

FDI INFLOWS TO RUSSIA: IMPLICATIONS FOR SUSTAINABLE DEVELOPMENT

Natalia Volgina
Peoples' Friendship University of Russia - Moscow

ABSTRACT

Since the 1990s the world economy was defined by the accelerating pace of globalization that is characterized by increasing volumes of international trade and capital flows, volatility of currency and equity markets, rapid technological change and homogenization of cultures. Globalization and sustainable development can, at least in some instances, be interlinked. In some cases, the factors that drive globalization can be forces for sustainable development which refers to a development process that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. The main drivers of globalization are TNCs that use different instruments, first of all, foreign direct investment (FDI) to build-up international production. Is FDI a lever for sustainable development in Russia or a threat? The starting point of the article is the idea that international production to a larger extent is transforming into production along regional and global value-added chains. Traditionally, management requirements along the value-added chain have been strongly related to quality and effectiveness issues. Only recently TNCs have started to work on environmental value-added chain management, including inflow of environment-favorable technologies, equipment and environment management methods through FDI to host countries. From this point of view FDI can play the role of a strong engine in Russia's economic development. Some foreign-invested projects have become good examples of sustainable development. But FDI can also exert negative impacts on sustainable development. It depends on the type of inward FDI. About 60% of the value of FDI inflows to Russia is resource-seeking investment that is especially sensitive to higher environmental costs. Moreover the larger part of them goes to petroleum extracting that is a very pollution-intensive industry. Sustainable development in the era of globalization is an extremely complicated, contradictory and even conflicting process. It includes not only mentioned above economic growth, social justice and environmental sustainability, but also political matter, balance of interests between national governments and foreign TNCs, as well as legislation issues. Taking into account a bright and instructive example of Sakhalin II project, a paper concludes that the environmental policy of Russian Federation has to be a top-priority mechanism for regulation of TNCs activity in the country.

Key words: TNCs, FDI inflows, sustainable development, Russia, environmental value-added (supply) chain management, pollution-intensive industries, environmental policy.

Introduction: Globalization and sustainable development

Since the 1980s the world economy was defined by the accelerating pace of globalization – the process of growing economic and financial interdependence of countries, regions and firms. Globalization is characterized by increasing volumes of international trade and capital flows, volatility of currency and equity markets, rapid technological change and homogenization of cultures. This became possible due to gradual liberalization of trans-border trade and decreasing of transport, communication and information costs. Now we can observe one of the important consequences of these shifts – the changing behavior of national firms. To a greater extent the increasing numbers of companies do not limit their activities by home country and consider regional and even global markets as a major field for their business. There is an evidence of firms' business strategy changes [1]. TNCs are the main drivers of globalization and foreign direct investment (FDI) is at the same time the main instrument they use to achieve business strategic targets and to build-up the

system of integrated international production.

Along with advance of globalization the question of sustainable development was put on the agenda, especially for developing and later for transitive countries [2]. A widely-used and accepted international definition of sustainable development is "development process that meets the needs of the present generation without compromising the ability of future generations to meet their own needs". This general definition came from the Brundtland Report [3] in 1987, and was further defined in the Rio Declaration [4] in 1992. Since that conference, most definitions of sustainability have emphasized the need to balance three central components: productive economic growth, social justice and environmental sustainability. Nevertheless the precise criteria of sustainable development are still highly controversial, as there are many different interpretations of this definition of sustainability, ranging from "weak" to "strong" sustainability.

What is the interaction between globalization and sustainable development? Globalization and sustainable development can, at least in some

instances, be interlinked. In some cases, the factors that drive globalization can be forces for sustainable development; in some cases they cannot. The debate on the environmental consequences of FDI is one of the central issues in more wider discussion about globalization and sustainable development. In general FDI might have both positive and negative impacts on sustainable development. Some scholars are concerned that countries will continually lower their environmental standards to attract FDI, creating so-called "pollution havens", and that a "race to the bottom" will ensue. As a result foreign investors transfer pollution-intensive industries (PIIs), hazardous wastes, technology and equipment to host countries through FDI. Others argue that foreign investment brings more environmentally friendly technologies and FDI is the best way to disseminate new and cleaner technologies. Some investors have made contributions to environmental protection of the host countries through transfer of cleaner technology and equipment, carrying out advanced environmental management systems and measures, and adopting higher environmental standard in the process of production. Moreover, a slow but steady increase in environmental standards might result [5].

So, is FDI a lever for sustainable development or a threat? What is the impact of host country environmental standards on TNCs' investment decisions? And how to resolve the dilemma: whether FDI and sustainable development could be made compatible? This paper attempts to answer these questions in case of Russia.

