Security Council to address a number of important international issues, including issues affecting Africa, since on February 2, 2009 the leader of the Libyan revolution Muammar Gaddafi started a one-year term as the head of the African Union. It appears that the two countries are studying the possibility of deploying a Russian Navy base near Tripoli, which, if it comes about, will raise military cooperation between the two countries to a new level.

In 2009, Libya signed a \$200 million contract with Russia for delivery of missile boats. This was the largest weapons deal signed with Libya in recent times.

The LAVEX-2009 Arab-African arms exhibition took place in Tripoli during October. For Russia, it resulted in the signing of five contracts. No amounts were specified, but according to Rosoboronexport the contracts were for spare parts and munitions for Soviet— and Russian-made equipment, as well as for upgrading T-72 tanks. "Most of the contracts pertain to ground force and naval weapons and equipment, including contracts for upgrading T-72 tanks and supplying spare parts for ground and naval forces," stated Alexander Mikheyev, deputy general director of Rosoboron-export.

Also in October, it became known that Libya intends to acquire more than 20 aircraft in Russia for a sum of \$1 billion. According to available data, this involves 12-15 Su-35 fighters, 4 Su-30 aircraft and 6 Yak-130 operational trainers. The contracts are expected to be signed in late 2009 or early 2010.

Morocco. Trade and economic relations with Morocco were expanded in 2009. The Kingdom has recently become one of Russia's main suppliers of citrus fruits and early vegetables. In turn, Russia supplies Morocco with petroleum products and grain. Morocco is one of the trio of major Russian trading partners on the African continent. In the first 11 moths of 2010, the volume of trade between the two countries exceeded \$656 million. (Table 3.3.4) Bilateral cooperation in the field of marine fisheries is progressing. The first steps to develop investment cooperation have been taken.

A positive trend in the sphere of military-technical cooperation has begun taking shape. According to available data, negotiations to supply the royal armed forces with BMP-3 infantry fighting vehicles are underway. Morocco's air force is looking at the possibility of acquiring Russian Mi-35 attack helicopters and Mi-17 multirole helicopters.

Table 3.3.4. Trade between Russia and Morocco in 2004–2010. (According to the Russian customs statistics), million USD

	2006	2007	2008	2009	2010*
Turnover	492.7	861.4	1 340.7	767.8	656.9
year on year increase in%	98.4	174.8	155.6	57.3	118.8
Exports	262.4	527.6	891	410	379.5
year on year increase in%	73.5	201.1	168.9	46.0	128.3
Imports	230.3	333.8	449.7	357.7	277.1
year on year increase in%	160.6	144.9	134.7	79.5	105.9

^{* 11} months.

As is well known, Morocco's military has long wanted to buy Russian military hardware, especially armored vehicles. However, such deals fell through in the past out of concerns that they would provoke a negative reaction from Algeria.

Atomstroyexport's chances are considered good with respect to plans for building a nuclear power station in Morocco. There are some prospects for cooperation in the use of space, since Morocco is following similar activity in neighboring Algeria with some concern, especially as it relates to the establishment of remote-sensing satellites. Satellites of this type have a dual purpose, since they can be used for intelligence collection from space.

As was stated during Deputy Russian Foreign Minister Alexander Saltanov's visit to Rabat in September, "Russia's and Morocco's approaches to international issues coincide or are very close, which in turn opens up additional opportunities for our political coopera-

tion." The participants in the Rabat talks "agreed that both sides would make every possible effort to convene the next meeting of the intergovernmental commission on economic and scientific and technical cooperation as soon as possible," which would "give new impetus to Russian-Moroccan relations."

The means to boost agricultural cooperation were at the heart of a meeting held in Moscow between Moroccan Agriculture and Fisheries Minister Aziz Akhannouch and Russian Agriculture Minister Elena Skrynnik in June 2010. The two officials examined the agriculture strategies of their respective countries in addition to the means to facilitate the access of Morocco's agricultural products to the Russian market. The meeting was also an opportunity to highlight Morocco's green plan, which aims at boosting the contribution of agriculture to the GDP, developing agricultural production at the qualitative and quantitative levels, fostering agricultural products exports, and ensuring a rational use of irrigation water resources.³¹

Morocco is willing to promote its exports to Russia to exceed 350,000 tons of fruits and vegetables, Akhannouch said. For her part the Russian Minister underlined that Morocco remains an important African partner for Russia. Morocco and Russia renewed the threeyear fisheries agreement sealed in 1995. The agreement, which spanned two years, was signed by Agriculture and Fisheries Minister, Aziz Akhannouch, and president of the Federal Agency for Fishery of the Russian Federation, Andrey Krainiy. According to the accord, the authorized annual fishing quota will be decreased by 50% and the direct payment of the financial contribution by the Russian state will be introduced. The accord concerns small pelagic from the South Atlantic, and allows Russian ships to fish in accordance with the Small Pelagic Development Plan. According to the agreement, ships will be monitored by satellites, scientific observers will be on board and the catches' reports will be submitted. On the scientific level, both sides agreed on offering Moroccan students grants in Russian institutions and organizing prospecting campaigns to evaluate Morocco's fish resources.

The signing of the agreement may reinforce bilateral economic relations and will open new cooperation prospects for both coun-

tries. For his part, Krayniy said that the new agreement reflects the depth of relations between Russia and Morocco and will contribute to strengthening cooperation between the two countries.³²

Tunisia. Economic relations with Tunisia are rather limited. The most active sector is the tourist industry, but the direction of flows is one-sided. Every year about 180,000 Russian tourists spend on average 10 days in Tunisia.

The basis for trade and economic cooperation between Russia and Tunisia is formed by the intergovernmental agreements signed on 11 November 1993 on trade and economic, scientific and technical cooperation, according to which the Russian and Tunisian sides grant each other most favored nation treatment; these include an agreement on cooperation in hydraulic engineering, which confirms the consent of the Russian government to continue rendering economic and technical assistance to investment projects (dams, water conduits), and an agreement on forming the Russian-Tunisian intergovernmental Commission on trade, economic, scientific and technical cooperation.

Cooperation exists between Russia and Tunisia on the basis of education and public health agreements between state organizations of both countries.

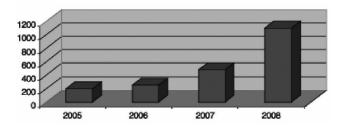


Fig. 3.3.5. Trade turnover Between Russia and Tunisia.

Source: www.rus-tunis.com

Trade turnover between Russia and Tunisia in 2008 increased by 14.9% (Fig.3.3.5). It is formed primarily by Russian exports. Imports are extremely small. The bulk of Russian exports to Tunisia in

2009 consisted of such traditional Russian raw materials as ammonia, lumber, cellulose, sulfur, asbestos, petroleum products, synthetic rubber, rolled steel and paper.

