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## **Theoretical aspects of water problem research by Western scientists**

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**Abstract.** *In the article, the authors consider the evolution of the concept of “preventive diplomacy”. The history of the origin of the term, as well as its conceptual foundations and significance in solving water factor issues in regional and international relations. In the course of the study, the authors concluded that the term water diplomacy refers to bilateral or multilateral negotiations concerning water issues, and the peaceful settlement of differences between riparian countries. Naturally, the globalization processes taking place all over the world have contributed and complicated solutions to water-related problems, thereby influencing the expansion of the concept of water diplomacy. This is because new players have appeared in this process, such as third countries and international organizations. Water diplomacy is characterized by processes where all interested participants, state, regional and international, cooperate to solve water problems. However, there is no general definition of water diplomacy, and the actual actions of water diplomacy, as a rule, differ in several directions and scales. Based on the review of academic and political documents by B. Boutros-Ghali, Johan Galtung, and T. Naff, the variety of understandings and common models in the definition of water diplomacy is analyzed.*

**Keywords:** *preventive diplomacy, UN, water security, peacemaking, water wars, conflict management.*

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### **Introduction**

For a complete study, consider the evolution of the concept of “preventive diplomacy”. The term “preventive diplomacy” became widely used in world practice after the publication of the report of the UN Secretary-General Boutros Boutros-Ghali, which he delivered at the 47th session of the UN General Assembly on July 17, 1992. This document was entitled “An Agenda for Peace” and contained the conceptual foundations of preventive diplomacy and peacemaking. At the same time, the very concept of preventive peacekeeping operations does not belong to B. Boutros-Ghali. It was formulated back in 1982. The Independent Commission on Disarmament and Security Issues, headed by Olof Palme [1].

In 1985, the well-known conflictology scientist Johan Galtung put forward a concept that provided for such strategies (approaches) to the preservation of international peace and security as peacemaking, peacekeeping, and peace-building [2, 142 p.].

B. Boutros-Ghali gave in his report a clear definition of the very concept of “preventive diplomacy” as an action “aimed at preventing disputes between the parties, preventing existing disputes from escalating into conflicts and limiting the scope of conflicts after their occurrence” [3, pp. 78-79]. He paid special attention to international operations and processes related to preventive diplomacy.

This is, firstly, peacemaking - "an action aimed at persuading the warring parties to agreements, mainly through peaceful means provided for in Chapter VI of the Charter of the United Nations."

Secondly – peacekeeping is interpreted as the need for the UN presence in the conflict area, which was previously carried out with the consent of all interested parties and, as a rule, was associated with the deployment of military, police, and often civilian UN personnel.

Thirdly, peace-building in the post–conflict period; is a "concept of actions to identify and support structures that will be inclined to contribute to the strengthening and consolidation of peace to prevent a relapse of conflict" [3, *ibid.*].

### **Problem statement**

If we assume that "modern diplomacy is a means of implementing the state's foreign policy," then it is logical to define the concept of "modern water diplomacy" as "the implementation of the state's foreign policy in the water sector" (or "in the water sector", "water issues").

Gradually, there was a change in theoretical approaches to the water problem. As T. Naff wrote, "in conditions of limitation, water becomes a very symbolic, toxic, aggregated, acute, significant, complex, zero-sum, affecting power and prestige, as well as prone to conflict and extremely difficult to resolve" [4].

A loud application that raised the topic of water challenges to such a high level sounded like that, due to the unprecedented growth in demand for fresh water in the next century, control over water resources will become an objective reason for armed conflicts. At the same time, the initial thesis that water scarcity leads to conflict and, in extreme form, to war, was not tested but accepted by the scientific and political community as an axiom.

*The purpose of the scientific article is to trace the evolution of the theoretical aspects of the study of the water problem in the works of Western scientists,*

### **Research methods**

For a scientific and objective approach in the study of the theoretical foundations of the origin of the term water diplomacy, as well as in the study of the evolution of water issues in the works of Western scientists, generally accepted methods of scientific collection and analysis of facts, such as a systematic approach, comparative historical method, method of structural and functional analysis, method of synthesis and analysis of empirical research, method of discursive analysis.

