

## ***The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia***

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### **Abstract**

**Background and Theoretical Foundations:** Lakes are among the most important natural habitats, life-giving systems, and productive environments in the world. They have always been exposed to threats, destruction, and dangers throughout human history. As one of the most important international lakes, this lake has faced serious threats due to factors such as water level reduction, pollution, climate change, and human pressures.

**Methods:** The present study, using the descriptive-analytical method, deals with the approach of international environmental law regarding the responsibility or non-responsibility of the Iranian government for the drying up of Lake Urmia.

**Findings:** Lake Urmia, one of the largest salt lakes in the world, is rapidly losing water and drying up. This environmental hazard has raised concerns about its consequences and impact on surrounding communities. Maintaining and improving the condition of Lake Urmia requires the cooperation of all related people and institutions. This includes governments, organizations, researchers, civil society, and the international community. Everyone should pay attention to this issue and take appropriate measures to maintain and improve the condition of Lake Urmia. All individuals and institutions need to understand that the drying up of Lake Urmia is a global issue and requires the cooperation of all relevant parties to combat it.

**Conclusion:** By adopting appropriate measures and effective interaction, it is possible to realize a significant improvement in the condition of Lake Urmia. Based on the provisions of international conventions and environmental principles and the perspective of international organizations, governments have international responsibility in various environmental fields, including the protection and restoration of lakes. Governments are responsible for preserving natural resources such as water, soil, forests, and biological

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# *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

---

resources. Carrying out numerous development projects in the area of Lake Urmia, such as the construction of the Shahid Kalantari highway and numerous reservoir dams on the rivers that supply water to the lake, disturbs the ecological and hydrodynamic balance of Lake Urmia and is considered contrary to the commitment to promote reasonable use in the framework of the Ramsar Convention. The inefficiency of environmental impact assessment systems, starting projects before presenting the results of environmental assessment, not publishing and notifying the results to the public, not using the best available technology, etc. has finally endangered the life of this valuable wetland more and more. Therefore, the government of Iran is responsible for the drying up of Lake Urmia and its environmental damage according to international conventions and is required to comply with environmental principles to preserve and improve the conditions of Lake Urmia. The government of Iran should formulate and implement appropriate policies and laws to prevent illegal exploitation, pollution, and sabotage of these resources.

**Key words:** International Environmental Law, Lake Urmia, Iranian Government, Environment, Responsibility

## **1. Introduction**

The preservation and restoration of Lake Urmia is vital for the people and the ecosystem of Iran. Lake Urmia is the largest inland lake in Iran and the Middle East and the sixth saltwater lake in the world in terms of size. The special geography, ecosystem and unique wealth of this lake prevent us from consenting to its destruction. In fact, each local life requires its own rules. Local communities, governments and people are also fulfilling their rights and fulfilling their duties according to the conditions, but unfortunately, it must be acknowledged that the legal literature has not been sufficiently prepared and produced in a way that is efficient and specific to Lake Urmia. From 1374 to 1392, the decreasing behavior of Urmia lake level has been completely independent of the annual rainfall of its catchment basin. Urmia's level reached 1278 meters in 1374 and 1274 meters in 1384, and this level was announced as 40.12 meters in 1394, which showed a decrease of 40 cm compared to November 2013. The situation progressed in such a way that concern



was expressed about the destruction of Lake Urmia, and today there is an important responsibility on the shoulders of the government to revive this lake. The restoration of Lake Urmia is important from different perspectives and it is necessary to evaluate it from a legal point of view so that every person, group and organization, especially in the government of the Islamic Republic of Iran, is familiar with their responsibility in order to prevent drying up and restore the lake. Among the legal articles that are in line with the prevention of crime and also public rights in relation to Lake Urmia, is Article 45 of the Constitution, which states: "Privilege and public wealth such as favorable or abandoned lands, mines, seas, lakes, Rivers and other public waters, mountains, valleys, forests, reeds, natural groves, pastures that are not protected, inheritance without heirs and property of unknown owners and public property that is returned from usurpers are at the disposal of the Islamic government according to the public interest act, the details and order of using each one is determined by the law". Also, according to Article 50 of the Constitution, protecting the environment, in which today's generation and future generations should have a growing social life, is considered a public duty. Therefore, economic and other activities that are associated with environmental pollution or irreparable destruction are prohibited. These cases are not the only legal issues related to the Lake Urmia issue, and the mechanism of international law has presented various guidelines and meetings in the past decades to prevent climate change and issues such as the drying up of lakes, which by examining the existing guidelines It is possible to determine which of these conventions and guidelines are related to the restoration of Lake Urmia and what arrangements and obligations governments have in these legal guidelines at the international level. The issue of protecting lakes is an environmental issue, without a doubt, lakes are also considered a part of nature and ecosystem, so they should be examined based on the rules governing the environment and related documents. Also, lakes, in addition to the general principles and rules of international law, should be examined specifically based on the principles and rules of obligations of international

## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

---

environmental and water law. According to the Stockholm declaration, the protection of lakes as natural resources is of considerable importance not only for the present generation, but also for future generations. The issue of protecting lakes has been stated in many international documents, including the 1972 World Cultural and Natural Heritage Convention, the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora, and the 1973 Convention on the Protection of Migratory Species. Wild animals 1979, the Convention on Ecological Diversity 1992, the Convention on the Non-Navigational Use of International Waterways 1997, and specifically the Convention on Internationally Important Lakes, especially the Lakes of Waterfowl Habitat (Ramsar Convention), the most important convention regarding the protection of The lakes were concluded with the aim of preventing any excessive destruction in the lakes both now and in the future, recognizing the fundamental ecological capacities of the lakes and paying attention to the values of the lake. The international obligations and responsibilities of governments in the field of marine environment are considered very important as a global issue. The condition of Lake Urmia is related to the responsibility of governments at the international level. In this regard, the present study evaluates the approach of international environmental law regarding the responsibility or non-responsibility of the government for the drying up of Lake Urmia.

### **2. The international responsibility of governments in protecting the environment and water resources**

Indiscriminate exploitation and the introduction of environmental damage by humans have caused concern in the realization of the rights of future generations. Recognizing the rights of future generations is an important step to achieve sustainable development, and in this regard, environmental protection and reasonable and fair use of resources in order to achieve a sustainable future in which the rights of future generations are guaranteed is the duty of the international community (Pourhashmi et al., 2015: 165). The prohibition of environmental pollution and the right to have a



healthy environment are considered part of the international human rights domain. In the space of international human rights, the position of different norms is different (Moqufeh et al., 1400: 865). While the global community has yet to successfully address large-scale environmental problems, such as climate change and global warming, there are significant differences among societies in terms of environmental performance. International responsibility is the only guarantee of the implementation of the rules of international law, one of the fundamental and growing foundations of this system (Sadiqian et al., 2012: 158). It is clear and evident that international responsibility law is closely related to other branches of international law with this degree of importance (Ziaei Begdali, 2007: 466). The international responsibility system pursues two main goals, prevention and compensation (Zamani, 2018: 60). Recognizing the international responsibility of the Iranian government in preserving and reviving Lake Urmia is very necessary for making environmental decisions and policies. The government often plays a pivotal role in protecting the environment. For example, the government directly protects the environment through the implementation of environmental policies or solves environmental collective action problems (Mansbridge, 2014: 8-10). Environmental protection ultimately relies on public support, as waning support may impose substantial limits on governments' environmental policy ambitions. To facilitate the conditions under which effective and potentially costly environmental policies can be successfully implemented, it is important to have a good understanding of the processes by which citizens support environmental policies. The international responsibility of governments in protecting the environment and water resources refers to a set of legal obligations and duties that are determined based on international environmental law. These responsibilities are formed based on the framework of international environmental law. This framework includes international laws and treaties that have been accepted and ratified by countries. Some of the most important examples of the international responsibility of governments in protecting the environment and water resources are:

## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

---

a) Respect for international environmental laws: international environmental documents and guidelines, including international conventions, protocols and agreements, are the main basis of responsibility. International governments are involved in protecting the environment and water resources. These agreements include such things as the Convention on Biological Diversity, the Convention on Climate Change, the Convention on Combating Illegal Expropriation of Natural Resources, etc. International environmental laws and agreements determine the obligations and duties that governments must comply with and take necessary measures to protect the environment and water resources. b) Commitment to preventive measures: Governments are responsible for adopting preventive measures to prevent the occurrence of environmental damage and risks related to water resources. These measures include such things as determining appropriate standards and regulations, assessing environmental impacts, implementing preventive programs, promoting public awareness, and training related to the protection of the environment and water resources. For the protection of water resources, such things as measures to control and reduce water pollution, preserve natural water resources, develop and use sustainable water resources, manage irrigation systems, deal with drought and climate change, and create joint programs and projects for water resources management becomes c) International cooperation: Governments have the responsibility to cooperate with other governments and international organizations in order to protect the environment and water resources. This includes the exchange of information and experiences, the development of sustainable technologies, the creation of joint programs and projects, the formation of international organizations and committees for the joint management of natural resources and the environment, and the promotion of international cooperation in the field of environmental protection and water resources. t) Damage compensation: If governments deliberately or indirectly damage the environment and water resources of other countries, they are responsible and must fully compensate for the damage caused. This includes compensation for environmental, economic and social damages that



have been inflicted on other countries. Damage compensation can include replacing the loss, restoring the environment, paying compensation for economic and social damages, and taking necessary measures to prevent the recurrence of future damages. E) Encouraging the creation and strengthening of international environmental systems: Encouraging the creation and strengthening of international environmental systems that include organizations, committees and joint mechanisms is one of the most important responsibilities of governments in the field of environmental protection and water resources. This includes supporting international environmental organizations such as the United Nations, facilitating cooperation between countries to protect the environment and water resources, and promoting new laws and agreements to protect the environment and water resources (Kotze & Kim, 2022: 92).

