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THE FORMATION OF RIPARIAN ECONOMY

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Abstract
This article explores the economic-geographical content of the concept of a "riparian economy" (economy along a river). Being conceptual in nature, the study employs methods such as systemic and comparative analysis, a review of scientific literature, economic-geographical and cartographic analysis, and conceptual modeling. The analysis justifies the appropriateness of examining economic activity in the region immediately adjacent to a river as a unified economic-geographical entity. The author proposes a definition for the "riparian economy" and develops a territorial model consisting of three zones (extending laterally from the river) and three stages (along the course of the river). This model is illustrated using the Chirchik River as a case study.

Keywords: Riparian economy, economy along a transport route, territorial development corridor, growth corridor, coastal/riverside zone, territorial organization of the economy, Chirchik River.

DARYO BO‘YI IQTISODIYOTINING SHAKLLANISHI

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Annotatsiya
Maqolada “daryo bo‘yi iqtisodiyoti” tushunchasining iqtisodiy-geografik mazmunini yoritilgan. Maqola konseptual xarakterga ega bo‘lib, tizimli va qiyosiy tahlil, ilmiy adabiyotlarni tahlil qilish, iqtisodiy-geografik hamda kartografik tahlil va konseptual modellashtirish metodlariga tayanadi. Tahlil natijasida daryoga bevosita tutash mintaqadagi xo‘jalik faoliyatini yaxlit

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iqtisodiy-geografik obyekt sifatida tadqiq etish maqsadga muvofiqligi asoslandi. “Daryo bo‘yi iqtisodiyoti” tushunchasining mualliflik ta’rifi, daryodan ko‘ndalang yo‘nalishdagi uch zonali va oqim bo‘ylab uch bosqichli hududiy modeli ishlab chiqildi. Model Chirchiq daryosi karta-sxema misolida izohlandi.

Kalit so‘zlar: daryo bo‘yi iqtisodiyoti, yo‘l bo‘yi iqtisodiyoti, hududiy rivojlanish koridori, o‘sish koridori, qirg‘oqbo‘yi zona, xo‘jalikning hududiy tashkil etilishi, Chirchiq daryosi.

Introduction

Improving the territorial organization of economic sectors is a primary scientific focus within economic-geographic research. In economic and economic-geographic studies, linear forms of territorial development are examined in relation to transport infrastructure. Originating from the theory of "growth poles," this approach subsequently evolved into the concepts of transport corridors and development corridors; today, corridor-based territorial planning is widely applied across many regions of the world [2; 3]. In this context, the complex of commercial, catering, technical service, and tourism facilities located along transport routes is being studied as a distinct object of research [6; 7].

Research indicates that just as transport routes are viewed as axes for the territorial organization of economic development, a river and its immediate riparian (riverside) areas can also be interpreted as a unique territorial corridor for economic activity.

Relevance of the research topic

It is well understood that every territory possesses its own distinct characteristics of economic development, and this process creates a unique, non-replicable pattern from a territorial perspective. The concept of imbalances in regional economic development traces back to the "growth poles" theory proposed by F. Perroux. According to this theory, economic growth is not distributed evenly; rather, it concentrates at specific poles before spreading to the surrounding areas. A systematic analysis of growth poles—based on the experiences of ten countries

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and conducted by S. Frick and A. Rodríguez-Pose—remains a primary method for studying regional development today [1].

H. Priemus and V. Zonneveld have clarified the meaning of the "growth corridor" concept within the context of regional development. They define a corridor as a set of linear infrastructure elements connecting urban centers; while noting that this concept is analytically valuable, they point out that it has been approached with caution by European planners, as it tends to subordinate places to flows [2]. Unfortunately, the specific spatial organization of economic activity along transport routes has received relatively little study. Examining the case of major highways in Belarus, D. P. Korotish and N. S. Sheleg argue that the spatial organization of economic activity along such routes has been insufficiently explored within geographical research, and they identify the patterns governing its spatial differentiation [6]. In an econometric study of a Vietnamese highway, M. Ishida et al. demonstrate that the construction of a bypass road leads to a redistribution of economic activity across regions, confirming that the economy along a transport route is dependent on transit flows. O. B. Egamberduyev addresses the evaluation of roadside service infrastructure based on criteria such as service quality and transport safety, indicating that this area of inquiry is emerging within the national academic discourse [7]. The research of S. L. Yanchuk also provides a scientific basis for the theoretical aspects of economic growth corridors and the role of various economic sectors in the spatial organization of the economy.

Results and Discussion

It is worth noting that rivers can also be interpreted as corridors for regional economic development. However, directly applying the logic of a transport corridor to a river is not scientifically sound; with the exception of major rivers with well-developed navigation, a river does not inherently generate a flow of consumers along its course—in other words, the primary driving force behind a roadside economy is not replicated along a river.

The unique nature of a river lies in its ability to perform multiple functions simultaneously. It serves as a water source and natural resource, an ecological system, a geomorphological axis, a source of alluvial deposits, a recreational

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resource, and a determinant factor for the location of economic activities [8; 9; 10]. Consequently, economic activity along a river is shaped not by transit-related demand, but by the supply of locally available resources. In other words, while a road generates demand, a river provides the factors necessary for production or the provision of services.