Global value-added chains and environmental management

The starting point of the paper is the idea that production of goods and services to a larger extent is transforming into production along regional and global value-added chains. Its main features include growing international character, fragmentation in different geographical locations, and coordination of trans-boundary inter-firm relations along the whole global/regional value chains. The availability of this coordination makes it possible to exercise value chain management, including environmental one.

Before looking at the value chain management in more detail, let's consider the system of interrelations within the global value-added chain formed basically by FDI (and to a lesser extent contractual agreements). Authors usually define two forms of investment, and correspondingly value chain systems:

- *horizontal investment*, oriented in building-up in foreign markets business production models already existing in home countries, i.e. in the countries of origin of FDI;
- *vertical investment*, oriented in geographical

location of separate pieces of production chain, which are considered as interlinked elements of the integrated system of international production.

The results of recent economic research on FDI and international production emphasized the fact that during the 1990s TNCs have moved to the policy of creation of vertical chain systems [6]. TNCs are the main actors in managing these chains; moreover the coordination of subsidiaries' activity is exercised from global or regional headquarters through the system of joint ownership of corporation. The more the firm is vertically integrated, the less it has a necessity to coordinate and cooperate with other firms (as contractors) and other firms' value chains. Moreover, vertical integration creates opportunities to manage the whole system of value-added chain. Traditionally, management requirements along the value-added chain have been strongly related to quality and effectiveness issues. All TNCs have ongoing training and auditing processes inside the firms and for their suppliers. Especially in sectors where the final product is subject to high technical requirements, the quality of the supplied goods is extremely important.

Only recently TNCs have started to work on environmental value-added chain management, including inflow of environment-favorable technologies, equipment and environment management methods through FDI to host countries. TNCs agree that environmental supply-chain management is an important trend, and a challenge that could have an enormous impact. A critical factor for the successful integration of environmental requirements into specifications for suppliers will be whether this will lead to cost reductions and/or whether the market will show its approval of the improved overall environmental efficiency. There is an enormous potential for improving environmental performance along the value-added chain, making full use of the purchasing power of consumers, businesses and the public sector – the latter often being the biggest, and sometimes the only, customer of TNCs. "Supply chain management" makes suppliers part of what can be called the "environmental footprint" of firms. In this case, it is not the ownership that matters, but the creation of "green" business and consumer networks across national borders. There are encouraging signs of TNCs offering their suppliers in developing and transitive countries training courses and supporting them in the implementation of environmental management systems. Expanding this practice could greatly improve the environmental impact of FDI.

FDI types and sustainable development

We examined the possibility of positive FDI impact on national sustainable development through TNCs environmental management along global/

regional value-added chain. But this is only one side of the medal. FDI can also exert negative impacts on sustainable development. It might depend on the type of inward FDI. Having different assets and investing abroad, a firm has special motivations for building-up international production. Dunning [7] based on Behrman work [8], suggests classification for FDI motives:

- market-seeking FDI;
- resource-seeking FDI;
- efficiency-seeking FDI;
- strategic asset-seeking FDI.

Market-seeking FDI may be undertaken to get access to new markets or to sustain and protect existing markets. Many foreign investors seeking opportunities to sell in overseas markets are likely to be attracted by their size and potential for sales. Markets that are large and growing and have opportunities for gaining markets in adjacent countries will therefore be the most attractive. FDI that is seeking new access to local markets is not likely to be especially sensitive to higher environmental costs.

Some investors' overseas activities are aimed at obtaining access to critical resources not available in their own markets. In other cases, although the materials might be available at home, investors are driven by the prospect of lower prices in setting up a facility abroad. Low-priced natural resources continue to attract a significant number of foreign investors of this type. For many resource-seeking FDI, outputs are relatively undifferentiated, thus small price differences can translate into large changes in market share. Resource-seeking FDI are usually concerned with extractive industries such as mining, oil production, etc. Investment flows towards these industries may therefore be particularly susceptible to high environmental costs.

The motivation of efficiency-seeking FDI is to rationalize the structure of established resource-based or market-seeking investment in such a way that the investing company can gain from the common governance of geographically dispersed activities. Such benefits are essentially those of the economies of scale and scope and of risk diversification. Strategic asset-seeking investment – this is FDI, oriented in acquiring the assets of foreign corporations. These kinds of FDI have long-term strategic objectives, first of all, sustaining or advancing their international competitiveness. By and large this investment is closely connected with trans-border mergers and acquisitions. Increasingly efficiency-seeking FDI and strategic asset-seeking FDI are going hand in hand as firms restructure their assets to meet their objectives. They are mostly concentrated in high technology and capital-intensive sectors with wide usage of information technologies. As well as market-

seeking FDI they are not very susceptible to high environmental costs.