Russia's largest imports consisted of perfumes and cosmetics, seafood, plumbing fixtures, tiles and synthetic paints. The import of these products amounted to 90% of overall Russia's imports from Tunisia. The demand for Russian goods is determined by the demands of Tunisian industry for the corresponding raw materials. For example, ammonia and sulfur are needed for manufacturing phosphoric acid and phosphate fertilizers from phosphorite, of which Tunisia is one of the five leading world producers; the shortage of forests makes it necessary to import lumber, cellulose and paper; and while it has supplies of heavy oil, Tunisia is forced to buy lighter petroleum products, etc.³³

According to the Russian-Tunisian Business council, besides possibilities of importing Tunisian export commodities: superphosphoric acid, phosphate fertilizers, olives, citrus fruit, tomato paste, textiles and footwear, the most promising part of cooperation lies with possibilities for Russia companies to enter the Tunisian market. In this connection the following sectors and industries are the most promising for Russian businesses:

- Russian traditional exports (timber, metal, chemical products).
- Reducing the number of agents and establishing direct ties and inter-regional contacts. There is interest in Russian lathes, pumps, transformers, electric motors, cables, and other equipment.
- Continuing cooperation in irrigation construction. Attempts to introduce Russian drilling machines (for water), hothouses, industrial refrigerators, separators, pasteurizers onto the market.
- There is a possibility of delivering equipment, materials and spare parts for Tunisian pharmaceutical enterprises.
- Non-traditional sources of energy (wind power, solar batteries), energy-saving techniques, distillation of sea water, nuclear power.
- Plans to construct a network of oil and gas pipelines in Tunisia provide the prospect of Russian involvement in this work.
 - Deliveries of special technologies (coast guard launches, tug-

boats, spare parts for sea ships), KAMAZ, ZIL, GAZ trucks, as well as participation in modernisation of the country's ports.

- Geological surveys for solid minerals and water (including with the use of aerial and space photography).
- Russian commercial ventures can participate in the implementation of fast-recoupment projects in Tunisia by granting their own loans. Russian companies can (if the necessary guarantees are obtained) participate in the construction of Tunisian tourist and health resort facilities.
- Sending specialists to Tunisia (electrical engineering, increase in maritime biological resources).
- Products manufactured in Tunisia and meet world standards (paints, ceramic tiles, footwear, textiles, perfume, etc.).

Efforts were made to intensify and diversify the economic cooperation. The consolidation and the expansion of direct contacts of the Russian business community with the Tunisian partners play a significant role that is also the primary aim of the Russian-Tunisian business council. Council is a link which allows businessmen of Russia and Tunis to use efficiently as much as possible the potential of their cooperation for each of the parties. Today it is in our common interest to actively intensify cooperation in such priority directions as construction, mechanical engineering, energy sector, aero technical cooperation, building petrol and gas pipelines, rational water consumption, and also implementation of innovative technologies and mobilizing investments in development of hi-tech industries of economy. The foreign companies working in «free economic zones» of Tunis have advantageous conditions for export to neighboring countries of North Africa, the Mediterranean and the European Union on the basis of preferential agreements signed by Tunis with the countries of Maghreb, Arabian and African countries, and, regarding the entrance in a free trade zone, with the European Union on 1 January 2008.

For Russian manufacturers cooperation with the Tunisian partners is a real possibility to expand their business outside of Russia and to enter the market of the European Union and other countries of the world.

From October 21–23, 2010, the Fourth session of the Tunisian-Russian joint Committee on trade and economic cooperation took place in Moscow. Mr. Ridha Ben Mosbah, the Tunisian Minister of Trade and Handicrafts, paid a working visit to Russia. The Minister co-chaired the joint committee with the Russian Minister of Sports, Tourism and Youth, Mr. Vitaly Mutko.

A Tunisian delegation including Chairman and Managing Director of the Exports Promotion Centre (CEPEX) and the Director General of the National Handicrafts Board (ONA), representatives from several concerned ministries, Tunisia's Central Bank, the Mines Office and the Tunisian National Tourism Board (ONTT) also took part in the meeting.

The 4th session of the joint committee was an opportunity to assess bilateral co-operation in different sectors and examine prospects for its development. It also focused on ways and means to boost economic and partnership relations between both countries.

In this context, the two sides agreed on several concrete actions, particularly the establishment of economic days and the promotion of Tunisian exports in the Russian market in Moscow in May 2011, the participation in different economic events held in both countries as well as the invitation of Russian business delegations to take part in the next editions of the "TEXMED" exhibition and the Carthage Investment Forum.

The committee also dealt with ways to strengthen partnership and the flows of Russian investments in Tunisia, especially with regard to development and infrastructure projects scheduled in the 12th development plan and regarding particularly energy, water resources and mines.

Recommendations of the committee provided for further boosting of bilateral co-operation in several priority sectors, particularly education, university studies, professional training, health, agriculture and tourism through an exchange of expertise and information on regulations and development policies in these sectors.

At the end of the committee's works, the two ministers signed the session's minutes. Moreover, a co-operation program in the sports sector for 2011 was signed between the two countries. During his stay

in Moscow, Mr. Ridha Ben Mosbah also conferred with Deputy Minister of Trade and Industry, Mr. Georgy Kalamanov, Foreign affairs Deputy Minister in charge of the Arab World, Mr. Alexander Saltanov and co-Chairman of the Tunisian-Russian Business Council, Mrs. Tatiana Sadofieva. Many hope for increased were connected with the achieved agreements and plans prepared by the commission, Unfortunately, violent developments, which took place in Tunisia in early 2011 made the fulfillment of those plans unpredictable.

3.4. Cooperation with Countries South of the Sahara: Looking Beyond the Soviet Heritage

A principled stance in support of Africa allowed Russia to make progress in ensuring global stability and facilitate the development of fruitful cooperation with African countries.

Priority was given to the creation of a favorable political climate for the expansion of multifaceted contacts with the continent. Russian President Dmitry Medvedev's trip to Africa, during which he visited **Nigeria**, **Namibia**, and **Angola** (June 2009), gave a strong impetus to the development of the whole range of relations with African countries.

A big set of intergovernmental and interdepartmental documents and contracts between Russian and African companies was signed during the visits. Standing out among them are Agreements on the Encouragement and Mutual Protection of Investments with all the three countries, a medium-term program of economic, scientifictechnical, and trade cooperation for 2009–2013 with Angola, documents on the creation of a joint venture between Gazprom OJSC and the Nigerian National Petroleum Corporation and on the creation of the Angolan national satellite communications and broadcasting system ANGOSAT.

