



Munich Personal RePEc Archive

Re-Think Russian Investment in Southern Africa

Gerasimchuk, Ivetta

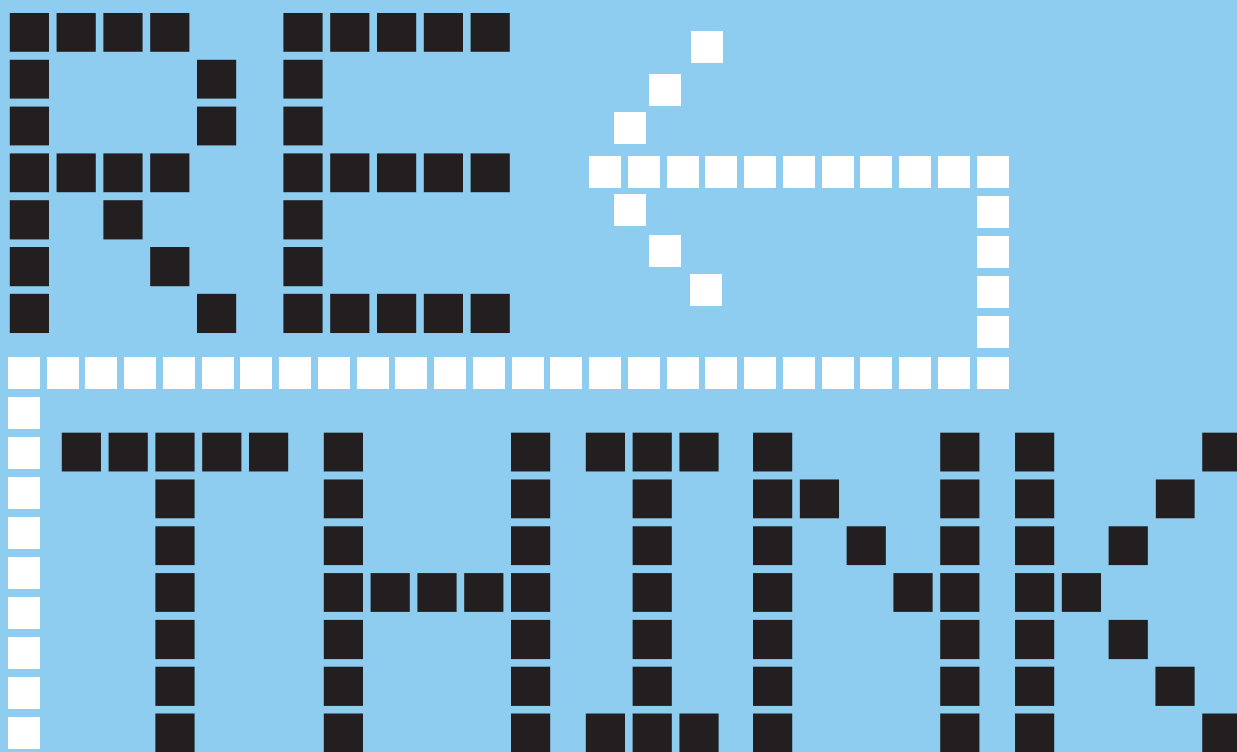
WWF Russia, WWF South Africa

February 2009

Online at <https://mpra.ub.uni-muenchen.de/15151/>
MPRA Paper No. 15151, posted 12 May 2009 08:22 UTC



for a living planet[®]



RUSSIAN INVESTMENT IN SOUTHERN AFRICA

by Ivetta Gerasimchuk
with contributions from Alistair Schorn and Peet du Plooy

by Ivetta Gerasimchuk
with contributions from
Alistair Schorn and Peet du Plooy



RUSSIAN INVESTMENT
IN SOUTHERN AFRICA

Moscow – Johannesburg
2009

Gerasimchuk, I.
Rethink Russian Investment in Southern Africa.
WWF's Trade and Investment Programme report.
Ivetta Gerasimchuk with contributions from Alistair Schorn and Peet du Plooy.
– Moscow / Johannesburg; WWF, 2009.

Russia's direct investment of about USD 3 billion in Southern Africa over the past decade has placed before the country's government and corporate sector two choices in the accelerating race among foreign investors into Africa. The first choice is to follow the established path of direct investment from developed economies that has, in the words of a famous African leader Walter Rodney, 'underdeveloped Africa' and involved a serious negative environmental impact. The second choice is one that corresponds with the former Soviet Union's policy of mutually advantageous cooperation with Africa. In the current context, this will prove possible only through joint cooperation to achieve environmental sustainability and economic diversification requiring long-term planning and innovation.

The purpose of this interdisciplinary empirical research paper is to investigate the current and future state of environmental practices in joint ventures between Russia and Southern Africa as compared with other patterns of cooperation among emerging market economies.

Academic editor:
V.G.Shubin – Deputy Director of the Institute for African Studies of the Russian Academy of Sciences.

Reviewers:
V.N.Shitov – Dean of the School for International Business and Business Administration of the Moscow State Institute for International Relations of the Foreign Affairs Ministry of Russia;
K. Gottschalk – Senior Lecturer of the Political Science Department, University of the Western Cape.

All rights reserved by WWF.
This report is distributed free of charge.

CONTENTS

EXECUTIVE SUMMARY	9
INTRODUCTION	13
CHAPTER 1.	
INVESTMENT NEEDS OF SOUTHERN AFRICA	15
1.1. Sustainability Challenges in SADC Countries	17
1.2. Profile of South Africa	20
1.3. Profile of Other SADC Countries	26
CHAPTER 2.	
RUSSIA'S RETURN TO SOUTHERN AFRICA	29
2.1. The Southern African Dimension of Russia's Policy	30
2.2. Russian Business' Interests in Southern Africa	32
CHAPTER 3.	
RE-THINKING RUSSIA'S INVESTMENT IN SADC	39
3.1. Russia's Strategic Interest in Southern African Natural Resources	42
3.2. Russia's Strategy to Act as a Global Guarantor of Energy Security	42
3.3. Russia's Efforts to Develop an Assistance Programme	45
CONCLUSION	47
REFERENCES	49

This report is part of a series of studies by WWF's Trade and Investment Programme, which aims at identifying and cooperating with actors in the key emerging economies (Brazil, Russia, India, China, South Africa and others) in order to promote sustainable trade and investment internationally. The Programme examines the scope which exists for these countries to become leading exporters of, and investors in, sustainable goods and services, whilst emerging as key actors in promoting a proactive international sustainable development agenda.

For help in collecting materials for this research, the author would like to thank G. Scheepers (SASOL), Y. Skubko, G. Shubin and A. Pritvorov (Institute for African Studies of the Russian Academy of Sciences). The author also extends her heartfelt thanks to the Heinrich Böll Foundation and the Russian Embassy in Pretoria as well as, personally, Russia's Ambassador in South Africa V. Lukov, K. Rethmann (Rethmann AG & Co), F. Schwalba-Hoth (European Parliament), and K. Thüsing (German Development Service/DED) who immensely assisted in organisation of her research trip to South Africa, Botswana, Lesotho and Namibia in 2000 – 2001.

This research paper was completed during the author's residencies at Nes Artist Residency in Skagaströnd, Iceland and the Pharos Trust, Nicosia, Cyprus.

ABBREVIATIONS

ASGI-SA	Accelerated and Shared Growth Initiative for South Africa
BEE	Black Economic Empowerment
BRICS	Brazil, Russia, India, China, South Africa
CDM	Clean Development Mechanism
CIS	Commonwealth of Independent States
CO ₂	Carbon Dioxide
CSR	Corporate Social Responsibility
EMEs	Emerging Market Economies
DRC	Democratic Republic of Congo
FDI	Foreign Direct Investment
FAO	Food and Agriculture Organisation (United Nations)
FSC	Forest Stewardship Council
GDP	Gross Domestic Product
GHG	Greenhouse Gas
HSE	Health, Safety and Environment
IDZ	Industrial Development Zone
IMF	International Monetary Fund
IPO	Initial Public Offering
ISO	International Standardisation Organisation
ITEC	South-Africa Russia Inter-Governmental Commission for Trade and Economic Cooperation
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organisation
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
PBMR	Pebble-Bed Modular (nuclear) Reactor
PPP	Purchasing Power Parity
RSA	Republic of South Africa
SADC	Southern African Development Community
SDI	Spatial Development Initiative
TNCs	Trans-National Corporations
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
UNDP	United Nations Development Programme
WEF	World Economic Forum
WRI	World Resources Institute
WTO	World Trade Organisation
WWF	Worldwide Fund for Nature

FIGURES

Figure 1	Southern African Development Community	16
Figure 2	Energy Intensity of BRIC + RSA Economies as compared with World Average, 2004	22
Figure 3	Fuel Wood In The Power Mix of Selected Southern African Countries, 2005	28
Figure 4	Oil Production Cost In Russia And Angola, USD per Barrel, 2006	34
Figure 5	Solar Radiation in Southern African Countries, Kilowatts hrs/m ² day	44

TABLES

Table 1	Sadc At A Glance: Socio-Economic Data	18
Table 2	SADC at a Glance: Environmental Data	19
Table 3	Brazil, Russia, India, China and South Africa at a Glance	25
Table 4	Russia's Natural Resource Base Complementarities with Southern Africa	31
Table 5	Major Existing and Planned Investments of Russian Companies in Southern Africa	37, 38

EXECUTIVE SUMMARY

Despite the vast geographical distance, and difference in size, between the two countries, Russia and South Africa possess a great deal in common. Biologically, both are home to leopards, foxes, hoopoes and other species. Institutionally, both countries have experienced a recent political transition from highly centralised, non-democratic regimes to less-regulated societies. Geopolitically, the two nations are leaders of their respective regions – post-Soviet Eurasia comprised of the Commonwealth of Independent States (CIS), and Southern Africa, particularly in the context of the Southern African Development Community (SADC). Economically, growth in both countries is heavily based upon the extraction and beneficiation of mineral resources, resulting in sustained pressure on their respective unique environmental riches. Finally, both Russia and South Africa are referred to as key emerging market economies (EMEs).

Russia's common features and complementarities with South and Southern Africa have formed the basis for the direct investment of about USD 3 billion by Russian companies into the region's natural resource sector over the past decade (Chapter 2, Table 5). Unsurprisingly, this expansion has involved primarily those industries in which Russian companies have been active domestically, namely ferrous and non-ferrous metals, diamonds, petroleum and uranium. As a result, virtually all the projects implemented by Russian business in Southern Africa are energy-intensive in nature and possess a considerable environmental footprint.

These investment activities have placed before Russia's government and corporate sector two choices in the accelerating race among foreign investors into Africa that involves both 'traditional' stakeholders such as the USA and European Union, and other EMEs, particularly China.

The first choice is to follow the established path of FDI from developed economies that has, in the words of a famous African leader Walter Rodney, 'underdeveloped Africa' and as a result aroused significant scepticism and criticism. This approach implies that as soon as their natural resources deposits are depleted by foreign investors for export purposes, African nations are essentially abandoned by these investors, and left to deal with severely degraded natural environments and virtually no operating mechanisms of economic growth.

The second choice is one that corresponds with the former Soviet Union's policy of mutually advantageous cooperation with Africa. In the current context, this will prove possible only through joint cooperation to achieve environmental sustainability and economic diversification requiring long-term planning and innovation.

Over the past two decades, the integration of environmental considerations into business decision-making has become a dynamic factor of international competitiveness for both nations and corporations. With the consistent and sometimes dramatic rise of world commodity prices over this period, innovations aimed at reducing energy- and resource-intensity hold the potential for significant savings by the private and public sectors. Such 'greening' also assists both states and companies to prevent environmental degradation, and the consequent expenditure associated with large-scale rehabilitation activities, as well as assisting in avoidance of the reputational risks associated with such environmental damage. Environmental footprint is increasingly taken into consideration in lending and insurance decisions regarding almost all types of projects. This process has materially contributed to technological progress and the development of new environmental practices and leapfrogging technologies.

This study has found no evidence suggesting that the environmental profile of Russian investment projects in Southern Africa is any 'dirtier' than that of projects implemented by Western or African investors. At the same time, there currently exist no examples of leapfrogging development projects promoted by Russian investors in Southern Africa; in other words projects promoting technological or institutional breakthroughs that would assist Southern African countries in bypassing the environmentally damaging and unsustainable stages of industrial growth that have marred the past of the majority of modern developed economies. However there do exist interesting opportunities for bilateral cooperation in the field of environmental sustainability, including amongst others joint projects in underground coal gasification, gas-to-liquid technologies, small-scale hydroelectricity, and energy-saving solutions.

A 'greener' approach towards cooperation with Southern Africa does not necessarily imply or require a divergence by the Russian government from the high-level choices it has already made in terms of its interest in Southern African natural resources, its strategy to act as a global guarantor of energy security, and its efforts to develop an international assistance programme. What need to be re-examined in the sustainability context, however, are the instruments by which these high-level goals might be achieved.

A number of practical interventions exist by means of which Russian companies can enhance the environmental sustainability of their businesses, both domestically and in Southern Africa.

These include:

- (i) voluntary standards – the introduction of and compliance with more stringent international quality standards and HSE (health, safety and environment) certifications, environmental information disclosure, open 'green' dialogue with local communities and NGOs;
- (ii) efficiency measures – broader application of existing energy-, water-, and other resources saving solutions;
- (iii) corporate social investment – greater attention to local social and educational issues, with the aim of training employees and improving their living standards, as well as enabling local communities to find alternative income sources once resources deposits are exhausted;
- (iv) analysis – the integration of environmental and social performance indicators into 'due diligence' and investment approval procedures that would prevent 'surprises' and financial losses (as was the case in the purchase and sale of the South African Vanchem vanadium plant by Evraz);
- (v) responsible 'green field' investment – construction of new power generation facilities based on renewable resources such as wind and solar radiation, with minimal environmental footprint, particularly with regard to CO₂ emissions;
- (vi) research and development – aimed at sustainable technology solutions, including footprint mitigation, use of renewable energy sources, sustainable transportation, waste recycling, and energy, water and other resource savings.

Despite the current focus of Russian policy- and business decision-makers on uranium mining and nuclear energy projects in South Africa and Namibia, there exists considerable doubt regarding the long-term financial viability and environmental sustainability and expedience of such projects, particularly in view of Southern Africa's abundant renewable energy

In view of the increasing participation by Russian banks in projects based on natural resource exploitation in Africa, it is essential that Russian financial institutions begin applying international sustainability criteria in evaluating these projects, for example the UN Principles for Responsible Investment and Equator Principles.

The measures identified in this report form the basis for hedging the commodities revenues for the future, by investing them in sustainable business solutions. Rethinking Russia's investment in Southern Africa might involve additional costs in the short term, both in financial and administrative terms, but this expenditure should be viewed as capital investment, rather than costs. Furthermore, the returns on this investment, in the form of increased environmental sustainability and national and corporate competitiveness, are certain to be far in excess of the initial expenditure for both Russia and Southern Africa, and in fact for the world as a whole.

INTRODUCTION

There exists a plethora of visions regarding the structure and composition of the world economy in the mid- to long-term future, but one idea seems to be shared by all forecasters: namely that emerging market economies (EMEs) will be a major force.

The ground-breaking report *Dreaming with BRICs: The Path to 2050*¹ predicted that of the current leading industrial economies, only the USA and Japan might be among the world's six largest economies (by GDPs calculated based on the exchange rate) in 2050, with the remaining four being Brazil, Russia, India, and China (so-called BRIC economies). Furthermore, larger shares of the world economy may be taken by other key EMEs, including, but not limited to South Africa, Mexico, the United Arab Emirates, Turkey, Indonesia and Malaysia.

One question that remains unanswered in the ongoing debate on the future of EMEs², is how to make their transformation into economic heavyweights environmentally sustainable.

