

## THE CURRENT SITUATION AND DEVELOPMENT PERSPECTIVES OF GREEN BANKING IN THE REPUBLIC OF SERBIA

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### Abstract

Banks, as institutions with an exclusive license for deposit and credit operations, play a key role in financing the retail and corporate sector. Keeping in mind the problem of global warming, banks have adopted a proactive approach in order to contribute to the Paris Agreement goal. In addition to activities to improve their corporate eco-efficiency, banks confirm their environmental responsibility by introducing new banking products. Their role is especially evident in less developed countries and emerging markets. By applying the comparative and content analysis method, the paper analyses the green banking practice in the Republic of Serbia in order to assess the current situation and further development prospects. The analysis shows that only a few banks have high standards and an integrated approach to sustainability, which, among other things, includes clearly defined environmental and ethical requirements, as well as an adequate environmental risk assessment. The improvement of the environmental responsibility of banks in the coming period depends on a regulatory framework that will stimulate this banking practice, as well as on the bank employees and clients' awareness about the importance of green banking and its advantages.

**Key words:** green banking, green banking products, sustainability, ESG goals, Republic of Serbia.

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## СТАЊЕ И ПЕРСПЕКТИВЕ РАЗВОЈА ЗЕЛЕНОГ БАНКАРСТВА У РЕПУБЛИЦИ СРБИЈИ

### Апстракт

Банке као институције са ексклузивном лиценцом за депозитно-кредитне послове имају кључну улогу у финансирању привреде и становништва. Имајући у виду проблем глобалног загревања, банке су усвојиле проактиван приступ како би допринеле испуњењу циља постављеног Париским споразумом. Осим активности на пољу унапређења своје корпоративне еко-ефикасности, банке су увођењем нових банкарских производа потврдиле своју еколошку одговорност. Њихова улога посебно је наглашена у мање развијеним државама и тржиштима у настајању. Применом компаративне и методе анализе садржаја, у раду се анализира пракса зеленог банкарства у Републици Србији ради оцене стања и перспектива даљег развоја овог концепта. Анализа је показала да свега пар банака има високо постављене стандарде и интегрисан приступ одрживости, који између осталог подразумева и јасно дефинисане еколошке и етичке захтеве, као и адекватну процену еколошког ризика. Унапређење еколошке одговорности банака у наредном периоду условљено је постављањем регулаторног оквира који ће стимулисати овакву праксу банака и истовремено утицати на подизање свести запослених и клијената о значају зеленог банкарства и његовим предностима.

**Кључне речи:** зелено банкарство, зелени банкарски производи, одрживост, ЕСГ циљеви, Република Србија.

### INTRODUCTION

The problem of global warming and the energy crisis in the era of current geopolitical events have further highlighted the need to switch to renewable energy sources. Obtaining the necessary funds to finance these projects imposed the need to develop new financial products (Punzi, 2019). In financial systems where banks are the dominant market player, they are key actors in financing these projects. Given that, in the domestic financial sector, the banking sector comprises more than 90% of overall financial assets (NBS, 2022), the subject of this research is the analysis of green banking practice in the Republic of Serbia.

Green banking refers to the banks' initiative to encourage environmentally friendly investments and to prioritise lending to industries that have already gone green or are trying to go green. Therefore, banks play a key role in financing major changes in environmental policy, given their unique position in enabling capital flows through loans, investment and advisory services, and financing innovative technologies as integral development elements. Adopting a green approach also provides certain advantages to banks, such as reducing operating costs, and improving their reputation by strengthening social and environmental responsibility, which ultimately leads to better business results.

The basic principle of green banking is to strengthen the banks' ability to manage environmental risks, which may expose them to finan-

cial risks, and to encourage them to increase investments in assets that do not have a negative impact on the environment, such as renewable energy sources, energy efficiency, organic agriculture, eco-tourism, environmentally friendly transport and various products with ecological purposes. In this regard, banks strive to adapt their offer of green banking products to the corporate and retail sector, as well as to make these products available to their clients under more favourable conditions.

The aim of the paper is to evaluate the current situation and development perspectives of green banking based on its analysis in the Republic of Serbia. With that in mind, the paper is structured as follows. The first part reviews relevant literature about the emergence of green finance and the role of green banking products and services. Section two reviews the case of Serbia with a focus on the range of initiatives employed in greening the banking system. The sample and research methodology are described in the third part, while the research results are presented in the fourth part of the paper. In the last section, the main conclusions are summarised.