An important role was given to regular contacts with high representatives of African countries. Foreign Minister Sergey Lavrov's Moscow negotiations with Foreign Ministers Alexis Thambwe Muamba of the **Democratic Republic of Congo (DRC)** (April 2009), Assunção dos Anjos of Angola and Moctar Ouane of **Mali**

(May 2009), and **Ugandan** President Yoweri Museveni's private visit to Russia in August were of big political significance. Sergey Lavrov met with the president of **Somalia**, and the foreign ministers of the DRC, Nigeria, and **South Africa** during the ministerial week at the 64th Session of the UN General Assembly.³⁵

Increasingly growing attention was paid to broadening the geographical reach of cooperation between Russian regions and African countries in the economic, scientific and technical fields. Cooperation with South Africa is most advanced in this respect as it covers such constituent entities of the Russian Federation as Moscow and the Moscow Region, St. Petersburg, the Kaluga and Ulyanovsk Regions, and the Krasnodar Territory. Legal and contractual relations were officially established between the Moscow Region and the Province of Gauteng, and between St. Petersburg and Cape Town. A protocol of cooperation between St. Petersburg and Johannesburg is being coordinated.

Contacts with the African Union (AU) were developed further. The participation of the Russian delegation led by Federation Council Chairman Sergey Mironov (July) in the summit of this pan-African organization in Libya became an important step in this respect.

Contacts developed with the main sub-regional organizations on the continent: the Southern African Development Community (SADC), the Economic Community of the West African States (ECOWAS), and the Intergovernmental Authority on Development. In keeping with the earlier agreements, 13 grants were issued from the federal budget in 2009 specifically for SADC. The Russian ambassadors accredited to SADC and ECOWAS regularly attended these organizations' summits and other major events.

Active political work continued in the UN, primarily in its Security Council, on the **strengthening of peace and security** in Africa. Specific interaction with non-permanent members of the UN Security Council from the African group covered a wide range of issues, including the strengthening of the UN role as the central mechanism of collective response to global contemporary challenges. This work produced positive results, as evidenced by the positive attitude of the Africans to the Russian initiatives at the UN.

Efforts were taken towards a **political settlement of conflicts** on the African continent. This concerned primarily Russia's participation in the work of the UN Security Council, the Group of Eight, the International Contact Group on Guinea, and the Group of Friends of the Great Lakes Region. Russia sought to consistently step up participation in peacemaking efforts in Africa.

Russian servicemen and law enforcers (about 370 persons) are engaged in all of the UN peacekeeping operations in Africa: in the Democratic Republic of Congo, Western Sahara, Sierra Leone, Cote d'Ivoire, Liberia, and Sudan. Russian helicopter groups carried out missions within the UN Mission in Sudan as well as the Mission in Chad and the Central African Republic. Relevant Russian educational institutions ran training programs for African peacekeepers.

Russian Navy ships escorted Russian and foreign vessels in the Gulf of Aden as part of the **fight against piracy**. Eight attempts to seize ships were stopped and four pirate ships were detained. The Russian sailors' actions were highly commended in the world, and many partners call for developing cooperation against piracy. As of now, Russian Navy ships operating in the Gulf of Aden have established the most effective working interaction with the European Union's Operation Atalanta designed to fight piracy off Somalia. The large anti-submarine ship Admiral Chabanenko, which has necessary means for communication with Western partners, has been deployed in the region since December.

Russia continued to be actively involved in concerted international efforts to provide comprehensive **assistance to Africa** for its sustainable development, including within the framework of the Group of Eight.

One the important aspects of assistance to Africa was the **reduction of the debt burden for the states in the region** under the Heavily Indebted Poor Countries Initiative. By this moment, Russia has written off \$20 billion worth of debts owed by African countries. Negotiations on debt relief in the amount of about \$547 million are coming to an end with Benin, Zambia, Madagascar, Mozambique, Tanzania, and Ethiopia.

Russia provided humanitarian aid to countries in the region, including on a bilateral basis. Given Russian priorities, the donor contribution to the UN World Food Organization for 2009 was used for assistance to Guinea (\$1 million), Zimbabwe (\$2 million), Ethiopia (\$2 million), and Somalia (\$1 million).

The Russian Ministry of Emergency Situations delivered over \$500,000 worth of relief supplies to the population of Namibia affected by a flood. Humanitarian assistance (\$2 million) was provided to the DRC through the Office of the UN High Commissioner for Refugees.

Russia continued to assist African states significantly in the field of **personnel training**. More than 4,500 Africans are studying in Russian higher educational institutions, including about 50% at the expense of the federal budget. Seven hundred fifty government grants have been provided to African countries for Academic Year 2009–2010.

Relevant Russian educational institutions have training programs for Afghan peacekeepers. In addition, 159 specialists from 15 African countries completed training courses in 2009 at the Interior Ministry's St. Petersburg University, the Interior Ministry's Volgograd Academy, the Interior Ministry's Academy of Management, and the Interior Ministry's All-Russia Institute of Advanced Training. Russia's contribution to this work met a positive reaction on the continent.

Assistance to the development of **bilateral trade and economic ties** with African states remained one of the priorities. The search was conducted for new forms and methods of cooperation in various areas. Existing intergovernmental commissions on cooperation with African countries stepped up their work. The intergovernmental commission with South Africa convened (October 2009), and meetings of the co-chairmen of the Russian-Namibian and the Russian-Guinean intergovernmental commissions were held (October and November 2009, respectively). The Russo-African technical and economic cooperation is becoming stable and diversified. ³⁶

The results of all Russo-African negotiations confirmed the striving of the African countries to actively cooperate with Russia in

all spheres. These and other summits will be, undoubtedly, helpful for the restoration and further expansion of Russia's cooperation with the countries of Tropical Africa in all spheres. State aid is badly needed to solve this problem. At the same time, the pace of development and character of the Russo-African economic relations will depend to a great extent on the pace of the revival of the Russian economy.

