

Scientific Essay

Three governing approaches for the exploitation of waters in shared borders

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1. Introduction

What distinguishes the territory of the border river basin from other regions of the country is its geostrategic position. One of the most important geostrategic features of the country is the existence of common resources. Since the determination of political geographic borders in the historical documents, have been determined with political-military considerations and the homogeneity of the geographical space has been less considered, naturally, the land and ecological resources have been divided between the border areas of the countries.

Oil and gas resources, water resources and marine reserves in territorial waters, etc., are among the most important common resources in border territories. Therefore, in today's world, the competition for the exploitation of shared border resources has been prioritized over military conflicts. Among the set of shared border resources, especially in the hot and dry belt of the world, water is considered one of the most important shared territorial resources, and in the historical horizon, due to the renewable resources of water, its importance is greater than the non-renewable resources of oil and gas. The border territories of Iran also witness the complex competition of water diplomacy. Currently, less than 10% of the country's total renewable water resources (about 130 billion m³) from incoming sources are supplied from shared basins with neighboring countries, which is of particular importance considering the general water crisis in the country. The total volume of water coming out of the country, which is usually not reflected in the annual balances, is estimated to be around 3-4% of the total renewable water. As a result, the priority issue of strategic planning of water resources management in these basins and border territory has been given priority and special importance ([http:// irdiplomacy.ir](http://irdiplomacy.ir)).

Although today, due to the importance and position of oil and gas in the national and global economy, shared border waters have been overshadowed, but as mentioned earlier, when

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oil and gas resources will decrease, the importance of shared waters in these areas will become double. Planning the use of border water resources in the country is not a new phenomenon. The best model is an understanding with the neighboring country for joint exploitation and stabilization of the title and use of the national title in the territory. Atrak River is a specific example in this pattern. But in the areas where such a possibility does not exist or has not been realized due to the geomorphological or political structure or spatial heterogeneity on both sides of the border, different approaches have been formed.

2. Main body

The shadow of the presence of common resources in the Middle East region, where the rivers are low-water and seasonal flows and their amount depends on the rainfall, together with the lack of water is one of the causes of the present and future crisis, and the contradiction, conflict and gap, to bring water to the thirsty lands. How to divide common waters, their environmental protection, quantitative and qualitative control monitoring? How to implement water projects in common watersheds and manage them? and how to resolve disputes arising from exploitation? These important questions are the source of many international laws and obligations in the last hundred years. In line with resolving disputes, it has been based on hydropolitics. In fact, the hydropolitics studies the effect of decisions related to the use of water in political formations in the relations between countries with each other and the relations between governments and people even in the same country. Sharing water or allowing water to cross international borders has an increasing effect on the political relations of governments and their nations and the relations of countries with each other. In the meantime, determining the rights of rivers is one of the most important international law issues in the relations between these countries. Especially, rivers are one of the most important natural obstacles that these countries have used in determining the border lines with each other.

Iran has many and diverse water borders with neighboring countries. Nearly 22% of the common border of the country is made up of 26 small and big rivers. The largest river border is related to Aras River, which is 1072 km long, and the smallest river border is related to Doiraj River, which is only 2.5 km long and is a part of the common border between Iran and Iraq. Pursuing this issue is accompanied by a deep understanding of this problem that historically, Iran has always had a dispute with its neighbors over the division of border waters, and on its four sides there are common watersheds and important border rivers such as Arvandrud, Hiranmand, Harirud, Atrak. And also Aras River with its neighbors has made the treaties and arbitrations during the past years and the occurrence of more than 25 wars during the past four hundred years show the importance of the issue of border rivers in relations with the neighbors. Clarifying the legal aspects of these disputes and clarifying the rights and powers of the coastal governments can be a way to resolve the tension and even prevent the occurrence of tension. Along with very important topics such as sustainable development of river basins and integrated management of water resources and environmental protection, it is necessary to review the approaches governing the exploitation of common waters to pave the way to reach a sustainable agreement.

In this essay, three approaches are represented to have a comprehensive investigation to be able to solving the problem (<http://sfoods.ir>). The first approach is the reductionist approach of transferring water from the border basin to the internal basin. This approach is based on the transfer of water from the border basins to the internal basin. Naturally, this transfer requires the construction of large structures, the construction of tunnels. This model is costly and takes the least advantage of the territorial territory of the border river basin, in addition to the fact that the environmental and destructive consequences of the transfer appear in the border basin. In this model, there is a tendency to block the land and transfer the maximum water resources of the border and the internal basin, which can lead to regional conflicts with the cross-border faction inside and across the border. The most important argument of those who support the approach of transferring to the internal basin is the limitations of using water resources in the border basins and preventing water from leaving the country in the first place and the development consequences in the internal basins. However, in the evaluation of this transfer, the environmental and social consequences and the continuation of the isolation of the border areas and the instability of the process, and most importantly, less attention is paid to the costs of the transfer.