## *LITERATURE REVIEW*

### *Emergence of Green Finance*

Green finance emerged as early as 1987 in the *Report of the World Commission on Environment and Development: Our Common Future*, which states the leading principles of sustainable development and highlights the importance of multilateral financial institutions, the World Bank (WB), the International Monetary Fund (IMF) and Regional Development Banks (RDBs), for financing sustainable development in developing countries (Bošković, Despotović, & Ristić, 2019, p. 662; United Nations, 1987).

At the UN Conference on Environment and Development in 1992 in Rio de Janeiro, the following strategic documents were adopted: the UN Framework Convention on Climate Change, the Convention on Biological Diversity, the Rio Declaration on Environment and Development, and the Declaration on the Principle of Forest Management, which set the framework for the development of international cooperation in the fight against climate change and global warming (IFF, 2021, p. 66). At the same time, the United Nations Environment Program Finance Initiative (UNEP FI) was developed, which established a partnership between UNEP and the international financial sector (banks, insurance companies and investors) in 60 world countries, all with the aim of including environmental protection in financial institutions' business activities and services, and focusing their investment policy on environmentally sustainable projects (Jemović & Radojičić, 2021, p. 343).

The previously adopted report and initiative got its final form in 2015 in the Paris Agreement on Climate Change and the Sustainable Development Goals (SDGs), which are binding and which 196 countries have adopted so far. It set a clear and specific climate goal for the whole world – to keep the global temperature at a level below 2 °C and then reduce it to 1.5 °C (IFF, 2021, p. 66). This goal should be achieved through transformation resulting from the realisation of 17 SDGs (Table 1):

*Table 1. Sustainable Development Goals (SDGs)*

Number of SDG	Name of SDG
1	No poverty
2	Zero hunger
3	Good health and well-being
4	Quality education
5	Gender equality
6	Clean water and sanitation
7	Affordable and clean energy
8	Decent work and economic growth
9	Industry, innovation and infrastructure
10	Reduced inequalities
11	Sustainable cities and communities
12	Responsible consumption and production
13	Climate action
14	Life below water
15	Life on land
16	Peace, justice and strong institutions
17	Partnerships for the goals

*Source:* Adapted from: (Berrou, Dessertine, & Migliorelli, 2019, p. 12.)

The realisation of these goals implies the initiation of numerous environmentally friendly projects such as “renewable energy, energy efficiency, alternative energy, recycling and recyclable products, waste management, and green industry development projects”. The funds used for these projects with the aim of achieving organisational sustainability are called green finance (Zhang, Wang, Zhong, Yang, & Siddik, 2022, p. 5). The development of green finance together with the administrative and professional support of key financial institutions are crucial for the sustainable development of each country (Nikolić & Milojković, 2023, p. 51).

A significant step in the development of green finance came with the *Who Cares Wins* report, which confirms that the incorporation of ESG factors into the capital market is important, and that it results in more sustainable markets and better results for the whole society (Stakić & Barjaktarović, 2023, p. 302), as well as in a financing framework that integrates ESG factors under UNEP FI through certain principles: Principles for Responsible Investment (2006), Principles for Sustainable Insurance

(2012) and Principles for Responsible Banking (2019) (UNEP FI, 2023). The Principles for Responsible Banking were signed by 300 banks, which showed the banks' determination to align their strategies and practices with ESG goals and the Paris Agreement on Climate Change (UNEP FI, 2023). These principles created the basis for the further development of green banking as an integral part of green finance. Cunha, Meira, & Orsato (2021) gave a review of global initiatives about the development of sustainable finance, viewed from the perspective of the participants in that process, namely: providers (banks and investors), recipients (companies) and supporters (states, non-governmental organisations, stock exchanges and academic communities).

