

## REVIEW

**of the official reviewer on the dissertation work of Sapiyeva Akmaral Zhenisbayevna on the topic “Assessment of the Multiplier Effect of Tourist and Recreational Activities in National Parks of Kazakhstan for the Sustainable Development of Tourism” submitted for the degree of Doctor of Philosophy (PhD) in the specialty “6D090200 – Tourism».**

№	Criteria	Eligibility (one of the options must be checked)	Justification of the position of the official reviewer
1.	The topic of the thesis (as of the date of its approval) corresponds to the directions of development of science and/or state programs	<p>1.1 Compliance with priority areas of science development or government programs:</p> <p><b><u>1) The thesis was completed within the framework of a project or target program financed from the state budget (indicate the name and number of the project or program)</u></b></p> <p>2) The thesis was completed within the framework of another state program (indicate the name of the program)</p> <p><b><u>3) The dissertation corresponds to the priority direction of the development of science, approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan (indicate the direction)</u></b></p>	<p>The aim of the dissertation was to assess the multiplicative effect of tourism and recreational activities in selected national parks of Kazakhstan, including Buiratau, Katon-Karagay, and Altyn-Emel. Evaluating the multiplicative effect of tourism and recreational activities in these areas helps determine the extent of tourism’s impact on regional development, assess its contribution to the economy, and optimize the management of tourist flows. A quantitative assessment of the multiplicative effect of tourist expenditures in several national parks of Kazakhstan was conducted using the Input-Output (I-O) model.</p> <p>PhD dissertation was carried out within the framework of grant project No. AP08855888, “Ensuring the Sustainable Development of Kazakhstan’s National Parks through the Territorial Organization of Ecological Tourism” (2020–2022), financed by the state budget through the Committee of Science of the Ministry of Science and Higher Education of the Republic of Kazakhstan.</p> <p>The dissertation complies with the priority areas of scientific development “Ecology, Environment, and Rational Use of Natural Resources” and “Intellectual Potential of the Country” as approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan.</p> <p>The dissertation topic is aligned with a number of government documents, including: “The Economic Course of a Fair Kazakhstan,” “New Kazakhstan: The Path of Renewal and Modernization,” “Concept for the</p>

			Development of Rural Territories of the Republic of Kazakhstan for 2023–2027,” “Concept for the Development of the Tourism Industry of the Republic of Kazakhstan for 2023–2029,” the “State Program for Regional Development for 2020–2025,” and others.
2.	Importance for science	The work <del>makes/does not make</del> <b>a significant contribution to science</b> , and its importance is well disclosed/not disclosed	The comprehensive approach presented in the study, together with the empirical data gathered, makes it possible to conclude that a significant contribution has been made to the development of scientific approaches to examining the multiplicative effect of tourism and recreational activities in Kazakhstan’s national parks for the sake of sustainable tourism development. The importance of the topic is well demonstrated in this work.
3.	The principle of independence	Self-reliance level: <b><u>1) High;</u></b> 2) Medium; 3) Low; 4) No independence	The dissertation is a scholarly work personally and independently completed by the author. Several key factors confirm the high level of the author’s independence: the originality and depth of the research (the author proposes new ideas, concepts, and methods that have not been previously explored); analytical skills (demonstrating the ability to critically evaluate the literature and contribute to scientific knowledge); methodological approach (presenting a clear methodology developed by the author and effectively applied to achieve the research objectives); critical thinking (showing the ability to analyze alternative viewpoints and assess potential limitations and challenges in the research); and publication activity (the author has produced a series of three publications, further supporting their independence and authority in the field).

