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Maintaining Environmental Sustainability through Public Financing. Insights from Kazakhstan

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Abstract:

The effectiveness of the distribution of financial resources that affect environmental sustainability through public financing has recently become of particular relevance. The availability of credit financing for business remains one of the most significant factors affecting the business environment, the development of entrepreneurship and the economy as a whole. The government is taking steps to reduce risks, including environmental risks, and to ensure that property rights are protected from the consequences of adverse events by promoting public-private partnerships, which have proven to be a successful way for businesses and the state to interact in Kazakhstan.

Keywords: sustainability; environment; public finance; public-private partnership.

JEL Classification: Q56; Q57; R11.

Introduction

In the perspective of sustainable development, the priority direction of structural policy should be to ensure the normal functioning of the financial system and its sectors. These kinds of approaches allow the creation of actively developing programs for financing and subsidizing activities and operations for the sustainable

development of enterprises, Maintaining Environmental Sustainability, increasing the competitiveness but minimizing the risks and opening up new financial opportunities.

Subsidizing interest rates and guaranteeing loans under DKB2025 contributes to the improvement of the company's financial performance, which is especially important in present context. In turn, improving the activities of enterprises provides an increase in budget revenues, increases the budgetary effect of the program and its economic adequacy. In new conditions, the priority in Kazakhstan is the development and financial support of sustainable development of all sectors of the economy.

Public-private partnerships (PPPs) are considered an effective solution to the lack of public financing (Zhai, Ding and Ding 2021), public sector skills and expertise in infrastructure development and risk sharing and are widely used in infrastructure projects around the world (Wang and Ma 2021).

In latest decades, PPPs have remained the dominant model in the global infrastructure market Annual Report 2021, Strasser *et al.* 2021). According to the World Bank, PPPs are used to develop public infrastructure and procure public services in at least 135 countries and regions of the world. Moreover, a huge global market for PPPs has developed, supporting global infrastructure development that is essential for sustainable development in less developed countries.

Moreover, PPPs are widely used in sectors such as transportation, water treatment, energy, environment, and health (Wang *et al.* 2018), as well as in advanced industries such as artificial intelligence and green manufacturing, and are seen as a tool to enhance economic, social, and environmental sustainability. PPPs are usually seen as an additional tool to enhance economic activity. However, such partnerships are particularly important in the current era of the Industrial Revolution 4.0 (the emergence of NBIC technologies). As a result, the most promising sectors of the economy will revive and offer new opportunities for sustainable and competitive growth (Ma *et al.* 2022). Thus, the efficient use of resources is one of the most urgent tasks of our time if the state wants to fully perform its functions.

1.1. Literature Review

The issue of evaluation and selection of investment projects for the development of local communities taking into account the concept of sustainable development is considered in a number of studies. In recent years, global attention to the impact of business on the environment has been steadily increasing. Large companies have begun to communicate their commitment to the SDGs, but, in the author's opinion, the tools to measure their efforts are not yet well developed, which makes it difficult to analyze the attractiveness of new business models based on sustainable development principles (Mishenina and Dvorak 2022). An indicator reflecting the development of environmentally friendly business is the percentage of the total amount of investment in fixed capital for environmental protection and rational use of natural resources, financed from the company's own funds.

Public-private partnerships (PPPs) can be effective if they are carefully designed and managed to avoid unnecessary financial risks. However, the reasons for the fiscal risks that arise in all infrastructure projects and have special characteristics that need to be considered in PPPs remain not fully understood. PPP contracts can be poorly designed, especially when governments enter PPP contracts for projects that are financially unsustainable. They are also subject to implicit fiscal risks.

The effectiveness of an organization's capital budgeting process and related financial analysis techniques ultimately depends on how they affect the allocation of scarce resources among competing investment proposals (Toloo *et al.* 2018). Building system analysis for capital budgeting has been studied by a number of scholars, including Bennouna *et al.* (2020), Hall and Millard (2021), Andrés *et al.* (2020), and Souza and Lunkes (2021).

Kikul and Lunkes (2021) conducted a comparative analysis of entrepreneurship development and found that one of the weaknesses of entrepreneurship development in European countries is the financial support of activities, lack of equity and difficulty in obtaining bank loans, and lack of investment resources, which can lead to an increase in environmental projects and reduce the technological burden on the environment.

Given the experience of many countries, the implementation of various government programs to support national infrastructure and innovative development has had a beneficial effect on the development of entrepreneurship. Today, the availability of financing of SME innovation activities through business loans remains one of the most influential factors in the business environment, the development of entrepreneurship and the economy as a whole.