Green, i.e. sustainable banking, which is defined as “delivering financial products and services, which are developed to meet the needs of people and safeguard the environment while generating profit” (Yip & Bochen, 2018, p. 150) is becoming increasingly important in the sustainable development of each country. Despite the lack of a general definition of green banking, its focus is environmental sustainability (Khairunnessa, Vazquez-Brust, & Yakovleva, 2021). In China, Hu and Zheng (2021, p. 14074) point out that it is important to use credit policy instruments for pollution prevention and environmental protection, thus achieving double carbon goals – carbon peak and carbon neutralisation. Furthermore, in a study of the impact of green finance and renewable energy on carbon intensity in 10 Asian economies, Du (2023, p. 136822) concluded that green financial products influence the reduction of carbon dioxide emissions. The same conclusion was reached by Numan, Ma, Sadiq, Bedru and Jiang (2023, p. 136693), who analysed the impact of green loans and other green financial instruments using panel data from thirteen countries from Europe and South Korea in the period between 2006 and 2000.

#### *Green Banking Products to Strengthen the Banks' Environmental Responsibility*

The banks' key position in financing the needs of the corporate and retail sector makes them an inevitable factor in the development of banking products and services that support environmentally friendly projects. The external dimension of environmental responsibility comes to the fore here. This is especially evident in European countries, where the majority of small and medium-sized enterprises and households are financed through bank loans (Mirza, Afzal, Umar, & Skare, 2023). Given that environmental responsibility includes various aspects, banks face a fundamental challenge to offer products that will help solve a number of environmental problems, such as: climate change, deforestation, air quality issues and loss of biodiversity. Their responsibility is therefore indirect here, because they strive to offer green banking products to reduce the

negative impact that clients' business activities may have on the environment.

Given the banks' efforts to adapt their services to the specific requirements homogeneous client groups may have, it is necessary to differentiate the offer of green banking products (Table 2).

*Table 2. Overview of green banking products*

<b>Green banking products intended for natural persons</b>	<b>Green banking products intended for legal persons</b>
Green mortgages/Green home equity loans	Green project finance
Green commercial building loans	Green securitization
Green car loans	Green venture capital and private equity
Green credit cards	Green Indices

*Source:* Adapted from: (Noh, 2018, p.11)

An analysis of the offer of green banking loans intended for retail sector shows that the bank realises its environmental responsibility most often through the approval of green mortgage and car loans, as well as loans for adaptation of houses and office buildings to make them energy efficient. In order to achieve the environmental goal, they offer these loans at lower interest rates than those valid for conventional bank loans with the same purpose (Mir & Bhat, 2022). In the part of corporate and investment banking, banks form their own funds which they use to grant loans under more favourable terms to companies that invest in these projects. These projects are often financed only partly from loans due to the banks' limited potential, while the rest comes from public sources. In addition to lending, in the part of investment banking, banks provide advisory and securities placement services to organisations that consider the environmental effects of their operations.

In order to develop the green loan market, the green loan principles appeared in 2018. They defined green loans as loans to finance or re-finance a part of, or the entire value of green projects, whereby environmental protection as a goal is incorporated not only in the evaluation and selection process but also in the bank's internal processes, and the reporting system of the borrower and other users (Loan Market Association, 2018).

When approving loans, banks take care to support the transition to low-carbon economy. The favourable regulatory environment defined by central banks for the development of green banking products also favours this banking practice. An overview of measures in the field of micro- and macro-prudential policy is given in Table 3.

*Table 3. Prudential policy as an incentive for the development of green banking*

Microprudential measures	Macroprudential measures
Obligation to report on environmental risks	Stress tests on the impact of environmental risks on financial stability
Implementation of environmental risk management standards	Differentiated capital rates on behalf of the countercyclical shock absorber
Differentiated rates of required reserves	Limit the bank's credit exposure to carbon-intensive sectors

*Source:* Authors based on: (Dikau & Volz, 2019, pp. 90-92)

Central banks anticipate lower capital requirements for loans approved to finance green projects as part of a microprudential policy, as well as lower allocations for countercyclical shock absorbers as part of a macroprudential policy. In addition, in the area of the regulation of the bank's liquidity policy, central banks foresee the application of a lower rate of required reserves to loans to finance green projects (Dikau & Volz, 2019). Although a small number of central banks currently do this, it is expected that, in order to achieve the set SDG goals, an increasing number of them will start implementing the aforementioned measures. Special attention should be paid to the development of environmental risk management standards and their application in the loan approval process. In this way, the green credit policy is in the function of improving the overall environmental quality (Zheng, Zhang, & Wang, 2023). Although the concept of green banking as a segment of green finance is more recent, an increasing number of research analyses its contribution to the improvement of economic development and the quality of the environment (Zhou, Tang, & Zhang, 2020).

