

THE EFFECTIVENESS OF CLIMATE FINANCING INTERMEDIARIES: COMPARATIVE STUDY OF KAZAKHSTAN AND UKRAINE

Zhanel SABIROVA,

Suleyman Demirel University, Almaty, Kazakhstan

zhanel2800@gmail.com

Abstract

This research is focused on identifying the effectiveness of climate financing intermediaries based on the comparative study of Ukraine and Kazakhstan. Main aim of the research is to analyze main differences of activities of financing intermediaries in distinct states. Kazakhstan and Ukraine, two CIS countries have similar environmental description, but not alike commitments to climate issues. Ukraine is the best post-Soviet country through climate change performance indicators, while Kazakhstan is believed to be in the bottom of this list worldwide. The hypothesis testing showed that the quantity of the intermediaries in the state does not play a vital role, as three global intermediaries as EIB, EBRD, and IBRD that can be found in both states, showed different performance, resulting being more active and advanced in Ukraine than in Kazakhstan. This relates to the state's general interest in committing more actions into its own environmental policies. Kazakhstan, according to postcolonial theory, emphasizes economic benefits more than environment, whereas Ukraine pays more attention to renewable energy and climate change. Therefore, what makes the intermediary better in Ukraine is its close cooperation with the global institutions that provide such financing. After the Euromaidan and war in Donbass, Ukraine changed its political direction to Europe, where largest intermediary – EBRD – is based. To maintain independence from Russia, Ukraine strongly determined to switch to renewable energy. That is why its cooperation with EBRD, and other intermediaries is substantially emphasized by government.

Keywords: *Climate Change, Climate Financing, Green Economy, Ukraine, Kazakhstan.*

DOI: [10.31039/jgss.v3i11.67](https://doi.org/10.31039/jgss.v3i11.67)

1. Introduction

Any issue connected with climate change can be considered as a young phenomenon, as climate change has been actively addressed by humanity only for a couple of decades. It is always difficult fighting an invisible enemy since the full range of consequences of climate change are only in a process of revelation. Nevertheless, people are acknowledging deeper the urgency of the current environmental conditions all around the world, but the cooperative tactics that are awaited to increase climate change mitigation are questioned as the states cannot

come to a particular consensus. However, the research works are kept increasingly fast, and we are already able to determine main obstacles for the cooperation. One of them that is agitated the most –the financing issues (Boston & Lempp, 2011; Cavazos, 2011; Hufbauer & Kim, 2010; Peskett et al., 2009; Deere-Birkbeck, 2009). Therefore, climate financing intermediaries are one of the ways to deal with the financing issues. But again, usage of the intermediaries is even younger practice than the overall climate change mitigation movement. So, its effectiveness is still determined.

However, states show different performance in fighting climate change and its consequences. Some are active, the others do not prioritize environmental issues, justifying that it creates large economic costs. Nevertheless, if the attitude of each state differs, so do the climate financing intermediaries. For instance, Ukraine and Kazakhstan have relatively similar environments and historical backgrounds but differ in climate change performance. Ukraine significantly outweighs Kazakhstan in this regard. Therefore, trying to understand and explain this trend I am questioning the functioning of the intermediaries and pose next research question – Why are Climate Financing intermediaries are effective in some countries and not in others?

My main objective is to understand what makes intermediaries show better performance, or rather, are there any specific circumstances for that. In this regard, comparative case study of Kazakhstan and Ukraine is a good way to reach this goal. Since one is a better “climate change fighter” than the other, comparing the activities of their intermediaries will help explore new insights about the intermediaries, which will be an important contribution to the notion of climate financing in general.

Financing climate actions and investing into environmentally friendly projects is required to both reduce emissions and build resilience. Investments to address climate change may be costly at first, but is an urgent move to keep our home, the Earth, livable. As by recent studies climate financing would go far to reach sustainability (UN, 2021). The spendings repay sooner, as it was discovered that switching to a green economy opens new jobs and boosts the economy. Thus, on average, a one-dollar investment returns four dollars in benefits.

However, as the UN claims, if we are to succeed in reducing climate change to sustainable levels, the world still cannot afford to burn all its fossil fuel reserves. The long-term economic truth is that we can only burn a portion of proven fossil fuel stocks if we want

to stay below 1.5°C. In this regard the world community, as well as everyone, must give maximum efforts, since this is the minimum, we can do. Therefore, climate financing intermediaries are one of the best tools in uniting interested people and organizations.

Comparison of Kazakhstani and Ukrainian intermediaries will help to highlight what are the conditions or trends that make intermediary's functioning more prosperous. This will contribute to overall data on intermediaries and the practices of other states may be used as an example for other countries that are new in this sphere. In addition, each state is individual, and some examples may be impossible to apply to others. However, the insights from the case of Kazakhstan and Ukraine will fit to the practices of at least other CIS countries. As countries that share some historical features there will be insights they can gain.

2. What are Climate Financing Intermediaries?

Intermediaries can be divided as Bilateral Financial Institutions (BFIs), Multilateral Financial Institutions (MFIs), Climate Funds, and Carbon Funds (Buchner et al., 2011). The last two emerged later in the Climate Financing, so they do not provide a large portion of intermediated finance flow. So, BFIs and MFIs contribute the most. However, as by the authors – Bilateral institutions distribute a greater share of finance than multilateral agencies. The argument is made based on comparative research of various intermediaries. Therefore, regardless of a great attention recently on the development of a global 'green fund' to catalyze international climate finance, the reality is that most of public climate finance is currently provided by bilateral institutions rather than multilateral institutions. In addition, many of the Funds are developed and functioning under the management of financial institutions. Some scholars claim that intermediaries are especially useful by playing a critical role in large-scale initiatives like market creation, innovation, policy efficacy, and implementation (Chaudhury, 2020). It has three recognized roles: as a broker, as a bridge between key constituents and stakeholders, and as the promoter of knowledge and information for others and themselves. However, there is another role of the intermediary as the system builder. It shapes the climate change policies and implementation spaces, therefore trying its best for the developing countries to engage into the climate financing sphere. Therefore, intermediaries may focus on one role or in a multiple depending on the function needed. But at the same time, it is difficult to achieve awaited results in an evolving structure when intermediaries have different roles. This gap is triggered with the disproportionate large role of international entities in comparison with local ones, which brings discontent from developing countries. Venugopal & Srivastava