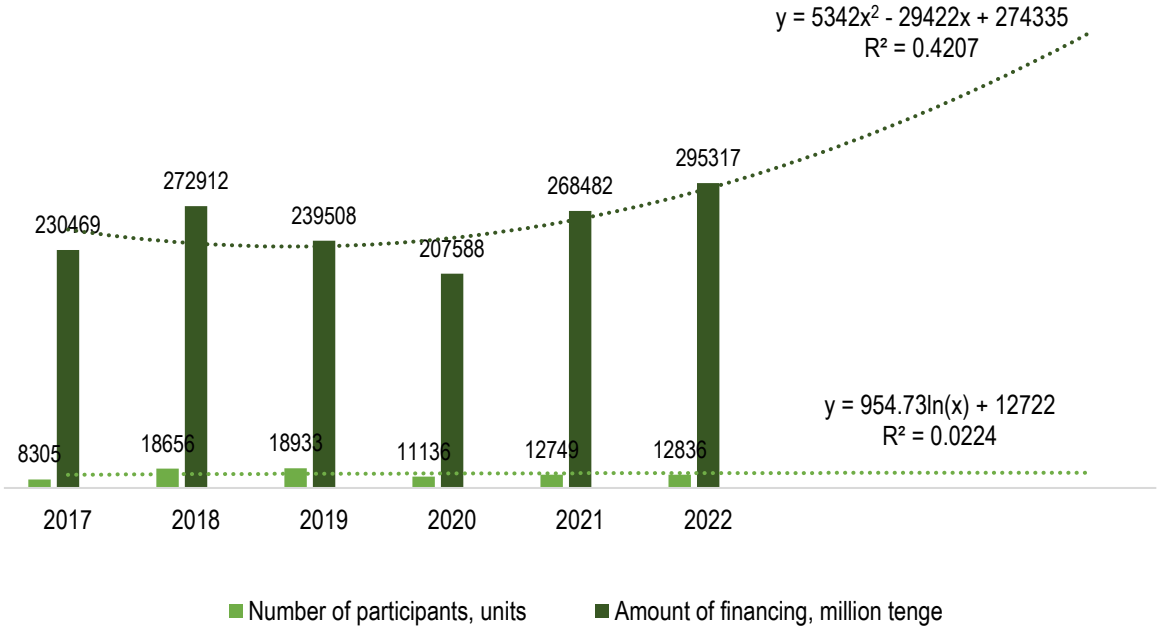
The focus on sustainable development is relentlessly supported by the publications of international researchers, such as Karman (2019) and Strezov, Evans and Evans (2017), who outline the problems and offer solutions to justify the concept of sustainable development as an alternative to the concept of economic growth.

1.2. Framework and Research Methodology

According to the forecast data of the fund for enterprises and entrepreneurs participating in the "Business Roadmap 2025", the volume of output as of 1st of January 2021 amounted to 29.1 trillion tenge, including 3.7 trillion tenge for 2020. Damu Fund constantly works with international development institutions and raises funds for the Kazakhstan financial market in order to support SMEs through the provision of soft loans. In total, from the EBRD, ADB, UNDP for five years 952 million dollars in tenge equivalent.

The SME support system in Kazakhstan includes a wide range of organizations and instruments. Damu Fund is part of this system and its main function is to provide financial support to SMEs. The government set the task of bringing the share of the contribution of SMEs to the country's GDP by 2025 to 35%. Through joint efforts, state bodies and development institutions have ensured that, by the end of 2021, almost a third of the contribution (31.6%), to the country's GDP was made by SMEs. This is evidenced by the data on the results of the implementation of financial programs (Figure 1).

Figure 1. Results of the implementation of financial programs in Kazakhstan, 017-2022

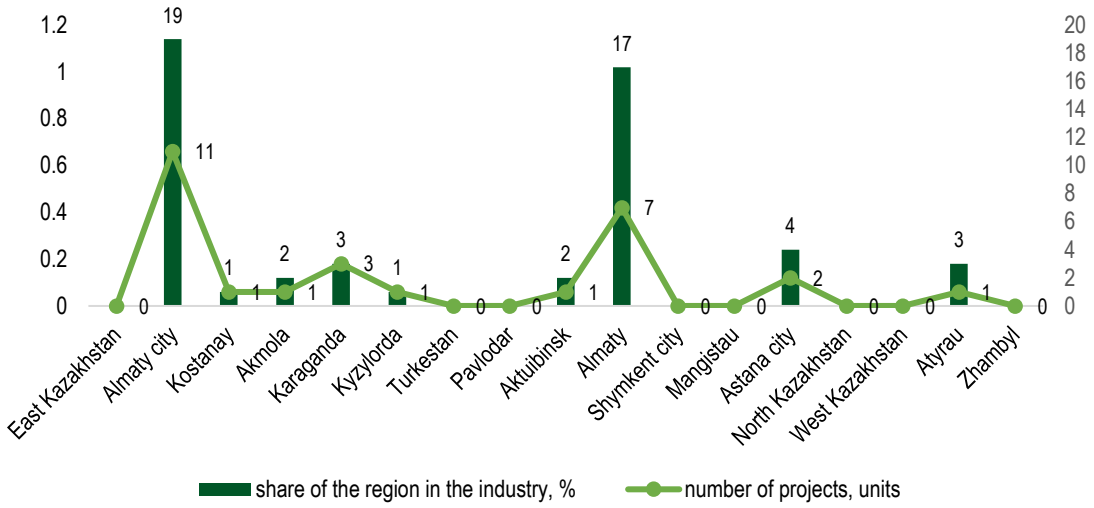


Note: Data for 2022 are included for 9 months
Source: compiled by authors according to https://damu.kz/

For example, in Germany, the United States and Japan, this percentage exceeds 50%, and the Kazakh government is working to get closer to these figures. Diversification of SME financing mechanisms and the use of alternative financial instruments can contribute to financial stability, protect investor rights and stimulate investment activity by allowing risk-sharing between investors and the banking sector, combined with an appropriate legal framework. Among the highest priority sectors for projects aimed at reducing the negative impact on the environment, preserving forests and natural ecosystems, reducing and offsetting greenhouse gas emissions is industry, which depends on the efficiency of investment, especially in agriculture.