### **Discussion**

The term "water wars" was first mentioned in 1985 in the comments of former UN Secretary-General B.B. Ghali, who, assessing the prospects for conflict in the Middle East, suggested that the next war on this earth would be for water. Then, already in the 1990s, this concept entered the political dictionary and, having migrated to the journalistic dictionary, became one of the main "horror films" of the coming XXI century. Since the Arab-Israeli conflict was the impetus for the development of this topic, the first scientific works on international water conflictology were devoted to the Middle East settlement [5].

However, an in-depth study of water issues forced us to adjust this approach. Already in the early 2000s, it was proposed to consider water conflicts in a more comprehensive and multifaceted way, and not only through the possibility of armed conflicts. Gradually, "water wars" were replaced by such concepts as "international conflicts", "conflicts of varying degrees of intensity", and "international disagreements", and in scientific works, the initial premise of the objective inevitability of water wars began to be questioned.

A significant contribution was made to the study of the humanitarian aspects of the water problem in developing and least-developed countries. The most productive tool was the concept of virtual water by J. Allan [6], or the "water footprint" by A. Hoekstra and A. Chapagain, which

made it possible to identify the water component in international trade and use it as a tool for conflict resolution or reducing tensions in water-deficient regions. These studies contributed to the fact that water gradually began to be considered as a reason for international conflict, which, accordingly, led to a surge of interest in various forms of diplomatic settlement of water disputes, techniques for negotiating natural resources, and strategies for economic cooperation [7].

Also in the 1990s, in the wake of the rise of liberalism, several highly specialized concepts were developed, including the concept of shared resources, theories of global governance, epistemological concepts, etc. concerning the global water problem, however, the academic popularity of these theories in the 1990s somewhat faded with the renaissance of the state in the international arena.

Of course, the absence of water wars as such in the past does not mean that they are impossible in the future, but we must admit that such wars were not fought for many reasons, and not only due to less pressure from demand and relatively lower alternative cost of water.

In the book, J. Kalpakian, presents an innovative study, on three regional examples (Nile, Euphrates, and Indus) proving the opposite hypothesis that water contradictions do not lead to international conflicts, while international conflicts lead to an aggravation of water contradictions. In addition to rather classical indicators for water research (hydrological characteristics of the basin, water intake structure, water use regimes, and political and military conflicts in the region), the category of national identity is used [8].

Historical contradictions between the basin countries also fall into this category. As a result, the author concludes that countries never fight for water as such, and the causes of wars are, one way or another, elements of the identity of states.

Discussions about the impact of the water challenge on development and security are still often conducted in terms of physical water scarcity, which greatly limits the foreign policy tools of a particular state and reduces the effectiveness of state policy in this direction. Despite the attention of the political elite, the expert community, and business in both developed and developing countries, the problem cannot even be stopped, let alone solved.

The problem is much broader, mainly due to the indispensability of fresh water for people's lives, their security, economic development, and, thus, the functioning of the states themselves. This gives rise to some features of water resources management, which determine the nature of interstate competition for water at the present stage.

The main characteristics of interactions between States in the water sphere are determined by the unique features of the water resources themselves. The main of these features, which determines the political specifics of the role of water resources, is related to the fact that "water is a vital and at the same time, a scarce commodity, distributed unevenly, and a significant part of water resources are located in international water basins."

Indeed, it is impossible not to take into account the special value of water for life and the lack of substitutes. This in extreme cases (drought, falling water levels during the irrigation season) makes its value almost infinitely high, although, in relatively normal conditions, the value of freshwater drops sharply.

It seems to us that although the above definition is fair, it is incomplete since it does not reflect many important features of freshwater as a subject of state and interstate regulation and competition. These features are determined by the human right to water, the place of fresh water in ensuring national security, cross-border regulation, and, finally, the special role of water in ethics and religion. All these phenomena are directly related to the formation of state policy in the field of water resources management, international trade in water-intensive products, and the establishment of control over the flow of international rivers.