(2012) claim that the growing need for such an urgent and significant investments for climate change mitigation in developing countries may not be met regardless of being projected. So, redirecting the private sector's investments to developing countries would help fill the growing climate change gap as the primary solution for the state problem. The public sector therefore would redirect private sector's investments away from fossil fuel-driven sectors toward low carbon development. However, the private sector seeks markets that show a high level of attractiveness in risk associated returns over an appropriate investment timeframe and adequate size, liquidity, and transparency. Such conditions are often absent in developing countries because of the growth of financial markets with low-carbon levels in the regions. But if evaluating climate policies implementation on the local level, the study of Karhinen et al. (2021) showed that the decrease of climate emission was seen in the settlements where local governments relied on the assistance of network intermediaries. However, the limited usage, membership and awareness about the intermediaries is also a challenge (Choi, 2021; Deng-Beck & Price, 2016). The matching initiatives that provide intermediaries are yet to realize their potential, but for now not many people are aware of the existence of such intermediaries. Another challenge is in the lack of evidence to show project "bankability", since only half of the applicants submit full reports on their actions, and the others with the lack of some information. The platforms work online matching stakeholders from all over the world. However, the action of the platform ends there, and it is hard to observe the results between investor and project beyond their introduction. There is also a lack in the capacity-building for local decision-makers. There is strong cooperation between initiatives and organizations, but the lack of a centralized platform for local and subnational governments to consult. Therefore, it creates barriers for delivering proper finance tools and awareness. There is also the struggle of reaching the finance to local level, as the intermediary funds prefer to invest in the projects that plan a huge result (Soanes et al., 2017). Multilateral banks are less interested in financing small-scale projects directly. Thus, it can be said that intermediaries are choosing where to invest, which may affect their performance in each country.

2.1. Climate Financing Intermediaries in Asia- Pacific and European region

In the Asia-Pacific region, central banks try to develop right policies for more green banking and try to increase the awareness of people about sustainable financing (Durrani et al., 2020). They are acting as intermediary in providing the information to the masses. In addition, they establish special Funds that focus on various aspects of sustainable financing. But central

banks should cooperate more with various global institutions and initiatives to expand their intermediary abilities. For instance, Europe understands that even if the region will succeed in every pointed goal on environment rehabilitation, it still will be a small portion of the world and will not bring significant changes (Claringbould et al., 2019). Therefore, Europe initiates many programs to help third states and to make an impact on the financial system by standardizing the sustainability proofing of investments. However, intermediaries face the problem of the negative screening process that has been widely practiced by sustainable investment funds. However, the development of the new standardization of the sustainability proofing will require additional time and capabilities, which will affect the performance of the intermediary. Sustainability does not have stable metrics as the financial indicators do; therefore, determining social and environmental impacts on investments poses an additional burden on project promoters. In addition, it is not easy to attract new projects and maintain deep assessments.

Therefore, climate financing intermediaries still have to implement many improvements and need time for realization recommendations and experience gaining. For now, all we can do is stream its current activity and make conclusions from real life cases of the states. And the best way to find out whether climate financing intermediaries are effective in particular countries is to proceed to comparative study. Ukraine and Kazakhstan would be a good fit for the comparison, since both constituted the part of the Soviet Union and experienced consequences of socialist past, both experience environmental impacts of nuclear radioactivity (Chernobyl and Semipalatinsk) and consequences of alike agricultural economy as biggest wheat exporters. However, according to the Climate Change Performance Index 2021 Ukraine is on the 20th place, while Kazakhstan is on the 64th (Burck et al., 2021). Therefore, the question arises whether the intermediaries are more effective in Ukraine rather than in Kazakhstan and why?

2.2. Climate Financing Intermediaries in Ukraine

In 1997, international financial institutions contributed less than 10% of all Ukraine investments for environmental projects (Yevsuykov et al., 2021). Today international institutions almost entirely finance green projects in Ukraine. The capital flow comes from European organizations, Funds, and Bilateral Financial Institutions. However, it should be noted that the most investments come from multilateral channels (over 10 times higher than bilateral) and in loans (77.8 %). There are also some governmental initiatives such as “Green

Tariff” that is directing finance to renewable energies (Soloviy, 2017). The European Bank for Reconstruction and Development (EBRD) is an intermediary with one of the largest portions of initiatives in Ukraine. It helps diminish the effects on the environment in the Chernobyl area and currently the EBRD is implementing 166 projects in Ukraine totaling €1 billion 603 million (EBRD, 2018). Therefore, the bank focuses on the private and public sector by significant investments and policy engagements actions. The bank also ensures that financial intermediaries’ partners have adequate E&S capacity and risk management procedures in place. The bank is also active in Kazakhstan. However, the EBDR has a more systematic approach in Ukraine. The bank is aiming at monitoring supervision of environmental and social performance and addressing legacy issues associated with the Bank’s portfolio. The Rockefeller and MacArthur Foundations, and OCED are also active by providing different grants for sustainable projects and hold environmental research, seminars and conferences, thematic reports, and investment. The USAID held joint research with Ukrainian American Commission on Economic and Technological Cooperation about the environment and related to it administrative issues. Foreign development banks and foreign private banks have a stronger and more direct influence on establishing a green financial policy in Ukraine through their financial and technical aid (Sokolova et al., 2019). But the challenge in the performance of the institutions and intermediaries may arise from the managerial risks. Gaps in management can lead to losses and negative consequences for a company’s attractiveness to external investors. In addition, there is still no clear targets or activities regarding adaptation, as well as direct policies or legislation. Governmental policies are still too broad and without consideration for financing. Moreover, effective public involvement is not less significant into experimentation and exploration of social, behavioral, and cultural aspects of responses to climate change.