4.	The principle of inner unity	<p>4.1 Justification of the relevance of the thesis:</p> <p><b><u>1) Justified;</u></b></p> <p>2) Partially justified;</p> <p>3) Not justified.</p>	<p>The justification of the dissertation's relevance is well-substantiated and presented in various formats.</p> <p>1. Assessing the Multiplicative Effect of National Parks: The Case of Buiraray State National Nature Park (SNNP) in Kazakhstan. National parks play a key role in regional development, affecting not only the environmental sphere but also the economies of adjacent areas. The study of the multiplicative effect of Buiraray SNNP identified ecotourism's contributions to job creation, the development of small and medium-sized enterprises, increases in local incomes, and the attraction of investments. Analyzing intersectoral linkages and tourist expenditure flows supports the formulation of strategies for the efficient use of natural resources to promote the region's sustainable development.</p> <p>2. Balancing Nature and Visitors for Sustainable Development: Assessing Tourism Carrying Capacity in Katon-Karagai SNNP, Kazakhstan.</p> <p>One of the key challenges in developing tourism is striking a balance between increasing tourist flows and preserving natural ecosystems. Studying the carrying capacity of Katon-Karagai SNNP enabled the identification of sustainable thresholds for environmental impact and the formulation of recommendations for the optimal distribution of visitor flows. This is essential for preventing ecosystem degradation, maintaining biodiversity, and sustaining a high-quality tourist experience.</p> <p>3. Sustainable Ecotourism Development in Altyn-Emel SNNP, Kazakhstan: An Assessment through Residents' Perceptions.</p> <p>The social dimension of sustainable tourism is becoming increasingly significant, as involving local communities in tourism management fosters a positive attitude toward tourism and improves quality of life. Analyzing the perceptions of residents of Altyn-Emel SNNP revealed their expectations, concerns, and level of satisfaction regarding ecotourism development. This enabled an evaluation of the</p>
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			<p>social sustainability of tourism, the identification of key challenges, and the design of mechanisms to ensure a harmonious coexistence between tourists and local communities.</p> <p>All three aspects are relevant as they address critical issues in the sustainable development of ecotourism in Kazakhstan, thereby contributing to scientifically grounded recommendations for enhancing national park management.</p>
		<p>4.2 The content of the thesis reflects the topic of the thesis:  <b><u>1) Reflects;</u></b>  2) Partially reflects;  3) Does not reflect</p>	<p>Under the regulations set forth in paragraph 5-1, subparagraph 2) of the document “On the Approval of the Rules for Awarding Degrees” (Order of the Minister of Education and Science of the Republic of Kazakhstan dated March 31, 2011 No. 127; registered with the Ministry of Justice of the Republic of Kazakhstan on March 13, 2011 No. 6951; as amended on January 6, 2025), this dissertation is structured as a compilation of three articles. These articles appear in journals ranked in the first or second quartile by impact factor according to Clarivate Analytics’ Journal Citation Reports, within one of the scientific fields pertinent to the dissertation’s subject matter. In one of these publications, the doctoral student is either the principal author or the corresponding author.</p> <p>All three investigations comprising the dissertation are interlinked through a holistic study of sustainable ecotourism development in Kazakhstan’s national parks, ensuring direct relevance to the overall topic.</p> <p>First article: It focuses on the economic dimension, investigating the multiplicative impact of tourism in Buiraray State National Nature Park (SNNP) and its influence on regional progress.</p> <p>Second article: It concentrates on the environmental perspective, assessing the carrying capacity of Katon-Karagai SNNP and the equilibrium between tourist influx and the preservation of natural ecosystems.</p> <p>The third article highlights the social facet, examining local communities’ attitudes toward ecotourism initiatives</p>

			<p>in Altyn-Emel SNNP.</p> <p>Together, these components encompass the core pillars of sustainable tourism-economic, environmental, and social-demonstrating the study's significance and its alignment with the stated research objectives.</p>
		<p>4.3. The purpose and objectives correspond to the topic of the thesis:</p> <p><b>1) <u>correspond</u>;</b></p> <p>2) partially correspond;</p> <p>3) do not correspond</p>	<p>The objectives and tasks of this research fully align with the dissertation topic, "Assessment of the Multiplicative Effect of Tourism and Recreational Activities in Kazakhstan's National Parks for Sustainable Tourism Development," since each of the presented articles addresses key elements of that subject.</p> <p>Relevance of the objectives and tasks to the dissertation topic:</p> <p>Economic Component (Buiraray State National Nature Park): Analyzing the multiplicative effect of tourism in the national park, including its impact on regional development, employment, and small businesses. This corresponds to the task of studying the economic impact of tourism and recreational activities.</p> <p>Ecological Balance (Katon-Karagai State National Nature Park): Investigating the carrying capacity of the area and identifying an optimal balance between increasing tourism flows and conserving natural resources. This meets the goal of ensuring the ecological sustainability of tourism.</p> <p>Social Dimension (Altyn-Emel State National Nature Park): Evaluating local residents' perceptions and analyzing their engagement in tourism activities. This reflects the task of examining tourism's social sustainability and its effects on the population.</p> <p>By examining the economic, environmental, and social dimensions of tourism's impact on Kazakhstan's national parks, the dissertation provides a comprehensive assessment of the multiplicative effect of tourism, fully corresponding to the stated topic.</p>