Investments in the greening of agricultural production are strategically important in the long term to preserve the stock of agricultural land and ensure food security. In this regard, public-private partnerships (PPP) are promising tools to stimulate environmental measures (Figure 2).

Figure 2. Regional PPP profile by industry and area of activity, Kazakhstan



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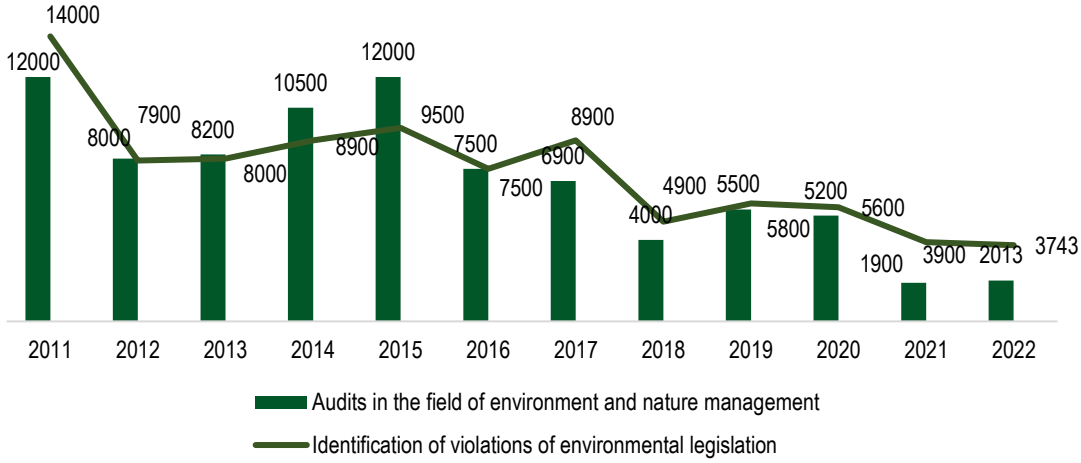
Recently, due to the changes in the globalization process worldwide, the scientific literature has recognized important studies on the impact of the environment on entrepreneurship, considering the focus such as support programs, financing, labor market, and market development and dynamics (Guerrero *et al.* 2021).

Over the past three decades, the literature has noted a significant impact of environmental conditions on entrepreneurship and economic growth (Urbano *et al.* 2019). Especially in the last 5 years, academics and public figures have focused on creating a thriving entrepreneurial ecosystem (Autio *et al.* 2021, Acs, Stam, Audretsch and O'Connor 2017). In this regard, environmental audits have been conducted for quite some time based on the environmental law factors presented in Figure 3.

Figure 3. Environmental audits, 2011-2022



Source: compiled by authors according to www.https://unece.org/

Thus, the current climatic conditions in a country reflect negative changes in the environment, changes which have a negative impact on the living conditions of its population, health, business, industry structures, *etc*. It is extremely uncertain how projected climate change will manifest itself in the future and how it will affect ecosystems, economic activities and social processes in each country and region. Therefore, we can assume that both positive and negative effects are possible, depending on the level of development of the region and climatic conditions. Unfortunately, the accuracy of modern climate forecasts is low. No model can simulate the climate perfectly. At the same time, consumers often use forecast information incompletely and sometimes incorrectly, which significantly reduces the efficiency of decision-making. Therefore, the authors focused on studying the influence of environmental factors on the scale of financing and budget allocation within the framework of national

programs for the development of economic sectors, for example, paying special attention to public-private partnership mechanisms.

3. Public-Private Partnership as a Tool for Stimulating and Financing Environmental Management

The development of the financial system of the Republic of Kazakhstan is sustainable, however, due to the presence of a number of key problems, many of them are of a protracted nature, which is confirmed by cross-country assessments of leading international organizations. In this regard, the state has made an attempt to actively develop public-private partnership, which aims to form and strengthen long-term relations between the state and the private sector by combining financial and other resources to improve the level of availability and quality of public goods and services, where the main reference points are: the involvement of the private sector in the management of public assets, reducing the burden on budget; attracting additional investment; spread of public interaction models.

For successful functioning of PPPs and development of enterprises on their basis, employees with appropriate specialties and qualifications are required. The regional profile of PPPs by industry and field of activity as of 2022 is shown in Table 1.

Table 1. PPP regional profile by industry and area of activity

Regions	Housing and communal services	Health care	Agriculture forestry, fisheries	Transport and communication	Education	Other industries	Total Jan, 2021	Total Sept, 2022
East Kazakhstan	3/1	5/2	-	6/3	205/92	2/1	223/100	15
Almaty city	2/3	3/5	11/19	7/12	31/53	-	59/100	50
Kostanay	8/13	17/28	1/1	-	26/43	3/5	61/100	18
Akmola	6/11	4/8	1/2	2/4	40/75	-	53/100	5
Karaganda	6/6	51/49	3/3	4/4	24/23	2/2	104/100	12
Kyzylorda	18/16	40/35	1/1	7/6	11/9	4/3	115/100	6
Turkestan	20/14	31/21	-	1/1	66/46	17/12	143/100	6
Pavlodar	13/19	23/33	-	1/1	15/21	12/17	70/100	23
Aktuibinsk	3/7	20/44	1/2	5/11	7/15	2/4	46/100	13
Almaty	10/24	5/12	7/17	3/7	5/12	4/9	42/100	50
Shymkent city	18/58	5/16	-	1/3	2/7	1/3	31/100	74
Mangistau	3/12	4/16	-	1/4	13/52	3/12	25/100	17
Astana city	1/2	8/17	2/4	9/20	20/43	3/7	46/100	13
North Kazakhstan	2/4	8/14	-	2/4	38/69	½	55/100	41
West Kazakhstan	1/8	5/38	-	1/8	3/23	2/15	13/100	-
Atyrau	6/17	5/14	1/3	1/3	21/58	-	36/100	47
Zhambyl	1/1	31/27	-	-	78/69	-	113/100	46
Total	121/10	265/21	28/2	51/4	605/49	56/5	1.235/100	436