The second approach is the comprehensive territorial development in the border river basin with a focus on water. In this approach, firstly, the driving role of water resources in regional development and the transfer of the surplus required for development to virtual methods. Secondly, water transferring to the internal basin if needed and according to environmental considerations and international obligations and the rights of all stakeholders are respected. Regarding the rights of all stakeholders, including border residents of neighboring countries, as an international obligation is very essential. But the significant consequences of this planning in the macro formulation, it can be evaluated in three sections: the first section minimizes the vulnerabilities caused by the dual identity of the border inhabitants and accelerates the process of integrating regional and ethnic identity into the national identity structure. In the second section, by playing the dynamic role of the border territory in the regional and national development process. The consequences of isolation of economic geography will be moderated and therefore economic and social integration in the national structure will be possible. In the third section, it will provide the proper and sustainable exploitation of border water resources that leave the country. But in the author's opinion, to realize the model, the comprehensive territorial development in the border river basin, with the focus on water resources, must be carried out through strategic planning of spatial development, because the geostrategic features of the border areas should be taken into account, and that is the "physical-spatial" structure of the border. "Border residents" have special sociological characteristics, common culture and language with communities living in neighboring border territories, ease of access to neighboring countries and complications caused by geographical isolation, that put the border residents in a paradoxical situation. National identity on the one hand and ethnic and regional identity on the other hand have involved the border inhabitants in a dual identity in the historical conflict. Therefore, naturally, in a strategic planning, this apparent contradictory conflict should be directed towards a complete integration into the national identity. The solution is integration in the national identity, comprehensive development and integration in the

national economic and social structure. Therefore, in the third approach, a kind of macro-view, comprehensive and spatial view are implied, and in a way the strategic planning framework of water-oriented spatial development are represented.

As a fundamental strategies, water-based spatial planning, achieving a balanced national, regional and local development, are some approaches to be effective on the future distribution of population and activities in the territory in order to achieve development goals, such as creating balances in regional and spatial justice, rational organization of economic activities and its connections, balancing the needs of economic growth and environmental protection in the eco-geopolitics of the two countries on the sides of the river. Water-based spatial planning is carried out at four levels, "international", "national", regional" and "local", in urban and rural areas. Now, in terms of water orientation, it can be "problem-oriented", "future-oriented" or "ideal-oriented". Considering the geostrategic characteristics of border areas and the role of shared resources in it and the strategic values of shared water resources, which was mentioned earlier, the logical framework of water-based strategic planning for the development of border areas is actually a form of strategic planning that is at the "regional level" takes place and is "problem-oriented" in terms of orientation. The area is the catchment area of the border river and the adjacent basin. The "problem" is the comprehensive management of water resources with the development exploitation approach within the border basin as the first priority and how to transfer it as the second priority.

Water-based strategic planning is a form of determining the territorial capacities of the border basin for the development of water-soil activities. This requires zoning the land based on ecological resources, land resources and ecological power, identifying and verifying exploitable capacities in each region. Verifying the economic capacities and physical and spatial structure of each region, determining the type of economic activities that can be implemented in each region. Estimating water needs according to the activities are in the perspective of economic development, agriculture, services, industry, environmental needs of the basin, the international status of the neighboring country along with the need to determine the optimal spatial organization for the integrated development of the desired areas. In a sense, in this approach, there is a concept that water in the land of Iran cannot be managed, unless it is compatible with all population processes and activities and the pattern of livelihood and population settlement structure. And for this reason, the necessity of a strategic approach or determining the position of water relations in the preparation of the land is raised.

Conclusion

In this view, currently all water resource management processes in the country are in a paradoxical situation - threat - opportunity. The construction of dams in irrigation networks, extraction of underground water, inter-basin transfer, etc. are not inherently wrong processes, but they have become big threats in certain circumstances. The main variable in this comparison is the increase in total demand for water. However, the persistence of droughts for many years in the structural aridity of the land of Iran, which is located in the

hot and dry belt of the earth, has provided the basis for the formation of a discourse in the society, which is called "water crisis". Finally, by understanding this problem; water diplomacy in shared border should become an active part of Iran's public diplomacy. The mobilization of the country's water diplomacy to develop up-to-date laws related to border rivers, negotiations with the involved neighbors on how to manage water and control and optimal use of the maximum output water, cooperation in supplying electricity to downstream areas, providing technical facilities for better access to the sea More use of common watersheds along the geographical borders of Iran with neighboring borders, taking into account the general spirit of the provisions of international conventions and providing the water needs of the region at the agricultural, drinking, and industrial levels, and transferring excess water to other basins, is one of the most important diplomatic movements in the hydro politics of rivers. It is considered a boundary that must be followed seriously and persistently.

References

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