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## Green banking as a progressive model of socially responsible business

### Abstract

The article studies eco-oriented (green) banking and analyses dominant vectors of its development. The methodological basis includes conceptual approaches of Russian and foreign scientists in the field of environmental banking. The authors use the method of system analysis, methods of generalization and graphical interpretation of data. We show that green banking is a socially responsible model of banking aimed at reducing the anthropogenic load on ecosystem and creation of "the benefits of the future". The paper considers conceptual directions of socially responsible banking and approaches to the definition of green banking. This allows formulating the author's thesis that the implementation of eco-responsible principles in the banking sector provides for the "triple benefit": improving economic efficiency, reducing harmful effects on ecosystem and improving social image of banks. We systematize the internal and external aspects of the environmental positioning of banks, which determine the green opportunities of the banking sector. The paper presents an overview of eco-oriented banking gradients, the most important of which are green lending, green banking products and charity projects. Unlike regulators in other countries, the Bank of Russia has not yet introduced regulatory procedures of environmentally responsible banking. The activation of international environmental initiatives in the banking sector confirms that green banking is becoming an important business area in many countries, acquiring the features of megatrend of the 21st century. The identified gap between the green practice of Russian and international banks allows concluding that in the context of global trends the Russian banking sector needs to be transformed.

### INTRODUCTION

Technological development and large-scale consumption of natural resources are accompanied by undesirable consequences for both the environment and the existence of human civilization. There is pollution of the biosphere, depletion of non-renewable resources, decrease in biodiversity and violation of the thermal nature's balance. The situation is aggravated by the irresponsible behaviour of business entities. In pursuit of high financial results and not caring about the prospects of future generations, they leave a harmful ecological footprint.

In modern society, the debatable question about the role of the social and environmental responsibility of various participants in economic relations has matured. The problem is that commercial organizations, receiving economic benefits from interaction with environment, do not view their activities from the position of the possibility of making a feasible contribution to improving the environment. This situation does not create conditions for human development in the long term. Environmental responsibility of economic entities becomes not only an image characteristic of business, but also a way to create "the benefits of the future".

Effective transition to an environmentally oriented (green) economy depends on numerous factors. In many countries, the adequate adjustment of financial sector is the main mechanism for transforming the economy into a green format. Financial intermediation based on the principles of social and environmental responsibility can exert a significant impact on green progress.

Given the banking sector's dominant role in financial market structure, there is no doubt that commercial banks have the chance to become catalysts of green growth by redistributing financial resources on the principles of social and environmental responsibility. In this regard, the development of conceptual foundations of eco-responsible banking becomes relevant.

### JEL classification

**G21, O16**

## Зеленый банкинг – прогрессивная модель социально ответственного бизнеса

### Аннотация

Статья посвящена исследованию содержания экологоориентированного банковского дела («зеленого» банкинга) и анализу доминирующих векторов его развития. Методологической базой послужили концептуальные подходы зарубежных и российских ученых в области экологического банкинга. В работе применялись методы системного анализа, приемы обобщения, графической интерпретации данных. «Зеленый» банкинг представляет собой социально ответственную модель банковской деятельности, нацеленную на снижение антропогенной нагрузки на экосистему и создание «преимуществ будущего». Рассмотрев концептуальные направления исследования социально ответственного банковского дела и подходы к определению «зеленого» банкинга, авторы сформулировали тезис о том, что имплементация экологоответственных принципов в банковскую сферу обеспечивает достижение «тройного выигрыша»: повышение экономической эффективности, снижение вредного воздействия на экосистему и улучшение социального имиджа банков. Систематизированы внутренние и внешние аспекты экологического позиционирования банков, определяющие «зеленые» возможности банковского сектора. Представлен обзор градиентов экологоориентированного банкинга, среди которых актуализируется значимость «зеленого» кредитования, «зеленых» банковских продуктов и благотворительных проектов. Отмечено, что, в отличие от регуляторов других стран, Банк России пока не внедрил процедуры экологоответственной банковской деятельности. Активизация международных экологических инициатив в банковской сфере подтверждает, что «зеленый» банкинг становится актуальным направлением бизнеса во многих странах, приобретая черты мегатренда XXI века. Выявленное отставание «зеленой» практики российских банков от международного опыта позволяет сделать вывод, что назрел вопрос о трансформации российского банковского сектора в контексте глобальных тенденций.

The objective of this study is to describe the essence of ecologically responsible (green) banking and to analyse the key gradients of its development with regard to global experience and current opportunities of the Russian banking sector.

To achieve the objective, the following tasks were defined: first, to examine the conceptual basis of green banking; second, to systematize internal and external aspects of the environmental positioning of banks; third, to identify green opportunities of Russian banking sector; fourth, to study international experience of green initiatives in the banking sector.

The authors' analytics and conclusions formulated within the framework of the above-mentioned tasks prove the originality and scientific novelty of the research.

### GREEN BANKING AS A CONCEPT OF SOCIALLY RESPONSIBLE BUSINESS

The combination of global challenges has reoriented economic science for ways of further development. Modern economists consider it necessary to move from a model of “thoughtless and uncontrolled” growth to a model of “sustainable and controlled” growth based on responsibility and stability principles. Moreover, the environmental crisis forces scientists to talk about the noospheric paradigm of sustainable development as the only possible development format in which the human mind performs the harmonizer's function of relationships between human and the environment [3; 9; 11]. The concept of ecological footprint, founded by Wackernagel and Rees [40], is also spreading. Ecological footprint reflects the consequences of human actions and this term is actively used to illustrate the ideas of sustainable development [10].

Thus, the evolution of the paradigm of sustainable development laid the foundation of the concept of sustainable banking as a system of scientific views about socially responsible banking. Supporters of the sustainable banking concept, such

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### Ключевые слова

«ЗЕЛЕНЫЙ» БАНКИНГ  
СОЦИАЛЬНАЯ ОТВЕТСТВЕННОСТЬ  
ЭКОЛОГИЧЕСКИЙ ФИНАНСОВЫЙ ИНСТРУМЕНТ  
ЭКОЛОГООТВЕТСТВЕННОЕ БАНКОВСКОЕ ДЕЛО  
ЭКОЛОГИЧЕСКОЕ ПРЕИМУЩЕСТВО

### Keywords

GREEN BANKING  
SOCIAL RESPONSIBILITY  
ENVIRONMENTAL FINANCIAL INSTRUMENT  
ECOLOGICALLY RESPONSIBLE BANKING  
ENVIRONMENTAL BENEFIT

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G21, O16

as Biswas [18], Bouma, Jeucken & Klinkers [19; 27], Cornée and Szafarz [22], Eremia and Stancu [24], Rajput, Kaura and Khanna [33] consider socially responsible banking business as a financial intermediation based on economic and non-economic (social, ethical, environmental) criteria. Popularization of the importance of the environmental component in making financial decisions contributes to the development of banks top-management's ecological consciousness.