In small volumes, water trade leads to increased interdependence of States, but in the case of significant supplies, it already creates unilateral dependence and becomes a source of threat to national security. This thesis concerns both the trade in physical water (the trade of which has not yet been developed, with a few exceptions) and virtual (the terms "trade in water-intensive products" and "trade-in conditional water" are also found in the Russian-language literature).

Quoting A. Sen, "there is no such thing as an apolitical food problem," E. Lopez-Gan and several other authors consider this view to be fair about the water problem. Therefore, the task facing the countries-buyers of fresh water is to determine the economically profitable and non-threatening to national security volume of imports of virtual and, in some cases, "raw" water.

In a broader sense, we are talking about the formation at the national and international level of a policy of effective intensive rather than extensive water use. At the same time, the creation and implementation of such a policy are considered precisely in the context of the concept of ensuring environmental safety, which was proposed by J. Matthews in 1989<sup>69</sup> and was a reaction to concerns about a possible increase in the number of interstate conflicts over natural resources. Gradually, the idea evolved into the concept of supporting the state of the biosphere necessary for an adequate human life. The result was two complementary approaches: the "green growth" approach (the possibility of further exploitation of natural resources by increasing efficiency, using renewable resources), actively supported by representatives of the neoclassical school of economics, and the concept of "limited Earth" (*concept of planetary boundaries*).

This concept is aimed at finding the optimal consideration of short- and long-term development indicators, primarily through the prism of food and water security. About how much different concepts manifest themselves in practice and how they affect the regional and global positions of individual countries.

*Cross-border regulation.* The source of the problems of cross-border regulation is, in fact, the imposition of a political map of the world on the map of water basins. There are 263 international basins on Earth (such basins include those on whose territory there are two or more countries). They contain 60% of fresh water, and they occupy half of the earth's surface. International basins partially cover the territory of 145 countries, and the territory of 21 states is fully included in international basins.

At the same time, less attention is being paid to international underground aquifers, which also have a basin structure, and according to UNESCO estimates, there are 27374 of them. Moreover, for arid countries and regions, such aquifers are sometimes the main and even the only source of drinking water: in Saudi Arabia, the share of such sources exceeds 90%, and in Sicily, underground aquifers provide more than half of the island's total water intake. After the closure of the North Crimean Canal, through which 85% of the peninsula's water was supplied, the possibilities of active exploitation of underground water horizons in Crimea are being actively worked out. However, the predatory development of such horizons causes enormous damage to the ecosystem, and in the future, it can dramatically worsen the economic situation of the region.

*The ethical factor.* Throughout the history of mankind, water has played a system-forming role in the life of any society, determining the routes of nomads, the history of the expansion of empires, and the activity of certain peoples in trade or agriculture. In addition to history textbooks, water has found its reflection in all world religions without exception. In fact, in the absence of developed international law, i.e. The only source of codified norms regarding water use today is often only religious texts, and some experts are actively trying to derive optimal forms of water resources management from religious doctrines. From the point of view of the concept of sustainable development, it is impossible to indefinitely increase the burden on natural resources and dramatically increase the standard of living of large groups of the population, therefore, the principle of sacrifice, reflected in all world religions, may prove to be an effective vector of environmental policy.

One can use religious norms proclaiming that a rich spiritual life, not material goods, is the source of happiness. A leading specialist in water conflictology, A. Wolf, has also been actively trying to integrate the sacredness and religious component into the understanding and management of water conflicts. Accordingly, the ethical factor of water conflicts should be taken into account from both cultural and anthropological, and legal points of view, since in some cases religious treatises become a source of customary law, and ancient norms become a tool of persuasion in the 21st century for poorly educated groups of the population in developing and less developed countries.



## Summary

The global water problem and the specified features of water resources as an object of international relations have a direct effect on the desire of States to extend their sovereign rights to these resources and, at the same time, to use any opportunities to influence the management of other States of their sovereign waters. However, this universal reaction does not lead to a unified international political perception of water resources.