According to the latest *Living Planet Report*³, environmental footprint already exceeds national biocapacity in many emerging economic powerhouses, most notably China, India, Mexico, and South Africa. By contrast, Brazil and Russia are the two leading ecological creditors among EMEs, since their biocapacity currently exceeds their ecological footprint. Globally, however, total environmental footprint overshoot the Earth's biocapacity by approximately 30% in 2005. This reinforces the need for EMEs to embrace so-called leapfrogging technologies to bypass the environmentally unsustainable, resource-intensive stages of industrial growth that characterised the economic progress of today's developed countries⁴.

Precisely what these leapfrogging development patterns might entail, and how they should be encouraged, is a matter of intense debate across the developmental, economic, scientific and social spheres⁵. What is clear, however, is that along with attempting to design such breakthrough solutions for EMEs in various international fora, including the World Trade Organisation, United Nations Environment Programme, Global Environment Facility and others, it is equally vital to identify and promote best environmental practices and 'green' product chains originating within and between EMEs. An example of such 'dream deals' might be Chinese companies manufacturing solar cells from poly-silicon supplied by Russia, in order to sell these products at an affordable price into Middle Eastern or African, markets, provided of course that all participants in this production chain are making use of the most environmentally sustainable technologies and products available.

The purpose of this interdisciplinary empirical research paper is to investigate the current and future state of environmental practices in joint ventures between Russia and Southern Africa as compared with emerging patterns of South-South cooperation. Southern Africa has over the past several years become one of the significant recipients of Russian outward investment, particularly in the natural resources sector. Using a case-study approach to assess the environmental profile of existing and proposed bilateral projects, this report seeks to explain why and how it is necessary to 'Rethink Russian Investment in Southern Africa'.

¹ Wilson, D., and Purushothaman, R., 2003. *Dreaming with BRICs: the Path to 2050*, Global Economics paper No. 99, Goldman Sachs.

² Winters, A. and Yusuf, S. (Eds.), 2007 *Dancing with Giants: China, India, and the Global Economy*. World Bank and the Institute of Policy Studies, Washington, D.C.; Aykut, D. and Goldstein, A., 2006. *Developing Country Multinationals: South-South Investment Comes of Age*. OECD Development Center working paper No. 257, Paris.

³ WWF, 2008. *Living Planet Report 2008*. WWF-International, Gland.

⁴ von Weizsacker, E., Lovins A., and Lovins, L., 1997. *Factor Four: Doubling Wealth, Halving Resource Use - A Report to the Club of Rome*. Earthscan, London.

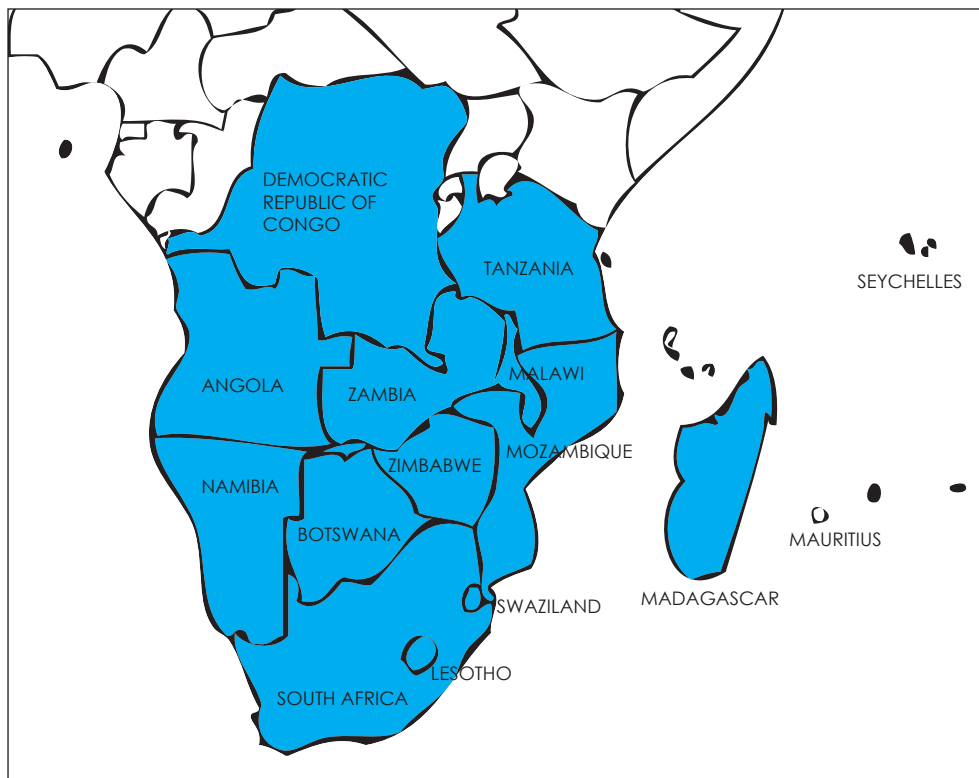
⁵ Perkins, R., 2003. *Environmental Leapfrogging in Developing Countries: a Critical Assessment and Reconstruction* // *Natural Resources Forum*, Volume 27, No. 3, pp. 177-188.

CHAPTER 1.
INVESTMENT
NEEDS
OF SOUTHERN
AFRICA

Southern Africa's vast natural reserves and sustained economic growth rates (Tables 1 and 2 below) make the region an increasingly attractive investment target, not only for 'traditional' stakeholders such as the USA and EU, but also for key emerging market economies (EMEs). Depending upon the avenues into which these investments are channelled, they could either result in the destruction of the unique environmental riches of Southern Africa, or contribute meaningfully to their preservation.

The fifteen countries which make up the Southern African region differ fundamentally in terms of their levels of economic development, investment climates and regulatory environments, as well as in many other variables⁶. For the purposes of this study, however, it is expedient to consider them as a whole, for a number of reasons. In the first instance, the development needs of all these nations, including the social, environmental and other sustainability challenges, are relatively similar, a fact which contributed directly to the establishment of the Southern African Development Community (SADC) in 1980. Secondly, the diverse and fragile ecosystems of the SADC countries are for the most part cross-border in nature. Thirdly, many investment projects in the regions, especially in the area of natural resources, also extend across national borders. And finally, but not least importantly, Russia's recent investment activities have not been limited to South Africa, but have included Angola, Botswana and Namibia with potential for expansion to other SADC countries.

FIGURE 1. SOUTHERN AFRICAN DEVELOPMENT COMMUNITY.



⁶ The fifteen countries of Southern Africa, united by the Southern African Development Community (SADC), include: Angola, Botswana, Democratic Republic of Congo (DRC), Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Republic of South Africa (RSA), Swaziland, Tanzania, Zambia and Zimbabwe. The terms 'Southern Africa' and 'SADC' are used as synonyms in this report.

1.1. SUSTAINABILITY CHALLENGES IN SADC COUNTRIES

1.1. It is common knowledge that Southern Africa is faced with some of the largest development challenges in the world, making the region one of the most difficult in which to successfully implement the UN Millennium Development Goals. These challenges include poverty, ongoing famine, the spread of HIV/AIDS and other diseases, and a lack of basic infrastructure and services such as education and health care. In addition, many countries in the region exhibit severe shortages in the supply of housing, safe water and electricity (Table 1). In a number of countries, these development challenges are exacerbated by military conflicts, political instability and the existence of undemocratic regimes. Social and income inequalities persist, resulting in high illiteracy and crime rates. Environmental challenges include the degradation of arable land, water shortages and droughts, poor practices in terms of utilisation of natural resources use, the negative impact of climate change, threats to biodiversity and many more (Table 2).

Africa's principal strategy to address these challenges is the New Partnership for Africa's Development (NEPAD), a development framework initiated by five heads of state (those of Algeria, Egypt, Nigeria, Senegal and South Africa) and adopted by the African Union in 2001. In many senses, NEPAD provides a common platform for negotiation by African states with the G8, OECD and key EMEs on issues of political relations, security, economic growth and human development.

It is beyond dispute, both internally and externally, that sustained economic growth is an essential element for resolving the majority of the development challenges in Southern Africa. Such economic growth will translate into employment creation, assist in the eradication of poverty, and also assist in securing a surplus in the current account on the balance of payments of these countries, in order to free them from an ongoing cycle of indebtedness. At present, ten out of the fifteen SADC economies, including South Africa, export less than they import, resulting in a balance of trade deficit and a lack of available capital for financing development projects. Such capital can therefore be acquired only through international public loans or official development assistance.

Investment in productive capacity is essential for stimulating economic growth, and since the majority of the Southern African economies lack the capacity to generate sufficient funds from domestic sources, foreign direct investment (FDI) is often regarded as the only alternative option for securing such capital. For this reason, the UN Millennium Declaration calls for greater levels of FDI into Africa. Unfortunately, however, the region's colonial past, as well as its post-colonial experience of FDI that has been primarily resource-seeking, with very low levels of profit for local economies, have served to provoke scepticism regarding the benefits of FDI to Africa⁸.

It is also widely recognised that direct investment is preferable to portfolio investment, due to its more permanent nature, and that foreign investment in joint ventures and 'greenfield' developments is preferable to acquisitions. Whereas portfolio investments and acquisitions are on the whole more common in Africa than direct investment in new projects, these forms of investment are also more dependent upon the volatility of world commodity prices and other risks. The levels of such investment often taper off within a relatively short time span, without creating workplaces, benefiting local communities or pursuing the environmental and other strategic interests of the African nations⁹. By contrast, joint ventures with local partners and 'greenfield' developments testify to a more long-lasting commitment by foreign investors to the host economies, as they create new employment opportunities and broaden the tax base. Furthermore, international companies with strategic interests often introduce improved corporate social responsibility practices and more stringent health, safety and environment (HSE) standards than are required by legislation of host nations.

⁷World Bank, 2007. World Development Report 2008. World Bank, Washington, D.C., pp. 342 – 344.

⁸Rodney, W., 1983, *How Europe Underdeveloped Africa*. Bogle-L'Ouverture Publications, London and Tanzanian Publishing House, Dar-Es-Salaam; Moran, T., Graham, E. and Blomstrom, M. (Eds.) 2005. *Does Foreign Direct Investment Promote Development?* Peterson Institute for International Economics, Washington D.C., pp. 337 – 366.

⁹Mkandawire, T., 2005. *Maladjusted African Economies and Globalisation // Africa Development*, No. 30, 1 – 2, p.6.

TABLE 1. SADC AT A GLANCE: SOCIO-ECONOMIC DATA

Indicator (Data Source)	Angola	Botswana	DRC	Lesotho	Madagascar	Malawi	Mauritius	Mozambique	Namibia	Seychelles	South Africa	Swaziland	Tanzania	Zambia	Zimbabwe	SADC Total
Population, million people, 2006 (World Bank 2007, pp. 334 – 335, 344)	16.0	1.8	59.0	1.8	19.0	13.0	1.3	20.0	2.0	0.1	47.0	1.1	39.0	12.0	13.0	246.1
GDP (exchange rate), billion USD, 2006 (World Bank 2007, pp. 340 – 341, 344)	44.0	10.6	8.5	1.5	5.5	2.2	5.3	7.6	6.4	0.8	255.0	2.6	12.8	10.9	5.0	378.7
Average annual GDP growth, % (exchange rate), 2000–06 (World Bank 2007, pp. 340 – 341, 344)	11.1 %	4.0 %	4.7 %	3.1 %	2.7 %	4.1 %	2.6 %	8.2 %	4.7 %	2.9 %	4.1 %	2.0 %	6.5 %	4.9 %	-5.6 %	–
GDP (PPP), billion USD, 2005 (UNDP 2007, pp. 277 – 280)	37.2	21.9	41.1	6	17.2	8.6	15.8	24.6	15.4	1.4	520.9	5.5	28.5	11.9	26.5	782.5
GDP per capita (PPP), USD, 2005 (UNDP 2007, pp. 277 – 280)	2235	12387	714	3335	923	667	12715	1242	7576	16106	11110	4824	744	1023	2038	–
FDI inflows, USD million, 2006 (UNCTAD 2007, pp. 251 – 254)	-1140	274	180	57	230	30	105	154	327	-146	-323	36	377	350	40	551
Current account balance, USD million, 2006 (World Bank 2007, pp. 342 – 344)	5138	2027	-638	66	-554	-385	-292	-761	634	-173	-16276	18	-536	-883	–	–
Public debt as percentage of GDP, 2005 (SADC 2006, p. 15)	31.2%	8.9%	3.3%	50.5%	87.0%	–	66.2%	70.0%	33.6%	–	46.9%	–	79.1%	64.5%	110.0%	56.4%
WEF Global Competitiveness Index 2007/2008 (WEF 2008)	–	3.96	–	3.27	3.36	–	4.16	3.02	3.85	–	4.42	–	3.56	3.29	2.88	–
Corruption Perceptions Index, 0-10, 10=least corrupt, 2003 (WRI 2005, . 197)	1.8	5.7	–	–	2.6	2.8	–	2.7	4.7	–	4.4	2.5	–	2.5	2.3	–
Human Development Index, 0-1 (1=highest) 2005 (UNDP 2007, pp. 229 – 232)	0.446	0.654	0.411	0.549	0.533	0.437	0.804	0.384	0.650	0.843	0.674	0.547	0.467	0.434	0.513	–
Poverty rate, population living for less than 1 USD per day, 1990-2005 (UNDP 2007, pp. 238 – 241)	–	28.0%	–	36.4%	61.0%	20.8%	–	36.2%	34.9%	–	10.7%	47.7%	57.8%	63.8%	56.1%	–
Unemployment rate, % labour force, 1996-2005 (UNDP 2007, pp. 299-302)	–	23.8%	–	39.3%	4.5%	–	9.6%	–	33.8%	–	26.6%	–	5.1%	12.0%	6.0%	–
Adult literacy, % aged 15 and older, 1995-2005 (UNDP 2007, pp. 238- 241)	67.4%	81.2%	67.2%	82.2%	70.7%	64.1%	84.3%	38.7%	85.0%	98.8%	82.4%	79.6%	69.4%	68.0%	89.4%	–
HIV prevalence, % of aged 15-49, 2005 (UNDP 2007, pp. 27 – 260)	3.7%	24.1%	3.2%	23.2%	0.5%	14.1%	0.6%	16.1%	19.6%	–	18.8%	33.4%	6.5%	17.0%	20.1%	–
Prevalence of undernourishment in total population, %, 2002-2004 (UNDP 2007, pp. 251 – 254)	35%	32%	74%	13%	38%	35%	5%	44%	24%	9%	<2.5%	22%	44%	46%	47%	–
Intentional homicides per 100000 people, 2000-04 (UNDP 2007, pp. 322 – 325)	–	0.5	–	50.7	0.5	–	2.5	–	6.3	7.4	47.5	13.6	7.5	–	8.4	–
Population using improved sanitation, %, 2004 (UNDP 2007, pp. 251 – 254)	31%	42%	30%	37%	34%	61%	94%	32%	25%	–	65%	48%	47%	55%	53%	–
Population using improved water source, %, 2004 (UNDP 2007, pp. 251 - 254)	53%	95%	46%	79%	50%	73%	100%	42%	87%	88%	88%	62%	62%	58%	81%	–
Electrification rate, % of population, 2000-05 (UNDP 2007, pp. 302 – 305)	15%	39%	6%	11%	15%	7%	94%	6%	34%	–	70%	–	11%	19%	34%	–