Thus, the evolution of sustainable development's paradigm initiated the sustainable banking concept as a system of scientific views on socially responsible banking.

Socially responsible banking can be presented as an unconventional (untraditional) business model aimed at not only making a profit, but also achieving social and environmental effects (Fig. 1).

In the process of developing scientific views about socially responsible banking, various research directions were formed: green banking, ethical banking and alternative banking. In all research directions, the environmental component is the dominant. Thus, socially responsible banking is identified with an ecologically responsible banking.

Some researchers, Bahl [16], Kapoor [29], Jha and Bhome [28], Meena [30], Nath, Nayak and Goel [31], Singh and Singh [37] characterize the ecologically responsible banking as concept of green banking, which finds an equilibrium between obtaining economic profits and ecological benefits. Supporters of this concept believe that long-term economic projects, in the implementation of which the natural patterns are taken into consideration, are cost-effective, and those carried out without taking into account long-term environmental consequences are considered to be unprofitable.

Authors Chew, Tan and Hamid [21], Goyall and Joshi [26], Paulet, Parnaudeau and Relano [32], San-Jose, Retolaza and Gutierrez-Goiria [34] disclose the subject of ethical banking, implying banking activity based on the principles of economic sustainability, environmental responsibility, social integration, ethics and transparency. A variety of ethical banking can be considered Islamic banking, which is based not only on religious and moral values, but also environmental responsibility [5].

Butzbach and Mettenheim [20] reveal alternative banking as a format of responsible banking, which involves gaining profit together with achieving social benefits and environmental effects.

Among the presented approaches, the term green banking is more widely used so let us consider this definition. The scientific papers devoted to the subject of eco-oriented banking allowed systematizing approaches to the green banking's terminological interpretation (Table 1).

The aforementioned definitions indicate that currently economists are not unanimous about the content of the concept of green banking. Some researchers determine green banking as a strategic format of bank activity, others – an innovative form of business or a competitive advantage. However, we should highlight that the majority of opinions claims eco-oriented banking to be a strategically important activity that allows improving environment. For example, author Shakil et al. considers that green banking shifts banks from the "profit, profit and profit" motive to "planet, people and profit" motive [36].

Systematization of research allows us to offer our understanding of eco-oriented banking. Green banking, in our opinion, is a strategically important format of banking activity, ensuring the achievement of a triple benefit: increasing economic efficiency, reducing harmful effects on the ecosystem and improving the bank's social image. Hardeep Singh and Bikram Pal Singh note that the survival of banking industry is inversely proportional to the level of global warming [37]. This conclusion is based on the fact: today's living conditions of people determine the demographic and socio-economic prospects and this influence the effectiveness of banking activities.

In scientific Russian papers, the concept of green (ecological) banking is not considered.

Domestic researchers mainly focus on green finance, green investments and green financial instruments, while giving banks the role of "responsible" lenders. Thus, on the opinion of Porfirjev, green finance implies a set of financial products and services, the development, production and use of which is focused on reducing environmental and

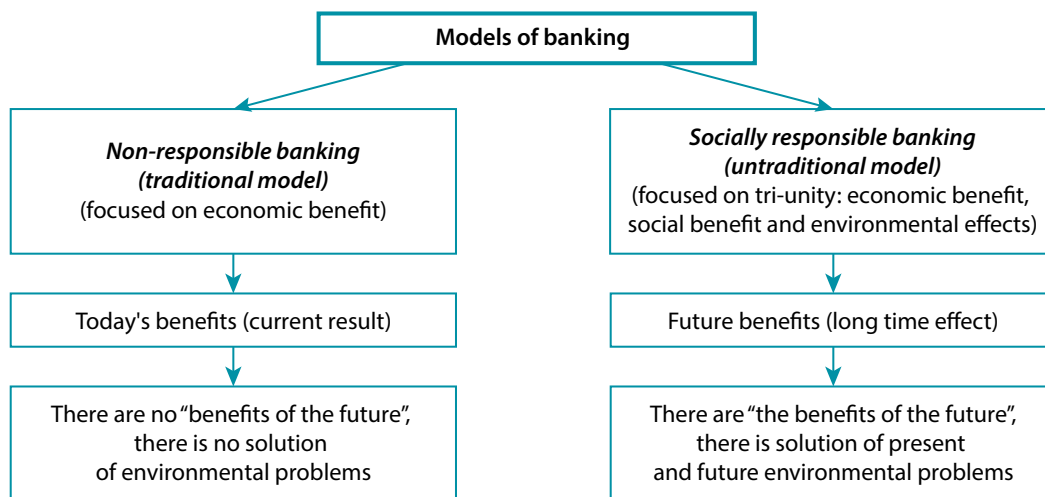


Fig. 1. Business models of banking

Table 1 – Approaches to defining green banking in the foreign researchers studies

Author of a study	Definition of green banking
S. Bahl [16]	New strategic imperative aimed at the development of eco-friendly banking operations
B.R. Bhardwaj, A. Malhotra [17]	Bank's innovative strategy, based on the introduction of technologies, processes and products that lead to a significant reduction the carbon footprint and also contribute to the sustainable development of the banking business
N. Biswas [18]	Way of conducting the banking business along with considering the social and environmental impacts.
M.G. Dotzour, S. Manning [23]	The range of the bank's capabilities to mitigate negative impact on the human environment, allowing the private sector to become an economic beneficiary of environmental activities
S. Garg [25]	An umbrella term, which refers to those practices and guidelines that make banks environmentally, economically and socially responsible
N. Kapoor et al. [29]	Combination of operational improvements, technologies and customer habits in the banking business, aimed at increasing respect for the environment and reducing the carbon footprint
S. Schmidheiny, F. Zorraquin [35]	Format of banking business, which allows to obtain economic benefits and to create effective and long-term market strategies for solving a number of environmental problems, including climate change, air quality, and biodiversity loss
M.H. Shakil et al. [36]	Any form of banking that benefits the environment and mitigate future risks
H. Singh, B.P. Singh [37]	Concept of proactive and smart thinking of bank managers who understand that today's actions on the protection of the environment can benefit future generations
K.S. Vadrade, V.P. Katti [39]	Banking business managed in such a manner that helps reduce external carbon emission and internal carbon footprint

climate risks [6]. In the monograph edited by Rubtsov the term green finance described as a wide range of methods to finance technological processes, projects and companies related to environmental protection, as well as financial products (instruments) and services with an environmental component [7].