		<p>4.4 All sections and provisions of the thesis are logically interconnected:  <b><u>1) completely interconnected;</u></b>  2) the interconnection is partial;  3) there is no interconnection</p>	<p>The sections and propositions of the dissertation are organized according to a principle of internal coherence and logical interconnection. The scientific findings, resulting outcomes, and recommendations are in line with the stated objectives and tasks.</p>
		<p>4.5 The new solutions (principles, methods) proposed by the author are reasoned and evaluated in comparison with the known solutions:  <b><u>1) there is a critical analysis;</u></b>  2) partial analysis;  3) the analysis does not represent one's own opinions, but quotes from other authors</p>	<p>The author's proposed new solutions are based on a critical analysis of existing approaches and have been evaluated in comparison with known methods, as evidenced by the research results in the three articles:</p> <p>Assessing the Multiplicative Effect of National Parks (Buiraray State National Nature Park). New solutions: Employing advanced economic models to calculate tourism's multiplicative effect, including hidden income for local communities. Critical analysis: Compared to traditional methods of assessing tourism's economic contributions, the proposed approach is more detailed, as it takes into account indirect effects such as the growth of small businesses and infrastructure development.</p> <p>Evaluating Tourism Carrying Capacity (Katon-Karagai State National Nature Park). New solutions: Developing an adaptive model for calculating carrying capacity through GIS analysis and ecological indicators. Critical analysis: Unlike standard regulatory methods that focus solely on visitor numbers, this new methodology considers not only the number of tourists but also their impact on the ecosystem, making it a more precise tool for managing tourism sustainability.</p> <p>Assessing Local Residents' Perceptions (Altyn-Emel State National Nature Park). New solutions: Integrating sociological methods with GIS modeling to analyze local residents' perceptions. Critical analysis: Traditional studies on the social aspects of tourism often rely on surveys alone; the proposed method combines both quantitative and spatial data, enabling a deeper understanding of how tourism affects local communities.</p>

			<p>These new solutions are derived from a critical evaluation of existing methods. They are more accurate, comprehensive, and adapted to the specific conditions of Kazakhstan's national parks, which makes them highly relevant for sustainable tourism development.</p>
5.	Scientific novelty principle	<p>5.1 Are the scientific results and provisions new?</p> <p><b><u>1) completely new;</u></b>  2) partially new (25-75% are new);  3) not new (less than 25% are new)</p>	<p>The scientific results and propositions demonstrate novelty.</p> <p>Assessing the Multiplicative Effect of National Parks: The Case of Buiraray State National Nature Park in Kazakhstan. The high level of novelty stems from the fact that, for the first time in Kazakhstan, a comprehensive quantitative assessment of a national park's multiplicative effect has been conducted, accounting for both direct and indirect economic consequences. Unlike traditional approaches, the study takes into consideration not only tourism's contribution to the Gross Regional Product (GRP) but also its impact on local businesses, employment, and the development of related industries.</p> <p>Balancing Nature and Visitors for Sustainable Development: Evaluating the Tourism Carrying Capacity in Katon-Karagai State National Nature Park, Kazakhstan. The novelty here lies in the application of an innovative adaptive model for assessing carrying capacity, based on GIS analysis and dynamic ecological indicators. Unlike previous static regulatory methods, this approach incorporates real spatial and temporal pressures on the ecosystem, enabling flexible management of visitor flows under changing anthropogenic conditions.</p> <p>Sustainable Development of Ecotourism in Altyn-Emel State National Nature Park, Kazakhstan: An Assessment through Residents' Perceptions. The high level of novelty is due to the first-time integration of sociological data with spatial analysis in Kazakhstan's national parks to evaluate tourism's impact on local populations. Unlike traditional survey-based methods, the proposed approach uncovers not only residents' subjective attitudes but also tangible</p>