The concepts of a "roadside economy" and a "riverside economy" differ in their essence. First, because a river's course cannot be artificially rerouted, a riverside economy is spatially more stable than a roadside economy. Second, the economic capacity of a river cannot be expanded indefinitely through investment; it is constrained by water volume and natural boundaries. Third, economic activity along a river is seasonal, depending on the river's hydrological regime and the agricultural calendar. Therefore, it is worth noting that, until now, the complex of economic sectors within the narrow zone adjacent to a river has not been viewed as a unified economic-geographical entity. The term "riverside economy" refers to an economic-geographical concept describing the territorial clustering of economic sectors—based on the utilization of a river's water, alluvial, recreational, and landscape resources—along the river channel and its immediate riparian areas. It encompasses the functional interconnections among these sectors and the resulting formation of a territorial economic corridor stretching along the river's axis.

Three key characteristics define this concept. The first is territorial limitation: the entity is not the entire river basin, but rather the zone directly adjacent to the river channel. The second is multi-sectorality: the entity is not limited to a single sector, but consists of an interconnected complex of several sectors. The third is its economic-geographical nature, specifically the territorial organization of production.

A riverside economy possesses a distinct territorial structure. In the direction transverse to the river, three functional zones can be identified. The first zone encompasses the river channel and the immediate riparian area; this is where activities directly utilizing river resources—such as fisheries, the extraction of construction materials, water intake facilities, and hydroelectric infrastructure—are located. The second zone consists of the floodplain and the first terrace, characterized primarily by irrigated agriculture (including rice cultivation),

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recreational properties (dachas), and leisure facilities. The third zone constitutes a broader area of economic influence, where water-intensive industries and service sectors maintain an indirect connection to the river.

A crucial methodological requirement is that the boundaries of these zones are not defined by predetermined distances in kilometers, but rather by geomorphological units and the degree to which economic activities are functionally linked to the river. This approach aligns with established practices in "river corridor" research—specifically the delineation of the channel, the geomorphological floodplain, and the riparian zone [9]—as well as the practice of defining the boundaries of a river's ecological corridor starting from the shoreline management line [10]. Precise width parameters must be determined for each individual river based on specific empirical research.

A river's course is divided into upper, middle, and lower reaches. In the mountainous upper reaches, steep slopes and clear water provide favorable conditions for hydropower and recreation. In the middle reaches, the gentler terrain and proximity to cities lead to a concentration of urbanization, industry, and water-intake facilities. In the lower reaches, the flat landscape, alluvial deposits, and potential for irrigation create suitable conditions for rice cultivation, fisheries, and the construction materials industry.

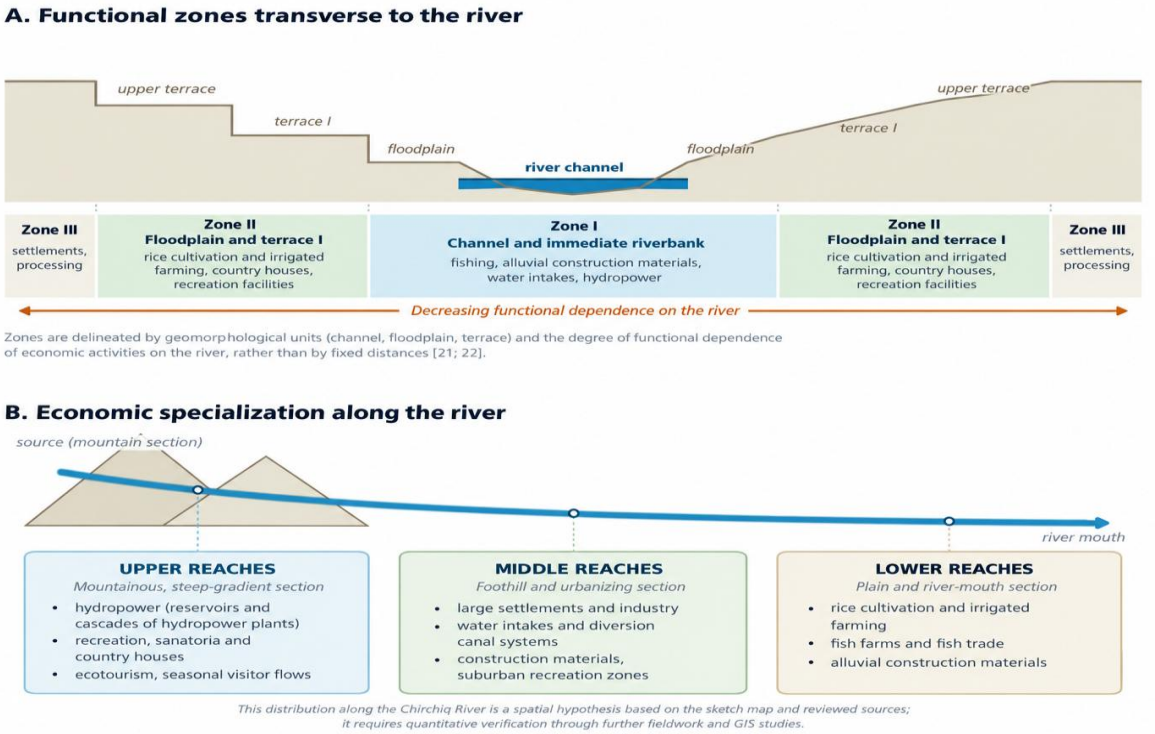


Figure 1. Territorial-structural model of the riverside economy.