The presented quotations allow us to distinguish two key points. Firstly, financial products and services as basic components of green finance are prerogative of the activities of commercial banks. Secondly, investments in green projects are also carried out based on bank participation.

Arkipova, considering the practice of green finance in different countries, leads the key role in "greening" the global financial system to various banks as the main participants of the financial market. She notes that one of the most important components of the emerging global market is the emerging green banking system, which gradually identifies a multi-level "network" of financial intermediaries: green banks and development banks, commercial banks with separate eco-finance units [1]. Other authors also argue that further green growth substantially depends on the willingness of financial intermediaries (banks) to invest in environmental measures [15].

There are internal and external directions of environmental positioning in the bank sector (Fig. 2). Internal are organizational business processes; external ones are development of green products and interaction with counterparties.

Despite the fact that the banking business itself is environmentally neutral, the main role of banks in balance between economic development and environmental protection is to finance green loans. Giving priority to socially responsible clients, financial intermediaries strengthen their reputation and contribute to the formation of pure technologies.

The development of green banking mainly depends on the environmental consciousness of managers. Understanding the importance of "greening" financial decisions, bank's managers contribute to the conservation of the ecosystem.

#### ANALYSIS OF GRADIENTS OF GREEN BANKING

Consider the main gradients (growing vectors) of green banking abroad and in Russia.

##### **1. Introduction of social and environmental principles into the corporate lending system.**

In developed countries, bank lending is a general channel for financing environmental projects. So, in 2003, the world's largest banks adopted "The Equator Principles". There are social and ecological facilities implemented in the sphere of lending and project financing. It was considered an important step in the development of green lending. "The Equator Principles" implies the division of funded projects into groups (A, B, C), each of which corresponds to its environmental safety level [8]. For example, group A includes potentially the most dangerous environmental projects. At the same time, to all groups of projects there are minimum requirements for environmental and social responsibility.

According to the survey conducted by the consulting company KPMG and the World Wildlife Fund (WWF), large European banks (Barclays Bank, Deutsche Bank, UNICREDIT Bank, Credit Suisse Bank, BNP PARIBA Bank, Credit Agricole Bank, Societe Generale Bank, ING Bank) actively incorporate environmental and social criteria (E&S) into their credit policy. 17% use the E&S criteria when assessing the reputation risk of borrowers, and 83% use these criteria in strategies that are valuable for the bank and society [4], for example, financing of low-carbon economy facilities and facilitating their withdrawal to the mass consumption market.

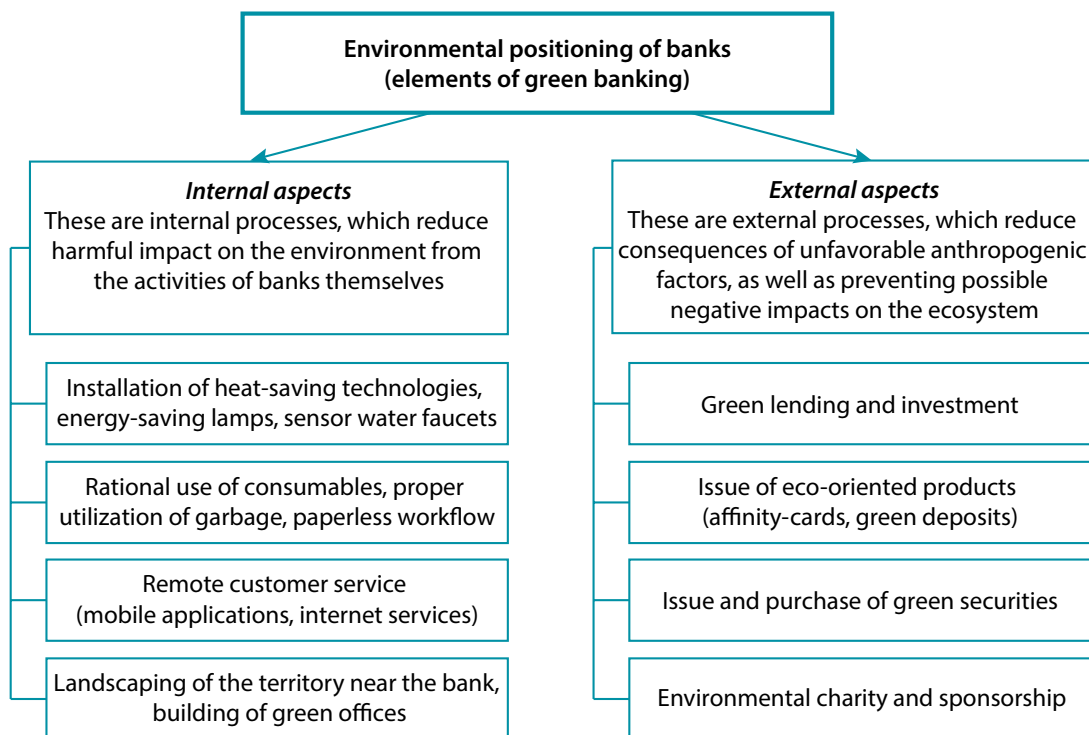


Fig. 2. Directions of bank environmental positioning

Among the Russian banks actively implementing the ecological and social principles of lending, only a few large banks can be mentioned: Sberbank, VTB, Vnesheconombank and Alfa-Bank. These banks lend projects aimed at significantly reducing anthropogenic pressure on the ecosystem and introduction of resource-saving technologies (Table 2).