State security directly depends on the water. State security is, first of all, the regulation of water resources with neighboring states; the manageability of these resources according to water legislation within each country, and the competence of a special and independent water authority of the state.

The further development and security of states are exclusively connected with the reasonable and proper management of water resources, with the rational use of available water resources (unlike other subsurface resources, water is renewed annually).

## Conclusion

Thus, the policy of preventive diplomacy itself is a rather subtle matter, where it is important not to cross the line separating preventive (preventive) actions from post-conflict actions. And this is recognized at the highest level. Thus, UN Secretary-General Ban Ki-moon notes: "Taking into account the seriousness of many crises around the world, it is necessary to recognize that preventive diplomacy is an urgent necessity, and not just a possible option to prevent them" [9].

In the post-Soviet space, the main region where the UN policy on preventive diplomacy has been implemented and is being implemented is, of course, Central Asia.

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### **Теоретические аспекты исследований водной проблемы западными учеными**

**Аннотация.** В статье авторы рассматривают эволюцию понятия “превентивная дипломатия”. Историю происхождения термина, а также его концептуальные основы и значение в решении вопросов водного фактора в региональных и международных отношениях. В ходе исследования авторы пришли к выводу, что под термином водная дипломатия подразумевается двусторонние или многосторонние переговоры касающиеся водных вопросов, мирного урегулирования разногласий между прибрежными странами. Естественно глобализационные процессы происходящие во всем мире внесли свой вклад и усложнили решения проблем касающихся воды, тем самым повлияли на расширение понятия водной дипломатии. Это связано с тем, что появились новые игроки в данном процессе, такие как третьи страны и международные организаций. Под водной дипломатией характеризуют процессы, где все заинтересованные участники государственные, региональные международные сотрудничают для решения водных проблем. Тем не менее, не существует общего определения водной дипломатии, и фактические действия водной дипломатии, как правило, различаются по нескольким направлениям и масштабам. Основываясь на обзоре академических и политических документов Б. Бутрос-Гали, Йохан Галтунга, Т. Наффа анализируется разнообразие пониманий и общих моделей в определении водной дипломатии.

**Ключевые слова:** превентивная дипломатия, ООН, водная безопасность, миротворчество, водные войны, управление конфликтом.

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### **Батыс ғалымдары еңбектеріндегі су мәселесін зерттеудің теориялық аспектілері**

**Аңдатпа.** Мақалада авторлар “превентивті дипломатия” ұғымының эволюциясын қарастырады. Терминнің шығу тарихы, сондай-ақ оның тұжырымдамалық негіздері мен аймақтық және халықаралық қатынастардағы су факторы мәселелерін шешудегі маңызы қарастырылады. Зерттеу барысында авторлар су дипломатиясы термині су мәселелеріне, жағалаудағы елдер арасындағы келіспеушіліктерді бейбіт жолмен шешуге қатысты екіжақты немесе көпжақты келіссөздерді білдіреді деген қорытындыға келді. Әрине, бүкіл әлемде болып жатқан жаһандану процесі өз үлесін қосты және суға қатысты мәселелерді шешуді қиындатты, осылайша су дипломатиясы ұғымының кеңеюіне әсер етті. Себебі бұл процесте үшінші елдер мен халықаралық ұйымдар сияқты жаңа акторлар пайда болды. Су дипломатиясы барлық мүдделі қатысушылар мемлекеттік, аймақтық, халықаралық су мәселелерін шешу үшін ынтымақтасатын процестерді сипаттайды. Дегенмен, су дипломатиясының жалпы анықтамасы жоқ және су дипломатиясының нақты әрекеттері әдетте бірнеше бағыттар мен ауқымдарда ерекшеленеді. Академиялық және саяси құжаттарға шолу негізінде б. Бутрос-Гали, Йохан Галтунга, Т.Наффа су дипломатиясын анықтауда түсініктер мен жалпы модельдердің әртүрлілігін талдайды.

**Түйін сөздер:** профилактикалық дипломатия, БҰҰ, су қауіпсіздігі, бітімгершілік, су соғысы, шиеленісті басқару.

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