In 2009, a number of major joint projects were launched with Nigeria, the most populous state of the sub-Saharan Africa. Of all the sub-Saharan countries, Nigeria currently is Russia's second largest trading partner. Trade turnover in 2008 came to almost 300 million tons, which was double that of 2007. Russian exports amounted to \$282 million, imports to \$7 million. (Table 3.4.1)

Table 3.4.1. Russia's Foreign Trade with Nigeria 2002–2009

	2002	2003	2004	2005	2006	2007	2008	2009
_								
Turnover	67.4	81.6	81.7	158.3	145.6	150.6	289.1	279.3
Increase in y/y%	70.7	121.0	100.1	193.7	92.0	103.4	191.9	96.6
Nigeria's Share in Russia's Foreign Trade Turnover	0.04	0.04	0.03	0.05	0.03	0.03	0.04	0.1
Exports	65.2	74.9	74.4	156.4	144.0	148.0	282.4	274.5
Increase in y/y%	73.7	114.8	99.3	210.3	92.1	102.8	190.8	97.2
Nigeria's Share in Russia's Export	0.1	0.1	0.04	0.1	0.05	0.04	0.1	0.1
Nigeria's Share in Global Ex- port *	0.3	0.3	0.4	0.5	0.5	0.5	0.5	
Imports	2.2	6.7	7.3	1.9	1.6	2.6	6.7	4.8
Increase in y/y%	32.1	301.4	109.3	25.6	85.8	161.3	257.8	71.4

	2002	2003	2004	2005	2006	2007	2008	2009
Nigeria's Share in Russia's Imports	0.005	0.01	0.01	0.002	0.001	0.001	0.003	0.003
Nigeria's Share in Global Import	0.1	0.1	0.1	0.2	0.2	0.2	0.3	:
Trade balance	63.0	68.2	67.0	154.5	142.4	145.4	275.7	269.7

The company RUSAL is efficiently working in Nigeria. It acquired almost 80% of the shares of the aluminum producer ALSKON and invested about \$300 million to upgrade the plant.

Construction of a 60-MW power plant with gas turbines manufactured by Salyut is continuing in Etelbou (Bayelsa State) with involvement of the Russian company ASEN. Successful completion of this project may open the Nigerian market to Russian power plant products for a long time to come.

The most notable event in relations between Russia and Nigeria during 2009 was the visit by Russian President Medvedev; the primary goal of his visit was to strengthen trade and economic cooperation. This was the first visit by a Russian head of state to Nigeria in the history of bilateral relations.

During the visit, Medvedev made an important political announcement about Russia's readiness to support Nigeria's advancement to the UN Security Council.

The visit was concluded with the signing of a Joint Communiqué by the two heads of state setting forth their vision for the future development of bilateral relations. A number of documents were signed in their presence, most notably two intergovernmental agreements on cooperation in the peaceful use of nuclear energy, an agreement on the encouragement and mutual protection of investments and a memorandum of understanding on cooperation in the exploration and use of space for peaceful purposes.

In April 2009, The United Metallurgical Company (Russia) joined the French company Total and NOC to sign a contract for

delivery of large-diameter pipes for construction of the main gas pipeline in southern Nigeria.

On December 15, 2009 Nigerian Minister of Science and Technology Alhasan Bako Zack announced that the country's first nuclear power plant would be built with Russia's assistance. Its capacity and the construction dates have not yet been announced. It is worth noting that in early 2008 Nigeria's leadership developed and approved a program under which the country would develop its own nuclear energy industry by building a nuclear power plant. It proposes to bring the first plant on line by 2017.

Due to disagreements on financial issues between the parties, the issue of resuming construction of the metallurgical complex in Ajaokuta remains unresolved.

Russian business circles in general are increasingly showing interest in gaining access to the country's large and promising market. The main thing now is to translate into practice the existing major projects in energy, ferrous and nonferrous metallurgy and other industries.

Ethiopia remains one of the oldest economic partners of Russia in Africa. In fact, even before the 1917 Russian revolution some limited trade (mainly in military related spheres) took place between the two monarchies. When Italy failed to induce Emperor Menelik II to recognize its protectorate by way of legal tricks and launched an open aggression against Ethiopia in 1896, Russia stood for the Ethiopian cause and supported Menelik by supplying military hardware and sending to Ethiopia a medical team led by General N.K. Shvedov to provide medical assistance to sick and wounded. In 1900-1901, soon after the British suppressed the Mahdists' rebellion and took control of Sudan, Ethiopia and Great Britain found themselves on the brink of war because the latter claimed a considerable part of Ethiopian territory bordering with Sudan. It was mostly due to Russia's determined position, as well as to its substantial assistance in strengthening the Western borders of Ethiopia that kept London from anti-Ethiopian military adventure.³⁷

During the Soviet period the USSR supported Ethiopia in various areas. When somebody tries to reduce that assistance to arms

supplies only it is either a blatant lie or a mere ignorance. In reality, quite a number of large-scale development projects were realized here with the Soviet assistance in the fields of industry, education, agriculture (for instance, a well-known irrigation project in Gambella). Big industrial enterprises and generating capacities were constructed (for example, the largest at the time and still one of the most significant ones Ethiopian hydropower plant in Melka Wakena). Comprehensive geological surveys were conducted, various mineral deposits were discovered (many of them are currently being exploited or prepared for extraction).

Nowadays such type of aid is usually described as "official development assistance". And it does not really matter that at that time Soviet assistance was to some extent conditioned by certain ideological or political considerations. Whatever the reasons were, one can safely say that in the 1970–1980s the USSR was the largest economic donor of Ethiopia contributing greatly to the development of almost every sphere of the latter's economy, as well as conducting a large-scale training of Ethiopian students (suffice it to say that over 20 thousand Ethiopians studied in the USSR).³⁸

With the end of the Cold War the basic principles and targets of foreign policy in my country and in the whole world have considerably changed. Russia's economic relations with Ethiopia are no longer based on political or ideological factors. Moreover, nowadays it is not public but private enterprises that are the leading economic operators in Russia. In their activities they are guided mainly by market rules and principles (profit generation, secure and rapid return of investments, etc.).

This trend, inter alia, has had a positive effect on the relations between Russia and Ethiopia. Though 2009 was marked by the culmination of the global financial crisis, it proved to be the most economically successful in the Russian-Ethiopian relations since 1991. Thus, the overall bilateral trade totaled about \$170 million, increasing 1.6 times as compared with 2008 (Table 3.4.2).³⁹

In 2009, for the first time in the post-Soviet period the Russian Federation took an active part in the regular Addis Ababa International Trade Fair. More than 20 Russian companies, organizations

and agencies displayed their exhibits in a special Russian pavilion. Several Russian participants signed a number of contracts and protocols of intent with their Ethiopian and other foreign partners. A «Russia Day» was also held during the Fair.

Table 3.4.2. Russian-Ethiopian trade (USD million)

	2003	2004	2005	2006	2007	2008	2009
Turnover	56.49	95.22	24.94	15.5	30.7	107.7	169.3
Export	56.02	93.86	22.06	10.8	22.9	100.6	160.4
Import	0.47	1.36	2.883	4.7	7.8	7.1	8.9

During the same period a Meeting of the co-Chairs of the Russian-Ethiopian Intergovernmental Commission (IGC) on Economic, Scientific, Technical and Trade Cooperation was held in Addis Ababa. It should be noted that both Russia and Ethiopia attach great importance to this mechanism in terms of promoting bilateral trade and economic partnership. The latest IGC Meeting took place in the end of 2010.