#### *THE GREEN BANKING PRACTICE IN THE REPUBLIC OF SERBIA*

The Republic of Serbia showed its focus on a green economy and sustainable development when it signed and ratified key international environmental agreements – the 2030 Agenda for Sustainable Development, the UN Framework Convention on Climate Change and its Paris Agreement, and the Convention on Biological Diversity. It confirmed its national focus in 2008 by adopting the National Strategy for Sustainable Development, which follows previous documents and contains established development goals (Government of the Republic of Serbia, 2008).

Support for sustainability and the development of green economy in the Republic of Serbia also came from the European Union when it established the European Green Deal in 2020 and adopted 2 strategic documents – the Economic and Investment Plan (EIP) for the Western Balkans and Green Agenda for the Western Balkans (Behrens, 2021, p. 15).

Among recent initiatives in the field of green banking practices, the Association of Serbian Banks joined the Sustainable Banking Network of the International Finance Corporation in November 2020, the purpose of which is to promote sustainable finance. Also, in July 2021, the NBS became a member of a respected international group of central banks and supervisors within the Network for Greening the Financial System, whose purpose is to fulfil the goals established by the Paris Agreement through a more adequate role of the financial system in risk management and capital mobilisation for green and low-carbon investments (NBS, 2021).

### *RESEARCH METHOD AND SAMPLE*

Having all previous explanations in mind, we decided to analyse the green banking concept in the Serbian banking sector for two reasons: (1) the banking sector has undergone significant changes, since the previous years saw a trend of changes in bank ownership and consolidation; and (2) the financial system of Serbia is bank-centric, so it is extremely important to determine the extent to which banks participate in the realisation of the SDG goals.

In view of this, there are two research questions (RQ):

*RQ1 – Is the concept of green banking represented in the banking sector of Serbia?*

*RQ2 – Do banks in Serbia offer clients adequate green banking products and services?*

In order to obtain answers to the research questions, the methods of content analysis and comparative analysis are used. The research is descriptive in nature and based on secondary data, such as banks' quarterly and annual reports, sustainability reports, relevant organisations' research reports on green financing in Serbia, research papers in national journals, as well as data available on the website of the NBS and official bank websites.

Considering the fact that the banking sector of the Republic of Serbia comprises more than 90% of overall financial assets (NBS, 2023a), it is extremely important to preserve its stability. Thanks to effective regulations, prudent supervision and good risk management, this sector showed strong resilience and stability during the COVID-19 pandemic, global war conflicts and the energy crisis. As proof of that we express, the data from the end of 2022 showed that the capital adequacy ratio was 20.2%, which was significantly above the prescribed regulatory minimum (8%) and above the regional average (NBS, 2022). Also, the long-term downward trend of non-performing loans (NPL) has been ongoing since 2015, when the NPL Resolution Strategy was adopted, recording a historical low in 2022 by making 3.0% of the overall credit portfolio. In the ob-



served period, a more significant decline in NPL ratios was achieved in the corporate sector, as compared to households (NBS, 2022).

According to the NBS (2023a), 21 banks were actively operating on the financial market of the Republic of Serbia in 2022 (20 traditional and 1 virtual). These banks represent the research sample in this paper (Table 4).

*Table 4. Overview of the research sample in 2022*

Banking system	Number of banks	% market share in total assets
State-owned banks	2	7.8
Local private banks	2	8.6
Foreign-owned banks	17	83.6
Greek	1	5.6
Italian	2	25.8
Austrian	3	19.3
Hungarian	1	13.6
Slovenian	1	10.0
Other	9	9.3
Total banking system	21	100%

*Source:* Authors on the basis of data available in NBS report (NBS, 2023a)

As Table 4 shows, within 21 banks licensed by the National Bank of Serbia, almost all (17 of 21) are owned by foreign international banking groups that come from the European Union countries, namely: Greece, Italy, Austria, Hungary, Slovenia and other countries. Their market share in total assets also dominates over state and local, private banks (83.6% versus 16.4%).