The practice of other Russian banks shows that green lending is due to financial cooperation with international financial organizations. The European Bank for Reconstruction and Development (EBRD) and the International Finance Corporation (IFC) invest in energy efficiency projects. EBRD implements a program of environmental and technical support for small and medium-sized enterprises through commercial partnering banks providing target credit lines. Partnering banks in Russia are Promsvyazbank and Rosbank. IFC provides long-term target credit lines to partnering banks and leasing companies, which finance energy-efficient projects. IFC partnering banks are Transcapital Bank, Loko-Bank, Absolut Bank, Prime Finance and others. In addition, IFC provides consulting support in identifying the potential for energy conservation and assessing the economic impact of projects [14].

The main stop-factors of environmental lending in Russian banks are insufficient economic feasibility, high costs and long payback period for green projects. Likewise, credit problems deepen under the influence of geopolitical factors and structural imbalances in the banking sector. The short-term resource base of Russian commercial

banks does not allow providing long environmental investments [14].

## 2. Transactions on the environmental securities market.

Another channel for financing environmental protection activities is the issue of environmental securities: green, climatic and forest bonds [13]. Securities are issued by companies and banks of different countries, by international financial and credit organizations, as well as by governments of states. The main buyers of these securities are large institutional investors (banks, pension funds, investment companies). The resources received from the release of green bonds are used to finance a wide range of eco-projects and to eliminate the consequences of natural disasters. Resources from the issuance of climatic bonds are channelled to provide climate programs.

Currently, environmental bonds are an intensively growing segment of the international securities market. In the

Table 2 – Significant environmental projects financed by the largest Russian banks

Name of the bank	Description of the project
Sberbank	Construction of solar and wind power stations in Nikolaev, Kherson and Odessa regions with a total installed capacity of 96.8 MW, the loan amount in excess of 7 billion rubles (Sberbank-Ukraine, 2013)
VTB	Cooperation with the WWF for the conservation of snow leopard, Amur tiger, Far Eastern leopard, funding of 5 million dollars USA (2016)
Vnesheconombank	Construction of the Boguchanskaya hydroelectric power plant with an installed capacity of 2 997 MW on the river Angara, loan amount 28 billion rubles (2014)
Alfa-Bank	Construction of energy-efficient houses of JSC Etalon LenSpetsSMU, credit lines for 27 million dollars USA, 83 million euros and 670 million rubles (2014–2016)

Note. Compiled on the basis of annual reports posted on official websites of the banks.

period 2013–2017 the volume of emission of such bonds increased from 11 billion US dollars to 130 billion US dollars, and according to analysts' estimates, the volume by 2020 could increase to 1 trillion US dollars<sup>1</sup>. It means that an "emission boom" of eco-bonds is expected in the next 2–3 years. This fact testifies to their investment attractiveness and importance in financing green projects. So, in 2017, the funds from the emission of green bonds were mainly directed to transport and energy projects (Fig. 3).

Unfortunately, in Russia there is not practice of issuing environmental securities. Despite the fact that the intention to issue green bonds was presented in the published reports of Sberbank, VTB, Vnesheconombank over the past three years. However, has not been issued of such bonds.

Nevertheless, at the state level, the topic of developing eco-oriented financial instruments is discussed. For example, in the framework of environmental development programs, the President of Russia directed the Ministry of Natural Resources and the Ministry of Economic Development of Russia to develop proposals on the application of green financial instruments by Russian development institutions and public companies<sup>2</sup>.

Thus, there is reason to assume that for Russian companies and banks this segment of securities market can be a profit-promising area of investment activity. Activities in this market will produce income and improve the environment. As a major stop-factor in the creation of the Russian green securities market, researchers note the imperfection of the legal and methodological framework [2]. We suppose that this problem can be solved by studying and introducing the positive foreign experience.

### 3. Implementation of green card products.

Technological innovation, expansion of mobile applications and growth in the volume of use of plastic cards have stepped up the development of green card products. For ex-

<sup>1</sup> Bonds and Climate Change. The State of the Market in 2017. Available at: [https://www.climatebonds.net/files/reports/cbi-sotm\\_2017-bondsclimatechange.pdf](https://www.climatebonds.net/files/reports/cbi-sotm_2017-bondsclimatechange.pdf).

<sup>2</sup> Orders of the Ministry of Natural Resources in pursuance of the instructions of the President of Russia following the results of the State Council meeting on December 27, 2016. Available at: [https://government.ru/dep\\_news/26411](https://government.ru/dep_news/26411).

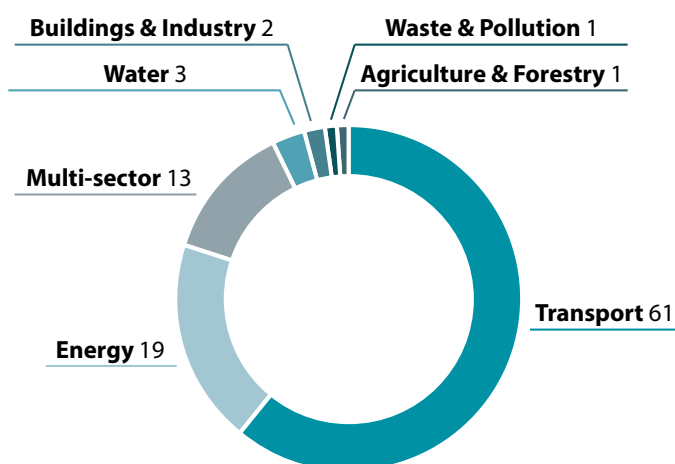


Fig. 3. Distribution of funds from the emission of green bonds, %

ample, the Finnish bank Alandsbanken made its contribution to environmental care and issued the world's first ecological payment card The Baltic Sea Card. These cards decompose in the soil (are made from corn). This type of card allows its holders to calculate their carbon footprint – the amount of greenhouse gases released during the production, use and disposal of products and services that the cardholder consumes. Cardholders will receive environmental reports through the application in their mobile phones. The data will help users better understand and evaluate their own ecological footprint, driven by their consumer habits<sup>3</sup>.

In 2017, the Russian Tinkoff Bank, together with WWF, launched the emission of environmentally responsible biodegradable bankcards. For the first year, the usual purchases of customers helped to collect more than 500 thousand rubles for environmental programs. Using the card to pay for daily purchases, cardholders can contribute to the preservation of nature: 0.75% of the purchase amount is automatically transferred to WWF. At the same time, the cost of purchases does not change: to support nature, the bank's funds are used. Every month, 175 people become holders of Tinkoff-WWF cards<sup>4</sup>.