2.3. Climate Financing Intermediaries in Kazakhstan

In Kazakhstan, green financial instruments did not receive much development (Kalkabayeva et al., 2021). Many environmental projects do not fit into the investment policies and criteria of commercial banks for selecting projects. Kazakhstani banks have smaller assets in comparison with the existing needs for investing in the green economy. Eco-innovation investors face higher risks and require more capital investments. In addition, Kazakhstan’s financial market is not adapted to green technologies, basically they lack expertise in this sphere. There are some information gaps in Kazakhstan’s financial flow, therefore the exact

data is not available. However, there are some financing intermediaries that are active in Kazakhstan. To streamline the management of the feed-in tariff scheme, Kazakhstan established the Renewable Energy Financial Settlement Centre (FSC) that acts as intermediary to the purchase of green electricity. The center is required by law to conclude Power Purchase Agreements (PPA) with investors and purchase only electricity produced from renewable sources. The FSC is the subsidiary of Kazakh electricity transmission company KEGOC. However, because of the highest credit rating in Kazakhstan among other utilities, KEGOC does not guarantee the bankability of the PPAs with the FSC. The lack of the guarantee may be critical, due to the diminishing creditworthiness of the Kazakh scheme in a case of non-payment by the thermal power stations (Boute, 2020). The ‘Green Bridge’ Astana initiative, the “Green Academy ” Scientific and Educational Centre, Association of Legal Entities the “Coalition for a Green Economy”, and G-Global Development, The International Financial Centre “Astana” (IFCA) are examples of organizations in the sphere of green economy and implement various projects (Kozlova & Varavin, 2020). The Astana International Financial Centre (AIFC) is one of the largest intermediaries in the state. Its main aim is to mobilize private capital for green investments and contribute to changes in the real economy through investment decisions (Zhagyparova & Sembiyeva, 2019). The center is also taking responsibility for green banking primarily with the involvement of foreign banks, and later - domestic banks. However, the center is still not included in some global institutions that encourage climate financing. Other large institutions in Kazakhstan such as SWF Samruk-Kazyna, the National Holding Baiterek, the banking sector, and pension funds may play an important role in the development of climate financing in Kazakhstan. However, most of the initiatives are yet to be implemented, and climate financing is only beginning its development in Kazakhstan.

3. Research Design

3.1. Theoretical framework

In the work, I am aimed to provide two ideas that derived from the objective of testing the efficiency of the climate financing intermediaries. The ideas are built up on the comparison of two states – Kazakhstan and Ukraine – and try to depict a new way on how to regard traditional green intermediaries and factors affecting on their performance.

3.1.1. Perception of Liberalism

According to the liberalism theory, there are three interrelated principles: rejecting power politics as the only possible consequence of international relations because it calls into question realism's concepts of security and warfare; international collaboration and mutual benefit; the influence of international organizations and non-governmental entities on state preferences and policy decisions (Shirayev & Zubok, 2015). Therefore, international institutions are a substantial factor for more cooperation and less conflicts among states. States connect in a variety of ways, including economically, financially, and culturally. Liberals believe that with the right institutions and diplomacy, states can work together to maximize prosperity. In this regard the cooperation between states and financial intermediaries clearly reflects liberal values and outcomes in an awaited way. In the case of Kazakhstan and Ukraine among the largest climate financing intermediaries several intermediaries that are an initiative of foreign states (ex. EU, the US) or a joint intergovernmental institution (ex. Green Climate Fund) can be highlighted. In addition, as all nations share one planet, atmosphere, and in some sense environment, cooperation is crucial to implement green policies all around the globe. Hence, liberalism explains well the nature and aims of the climate financing intermediaries.

3.1.2. Hypotheses

Considering aforementioned theory, my guess is based on the quantity of the intermediaries being active in the country, which means the more intermediaries are functioning – the bigger the impact. As from the literature review, there are more intermediaries in Ukraine than in Kazakhstan. Whereas in Ukraine, we can observe more examples of already launched actions and the results from various banks, funds, and organizations. Nevertheless, the exact number of intermediaries actively functioning in both of the states is not given, therefore, the possibility that Ukraine's better performance in CCPI being due to the activity of only a couple of large intermediaries also should be considered. As well as the functioning of a small number of Kazakhstani intermediaries may be of the same level as in Ukraine if testing overall performance and not relying on the ranking. It may be that Kazakhstan just needs more time to catch up with Ukraine. Such uncertainties require additional research upon intermediaries in two countries and explore the role of their amount. Relying to that theoretical frame, I am stating next hypothesis:

Hypothesis #1: The more climate financing intermediaries functioning in the state, the higher their aim implementation and overall state performance in climate change mitigation.

However, besides the amount, the effectiveness of intermediaries should also be tested individually by the influence of some external factors. Due to the recent political and social changes Ukraine intends to adopt a more “European” style of statehood and is more integrating with the European Union and its political structure. The EU along with Scandinavian states are one of the leading countries implementing environmentally friendly initiatives on a state and international levels. Pivot to Europe and close partnership with European organizations may be the strong factor of Ukraine’s significant improvement in climate change mitigation. The EU banks and funds are substantial and comprehensive contributors in Ukraine and act as climate financing intermediaries. Since Ukraine is in the top 20 of the CCPI and Kazakhstan is at the lowest places, external influence of European institutions may be the reason Ukraine’s intermediaries are better in carrying out financing duties. Therefore, my second hypothesis is in the next form:

Hypothesis #2: The stronger partnership with the large institutions that support green financing globally outcomes in a significant increase in the effectiveness of the Climate Financing Intermediaries.

To understand this trend, I will be focusing on the way the government is responding to the intermediaries’ initiatives. For that I will refer to the time theory, firmly analyze state policies in the 2000-2014 and 2014-2021. Such time division aimed to oversee state activity of both cases. Therefore, I want to find out what was the performance of intermediaries before and after the annexation of Crimea that happened in 2014. This will help me consider some distinct trends in the functioning of the intermediaries in both states and indicate the differences between Kazakhstan and Ukraine.

It worth noting that besides the results of hypothesis testing, comparative study may give us some new insights upon the performance of the intermediaries in two states. For instance, some significant insights may be found from the comparison of internal features of the intermediaries in Kazakhstan and Ukraine. Therefore, the research will be focused on the general goal of exploring efficiency and effectiveness of climate financing intermediaries through case study and testing the stated hypothesis at the same time.