The imbalance in bilateral trade is still there with about 97% of it consisting of Russian exports (mainly fertilizers, cellulose, wheat, factory equipment, vehicle spare parts, etc.). The major items of Ethiopian export to Russia are agricultural products – coffee, cut flowers, oil seeds and leather. Russia expected the bilateral trade volume in 2010 to exceed the figures of the previous year. Thus, according to the data provided by the Ethiopian Revenues and Customs Authority, during the five months of 2010 the bilateral turnover surpassed \$90 million and is steadily growing.

In 2010, about two dozens of projects with full or partial participation of Russian investors were registered in Ethiopia. The total volume of expected investments exceeded \$80 million. Unfortunately, the global financial and economic crisis delayed the practical implementation of these projects. The absence of direct air communication between Russia and Ethiopia is another factor hindering the establishment of more active business ties, though the discussions about resuming direct flights are continually revived.

On the initiative of the Ethiopian side a Memorandum of Understanding between the Ethiopian Chamber of Commerce and Sectorial Associations and the Chamber of Commerce and Industry of the Russian Federation was signed in 2010. Both sides expressed mutual interest in developing agricultural cooperation. Thus, the Ethiopian Ministry of Agriculture and Rural Development and the Russian Federal Service for Veterinary and Phytosanitary Control are strengthening the working contacts they established in 2009.

Russia and Ethiopia are interested in establishing and enhancing cooperation in other sectors of economy as well. In particular, we see good prospects for mutually beneficial partnership in the fields of transport, water resources, mining, etc. Efforts are taken to step up bilateral cooperation in humanitarian and cultural spheres. In particular, we are exploring possibilities of sending qualified Russian specialists to Ethiopia and training more Ethiopians in Russia.

Russia provides food aid to Ethiopia. For example, this year we delivered here 2.850 mt of wheat worth \$2 million. Approximately the same amount of Russian humanitarian aid was supplied to Ethiopia last year. The year 2010 is also remarkable in the history of our bilateral relations due to the fact that recently we signed an intergovernmental agreement on terms of accommodation of the Ethiopian diplomatic mission in Moscow. It should be noted that these terms are exceptionally beneficial for the Ethiopian side. Considerable amounts of money that our Ethiopian partners had been spending every year to pay for the rent of the Embassy's premises can be allocated now for the implementation of various development projects in this country. Therefore, this agreement may be considered to be another evidence of the truly friendly relations between our two countries.⁴¹

The relations with South Africa are characterized by consistent economic growth. In 2009, major South African exports to Russia included machinery and electric appliances, fruits, prepared food-stuffs and beverages, vehicles, chemicals, raw hides and skins, precious and semiprecious stones. South African imports from Russia included natural or cultured pearls, chemical products, base metals, vehicles, machinery and mechanical appliances, and textiles. During

2009 vegetable products formed about 46% of South Africa's exports to Russia. About 84% of imports from Russia included chemicals and metals.

The bilateral trade volume during the previous year reached \$500 million. (Table 3.4.3.)

2009 2002 2003 2004 2005 2006 2007 2008 Jan- Aug. 132.6 142.4 172.0 179.4 484.0 243.7 Turnover 119.6 284.4 Export 40.2 6.9 9.1 25.2 20.1 14.4 40.3 54.3 **Import** 92.4 112.7 146.8 159.3 443.8 133.3 270 189.4

Table 3.4.3. Trade between Russia and South Africa, million USD

Although these developments are encouraging, they are not reflective of the true untapped potential that exists in our trade relationship. As a starting point, the two countries are major global producers of gold, diamonds, platinum, manganese and other strategically important natural resources and each has unique capabilities of profiting from these resources. Already some of South African major enterprises are co-operating in this area, although further synergies could be leveraged and are being explored. It is also encouraging to see that the products being traded are beginning to include value added goods from both sides, and the parties are moving away from solely trading in primary segments of the economy.

However, according to Willem van der Spuy, Director, Bilateral Trade Programs: Asia International Trade & Economic Development Department of Trade and Industry of the Republic of South Africa, true future potential though lies in some of the following areas identified and which could be further exploited:⁴²

- Mining and mining related technology
- Financial services
- Energy
- Biotechnology
- Infrastructure development and construction
- Aerospace and Space Technology

- Automotive and components
- Capital equipment and machinery
- Agro-processing.

In an effort to advance the economic relationship and support cooperation in these areas, Russia and RSA aim to strengthen and deepen economic linkages through strong business and governmental co-operation between the two countries. In this regard one of the main vehicles used is the Intergovernmental Committee on Trade and Economic Co-operation, known as (ITEC). Participating government departments include Minerals and Energy, Science and Technology, Trade and Industry, Health, Education, Transport, Agriculture, Defence and Water Affairs. The Committee is chaired by the Minister of Foreign Affairs on the South African side, and the Minister of Natural resources from the Russian side. Meetings of this committee are held annually and interchangeably in the capitals of both countries. Within the trade component the Department of Trade and Industry participates in the Trade, Investment and Banking subcommittee together with the South African Reserve Bank.

In essence the aim of the Trade, Investment and Banking sub-committee is to create an environment that would support increased and mutually beneficial trade and investment, through facilitating government and business linkages and identifying barriers to trade. During the Fifth Session of ITEC, held in October 2005, several important initiatives were undertaken in an effort to achieve these goals. Both sides noted the importance of expanding the value of trade as well as the range of traded products. In support of this, the two sides agreed to encourage the exchange of business delegations with the purpose of holding trade and investment fairs in both countries. More specifically, South Africa undertook to lead a business delegation and hold a trade and investment fair in Russia in 2006 as a way of raising the profile of South Africa-Russia business interactions. The focus of the fair will be to promote trade and investment co-operation in value added manufacturing and services sectors.⁴³

The Department of Trade and Industry of the Republic of South Africa and its Russian counterpart further agreed to develop a program of co-operation in the automotive sector in an effort to enhance sectoral co-operation. In the financial sector, growing co-operation between Russian and South African financial institutions in a number of areas, including joint projects in third countries is intensifying. As part of this process inter-banking consultations were held in April 2005 in South Africa, which included presentations from Russian banks.

South Africa's Standard Bank, Africa's largest bank by assets, took over a 33 percent stake in Russian investment bank Troika Dialog, the most established and largest independent investment bank in Russia, in an asset swap and cash deal. The transaction marked the first major foreign investment in the Russian financial sector since the start of the global economic crisis in 2008.