### **3. The drying up of Lake Urmia**

Environmental issues are important and prominent in geography and among geographers, because the foundations of this scientific field are based on the environment. Environmental issues in Iran have grown significantly in recent decades and have affected geographical areas. Meanwhile, the northwest of the country has a special situation; because the lack of water in Lake Urmia has the ability to potentially destroy the existing ecosystem there (John Peror et al., 2020: 145). The drying up of Lake Urmia has wide environmental consequences. In short, it can be said that the drying up of Lake Urmia has caused natural hazards such as the loss of agricultural lands, destruction of gardens, reduction of pastures and salt-producing winds. Mass migrations, incidence of incurable diseases, etc. are among the human damages that will occur if Lake Urmia dries up completely (Ahmadian and Asghari, 2012: 87). Lake Urmia has a direct relationship with people's lives. If the lake dries up, life in the area will also be destroyed. According to the road map that has been prepared, by 2027 we will reach the natural balance of the favorable environment. The natural environmental level of the lake should reach 4400 and its volume should reach 13 billion cubic meters of water (Ebrahimi Serin Dizj and Zarghami, 2016: 79). The

## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

---

region of Azerbaijan is a hot and dry region, with measurements in the past years by the environment and environmental health, the results show that in Tabriz city, the amount of suspended particles in many cases is higher than the world standards, which have heavy metals, toxins that the studies conducted The finding indicates that heavy metals are of synthetic origin and very high, which leads to an increase in cancer incidence (Ebadi et al., 2016: 253). Scientists have warned that factors such as the collapse of the food chain and the ecosystem of the lake, the destruction of the wetland habitat, the "salt storm" caused by the wind, will cause local climate changes and will have serious negative effects on agriculture and local livelihoods, as well as regional health. (Al-Mohammed et al., 2014: 155). In short, the causes and factors of the drying up of Lake Urmia and the resulting environmental effects are: 1) The causes and factors of the drying up of Lake Urmia: A- lack of rainfall: the reduction of long-term rainfall and lack of rainfall in the region, as One of the main reasons for the drying up of Lake Urmia is discussed. B- Indiscriminate use of water resources: excessive use of water resources in Urmia lake area for agriculture, industry and drinking water has reduced the water flow and dried up the lake. C- Underground water changes: Due to the unbalanced extraction of underground water, the water level of Lake Urmia has decreased.

### **4. Environmental effects of the drying up of Lake Urmia:**

A- Reduction of biodiversity: The drying up of Lake Urmia has caused the destruction of the natural environment and the reduction of biodiversity in the region. This has adverse effects on native flora and fauna and causes the loss of vital species. B- Increase in the number of lost plants and animals: As the water level of the lake decreases, many plants and animals that are dependent on this environment will be lost. C- Decrease in agricultural production: The drying up of Lake Urmia has reduced the supply of water for agriculture in the region and has affected the production of agricultural products. This has negative economic and social effects. Considering that the drying of Lake Urmia has caused serious environmental damage,



it is necessary to adopt appropriate protection and management policies to maintain and improve the condition of the lake. These measures should be carried out based on the principles and rules of international environmental law in order to achieve an improvement in the environmental condition of Lake Urmia and the water resources of the region (Bahrami et al., 2015: 6).

### **5. Compliance of Urmia Lake conditions with international law guidelines**

Compliance of Urmia lake conditions with international law guidelines in the contemporary international legal system, protecting the environment as a common heritage of humanity is a vital necessity, considering the advancement of technology and the emergence of new technologies and the spread of environmental problems, especially by governments. Based on this, wetlands are very important for the world community in terms of biodiversity and economic, social and cultural effects, which is a clear example of Lake Urmia. In order to protect these types of ecosystems, international law has established significant regulations within the framework of general and special rules. Three international conventions: Ramsar, biodiversity and migratory species, as well as UNESCO's Man and Biosphere Program are among the international legal instruments that are most related to Lake Urmia (Amin Mansour, 2012: 389). Lake Urmia has been registered as a wetland of international importance in the Ramsar Convention, which is the only specific document governing the protection of wetlands. According to the general rules and according to this convention, countries are obliged to use wetlands intelligently and protect them. But in recent years, Urmia's wetland is on the verge of drying up due to indiscriminate exploitation, including the construction of dams and economic and civil projects such as the construction of the Shahid Kalantari intersection bridge without effective environmental assessment and the lack of improvement of the wetland. So that the continuation of this crisis by threatening the right to a healthy environment will lead to an environmental disaster and increase Iran's international responsibility. Therefore, it is necessary to use the capacities of international law for

## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

---

the revival of Lake Urmia (Mulai, 2019: 87). Examining the compliance of Lake Urmia with international law guidelines requires a comprehensive and detailed study. But in general, Lake Urmia is facing serious environmental problems that require immediate attention and measures from the government and relevant organizations. The condition of Lake Urmia is related to the responsibility of governments at the international level. International law guidelines include a number of principles and rules that help determine the legal responsibility of governments in preserving and protecting the environment and natural resources. These guidelines include things like the principle of biodiversity protection, the principle of water resources management, the principle of prevention and precautionary measures, the principle of information and public participation, etc. In the following, we will discuss the compatibility of Urmia Lake conditions with some principles and guidelines of international environmental law:

### **1.5. Principle of protection of biological diversity:**

One of the basic principles of international environmental law is the protection of biological diversity. Lake Urmia, as an important water ecosystem, has a high biological diversity that needs protection. In this regard, the government of Iran should implement appropriate protection programs and policies to maintain biodiversity in this region.

### **2.5. The principle of water resources management:**

International environmental law guidelines also pay attention to water resources management. Lake Urmia, as a valuable water resource, requires sustainable and sustainable water resource management. The government of Iran must implement appropriate plans and programs for optimal management and correct use of water resources in this region. c) The principle of prevention and precautionary measures:

The guidelines of international environmental law emphasize that governments should adopt preventive measures and precautionary measures in the face of



environmental risks. Regarding the drying up of Lake Urmia, the Iranian government must take necessary measures to prevent this phenomenon and protect the lake's water resources.

### **3.5. The principle of information and public participation:**

The guidelines of international environmental law emphasize that governments must provide the necessary information about the environmental situation and environmental damage to the public and involve them in the decision-making process and participation in environmental protection (Kim & Bosselmann, 2013: 294). In the case of Lake Urmia, the Iranian government should provide the public with the necessary information and involve them in the process of protecting and managing water resources and the environment. Considering the problems in Lake Urmia, such as the decrease in water level and biodiversity, it can be stated that the conditions of Lake Urmia do not fully comply with the guidelines and principles of international environmental law (Paknia and Karamjovan, 2018: 146).

## **6. Obligations of the Iranian government for the protection of Lake Urmia**

Environment is the main factor of human life and survival outside the national borders, effective in human life. A healthy environment, which guarantees human health and the survival of future human generations, supporting it is an international necessity, and any kind of environmental protection depends on the participation of the international community and the harmonization and standardization of national and international institutions with legal and technical standards. In the following, we will examine Iran's obligations based on general and specific rules regarding the protection of Lake Urmia:

### **1.6. Obligations based on the general rules of international environmental law**

## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

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Obligations based on the general rules of international environmental law are not only specific to wetlands and generally support all examples of the environment in the world. In the following, we discuss the most important documents in this field:

### **1.1.6. Stockholm Conference 1972:**

This conference was the first United Nations conference on man and the environment. This conference was held from the 5th to the 16th of June 1972 in the city of Stockholm, the capital of Sweden, with the presence of officials and representatives of most countries of the world. At the end of the meeting, this conference decided to publish a statement (26 principles) with a declaration of principles and an operational or implementation plan, which is considered one of the documents of the World Environment Conference. The third principle of the Declaration of the United Nations Conference on the Environment (Stockholm) stipulates: "Earth's natural resources, including air, water and soil, flowers and plants, and especially specific examples of natural ecosystems, must be used for the use of current and future generations with a plan. Careful planning and proper management should be protected. According to the provisions of the Stockholm Declaration, the Iranian government should adopt systematic policies to protect Lake Urmia and preserve its biodiversity, and provide appropriate financial and technical resources for the implementation of Lake Urmia's protection plans and projects.

### **2.1.6. The SAITIS Convention:**

The SAITIS Convention or the Convention on International Trade in Endangered Species of Wild Fauna and Flora was approved in 1973 in America. The purpose of this treaty is to ensure that trade in valuable and endangered plant species does not threaten their survival. The convention now has 160 countries as official members. You should note that even one of the species protected by this convention has not become extinct since the implementation of this treaty due to trade, and for many years this treaty has been the most important and broadest international treaty. The responsibility of the Iranian government for the restoration of Lake Urmia is very



important in the Convention on International Trade in Endangered Species of Wild Fauna and Flora. Iran, as one of the parties to this convention, is committed to the preservation and sustainable management of animal and plant species in Iran that live in Lake Urmia and its surrounding areas. Ram and sheep, yellow deer and leopard are among the most important species in Lake Urmia National Park. According to Article 3 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the government of Iran is responsible for taking the necessary measures to protect animal and plant species in Lake Urmia and its surrounding areas. This includes identifying endangered species, determining and implementing conservation measures, controlling illegal species trade, and informing the public about the conservation and sustainable management of natural resources. The government of Iran must determine and implement national laws and regulations related to the protection of endangered and wild species. These actions can include the adoption and implementation of national laws based on the standards of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, establishing and strengthening departments and organizations related to the protection of endangered and wild species, and promoting cooperation and coordination with other parties to the convention. (Jon, et al., 2000: 45).