3.2. Research method

3.2.1. Method of data analysis

Two hypotheses will be tested through qualitative research method, focusing on multiple case study – cases of Ukraine and Kazakhstan. First reason to use this method, the way the question is formed gives a lot of information about the best research strategy to apply. "How" and "why" questions are more explanatory, and they are more likely to lead to a case study being chosen as the preferred research method (Yin, 2018). Therethrough, the research question of my work intends to explain the factors that influence the effectiveness of intermediaries in the chosen countries and begins with “Why”. Second, my research is trying to explain set of the events that are happening at this very moment – contemporary circumstances of climate financing – over which I have little or no control. These are the criteria majority scholars highlight when suggesting its usage over other methods (Yin, 2018; Meredith, 1998). Third, there is not much available theoretical framework on my topic and context plays a vital role in the research. The comparison of Kazakhstan and Ukraine will lead me to new insights upon the performance of the intermediaries and investigate the variables that are difficult to discover before studying. The same criteria for the case study were explained by Dul and Hak (2007), where they claim case study research is a good idea (A) when the topic is wide and complicated, (B) when there isn't a lot of theory accessible, and (C) when "context" is crucial. Hence, I believe that case study is the best approach for my research work to provide an in-depth description of the performance of climate financing intermediaries.

Therefore, we need to understand why exactly Ukraine and Kazakhstan are the cases. First, the multiple case study fits the research since it directly answers the research question. As I am planning to identify why intermediaries are effective in one country and not in the other, comparison of two countries is quite logical here.

To understand the effectiveness in one country, we must take the state that has a good performance over adoption of climate fighting policies. Ukraine is on the 20th place by Climate Change Performance Index list, making it the only post-Soviet state ending up in the top 20. Whereas Kazakhstan is on the bottom of the list ranking 64th place (Burcke et al., 2021). Therefore, a comparison of these two countries will paint us a clear image of the obstacles of the intermediaries functioning in the least successful country of the list, and what is the excellence of intermediaries based in Ukraine. If the country with the worst performance index was chosen someone might think why not to take the one that ranked the top place, which is

Denmark. What I aim is to find what influences on the intermediary effectiveness in the countries that share more similarities, but their intermediaries still perform distinctly. And the first feature that connects Kazakhstan and Ukraine is their socialistic past. Both countries were part of the Soviet Union, therefore they are more likely to share common features inherited from previous backgrounds. Thus, after the collapse of the USSR both countries gained independence at the same time and had the same starting point. It has been 30 years since the independence of both countries and the results of their performances differ significantly. Third reason why Ukraine and Kazakhstan are a good fit to research is due to their environmental issues they are dealing with. Both states experienced disasters of radioactive explosions, consequences of which are still permanent. There was an explosion in the Chernobyl Nuclear Power Plant in Ukraine that left the whole region unable to sustain living because of the radiation. And in Kazakhstan the Semipalatinsk region was used as the nuclear test site for over 40 years. Until today, the radiation that experienced the lands of both countries could create the same environmental conditions with which each country seems to deal differently. And the fourth reason is concerning the environmental consequences each country faces from agricultural activity. Ukraine and Kazakhstan are in the top 10 list of wheat exporters worldwide ranking Ukraine in 5th and Kazakhstan in 9th place (Workman, 2020). The agricultural sector has a profound impact on the surrounding environment, so this again creates the same conditions for the two states to deal with to sustain it appropriately in regard with the environment and climate change processes.

Therefore, analyzing the reasons for choosing these two countries I can tell that regardless of some similar features both in historical and environmental context and common starting points as independent states, Ukraine and Kazakhstan still have dramatic differences in the climate change mitigation processes, which make them an interesting case to investigate.

3.2.2. Method of data collection

As for the qualitative multiple case study I will be referring to the existing data in my research. There is a belief that case study is less representative, as it focuses only on the particular case which cannot describe general patterns of the phenomena. However, there are still some recommendations by the scholars on the data gathering process. They help in the generalization and viability of the case study research. Therefore, using numerous sources of data, creating a case study database, and maintaining a chain of evidence are three data

gathering strategies Yin (2018) recommends for case studies and which I find suitable for my research.

As by the first recommendation, numerous sources of data will be involved in the work. Since the focus is going to be on the intermediaries in the Ukraine and Kazakhstan, the sources will include reports by the institutions, documentation, scholarly articles, interviews, archival records, and direct observations if needed. I will search for them with the help of the internet, where the electronic publications of researchers and reports of intermediaries on their official websites are located. From the literature it can be concluded that information about Ukrainian intermediaries can be easily found through the internet, what cannot be said about Kazakhstan. The research on the topic of Climate Financing is not as varied as for the Ukrainian sources.

Therefore, I will be focusing on the state policies of both states in the field of environment and climate change. And for the intermediaries, I will mention the activity of various intermediaries with the special regard to the European Investment Bank (EIB) and European Bank for Reconstruction and Development (EBRD), which can be found in and commit largest efforts for both states. The special attention will be posed on EBRD and its annual reports as the primary resource.

Consequently, the method of analysis will be the cross-case analysis of chosen multiple cases. The cross-case analysis makes it easier to compare similarities and differences in the events, actions, and processes that make up case studies' analysis units (Khan & VanWynsberghe, 2008). Therefore, the knowledge from cases can be put into service for broader purposes and I will be able to directly answer my research question and test hypotheses.

4. Analysis and Findings

4.1. The number of intermediaries in a country as a factor of country's better performance.

Overviewing climate-related financial flows into Kazakhstan and Ukraine during a particular period (2013-2015), about USD 346.7 million was committed to Kazakhstan, whereas Nearly USD 860 million per year of climate-related development finance was committed to Ukraine (OECD, 2016). It can be clearly seen that the number for Ukraine is twice more in comparison with Kazakhstan. In terms of the number of initiatives supported, 66 were supported in 2013 and 85 in 2014. The clear information for the number of projects implemented or implementing in Kazakhstan is difficult to obtain. I assume that this may be

the indicator for the state's general attitude towards its climate policies. Hence, Ukraine's attitude towards its climate policies is more serious than Kazakhstan's. To test that I will refer to the treatment of climate change and environmental policies in two states over the 2000-2014 and 2014-2021 time periods.