So, resource-seeking investment is especially sensitive to higher environmental costs and that's why it is often bring serious pollution effects in the process of production in host countries.

Resource-seeking FDI in pollution-intensive industries in Russia

Which type of investment is dominated in FDI inflows to Russia? We propose to use one the possible classifications of sectoral inflows of FDI to Russia (from the point of view of motivations of firms-investors) to analyze the impact of FDI on sustainable development in Russia. As follows from the data of Table 1, overwhelming part of FDI inflows to Russia is resource-seeking investment; moreover it is oriented in oil and gas production. Their share in total FDI inflows grew from 14,8% to 53,6% for five-year period 2000-2004. The main cause of this shift is undoubtedly connected with the rise in oil demand and buoyant trends in world oil prices.

Market-seeking investment could be the bulk in FDI inflows taking into account the scope and potential of Russian market. However its share in annual FDI inflows never exceeded 50%, and during last five years even declined from c 43,1% in 2000 to 24,1% in 2004. Though market-seeking investment undoubtedly is an engine for Russian economic development and contributes to country' long-term integration into the world economy. Unfortunately, efficiency-seeking FDI and closely related with them strategic asset-seeking investment are very small. Its share in total FDI inflows in Russia accounts for 1,5% taking into consideration only sectors of transport and telecommunications. If we add here appropriate types of machinery, chemistry and services (unspecified in Russian statistics), the share of this type of investment (due to our estimate) averages 10% in the middle of 2000s.

So, with the beginning of high oil prices era we observe gradual re-orientation of FDI in Russia towards increase of resource-seeking investment at the expense of squeezing of market-seeking and efficiency-seeking investment. About 60% of the value of FDI inflows to Russia is resource-seeking one. Moreover the larger part of them goes to petroleum extracting and gas production. We evaluate this medium-term (at least) trend as unfavorable from the point of view of FDI impact on sustainable development, because this type of investment is very susceptible to environmental costs and at the same time is closely connected with pollution-intensive industries. The continuing growth of resource-seeking investment may have negative impact and unfavorable pressure on forming foundations for

Table 1. Sectoral structure of FDI inflows to Russian economy (million dollars, and %)

SECTORS	1995		2000		2002		2003		2004	
	Mln doll.	%	Mln doll.	%	Mln doll.	%	Mln doll.	%	Mln doll.	%
Total	2020	100	4429	100	4002	100	6781	100	9420	100
Including:										
Industries	915	45,3	1844	41,6	1932	48,3	3420	50,4	6452	68,5
Fuel ¹	262	12,9	442	10,0	667	16,7	1917	28,3	3390	35,9
Manufactures	597	29,6	1342	30,3	1088	27,2	1319	19,5	2764	29,3
Ferrous metallurgy ¹	26	1,3	39	0,9	20	0,5	84	1,2	1213	12,9
Engineering and metal-working ²	102	5,1	228	5,1	262	6,5	323	4,8	292	3,1
Timber, pulp and paper ¹	84	4,2	141	3,2	133	3,3	315	4,6	405	4,3
Food, beverages and tobacco ²	250	12,4	821	18,5	439	10,9	345	5,1	322	3,4
Agriculture¹	3	0,1	31	0,7	22	0,5	56	0,8	51	0,5
Services	1002	49,6	2032	45,9	1561	39,1	2557	37,7	2341	36,3
Transport and communication ³	11	0,5	948	21,4	112	2,8	165	2,4	142	1,5
Retail, fast food and restaurants ²	497	24,6	865	19,5	1006	25,1	1617	23,8	1661	17,6
Others (non-specified)	100	4,9	522	5,3	487	12,2	748	11,1	576	6,2

Author's calculations based on: [9, 10, 11].

¹ Resource-seeking FDI: oil and gas production, iron and steel, timber industry, and agriculture.

² Market-seeking FDI: machinery and equipment (including automobile production), metal and metal products, food, beverages and tobacco, retail, fast food and restaurants.

³ Efficiency seeking FDI and strategic asset-seeking FDI: transport and communications, especially telecommunications, and other services, except for retail, fast food and restaurants.

sustainable development in Russian regions. In this case the situation with Sakhalin II Project is very significant and enlightening.

Sakhalin II Project: a threat to sustainable development of Sakhalin region?