## RESULTS AND DISCUSSION

Table 5 shows that 17 (1 virtual – MOBI banka a.d. Beograd and 16 traditional) out of 21 banks focus on individual sustainability issues to a greater or lesser extent. The Adriatic Bank, API Bank and Mirabank have no initiatives in the field of green banking and sustainable business. In addition to the three previously mentioned banks, RBA Bank was also excluded from further analysis, given the merger process with Raiffeisen Bank that was completed at the end of the second quarter of 2023. This process did not significantly change the market share of the main banking groups. Eight banks stand out as ‘leaders’ in the field of sustainability, which, apart from AIK Bank, are mostly owned by foreigners (Intesa Bank, Erste Bank, Eurobank Direktna, OTP Bank, ProCredit, Raiffeisen Bank, UniCredit Bank). It follows that the leaders in the field of green banking are banks identified as systemically important banks, whose financial problems or termination of operations would have far-reaching consequences on the stability of the financial system (NBS, 2023b). These

banks have high standards and an integrated approach to sustainability, which includes, among other things, clearly defined environmental and ethical requirements, as well as an adequate environmental risk assessment.

Five banks (ALTA, Banca Intesa, Erste bank, Eurobank Direktna and NLB Komercijalna) are members of the UN Global Compact Network Serbia, which implies that they have aligned their operations with ten universal principles in the areas of human rights, labour rights, environmental protection and the fight against corruption (UN Global Compact Network Serbia, 2023). Banca Intesa, Erste bank and Eurobank Direktna, together with OTP and UniCredit bank, are also members of the Responsible Business Forum, a coalition of companies in Serbia that operate in accordance with the principles of sustainability, responsibility and ethics (Responsible Business Forum Serbia, 2023). The proactive implementation of Agenda 2030 was identified in 11 banks in the sample, with nine banks (AIK, ALTA, Banka Poštanska Štedionica, Bank of China, Erste Bank, Eurobank Direktna, 3Bank, OTP banka and UniCredit banka) specifying how they help achieve specific SDG goals in their reports.

However, despite examples of good practice, there are also banks where green banking activities are still in their infancy. They take only the minimum necessary initiatives in order not to jeopardise their public reputation. What is more, the green finance regulatory framework has not yet been adopted in Serbia, so banks are left to recognise their own interest and engage independently in the field of green financing. This is partly because the National Strategy for Sustainable Development of the Republic of Serbia does not recognise banks and the banking sector as direct polluters and important factors of sustainable development. It only gives recommendation and encourages the development of electronic banking (Government of the Republic of Serbia, 2008, p. 39).

*Table 5. Overview of banks in Serbia focusing on sustainability issues*

Banks	Focus on sustainability issues	Systemically important bank
Addiko	<ul style="list-style-type: none"> <li>▪ Bank is a signatory of the United Nations Global Compact and the UN Women's Empowerment Principles initiative since 2021;</li> <li>▪ Implementation of the ESG strategy since 2022;</li> <li>▪ Community support through donations and sponsorships;</li> <li>▪ <i>Loans for improving energy efficiency and green loans for financing investment projects of renewable energy sources;</i></li> </ul>	-

AIK	<ul style="list-style-type: none"> <li>▪ Implementation of corporate sustainability strategy (sustainability of nature, community and finance);</li> <li>▪ Commitment to achieving SDGs: 3, 4, 5, 8, 10 and 13;</li> <li>▪ Management of ESG risks;</li> <li>▪ <i>Green loans for financing investment projects of renewable energy sources;</i></li> </ul>	√
ALTA	<ul style="list-style-type: none"> <li>▪ Member of <i>UN Global Compact Network Serbia;</i></li> <li>▪ Actively promotes 10 basic principles underlying corporate social responsibility;</li> <li>▪ Commitment to achieving SDGs: 3, 10 i 16;</li> </ul>	-
Banca Intesa	<ul style="list-style-type: none"> <li>▪ Member of UN Global Compact Network Serbia and member of the Responsible Business Forum;</li> <li>▪ Guided by the Ten principles of UNDP Global Compact in the fields of human and labor rights, environment and anti-corruption;</li> <li>▪ Good Sustainability practice by parent group Intesa Sanpaolo;</li> <li>▪ <i>Loans for improving energy efficiency and green housing loans;</i></li> </ul>	√
Banka Poštanska Štedionica	<ul style="list-style-type: none"> <li>▪ Community support through donations and sponsorship;</li> <li>▪ Commitment to achieving the SDGs: 1, 2, 8, 10;</li> <li>▪ <i>Loans for the improvement of energy efficiency;</i></li> </ul>	√
Bank of China	<ul style="list-style-type: none"> <li>▪ Community support through donations;</li> <li>▪ Commitment to achieving SDGs: 7, 9, 11, 13, 14, 15 i 17;</li> </ul>	-
Erste bank	<ul style="list-style-type: none"> <li>▪ Member of the UN Global Compact Network Serbia and founder and member of the Responsible Business Forum;</li> <li>▪ The strategy of socially responsible business includes corporate management, responsibility in the working environment, towards clients, in the supply chain, towards local communities, towards the environment;</li> <li>▪ The bank's operations and reporting are aligned with: 10 principles of the</li> </ul>	√