Some of the largest Russian banks issue affinity-cards. These cards do not provide customers with additional privileges such as bonuses or discounts. Paying by such a card, cardholders become participants in the charity program (bank will transfer a certain percentage of the purchase amount to the charity fund). The main partner of Russian banks is WWF (Table 3).

Other Russian banks do not issue environmental affinity-cards. Responsible behaviour is demonstrated through the issuance of charitable social cards. The main obstacle to the development of eco-cards is the low financial interest of both banks and cardholders.

### 4. Implementation of green charity and sponsorship.

Ecologically oriented charity contributes to the improvement of the environment. Financial investments in eco-projects allow increasing the social image forming the competitiveness of a modern bank. Table 4 presents examples of charitable projects initiated by the largest Russian banks.

<sup>3</sup> The Baltic Sea Project. Available at: [www.balticseaproject.org](http://www.balticseaproject.org).

<sup>4</sup> World Wildlife Fund in Russia. Available at: <https://wwf.ru/resources/news/wwf-i-biznes/ekologichnoy-panda-karte-banka-tinkoff-ispolnyaetsya-god/>.

Table 3 – Ecological affinity-projects of Russian banks in favour of WWF

Name of the bank	Name of eco-project
Alfa-Bank	Preservation of snow leopards
Gazprombank	Leopardessa Bari
Tinkoff	Preservation of wild animals
Rosselkhozbank	Amur tiger
Pochta Bank	Green world

Note. Compiled on the basis of information posted on official websites of the banks.

Table 4 – Green charity projects of the largest Russian banks

Name of the bank	Description of the project
Sberbank	Organization of the ecological action “Day of the Yenisei” in order to attract public attention to one of the largest rivers of Russia – Yenisei (2013) Organization of the Green Marathon action, in which about 50 thousand Russians from different cities of the country took part in the 4.2 km race, and upon its completion contributed to the landscaping of their cities, planting more than 3 thousand trees and shrubs (2013–2014)
VTB	Cleansing from the debris of the reserve “Shchelokovsky farm”, Nizhny Novgorod region (2015)
Vnesheconombank	Establishment of the award for the best project in the field of ecology and green technologies in the framework of the annual contest “Development Award”
Alfa-Bank	Support for nature conservation projects of the WWF through annual donations

Note. Compiled on the basis of annual reports posted on official websites of the banks.

### 5. Greening of internal bank's processes.

In accordance with the principles of environmental management, internal bank's processes based on requirements to reduce the harmful impact on the environment. As shown in Fig. 2, modern banks, including Russian ones, use equipment that reduces energy and water consumption. The introduction of digital-service and electronic document management contributes to the saving of paper and consumables. In addition, customers who implement bank services remotely, save time and fuel, protect road surface; do not pollute the exhaust gases.

Introduction in many world banks “electronic branches” and technologies “E-Drive” allows saving paper [38]. For example, in 2013 Sberbank completed the implementation of the electronic document management system. This measure allows saving about 40 tons of office paper per year, which

is equivalent to one hectare of living forest. Some offices of Sberbank introduce a system of separate waste collection.

The banks can also contribute to improving the environmental situation by the organization of car sharing – transportation of employees by corporate transport. For example, in Singapore, India, employees of some banks prefer go to work and home by a bank-bus instead of driving a personal car [33].

### 6. Stimulating environmental banking at the state level

Realizing the important role of the banking system as a “money provider” for eco-projects, central banks and governments carry out incentive measures to develop green initiatives in the banking sector. Table 5 presents the measures introduced by regulators in developing countries, which shows the relevance of green banking in countries with growing markets.

Table 5 – Ecological oriented measures taken by regulators of different countries

Country	Description of regulator's measures
China	In 2007, the Banking Regulatory Commission of China developed the principles of green lending, which evolved from simple formulations to a system for assessing the economic and environmental performance of lending projects based on standardized indicators. The People's Bank of China developed recommendations for the greening of the banking sector, including supporting and expanding of green financial instruments [12]
India	In 2007, the Reserve Bank of India introduced a consultative notice for commercial banks, which contains the concepts of environmental and social risks. The regulator is in the process of developing of green banking in the country, studying various aspects of “clean” financing [12]
Brazil	In 2011, the Central Bank of Brazil became the first world's regulator, which began to monitor eco-risks based on the Basel III capital adequacy reports, and in 2014 introduced requirements for all banks to create a system for assessing social and environmental risks [1]
Bangladesh	In 2011, the Bank of Bangladesh, using economic incentives and moral convictions, appealed to the banking sector with an initiative to develop loans to agriculture, small and medium-sized green enterprises. The regulator introduced requirements for the adoption of environmental and social criteria, and mandatory management of environmental risks. In addition, macro prudential measures are applied as incentives in the form of softened capital adequacy requirements and / or an increase in the rating of banks*
Colombia	In 2012, the Colombian government and the Association of Colombian banks prepared an environmental agreement called the “Green Protocol”, which sets out recommendations for banks on the provision of green loans and risk assessment. The protocol also presents an analysis of the consequences of investing in environmentally unfriendly projects
Morocco	In 2013, the Central Bank of Morocco has set up a working group on green financing. Currently, meetings are held with the leadership of commercial banks to explore the possibilities of regulatory stimulation and standardization of environmentally responsible banking business

\* Hereinafter, used data of UNEP Report «Green Finance for Developing Countries: Needs, Concerns and Innovations, 2016». Available at: [https://www.seforall.org/sites/files/Green\\_Finance\\_for\\_Dev\\_Countries.pdf](https://www.seforall.org/sites/files/Green_Finance_for_Dev_Countries.pdf).

Table 6 – International banking alliances founded for green cooperation

Year of foundation	International green banking alliances
2009	Global Alliance for Banking on Values was formed, which guides credit institutions to an environmentally responsible business format <sup>1</sup>
2012	Sustainable Banking Network was established as a non-formal organization that unites banking regulators and banking associations interested in developing environmentally sustainable practices and regulations <sup>2</sup>
2015	In the framework of the UNEP Financial Initiative, a working group was created that issued recommendations for the development of green banking <sup>3</sup>
2015	Green Infrastructure Investment Coalition was formed to join efforts of state institutions, international organizations and banks to cooperate in financing green projects <sup>4</sup>
2017	At the initiative of the largest European banks, a community of Sustainable Finance Initiative was established to develop the infrastructure for a sustainable financial sector <sup>5</sup>

<sup>1</sup> Global Alliance for Banking Values. Available at: <http://www.gabv.org/>.