### **3.1.6. The Convention on Biological Diversity**

The Convention on Biological Diversity is part of the United Nations Conference on Environment and Development. The treaty was signed in Rio de Janeiro in 1992, entered into force in 1993, and currently has 184 members. This convention has three main goals:

- a) Protection of environmental diversity
- b) Stable application

## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

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c) Optimal and sustainable use of natural resources (Pourkhaghan et al., 2022: 132-133).

Iran officially joined this convention in June 1996 and determined the strategies and national action plan regarding the protection of biological diversity, which was one of the requirements of joining this treaty. The government of Iran has the responsibility to take the necessary measures to preserve and restore the biodiversity of Lake Urmia, according to Article 6 of the Biological Diversity Convention. This includes measures such as setting national laws and regulations related to the protection of biodiversity, establishing and strengthening protected areas and national parks around Lake Urmia, promoting environmental monitoring and surveys, and providing public education and awareness about biodiversity conservation. The government of Iran should take appropriate measures to preserve important biological species in Lake Urmia. This includes measures such as identifying and protecting graded and vulnerable species, establishing and developing conservation programs for biologically important species, and conducting research and scientific studies to better understand the biodiversity of Lake Urmia (Frankham, 2022: 865).

### **4.1.6. Convention on the Conservation of Migratory Wild Species of 1979 (Ben):**

Convention on the Conservation of Migratory Wild Species of 1979 which aims to protect and manage migratory wild species that migrate from the national territory of the member states, which we can fully relate to the issue of wetlands. And protect them as well because many of these wild migratory species are water birds whose main habitat is wetlands and especially Lake Urmia. For example, the habitat of many flamingos and pelicans and their main breeding center is located in the islands of Lake Urmia, and with the loss of this lake, the life of these birds is also threatened.

### **5.1.6. Biosafety Protocol:**

Biosafety Protocol was approved by the representatives of member countries in 2000 in Montreal, Canada. Based on the articles of the Convention on Biological Diversity,



the safe and healthy use of biotechnological methods (biotechnology) in such a way that these methods or their processes do not have a harmful effect on the environment has been emphasized and is considered one of the obligations of the member countries. The government of Iran has the responsibility to take the necessary measures to preserve the biological ecosystems of Lake Urmia and prevent environmental risks, according to Article 4 of the Biosafety Protocol. This includes measures such as the creation and implementation of national laws and regulations related to the protection of biological ecosystems, the creation and strengthening of protected areas and national parks around Lake Urmia, the promotion of environmental monitoring and surveys, and the provision of public education and awareness about the preservation of biological ecosystems. . The government of Iran should take such appropriate measures to preserve the biodiversity of Lake Urmia (Hokanson, 2019: 5).

## **2.6. Obligations based on specific rules of international environmental law**

### **1.2.6. The Ramsar Convention**

The convention related to important international wetlands, especially wetlands for the habitat of water birds (wetlands convention), known as the Ramsar Convention, was approved in 1971 in the city of Ramsar, Iran, with the presence of 18 countries. This convention is the first new international treaty in the field of protection and exploitation of natural resources and currently includes 134 official members around the world. Article 1 of the Ramsar Convention provides a broad and general definition of a wetland, which includes marshes, swamps, mudflats or natural or artificial water bodies, either permanent or temporary, in which fresh, bitter or salty water is stagnant or flowing. It is possible to include sea waters whose depth at the lowest point of the tide does not exceed six meters. The wetlands that are registered in the list of wetlands of international importance on the Ramsar site are of ecological, plant, animal and hydrological importance. Lake Urmia is one of the most important wetlands

## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

---

registered in the Ramsar Convention. As one of the main members of this convention, Iran is committed to maintaining and improving the environment of Lake Urmia. The government of Iran has the responsibility to take necessary measures and measures for the sustainable management and protection of the water resources of Lake Urmia according to Article 2 of the Ramsar Convention. This includes improving the quality of water, preserving and reviving the natural and migratory habitats of aquatic animals and birds, and preserving the biodiversity of the region. Also, the government of Iran should implement programs and plans to promote public awareness and education in the field of protection of Lake Urmia and water resources. This includes providing information to the community and training related to the protection of water resources to different audiences (Al-Mohammed et al., 2013: 158). Therefore, the government of Iran, with its commitments in the Ramsar Convention, has a great responsibility for the restoration of Lake Urmia and must take the necessary measures to maintain and improve the condition of this water area (Mohammadi and Najafi, 2016: 17-18).