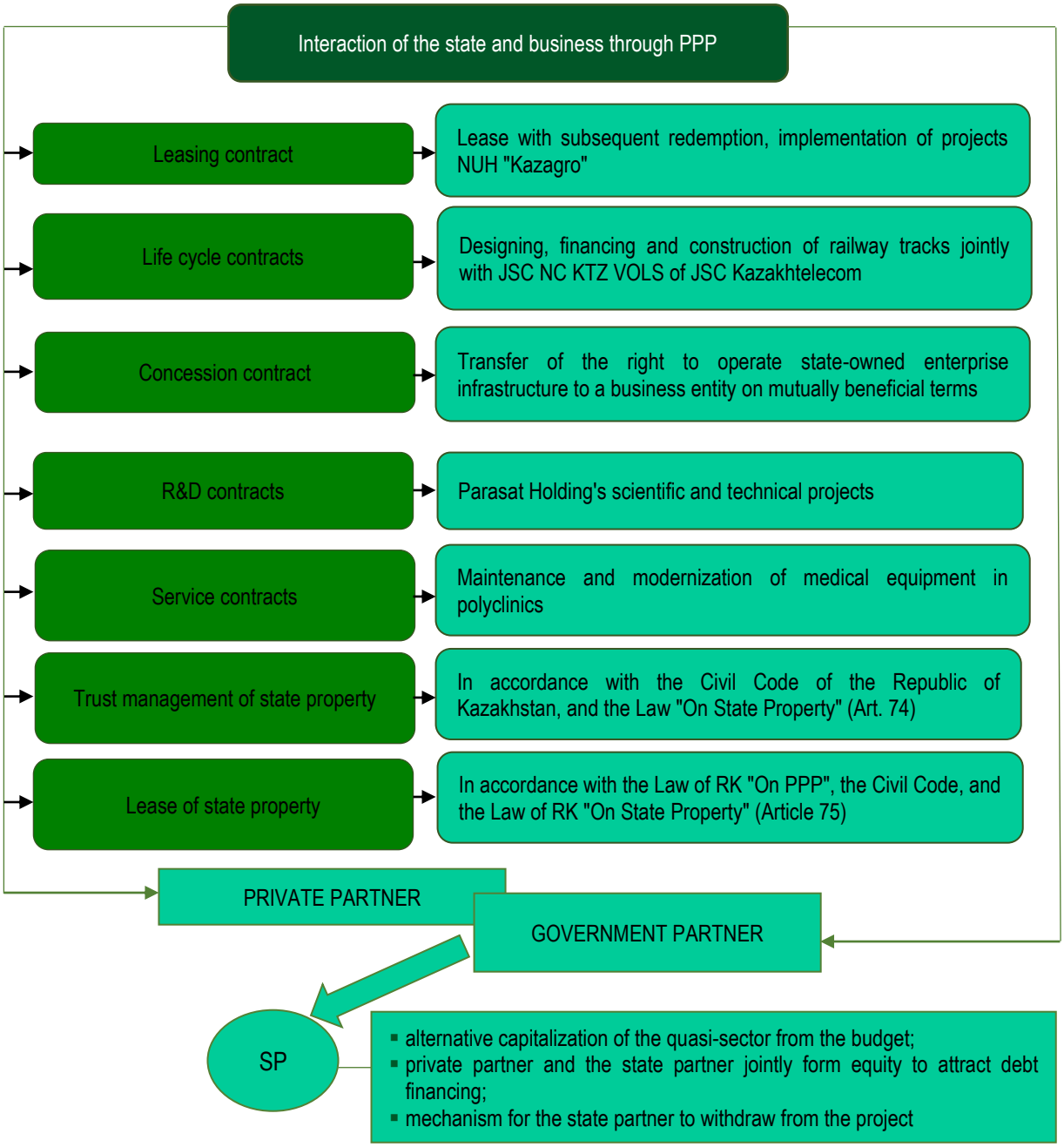
Note: Numerator is the number of projects and denominator, the share of the region in a particular industry in %

As of 10th of January 2023, there are 34 PPP projects at different stages of implementation in region, including:

- agreements on 22 projects have been concluded. The total amount of state obligations paid from the local budget under the contracts is 3.5 billion tenge;
- 5 projects in the field of healthcare. The period of contracts is from 2018 to 2024 (acquisition in leasing of MRI, CT, angiograph, construction and operation of outpatient clinic for 35 visits per shift in Lubenka village of Chingirlau district of WKO, rent of a canteen of SCP at PHV "Regional Clinical Hospital" with major repairs and replacement of technical equipment). State obligations amount to 1.8 billion KZT;
- 2 projects in the field of roads. The period of contracts is from 2018 to 2022 (service maintenance of Chapaevo-Zhangala-Saihin road, 0-337 km. WKO, installation and service of 81 controlled and 162 fixed cameras of SuncarSmartCity intelligent video surveillance system in Baiterek area of WKO). State obligations amount to 1.6 billion tenge;

- 1 project. The contract period is from 2021 to 2025 (services for maintenance and deworming, identification, sterilization, vaccination of neglected dogs and cats in the city of Uralsk). State obligations amount to 80 million tenge. Interaction between government and business through PPP in Kazakhstan is as follows (Figure 4).