			<p>changes in the socio-economic development of tourism-affected areas.</p> <p>In all three studies, novelty is achieved by employing comprehensive interdisciplinary methods, spatial analysis, and new approaches to assessing tourism's socio-economic and environmental impacts—significantly contributing to both scientific knowledge and the practice of national park management.</p>
		<p>5.2 Are the dissertation findings new?</p> <p><b><u>1) completely new;</u></b>  2) partially new (25-75% are new);  3) not new (less than 25% are new)</p>	<p>The conclusions of the dissertation are entirely new. They offer insights that had not been previously explored in this field, thereby providing a fresh perspective on the subject. As a result, the work significantly advances current knowledge and practice.</p>
		<p>5.3 Technical, technological, economic or management decisions are new and reasonable:</p> <p><b><u>1) completely new;</u></b>  2) partially new (25-75% are new);  3) not new (less than 25% are new)</p>	<p>The technical and technological solutions are new and substantiated.</p>
6.	The validity of the main findings	All main conclusions <b>are</b> /are not based on scientifically significant evidence or well-grounded (for qualitative research and areas of training in the arts and humanities)	<p>All of the primary conclusions are grounded in evidence that carries significant scientific weight and are substantiated by: a substantial volume of source data; the focused and correct use of official statistical information related to the research topic; mathematical calculations; cartographic materials; and the results of surveys of potential consumers and interviews with stakeholders. The data are reliable, and the conclusions are not in doubt.</p>
7.	The main provisions for the defense	<p>It is necessary to answer the following questions for each provision separately: 7.1 Is the provision proven?</p> <p><b><u>1) proven;</u></b>  2) rather proven;  3) rather not proven;  4) not proven  5) In its current wording, it is impossible to verify the proof of the statement.</p>	<p>The soundness and reliability of the author's scientific results (propositions) and conclusions presented in the dissertation are supported by:</p> <p>A) Methodological and methodological foundation: Official documents (laws and regulatory legal acts of the Republic of Kazakhstan, government programs, systemic development plans, etc.) and works of reputable domestic and foreign scholars were used as the primary methodological and</p>



		<p>7.2 Is it trivial?</p> <p>1) yes;  <b><u>2) no</u></b></p> <p>7.3 Is it new?</p> <p><b><u>1) yes;</u></b>  2) no</p> <p>7.4 Application level:</p> <p>1) narrow;  2) medium;  <b><u>3) wide</u></b></p> <p>4) 4) In its current wording, it is impossible to verify the level of application of the statement.</p> <p>7.5 Is it proven in the article?</p> <p><b><u>1) yes;</u></b>  2) no</p>	<p>theoretical basis.</p> <p>B) Information sources: The official data of the Bureau of National Statistics under the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, as well as departmental statistical data, served as the main information base. The study also drew on analytical materials from executive bodies of the Republic of Kazakhstan and local self-government authorities, materials published in periodicals, and Internet information resources.</p> <p>C) Research methods: The dissertation research employed scientific and theoretical analysis and the synthesis of data from primary and secondary sources, as well as systematic and comparative analysis, typology, grouping, comparison, graphical data presentation methods, mapping and GIS techniques, interviews and surveys, and expert evaluation methods. The main propositions and findings of the dissertation have been published in three scientific articles in journals indexed in SCOPUS and Web of Science.</p>
8.	The principle of reliability Reliability of sources and information provided	<p>8.1 Choice of methodology - is justified or the methodology is described in sufficient detail</p> <p><b><u>1) yes;</u></b>  2) no</p> <p>8.2 The results of the thesis were obtained using modern methods of scientific research and methods of processing and interpreting data using computer technologies:</p> <p><b><u>1) yes;</u></b>  2) no</p>	<p>The dissertation's methodology draws on a wide range of general and specialized scientific methods. Among the primary ones are: content analysis of scholarly publications; systematic and statistical analysis; comparative analysis; typological analysis; data grouping; as well as the use of questionnaires, interviews, expert evaluations, and other approaches.</p> <p>The results of the dissertation research are based on modern scientific methods and data processing and interpretation techniques, employing computer technologies that ensure high accuracy, reliability, and practical relevance. In the case of Buiraray State National Nature Park (SNNP), econometric modeling, intersectoral linkage analysis, and geostatistical analysis were used, supported by software tools for econometric analysis that model</p>