TABLE 2. SADC AT A GLANCE: ENVIRONMENTAL DATA

Indicator (Data Source)		Angola	Botswana	DRC	Lesotho	Madagascar	Malawi	Mauritius	Mozambique	Namibia	Seychelles	South Africa	Swaziland	Tanzania	Zambia	Zimbabwe	SADC Total	
Land	Land area, thousand ha (WRI 2005, pp. 217)	124670	56673	226705	3035	58154	9408	203	78409	82329	45	121447	1720	88359	74339	38685	964181	
	Protected areas, % of total land area, 2004 (WRI 2005, p. 213)	4.2	18.1	5.1	0.2	2.4	8.9	-	4.2	3.9	-	5.3	-	14.6	8.4	7.9	-	
Biodiversity	Number of mammals species (WRI 2005, pp. 213)	Known, 2004	296	169	430	59	165	207	-	228	192	-	320	-	375	255	222	-
		Threatened, 2003	11	6	29	3	49	7	-	12	10	-	29	-	34	11	8	-
	Number of birds species (WRI 2005, pp. 213)	Known, 2004	930	570	1148	311	262	658	-	685	619	-	829	-	1056	770	661	-
		Threatened, 2003	20	9	30	7	34	13	-	23	18	-	36	-	37	12	10	-
	Number of plants species (WRI 2005, pp. 213)	Known, 2004	5185	2151	11007	1591	9505	3765	-	5692	3174	-	23420	-	10008	4747	4440	-
		Threatened, 2003	26	0	65	1	276	14	-	46	24	-	75	-	239	8	17	-
Water	Internal renewable water resources, km3 (excl. trans-boundary flows) (WRI 2005, p. 209)	184	3	900	5	337	16	-	99	6	-	45	-	82	80	14	-	
	Water withdrawals, % of internal renewable water resources, 2000 (WRI 2005, p. 209)	<1%	5%	<1%	1%	4%	6%	-	<1%	4%	-	34%	-	2%	2%	19%	-	
Fuelwood reliance	Share of biomass and waste in the total primary energy supply, 2005 (UNDP 2007, pp. 302-309)	64%	24%	93%	-	-	-	-	96%	14%	-	11%	-	92%	79%	62%	-	
	Extent of forest, thousand ha, 2005 (FAO 2006b, pp. 196-197)	59104	11943	133610	8	12838	3402	37	19692	7661	40	9203	541	35257	42452	17540	353328	
	Annual change rate of forest extent, %, 2000-05 (FAO 2006b, pp. 196-197)	-0.2%	-1.0%	-0.2%	+2.7%	-0.3%	-0.9%	-0.5%	-0.3%	-0.9%	0	0	+0.9%	-1.1%	-1.0%	-1.7%	-	
	Total removals of wood, thousand m3 (FAO 2006b, p. 280)	5196	881	82994	2455	7031	6272	14	22029	-	13	17741	1024	28033	9851	11566	>195100	
	Domestic fuel wood consumption as percentage of total removals of wood, 2005 (FAO 2006b, p. 280)	75%	85%	95%	100%	91%	90%	43%	92%	-	23%	1%	63%	90%	89%	90%	approx. 84%	
Environmental impact	Environmental Performance Index 1-100, 100=best performance, 2008 (Yale Center for Environ-I Law 2008)	39.5	68.7	47.3	-	54.6	59.9	78.1	53.	70.6	-	69.0	61.3	63.9	55.1	69.3	-	
	Ecosystem Vitality Index, 2008 (Yale Center for Environ-I Law 2008)	8.9	68.6	12.6	53.1	37.6	34.0	97.7	25.5	60.9	-	81.8	61.1	52.2	30.8	67.8	-	
	Environmental Health Index, 2008 (Yale Center for Environ-I Law 2008)	70.1	68.7	82.0	-	71.6	85.8	58.5	82.4	80.4	-	56.2	61.6	75.6	79.4	70.8	-	
	Biocapacity, global ha per person, 2005 (WWF 2008, pp. 34-37)	3.2	8.5	4.2	1.1	3.7	0.5	0.7	3.4	9.0	-	2.2	1.7	1.2	2.9	0.7	-	
	Footprint, Global ha per person, 2005 (WWF 2008, pp. 34-37)	0.9	3.6	0.6	1.8	1.1	0.5	2.3	0.9	3.7	-	2.1	0.7	1.1	0.8	1.1	-	
	Biocapacity Deficit / Reserve, global ha per person, 2005 (WWF 2008, pp. 34-37)	+2.3	+4.9	+3.6	-0.7	+2.6	0.0	-1.6	+2.5	+5.3	-	+0.1	+1.0	+0.1	+2.1	-0.4	-	

1.2. PROFILE OF SOUTH AFRICA

Both Russia and South Africa occupy prominent positions amongst EMEs as well as on the global stage, with each exhibiting particular strengths. Russia, unlike South Africa, is both a member of the G8 and a permanent member of the UN Security Council, while its economy is three times larger than that of South Africa by PPP. Meanwhile South Africa is, unlike Russia, a WTO member and enjoys a better reputation for international competitiveness. For instance, in the World Economic Forum's Global Competitiveness Report for 2008/2009¹⁰ report, South Africa ranks 45th in the Global Competitiveness Index, whereas Russia occupies 51st place amongst the 134 economies participating in the survey (Table 3).

Although natural resource-based industries play a significant role in both economies, and their endowments of these resources make them important raw materials suppliers to the world market, Russia and South Africa compete directly only in a limited number of international trade segments, such as diamonds. In many other supply sectors, the resource bases of the two countries are complementary (Table 4).

The many common features shared by Russia and South Africa can act as significant drivers for cooperation. Economically, both countries place a high degree of emphasis on maintaining their economic growth and raising living standard for their populations, possibly with a view to becoming members of the Organisation for Economic Cooperation and Development (OECD). In particular, in accordance with the Declaration of Leaders Meeting of Major Economies on Energy Security and Climate Change, released in July 2008 following the G8 meeting in Hokkaido, Japan, both governments are actively seeking ways to diversify the sources of their countries' economic growth and to reduce energy- and resource intensity, in order to remain globally competitive. Institutionally, both countries have experienced fairly recent political transitions from highly centralised, non-democratic regimes to less-regulated and functionally democratic societies. Geopolitically, the two nations are leaders of their respective regions – post-Soviet Eurasia comprised of the Commonwealth of Independent States (CIS), and Southern Africa in the context of SADC.

These features make Russia and South Africa, as well as many other EMEs, strategic role players in the process of shifting the world's economic growth onto a more sustainable path. As both producers and consumers of an ever-increasing amount of resource-intensive products, the two emerging leaders can either encourage or discourage environmentally beneficial trade and investment policies within the areas of their respective international influence.

Investment Priorities

Similarly to their Russian counterparts, South Africa's political leaders view economic growth as the most effective solution to the country's development challenges. As a result, in 2006 the government launched the Accelerated and Shared Growth Initiative for South Africa (AGSI-SA) with the goal of halving poverty and unemployment in the country by 2014. In order to achieve this target, the South African government encourages investment, and in particular FDI, into:

- Labour-intensive economic activities such as business process outsourcing, tourism and infrastructure development, spurred by the selection of South Africa to host the FIFA World Cup in 2010 – the first international event of this scale in Africa (at present, infrastructure upgrade projects are underway in thirteen venues across the country). Labour-intensive projects in these and other areas are intended to assist in employment growth and improving the skills base of the workforce as well as increase labour productivity;

¹⁰ WEF 2008. Global Competitiveness Report 2008/2009. WEF, Davos, p. 10; <http://www.weforum.org/documents/GCR0809/index.html>

- Black Economic Empowerment (BEE) projects, aimed at channelling economic growth to the benefit of the previously disadvantaged segments of the South African population¹¹. In terms of FDI, including Russian investment into South Africa, this policy implies that preference is given to joint ventures with BEE groups rather than projects fully owned by foreigners. In this respect, South Africa's approach is similar to the Russian government's policy of encouraging FDI through joint venture with local partners;
- 'Greenfield' projects which generate new employment opportunities and tax revenues. In this regard, priority is given to new projects developed with the country's Spatial Development Initiatives (SDIs)¹² and Industrial Development Zones (IDZs)¹³, which are elements of an economic development policy aimed at levelling territorial disparities in wealth distribution that were created under the apartheid regime. These SDIs and IDZs take the form of special economic zones, benefiting from public investment in infrastructure and in certain cases a relaxed regulatory regime, which are aimed at promoting FDI in key export-oriented industries through geographical advantages and transportation linkages. Certain SDIs are cross-border in nature, for instance the Maputo Development Corridor between South Africa and Mozambique, which also benefits Swaziland, Zimbabwe and Botswana, and the Lubombo Initiative between South Africa, Mozambique and Swaziland. A number of other SDIs and IDZs are in various stages of development and implementation across the region;
- Since early 2008, preference has been given to projects that do not rely heavily on the existing electricity generation capacity in South Africa, in other words either those that are not electricity-intensive or those that provide for the construction of their own energy-generation facilities. At present, South Africa faces a serious energy crisis, resulting from the high energy-intensity of its economy, which is twice the world's average (Figure 2), as well as from under-investment in additional energy generation capacity over the past several years. In January 2008 the national electricity supply monopoly, Eskom, imposed restrictions in energy supply on 138 industrial consumers and proposed to shelve new electricity-intensive projects, including those of foreign investors, until at least 2013. This represents a significant reversal in policy – before the crisis, South Africa's cheap electricity was actively marketed internationally as a benefit for energy-intensive investment and large consumers were given discounted tariffs¹⁴.

In 2007, South Africa's government released the National Industrial Policy Framework, aimed at enacting some of the provisions of ASGI-SA. One of the deliverables contained in this document is the identification of those sectors with highest potential for diversification of the South African economy. These include natural-resource based sectors; medium technology sectors (including downstream mineral beneficiation); advanced manufacturing sectors; labour intensive sectors; and tradable services sectors¹⁵.

¹¹ DTI, 2003. A Strategy for Broad-Based Black Economic Empowerment. Department of Trade and Industry of the RSA.

¹² Existing SDIs include: Maputo Development Corridor, Lubombo SDI, Richards Bay SDI, including the Durban and Pietermaritzburg nodes, Wild Coast SDI, Fish River SDI; West Coast Investment Initiative, Platinum SDI, Phalaborwa SDI, and Coast-2-Coast Corridor.

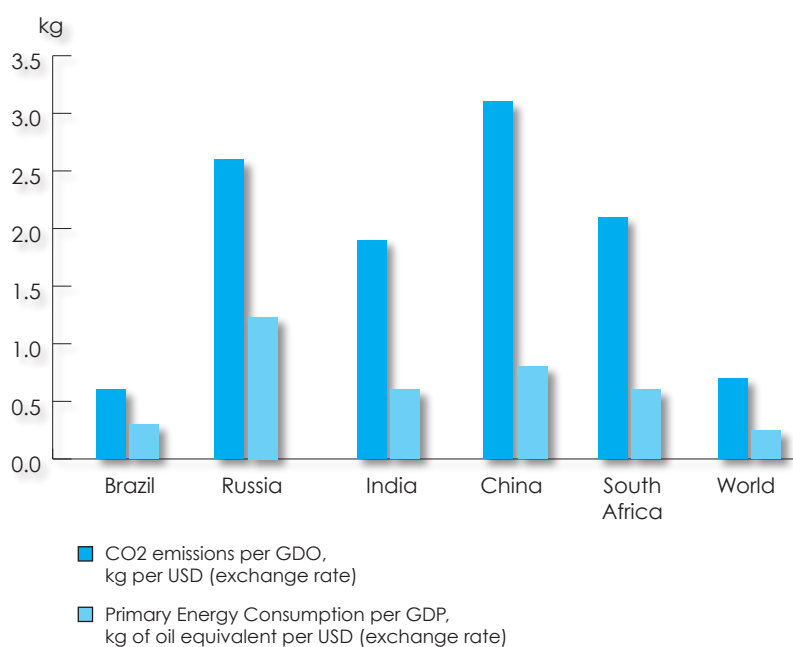
¹³ Existing IDZs include: Kempton Park in Gauteng, Coega and East London in Eastern Cape, Saldanha in Western Cape and Richard's Bay in Kwazulu Natal.

¹⁴ Business Report, 17 January 2008, <http://www.busrep.co.za/index.php?fSectionId=552&fArticleId=4209364>; Rosafroekspertiza Newswire, 26 January 2008, <http://raex.org/index.php?productID=733>

¹⁵ DTI, 2007. National Industrial Policy Framework. Department of Trade and Industry of the RSA, pp. 33 – 38.

In the sphere of anti-monopoly regulation, South Africa's focus has been primarily on the unbundling of large, often illogical corporations created under the apartheid regime¹⁶. In all other respects, competition regulation in South Africa is similar to that of market economies. Meanwhile, in an increasingly globalised business environment, Russia's investments in South Africa may also face anti-monopoly regulations, both within Russia and in the host and other economies. For instance, the Evraz Group is Russian-owned, but is registered in Luxembourg. As a result, its acquisition of a majority holding in South Africa's Highveld Steel and Vanadium Corporation Ltd was subject to clearance not only by South Africa's competition authorities, but also by those of the EU. The latter duly imposed a requirement on Evraz to sell part of Highveld's vanadium assets¹⁷.

FIGURE 2. ENERGY INTENSITY OF BRIC + RSA ECONOMIES AS COMPARED WITH WORLD AVERAGE, 2004



Source: calculated based on 1) World Bank 2005, pp. 296 - 297; 2) BP 2007, p. 40; 3) UNDP 2007, p. 69.

There appears to be increasing criticism of ASGI-SA by liberal institutions. In particular, the OECD has criticised the South African government's industrial policy interventions as being contrary to the requirement to enhance the level of competition in the economy¹⁸. In spite of this criticism, however, it is likely that the current "mildly" interventionist policy will continue after the country's parliamentary and presidential elections scheduled for May 2009. With respect to FDI, this approach holds the potential for greater cooperation between the state-owned enterprises of South Africa and those of other EMEs, most notably from China, India, and possibly Russia.

¹⁶ Heese, K., 2000. Foreign Direct Investment in South Africa (1994 -99) – Confronting Globalisation. *Development Southern Africa*. Vol. 17, No.3. London. P. 90.

¹⁷ All Africa, 23 April 2008, <http://allafrica.com/stories/200804230072.html>

¹⁸ OECD, July 2008. *Economic Assessment of South Africa*. Organisation of Economic Cooperation and Development. Policy Brief. Paris, p. 4.

Environmental Regulations

In 1996, South Africa became one of the first countries in the world to include the right to sustainable development in its Constitution (Section 24). Furthermore, in 1998 the National Environmental Management Act was promulgated, entrenching the ‘polluter pays’ and other environmental principles in the sphere of business operations. Other pieces of environmental legislation include the Environmental Conservation Act (1989), Conservation of Agricultural Resources Act (1993), Maritime Zones Act (1994), Marine Living Resources Act (1998), National Water Act (1998), Mineral and Petroleum Resources Development Act (2002), Air Quality Act (2004), Nuclear Energy Act (1999) and National Nuclear Regulator Act (1999). In addition, the national Department of Environmental Affairs and Tourism has developed a National Framework on Sustainable Development, which is yet to be signed into law. South Africa’s environmental law enforcement agencies include a specialized environmental police force or Environmental Management Inspectors, popularly known as the ‘Green Scorpions’.

Like Russia, South Africa is a party to a number of international environmental law conventions, including the Kyoto Protocol on climate change. Under the Protocol, South Africa is classed as a developing country and therefore has no international legal obligations to reduce its greenhouse gas (GHG) emissions. South Africa’s government has however laid down the regulatory framework enabling Clean Development Mechanism (CDM) projects in accordance with the Protocol. In addition, the national Cabinet, as well as the ruling party, have during 2008 publicly endorsed the findings of the national Long-Term Mitigation Scenarios (LTMS) consultative process, which developed a set of scenarios and policy recommendations for shifting the national economy onto a low-carbon development pathway.

South Africa's Investment in Russia

In order to gain access to international technology pools and new markets, South African companies have chosen a number of outward FDI destinations, including Russia. However the experiences of South African businesses in Russia have at times been controversial; whereas South African investors have achieved some successes in the Russian consumer goods and services sector (for example South African Breweries and Naspers), the implementation of large-scale projects by South Africa's corporate leaders has in a number of instances been obstructed by bureaucratic interference, a lack of transparency and regulatory unpredictability. For example, Sun International's plan to construct an entertainment centre outside Moscow valued at USD 2 billion has been suspended due to a change in Russia's gambling legislation. De Beers, an international diamond monopoly with South African roots, has been involved in a decade-long dispute with the Russian petroleum company LUKOIL over the rights to the Grib diamond pipe in the Arkhangelsk region¹⁹.