Figure 4. Interaction between government and business in order to distribute financial resources from budget



Note: Compiled by the author on the basis of the source: [Electronic resource] Mode of access: https://atameken.kz/

Most often they are implemented in East Kazakhstan region (18%), Turkestan region (12%), Kyzylorda region (9%) and Jambyl region (9%), and least often - in West Kazakhstan region (1%), Mangistau region (2%), Shymkent city (3%) and Atyrau region (3%). The above data show that some regions are leading in the total number of projects, but projects are not implemented there in all sectors; PPPs have the most diverse development in Kyzylorda, Karaganda, Aktobe, Almaty region and in the city of Astana.

So, for 9 months of 2022, 32 PPP projects are at different stages of implementation in the region, including contracts for 22 projects. The total amount of state obligations paid from the local budget according to the agreements is 3.5 billion tenge. According to the interaction between the state and business, in order to distribute

financial resources from the budget, as of 01.01.2022. The following projects have been implemented and are in progress in various sectors of the economy:

- 5 projects in the healthcare sector. The contract period is from 2018 to 2024 (acquisition of an MRI, CT scan, angiograph on lease, construction and operation of a medical outpatient clinic for 35 visits per shift in the village of Lubenka, Chingirlau District, West Kazakhstan Region, rent of a dining room of the Regional Clinical Hospital State Enterprise on the REM with a major overhaul and replacement of technical equipment). State obligations amount to 1.8 billion tenge.
- 2 projects in the field of roads. The contract period is from 2018 to 2022 (maintenance of the Chapaevo-Zhangala-Saykhin highway, 0-337 km. WK, installation and maintenance of 81 controlled and 162 stationary video cameras of the SuncarSmartCity intelligent video surveillance system in the Baiterek WKO region). State obligations amount to 1.6 billion tenge.
- 1 project in the field of veterinary medicine. The period of the contract is from 2021 to 2025 (services for keeping and deworming, identification, sterilization, vaccination of stray dogs and cats in the city of Uralsk). State obligations amount to 80 million tenge

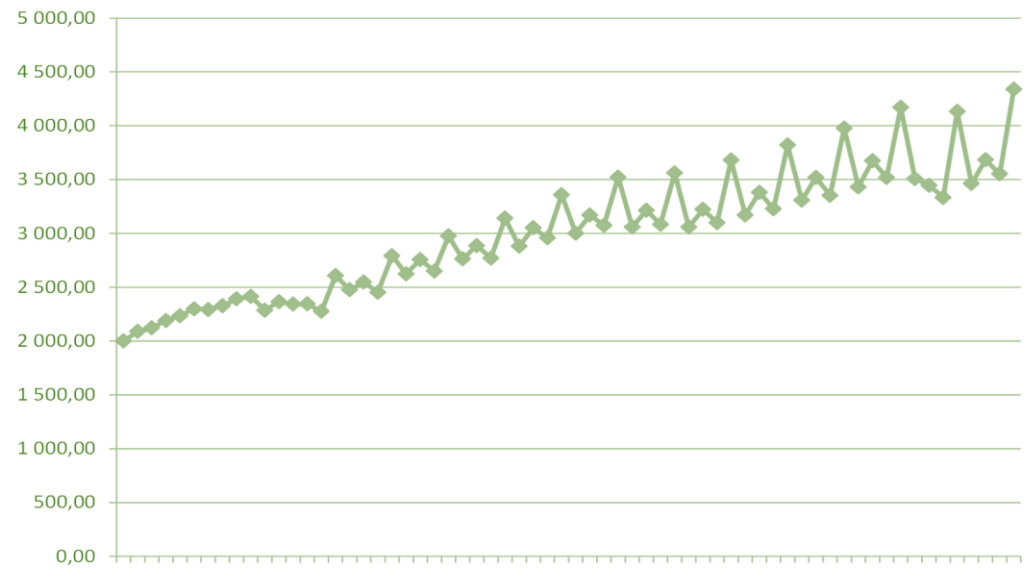
Such revitalization of the activities of both the state and business is a key factor in the sustainability of the economy. This is evidenced by the statistical data, which give us a clear idea that thanks to government support measures and the implementation of countercyclical macroeconomic policies, in 2021, the GDP growth rate for the first time since March 2020 went into the positive zone.

4. Forecasts of Environmental Finances which Maintain Sustainability

The qualitative effect of the financial mechanism is associated with the formation and orientation of the use of financial resources, with the use of such methods, by which the forms of organization of financial relations can be considered as incentives for the development of both individual economic entities and the economy as a whole. The elements of such financial mechanisms are: reduction of tax rates, establishment of limits for budget deficit, limits for borrowings of republican and local authorities and debt of republican and local authorities, conditions of budget allocations to various organizations and organizations of legal norms, order of application of various financial sanctions, other forms and methods of organization of financial relations of stimulating character, *etc*.