Sakhalin is an island in the Russian Far East (North Pacific) richly endowed with oil and gas (with estimated resources of some 45 billion barrels oil equivalent). Sakhalin II is a project in the framework of which Piltun-Astokhskiye and Lunskiye oil and gas fields are being developed. It is one of the most ambitious energy projects ever undertaken. It involves drilling for oil and gas 16 km out into the Pacific Ocean, transporting it in 800 km-long pipelines along the island, before turning the gas into liquid at a giant Liquefied Natural Gas (LNG) plant – the first of its kind in Russia. Sakhalin II also includes Sakhalin island infrastructure upgrades, such as roads, bridges, rail, port, airport, and medical facility upgrades. Sakhalin II today has production capacity of 80,000 barrels oil equivalent per day. The next phase of the development will take the project capacity to 340,000 barrels oil equivalent per day, including 9.6 million tones per year of LNG production. The second phase of the project is over 80% complete [12].

Until recently Sakhalin II has been considered as the largest FDI in Russia and an example of mutually beneficial energy co-operation with the West. Russia needs foreign capital combined with expertise, equipment and technology to develop offshore fields such as Sakhalin, while foreign

companies are striving for Russian energy resources. The project has a strong socio-economic components and impacts positively on island's development. It was obliged to use 70% Russian "content". As a result, Russian companies have been awarded \$5.3bn worth of contracts. Over 17,000 people are currently employed in the construction of the project, of which around 70% are Russian nationals. At the local level, living standards in the Sakhalin region are growing and the island's internal revenues increased by more than 500% between 2002 and 2005, demonstrating that Sakhalin is the most economically dynamic of all the districts of the Russian Far East [13].

Sakhalin II project is managed by Sakhalin Energy Investment Company Ltd. (Sakhalin Energy). Until December 2006 the shareowners of the Sakhalin Energy Company were Royal Dutch/Shell (55%), Japanese Mitsui (25%) and Mitsubishi (20%) with Shell as the leading operator of the project. Japan, Korea and the USA are to be supplied with liquid gas from the plant, the first deliveries are planned to start in 2008.

Sakhalin II has become the first project in Russia brought into play on the basis of Production Sharing Agreement (PSA), whereby the project partners finance the construction costs of the project, take on the development risk, and recover these costs from sales of oil and gas. Sakhalin II PSA was signed on June 22, 1994. Russian government and the administration of the Sakhalin region spoke in the name of the country. Since then an estimated \$20

billion investment was made by project partners and first returns are expected in 2008. So far, some \$600 million of royalty, bonuses and taxes have been paid to the Russian government by the end of 2006.

In 2004-2005 Sakhalin II has come under fire from environmental groups, namely Sakhalin Environment Watch, for dumping dredging material in Aniva Bay. The groups were also worried about the offshore pipelines interfering with the migration of whales off the island. The consortium has (as of Jan 2006) re-routed the pipeline to avoid the whale migration. But it was the beginning of environmental conflict apropos of Sakhalin II project. Since 2006 Sakhalin II has come under pressure from Russian authorities for environmental violations and cost overruns.

Shortly after July's 2006 summit of the Group of Eight industrial nations in St. Petersburg, where Russia declared itself a guarantor of energy security, Oleg Mitvol, an official from the State environmental agency, threatened to cancel an environmental permit for Sakhalin II for alleged violations of ecology law. Menacing statements from prosecutors and from the Ministry of natural resources followed. Russian natural resources Minister Yury Trutnev warned that the Shell-led Sakhalin II project would be halted unless Shell corrected environmental damage done to the site [14].

In September 2006 the Natural resources ministry withdrew a key environmental permit for the Sakhalin II project on the grounds that it is polluting Sakhalin's rivers and seas. It was a signal that work should be halted. While the energy companies concerned have expressed dismay at the action on Sakhalin by Russian authorities, international environmental groups including Greenpeace and the Worldwide Fund for Nature have applauded the moves. They have protested that the project damages the natural habitat of the endangered Western grey whales and harms fishing, a key industry for the people of Sakhalin. Shortly after that the Natural resources ministry said it had ordered a new round of environmental inspections of Sakhalin project. Trutnev said, however, that the new inspections had only environmental motivations. "We don't have the goal of influencing the project's economic terms," he said. "We are worried about information from international and Russian environmental organizations ... about environmental problems that have appeared in the course of Sakhalin II's development" [15].

Environmental worries about Sakhalin II are real: both Western and Russian non-governmental organizations have been vocal opponents. But senior ministers readily conceded that factual causes had little to do with the environment. German Gref, minister of trade and economic development, has

described the main factor as rising costs. In 2005 Sakhalin Energy announced that these would be double the \$10bn it estimated in 2001[2]. This cost overrun will have a direct effect on Russia's state finances because the PSA, the legal basis of the project, allows foreign companies fully to recoup their outlay and receive a real rate of return of 17.5 per cent before they have to share revenues with Russia. Rising costs would delay the moment Russia saw any money from the project.