<sup>2</sup> International Finance Corporation. Available at: <https://www.ifc.org>.

<sup>3</sup> UNEP Finance Initiative. Available at: <http://www.unepfi.org>.

<sup>4</sup> ICMIF. Available at: <https://www.icmif.org>.

<sup>5</sup> European Commission. Available at: <http://ec.europa.eu>.

Greening measures of the banking system and the development of eco-oriented financial instruments are designed and implemented in banking practice by the regulators of Mongolia, Nigeria, Kenya, Peru, Vietnam and Indonesia [1].

Unlike other countries, in Russia, there are no definitions, requirements or regulatory procedures of an environmentally-oriented banking activity. The Bank of Russia's strategic plans do not provide for either imperatives or incentives to increase the environmental activity of financial institutions. Russian commercial banks are not obliged to implement social and environmental principles in their activities and assess environmental risks of lending projects.

### **7. Intensification of international green cooperation in the banking sector.**

In recent years, several international bank associations have been established green cooperation (Table 6). The foundation of such organizations indicates that green banking is becoming a global trend.

Thus, the synthesis of domestic and international factors stimulates the development of green banking in different countries. The international community considers that there is a need for financial institutions to follow ecological principles.

Now, Russian financial institutions are not participants of the international green banking community. At least, there is no information on the websites of the largest banks and reports of the Bank of Russia.

In the current situation, the Russian banking sector faces the task of finding and implementing a development model that would survive the current economic turbulence and take into account the upward world trends of social and environmental responsibility.

## **CONCLUSION**

The study allows concluding that green"banking is a modern concept of eco-oriented banking activity aimed at achieving a triple effect: increasing economic efficiency, reducing harmful impact on the ecosystem and improving the bank's social image. Banks are able to create "the benefits of the future" by directing its resources to maintain the green image of our planet.

The analysis of the dominant vectors for the development of green banking in different countries help us to identify several areas of eco-significant banking: the financing environmental projects in the form of green loans and issuing green securities; emission of green affinity-cards; participation in charitable eco-events; introduction of intra-bank technological processes that reduce harmful impact on the environment.

The study of developing countries' experience has shown that central banks, together with national banking associations, act as a driving force for eco-oriented banking initiatives. At the international level, there is an active creation of interbank alliances in order to provide favourable conditions for the development of green banking.

Summarizing the results of the study, we can conclude that positive practice is present in Russia, but it is poorly developed and fragmented because of the lack of regulative instruments of ecological behaviour of banks. In Russia, the experience of running an environmentally responsible business has not yet been accumulated. Therefore, the best foreign practice can be useful to Russian banks in the implementation of social and environmental responsible activities. ■

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## Источники

1. Архипова В.В. «Зеленые финансы» как средство для решения глобальных проблем // Экономический журнал ВШЭ. 2017. № 2(21). С. 312–332.
2. Богачева О.В., Смородинов О.В. «Зеленые» облигации как важнейший инструмент финансирования «зеленых» проектов // Финансовый журнал. 2016. № 2. С. 70–81.
3. Козлов А.А. Ноосферная парадигма развития цивилизации // Вестник Тамбовского университета. 2013. № 2(18). С. 512–515.
4. Новиков Ю.И., Радковская Н.П. Банки и финансовые рынки XXI века – потенциал развития. СПб.: Изд. дом СПбГУ, 2016.
5. Патласов О.Ю., Каирденов С.С. Этические финансы в нравственной экономике // Наука о человеке: гуманитарные исследования. 2015. № 4(22). С. 213–225.
6. Порфирьев Б. «Зеленые» тенденции в мировой финансовой системе // Мировая экономика и международные отношения. 2016. № 9(60). С. 5–16.
7. Рубцов Б.Б. «Зеленые финансы» в мире и России. М.: Русайнс, 2016.
8. Савина Т.Н. Ответственное финансирование как ключевая инициатива финансового сектора в практике реализации социальной ответственности и устойчивого развития // Финансы и кредит. 2014. № 30(606). С. 18–25.
9. Субетто А.И. Ноосферная парадигма целеполагания устойчивого развития человечества и России // Общество. Среда. Развитие. 2015. № 4. С. 143–150.