Thus, using a trend and seasonal model, which shows the effect of the seasonal component, we obtained a forecast of GDP of the Republic of Kazakhstan for 2023, which showed no significant changes, but nevertheless, some growth. Let us determine the forecast value of GDP of the Republic of Kazakhstan in 2023. For this purpose, it is reasonable to apply a trend-seasonal model: there is a seasonal factor in GDP development, and since this indicator is higher in the fourth quarter than in other quarters, it is necessary to take seasonal factors into account in the forecast. Since the amplitude of seasonal fluctuations in this case is larger, the "multiplication model" is applied to the forecast, which is constructed by multiplication of the components (Figure 5).

Figure 5. Quarterly dynamics of the GDP of Kazakhstan by the production method, average annual prices



Source: compiled by authors according to http://www.stat.gov.kz

The equation for time series with seasonal fluctuations is expressed by the following equation: Y=T*S*E, *where*: *Y* is level of time series, *T* is trend component, *S* is seasonal component and *E* is random component.

The construction of the multiplicative model is reduced to the calculation of *T*, *S*, and *E* on the basis of the quarterly GDP value, which is the actual value for the previous period. The forecasting is carried out in the following steps: adjustment of the original series to a four-period moving average; calculation of the seasonal component S; removal of the seasonal component S from the initial level of the series, resulting in leveled data (T – E); analytical leveling (T – E); calculation of *T*-values by linear trend equations; calculation of values obtained from the model (T–E); error estimation in order to determine the fit of the model to the initial data; preparation of the forecast taking into account seasonal fluctuations. On the basis of this plan seasonal components were calculated for each month (Table 2).

Table 2. Quarterly seasonal component

Quarter number	Seasonal component
1st quarter	0,969
2nd quarter	0,998
3rd quarter	0,956
4th quarter	1,076

Source: compiled by authors

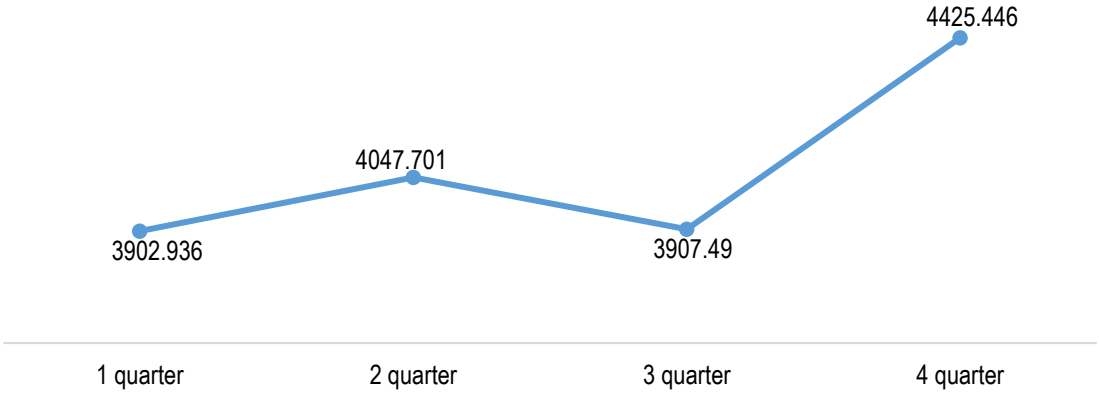
Next, a linear trend equation is constructed: T= 2.095,061 + 28,032*t*. To assess the quality of the constructed model, the sum of squared absolute errors was calculated R^2 = 0,96, which indicates that the multiplicative model explains 96% of the total variation in the levels of the time series. Forecast values of GDP are determined as the product of the trend *T* and seasonal *S* components. To calculate the values of the trend component, the serial numbers of the quarters of the lead period were substituted into the linear trend equation. The resulting forecast values of GDP in 2023 are presented in Table 3.

Table 3. GDP forecast values of Kazakhstan by the production method, average annual prices, 2023

Quarter number	Forecast value of GDP, billion tenge
1st Quarter 2023	3.902,936
2nd Quarter 2023	4.047,701
3rd Quarter 2023	3.907,490
4th Quarter 2023	4.425,446

Source: compiled by authors

Figure 6. Forecast values of the Kazakhstan's GDP - production method in average annual prices for 2023



Source: compiled by authors

Kazakhstan is an economically dynamic country in Central Asia, and its leadership seeks to make it one of the most developed countries in the world. To achieve this goal, the Kazakhstani authorities have embarked on various reforms and modernizations covering many aspects of public policy, including those based on OECD standards and principles. In present years, Kazakhstan has undertaken a number of important, interrelated and well-thought-out reforms, which have resulted in Kazakhstan's financial management system and related systems moving towards compliance with international best practice principles, as defined in the OECD Principles of Financial Management, particularly in the following areas:

- There is a close link between the government's strategic planning and budget expenditure programs.
- There are clear fiscal rules to ensure long-term fiscal sustainability and provide a buffer against future economic shocks.
- Parliament is actively involved in the preparation of the annual budget. The Budget Committee plays an important role, through which the structural sectoral committees participate in the overall task of reviewing the budget in accordance with OECD best practices.

In latest years, Kazakhstan has improved budget transparency and public participation, for example, through the introduction of the Open Budgets online portal and public meetings. Kazakhstan has switched to accrual-based accounting in accordance with international standards, improving the quality and transparency of its finances.