### **3.2.6. Convention on the Conservation of Migratory Wild Species of 1979 (Ben):**

This Convention, aims were to protect and manage migratory wild species that migrate from the national territory of the member states, which we can fully relate to the issue of wetlands. And protect them as well because many of these wild migratory species are water birds whose main habitat is wetlands and especially Lake Urmia. For example, the habitat of many flamingos and pelicans and their main breeding center is located in the islands of Lake Urmia, and with the loss of this lake, the life of these birds is also threatened.

### **4.2.6. Biosafety Protocol:**

Biosafety Protocol was approved by the representatives of member countries in 2000 in Montreal, Canada. Based on the articles of the Convention on Biological Diversity, the safe and healthy use of biotechnological methods (biotechnology) in such a way that these methods or their processes do not have a harmful effect on the environment



has been emphasized and is considered one of the obligations of the member countries. The government of Iran has the responsibility to take the necessary measures to preserve the biological ecosystems of Lake Urmia and prevent environmental risks, according to Article 4 of the Biosafety Protocol. This includes measures such as the creation and implementation of national laws and regulations related to the protection of biological ecosystems, the creation and strengthening of protected areas and national parks around Lake Urmia, the promotion of environmental monitoring and surveys, and the provision of public education and awareness about the preservation of biological ecosystems. . The government of Iran should take such appropriate measures to preserve the biodiversity of Lake Urmia (Hokanson, 2019: 5).

### **7. Environmental principles and projects carried out in Lake Urmia:**

The principle of prevention of laws is one of the basic issues in considering environmental issues. Several environmental documents have directly or indirectly addressed the principle of deterrence or the main components of its implementation. For example, Article 3 of the 1992 Convention on Climate Change or Article 2 of the 1994 Paris Convention on Desertification emphasize this principle. In this regard, principles 14, 15, 17, 19 and 24 of the 1992 Rio Declaration on environment and development have also been included (Bristol-Alagbariya, 2023: 5-7). It is not caused by serious damage and danger to the transboundary environment, but basically its approach is to avoid risk, regardless of its various dimensions in transboundary effects or creating international responsibility, because in case of serious damage to the environment, for example, the extinction of a plant or animal species, leakage of resistant pollutants in the sea, and the like, a situation will arise where sometimes the damage is irreparable or the costs of restoring the previous situation will be huge and so-called back-breaking. Draining a large part of Lake Urmia and embanking it to build a bypass is a problem that will be impossible or very difficult to compensate for. The actions that were taken for the formation of these projects were completely

## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

---

against the principle of deterrence and preventive measures. It was demystification. According to Article 2 of this convention, all the members are committed to implement preventive measures in their national programs regarding lands that have not been destroyed yet. "Precautionary principle" is the most common concept in environmental law and one of the main components of realizing the principle of deterrence. There is no international agreement on its precise concept and legal basis. However, Article 15 of the 1992 Rio Declaration states: "In order to protect the environment, the precautionary approach should be widely applied by governments according to their capabilities." In the case of the risk of severe damage and compensable dust, the lack of scientific reasons should not be used as an excuse for delaying the adoption of effective measures to prevent damage to the environment. The most important legal document requires governments to observe the precautionary principle in environmental activities. The precautionary approach in this principle is based on the protection and protection of the environment, with the help of preventive measures that should be widely implemented by the governments in accordance with their capabilities and in case of the possibility of severe and irreparable damage to the environment despite the lack of definite reasons in The occurrence of that damage should be implemented without delay. The decision of the International Court of Justice in the case of Gabchiko-Nagymarus (Hungary v. Slovakia-1997) declares the principle of precautionary measures as a requirement of sustainable development and emphasizes the commitment of the parties to control and prevent the destruction and pollution of the environment with preventive measures. Bazzar, 2017: 16-18). The condition of Lake Urmia shows that the principle of caution has not been followed in any way regarding construction projects in the lake.

The precautionary principle is used when the impact of construction projects on the environment is scientifically uncertain. While the drying of a large part of the lake and the embankment in it for the construction of a bypass road, the construction of numerous dams on the rivers that supply the water of the lake, and the non-compliance



with the environmental rights of the lake, there is no need for any scientific research to determine the possibility of negative effects for It does not have a lake. One of the means of complying with the precautionary principle is to resort to the best available technology. In today's technological world, embankment of nearly 80% has not been the best tool available to create a bypass road on Lake Urmia (Ramazani Qawamabadi, p. 126). According to the precautionary principle, when there is a threat of serious and irreversible damage to the wetland, the lack of scientific certainty should not be used as a reason to postpone measures to prevent environmental damage. However, the authorities still emphasize the scientific uncertainty and the lack of direct connection between the implementation of construction projects and the destruction of Lake Urmia (Salimi Turkmani, p. 191).