South Africa's foremost investor in Russia is the Anglo-American Corporation (although the company's primary stock exchange listing is in London). Through its subsidiary Mondi Business Paper, Anglo-American invested over USD 320 million between 1997 and 2003 in the acquisition of a paper mill near Syktyvkar in the Komi republic. The company has also launched a Euro 525 million programme to upgrade the mill by 2010, with a view to increasing production capacity and decreasing the environmental footprint and negative health impacts associated with the facility. In particular, the mill will be converted to utilise an environmentally-friendlier technology of elemental chlorine-free bleaching. More than half of Mondi's logging areas in Russia (over 1 million hectares) have been certified in accordance with the Forest Stewardship Council's (FSC) voluntary international standards of environmental compliance²⁰.

In the mining sector, Anglo-American has an alliance with Severstal, one of Russia's largest steelmakers, to explore deposits of nickel, copper and zinc in Russia. Anglo Platinum, in partnership with other investors, is involved in exploration projects in the Kola Peninsula and Central Urals.

¹⁹ Mineweb, 16 April 2008, <http://www.mineweb.com/mineweb/view/mineweb/en/page37?oid=51181&sn=Detail>

²⁰ Mondi Group, 2007. Mondi Group Sustainability Report 2007. Mondi Group, p. 28.

TABLE 3. BRAZIL, RUSSIA, INDIA, CHINA AND SOUTH AFRICA AT A GLANCE

INDICATOR (DATA SOURCE)		World Total	Brazil	Russia	India	China (without Hong Kong)	South Africa	Total	Percentage of World Figure	
NATURAL RESOURCES	Land area, thousand ha (WRI 2005, pp. 216 - 217)	13066880	845942	1688850	297319	932742	121447	3886300	29.7 %	
	Number of mammals species (WRI 2005, pp. 213)	Known, 2004	4629	578	296	422	502	320	-	-
		Threatened, 2003	-	74	43	85	80	29	-	-
	Number of birds species (WRI 2005, pp. 213)	Known, 2004	10000	1712	645	1180	1221	829	-	-
		Threatened, 2003	-	120	47	79	82	36	-	-
	Number of plants species (WRI 2005, pp. 213)	Known, 2004	27000	56215	11400	18664	32200	23420	-	-
		Threatened, 2003	-	381	7	246	443	75	-	-
Biocapacity, global ha per person, 2005 (WWF 2008, pp. 35 -41)	2.1	7.3	8.1	0.4	0.9	2.2	-	-		
ECONOMIC ACTIVITY	Population, Million People, 2006 (World Bank 2007, pp. 334 - 335)	6518	189	142	1110	1312	47	2800	43.0 %	
	Human Development Index, 0-1, 1=Highest, 2005 (Undp 2007, pp. 230 - 232)	0.743	0.800	0.802	0.619	0.777	0.674	-	-	
	GDP (PPP), billion usd, 2005 (undp 2007, pp. 278 - 280)	60597	1556	1552	3779	8815	521	16223	26.8 %	
	GDP (current exchange rate), billion USD, 2006 (World Bank 2007, pp. 340 - 341)	48244.9	1068.0	986.9	906.3	2668.1	255.0	5884.3	12.2 %	
	Average annual growth of GDP (current exchange rate), 2000-06 (World Bank 2007, pp. 340 - 341)	3.0 %	3.0 %	6.4 %	7.4 %	9.8 %	4.1 %	-	-	
	GDP per capita (PPP), USD, 2005 (UNDP 2007, pp. 278 - 280)	9543	8402	10845	9.452	6757	11110	-	-	
	FDI inflows, USD billion, 2006 (UNCTAD 2007, pp. 251 - 254)	1305.852	18.782	28.732	16.881	69.468	-0.323	133.540	10.2 %	
	FDI outflows, USD billion, 2006 (UNCTAD 2007, pp. 251 - 254)	1215.789	28.202	17.979	9.676	16.130	6.674	78.661	6.5 %	
	World Economic Forum Global Competitiveness Index, 2008/2009 (WEF 2009, p. 10)	-	4.13	4.31	4.33	4.70	4.41	-	-	
	Corruption Perceptions Index, 0-10, 10=least corrupt, 2003 (WRI 2005, p. 197)	-	3.9	2.7	2.8	3.4	4.4	-	-	
	ISO 14000 certifications, end of 2006 (ISO 2006, pp. 22 - 25)	129199	2447	223	2016	18842	485	24013	18.6 %	
	Primary energy consumption, million tonnes of oil equivalent, 2006 (BP 2007, p. 40)	10878.5	206.5	704.9	423.2	1697.8	120.2	3152.6	29.0 %	
CO2 emissions, million metric tonnes, 2004 (UNDP 2007, p. 69)	28983	332	1524	1342	5007	437	8642	29.8 %		
ENVIRONMENTAL IMPACT	Environmental Performance Index 1-100, 100=best performance, 2008 (Yale Center for Environmental Law 2008)	-	82.7	83.9	60.3	65.1	69.0	-	-	
	Environmental Health Index, 2008 (Yale Center for Environmental Law 2008)	-	86.9	96.3	62.6	71.4	81.8	-	-	
	Ecosystem Vitality Index, 2008 (Yale Center for Environmental Law 2008)	-	78.4	71.4	58.0	58.8	56.2	-	-	
	Environmental footprint, global ha per person, 2005 (WWF 2008, pp.35 - 41)	2.7	2.4	3.7	0.9	2.1	2.1	-	-	
	Biocapacity Deficit / Reserve, global ha per person, 2005 (WWF 2008, pp. 35 - 41)	-0.6	+4.9	+4.4	-0.5	-1.2	+0.1	-	-	

1.3. PROFILE OF OTHER SADC COUNTRIES

Even if South Africa is excluded from the analysis, the remaining SADC countries constitute one of the most diverse regions in Sub-Saharan Africa, both in terms of their economic performance and their overall level of development (Table 1).

Angola and the DRC possess the largest GDPs in terms of current exchange rate and PPP values respectively, but the values for both economies are far smaller than that of South Africa. In fact, the GDPs of most SADC states are far smaller than the turnovers of the trans-national corporations (TNCs) that are investing in the region. At the same time, however, official statistics fail to take into account the large informal sectors of each economy, a common feature of the entire SADC region. Amongst other industries, this informal sector involves illegal mining and oil theft, as well as a large informal retail sector.

By any measures, Angola is the region's fastest-growing economy, and one of the fastest-growing in the world, albeit from an extremely low base. Angola's year-on-year GDP growth increased from 16.9 percent in 2006 to an estimated 24.3 percent in 2007, with contributions by both oil and non-oil sectors²¹.

With the exception of Zimbabwe, all Southern African economies have enjoyed robust growth rates since 2000, albeit again from a low base. One of the principal drivers of the increase in Southern Africa's gross regional product was the expansion of the natural resource extraction sector, coupled with rising commodity prices.

However, the SADC region has also managed to diversify its sources of economic growth through significant growth in the tourism industry. The demand for travel and tourism in the SADC region more than doubled from USD 12.7 billion in 1990 to USD 28.9 billion in 2006, resulting in hundreds of thousands of new jobs. During that period, the average annual growth rate of the tourism industry in Southern Africa is estimated at 10 percent, which surpasses that of the mineral extraction sector²³. This development is an important one, as it testifies to the growing proceeds to be derived from the conservation of the unique natural resources of Southern Africa.

Whereas countries such as Botswana and Namibia are considered to possess relatively transparent governmental institutions, in Angola, the DRC and Zimbabwe, corruption presents a serious challenge²⁴. Given the histories of these countries, in terms of liberation struggles and post-colonial civil conflicts, as well as the subsequent challenges of disarmament of various factions, there exist serious concerns that wealth generated from mineral resource extraction can be used to support corrupt regimes and fund armed conflicts²⁵. The most obvious current example of such a scenario is Zimbabwe, where corruption and the lack of transition to democratic government has resulted in sustained economic deterioration, with the national economy shrinking by 6 percent in 2007. Official inflation in Zimbabwe set a world record in June 2008 of 11.27 million percent year-on-year²⁶. The ongoing political turmoil, brought about by the refusal of the ruling party to accept defeat in the national election held in March 2008, has made the country an epicentre for regional destabilisation and illegal migration, primarily to South Africa.

²¹ South African Reserve Bank, 2008. Financial Stability Review. South African Reserve Bank, Pretoria, p. 14.

²² World Bank, 2007. World Development Report 2008. World Bank, Washington, D.C., pp. 340 – 341, 344.

²³ South African Reserve Bank, 2008, p. 14.

²⁴ Transparency International, 2003. Global Corruption Report 2003. Transparency International, Berlin, pp. 248 – 260.

²⁵ McMillan, J., 2005. "The Main Institution in the Country Is Corruption": Creating Transparency in Angola. Center on Democracy, Development, and the Rule of Law, Stanford Institute on International Studies. Working paper No. 36.

²⁶ Reuters, 19 August 2008, <http://www.reuters.com/article/marketsNews/idUSLJ35337020080819>

Investment Priorities

Like South Africa, other Southern African states recognise the imperative to reduce their heavy reliance on extractive industries and diversify their economic growth resources. Similar to other types of capital, natural capital can generate sustainable proceeds only if it is preserved. By contrast, the proceeds from extractive industries are not sustainable, either in the short term (given the volatility of international commodity prices) or the long term (as non-renewable natural capital is depleted). A positive example of the preservation of natural capital and the generation of sustainable income streams is so-called ‘carbon ranching’ in Madagascar, where areas of forest are conserved as carbon sinks, thereby earning carbon credit worth several times more than the profits to be gained from exploiting these forests for timber²⁷.

One of the most urgent development challenges in Southern Africa is the persistent energy crisis, reinforced by the rapid increase in world prices for hydrocarbon resources during 2006 – 2008. In South Africa, an improvement in energy efficiency can assist in overcoming supply constraints, but in the rest of the SADC region, this option is not viable, since increases in energy resources consumption are crucial for economic development and improving basic living standards.

Unlike South Africa, in the majority of Southern African states the primary energy resource is fuel wood (Figure 3). Approximately 90 percent of round wood production in SADC (outside of South Africa) is consumed as fuel wood²⁸. Even in urban areas, fuel wood is likely to remain a major source of energy for the foreseeable future, especially for low-income households. As a result, in many Southern African countries, such as Tanzania and Zimbabwe (Table 2), deforestation presents a major threat to the region’s biodiversity. There is therefore an urgent need for both public and private investment in addressing the region’s energy requirements through re- and afforestation, electrification and, most importantly, the development of affordable renewable energy options. Leapfrogging renewable energy technologies are becoming increasingly competitive, especially at times of peak prices for conventional fuels, and may prove to be a particularly suitable option for a number of remote African regions with no access to national power grids²⁹.

Increasing water scarcity, coupled with population growth in the region, raises concerns regarding possible tensions over trans-boundary water-courses³⁰. This problem is aggravated by ongoing desertification and climate change. Although the contribution of Africa, and Southern Africa in particular, to climate change is negligible, the continent is likely to experience the greatest impact. Increased climate variability already affects its water resources, land, forests, and biodiversity and these impacts are likely to worsen in the future. There is increasing interest in Southern Africa in desalination of sea water to sustain traditional agriculture methods. However desalination is an energy-intensive and therefore costly option, while in terms of wastage from desalination processes, their environmental cost is also considerable. Innovative water saving and management technologies are therefore a preferable option, although large-scale leapfrogging solutions in this area have yet to be developed³¹.

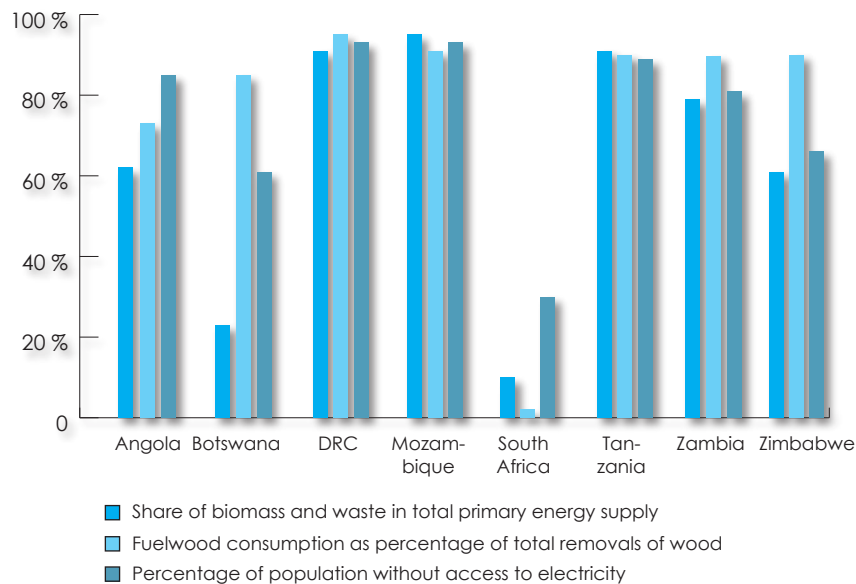
²⁷ Du Plooy, P., 2008. Re-Think Investment in (South) Africa. WWF South Africa, Johannesburg, p. 61.

²⁸ FAO 2003. Forestry Outlook Study for Africa. Subregional report for Southern Africa. FAO, Rome, p. 8.

²⁹ Rozina, I. / Розина, И., 1988. New Energy Sources for African Countries / Новые источники энергии в странах Африки. Institute for African Studies of the Russian Academy of Sciences, Moscow.

³⁰ Vremya Novostei, 6 March 2006, <http://www.vremya.ru/2006/38/13/146809.html>

³¹ FAO 2008. Water for Agriculture and Energy in Africa: the Challenges of Climate Change. FAO, Rome, p. 4.

FIGURE 3. FUEL WOOD IN THE POWER MIX OF SELECTED SOUTHERN AFRICAN COUNTRIES, 2005

Source: calculated based on 1) UNDP 2007, pp. 302 – 309; 2) FAO 2006b, p. 280; 3) UNDP 2007, pp. 302 – 305.

Environmental Regulations

The aforementioned sustainability challenges and ensuing investment priorities are well understood by the SADC countries, but donor funding and external expertise is often required in order to assist in developing and implementing appropriate legislation. As a result, environmental and investment-related legislation in Southern Africa is unevenly distributed, although it would appear to be high quality in certain countries, particularly Botswana, Mozambique, Tanzania and Namibia. The problem, however, lies not in the development of legislation, but rather in the limited abilities of Southern African governments to enforce this legislation and implement corresponding strategies, particularly in the light of a lack of resources and corruption.

In a number of instances, due to better enforcement practices, international regulations applicable to public and private investment projects in the region have proven more efficient than national requirements. This is particularly the case in the execution of World Bank projects and compliance with UN and WTO agreements signed by SADC countries. In addition, such international compliance includes voluntary commitments by companies operating in Africa under, amongst others, the UN Global Compact, Global Reporting Initiative and the 'Equator Principles' for access to project finance.

CHAPTER 2. RUSSIA'S RETURN TO SOUTHERN AFRICA

During the 1960s, 70s and 80s, the former Soviet Union provided considerable assistance to independence movements in many African countries, not least to the banned African National Congress and its allies in their armed struggle against the apartheid regime in South Africa. This contribution, coupled with the fact that many African leaders personally received education and support from the USSR, created a generally positive, anti-colonialist image of Russia in the region. However, this favourable reputation has been somewhat tainted by the inconsistency of Russia's policy towards Africa following the collapse of the Soviet Union.

At present, Russia is in the process of partially restoring the position it previously occupied in Southern Africa. Nevertheless, there remains a divide between the Russian political leadership's newly-revived long-term strategic interest in Southern Africa, and Russian business involvement in the region, which is often driven by short-term priorities. At the same time, however, signs do exist that this divide can be bridged.