Conclusion

In recent years, special attention has been paid to the efficiency of resource allocation affecting environmental sustainability through public financing. The availability of financing through business loans remains one of the main factors affecting the business environment, the development of entrepreneurship and the economy as a whole.

The Concept of Financial Sector Development of the Republic of Kazakhstan until 2030 is aimed at creating a competitive financial sector and increasing its efficiency in redistributing resources in the economy in accordance with the highest international standards, including those of the Organization for Economic Cooperation and Development (OECD). To achieve this goal the following tasks will be accomplished:

- reduce the costs to society and the state of maintaining the stability of the financial system in the face of potential shocks.
- to increase the efficiency of the financial sector in the context of economic integration and globalization.
- to create the infrastructure and optimal conditions for quality development of the financial system.
- to increase resources for the growth of the financial sector, including financial products that meet the needs of the economy.
- maintaining a balanced economic environment and reducing credit risks in the economy.

The main efforts will be aimed at solving the existing problems in order to improve the stability of the financial sector and strengthen its competitiveness, as well as at taking appropriate measures and creating a framework for the functioning of financial markets.

References

[1] Acs, Z.J., Stam, E., Audretsch, D.B., and O'Connor, A. 2017. The lineages of the entrepreneurial ecosystem approach. *Small Business Economics*, 49(1): 1–10. DOI: https://doi.org/10.1007/s11187-017-9864-8

[2] Andrés, P., Fuente, G., and San Martín, P. 2020. Capital budgeting practices in Spain. *Business Research Quarterly,* 18(1): 37-56. DOI: http://dx.doi.org/10.1016/j.brq.2020.08.002

[3] Autio, E., *et al.* 2021. Entrepreneurial innovation: The importance of context. *Research Policy,* 43(7): 1097–1108. DOI: https://doi.org/10.1016/j.respol.2020.01.015

[4] Bennouna, K., Meredith, G.G., and Marchant, T. 2020. Improved capital budgeting decision making: Evidence from Canada. *Management Decision,* 48(2): 225-247. DOI: http://dx.doi.org/10.1108/00251741011022590

[5] Guerrero, M., Liñán, F., and Cáceres-Carrasco, R. 2021. The influence of ecosystems on the entrepreneurship process: a comparison across developed and developing economies. *Small Business Economics,* 57: 1733–1759. DOI: https://doi.org/10.1007/s11187-020-00392-2

[6] Hall, J., and Millard, S. 2021. Capital budgeting practices used by selected listed South African firms. *South African Journal of Economic and Management Sciences*, 13(1): 85-97. DOI:http://dx.doi.org/10.4102/sajems.v

[7] Karman, A. 2019. The role of human resource flexibility and agility in achieving sustainable competitiveness. *International Journal of Sustainable Economy,* 4(11): 324–346. DOI:https://doi.org/10.1504/IJSE.2019.103472.

[8] Kickul, J., Lyons, T.S. 2021. Financing Social Enterprises. *Entrepreneurship Research Journal*, 5(2): 83-85 DOI: https://doi.org/10.1515/erj-2015-0006

[9] Ma, M., Wang, N., Mu, W. and Zhang, L. 2022. The Instrumentality of Public-Private Partnerships for Achieving Sustainable Development Goals. *Sustainability*. 14, 13756. DOI: https://doi.org/10.3390/su142113756

[10] Maksyshko, N., Vasylieva, O., and Polova, A. 2020. Method of investment projects evaluation for territorial communities taking into account the concept of sustainable development. *The International Conference on Sustainable Futures: Environmental, Technological, Social and Economic Matters (ICSF 2020),* 166: 20-32. DOI: https://doi.org/10.1051/e3sconf/202016613020

[11] Mishenina, H, and Dvorak, J. (2022). Public–Private Partnership as a Form of Ensuring Sustainable Development of the Forest Management Sphere. *Administrative Sciences*, 12(4):156. DOI:https://doi.org/10.3390/admsci12040156

[12] Souza, P., and Lunkes, R. J. 2021. Capital budgeting practices by large Brazilian companies. *Contaduría y Administración*, 61(3): 514-534. DOI: http://dx.doi.org/10.1016/j.cya.2021.01.001.

[13] Strasser, S., et al. 2021. Collective insights of public-private partnership impacts and sustainability: A qualitative analysis. *PLoS ONE,* 16, e0254495. DOI: https://doi.org/10.1371/journal.pone.0254495

[14] Strezov, V., Evans, A., and Evans, T.J. 2017. Assessment of the Economic, Social and Environmental Dimensions of the Indicators for Sustainable Development. *Sustainable Development*, 3(25): 242–253. DOI:https://doi.org/10.1002/sd.1649

[15] Toloo, M., Nalchigar, S., and Sohrabi, B. 2018. Selecting most efficient information system projects in presence of user subjective opinions: a DEA approach. *Central European Journal of Operations Research*, 26(4): 1027-1051. DOI: http://dx.doi.org/10.1007/s10100-018-0549-4.

[16] Urbano, D., Aparicio, S., and Audretsch, D. 2019. Twenty-five years of research on institutions, entrepreneurship, and economic growth: What has been learned? *Small Business Economics*, 53(1): 21–49. DOI: https://doi.org/10.1007/s11187-018-0038-0

[17] Wang, H. M., Xiong, W., Wu, G.D., and Zhu, D.J. 2018. Public-private partnership in public administration discipline: A literature review. *Public Manag. Rev*., 20: 293–316. DOI: https://doi.org/10.1080/14719037.2017.1313445

[18] Wang, N.N., and Ma, M.X. 2021. Public-private partnership as a tool for sustainable development-What literatures say? *Sustain. Dev.,* 29: 243–258.