			<p>economic effects considering multiple factors. This approach enables not only an assessment of tourism's current economic contribution but also a forecast of its long-term impact on regional development. In Katon-Karagai SNNP, GIS analysis, modeling of territorial carrying capacity, and ecological monitoring were employed, using software such as ArcGIS and QGIS, along with satellite data to study visitor flows. This adaptive management of tourist flow based on real data helps prevent ecological degradation amidst increasing tourist numbers. For Altyn-Emel SNNP, the methods included sociological research, statistical analysis, and crowdsourced data collection, leveraging big data analysis, machine learning, and social network analysis to gain a deeper understanding of tourism's impact on local communities and opportunities for integrating them into sustainable tourism practices. By employing contemporary analytical methods, econometric modeling, geoinformation systems, and big data processing technologies, the study delivers precise, comprehensive, and practically significant results that can be used to optimize the management of Kazakhstan's national parks.</p>
		<p>8.3 Theoretical conclusions, models, identified relationships and patterns have been proven and confirmed by experimental research (for areas of training in pedagogical sciences, the results have been proven on the basis of a pedagogical experiment):</p> <p>1) yes; 2) no</p>	<p>The dissertation is submitted under the specialty "8D11101 – Tourism."</p>
		<p>8.4 Important statements are <b>confirmed</b> / <del>partially confirmed</del> / <del>not confirmed</del> by references to current and reliable scientific literature</p>	<p>Fully confirmed.</p>

		8.5 Used literature sources are <del>sufficient</del> <b>sufficient/not sufficient</b> for a literature review	Fully sufficient.
9	Practical value principle	9.1 The thesis has theoretical value: <b><u>1) yes;</u></b> 2) no	<p>The dissertation holds significant theoretical value by advancing scientific understanding of the socio-economic and environmental impact of tourism and recreational activities in national parks.</p> <p>Assessing the Multiplicative Effect of National Parks (Buiraray State National Nature Park). Contributes to the theory of tourism's multiplicative effect by illustrating how tourism and recreational activities influence a region's economy through direct, indirect, and induced effects. Makes a methodological contribution to econometric analysis of the tourism sector by adapting intersectoral balance models to the specifics of national parks. Broadens our understanding of the link between protected natural areas and economic growth, proposing a new approach to evaluating ecotourism's contribution to regional development.</p> <p>Balancing Nature and Visitors (Katon-Karagai State National Nature Park). Adds to the theory of sustainable tourism development by proposing adaptive models for assessing carrying capacity, taking into account changes in tourist flows and ecosystem dynamics. Enhances the methodology of spatial analysis regarding tourism load by applying GIS technologies to forecast a sustainable level of visitation to natural areas. Contributes to the study of anthropogenic impacts on natural complexes through quantitative and qualitative indicators.</p> <p>Sustainable Ecotourism Development (Altyn-Emel State National Nature Park). Complements the theory of social sustainability in tourism by examining local residents' perceptions as a key factor for the long-term development of ecotourism. Advances an interdisciplinary approach to evaluating the impact of tourism by integrating sociological analysis with spatial modeling. Contributes to the</p>