2.1. THE SOUTHERN AFRICAN DIMENSION OF RUSSIA'S POLICY

Over the past several years, Sub-Saharan Africa has received increasing attention from Russia's political leadership. This study has singled out three key factors explaining this phenomenon:

- Russia's strategic interest in gaining access to Southern African natural resources. According to official governmental forecasts, within the next decade, Russia's economically viable reserves of zinc, manganese, chromites, diamonds, uranium, gold, copper, nickel, platinum metals and oil will be depleted (Table 4). Although Russia possesses significant untapped resource deposits, these are often difficult to access and costly to develop. For this reason, and given the volatility of world commodity prices, it is in the economic interests of Russia to gain access to sources of supply of such strategic minerals in regions where costs are lower, in particular in Southern Africa. This strategic interest of Russia's is reinforced by the increasing competition for African natural resources, not only from 'traditional' stakeholders such as the USA and EU, but also from key EMEs, especially China.
- Russia's strategy to act as a global guarantor of energy security, as was outlined, for instance, during the G8 Summit in Saint Petersburg in 2006. In this context, Africa is regarded as both a rich resource base, especially for uranium, and a market for Russian energy-related value-added products, including nuclear reactors³².
- Russia's efforts to develop an international development assistance programme comparable with those of other G8 powers and members of the OECD, in which Russia is also seeking membership. Russia is represented on the G8/OECD Africa Partnership Forum and in 2007, Russian President Vladimir Putin approved the Concept of Participation in International Development Assistance of the Russian Federation. According to the Concept, Russia's ODA activities will prioritise 'projects and programmes involving the use of goods and services originating in Russia'³³.

³² Geopolitics, 22 March 2007, <http://www.geopolitics.ru/news/afr-004.htm>

³³ Concept of Russia's Participation in International Development Assistance, 2007. Approved by the President of the Russian Federation on 14 June 2007, p. 12.

TABLE 4. RUSSIA'S NATURAL RESOURCE BASE COMPLEMENTARITIES WITH SOUTHERN AFRICA

Mineral	Year in which Russia will be depleted		SADC countries that possess reserves of the mineral (in alphabetical order)	SADC share in the world's total resources of the mineral
	economically producible reserves	all reserves		
Lead	2007	Beyond 2025	Namibia, South Africa, Zambia	–
Manganese ores	2008	Beyond 2025	DRC, South Africa	83 %
Zinc	2011	Beyond 2025	DRC, NAMIBIA, ZAMBIA	–
Chromium ores	2013	Beyond 2025	Madagascar, South Africa, Zimbabwe	93 %
Diamonds	2013	Beyond 2025	Angola, Botswana, DRC, Lesotho, Namibia, South Africa, Tanzania	> 50 %
Quartz	2013	2013	Madagascar, Mozambique	–
Tin	2015	Beyond 2025	DRC, Namibia, South Africa, Tanzania, Zimbabwe	–
Uranium	2015	Beyond 2025	Angola, DRC, Namibia, South Africa, Zambia	12 %
Gold	2015	Beyond 2025	Angola, DRC, Namibia, South Africa, Tanzania, Zambia, Zimbabwe	53 %
Oil	2015	Beyond 2025	Angola, DRC	–
Copper	2016	Beyond 2025	Angola, Botswana, DRC, Namibia, South Africa, Zambia, Zimbabwe	8 %
Nickel	2016	Beyond 2025	Botswana, South Africa, Tanzania, Zimbabwe	10 %
Tungsten	2016	Beyond 2025	Namibia	–
Platinum-group metals	2018	Beyond 2025	South Africa, Zimbabwe	88 %
Graphite	2018	Beyond 2025	Madagascar, Mozambique	–
Coal	Beyond 2025	Beyond 2025	Botswana, DRC, Madagascar, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe	12 %
Phosphate	Beyond 2025	Beyond 2025	Angola, South Africa, Tanzania	10 %
Potash	Beyond 2025	Beyond 2025	Botswana	–
Bauxite	Beyond 2025	BEYOND 2025	Angola, Madagascar	–
Iron ores	Beyond 2025	Beyond 2025	Angola, Botswana, South Africa, Tanzania, Zimbabwe	5 %
Natural gas	Beyond 2025	Beyond 2025	Angola, DRC, Mozambique, South Africa, Tanzania	–
Vanadium	Beyond 2025	Beyond 2025	South Africa	–
Fluorspar	Beyond 2025	Beyond 2025	Angola	–
Salt	Beyond 2025	Beyond 2025	Botswana, Madagascar, Namibia, South Africa	–

Source: 1) Long-Term State Programme of the Research of Subsoils and Reproduction of the Mineral and Raw Materials Base (2005 – 2010 and through 2020) of the Russian Federation, pp. 27 – 29; 2) SADC 1997; 3) US Geological Survey 2007.

2.2. RUSSIAN BUSINESS' INTERESTS IN SOUTHERN AFRICA

This study estimates Russia's direct investment stock in Southern Africa at USD 3 billion as of June 2008, based upon the aggregation of publicly reported values of Russian acquisitions in the region (see Table 5 for details). This puts Russia's FDI in Southern Africa at approximately 14 percent of the total value of Russia's outward direct investment stock, which was officially worth USD 21 billion at the end of June 2008³⁴. The estimate includes assessments of large-scale Russian investments in the region that official statistics might have failed to take into account, because transactions are often effected via third countries. In particular, Russia's largest acquisition in Southern Africa to date resulted from Norilsk Nickel's takeover of LionOre, a Canada-based company with key operating assets in South Africa, Botswana and Australia. A further example is the acquisition of South Africa's Highveld Steel and Vanadium Corporation by Evraz, a Russian capital group registered in Luxembourg.

The bulk of Russian investment into Southern Africa occurred during 2006 and 2007. Based on publicly available sources, including corporate press releases and media reports, this report also estimates the aggregated value of Russian companies' outstanding proposals for medium-term investment in SADC countries at up to USD 5 billion, although it is unlikely that all these proposals will be implemented, particularly in view of the financial crisis which struck world markets during the second half of 2008.

It would appear that two considerations are the driving forces behind Russian business expansion in Southern Africa:

- Depletion of the resource base in Russia (Table 4). This driver is a particularly explicit one, for example in the case of ALROSA, a Russian diamond monopoly owned by the federal government and the regional government of Yakutia. African diamond reserves are generally more easily accessible than the remaining underground diamond deposits in Yakutia, and as a result, according to the company's President Sergey Vybornov, ALROSA 'should use every chance to increase its resource base in Africa'³⁵.
- Interest in acquisition of undervalued assets that can help to boost the companies' share price. World prices for non-ferrous metals such as nickel, manganese, platinum group metals, gold, chromites, vanadium, and others are highly volatile. As a rule, during periods of high prices, the increased revenues earned by industry leaders enable them to undertake large-scale mergers and acquisitions. By contrast, during periods of falling prices, the assets producing these strategic metals are often disposed of. In accordance with this logic, significant acquisition activities were undertaken by Russian metal and mining companies between 2006 and 2008, based on high prices for both steel and non-ferrous metals. This acquisition drive began domestically and expanded to Europe, North America, Australasia and Africa. Against this background, it is probable that some of the existing Russian investors in Southern Africa may withdraw in the short to medium term. Such a withdrawal took place in 2006, when the privately owned Russian company Norilsk Nickel, profitably resold its holding in South Africa's Goldfields Corporation.

The interaction of these two factors has resulted in differing policies on the part of Russian businesses operating in Southern Africa. On one hand, resource depletion holds a significant strategic impact on Russian business development and necessitates long-term planning.

³⁴ Rosstat, 15 August 2008. On Foreign Investment in Russia in the First Half of 2008 / О6 иностранных инвестициях в I полугодии 2008 г. Russian Federal Service of State Statistics, Moscow.

³⁵ ALROSA, 2008. Speech of ALROSA President Sergey Vybornov at the Company's Management's Meeting in Mirny on 29 March 2008. ALROSA, Mirny, p. 1.

It would appear, however, that geographic expansion is not the only option in this regard. Whereas Western resource-based multinationals such as Shell, Alcan, Rio Tinto, and others have been expanding their operations worldwide, they have also invested extensively in technology to improve mineral resources recovery rates and have as a result improved the viability of marginal reserve deposits³⁶. Such diversification of companies' reserves 'portfolio' might go some way to explaining the fact that while Russian-based ALROSA is developing diamond mines in Angola, South Africa's De Beers is investigating diamond mining projects in the north of Russia³⁷.

On the other hand, the cost of resource development and field operations in Southern Africa is often much lower than in Russia, resulting in higher profit margins for operating companies, especially during periods of high international commodity prices (for oil extraction statistics see Figure 4). This is of particular importance to Russian companies that are involved in a process of property redistribution, mergers and acquisitions. Their owners have generally paid little attention to long-term considerations, and have in fact in some instances been guided primarily by an interest in the acquisition of undervalued assets with a view to re-sale in the short to medium term³⁸. In many cases, this has resulted in limited 'greenfield' investment, both in Russia and abroad. As was argued elsewhere³⁹, the lack of such strategic interest also leads to limited investment in new environmentally friendly technologies, the acquisition of which, as a rule, provides a return on investment in the long run rather than the short or medium term.

As a result, the sustainability record of Russian companies in Southern Africa has been mixed. For example, Norilsk Nickel's investments in nickel mining companies in Southern Africa have generally been regarded as beneficial both by the companies and the local communities. The Nkomati project in South Africa is a 50/50 joint venture, in which Norilsk Nickel's local partner is the BEE company African Rainbow Minerals. This arrangement ensures that the joint venture complies with the South African government's priorities in terms of improving the economic status of previously disadvantaged sections of the population. Furthermore, Norilsk Nickel reported its plans to commit USD 830 million to investment in 'greenfield' developments and the modernisation of its facilities in South Africa and Botswana by 2010⁴⁰, though in the new circumstances of the financial crisis in early 2009 the company announced its plans to scale down its overseas investment programme first in Australia and then in Botswana and South Africa⁴¹. Finally, the company is in the process of introducing an environmentally friendly technology, known as Activox, into its operations in the region⁴².

³⁶ Smart Money, Moscow, № 9 (99), 17 March 2008, <http://www.smoney.ru/article.shtml?2008/03/17/5151>

³⁷ Mineweb, 16 April 2008, <http://www.mineweb.com/mineweb/view/mineweb/en/page37?oid=51181&sn=Detail>

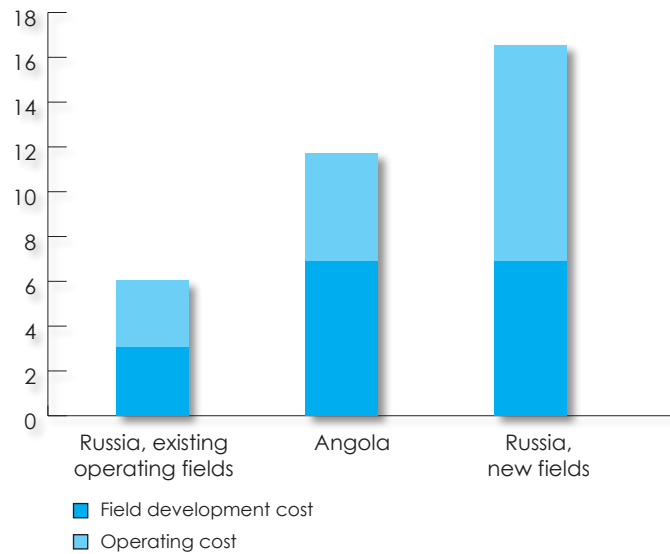
³⁸ Kim, A. / Ким, А., 2005. Russians on the Global Sale / Русские на мировой распродаже. *Finans*, № 15, 18 – 24 April 2005, <http://www.finansmag.ru/15293>

³⁹ Gerasimchuk, I./ Герасимчук, И., 2007. *Environmental Practice of Transnational Corporations / Экологическая практика транснациональных корпораций*. WWF Russia, Moscow, pp. 66 – 68.

⁴⁰ Mineweb, 26 September 2007, <http://www.mineweb.net/mineweb/view/mineweb/en/page36?oid=37493&sn=Detail>

⁴¹ RIA Novosti, 17 January 2009; <http://www.rian.ru/economy/20090117/159469833.html>

⁴² Sunday Standard, 20 May 2007, http://www.sundaystandard.info/news/news_item.php?GroupID=1&NewsID=1499

FIGURE 4. OIL PRODUCTION COST IN RUSSIA AND ANGOLA, USD PER BARREL, 2006

Source: Cambridge Energy Research Associates as provided in *Smart Money*, Moscow, № 9 (99), 17 March 2008, <http://www.smoney.ru/article.shtml?2008/03/17/5151>.

Another privately-held Russian metals company, Evraz, has accorded less consideration to the environmental aspects of its Southern African acquisition activities. In 2006, driven by an interest in acquiring a larger share of the global vanadium market, Evraz acquired the Highveld Steel and Vanadium Corporation Ltd in South Africa for USD 678 million⁴³. The assets acquired by Evraz were generally characterised by poor environmental performance. In October 2007, an inspection by the ‘Green Scorpions’ on Highveld Steel’s Vanchem vanadium plant exposed a number of transgressions of environmental legislation, including the contamination of groundwater, a criminal offence in terms of the Water Act⁴⁴. These transgressions undoubtedly contributed to the situation in which Evraz was unable to recoup its investment, when it was forced by European competition authorities to divest itself of some of Highveld’s assets⁴⁵. According to media reports⁴⁶, Evraz is as a result currently reviewing Highveld’s capital expenditure strategy, in order to place more emphasis on investments in environment- and safety-related equipment, systems and services.

The environmental aspects of ‘greenfield’ investment projects proposed by Russian companies also merit some attention. These proposals include the development of manganese and uranium fields, as well as construction of a manganese smelter in South Africa by Renova, the development of uranium fields by a consortium of Russian companies in Namibia, the construction of an aluminium smelter by RUSAL and a fertiliser plant by Azot in South Africa, a number of small mineral prospecting projects by Sintez in Angola and Namibia, and oil prospecting and development by ALROSA, Gazprom and LUKOIL in Angola.

⁴³ *Smart Money*, 9 October 2006, <http://www.smoney.ru/article.shtml?2006/10/09/1476>

⁴⁴ *Business Day*, 5 October 2007; <http://www.businessday.co.za/articles/article.aspx?ID=BD4A579828>

⁴⁵ *Business Report*, 24 April 2007, <http://www.busrep.co.za/index.php?fSectionId=553&fArticleId=4370487>

⁴⁶ *Engineering News*, 17 August 2007, http://www.engineeringnews.co.za/article.php?a_id=114089

There exists no evidence to suggest that these ‘greenfield’ developments by Russian companies are any less environmentally responsible than projects undertaken by Western or African companies in the same industries. However, the common feature uniting all these projects proposed by Russian investors is their high energy intensity. Russian investors are naturally aware of the current electricity crisis in South Africa, and have expressed a readiness to assist in increasing local electricity supply capacity. ALROSA has already completed the first phase of construction of the Chicapa hydroelectric station in Angola, to support its core diamond mining business, and is currently in the process of implementing the second phase of this project. RUSAL is considering the construction of a captive power station for its proposed aluminum smelter. At the same time, however, the major priority in terms of energy cooperation with Southern Africa has up to now been the promotion of Russian nuclear energy solutions.

At present, South Africa is the only African country operating a nuclear power plant, namely Koeberg (containing two reactors) near Cape Town. Russia is currently supplying Koeberg with enriched uranium derived from diluted ex-military stockpiles⁴⁷. South Africa’s national electricity monopoly, Eskom, recently announced plans to invite foreign companies to build six large-scale nuclear reactors by 2025 at a cost of approximately USD 90 billion. In addition, South Africa has for the past several years been attempting to develop its own design for small-output Pebble-Bed Modular Reactors (PBMR) for both domestic use and export⁴⁸.

These developments, as well as the availability of large-scale uranium deposits in South Africa and Namibia, have provoked increased interest on the part of the Russian government and Russia’s state-owned nuclear corporation Rosatom in nuclear cooperation with these two countries. Rosatom is currently promoting a similar bilateral cooperation pattern with a number of uranium-rich countries, in order to mine uranium abroad, enrich it in Russia in the Angarsk facility, and construct nuclear power plants in these countries to utilise the nuclear fuel from Russia⁴⁹.