10. Сычев А.А. Моральные измерения экологического следа // Знание. Понимание. Умение. 2014. № 4. С. 48–55.
11. Фесенкова Л.В. Человек и его будущее в экологической перспективе // Культурное наследие России. 2016. № 4(15). С. 80–84.
12. Худякова Л.С. Международное сотрудничество в развитии «зеленого» финансирования // Деньги и кредит. 2017. № 7. С. 10–18.
13. Хуторова Н.А. Обзор состояния рынка климатических облигаций, проблемы и перспективы // Лесной вестник. 2013. № 7. С. 138–145.
14. Шершнева Е.Г., Кондюкова Е.С., Сайфутдинов Н.А. Перспективы эколого-ориентированных финансовых инструментов в процессе перехода к «зеленой» экономике // Вестник Северо-Осетинского государственного университета им. К.Л. Хетагурова. 2017. № 2. С. 181–185.
15. Яковлев И.А., Кабир Л.С., Никулина С.И., Раков И.Д. Финансирование «зеленого» экономического роста: концепции, проблемы, подходы // Финансовый журнал. 2017. № 3. С. 9–21.
16. Bahl S. Green Banking – the New Strategic Imperative // Asian Journal of Research in Business, Economics and Management. 2012. Vol. 2(2). P. 767–775.
17. Bhardwaj B.R., Malhotra A. Green Banking Strategies: Sustainability through Corporate Entrepreneurship // Greener Journal of Business and Management Studies. 2013. Vol. 3(4). P. 180–193.
18. Biswas N. Sustainable Green Banking Approach: the Need of the Hour // Business Spectrum. 2011. Vol. 1(1). P. 32–38.
19. Bouma J., Jeucken M., Klinkers L. Sustainable Banking – the Greening of Finance. Sheffield: Greening Publishing, 2001.
20. Butzbach O., Mettenheim K. Alternative Banking and Theory // Account. Econ. Law. 2015. Vol. 5(2). P. 105–171.
21. Chew B.C., Tan L.H., Hamid S.R. Ethical Banking in Practice: A Closer Look at the Co-operative Bank UK PLC // Qualitative Research in Financial Markets. 2016. Vol. 8(1). P. 70–91.
22. Cornée S., Szafarz A. Vive la Différence: Social Banks and Reciprocity in the Credit Market // Journal of Business Ethics. 2014. Vol. 125(3). P. 361–380.
23. Dotzour M.G., Manning S. Environmental Banking. A reprint from Tierra Grande, the Real Estate Center Journal, 2002.
24. Eremia A., Stancu I. Banking Activity for Sustainable Development // Theoretical and Applied Economics. 2006. Vol. 6(501). P. 23–32.
25. Garg S. Green Banking: an Overview // Global Journal of Advanced Research. 2015. Vol. 2(8). P. 1291–1296.
26. Goyall K.A., Joshi V. A Study of Social and Ethical Issues in Banking Industry // International Journal of Economic Research. 2011. Vol. 2(5). P. 49–57.
27. Jeucken M. Sustainable Finance and Banking: the Financial Sector and the Future of the Planet. L.: Earthscan, 2001.
28. Jha N., Bhome S. A Study of Green Banking Trends in India // International Monthly Referred Journal of Research in Management and Technology. 2014. Vol. 2. P. 127–142.
29. Kapoor N., Jaitly M., Gupta R. Green Banking: a Step towards Sustainable Development // International Journal of Research in Management, Economics and Commerce. 2016. № 7. P. 69–72.
30. Meena R. Green Banking: as Initiative for Sustainable Development // Global Journal of Management and Business Studies. 2013. Vol. 3(10). P. 1181–1186.
31. Nath V., Nayak N., Goel A. Green Banking Practices – a Review // International Journal of Research in Business Management. 2014. Vol. 2(4). P. 45–62.
32. Paulet E., Parnaudeau M., Relano F. Banking with Ethics: Strategic Moves and Structural Changes of the Banking Industry in the Aftermath of the Subprime Mortgage Crisis // Journal of Business Ethics. 2015. Vol. 131(1). P. 199–207.
33. Rajput N., Kaura R., Khanna A. Indian Banking Sector towards a Sustainable Growth: A Paradigm Shift // International Journal of Academic Research in Business and Social Sciences. 2013. Vol. 3(1). P. 47–58.
34. San-Jose L., Retolaza J.L., Gutierrez-Goiria J. Are Ethical Banks Different? A Comparative Analysis Using the Radical Affinity Index // Journal of Business Ethics. 2011. Vol. 100(1). P. 151–173.
35. Schmidheiny S., Zorraquin F.J.L. Financing Change: the Financial Community, Eco-Efficiency and Sustainable Development. Cambridge, MA: MIT Press, 1996.
36. Shakil M.H., Azam Md. K.G., Hossain M.S. An Evaluation of Green Banking Practices in Bangladesh // European Journal of Business and Management. 2014. Vol. 6(31). P. 8–16.
37. Singh H., Singh B.P. An Effective & Resourceful Contribution of Green Banking towards Sustainability // International Journal of Advances in Engineering Science and Technology. 2013. Vol. 1(2). P. 41–45.
38. Sreesha Ch. A Study on Green Banking Initiatives of Selected Private and Public Sector Banks in India // International Journal of Research. 2014. Vol. 1(7). P. 807–814.
39. Vadrale K.S., Katti V.P. Green Banking Initiatives by Indian Public and Private Sector Banks // Green Banking for Green Industry and Green Economy: conference (Belgavi, February 2016). Belgavi, 2016.
40. Wackernagel M., Rees W. Our Ecological Footprint: Reducing Human Impact on the Earth. Philadelphia: New Society Publishers, 1996.