			<p>development of new concepts for managing tourist areas by incorporating community engagement and residents' perceptions of ecotourism.</p> <p>Overall, the dissertation enriches the theory of sustainable tourism, the economics of natural resource use, and spatial management of recreational areas, extending scientific knowledge of the mechanisms by which tourism influences the socio-economic and environmental milieu of national parks.</p>
		<p>9.2 The thesis is of practical importance and there is a high probability of applying the results obtained in practice:</p> <p><b><u>1) yes;</u></b> 2) no</p>	<p>The dissertation demonstrates high practical value, as its findings can be applied to managing national parks, shaping tourism policy, and developing sustainable tourism strategies.</p> <p>All three studies provide robust tools for public authorities, national park administrations, and tourism stakeholders:</p> <p>Assessing the Multiplicative Effect of National Parks (Buiraray State National Nature Park). The developed models for evaluating tourism's economic impact can be employed by government agencies and park administrations to justify investments and support ecotourism projects. The proposed methodology for assessing the multiplicative effect can be utilized to forecast the socio-economic contribution of other national parks to regional economies. Moreover, the results offer a basis for devising measures to stimulate small and medium-sized businesses in the ecotourism sector.</p> <p>Balancing Nature and Visitors (Katon-Karagai State National Nature Park). The criteria and methods for determining carrying capacity can be integrated into the management practices of protected areas (PAs) to regulate visitor flows. GIS-based analysis and spatial modeling tools can aid in planning infrastructure (tourist routes, recreation areas) with minimal ecological disturbance. These recommendations on optimizing tourism load can be</p>

			<p>implemented by park administrations to mitigate negative anthropogenic impacts.</p> <p>Sustainable Tourism Development (Altyn-Emel State National Nature Park). The identified social factors of sustainable tourism can be incorporated into programs aimed at engaging local communities in tourism activities. The findings will guide the creation of ecotourism development strategies that acknowledge local interests and perceptions of tourist activity. Proposed management models can be adapted to other natural territories, thereby improving the regulation and governance of ecotourism across Kazakhstan.</p> <p>Overall, the dissertation holds significant potential for practical implementation, as its results can be used in governmental tourism development programs, strategic planning for national parks, and the design of ecotourism routes that prioritize sustainable development.</p>
		<p>9.3 Are the practice suggestions new?</p> <p><b><u>1) completely new;</u></b></p> <p>2) partially new (25-75% are new);</p> <p>3) not new (less than 25% are new)</p>	<p>The proposals developed as part of this dissertation research are new, as they are based on a comprehensive approach to managing tourism and recreational activities in Kazakhstan's national parks, combining modern analytical methods, spatial modeling, and socio-economic considerations.</p> <p>Assessing the Multiplicative Effect of National Parks (Buiraray State National Nature Park). For the first time, a model has been proposed to evaluate the multiplicative effect of national parks, taking into account not only the direct economic contribution of tourism but also the indirect effects on related sectors (agriculture, trade, transportation, etc.). Tools have been developed for forecasting the economic benefits of tourism based on regional data, an approach not previously used in managing protected areas. By implementing this methodology, park administrators can justify investments in tourism infrastructure based on the parks' socio-economic significance.</p> <p>Balancing Nature and Visitors (Katon-Karagai State</p>

			<p>National Nature Park). A detailed method for assessing carrying capacity has been applied for the first time, using GIS technologies and spatial analysis that account for both quantitative and qualitative indicators of pressure on natural areas. An adaptive system for managing tourist flows is proposed, involving dynamic regulation of visitation depending on the ecological state of the territory. Mechanisms have also been developed for monitoring and predicting the load on ecosystems, allowing national parks to introduce more effective measures for protecting natural resources without compromising their appeal to tourists.</p> <p>Sustainable Ecotourism Development (Altyn-Emel State National Nature Park). A first-of-its-kind assessment of local residents' perceptions of ecotourism has been carried out, resulting in new approaches for involving local communities in the park's management and development. Recommendations have been formulated for the sustainable development of ecotourism, taking into account the cultural and economic interests of local populations, thereby increasing their engagement and support for tourism initiatives. The proposed solutions make it possible to establish an effective partnership model among park administration, tourism companies, and local residents—a format not previously implemented to such an extent.</p> <p>These solutions are new because they draw on cutting-edge methods for assessing economic impacts, managing visitor flows, and integrating local communities into ecotourism development, making them highly relevant for practical implementation in Kazakhstan's national park management system.</p>
10.	The quality of writing and design	<p>Academic writing quality:</p> <p><b><u>1) high;</u></b>  2) average;  3) below average;  4) low.</p>	<p>The dissertation exhibits a high standard of academic writing. It is prepared with a strong scientific and methodological foundation, provides an informative overview of contemporary scientific concepts, and is presented with stylistic precision.</p>