	<p>UN Global Compact, UN Sustainable Development Goals (except SDG 14); UN Women's Empowerment Principles, UN Standards of Conduct for Companies in the Fight Against Discrimination);</p> <ul style="list-style-type: none"> <li>▪ <i>Loans for improving energy efficiency and green loans for financing investment projects of renewable energy sources;</i></li> </ul>	
Eurobank Direktna	<ul style="list-style-type: none"> <li>▪ Member of UN Global Compact Network Serbia and member of the Responsible Business Forum;</li> <li>▪ Operates in accordance with the highest global standards of corporate social responsibility, in 5 certified areas: corporate management, markets, local community, environment and working environment;</li> <li>▪ Commitment to achieving the SDGs, except for goals 14 and 15;</li> </ul>	√
Halkbank	<ul style="list-style-type: none"> <li>▪ Responsibility towards employees and the local community;</li> <li>▪ Commitment to achieving the SDG;</li> </ul>	-
NLB Komerčijalna	<ul style="list-style-type: none"> <li>▪ Member of <i>UN Global Compact Network Serbia</i>;</li> <li>▪ Socially responsible behavior towards the market, employees, local community and environmental protection;</li> <li>▪ <i>Green housing loans and green car loans;</i></li> </ul>	√
MOBI bank	<ul style="list-style-type: none"> <li>▪ Strategic implementation of ESG principles since 2022;</li> <li>▪ Responsibility towards employees and commitment to environmental protection;</li> <li>▪ Community support through socially responsible initiatives;</li> </ul>	-
3bank	<ul style="list-style-type: none"> <li>▪ Bank focuses its activities and impact on SDGs: 1, 2, 8, 12 i 13;</li> <li>▪ PCFA member (bank uses the Global GHG Accounting and Reporting Standard for the Financial Industry to estimate greenhouse gas emissions in its loan portfolio since 2020);</li> <li>▪ <i>Green agricultural loans;</i></li> </ul>	-

OTP banka	<ul style="list-style-type: none"> <li>▪ Member of the Responsible Business Forum;</li> <li>▪ Responsibility towards the market, employees, local community and environmental protection;</li> <li>▪ The bank has developed the Generator Lab green platform;</li> <li>▪ Commitment to achieving the SDGs: 2, 3, 5, 7, 8, 9, 12, 13, 16;</li> </ul>	√
ProCredit	<ul style="list-style-type: none"> <li>▪ Triple approach in the field of environmental protection (1<sup>st</sup> pillar: Internal environmental protection management system, 2<sup>nd</sup> pillar: Management of environmental and social risks in lending, 3<sup>rd</sup> pillar: Promotion of “green financing”);</li> <li>▪ Commitment to achieving the SDGs;</li> <li>▪ <i>Loans for the improvement of energy efficiency;</i></li> </ul>	-
Raiffeisen	<ul style="list-style-type: none"> <li>▪ Responsibility towards employees and the local community;</li> <li>▪ Operation through two humanitarian foundations;</li> <li>▪ Commitment to achieving the SDGs;</li> <li>▪ Payment cards made of recycled PVC and ESG investment fund;</li> </ul>	√
Srpska banka	<ul style="list-style-type: none"> <li>▪ Support through donations to education, culture and sports;</li> </ul>	-
UniCredit	<ul style="list-style-type: none"> <li>▪ Member of the Responsible Business Forum;</li> <li>▪ Implementation of ESG strategy at the group level;</li> <li>▪ Implementation of the Social Impact Banking program since 2019;</li> <li>▪ Commitment to achieving SDGs: 3, 4, 5, 8, 10 i 17;</li> <li>▪ <i>Loans for the improvement of energy efficiency;</i></li> </ul>	√