## References

1. Arkhipova V.V. "Zelenye finansi" kak sredstvo dlya resheniya global'nyh problem ["Green finance" as recipe for solving global problems]. *Ekonomicheskij zhurnal VSHE – Higher School of Economics Economic Journal*, 2017, vol. 2(21), pp. 312–332.
2. Bogacheva O.V., Smorodinov O.V. "Zelenye" obligacii kak vazhnejshij instrument finansirovaniya "zelenyh" proektov ["Green" bonds as the most important instrument of financing of "green" projects]. *Finansovy zhurnal – Financial Journal*, 2016, no. 2, pp. 70–81.
3. Kozlov A.A. Noosfernaya paradigma razvitiya civilizacii [Noospheric paradigm of civilization development]. *Vestnik Tambovskogo universiteta – Bulletin of Tambov University*, 2013, vol. 2(18), pp. 512–515.
4. Novikov Yu.I., Radkovskaya N.P. *Banki i finansovye rynki XXI veka – potencial razvitiya* [Banks and financial markets of the 21st century – the development potential]. St. Petersburg: St. Petersburg State University Publ., 2016.
5. Patlasov O.Yu., Kairdenov S.S. Eticheskie finansi v npravstvennoj ehkonomike [Ethical finance in moral economy]. *Nauka o cheloveke: gumanitarnye issledovaniya – The Science of Man: Humanitarian Research*, 2015, no. 4(22), pp. 213–225.
6. Porfirjev B. "Zelenye" tendencii v mirovoj finansovoj sisteme ["Green" trends in the global financial system]. *Mirovaya ekonomika i mezhdunarodnye otnosheniya – World Economy and International Relations*, 2016, vol. 9(60), pp. 5–16.
7. Rubtsov B.B. "Zelenye finansi" v mire i Rossii ["Green finance" in the World and Russia]. Moscow: Rusains Publ., 2016.
8. Savina T.N. Otvetstvennoe finansirovanie kak klyuchevaya iniciativa finansovogo sektora v praktike realizacii social'noj otvetstvennosti i ustojchivogo razvitiya [Responsible financing as a key initiative of the financial sector in practice of social responsibility and sustainable development]. *Finansy i kredit – Finance and Credit*, 2014, vol. 30(606), pp. 18–25.
9. Subetto A.I. Noosfernaya paradigma celepolaganiya ustojchivogo razvitiya chelovechestva i Rossii [Noospheric paradigm of goal-setting of sustainable development of mankind and Russia]. *Obshchestvo. Sreda. Razvitie – Society. Environment. Development*, 2015, no. 4, pp. 143–150.
10. Sychev A.A. Moral'nye izmereniya ekologicheskogo sleda [Moral dimensions of ecological footprint]. *Znanie. Ponimanie. Umenie – Knowledge. Understanding. Skill*, 2014, no. 4, pp. 48–55.
11. Fesenkova L.V. Chelovek i ego budushchee v ekologicheskoy perspektive [Man and his future in ecological perspective]. *Kul'turnoe nasledie Rossii – Cultural Heritage of Russia*, 2016, vol. 4(15), pp. 80–84.
12. Khudyakova L.S. Mezhdunarodnoe sotrudnichestvo v razviti "zelenogo" finansirovaniya [International cooperation in the development of "green" financing]. *Den'gi i kredit – Money and Credit*, 2017, no. 7, pp. 10–18.
13. Khutorova N.A. Obzor sostoyaniya rynka klimaticheskikh obligacij, problemy i perspektivy [A review of the market of climate bonds, problems and prospects]. *Lesnoj vestnik – Forest Bulletin*, 2013, no. 7, pp. 138–145.
14. Shershneva E.G., Kondyukova E.S., Saifutdinov N.A. Perspektivy ekologo-orientirovannyh finansovyh instrumentov v processe perekhoda k "zelenoj" ekonomike [Prospects of environmental-oriented financial instruments in the process of transition to "green" economy]. *Vestnik Severo-Osetinskogo gosudarstvennogo universiteta imeni K.L. Hetagurova – Bulletin of the North Ossetian State University named After K.L. Khetagurov*, 2017, no. 2, pp. 181–185.
15. Yakovlev I.A., Kabir L.S., Nikulina S.I., Rakov I.D. Finansirovanie "zelenogo" ekonomicheskogo rosta: koncepcii, problemy, podhody [Financing "green" economic growth: conceptions, problems, and approaches]. *Finansovy zhurnal – Financial Journal*, 2017, no. 3, pp. 9–21.
16. Bahl S. Green Banking – the New Strategic Imperative. *Asian Journal of Research in Business, Economics and Management*, 2012, vol. 2, no. 2, pp. 767–775.
17. Bhardwaj B.R., Malhotra A. Green Banking Strategies: Sustainability through Corporate Entrepreneurship. *Greener Journal of Business and Management Studies*, 2013, vol. 3, no. 4, pp. 180–193.
18. Biswas N. Sustainable Green Banking Approach: The Need of the Hour. *Business Spectrum*, 2011, vol. 1(1), pp. 32–38.
19. Bouma J., Jeucken M., Klinkers L. *Sustainable Banking – the Greening of Finance*. Sheffield: Greening Publishing, 2001.
20. Butzbach O., Mettenheim K. Alternative Banking and Theory. *Account. Econ. Law*, 2015, vol. 5(2), pp. 105–171.
21. Chew B.C., Tan L.H., Hamid S.R. Ethical Banking in Practice: A Closer Look at the Co-operative Bank UK PLC. *Qualitative Research in Financial Markets*, 2016, vol. 8(1), pp. 70–91.
22. Cornée S., Szafarz A. Vive la Différence: Social Banks and Reciprocity in the Credit Market. *Journal of Business Ethics*, 2014, vol. 125(3), pp. 361–380.
23. Dotzour M.G., Manning S. *Environmental Banking*. A reprint from Tierra Grande, the Real Estate Center Journal, 2002.
24. Eremia A., Stancu I. Banking Activity for Sustainable Development. *Theoretical and Applied Economics*, 2006, vol. 6(501), pp. 23–32.
25. Garg S. Green Banking: An Overview. *Global Journal of Advanced Research*, 2015, vol. 2(8), pp. 1291–1296.
26. Goyall K.A., Joshi V. A Study of Social and Ethical Issues in Banking Industry. *International Journal of Economic Research*, 2011, vol. 2(5), pp. 49–57.
27. Jeucken M. *Sustainable Finance and Banking: The Financial Sector and the Future of the Planet*. L.: Earthscan, 2001.
28. Jha N., Bhome S. A Study of Green Banking Trends in India. *International Monthly Referred Journal of Research in Management and Technology*, 2014, vol. 2, pp. 127–142.
29. Kapoor N., Jaitly M., Gupta R. Green Banking: A Step towards Sustainable Development. *International Journal of Research in Management, Economics and Commerce*, 2016, no. 7, pp. 69–72.
30. Meena R. Green Banking: As Initiative for Sustainable Development. *Global Journal of Management and Business Studies*, 2013, vol. 3(10), pp. 1181–1186.
31. Nath V., Nayak N., Goel A. Green Banking Practices – A Review. *International Journal of Research in Business Management*, 2014, vol. 2(4), pp. 45–62.
32. Paulet E., Parnaudeau M., Relano F. Banking with Ethics: Strategic Moves and Structural Changes of the Banking Industry in the Aftermath of the Subprime Mortgage Crisis. *Journal of Business Ethics*, 2015, vol. 131(1), pp. 199–207.
33. Rajput N., Kaura R., Khanna A. Indian Banking Sector towards a Sustainable Growth: A Paradigm Shift. *International Journal of Academic Research in Business and Social Sciences*, 2013, vol. 3(1), pp. 47–58.
34. San-Jose L., Retolaza J.L., Gutierrez-Goiria J. Are Ethical Banks Different? A Comparative Analysis Using the Radical Affinity Index. *Journal of Business Ethics*, 2011, vol. 100(1), pp. 151–173.
35. Schmidheiny S., Zorraquin F.J.L. *Financing Change: the Financial Community, Eco-efficiency and Sustainable Development*. Cambridge, MA: MIT Press, 1996.
36. Shakil M.H., Azam Md. K.G., Hossain M.S. An Evaluation of Green Banking Practices in Bangladesh. *European Journal of Business and Management*, 2014, vol. 6(31), pp. 8–16.
37. Singh H., Singh B.P. An Effective & Resourceful Contribution of Green Banking towards Sustainability. *International Journal of Advances in Engineering Science and Technology*, 2013, vol. 1(2), pp. 41–45.
38. Sreesha Ch. A Study on Green Banking Initiatives of Selected Private and Public Sector Banks in India. *International Journal of Research*, 2014, vol. 1(7), pp. 807–814.
39. Vadrale K.S., Katti V.P. Green Banking Initiatives by Indian Public and Private Sector Banks. Conference: *Green Banking for Green Industry and Green Economy*. Belgavi, February 2016.
40. Wackernagel M., Rees W. *Our Ecological Footprint: Reducing Human Impact on the Earth*. Philadelphia: New Society Publishers, 1996.