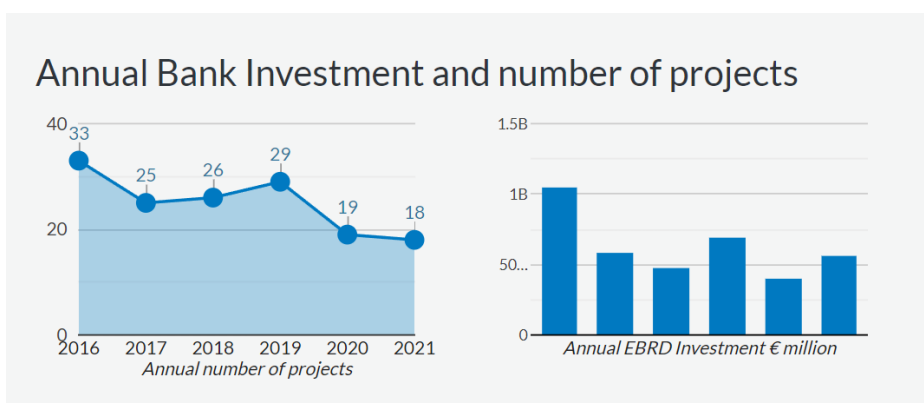
In Kazakhstan it can be said that environmental policies were mostly on one flow and did not experience dramatic changes in their directions. The research of Poberezhskaya & Bychkova (2021) on Kazakhstan's climate change policy conclude that climate change is underrepresented in the official discourse of the state. Even though the discussed policies have a direct impact on the country's GHG emissions, there are frequently no obvious links to climate change. Kazakhstan has been a part of the global climate change policy framework since 1995 (Ministry of Energy of the Republic of Kazakhstan, 2017); nevertheless, national commitments have been slow. However, in recent years state officials are eager to promote sustainable development to attract international investment and improve its image as a "strong state" for local audiences and a progressive and trustworthy partner for international audiences. This complicates the intention with the fact that Kazakhstan's economy heavily relies on fossil fuels. Authors explain such an inconsistent approach of Kazakhstan's climate change policy through the postcolonial theory. As such Central Asian states' post-coloniality is an important aspect of their continuance today. Kazakhstan's environmental decision-making and public responses to issues of land protection, conservation, and natural resources are still shaped by the discourses of the former Soviet Union. The technocratic approach to environmental preservation that still exists in Kazakhstan reflects the Soviet past, and the notion of prioritizing the economy over the environment is deeply established in the state's policies. There is no clear evidence that this is the factor heavily influencing the activity of climate intermediaries, but indeed will define their efficiency. So here according to each time period (2000-2021) it can be said that Kazakhstan is acting the same on its environmental policies with a slight annual development that is proportional to the overall global shoutout on the climate change issue.

On the other hand, Ukraine's attitude is different with the years before being the beginning of Ukraine's active response to its environmental policies. According to Copsy & Shapovalova (2008) in their report of Ukraine's Environmental Policy in 2008 Ukraine has substantial environmental legislation, but low enforcement in the form of too many priorities - too few finances, and an under-reformed environmental management system: state-centered, centralized, and nondemocratic. However, in comparison with Kazakhstan Ukraine still was

more involved in its environmental policies. For instance, Ukraine ratified the Kyoto protocol in 2004, while Kazakhstan did so only 5 years later in 2009.

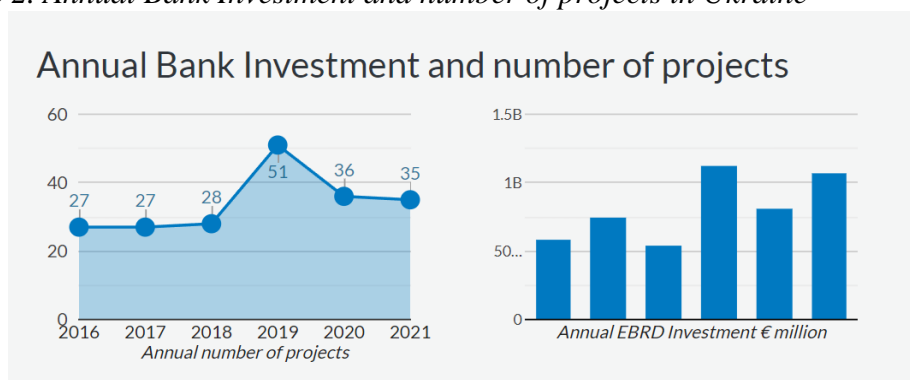
Another aspect is the activity of the European Bank for Reconstruction and Development (EBRD). Both states became members in 1992 but data of bank’s activity substantially vary. The number of projects implemented or in the process of implementation in Kazakhstan equals 296 projects, while in Ukraine this number is 510.

Figure 1. Annual Bank Investment and number of projects in Kazakhstan



Source: <https://www.ebrd.com/kazakhstan-data.html>, retrieved on 15 March 2022

Figure 2. Annual Bank Investment and number of projects in Ukraine



Source: <https://www.ebrd.com/where-we-are/ukraine/data.html>, retrieved on 15 March 2022

From figures 1 and 2 the number of projects and amount of investments of the Bank in Kazakhstan was shrinking each year. Both peaked in 2016, but somehow the trend has not maintained its consistency. Whereas in Ukraine the development may be not stable, but at least

it does not decrease to the lowest rate. Therefore, the cumulative investment of EBRD in Kazakhstan is €9,145 million, while in Ukraine it is €16,497 million.

Therefore, it can be concluded that the EBRD is more active in Ukraine than in Kazakhstan due to each's prioritization of climate change policies. In addition, the geographical factor may also influence a closer or distant partnership with the intermediary. For instance, the postcolonial theory was mostly applied by scholars to Central Asian countries. Basic parameters of Central Asian geopolitics and the effects of Eurasianism on Central Asian countries can be mentioned as well (Nezihoglu, 2021; Nezihoglu & Sayin, 2013). Ukraine, on the other hand, is much closer to the European region and gets influenced considerably. However, the recent political changes in Ukraine in the last two decades indeed contributed to the integration process between Europe and Ukraine. As I mentioned before, the period of 2000-2014 was when Ukraine only started to get involved into the fight against climate change. Significant changes, of course, happened after the 2014, when annexation of Crimea tangibly shifted its interests away from post-Soviet space and Russia. Since then, the European Union has a strong presence in Ukraine as well as EU's intermediaries. But the shift was not sudden. Orange Revolution was the real beginning of Ukraine's pivot to Europe and the start of active intermediary performance. While Ukraine was experiencing such changes Kazakhstan did not see any sharp reforms in its social and political life. Thus, Kazakhstan kept its usual enforcement of climate change policies and intermediaries were not actively involved.