*Source:* Authors on the basis of information available on the sites of analysed banks (October, 2023)

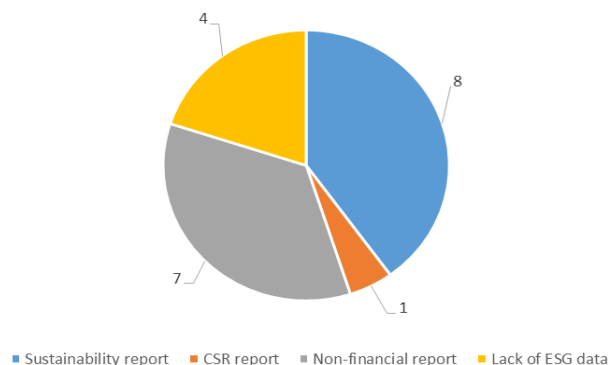
Banks that strive to support the green transition in Serbia are starting to green their internal activities and products, as well as their clients' activities (Behrens, 2021). Consequently, until now, green loans have been dominant within the green banking concept in Serbia, and their presence is important for all stakeholders on the financial market to cover their needs with the least impact on the environment.

The analysis (Table 5) shows that green lending is relatively new and still somewhat underrepresented. That is, 50% of the banks in the sample still do not offer green loans. Only seven banks offer loans for improving energy efficiency, which are also the most represented class of green loans (ProCredit, Banka Poštanska Štedionica, UniCredit, 3Bank (loans intended only for agricultural holdings), Banca Intesa, Erste and Addiko). These are loans intended for investments in the installation of insulation, new windows, doors, solar panels, as well as other energy-efficient solutions. Green loans for financing investment projects of renewable energy sources are represented on the Serbian market to a lesser extent. Only three banks offer support in the implementation of these projects (Erste, Addiko and AIK). These are banks with a high level of experience in renewable energy projects (wind energy, solar energy, hydro energy, energy obtained from biogas) (Behrens, 2021, p. 30). Financial support for the implementation of renewable energy projects mainly comes from foreign and European funds (Sovilj, 2020). Other classes of green loans are rare: only two banks offer green housing loans for energy-saving households (NLB Komercijalna and Banca Intesa), and only NLB Komercijalna banka offers a green car loan for the purchase of electric and hybrid vehicles.

Raiffeisen Bank's recycled PVC payment cards are a novelty on the Serbian banking market, reducing CO<sub>2</sub> emissions by 80% compared to the production of cards of ordinary plastic (Raiffeisen Bank, 2022). For now, this is only available for VISA Gold and Platinum payment cards. Raiffeisen INVEST, which offers clients the opportunity to invest in investment funds through the sales network of Raiffeisen bank branches, established the first ESG investment fund on the domestic market "Raiffeisen Green" (invests in ESG bonds) in June 2022, and soon after that, the second "Raiffeisen Alternative" (invests in ESG company shares) was established (Raiffeisen Bank, 2022).

The sustainability reporting of the banks in the sample is not standardised (Fig 1). There are several sets of reports, whereby four banks (Addiko, Adriatic, Mirabank, Srpska banka) do not disclose relevant ESG data. The reports disclosed by the remaining banks in the sample differ in the way of presenting non-financial performance to stakeholders.

Sustainability reports at the level of the banking group in accordance with internationally recognised GRI standards are available in eight banks (Banca Intesa, Erste, Eurobank Direktna, OTP, ProCredit, UniCredit, Raiffeisen and Bank of China), giving a detailed description of non-financial performance and approved green loans. ALTA banka is the only bank in the sample that prepares a CSR report, while seven banks (Halk, NLB Komercijalna, MOBI, AIK, API, 3Bank, Banka Poštanska Štedionica) disclose ESG data as part of non-financial reports that form an integral part of regular annual reports.