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Prepared by the author

Analyzing the Chirchiq River as an example, its upper reaches are dominated by hydropower and recreational activities. Furthermore, this upper section is associated with the Ugom-Chatkal State Nature Park, where the development of ecotourism routes is currently being specifically explored [14].

The middle course is characterized by urbanization and water abstraction. Upstream of the Ghazalkent Dam, water is diverted via the Bo‘zsuv Canal to the Chirchiq-Bo‘zsuv cascade of hydroelectric power stations. In this area, the river has shaped the siting of both energy facilities and industrial enterprises. The lower course is dominated by agriculture and resource-dependent sectors. In the Yangiyo‘l, Chinoz, and Quyichirchiq districts, rice cultivation, fisheries, and the construction materials industry are well-developed.

The spatial distribution of economic activities along the Chirchiq River is summarized in the map-diagram (created by the author) presented in Figure 2.

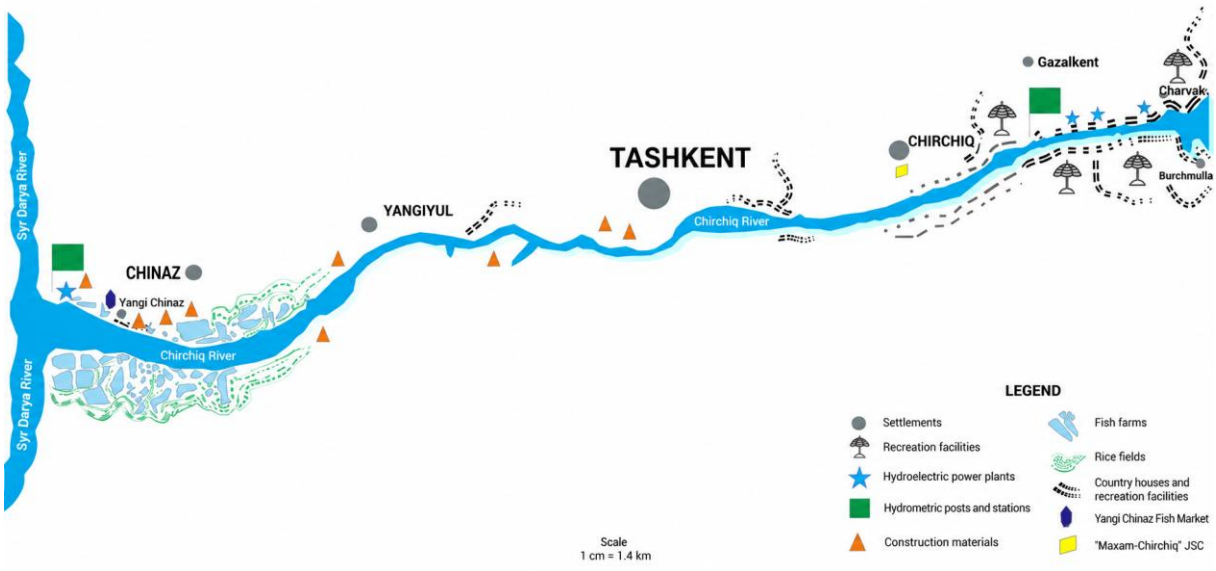


Figure 3. Territorial distribution of the economy along the Chirchiq River. Map-scheme compiled by the author.

From this perspective, the economy along the river can be viewed as an "economic development corridor." At the same time, several critical considerations must be taken into account. First, the corridor approach carries the risk of subordinating specific localities to the flows passing through them [3]; in the case of a river, this risk may manifest as the overexploitation of resources.

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Second, just as large-scale infrastructure projects can exacerbate existing disparities [5], the utilization of riverine resources may also bypass the interests of the local population. Third, the extraction of sand and gravel, combined with increased water withdrawal, could potentially erode the very characteristics that allow the river to function as an economic axis [12; 13]. Consequently, this does not represent an unrestricted development opportunity, but rather one constrained by the limits of available resources.

Conclusion

First, the theoretical framework concerning linear forms of regional development allows for viewing natural linear features as axes of development; however, the logic applied to transport corridors cannot be directly transferred to a river, as a river generates a supply of local resources rather than a flow of transit demand.

Second, while several established concepts related to rivers exist in international literature, none of them encompass the complex of economic sectors within the narrow zone adjacent to a river as a unified economic-geographical entity. Therefore, it is proposed that the term "riverside economy" be adopted as a new economic-geographical term.

Third, an initial regional model has been proposed, using the Chirchiq River as a case study. This model substantiates the spatial distribution and development characteristics of economic sectors—both along the river's course (from upstream to downstream) and in areas parallel to the river.

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