The deal initially comprised a US\$200 million convertible loan extended by Standard Bank's International Operations to the Troika Dialog Group. Standard Bank also gave a 100 percent stake in its Russian subsidiary commercial bank (ZAO Standard Bank) and all of its Russian business to Troika.

"The combined operation will have a capital base in excess of \$850 million and will be strongly positioned to compete in the Russian financial services sector and to pursue banking consolidation opportunities in Russia," Standard Bank said.⁴⁴

The transaction was approved by the Central Bank of the Russian Federation, the Russian antitrust authorities and the South African Registrar of Banks. Standard Bank said the investment was aligned with its strategy to expand its international networks and capabilities and, where appropriate, find the right partners to support the expansion of these networks.

"This transaction enables Standard Bank to have an enhanced access to this large emerging economy, along with a close alliance with a leading Russian company," the statement said. 45

The 5th meeting of ITEC also offered an opportunity for the signing of an Agreement on Co-operation between the Chamber of Commerce and Industry of the Russian Federation, and the Chambers of Commerce of South Africa (CHAMSA). The agreement included the establishment of a South Africa – Russia Business Council. During this engagement a business forum was successfully held,

led by the two Chambers and attended by representatives of the two countries' business circles. This initiative, driven by the private sectors, is viewed by the two governments as an important vehicle for establishing business ties and is actively supported by both sides.

The co-operation though goes beyond the bilateral level to also include the multilateral economic arena. The Gleneagles G8 Summit and Russia's support for economic development initiatives in Africa is a clear example of Russia's influence in the international arena and the potential role it could play in Africa's economic regeneration. Similarly, Russia's accession to the WTO will be an important development in the global trading system and South Africa supports its earliest accession.

In advancing this new economic engagement, South Africans are not only expanding economic activity between two markets, but also establishing a platform through which Russia can extend and build on its historical ties with Africa. Within the continent, the opportunities and associated developmental aspects framed by the NEPAD programme offer a new area of collaboration that promises to deliver exciting benefits in the future. 46

Relations during 2009 laid the foundation for a transition from predominantly commodity-based cooperation to high-technology cooperation. This may begin with sales of Russian power engineering equipment. South African officials have repeatedly advocated cooperation with Russia in space, energy and transportation. In terms of politics, it has not gone unnoticed that a Russian representative, Minister of Natural Resources and Ecology Yuri Trutnev, was one of the first foreign guests received by the new South African President, Jacob Zuma, after his inauguration. South Africa hopes that Russia will help its efforts to enhance the role of the "Big Twenty" and reform the UN Security Council.

Contacts continued throughout the year between Russian and South African experts regarding joint development of uranium deposits in the country and the possible construction of a nuclear power plant.

The issue of establishing a regional service center for the Helicopters of Russia holding company to maintain and repair Mi-8 and

Mi-17 helicopters has also being worked on. It is proposed to be a regional center to service sub-Saharan countries.

Good prospects for cooperation in space are opening up for the two countries. Nonetheless, not all plans have been implemented due specifically to the rather long delay in launching South Africa's Sumbandila satellite. It was initially assumed that the satellite would be launched using a converted Shtil submarine-launched booster rocket as early as 2007. The satellite was finally launched on September 17 from the Baikonur space complex together with a Russian Meteor-M satellite. A Soyuz-2 booster was used for the launch.

It was initially assumed that, should the launch take place on schedule, Russia would be able to deploy its tracking station in South Africa – the first in the southern hemisphere. Since the schedule was disrupted, it was not possible to carry out the plans to deploy the tracking station.

The main thing now is timely assistance to South Africa in achieving its ambition to become a regional center of space technology.

The cooperation in the sphere of technological modernization and innovation is a two-way road. Moscow is interested in adopting some of the South African technologies, which are either absent in Russia or may improve the existing capabilities.

South Africa's recent joining of the BRIC club may open ways for multilateral technological cooperation in a number of areas, one of them being production of liquid fuels from coal. South Africa is one of the world leaders in this area. Russia possesses its own technology different from that of South Africa, though the initial starting point, German conceptual research in the area in the 1930s, is the same.

Some experts forecast that coal might regain its importance as a key fuel across the world in the next decades if there is a new technology that guarantees its cost effectiveness and environment friendliness. At present, China, the U.S. and South Africa produce liquefied coal. Russia is also involved in this competition and has achieved world-class results. For one, "Kompomash-TEK" Company has developed a technology and machinery to produce a water-

coal mixture of a new generation. This is reported to be equivalent to liquid fuel.

The former Soviet Union made attempts to develop liquefied coal and it even had a 300-kilometer-long liquefied coal pipeline in Siberia to supply fuel to a thermal power station. But this technology proved to be too costly since it consumes 150 kilowatt hours to make a ton of fuel. The new technology developed by "Kompomash" consumes only 20 kilowatt hours. Initially, coal is processed mechanically and chemically to upgrade its combustion reaction.

Ordinary coal emits black smoke during combustion owing to unburned carbon black and dust, while liquefied coal burns completely and emits white smoke and does not pollute the environment with hard particles. The liquefied coal does not emit carbon monoxide at all, and the content of carbon black and nitrogen oxides in the residues of combustion is ten times less than minimum standards. This technology is competitive.

South African, US, or Chinese technologies are believed not to have achieved the same fine milling level as the Russian one (namely, a medium grain size of 0.7–0.8 microns). Consequently, there is no carbon dioxide emission since the fuel burns completely. Foreign technologies have failed to achieve this. Besides that, Russia uses advanced milling technology that consumes less energy.

In 2010, in Tianjin, Russia's "INTER RAO" Company and China's state-run "Shenhua" Corporation signed a memorandum on the construction of a factory to produce liquefied coal fuel in Russia. The factory will be build near the Chinese border and the company is exploring coal mines the products of which meet the technological demands. The cost of the factory is estimated at one billion U.S. dollars.⁴⁷

President Zuma's visit to Russia's in August 2010 gave new impetus to bilateral cooperation. The delegation accompanying Mr. Zuma included 11 Ministers and over 100 business leaders. These interactions were critical for South Africa's key domestic priorities, as well as for Russia's economic modernization and diversification policy priorities. During the 9th Joint South African-Russian Inter-

Governmental Committee on Trade and Economic Cooperation, held in Moscow at the time of the presidential meeting, International Relations Minister Maite Nkoana-Mashabane and her counterpart, Yuri Trutney, signed a trade protocol.

Under the protocol, the two countries agreed to increase trade and investment while lowering obstacles to economic co-operation. The two ministers also reaffirmed their determination to increase mutually beneficial social, economic and technical cooperation between the two countries. The ministers acknowledged that bilateral trade between South Africa and Russia fell below its potential, and agreed to take steps to increase trade while shifting the focus to high value added products, as well as to enhance cooperation in high-technology areas.