*Fig. 1. ESG data on the sites of the analysed banks*

Source: Authors on the basis of information available on the sites of analysed banks (October, 2023)

### CONCLUSION

Environmental protection has become imperative in the 21<sup>st</sup> century, making an increasing number of banks adopt a proactive approach in implementing the concept of green banking. This concept includes the development of green banking products and services, which allows banks to increase their market share, customer loyalty and employee satisfaction, improve corporate image and, ultimately, increase profitability as the ultimate goal of the bank as a joint-stock company. The growing trend of banks' green awareness is becoming increasingly prevalent in the Balkan area. Accordingly, the paper analyses the environmental practice of banks in Serbia.

The topic of this research is relevant, given the bank-centric nature of the domestic financial system, where banks have a crucial role in financing the corporate sector and households. The results showed that almost all banks from the sample (17 out of 21) are, in a certain manner, implementing sustainability aspects in their business. However, the largest eight banks (AIK, Banca Intesa, Erste bank, Eurobank Direktna, OTP, ProCredit, Raiffeisen, UniCredit) recognised the opportunity to offer their clients appropriate products and services in addition to adopting a sustainability strategy, such as green loans for the improvement of energy efficiency, the financing of investment projects of renewable energy sources (3 out of 21 banks), green housing loans intended for the purchase of energy-saving apartments, garages or parking spaces (offered by 2 banks) and green car loans for the purchase of electric and hybrid vehicles (offered by only one bank). With these specialised loans, the dominant banks in Serbia strive to actively participate in solving environmental protection problems.

The results of this research do not come without limitations. The main limitation is that there is no single source of ESG data. Also, data on employees' and clients' awareness of the importance of green banking was not available. Only secondary data was used, with no data from primary sources such as interviews and survey questionnaires. When it comes to future research directions, we recommend the use of research results and their comparison with Balkan countries with similar economic and transition backgrounds.

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## СТАЊЕ И ПЕРСПЕКТИВЕ РАЗВОЈА ЗЕЛЕНОГ БАНКАРСТВА У РЕПУБЛИЦИ СРБИЈИ

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### Резиме

Зелено банкарство представља релативно нов концепт који има важну улогу у области заштите животне средине и уважавању ЕСГ принципа у домену финансијских услуга. Полазећи од јединственог положаја банака у омогућавању токова капитала кроз кредите, инвестиционе и саветодавне услуге, али и у финансирању иновативних технологија, банке несумњиво имају кључну улогу у финансирању великих промена у политици заштите животне средине. Имајући у виду претходно наведено, али и чињеницу да је финансијски систем Републике Србије банкоцентричан, од изузетне је важности сагледати у којој мери банке учествују у реализовању СДГ циљева. Сходно томе, рад је имао за циљ да кроз анализу праксе зеленог банкарства у Републици Србији оцени стање и перспективе даљег развоја истог.

Анализа праксе банака у Републици Србији је показала да је концепт зеленог банкарства у нашој земљи још увек у зачетку. Наиме, само осам банака активно интегрише концепт одрживости у своје пословање, који између осталог подразумева јасно дефинисане еколошке и етичке захтеве, као и адекватну процену еколошког ризика. Ово се истовремено одражава и на понуду зелених банкарских производа, с обзиром да се као доминантни производи издвајају искључиво зелени кредити. Најзаступљенију класу зелених кредита представљају кредити за унапређење енергетске ефикасности, праћени скромнијим учешћем кредита за

финансирање инвестиционих пројеката обновљивих извора енергије. Недовољна развијеност анализираног концепта је последица одсуства регулаторног оквира који се односи на зелене финансије, као и неадекватног препознавања улоге банака и банкарског сектора у реализацији концепта одрживог развоја. Ради даљег развоја концепта зеленог банкарства у Републици Србији потребно је обезбедити одговарајуће предуслове попут: интегрисања аспеката животне средине у управљању банкарским ризицима, издвајања посебне организационе јединице унутар банке која ће се бавити пословима везаним за зелене инвестиције и заштиту животне средине, обезбеђивања одговарајућих стандарда за имплементацију циљева одрживог развоја, као и система регулације и контроле активности у вези са испуњењем циљева одрживог развоја од стране банака.