4.2. Partnership with the large climate financing intermediaries

The year of 2014 and changing relations with Russia was a turning point that brought considerable and substantial changes in the Ukraine's climate change mitigation process. The year of 2014 is not only about annexation of Crimea, but also about the destabilization of political and social life in Donetsk and Luhansk regions. The Donbass region is highly industrialized – hundreds of collieries, metallurgical facilities, mines, and chemically risky enterprises may be found there (Kotarska & Young, 2022). Since the conflict, 70 of the 94 mines in the Donbass region ended up in separatist-controlled areas and Donetsk Coal Basin, that includes Donetsk, Luhansk and Dnipropetrovsk regions and where the most of Ukraine's coal can be found. In 2013 the Ukrainian government planned to switch fully to coal supply, replacing natural gas used in the steel industries. But with the war Ukraine is now switching to a renewable energy source not only of limited mines accessibility, but also to become fully independent from Russia and cut ties with it as much as possible. Ukraine has a lot of renewable

energy potential, as large biomass resources and waste management options that are virtually unexplored (IEA, 2020). Therefore, at COP26 (climate change summit, Scotland, 2020) Ukraine announced to phase out coal by 2035 (Gumbau, 2021). Such a policy development in Ukraine brought EBRD forward to a strong cooperation with Ukraine. 45% of the bank's financing is aimed to support sustainability and energy efficiency (Rosca, 2022). As such, Ukraine's "green" development goes along with the EBRD desire to become a majority green bank by 2025. Eventually, the EBRD's efforts to enhance Ukraine's economic sustainability were bolstered by the country's recently revised Nationally Determined Contribution (to the Paris Agreement). The EBRD assisted in the development of the policy paper and is ready to assist Ukraine in establishing a low-carbon, climate-resilient power generation sector.

Hence, the peculiarity of the increasing effectiveness of Ukrainian climate financing intermediaries lies in the political developments rather than economic. The war on Donbass triggered Ukraine to search for other options of energy resources and now they are active in developing its renewable energy sector, which also increases its sustainability. And the biggest contributor for that was the EBRD.

In Kazakhstan, 70% of the renewable energy financing comes from international development Banks, where half of it bear EBRD. This data was presented by PricewaterhouseCoopers, and it states that in a period of the last seven years the amount the investments of intermediaries are equal to \$1 billion, whereas Ukraine's indicators equal to over \$3,7 billion only in 2019 alone (IEA, 2020). Renewable energy accounts for 0,6% of all energy installations in Kazakhstan, whereas in Ukraine, it is 5 % as for 2020. So why are there no large intermediaries in Kazakhstan? According to Ainur Sospanova, chair of the Association of Solar Energy of Kazakhstan, investing in Kazakhstan is not as efficient as in Uzbekistan for instance (Kumenov, 2021). Another issue relates to the devaluation of tenge in 2014 and the foreign exchange turbulence. Thirdly, Kazakhstani commercial banks are not too interested in exposing themselves to a developing sector as renewable energy.

Therefore, as stated in my second hypothesis, active partnership with the large institutions that support green financing globally significantly increases the effectiveness of the Climate Financing Intermediaries. As it can be seen from the example of EBRD, Ukraine's active partnership with the bank results in more valuable results than in Kazakhstan.

Multilateral channels provide for a major portion of climate-related development finance in Kazakhstan (USD 311 million per year), with the EBRD and the EIB being the most prominent. The EBRD (USD 309 million per year), IBRD (USD 165 million per year), and EIB (USD 150 million per year) have committed the most climate-related development finance to Ukraine among MDBs. I aim to compare activities of the biggest climate financing contributors in both states to identify the differences first, and if the amount of the intermediaries in the state defines the overall efficiency of fighting climate change.

In Ukraine the industry, mining, construction, trade policy, and tourist sectors all got significant funding, with the EBRD supporting 95% of the projects. Annually the bank is spending about USD 309 million. Whereas for Kazakhstan, the sum of the investments of all intermediaries all together is about USD 311 million.

In Kazakhstan, the EBRD, CIF, and GEF have provided funding to support efforts to reduce energy consumption — and emissions — through more efficient technologies and processes, as well as the expansion of renewable energy developed with private sector participation through the Kazakh Renewable Energy Finance Facility. In Nur-Sultan and Karaganda, district heating projects include the rationalization of heat tariffs, the deployment of meters, energy-efficient lighting, energy labeling, and support for energy efficiency upgrades in buildings (World Bank, 2020). The same institutions in Ukraine have all supported energy efficiency projects for district heating systems and the residential sector, which are among the government's priorities (World Bank, 2014). Individual heat substations in buildings, building-level heat meters, and reducing losses in district heating distribution networks are among the measures implemented. The IFC also assists financial institutions in catalyzing more loans for residential energy efficiency equipment installation.

Hence, we can say that generally intermediaries in both states are functioning the same way. At least the way the wording of the reports allows us to conclude that this information about both states may be generalized. They invest in municipal sectors, renewables, energy efficient technology, and resource efficiency to support a move to more environmentally friendly energy supply systems. To establish a good regulatory framework for sustainable resource use, they combine investments with policy discourse. All of them launch projects, assist financially, and even act as a co-financer in each other's projects. In addition, for both countries the energy industry received the highest amount of funding as Kazakhstan's and Ukraine's energy sector is one of the most energy intensive in the world (OECD, 2016).

Therefore, we now can see that the number isn't an indicator of better performance. Regardless of the equal number Ukraine's intermediaries still had a better result. Therefore, it's not about amount of intermediaries located, rather than the amount of projects they implement. The second factor is how much is being invested in the country. And not to forget to mention when did an institution started activity. I already mentioned statistics on EBRD, here is the EIB. Since the first EIB loan signed and until the end-December 2018, the EIB has invested a total of EUR 967 million in the Central Asian region. In Kazakhstan, the EIB began operations in 2013. Whereas only in Ukraine, starting from 2007 EIB implemented 57 projects and invested EUR 8,09 billion. Thus, the second hypothesis is rejected, as more intermediaries does not mean more efficiency.