[19] Zhai, W. J., Ding, J. Y. and Ding, L. J. 2021. Investment risk grade evaluation of new town construction PPP projects: Perspective from private sector. *J. Urban Plan. Dev.,* 147, 2. DOI: https://doi.org/10.1061/(ASCE)UP.1943-5444.0000665

[20] *** Official Report on the state of development of small and medium-sized businesses in Kazakhstan for 2021. Available at: https://damu.kz/

[21] *** Official resource of https://kursiv.kz/news/ekonomika/2019-10/50-vsekh-investiciy-v-selskoe-khozyaystvo-v-rk-prishlos-na-tri-regiona

[22] *** World Bank. Private Participation in Infrastructure (PPI) 2020 Annual Report. 2021. Available at: https://ppi.worldbank.org/content/dam/PPI/documents/PPI_2020_AnnualReport.pdf

[23] *** World Bank. Procuring Infrastructure Public-Private Partnerships Report. 2018. Available at: https://ppp.worldbank.org/publicprivatepartnership/sites/ppp.worldbank.org/files/documents/Procuring%20Infrastructure%20Public-Private%20Partnerships%20_2018_EN2_0.pdf

[24] *** Official Decree of the Government of the Republic of Kazakhstan for 2022. The Concept for the Development of the Financial Sector of the Republic of Kazakhstan until 2030. Available at: https://adilet.zan.kz/

[25] *** Official resource Data of the Committee on Statistics of the Republic of Kazakhstan for 2021. Available at: http://www.stat.gov.kz

[26] *** Official Review of environmental performance. UNECE. Available at: www.https://unece.org/

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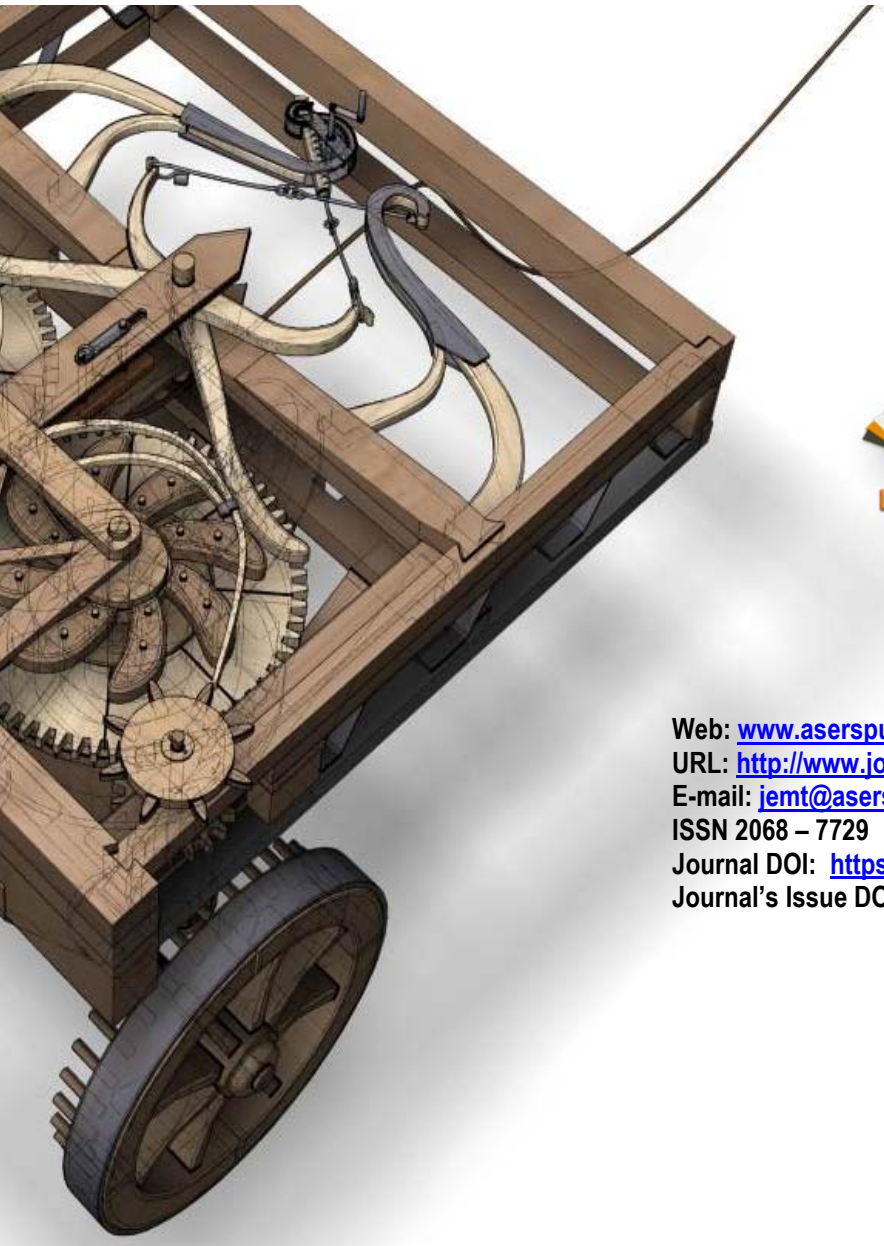

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