But Russia's natural resources ministry has also argued that Sakhalin II, and similar agreements signed with ExxonMobil and Total in the mid-1990s, are too generous to the western oil companies. The cost overruns (at least partly due to Shell's response to environmental concerns), are reducing the share of profits flowing to the Russian treasury. After a doubling in the projected cost, the Russian government threatened to halt the project for environmental reasons.

There are two planks to Moscow's argument. First, since PSAs bring to the Russian budget nothing beyond modest royalties until investments have been recouped, they give investors an obvious interest in inflating their costs; and Shell and Exxon have claimed cost overruns totaling nearly \$18 billion. Secondly, these agreements exempted foreign firms from Russian tax laws, which have been reformed beyond recognition in the past decade.

The West's oil giants are not environmental angels, but nor are Russia's. This flurry of state-sponsored ecological concern disguises a dirtier strategic reality; the PSAs were drawn up when inflation, political chaos and President Yeltsin's poor health had brought Russia to its knees. Soaring oil prices have since enabled it to pay off foreign debts, fund its own modernization of the energy sector, and demand, with some justification, membership of the World Trade Organization (WTO). The Kremlin, dependent on Western firms for expertise, but not, for the time being, for capital, is also demanding more from its investors, The Times writes [16].

But some observers say the problems faced by Sakhalin II have even deeper roots. There have been suggestions that the Russian government is using the environmental issues as a pretext for obtaining a greater share of revenues from the project and/or forcing involvement by the state-controlled Gazprom. Gazprom agreed to buy into the project in 2005, shortly before Shell announced the rise in costs. Later on Gazprom seek better terms. And after the environmental scandal with Sakhalin II it got it.

On December 21, 2006 OAO Gazprom, Royal Dutch Shell plc (Shell), Mitsui & Co., Ltd (Mitsui) and Mitsubishi Corporation (Mitsubishi) have signed a protocol to bring Gazprom into the Sakhalin Energy

Investment Company Ltd. (SEIC) as a leading shareholder. Under the terms of the protocol, Gazprom will acquire a 50% stake plus one share in SEIC for a total cash purchase price of \$7.45 billion. The current SEIC partners will each dilute their stakes by 50% to accommodate this transaction, with a proportionate share of the purchase price. Shell will retain a 27.5% stake, with Mitsui and Mitsubishi holding 12.5% and 10% stakes, respectively [12].

This is the end and at the same time is a continuation of the story. Sakhalin Energy will remain the operator of the Sakhalin II project. Gazprom will play a leading role as majority shareholder while Shell will continue to significantly contribute to SEIC management and remain as Technical Advisor. Moving forwards, the key focus for Sakhalin Energy is to complete the project on schedule allowing LNG to be delivered to existing customers in Japan, Korea and the North American West Coast. All existing LNG sales contracts will remain in force and will be honored [12].

Conclusion: What should be done?

In the concluding remarks we would like to stress that sustainable development in the era of globalization is an extremely complicated, contradictory and even conflicting process. It includes not only mentioned above economic growth, social justice and environmental sustainability, but also political matters, balance of interests between national governments and foreign TNCs, as well as legislation issues.

At the same time the main obstacle to sustainable development in Russia remains ineffective resource-intensive structure of national economy. That's why the bulk of FDI inflows go to extractive industries that are very susceptible to environmental hazards. Some investors regard Russia as pollution-haven by transferring "dirty" industries through FDI.

That is why the environmental policy of Russian Federation becomes the top-priority mechanism for regulation of TNCs activity in the country. A coordinating development between FDI and sustainable development should be reached through adopting appropriate measures, that have to be clear, open, transparent, free of double standards and equal for all agents. TNCs and other foreign and local companies should be asked to use advanced environmental technology and equipment, establish advanced environmental management systems, adopt clean technology and production, adopt the environmental standards of parent companies (that might be higher than ones in host countries), make training to the workers and staffs in the field of environmental protection to protect their safety and health, publish

annual environmental reports for supervision of the public. TNCs should be asked to help their subsidiaries and their cooperated units, such as suppliers, contractors, carriers, distributors increase capability of environmental protection through effective transfer of environmental technology, training and establishment of modern environmental management system, therefore, the whole integrated network of TNCs can serve for sustainable development.

It is also very important to make up international investment rules concerning sustainable development. It is necessary to strengthen common efforts to ensure a coherent global and ecologically responsive framework of environmental agreements and institutions, in order to guarantee that globalization will support sustainable development.

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