However, the committed amount of finance to mitigation in Ukraine is 2.5 times larger than the EECCA average (OECD, 2014). Considering an example of EBRD, it launched a policy discussion project in the power and energy sector, which resulted in substantial progress in promoting reforms in one of Ukraine's most complicated, politicized, and corrupt sectors. It took place in the period between 1999 and 2006, when significant progress was made in establishing an institutional arrangement that enabled donor coordination and established an effective communication channel between the Ukrainian government, international financial institutions (IFIs), and donors. Therefore, Ukraine is obviously much integrated with the EBRD in comparison with Kazakhstan, which can be seen from the EBRD's intentions to assist Ukraine, and the way Ukraine accepts this help. In the report for the year 2014 EBRD mentions that power and energy policy is an area where development has generally been slow, with substantial reforms taking five to ten years to implement. The EBRD's opportunistic partner strategy worked well in the late 1990s and early 2000s, and it now has the chance to repeat that performance in the present Ukrainian situation. And today, the situation in Ukraine's energy sector and in general towards its environmental conditions has gotten better, as now Ukraine was confident enough to launch the policy of decreasing its greenhouse gas emissions to 65% until 2030, whereas Kazakhstan's aim until that year is only 10% (Lo, 2021; CAT, 2020). In addition, the opportunity to reach the European commodities market is one of Ukraine's most appealing benefits in the greening of all fields of the economy (Sokolova et. al., 2019). Environmentally friendly suppliers of goods from other nations are required by European trade legislation to deliver high-quality products exported from environmentally clean places.

Independent consultants and specialists from European Union countries are eager to receive and verify accurate and transparent information regarding Ukraine's current environmental situation, so that they can ensure a long-term commercial relationship between the country and the Union. Because Ukraine wants to develop and reposition its exports, it must adhere to the existing conditions on the European market, which are the foundation of the partnership. Therefore, there should be mutual interest between the state and intermediary for the latter to act effectively, as the intermediary itself cannot do much without governmental cooperation.

5. Conclusion

Two countries were chosen for this case study research – Kazakhstan and Ukraine. The justification of choosing these cases is based on the most similar method of conducting case study. However, regardless of similarities Ukraine and Kazakhstan deal differently with climate change. Taking this into account, these two states are a good fit for the exploration of the performance of the financing intermediaries.

Climate financing intermediaries can be of a different kind. In my work I focused mostly on “traditional” intermediaries, which are multilateral development banks. The special regard was posed to the European Investment Bank (EIB).

It can be concluded that number of intermediaries does not play a role in country's better performance. This is showed by performance of the same intermediaries in two countries. The other aspect that explains Ukraine's success is its close partnership with large European climate financing intermediaries. Ukraine's new political direction and war in its eastern parts catalyzed the process of integration with Europe, as well as with its intermediaries. Thus, it resulted in a better performance of Ukrainian intermediaries over Kazakhstani ones and placed it in top 20 of CCPI list.

To sum up it can be said that it is not about the quantity, but rather the readiness of a state to cooperate at a maximum with the intermediary. Therefore, Kazakhstan should be more open for cooperation with large intermediaries to better its position, and the starting point for that should be the prioritization of its environmental policy.

But it should be mentioned that the better CCPI performance and large contribution from intermediaries does not mean that the situation will improve immediately. The conflict in Ukraine still brings many problems to the local nature. Nevertheless, there is still room for further research. As the year 2022 started with the invasion of Russian Federation to Ukraine, the Russian-Ukraine war may fasten the fight against climate change, as European states due to sanctions will try to switch to renewable energy as much as possible instead of using Russian fossil fuels. I already mentioned that since 2014 becoming free from Russia is of a high importance for Ukraine, that is why they engage with more intermediaries. But being free of trading with Russia, other issues will also be of a high concern. Many experts predict that the nuclear security, and the battlefield consequences pose a tremendous threat to the Ukrainian environment, which is why I suppose more intermediaries will be needed in Ukraine after the finish of the “special operation”.

REFERENCES

- Boston, J., & Lempp, F. (2011). “Climate change”: Explaining and solving the mismatch between scientific urgency and political inertia. *Accounting, Auditing & Accountability Journal*, 24(8), 1000 – 1021.
- Boute, A. (2020). Regulatory stability and renewable energy investment: The case of Kazakhstan. *Renewable and Sustainable Energy Reviews*, 121, 109673.
- Buchner, B., Falconer, A., Hervé-Mignucci, M., Trabacchi, C., & Brinkman, M. (2011). The landscape of climate finance. *Climate Policy Initiative, Venice*, 27.
- Burck, J., Hagen, U., Bals, C., Höhne, N., Nascimento, L., Essop, T., Binz, S., Helling, V., & Lucas, B. (2020). Climate change performance index 2021. *Bonn: Germanwatch, NewClimate Institute and Climate Action Network*.
- Burck, J., Unlich, T., Bals, C., Höhne, N., Nascimento, L., Tamblyn, A., Reuther, J. (2021). Climate Change Performance Index 2022. *Bonn: Germanwatch, NewClimate Institute and Climate Action Network*.
- Cavazos, T. (2011). Challenges of Mexico to face climate change. *Experimental and Theoretical Advances in Fluid Dynamics*, 149-160.
- Chaudhury, A. (2020). Role of Intermediaries in Shaping Climate Finance in Developing Countries—Lessons from the Green Climate Fund. *Sustainability*, 12(14), 5507.

- Choi, E. (2021). Achieving Speed and Scale in Climate Finance: the Platforms as Meta-intermediaries (Working paper). *Stanford University on Sustainable Finance Initiative*. <https://energy.stanford.edu/sustainable-finance-initiative/publications/working-paper-achieving-speed-and-scale-climate-finance-platforms-meta-intermediaries>
- Claringbould, D., Koch, M., & Owen, P. (2019). Sustainable finance: The European Union's approach to increasing sustainable investments and growth—opportunities and challenges. *Vierteljahrshefte zur Wirtschaftsforschung*, 88(2), 11-27.
- Climate Action Tracker. (2020). Country summary – Kazakhstan. <https://climateactiontracker.org/countries/kazakhstan/>
- Copsey, N., & Shapovalova, N. (2008). Ukrainian Environment Policy and Future SIDA Assistance in the Sector.
- Deere-Birkbeck, C. (2009). Climate change: the challenges of increasingly complex risk parameters. *International Affairs*, 85(6), 1173–1194.
- Deng-Beck, C., & Price, L. (2016). Gap Analysis Report: Closing the Gap between Finance and Urban Climate Action. *EIT Climate-KIC*.
- Dul, J., & Hak, T. (2007). Case study methodology in business research. *Routledge*.
- Durrani, A., Rosmin, M., & Volz, U. (2020). The role of central banks in scaling up sustainable finance—what do monetary authorities in the Asia-Pacific region think? *Journal of Sustainable Finance & Investment*, 10(2), 92–112.
- European Bank for Reconstruction and Development. (2018). *Ukraine Country strategy 2018-2023*. <https://euneighbourseast.eu/news-and-stories/publications/ebd-ukraine-country-strategy-2018-2023/>
- Gumbau, A. (2021). The promise of Ukraine's unprecedented coal phase-out. *Energy Monitor*. <https://www.energymonitor.ai/policy/the-promise-of-ukraines-unprecedented-coal-phase-out>
- Hufbauer, G.C., & Kim, J. (2010). Reaching a global agreement on climate change: what are the obstacles? *Asian Economic Policy Review*, 5, 39–58
- International Energy Agency. (2020). Ukraine energy profile. *IEA*. <https://www.iea.org/reports/ukraine-energy-profile>
- Karhinen, S., Peltomaa, J., Riekkinen, V., & Saikku, L. (2021). Impact of a climate network: The role of intermediaries in local level climate action. *Global Environmental Change*, 67, 102225.