In view of a shortage of operating capital and local expertise in South Africa and Namibia, Rosatom has been attempting to partner with other Russian investors to start uranium exploration and production activities in South Africa and Namibia. During 2006 and 2007, Rosatom agreed that privately-owned Renova would act in this capacity, but in 2008 Renova started scaling down its Southern African uranium plans⁵⁰.

Russia’s efforts to gain contracts to provide nuclear power plants construction services in SADC countries have thus far borne very little fruit. According to media reports, in early 2008, South Africa’s government excluded Rosatom from the shortlist of possible participants for a tender to construct the first of the six planned large-scale nuclear reactors, instead giving preference to French and American companies⁵¹. In Namibia, the Russian government and Rosatom have been promoting a proposal for a small floating nuclear power plant⁵². One of the possible uses for this plant is sea water desalination. However the prospects for this project are also unclear.

⁴⁷ Rosatom, 25 November 2004, <http://www.minatom.ru/News/Main/view?id=9213&idChannel=71>

⁴⁸ The Times, 14 January 2008, <http://www.thetimes.co.za/News/Article.aspx?id=680981>

⁴⁹ Polit.Ru, 6 February 2008, <http://www.polit.ru/news/2008/02/06/simonov.html>

⁵⁰ Rosafroekspertiza Newswire, 2 April 2008, <http://raex.org/index.php?productID=789>

⁵¹ Mineweb, 18 March 2008, <http://www.mineweb.com/mineweb/view/mineweb/en/page38?oid=49574&sn=detail>

⁵² Kornysheva, A./ Корнышева, А., 2007. Sun, Air and Ore / Солнце, воздух и руда // Kommersant-Dengi. № 14 (620), 16 April 2007, <http://www.kommersant.ru/doc.aspx?DocsID=759014>

Consideration of the aforementioned cases provides scope for the following conclusions:

- Russian businesses that are active in Southern Africa have in general pursued investment projects only in the industries in which they have been operating in Russia, namely ferrous and non-ferrous metals, diamonds, petroleum and uranium. All these projects are energy intensive and possess a considerable environmental footprint.
- There is no evidence suggesting that the environmental profile of Russian investment projects in Southern Africa is any 'dirtier' than that of projects undertaken by Western or African investors in the same industries.
- At the same time, there exist no examples of leapfrogging development projects promoted by Russian investors in Southern Africa; in other words, breakthrough projects that would enable Southern African countries to bypass the environmentally damaging and unsustainable stages of industrial growth that have marred the past of the majority of developed countries.

These trends are not particularly surprising, since they would appear to mirror existing business practices within Russia⁵³. Russia's own economy is energy- and resource-intensive, and until this situation changes, it will be premature to expect Russian investors promote leapfrogging development patterns abroad. At the same time, however, given the considerable environmental footprint of the projects being undertaken by Russian companies in Southern Africa, any steps towards improving their environmental practices are certain to reduce the sustainability risks attached to these projects.

⁵³ Poussenkova N. and Solntseva E., 2007. Russian Companies in the 21st Century – Towards Competitive Corporate Citizenship. WWF-Russia, Moscow.

TABLE 5. MAJOR EXISTING AND PLANNED INVESTMENTS OF RUSSIAN COMPANIES IN SOUTHERN AFRICA

TIME LINE	RUSSIAN INVESTOR	SOUTHERN AFRICAN ASSETS	HOST COUNTRY	TYPE OF INVESTMENT	INDUSTRY	VALUE	DETAILS (DATA SOURCE)
Proposed	Gazprom	under consideration	Angola	'greenfield' investment	gas production	under consideration	In 2006 Gazprom signed a memorandum of understanding with the Angolan state oil company SONANGOL providing for the opportunity to invest in a LNG plant in Angola. (Gazeta 1 November 2006). Gazprom may also enter the Angolan oil and gas industry by acquiring the assets of Russian companies already working there, such as Sintez and ALROSA.
Proposed	Lukoil	under consideration	Angola, DRC	'greenfield' investment	oil production	under consideration	In 2006 LUKOIL signed a memorandum of understanding with Angola's state-owned oil company SONANGOL, stating its interest in offshore oil exploration and production. (Gazeta 1 November 2006). LUKOIL has also expressed interest in onshore oil production in the DRC. Like Gazprom, LUKOIL may also consider the acquisition of African petroleum ASSETS FROM SINTEZ AND ALROSA.
Proposed	Rusal	under consideration	South Africa	'greenfield' investment	metals processing (aluminium) and electricity	under consideration	RUSAL has expressed an interest in both constructing an aluminum plant in South Africa and in expanding South Africa's energy supply capacity (Mining Weekly 16 March 2007).
Proposed	Azot	under consideration	South Africa	'greenfield' investment	fertiliser production	USD 2 billion	In 2007 Azot company (partly controlled by Gazprom) signed a memorandum of understanding with Russia's state-owned bank VTB and South Africa's Chancellor House Holdings Ltd, on plans to construct a fertilizer producing plant in South Africa (Vedomosti 19 March 2007).
Proposed	Renova	uranium assets of the Harmony Group	South Africa	'greenfield' investment	uranium mining	under consideration	In 2007 Renova signed a memorandum of understanding with South Africa's Harmony Group, under which separate deals can be concluded to ensure Renova's acquisition of Harmony's uranium assets in South Africa and Harmony's acquisition of Renova's gold assets in Russia (Mining Weekly 16 March 2007).
Proposed	Rosatom	under consideration	South Africa, Namibia, DRC	'greenfield' investment	uranium mining	under consideration	Rosatom is interested in uranium mining in Southern Africa, but at the moment does not have the funds or local expertise for project implementation. The company, through its subsidiaries Tenex and Atomredmetzoloto, is in search of partners. In 2006 Tenex signed a cooperation agreement with Renova providing for an opportunity to establish joint ventures to explore and mine uranium in Africa and Asia. In 2007 Tenex (later replaced with Atomredmetzoloto) established a joint venture with Renova and VTB to mine uranium in Namibia, where Russia's state-owned VTB bank currently holds licenses for uranium exploration and mining. In April 2008 Renova pulled out of the Namibian joint venture, and Rosatom and VTB concluded a joint venture with another Russian investment partner, Arlan Group (Rosatom 25 November 2004, Rosafroekspertiza Newswire 2 April 2008).
Proposed	Renova	49 % of United Manganese of Kalahari (UMK)	South Africa	'greenfield' investment	metals mining (manganese)	USD 1 billion	51% of UMK belongs to BEE group Pitsa ya Seschaba, and 49% to Renova. UMK has won several exploration and production licenses for Kalahari manganese fields, but has not started large-scale works as yet. Depending on the results of a detailed geological survey and feasibility studies, UMK plans to operate an open pit mine and construct a ferroalloy plant to process the manganese ore. The South African Government committed itself to assuring energy supplies for the mine and smelter, and the provision of railway rolling stock to transport the ore. Renova has signed memoranda of understanding with both South Africa's electricity monopoly Eskom and transport corporation Transnet (Mining Weekly 16 March 2007, DFA 22 February 2007, 13 February 2008).

TABLE 5. MAJOR EXISTING AND PLANNED INVESTMENTS OF RUSSIAN COMPANIES IN SOUTHERN AFRICA CONT.

TIME LINE	RUSSIAN INVESTOR	SOUTHERN AFRICAN ASSETS	HOST COUNTRY	TYPE OF INVESTMENT	INDUSTRY	VALUE	DETAILS (DATA SOURCE)
2007 – Present	Norilsk Nickel	50 % of Nkomati Nickel 85 % of Tati Nickel	South Africa, Botswana	Direct, acquisition	Metals mining and processing (nickel)	About USD 1.6 – 1.8 billion	In 2007 norilsk nickel acquired 100% of the canada-based lionore company for USD 5.2 Billion. Lionore held assets in australia, south africa and botswana. Through the deal norilsk nickel has acquired over 400 thousand tonnes of nickel reserves in southern africa. In nkomati nickel, norilsk nickel's partner is a bee company african rainbow minerals, holding 50% of the shares. In tati nickel, norilsk nickel's partner is the government of bostwana, holding 15% of the shares. In the new circumstances of the financial crisis in early 2009 the company announced its plans to scale down its overseas investment programme first in australia and then in botswana and south africa (norilsk nickel 25 september 2007, mineweb 26 september 2008, ria novosti 17 january 2009).
2007 – Present	Renova	Transalloys	South Africa	Direct, acquisition	Metals processing (manganese, alloys)	USD 110 million	Renova acquired this manganese asset from the russian company evraz, in addition to its plans of manganese mining in kalahari (interfax 19 july 2007).
2006 – Present	Evraz	Highveld Steel and Vanadium Corporation Ltd.	South Africa	Direct, acquisition	Metals mining and processing	USD 408 million (initial acquisition for USD 678 million, with further disinvestment of about USD 270 million)	In 2006 evraz acquired 79% of south african highveld steel and vanadium corporation ltd. From anglo american. The eu competition authority approved the merger conditionally, requiring the sale of some vanadium assets. In april 2008 evraz sold those assets for USD 160 million to duferco, which has a joint venture with russia's steelmaker nlmk. Prior to that, in july 2007, highveld also sold its holding in transalloys to another russian company, renova, for USD 110 million. (Smart money 10 october 2006,),
2006 – Present	Sintez	Several Subsidiaries	South Africa Namibia, Angola	'Greenfield' Investment	Exploration (oil and gas, diamonds, copper)	USD 10-50 million	Sintez group has acquired several assets and licenses to explore for oil gas, diamonds and non-ferrous metals in namibia and angola. Exploration drilling for offshore oil in namibia started early in 2008 (rosafroeksperitza newswire 28, 29 january 2008).
2004 – 2006	Norilsk Nickel	20.3 % of Gold Fields	South Africa	De facto portfolio, acquisition	Metals mining and processing (gold)	Acquired for USD 1.16 billion, sold for USD 2 billion	Norilsk nickel acquired 20.3% Of gold fields from anglo-american in 2004, which the company sold two years later, earning about 80% profits (mergers & acquisitions 6 march 2006).
1992 – Present	Alrosa		Angola, Namibia, DRC	'Greenfield' Investment	Diamond mining, hydro-electricity, oil and gas	USD 300 – 400 million in diamond mining and electricity Plans to invest up to USD 800 million in the mid term (USD 500 million in oil production and USD 300 million in other projects)	Since its first investment in Angola in 1992, ALROSA has considerably expanded its presence in the country. ALROSA closely cooperates with the Angolan National Diamond Mining Company Endiama. As of April 2008, the company was involved in two diamond producing joint ventures - Catoca and LUO- Camatchia-Camagico, and another diamond prospecting joint venture in the Cacolo municipality. At present ALROSA is also constructing a hydroelectric power station on the Chicapa river (Chicapa-1 was commissioned in 2007. Chicapa-2 works are in progress). In December 2007 a consortium comprising of ALROSA, Angola's state-run oil and gas firm SONANGOL and oil company Dark Oil, received a license to explore onshore oil deposits in the areas of the Lower Congo, Upper Kwanza, Etosha, Okavango, Kassanje and work offshore on Angola's sea shelf under the Atlantic ocean. ALROSA has also an agreement with Russia's state-owned Zarubezhneft on cooperation in the Angolan oil and gas industry, but this opportunity has not been used so far. (Rosafroeksperitza Newswire 15 March 2008, 28 MARCH 2007).

CHAPTER 3. RE-THINKING RUSSIA'S INVESTMENT IN SAOC

Post-Soviet Russia is the latecomer amongst large-scale investors into African natural resources, having been preceded by both 'traditional' stakeholders such as the USA and EU, and by other BRICS countries, particularly China⁵⁴. However, this is a race that has continued over many decades and resulted in a great deal of scepticism about FDI in Africa.

Whereas countries such as Norway, Canada and Australia have gained significant upstream and downstream spillover benefits from inward FDI in extractive industries, in other resource-rich countries, especially in Africa, such FDI has generally benefited local economies and societies to a very limited extent⁵⁵. This implies that, as soon as foreign investors deplete deposits of natural resources of African nations, they as a rule abandon these host countries, and leave them with severely degraded environments and virtually no operating mechanisms of economic growth.

In this regard, the obvious question to be answered is whether the emerging South-South⁵⁶ cooperation will differ substantially from the historic North-South relationship. EMEs have naturally not engaged in colonisation-type activities in the past, but this fact is not sufficient to ensure that their investments provide tangible benefits to African economies. In particular, China's expansion in Africa has already given a rise to a tendency for scholars and journalists, primarily in developed countries, but to some extent also in Africa, to voice their concerns regarding a potential form of 'neo-colonialism' being introduced by Beijing⁵⁷.

In the case of Russia, the possibility exists to channel its investment into Africa into more sustainable avenues. Russia, itself a resource-rich nation and an ecological creditor, faces an urgent requirement to diversify the sources of its economic growth, just as is the case with the majority of African countries.

The heavy reliance by the Russian and Southern African economies on the extraction of non-renewable resources is of course not sustainable in the long term. These resources will by their very nature be depleted at some point, even if the most efficient technologies are applied, while the growing urgency to address the issue of climate change is certain to significantly decrease the size of world markets for fossil-fuel resources. At the same time, volatile rises in world commodity prices make a number of previously uncompetitive renewable and resource-efficient solutions increasingly viable. As a result of these factors, the world's development path is sure to move onto a more sustainable footing in the medium to long term, potentially leaving resource-based economies such as those of Russia and Southern Africa outside the new mainstream. In the words of Sheik Ahmed Zaki Yamani, Saudi Arabia's oil minister in 1970s, "the Stone Age didn't end for lack of stone, and the oil age will end long before the world runs out of oil"⁵⁸; the same holds true for many of the world's other mineral resources.

⁵⁴ Commerce and Industry Chamber of the Russian Federation / ТПП РФ, 28 February 2006. Russia and Africa in the Short- and Mid-term. / Россия и Африка в кратко- и среднесрочной перспективе. Moscow.

⁵⁵ Moran, T., Graham, E. and Blomstrom, M. (Eds.) 2005. Does Foreign Direct Investment Promote Development? Peterson Institute for International Economics, Washington D.C

⁵⁶ Though Russia is geographically in the North, politicians and scholars sometimes include it into the notion of 'South' due to other common development features (Aykut and Goldstein 2006).

⁵⁷ Kornegay, F., 2008. Africa's Strategic Diplomatic Engagement with China // New Impulses from the South. China's Engagement of Africa. Centre for Chinese Studies, University of Stellenbosh, South Africa.

⁵⁸ The New York Times, 25 August 2005, <http://www.nytimes.com/2005/08/21/magazine/21OIL.html?pagewanted=all>

Over the past two decades, the integration of environmental considerations into business decision-making has become a significant factor in the international competitiveness of both nations and corporations⁵⁹. Improved efficiency in the use of energy and other resources holds the potential for significant savings by the private sector. Such 'greening' also assists both states and companies to prevent environmental degradation, and consequent expenditures on rehabilitation activities, as well as to avoid the reputational risks associated with such environmental damage. Environmental footprint is increasingly taken into consideration in investment and insurance decisions regarding virtually all types of projects. This process has materially contributed to technological progress and the development of new environmental practices and leapfrogging technologies, which provide significant competitive advantages to businesses and nations.

At the same time, however, it would be premature to expect Russian investors in Southern Africa to pursue better sustainability and corporate social responsibility practices in Africa than they do in Russia. In many cases, the primary focus of Russian businesses is the maximisation of profits for their owners in the short term, often with a view to a future sale. Nevertheless, it would be unfair to apportion blame for this short-sightedness exclusively to the Russian private sector, since it remains the case that in both Russia and Southern Africa, the investment climates continue to be somewhat unpredictable, with significant uncertainty regarding possible changes in taxation regimes and various regulatory practices. Given this scenario, it would appear that an increased focus on long-term planning and sustainability issues on the part of Russian companies might be prompted by an improvement in the transparency and predictability of the domestic business environment by the governments of both Russia and Southern Africa.