Russia ranks as the 44th largest export destination of South African goods and the 31st largest source of imports, with total trade amounting to R5.1 billion. South African foreign direct investment in Russia was estimated at US\$325 million in August 2009, mainly in mining, metals, financial services, wood products, and chemicals, while Russian investment in SA was estimated at \$1.209 billion 48

The 2009 visit by President Medvedev was the main event in relations with **Namibia**. This visit constituted a breakthrough in the development of bilateral trade and economic cooperation. It will make it possible in the long run to expand Russia's involvement in major projects in Namibia, particularly in the exploration and exploitation of mineral deposits, hydrocarbons, power engineering, transportation and tourism. "Russia is returning to the African continent as its close partner after a break due to our internal difficulties," President Dmitry Medvedev said at the talks with Namibian President Hifikepynye Pohamba. "We consider Namibia a very promising and friendly state. We have being maintaining cooperation with Namibia for 20 years since it proclaimed independence and established diplomatic relations with Russia," the Russian president stressed.⁴⁹

It was stated during the visit that the positions of the two countries in the international arena are either very close or are identical. Medvedev named reform of the UN, establishment of a new finan-

cial architecture and food safety as issues where efforts need to be coordinated.

A number of documents were signed during the visit, most notably a memorandum of cooperation between Gazprombank and the Namibian National Oil Corporation, and an intergovernmental agreement on the mutual encouragement and protection of investments. The first document provides for financing a project to build an 800-MW gas turbine power plant. The cost of the project is estimated at \$1 billion. The fuel planned for use at the power plant is natural gas from the Kudu field on the southern part of Namibia's continental shelf. A significant portion of the power produced – 500 MW – will be supplied to South Africa. It is assumed that the contract for the project will go to a Russian company. The timeframe for completion is 3–4 years.

According to Russian Minister of Natural Resources and Ecology Yuri Trutnev, Russian potential investments in Namibia are estimated to be worth billions of dollars. In particular, coordination has begun on two major power projects. Russia has made a proposal to Namibia for comprehensive development of uranium deposits, which suggests that nuclear power plants will be built in the country in the future.

During the visit, the two countries signed a memorandum of understanding between Rosrybolovstvo and Namibia's Ministry of Fisheries and Marine Resources, which by the end of 2009 allowed Russian ships to return to Namibia's economic zone, where they had operated until 1991.

During the year Rosatom conducted negotiations with major Namibian uranium mining companies. In some cases, the proposal was to acquire stakes in companies owning deposits; joint mining operations were also considered.

In May 2010, President of Namibia paid a visit to Russia. Dmitry Medvedev and Hifikepunye Pohamba discussed further cooperation. The talks were held in restricted and expanded formats. The most important joint projects, particularly in energy, transport, and mining sectors and some issues on the international agenda were discussed. In his press statement, President Medvedev particularly

noted such areas of cooperation as joint exploration of uranium deposits, the construction in Namibia of two hydroelectric stations and a fertilizer plant, and the reconstruction of railways. Dmitry Medvedev also noted the cooperation in the field of education, in particular, education of Namibian students in Russia and rendering assistance to the University of Namibia through teaching staff exchanges and provision of laboratory equipment.

Following the meeting, a number of agreements were signed in the presence of both presidents on cooperation in education, tourism, fishing industry, and on reciprocal protection of rights to results of intellectual activities, which have been obtained and are used within the framework of bilateral military technical cooperation. The sides also signed a memorandum on cooperation in exploration and mining of uranium. ⁵⁰

Russia and **Angola**, which have long enjoyed friendly political relations, must now concentrate on the development of trade and economic cooperation and investments. (Table 3.4.6.)

2002 2003 2004 2005 2006 2007 2008 2009 January -January -October October 51.02 24.07 28.3 26.81 80.68 Turnover 37.1 71.9934 21.9961 **Exports** 50.9 24.06 28.3 26.8 80.63 36.37 71.9347 21 9914

0.9

42.5

791

0.058

0.0047

Imports

38

6.8

10.5

Table 3.4.6. Russia's Trade with Angola (2002–2009), million USD

President Medvedev proposed that as a goal during his visit to that African nation. "It is impossible to imagine having relations between our two countries in the future without full-fledged economic relations. Today, not everything is going smoothly. The potential for economic ties is not being fully exploited." Indeed, our two countries have broad scope for development of all types of energy cooperation, in particular in the field of mining and processing minerals and hydrocarbons, as well as in the power industry. Moscow and Luanda have laid a good foundation for putting a modern satellite communication system into operation for Angola.

The talks in Luanda led the two countries to identify mining, energy, transportation, telecommunications, military-technical cooperation, education and health as priorities for strengthening the partnership. Agreements were also reached on expanding Russian investment participation in major projects of the Angolan economy, especially in mining, hydroelectric power station construction and development of space communications. The parties also adopted a mid-term program of economic, scientific and technical and trade cooperation for the period 2009–2013.

During Medvedev's Angola visit, Rosoboronexport signed a contract to develop a satellite communication system for Angola. The Energiya Space Rocket Corporation will develop a geostationary satellite for this system. A package of documents was signed, including the contracts for the ANGOSAT project and a Funding Memorandum. The contract documents provide for the development and launch of the ANGOSAT communications satellite, operation of the satellite in a geostationary orbit and work to establish the latest-generation digital television, radio and Internet system in Angola. Russian banks have extended credit in the amount of \$300 million for the ANGOSAT project.

There are good opportunities to expand cooperation in the electric power industry. Specifically, a hydroelectric power station was built on the Shikapa River by the Gidroshikapa joint venture with ALROSA involvement in 2008. Tekhnopromexport took part in the construction of the Kapanda hydroelectric power station, Angola's largest. The issue of Tekhnopromexport's involvement in two large hydroelectric power stations on the Kwanza River is being worked out.

"We value the traditions of friendship that we have developed with the Republic of Mali; we are ready to further expand economic contacts and search out promising future projects." This is what President Medvedev said about Mali on January 16, 2009 during the credentials presentation ceremony for the new Mali ambassador in Moscow.

In May, the two countries signed a memorandum of cooperation on fighting terrorism and organized crime. Russia and Mali are committed to the rule of international law and the supremacy of the UN's role in international relations, to promoting collective multilateral approaches to solving world and regional problems, and, on the whole, to creating a safe, just and democratic world order. The two countries are convinced that only within such a framework is it possible to adequately respond to modern challenges, including the threats of international terrorism and other manifestations of extremism, drug trafficking and organized crime. According to the Foreign Ministers of both Russia and Mali, "bilateral relations in the humanitarian and political spheres and in military-technical cooperation are working out well."