- Kalkabayeva, G., Rakhmetova, A., & Assanova, M. (2021). Financing of eco-innovations: Sources and trends in Kazakhstan. *International Journal of Energy Economics and Policy*, 11(1), 173-179.
- Khan, S., & VanWynsberghe, R. (2008). Cultivating the under-mined: Cross-case analysis as knowledge mobilization. *Qualitative Social Research Forum*, 9 (1). *Institut für Qualitative Forschung*.
- Kotarska, G., & Young, L. (2022). Green Insecurity: The Environmental Costs of War in Ukraine. *The Royal United Services Institute*. <https://rusi.org/explore-our-research/publications/commentary/green-insecurity-environmental-costs-war-ukraine>
- Kozlova, M., & Varavin, Y. (2020). Applicability of "Green" Financing Instruments in Kazakhstan While Forming "Green" Clusters at the Regional Level. *Economic and Social Development: Book of Proceedings*, 351-359.
- Kumenov, A. (2021). Kazakhstan's renewables agenda hindered by old technology. *Eurasianet*. <https://eurasianet.org/kazakhstans-renewables-agenda-hindered-by-old-technology>
- Lo, J. (2021). Ukraine aims to grow economy without increasing carbon emissions. *Climate Home News*. <https://climatechangenews.com/2021/08/10/ukraine-aims-grow-economy-without-increasing-carbon-emissions/#:~:text=Ukraine%20plans%20to%20reduce%20its,below%201990%20levels%20in%202030.>
- Meredith, J. (1998). Building operations management theory through case and field research. *Journal of operations management*, 16(4), 441-454.
- Nezihoglu, H. (2021). The Historical and Geopolitical Context of Turkey - Central Asia Relations. *Emerging Central Asia: Managing Great Power Relations*, K.H. Khan and H. Koch (Eds.), Blue Dome Press, the USA, 107-132.
- Nezihoglu, H., & Sayin, F.M. (2013). Two Options Among Numerous Directions: Eurasianism on Moscow's Terms or Regional Integration between Sovereign Neighbors in Central Asia. *Journal of International Social Research*, 6(26), 375-382.
- OECD. (2016). Financing Climate Action in Kazakhstan, Country Study. https://www.oecd.org/environment/outreach/Kazakhstan_Financing_Climate_Action_Nov2016.pdf
- OECD. (2016). Financing Climate Action in Ukraine, Country Study. https://www.oecd.org/environment/outreach/Ukraine_Financing_Climate_Action_Nov2016.pdf

- Peskett, L., Grist, N., Hedger, M., Lennartz-Walker, T., & Scholz, I. (2009). Climate change challenges for EU development co-operation: emerging issues. *Working Paper, 3*, 1-19.
- Poberezhskaya, M., & Bychkova, A. (2021). Kazakhstan's climate change policy: reflecting national strength, green economy aspirations and international agenda. *Post-Communist Economies*, 1-22.
- Shiraev, E., & Zubok, V. M. (2015). *International relations*. Oxford University Press.
- Soanes, M., Rai, N., Steele, P., Shakya, C., & MacGregor, J. (2017). Delivering real change: getting international climate finance to the local level. *International Institute for Environment and Development*.
- Sokolova, T., Sushchenko, O., & Schwarze, R. (2019). Roadmap for a Green Financial Policy in Ukraine under the EU Association Agreement. *UFZ Discussion Paper, 6*.
- Soloviy, V. I. (2017). Climate finance in the context of the Paris Agreement: opportunities and cautions for Ukraine. *Naukovij visnik NLTU Ukraini*, 27(2).
- United Nation. (2021). What Is Climate Change? <https://www.un.org/en/climatechange/what-is-climate-change#:~:text=Climate%20change%20refers%20to%20long,like%20coal%2C%20oil%20and%20gas>.
- United Nation. (2021). Financing Climate Action. <https://www.un.org/en/climatechange/raising-ambition/climate-finance>
- Venugopal, S., & Srivastava, A. (2012). Moving the Fulcrum: A primer on public climate financing instruments used to leverage private capital (Working paper). *World Resources Institute*. <https://www.wri.org/research/moving-fulcrum>
- Workman, D. (2020). Wheat Exports by Country. *World's Top Exports*. Retrieved from <https://www.worldstopexports.com/wheat-exports-country/>
- World Bank. (2014). International bank for reconstruction and development project appraisal document on a proposed loan in the amount of us\$332 million and a proposed clean technology fund loan in the amount of us\$50 million to ukraine for district heating energy efficiency project. <https://documents1.worldbank.org/curated/en/473501468317048683/pdf/PAD7970REVISED0PUBLIC00R20140009301.pdf>
- World Bank. (2020). Financing Climate Actions in Central Asia. <https://zoinet.org/wp-content/uploads/2020/10/CA-climate-finance-en.pdf>

- Yevsuykov, O. P., Shvydka, T. I., Streltsov, V. Y., Akhmedova, O. O., Stankevych, S. V., & Cheprasov, K. V. (2021). Financing environmental protection projects in Ukraine. *Ukrainian Journal of Ecology*, 11(1), 186-190.
- Yin, R. K. (2018). Case Study Research and Applications: Design and Methods (6th ed.). *Thousand Oaks, CA: Sage*.
- Zhagyparova, A. O., & Sembiyeva, L. M. (2019). AIFC in the development of mechanisms of green financing for the modernization of the Kazakhstan economy. *Nauchnyj zhurnal «Vestnik NAN RK»*, 5, 191–198.