Among other factors, the introduction of more stringent environmental regulations in Russia will serve to prepare Russian business for competition in international markets, including those in Southern Africa. In this regard, a positive, albeit somewhat delayed, measure is the Russian Presidential decree of 4 June 2008, On Measures to make the Russian Economy More Energy and Environment Efficient.

A 'greener' approach towards cooperation with Southern Africa does not necessarily imply or require a divergence by the Russian government from the high-level choices it has already made in terms of its interest in Southern African natural resources, its strategy to act as a global guarantor of energy security, and its efforts to develop an international assistance programme. What need to be re-examined in the sustainability context, however, are the instruments by which these high-level goals might be achieved.

⁵⁹ Porter, M, van der Linde, C., 1995. Green and Competitive: Ending the Stalemate. Harvard Business Review. № 73, September-October, pp. 120-155; Esty, D., Porter, M., 2001. Ranking National Environmental Regulation and Performance: A Leading Indicator of Future Competitiveness? The Global Competitiveness Report 2001-2002. N.-Y., p. 78.

3.1. RUSSIA'S STRATEGIC INTEREST IN SOUTHERN AFRICAN NATURAL RESOURCES

Practical measures which can be implemented by Russian companies, in order to enhance the sustainability of their businesses both domestically and in Southern African, include the following:

- Voluntary standards – the introduction of and compliance with more stringent international quality standards and HSE (health, safety and environment) certifications, environmental information disclosure, open 'green' dialogue with local communities and NGOs
- Corporate social investment – greater attention to local social and educational issues, with the aim of training employees and improving their living standards, as well as enabling local communities to find alternative income sources once resources deposits are exhausted
- Analysis – the integration of environmental and social performance indicators into 'due diligence' and investment approval procedures that would prevent 'surprises' and financial losses (as was the case in the purchase and sale of the Vanchem vanadium plant by Evraz)
- Research and development – aimed at sustainable technology solutions, including footprint mitigations, use of renewable energy sources, sustainable transportation, waste recycling and energy, water and other resources savings

As mentioned, Norilsk Nickel's application of 'Activox' technology at its Southern African mines can serve as an example of positive actions in this area (even though this technology was initially developed in Australia).

3.2. RUSSIA'S STRATEGY TO ACT AS A GLOBAL GUARANTOR OF ENERGY SECURITY

Russia's focus on energy cooperation with Southern Africa can assist in resolving one of the most pressing development issues in the region, namely access to energy. In this regard, potential exists for the following contributions by Russian companies:

- Efficiency measures – broader application of existing energy-, water-, and other resources saving solutions
- Investment – construction of new power generation facilities based on renewable resources such as wind and solar radiation, with minimal environmental footprint, particularly with regard to CO₂ emissions
- Research and development – particularly in terms of leapfrogging technologies, both in the sphere of energy savings and the use of renewable energy sources

In this regard, two interesting examples exist of cooperation between Russia and South Africa. The first concerns the cooperation between South Africa's state-owned electrical utility, Eskom, and the Russian scientific community in the field of underground coal gasification technology. This technology allows the energy content of coal to be extracted without mining, instead providing liquid petroleum gas as an input for electricity generation. This method of energy extraction can produce significant conversion efficiency improvements over conventional coal-fired electricity generation⁶⁰. At present, however, the majority of the interest, and potential investment, in this technology is from Eskom, rather than from Russian companies.

⁶⁰ Reuters, 23 April 2008, <http://factiva.com>

The second example of cooperation between Russia and South Africa concerns the 'gas-to-liquid' technology owned by South Africa's PetroSA and SASOL, which has reportedly attracted the attention of Russia's two state-owned petroleum majors, Gazprom and Rosneft. This solution holds the potential to significantly reduce gas flaring in Russia. According to the Russian Ministry of Natural Resources, Rosneft plans to build a GTL plant at its Sakhalin facility, with support from PetroSA and SASOL⁶¹.

Despite the current focus by Russian policy and business decision-makers on uranium mining and nuclear energy projects in South Africa and Namibia, there exists considerable doubt regarding the long-term financial viability and environmental sustainability of such projects. From an environmental perspective, while an increase in the contribution of nuclear energy to electricity generation capacity can assist in the reduction of CO₂ emissions in the short term, in the longer term, nuclear capacity creates serious challenges such as spent fuel and nuclear waste disposal, as well as increased risks in terms of the unsanctioned use of enriched uranium. In economic terms, although nuclear energy directly increases the global availability of electricity, it is similar to fossil fuels in the sense that it continues to rely on a finite resource. Furthermore, the experience of another African country, Niger, shows little evidence of any positive impact of a large uranium extraction industry on local development. Nuclear power generation requires considerable economies of scale and should ideally be distributed through a national or regional grid, and is therefore far more suited to industrial electricity supply than to meeting the energy needs of average Africans living outside areas of grid coverage⁶².

Southern Africa possesses abundant renewable energy reserves; solar radiation levels in South Africa and Namibia are amongst the highest in the world (Figure 5), and both countries contain significant areas of semi-desert, unsuitable for agriculture, which can be utilised for solar energy accumulation facilities. In the DRC, construction of what is scheduled to be the world's largest hydroelectric scheme, is currently underway on the Congo river's Inga Falls. Once completed, this facility will have an electricity generation capacity of 40 GW⁶³. Interestingly, this project does not involve the construction of large-scale dams and water reservoirs, and as a result, its potential environmental footprint is limited. Although no Russian companies are participating in the Inga Falls project, ALROSA has already invested in the construction of smaller hydropower stations in Angola, and another Russian company, Tekhnopromexport, has acted as a contractor to a number of African hydroelectricity projects, thereby accumulating considerable experience in the field.

South Africa possesses the world largest reserves of palladium, a platinum group metal used as a catalyst in hydrogen-powered engines - a solution for hybrid motor vehicles that is receiving increased attention in developed countries, particularly in Japan and the USA.

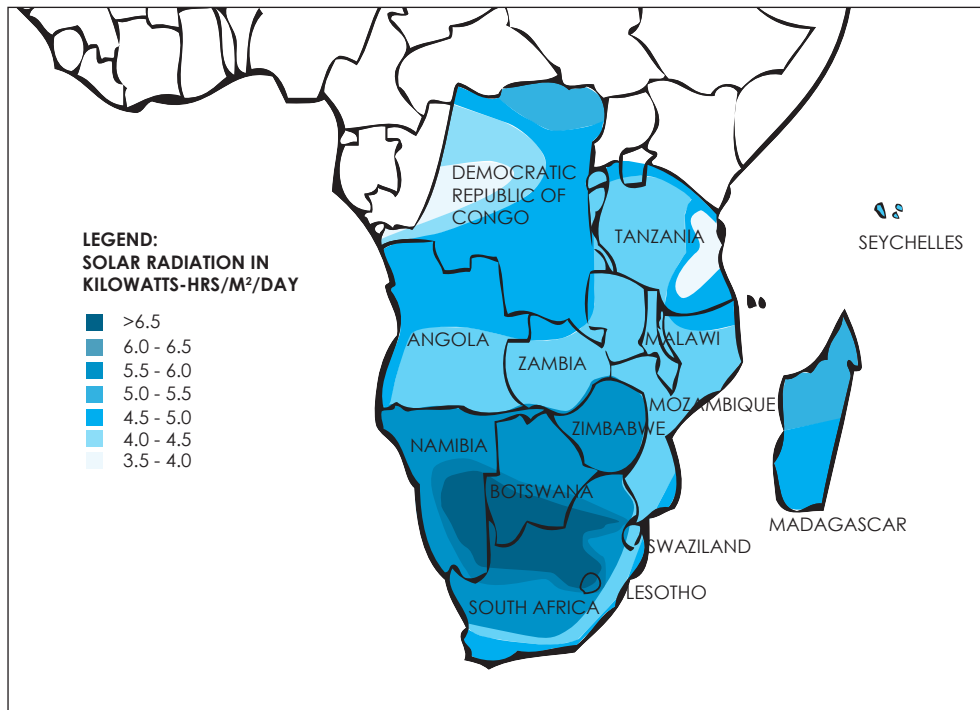
While renewable energy sources, particularly hydro-power, are capable of feeding into national grids, one of their most tangible benefits is that they are also particularly suitable for small-scale applications, and can therefore be owned and operated by the communities that they supply, rather than by governments or corporations located many miles away, or in some cases even on a different continent. In this context, bio-energy and in particular solar energy are increasingly viewed as a vital component of SADC's rural (off-grid) electrification programmes, which have in many instances been slowed by the high costs of grid extension services.

⁶¹ RBC Daily, 19 March 2007, <http://www.rbcdaily.ru/2007/03/19/tek/268514>

⁶² Du Plooy, P., 2008. Re-Think Investment in (South) Africa. WWF South Africa, Johannesburg, pp. 36, 47 – 48.

⁶³ BBC, 21 April 2008, <http://news.bbc.co.uk/2/hi/business/7358542.stm>

**FIGURE 5. SOLAR RADIATION IN SOUTHERN AFRICAN COUNTRIES,
KILOWATTS*HRS/M2/DAY**



Source: Cuamba B, 2008. Sustainable Energy Pathways for the SADC Region. Presentation at the DFID-DSA policy forum International Development in the Face of Climate Change: Beyond Mainstreaming?, Greenwich, 2 June 2008.

In addition to plans for new energy generation capacity, the potential exists for Russia and South Africa to cooperate in the implementation of projects aimed at increased efficiency in the use of already available energy resources and the reduction of their CO₂ emissions. Under the Kyoto Protocol, Joint Implementation projects in Russia and CDM projects in Southern Africa offer significant opportunities to increase energy efficiency in a commercially beneficial manner. Although neither Russia or the Southern African countries are required to reduce their GHG emissions during the Kyoto Protocol's implementation period, ending in 2012, a new negotiated international agreement that replaces the Protocol may impose such requirements. Under such circumstances, it is obvious that the energy-intensive facilities owned by Russian investors in Southern Africa, in particular non-ferrous metal smelters, will need to substantially improve their energy efficiency standards. In this regard the Russian company Factor Ltd. has already begun working with South Africa's Eskom on energy-saving projects.

3.3. RUSSIA'S EFFORTS TO DEVELOP AN ASSISTANCE PROGRAMME

Through various multilateral (including the G8), as well as unilateral initiatives, post-Soviet Russia has to date written off USD 16 billion of African debt⁶⁴. In 2006 and 2007, Russia annually contributed over USD 100 million to various multilateral ODA initiatives⁶⁵. These funds were for the most part channeled through existing international ODA bodies, such as various UN funds and organisations. These aid activities are planned to continue, in line with the Concept of Russia's Participation in International Development Assistance (2007). In the medium term, Russia is likely to create its own Foreign Aid Agency, and also become a member of the African Development Bank, with the latter step intended to promote the participation by Russian companies in African tenders. These measures will also seek to broaden Russia's involvement in Africa's development policies.

At the same time, Russia's financial institutions are increasing their operations in Africa, for example through the provision of loans to industrial projects in which Russian companies are participating, financial consultancy services and the organisation of IPOs for African companies. The financial institutions most heavily involved in these activities are the newly-established Russian Development Bank (reformed Vnesheconombank), the state-owned VTB bank, and Renaissance Capital (RenCap), a privately-owned Russian investment house⁶⁶.

Given the considerable environmental footprint of the majority of projects financed by Russian banks in Africa, it is essential that Russian financial institutions, including their subsidiaries in Africa, begin to apply international environmental standards in the evaluation of project finance opportunities. Such standards include voluntary benchmarks for managing environmental and social issues, such as the Equator Principles, which have been adopted by more than 50 financial institutions worldwide, with these institutions accounting for approximately 70–80 percent of the global project finance market. Unfortunately, however, in contrast to financial institutions in many EMEs, no Russian bank has to date accepted such voluntary obligations. In South Africa, Nedbank, which has entered into a partnership agreement with Vnesheconombank, and Standard Bank, which in early 2009 announced its acquisition of a stake in Russia's Troika Dialog Bank, are parties to the Equator Principles.

The measures identified in this report form the basis for hedging commodities revenues for the future, by investing them in sustainable business solutions. Rethinking Russia's investment in Southern Africa might involve additional costs in the short term, both in financial and administrative terms, but this expenditure should be viewed as capital investment rather than costs. Furthermore, the returns on this investment, in the form of increased environmental sustainability and national and corporate competitiveness, are certain to be far in excess of the initial expenditure for both Russia and Southern Africa, and in fact for the world as a whole.

⁶⁴ All Africa, 4 April 2008, <http://allafrica.com/stories/200804040246.html>

⁶⁵ New Africa, 29 May 2007, http://newafrica.ru/anonses/070604/ru_af1.htm

⁶⁶ VTB, 2 September 2007, <http://www.vtb.ru/rus/web.html?s1=1052&s2=13407&s3=1&l=1>; Business Report, 31 May 2008, <http://www.busrep.co.za/index.php?fSectionId=570&fArticleId=3858930>

CONCLUSION

In 2008/9, the financial crisis, which has been followed in most countries by real sector recession and declines in commodity prices, has provided strong incentives for drastic reviews of economic strategies by all countries, including Russia and the Southern African nations. As a result, some of the sustainability improvement measures recommended by environmentalists have been driven by a totally different imperative; namely a lack of availability of funds for investment, leading in turn to decisions to delay investment in, or even to disinvestment from, capital-, resource- and energy-intensive projects.

In South Africa, the national electricity supplier, Eskom, announced its decision to postpone the construction and commissioning of the country's second nuclear power plant by two years, citing cost as a major reason⁶⁷. In Russia, major outward investors have started scaling down their overseas investment programmes, most of which are related to the acquisition and development of assets in the commodity sector. For example, Norilsk Nickel, Russia's largest investor in Southern Africa, announced disinvestment plans for its nickel production and processing operations in Botswana and South Africa⁶⁸.

As argued in a recent report by Deutsche Bank, entitled *Economic Stimulus: The Case for 'Green' Infrastructure, Energy Security and 'Green' Jobs*, one possible way out of the current economic meltdown that involves considerable employment cuts in conventional industries, may lie in investment into so-called 'green' sectors of the economy, since these are generally more diversified, sustainable and labour-intensive than sectors seen as traditional drivers of economic growth. For example, the Center for American Progress (CAP) calculated that investment of USD 100 billion in clean energy and efficiency would result in 2 million new jobs, whereas an investment in conventional forms of energy would create only approximately 540,000 jobs⁶⁹. This conclusion could be similarly applied in Africa, where sustainability and unemployment problems, aggravated by the current market turbulence, are far more acute than in the developed world.

In spite of its very tangible and widespread negative impact on the global economy, the current economic crisis provides a significant incentive for making economic development choices more environmentally sustainable, thereby limiting the possibility for further turmoil in the financial and real sectors of a world economy that might otherwise continue to be based almost exclusively on the exploitation of natural resources. The fall of commodity prices makes the case for economic diversification stronger both in Russia and in the nations of Southern Africa. Furthermore, while in the period 2009–11, the realisation of large-scale investment projects by Russian companies in Southern Africa is unlikely, given the capital constraints they face, this period may very well provide the best opportunities for cooperation between Russian and Southern African companies in areas such as leapfrogging technologies, energy- and resource-savings and renewable energy development.

⁶⁷ Reuters, 12 January 2009; <http://af.reuters.com/article/investingNews/idAFJJOE50B0HR20090112>

⁶⁸ RIA Novosti, 17 January 2009; <http://www.rian.ru/economy/20090117/159469833.html>

⁶⁹ *Economic Stimulus: The Case for 'Green' Infrastructure, Energy Security and 'Green' Jobs*. Deutsche Bank, November 2008, p. 4; http://www.dbadvisors.com/deam/stat/globalResearch/1113_GreenEconomicStimulus.pdf

REFERENCES

Official Documents and Publications:

Accelerated and Shared Growth Initiative for South Africa Summary. Government of the RSA.

ALROSA, 2008. *Speech of ALROSA President Sergey Vybornov at the Company's Management's Meeting in Mirny on 29 March 2008.* ALROSA, Mirny.