11.	Notes on a thesis	<b><u>No objections</u></b>
12.	Scientific level of the doctoral student's articles on the topic of research (in case of defense of the dissertation in the form of a series of articles, the official reviewers comment on the scientific level of each article of the doctoral student on the topic of research)	<p>The scientific quality of the doctoral candidate's articles is high, given that the research is rooted in contemporary scientific approaches, includes original methodologies, employs interdisciplinary perspectives, and targets pressing issues of sustainable tourism in Kazakhstan's national parks.</p> <p>Assessing the Multiplier Effect of National Parks: A Case Study of Buiratau State National Nature Park in Kazakhstan. The article achieves a high scientific standard by applying quantitative methods to evaluate the multiplicative effect of tourism, enabling a comprehensive analysis of tourism's impact on the regional economy. It uses an economic analysis model that incorporates direct, indirect, and induced effects, thereby expanding existing methodological approaches to assessing national parks' contributions. The findings carry significant practical value and can be used to inform funding strategies for national parks.</p> <p>Balancing Nature and Visitors for Sustainable Development: Assessing the Tourism Carrying Capacities of Katon-Karagay National Park, Kazakhstan. This article demonstrates a high scientific level through the use of spatial modeling (GIS) and indicator-based analysis, providing a more accurate determination of the tourism load on natural areas. It adopts innovative approaches to evaluating carrying capacity by integrating ecological, infrastructural, and social parameters, going beyond traditional methods. The data and conclusions can guide sustainable tourism policies in protected areas.</p> <p>Sustainable Development of Ecotourism in "Altynemel" National Park, Kazakhstan: Assessment through the Perception of Residents. The article exhibits a high degree of novelty by conducting, for the first time in Kazakhstan, a detailed analysis of how local residents perceive ecotourism in a national park. Modern sociological methods, including surveys and factor analysis, make the study statistically rigorous. The results offer effective mechanisms for engaging local communities in ecotourism management, which holds significant practical value.</p> <p>All three articles embody a high scientific standard because they address current issues in sustainable tourism development, utilize modern quantitative and qualitative research methods, incorporate interdisciplinary approaches by merging economic, environmental, and social analyses, and propose original, practically applicable solutions that can be implemented in national park management strategies. The doctoral candidate's scientific contribution is substantial and meets international requirements for dissertation research presented as a series of articles.</p>
13.	Decision of the official reviewer (pursuant to paragraph 28 of the present Model Regulations)	Sapiyeva Akmaral Zhenisbaevna deserves to be awarded the degree of Doctor of Philosophy (Ph.D) in the specialty "8D11101 – Tourism."

In reviews, official reviewers indicate one of the following solutions:

**1) to award the degree of Doctor of Philosophy (PhD) or Doctor of Specialization;**

~~2) send the thesis for revision (except for cases of thesis defense in the form of a series of articles);~~

~~3) refuse to award the degree of Doctor of Philosophy (PhD) or Doctor of Specialization.~~

Copies of the reviews of the official reviewers are handed over to the doctoral student no later than 5 (five) working days before the defense of the thesis.

**Official Reviewer:**

Jagiellonian University, Krakow, Poland  
Prof. UJ, dr hab,

\_\_\_\_\_  
(place of work, academic title)

\_\_\_\_\_  
(signature)

Mirosław Mika  
(FULL NAME)



JAGIELLONIAN  
UNIVERSITY  
IN KRAKOW

Faculty of Geography and Geology

Institute of Geography and Spatial Management  
Gronostajowa 7 Str. PL 30-387 Kraków  
[www.geo.uj.edu.pl](http://www.geo.uj.edu.pl)