In its time, the USSR equipped Mali's national army and trained its personnel. At present, Russia is unfortunately doing only one of those things-training personnel and other countries have gradually taken its place in military-technical cooperation.

Overall, it can be argued that 2009 was a breakthrough year for the development of mutually beneficial political, trade and economic relations between Russia and the nations of Africa. The main areas of Russia's cooperation with the nations of the region became especially clear during the year. They are, primarily, joint exploration of the continent's natural wealth; the electric power industry, including nuclear power; military-technical cooperation; space; and education and training.

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CONCLUSIONS

THE RESULTS OF THE UNDERTAKEN research allow to draw a number of conclusions that go beyond the regional or sectoral scope. They are linked with the changing roles of Russia and Africa in the global economy, and more precisely in the emerging new economic model of world. In the new model their role is not limited to that of subordinated suppliers of raw materials to global economic centers of power. Slowly but surely they emerge as dominant players in the world commodity markets, being able to provision the "global economic engines" with the raw materials, whose global stocks are invariably depleting. The global markets of raw materials as a whole, on the other hand, are increasingly acquiring the characteristics of the so called 'Economics of Shortage'.

One of the results of this research, which may be important both to the theory of 'International Economics' as a branch of economic science and for commercial practice, is the identification of an important type of transition in the world economy. It is no longer the transition of social and economic systems that shapes the conditions of the global economy, (like transition from planned to market economies did in late 1980s and till early 2000s).

A qualitatively novel global economic process is under way: a process of a steady and increasingly accelerating transformation of the global natural resources (raw materials) market from "the buyer's market" into "the seller's one". This core process brings about tectonic geopolitical and geo-economic shifts, fundamental in their nature and global in scope. The consequences of this

change will shape the global economic development (and, in fact, the international relations) for al least the next 50 to 70 years.

It is important to emphasize that by this statement we are not referring to individual commodity markets – in which case – the 'buyer-seller' contraposition is volatile and varies in short– to medium-term periods. We are speaking about a higher level of theoretical abstraction – about a unified category of the world market of raw materials as an element of the system that is called "Global Economy'.

It is the deepening shortage of natural resources, which is one of the true and fundamental reasons for the worsening and latent local, regional and global crises in the new millennium. The presence or absence of natural resources have direct effects on people's living standards, prospects of social and economic development of states, stability of the world economy and international security.

The resources issue will dominate not only the international agenda but also the domestic one. It will remain a true underlying cause of international tensions and even wars, as well as social upheavals and revolutions within national borders.

Despite all the dissimilarity and belonging to different subgroups in terms of socioeconomic development, Russia and Africa are akin for being among the few remaining world regions with plentiful and not completely depleted resources (in company, perhaps, with Brazil and some regions in Asia). This fact, to a significant extent, determines their present position in the world economy and politics and makes them targets of expansion and international pressures, which will have the tendency to increase during the next decade.

In these conditions the new partnerships are vital for each of them, since such partnership represent alternative pillars for their sustained development and progress. Co-operation with new emerging economic centers, within the BRICS and South-South frameworks are equally important.

Unfortunately, Russia's expanding economic cooperation with the developing countries, and particularly with Africa, is often interpreted as a threat by the West. The actual underlying reason for such interpretations is the intensifying global rivalry for access to the shrinking reserves of natural resources a considerable proportion of which are in Russia and Africa.

The paramount character of the existing conditions and tendencies objectively strengthen the positions of Africa and Russia, while both tend to increasingly take similar stands on major global issues. As a consequence, their roles in the world economy, as the lead players on the global market of natural resources is growing steadily. This may lead, on the one hand, to multi-vector confrontation or at least tensions with other global centers of power, but on the other, opens ways for consolidation of positions, and for maneuvering between them, while actively perusing national tasks and goals.

Those, who erroneously hope that the global development will continue along the blueprints of the 20th century, believe that their confrontational and hegemonic approach can prevent the world from changing. They tend to underestimate the urge of peoples for a happier and more prosperous life and freedom, that can not be stopped. Disproportions in the consumption of global resources become a threat to the stability of the world economy. The centuries old patterns of distribution of commodities for manufacturing needs come into contradiction with the interests of the greater part of the population of the planet. This contradiction lies in the heart of the continued economic crises.

Unfortunately, the West continues to see both Russia and Africa as passive objects of its policy and to exploit their resources. It is suspicious and negative towards all attempts by these countries to conduct independent policy with regard to resources in their own interests. It interprets as an attempt to form anti-West geopolitical alliances the resuming by Russia of economic ties with African states in the use of natural resources and the possibility to coordinate their resources-related policy. In recent years, it became increasingly evident, that no matter how much western leaders speak about resetting the relationships or reforming the world economic order, their strategic vision is still significantly dominated by the old Cold War stereotypes and zero-sum games.

This inevitably motivates the United States and the "united Europe" to prevent a deeper cooperation between Russia and Africa in the field of resources. At the same time, one should not reduce the complex global raw-materials policy to attempts to keep Russia out of Africa or exclude it from Africa. As seen by Russia and Africa, the problem is whether the competitors recognize as legitimate their right to have their own national interests in the area of raw-materials and protect them.

The abrupt change in the situation in world raw materials markets that occurred in 2008 as a consequence of the current monetary crisis is bound to affect the future of the economic situation of African countries. Should the post-effects of the current financial crisis prove protracted (this is the most likely scenario), they would have fewer opportunities to sell their manufactured goods and buy raw materials in Africa.

We should keep in mind that monetary crises follow a certain cycle: they arise, grow, reach the peak and peter out sooner of later. At the same time, global shortages of raw materials are long-term and systemic. Hence the problems will be growing and causing a tougher competition for Africa's raw materials.

Thus, the new tussle for Africa's resources is of a strategic nature and is going to be protracted. Most probably and despite their desperate resistance, the old players would have to surrender some of their economic positions on the continent to new rivals. We are almost certain that, at least during the next decade, the positions of China, India, Russia, Brazil and a number of other countries in Africa will be growing stronger. Concurrently, there will be a growing competition between the old players – above all between the USA and EU countries - to once again confirm that the concept of a unipolar world is untenable and show that many "economic poles" are trying to grab African resources to advance their own interests. As for Russia, it ought to assess the actual advantages of cooperation with Africa in the field of raw materials and to re-embark the once successful course of multifaceted and mutually beneficial cooperation with the continent, to whose freedom from colonialism Moscow has contributed so much.

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RESOURCE POTENTIAL OF AFRICA AND RUSSIA'S NATIONAL INTERESTS IN THE XXI CENTURY

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