Black Economic Empowerment Acts 2003 - 2004. Government Gazette, 9 January 2004, Pretoria.

BP, 2007. *BP Statistical Review of World Energy.* BP, London.

Chair's Summary of G8 Summit in Saint Petersburg, 17 July 2006.

Commerce and Industry Chamber of the Russian Federation / ТПП РФ, 28 February 2006. *Russia and Africa in the Short- and Mid-term. / Россия и Африка в кратко- и среднесрочной перспективе.* Moscow.

Competition Act of the Republic of South Africa. Government Gazette, 30 October 1998, Pretoria.

Concept of Russia's Participation in International Development Assistance, 2007. Approved by the President of the Russian Federation on 14 June 2007.

Declaration of Leaders Meeting of Major Economies on Energy Security and Climate Change. Toyako, Hokkaido, 9 July 2008.

Deutsche Bank 2008. *Economic Stimulus: The Case for 'Green' Infrastructure, Energy Security and 'Green' Jobs.* Deutsche Bank, November 2008.

DTI, 2003. *A Strategy for Broad-Based Black Economic Empowerment.* Department of Trade and Industry of the RSA.

DTI, 2007. *National Industrial Policy Framework.* Department of Trade and Industry of the RSA.

FAO 2003. *Forestry Outlook Study for Africa. Subregional report for Southern Africa.* FAO, , Rome.

FAO 2006a. *Food Security Statistics.* FAO, Rome.

FAO 2006b. *Global Forest Resources Assessment 2005.* FAO, Rome.

FAO 2008. *Water for Agriculture and Energy in Africa: the Challenges of Climate Change.* FAO, Rome.

IMF, 2008. *World Economic Outlook 2008.* IMF, Washington, D.C.

ISO, 2006. *ISO Survey 2006.* ISO, Geneva.

Long-Term State Programme of the Research of Subsoils and Reproduction of the Mineral and Raw Materials Base (2005 – 2010 and through 2020) of the Russian Federation / Долгосрочная государственная программа изучения недр и воспроизводства минерально-сырьевой базы России на основе баланса потребления и воспроизводства минерального сырья (2005-2010 гг и до 2020 г.) Российской Федерации. Approved by the Ministry of Natural Resources of the Russian Federation on 8 June 2005.

Mondi Group, 2007. *Mondi Group Sustainability Report 2007.* Mondi Group.

National Environmental Management Act of the Republic of South Africa. Government Gazette, 27 November 1998, Pretoria.

OECD, July 2008. *Economic Assessment of South Africa. Organisation of Economic Cooperation and Development.* Policy Brief. Paris.

On Measures to make the Russian Economy more Energy and Environment Efficient. Decree of the President of the Russia Federation, 4 June 2008.

Rosstat, 15 August 2008. *On Foreign Investment in Russia in the First Half of 2008 / Об иностранных инвестициях в I полугодии 2008 г.* Russian Federal Service of State Statistics, Moscow.

SADC, 1997. *SADC Mining Sector Five Year Strategy 1997 – 2001*. Southern African Development Community, Gaborone.

SADC, 2006. *Integrated Paper on Recent Economic Developments in SADC*. Bank of Namibia, Windhoek.

SADC, 2007. *Official SADC Trade, Industry and Investment Review 2007 – 2008*. Southern African Development Community, Gaborone.

South African Reserve Bank, 2008. *Financial Stability Review*. South African Reserve Bank, Pretoria.

The Constitution of the Republic of South Africa, 1996. Section 24.

The New Partnership for Africa's Development (NEPAD). Organisation of the African Union, Addis Ababa.

Transparency International, 2003. *Global Corruption Report 2003*. Transparency International, Berlin.

UNCTAD, 2007. *World Investment Report 2007*. UNCTAD, N.-Y. and Geneva.

UNDP, 2007. *Human Development Report 2007 – 2008*. UNDP, N.-Y

US Geological Survey, 2007. *Mineral Commodity Summaries 2007*. US Geological Survey, Washington D.C.

WEF 2008. *Global Competitiveness Report 2008/2009*. WEF, Davos.

World Bank, 2005. *World Development Report 2006*. World Bank, Washington, D.C.

World Bank, 2007. *World Development Report 2008*. World Bank, Washington, D.C.

WRI, 2005. *World Resources 2005*. World Resources Institute, Washington, D.C.

WWF, 2008. *Living Planet Report 2008*. WWF-International, Gland.

Monographs, Research Articles and Working Papers:

Aykut, D. and Goldstein, A., 2006. *Developing Country Multinationals: South-South Investment Comes of Age*. OECD Development Center working paper № 257, Paris.

Cuamba B, 2008. *Sustainable Energy Pathways for the SADC Region*. Presentation at the DFID-DSA policy forum International Development in the Face of Climate Change: Beyond Mainstreaming?, Greenwich, 2 June 2008.

Du Plooy, P., 2008. *Re-Think Investment in (South) Africa*. WWF South Africa, Johannesburg.

Esty, D., Porter, M., 2001. *Ranking National Environmental Regulation and Performance: A Leading Indicator of Future Competitiveness?* The Global Competitiveness Report 2001-2002. N.-Y.

Gerasimchuk, I. / Герасимчук, И., 2003. *International Environmental Cooperation in Southern Africa / Международное экологическое сотрудничество на Юге Африки*. Institute for African Studies of the Russian Academy of Sciences, Moscow.

Gerasimchuk, I./ Герасимчук, И., 2007. *Environmental Practice of Transnational Corporations / Экологическая практика транснациональных корпораций*. WWF Russia, Moscow.

Hawken, P., Lovins, A., Lovins, H., 2000. *Natural Capitalism: The Next Industrial Revolution*. Earthscan, London.

Heese, K., 2000. *Foreign Direct Investment in South Africa (1994 – 99) – Confronting Globalisation*. *Development Southern Africa*. Vol. 17, № 3. London.

Kim, A. / Ким, А., 2005. *Russians on the Global Sale / Русские на мировой распродаже*. *Finans*, № 15, 18 – 24 April 2005; <http://www.finansmag.ru/15293> (accessed 10 July 2008).

- Kornegay, F., 2008. *Africa's Strategic Diplomatic Engagement with China // New Impulses from the South. China's Engagement of Africa*. Centre for Chinese Studies, University of Stellenbosh, South Africa.
- Kornysheva, A./ Корнышева, А., 2007. *Sun, Air and Ore / Солнце, воздух и руда // Kommersant-Dengi*. № 14 (620), 16 April 2007; <http://www.kommersant.ru/doc.aspx?DocsID=759014> (accessed on 20 August 2008)
- Luus, M. and Krugell, W., 2005. *Economic Specialisation and Diversity of South Africa's Cities*. Paper submitted to the Biennial Conference of the Economic Society of South Africa "Development Perspectives: Is Africa Different?", Durban.
- Mabey, N., McNally, R. and Zarsky, L., 2003. *Foreign Direct Investment and the Environment: From Pollution Havens to Sustainable Development*. WWF-UK, London.
- McMillan, J., 2005. "The Main Institution in the Country Is Corruption": Creating Transparency in Angola. Center on Democracy, Development, and the Rule of Law, Stanford Institute on International Studies. Working paper № 36.
- Mkandawire, T., 2005. *Maladjusted African Economies and Globalisation // Africa Development*, № 30, 1 – 2, p.6.
- Moran, T., Graham, E. and Blomstrom, M. (Eds.) 2005. *Does Foreign Direct Investment Promote Development?* Peterson Institute for International Economics, Washington D.C.
- Perkins, R., 2003. *Environmental Leapfrogging in Developing Countries: a Critical Assessment and Reconstruction // Natural Resources Forum*, Volume 27, № 3, pp. 177-188.
- Porter, M, van der Linde, C., 1995. *Green and Competitive: Ending the Stalemate // Harvard Business Review*. № 73, September-October, pp. 120-155.
- Poussenkova N. and Solntseva E., 2007. *Russian Companies in the 21st Century – Towards Competitive Corporate Citizenship*. WWF-Russia, Moscow.
- Robinson, V. and Brümmer, S., 2006. *SA Democracy Incorporated. Corporate Fronts and Political Party Funding*. Institute for Security Studies, Cape Town.
- Rodney, W., 1983, *How Europe Underdeveloped Africa*. Bogle-L'Ouverture Publications, London and Tanzanian Publishing House, Dar-Es-Salaam.
- Rose, C. and Stevels, A., 2000. *Applying Environmental Value Chain Analysis to Product Take-Back Systems*. Manufacturing Modeling Laboratory working paper. Stanford University, Stanford.
- Rozina, I. / Розина, И., 1988. *New Energy Sources for African Countries / Новые источники энергии в странах Африки*. Institute for African Studies of the Russian Academy of Sciences, Moscow.
- von Weizsacker, E., Lovins A., and Lovins, L., 1997. *Factor Four: Doubling Wealth, Halving Resource Use - A Report to the Club of Rome*. Earthscan, London.
- Wilson, D., and Purushothaman, R., 2003. *Dreaming with BRICs: the Path to 2050*, Global Economics paper № 99, Goldman Sachs.
- Winters, A. and Yusuf, S. (Eds.), 2007 *Dancing with Giants: China, India, and the Global Economy*. World Bank and the Institute of Policy Studies, Washington, D.C.
- Zarsky, L. and Gallagher, K. (2003) *Searching for the Holy Grail? Making FDI work for Sustainable Development*. WWF-International, Gland.
- Yale Center for Environmental Law, 2008. *Environmental Performance Index*. New Haven: Yale Center for Environmental Law and Policy.

Newswires, Media and Press Releases:

All Africa, 4 April 2008; <http://allafrica.com/stories/200804040246.html>

(accessed on 20 August 2008)

All Africa, 23 April 2008; <http://allafrica.com/stories/200804230072.html>

(accessed on 20 August 2008)

BBC, 21 April 2008; <http://news.bbc.co.uk/2/hi/business/7358542.stm>

(accessed on 20 August 2008)

Business Day, 13 February 2007; <http://www.businessday.co.za/search/results.aspx> (accessed on 20 August 2008)

Business Day, 5 October 2007; <http://www.businessday.co.za/articles/article.aspx?ID=BD4A579828> (accessed on 20 August 2008)

Business Report, 17 January 2008; <http://www.busrep.co.za/index.php?fSectionId=552&fArticleId=4209364> (accessed on 20 August 2008)

Business Report, 24 April 2007; <http://www.busrep.co.za/index.php?fSectionId=553&fArticleId=4370487> (accessed on 20 August 2008)

Business Report, 31 May 2008; <http://www.busrep.co.za/index.php?fSectionId=570&fArticleId=3858930> (accessed on 20 August 2008)

DFA, 13 February 2008; <http://www.dfa.gov.za/docs/2008/itec0213.html> (accessed on 20 July 2008).

DFA, 22 February 2007; <http://www.dfa.gov.za/docs/speeches/2007/dzum0223.htm> (accessed on 20 July 2009)

Engineering News, 17 August 2007; http://www.engineeringnews.co.za/article.php?a_id=114089 (accessed on 20 August 2008)

Gazeta, 1 November 2006; <http://www.gzt.ru/business/2006/10/31/211543.html> (accessed on 15 August 2008)

Geopolitics, 22 March 2007; <http://www.geopolitics.ru/news/afr-004.htm> (accessed on 20 August 2008)

Interfax, 19 July 2007; <http://factiva.com> (accessed on 29 July 2008)

Mergers & Acquisitions, 6 March 2006; <http://www.ma-journal.ru/news/12616/> (accessed on 20 August 2008)

Mineweb, 26 September 2007; <http://www.mineweb.net/mineweb/view/mineweb/en/page36?oid=37493&sn=Detail> (accessed on 20 August 2008)

Mineweb, 18 March 2008; <http://www.mineweb.com/mineweb/view/mineweb/en/page38?oid=49574&sn=detail>

Mineweb, 16 April 2008; <http://www.mineweb.com/mineweb/view/mineweb/en/page37?oid=51181&sn=Detail> (accessed on 20 August 2008)

Mining Weekly, 16 March 2007; http://www.miningweekly.com/article.php?a_id=105237 (accessed on 20 August 2008)

New Africa, 21 February 2007; <http://www.newafrica.ru/anonses/070226/ru-sa.htm> (accessed on 20 August 2008)

New Africa, 29 May 2007; http://newafrica.ru/anonses/070604/ru_afl.htm (accessed on 20 August 2008)

New Africa, 3 November 2006; <http://newafrica.ru/anonses/061101/angola.htm> (accessed on 20 August 2008)

New Africa, 8 June 2007; http://newafrica.ru/anonses/070610/g8_1.htm (accessed on 20 August 2008)

Norilsk Nickel, 25 September 2007; <http://www.nornik.ru/press/news/2218/> (accessed on 20 August 2008)

Polit.Ru, 6 February 2008; <http://www.polit.ru/news/2008/02/06/simonov.html> (accessed on 20 August 2008)

RBC Daily, 19 March 2007; <http://www.rbcdaily.ru/2007/03/19/tek/268514> (accessed on 20 August 2008)

Reuters, 19 August 2008; <http://www.reuters.com/article/marketsNews/idUSLJ35337020080819> (accessed on 20 August 2008)

Reuters, 23 April 2008; <http://factiva.com> (accessed on 29 July 2008)

Reuters, 12 January 2009; <http://af.reuters.com/article/investingNews/idAFJOE50B0HR20090112> (accessed on 1 February 2009)

RIA Novosti, 5 October 2007; <http://factiva.com> (accessed on 29 July 2008)

RIA Novosti, 7 June 2007; http://rian.ru/world/world_community/20070607/66849815.html (accessed on 9 August 2008)

RIA Novosti, 17 January 2009; <http://www.rian.ru/economy/20090117/159469833.html> (accessed on 1 February 2009)

Rosafroekspertiza Newswire, 2 April 2008; <http://raex.org/index.php?productID=789> (accessed on 20 August 2008)

Rosafroekspertiza Newswire, 26 January 2008; <http://raex.org/index.php?productID=733> (accessed on 9 August 2008)

Rosafroekspertiza Newswire, 16 March 2008; <http://www.raex.org/index.php?productID=777> (accessed on 20 August 2008)

Rosafroekspertiza Newswire, 18 August 2007; <http://raex.org/index.php?productID=605> (accessed on 20 August 2008)

Rosafroekspertiza Newswire, 15 March 2008; <http://www.raex.org/index.php?productID=770> (accessed on 20 August 2008)

Rosafroekspertiza Newswire, 28 March 2007; <http://www.raex.org/index.php?productID=392> (accessed on 20 August 2008)

Rosatom, 25 November 2004; <http://www.minatom.ru/News/Main/view?id=9213&idChannel=71> (accessed on 20 August 2008)

Smart Money, 9 October 2006; <http://www.smoney.ru/article.shtml?2006/10/09/1476> (accessed on 20 August 2008)

Smart Money, Moscow, № 9 (99), 17 March 2008; <http://www.smoney.ru/article.shtml?2008/03/17/5151> (accessed 20 August 2008).

Sunday Standard, 20 May 2007; http://www.sundaystandard.info/news/news_item.php?GroupID=1&NewsID=1499 (accessed on 20 August 2008)

The New York Times, 25 August 2005. <http://www.nytimes.com/2005/08/21/magazine/21OIL.html?pagewanted=all> (accessed on 12 August 2008)

The Times, 14 January 2008; <http://www.thetimes.co.za/News/Article.aspx?id=680981> (accessed on 20 August 2008)

Vedomosti, 19 March 2007; <http://factiva.com> (accessed on 29 July 2008)

Viewswire, 11 April 2008; <http://www.viewswire.com/article1373656522.html?pubtypeId=930000293&text=> (accessed on 20 August 2008)

Vremya Novostei, 6 March 2006; <http://www.vremya.ru/2006/38/13/146809.html> (accessed on 20 August 2008)

VTB, 2 September 2007; <http://www.vtb.ru/rus/web.html?s1=1052&s2=13407&s3=1&l=1> (accessed on 20 August 2008)