"The principle of sustainable development", which was recognized as a model for improving the quality of life in 1992 by the United Nations Conference on Environment and Development, and was included in Agenda 21, Principles 3 and 4 of the 1992 Rio Declaration, Preamble and Clause 6 of the Declaration 1995 Copenhagen regarding social development is also mentioned. Integrity in development means the government's commitment to act with environmental considerations as a legal feature in dependence with other development components, and the continuous assessment of environmental impacts resulting from development is considered an important tool for implementing the principle of deterrence in support of sustainable development. (Wan & Ni, 2020: 12841). Paying attention to short-term economic priorities at the cost of ignoring a valuable ecosystem such as Urmia's wetland is contrary to the concept of sustainable development as the foundation of economic development. The construction of reservoir dams and Shahid Kalantari highway, regardless of the risks caused by their construction on Lake Urmia, is a clear example of unstable economic development. Carrying out environmental assessments is one of the indicators of realizing reasonable use in the framework of the Ramsar Convention. In principle, it should have been considered during the construction of

## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

---

Shahid Kalantari bypass road and reservoir dams, and it was considered a fundamental part of the protection of the Urmia wetland and the optimal implementation of the wetlands management strategy. Design development policies and educational and legal activities and site-specific measures were accelerated (Bahadrani, p. 5). Disruption of the ecological features of this lake due to the implementation of such projects is contrary to the standard of reasonable use contained in the Ramsar Convention. Economic development, if done correctly, does not create a problem for the sustainability of the environment. At the same time, adopting favorable policies to protect the environment will not hinder economic development, but economic development that destroys the environment or leads to extensive use of natural resources to the detriment of future generations will not be sustainable development (Moussi Zadeh, 1390: 7).

Water transfer should be done according to the two important principles of "fair use" and "rational" which are stated in some international documents. Article 3 of the 1992 Rio Declaration, Clause 2 of Article 2 of the 1992 Helsinki Convention and Article 5 of the 1997 International Watercourses Convention require member states to use river water based on fairness, rational and sustainable use. Also, articles 4 and 5 of UN General Assembly Resolution No. 118/68 regarding water basins pay attention to the fair and rational use of these waters and attention to these criteria. Article 6 of the second document above specifies the criteria for fair and rational use of water: a- hydrological, ecological, geographical, climatic and other natural factors; b- economic and social needs of the people; C- The level of people's dependence on water in the country; T- The effect of water use in one region on other regions; d- Current and future status of water use; c- Protection, improvement and provision of water maintenance and use costs; H- The possibility of using alternative methods in using water. According to these principles; The transfer of water from the Zab River to Urmia Lake must first be chosen as a last resort and the necessary strategies for a fair and reasonable distribution of water should be adopted, primary and secondary evaluations should be carried out to ensure that there are no negative economic, social



and environmental effects of this transfer. Social participation and consultation in water transfer should be guaranteed and in the end all environmental and human damages caused by water transfer should be compensated (Fariadi, previous, 137). In addition to the above, it is essential to implement the following two principles to restore Lake Urmia:

### **1.7. Ensuring the right to Lake Urmia:**

Determining and supplying the water needs of Lake Urmia is one of the most important considerations regarding the drying up of the Lake. At the international level, the International Union for Conservation of Nature provides the following definition for the term "water needs of wetlands": "The water regime provided for wetlands in order to protect the ecosystems and their benefits" (Dyson, et al., 2003). : 12). The theory that one of the most important factors threatening Lake Urmia is not respecting the rights of this lake due to the construction of dams and dams and the diversion of the river, etc., so this issue should be taken into account by effective laws and regulations. The integrated and sustainable management of water resources requires a balance between water consumption and economic development against the protection of water ecosystems. Therefore, long-term plans should be designed for this purpose. In the 8th paragraph of the resolution issued at the 8th session of the Ramsar Conference, which was held in Valencia, Spain in 2002, guidelines regarding determining the minimum water requirement of wetland ecosystems, depending on their climatic conditions, were considered. In this resolution, with the aim of meeting the water needs of the wetlands and maintaining them, it was stipulated that a comprehensive planning for the management of the wetlands, especially to determine the water needs of the wetlands (paragraph 8, article 8 and paragraph 10, article 14); Countries are obliged to cooperate globally and take advantage of each other's experiences and scientific findings (Paragraph 10, Article 16); And the damage caused by the loss of a wetland is known to be irreparable. Therefore, based on the guidelines of international documents regarding Lake Urmia, in the first step, studies

## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

---

should be conducted regarding the provision of water needs of this wetland (Zarghami, 2011: 92). There are, of course, most of them include wetlands that are standing and their actions do not seem desirable for wetlands such as Urmia Wetland, which are in dire condition. For example, in the second article of the Law on Protection, Restoration and Management of Wetlands, the determination and supply of water needs of Urmia Lake is foreseen by the Environment Organization and the Ministry of Energy. Currently, in terms of the legal requirement regarding the provision of water needs of the country, the approval of the long-term development strategy of the country's water resources (approved in 1382) is related to this issue in some aspects. At the end of the second article of this resolution, it is mentioned that the minimum needs of natural water environments must be provided in a sustainable manner. In any case, the water needs of Urmia Wetland are neither defined nor directly mentioned in this resolution, but it can be said that since wetlands are one of the water resources, water management strategies in meeting water needs they are emphasized in the long term. In other examples, we can refer to the series of five-year development laws of the fourth (in paragraph a of article 16), fifth (in article 184) and sixth (in article 38 of section 9 and proposition 3 and the corresponding note from paragraph "b" of article 6 ) Cited. In these laws, it is emphasized about the limitations and time-spatial distribution and the need for development in territorial development at the level of the country in the catchment area in the wetlands so that the goal of meeting the water needs in the country is taken into account (Tahri and Bai, 2017: 622). . Regarding Lake Urmia, in a positive and late action, the issue of environmental water rights was raised in the third meeting of the executive headquarters of Lake Urmia watershed management on October 20, 2009. Based on the powers of Article 138 of the Constitution, the headquarters has approved the amount of 1.3 billion cubic meters of water as the annual environmental allowance of Lake Urmia. Although the capacity of Lake Urmia has been determined to be 1.3 billion cubic meters of water, still not more than a third of the capacity of the lake is allocated to it. Currently, according to the vice president of marine environment and



wetlands of the Environmental Protection Organization, from the beginning of the current water year, i.e. 1 Mehr 1401 to mid-June 1402, of the 3 billion and 400 million cubic meters of Lake Urmia, only 800 million cubic meters (less 25 percent) has been allocated to the environmental rights of Urmia Lake ([www.aa.com.tr/2919120/](http://www.aa.com.tr/2919120/)).

## **2.7. International cooperation in the field of Urmia lake restoration**

Environmental issues have global dimensions. Such an issue has demanded that the governments of the world cooperate with each other to take serious action to prevent adverse climatic effects caused by industrial and development activities. Principles 22 and 24 of the Stockholm Declaration and Article 27 of the Rio Declaration imply a commitment to such cooperation. In this regard, wetlands of international importance should not only be protected by the governments in whose territory those wetlands are located; rather, such protection should also be provided and guaranteed by other governments. One of the important measures in this regard is providing financial and technical assistance, especially from international organizations and developed countries, to countries facing environmental problems. Principles 12 and 20 of the Stockholm Declaration propose the provision of international technical assistance to developing countries in order to achieve sustainable development. According to Article 5 of the Ramsar Convention, all contracting states must consult with each other regarding the implementation of the obligations arising from the Convention. Therefore, according to the provisions of this article and the general principles and rules of international environmental law, all the governments that are parties to the Ramsar Convention should cooperate with Iran to solve this environmental problem of the Urmia lagoon. Of course, Iran should take the initiative in this regard as well (Salimi Turkmani, p. 195). Therefore, in order for the international community to be involved in Lake Urmia, the government's international cooperation with other governments and international organizations should be expanded. Iran's environmental issues and challenges should be favorably communicated in the international community, and institutions such as the United

## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

---

Nations should have sufficient information on Iran's environmental issues, related protocols and conventions. The transfer of this information will definitely attract their attention and allocate resources from them to solve these challenges. The Environmental Protection Organization officially started the "Iranian Wetlands Protection Plan" with the support of 2.9 million dollars from the United Nations Development Program and the Global Environment Facility Fund in the two basins of Lake Urmia and Lake Parshian on January 26, 2005, and it was supposed to May 2012 continue. In 2022, the head of the Environment Organization announced the allocation of 135 million dollars from the United Nations Development and Development Program to solve environmental problems in Iran, including Lake Urmia. Previously, the head of the United Nations Development and Development Program had said that for this program in Iran, within five years from 2012 to 2016, 235 million dollars of development budget was allocated, of which 57 percent, i.e. 135 million dollars, was used to solve the challenges of life. An environment including the restoration of Lake Urmia is allocated. Since various measures must be taken to restore Lake Urmia, the main of which is the transfer of water from other watersheds in the country, it requires a lot of funds. The figure of 135 million dollars of UN aid, part of which is allocated to the restoration of Lake Urmia, is not enough for all these measures, but it can have a positive effect to save Lake Urmia. The formation of a joint commission with international environmental organizations by the Iranian government is necessary for the restoration of Lake Urmia. By forming a joint commission and cooperating with environmental organizations, it is possible to provide the financial resources needed to implement programs and plans for the restoration and protection of Lake Urmia. According to the views of the International Union for Conservation of Nature, governments should consider cooperation with other countries and international organizations. This includes the formation of joint teams to face common challenges and exchange knowledge and experiences in the field of lake protection and restoration. , due to excessive use of its water for agriculture and industry, climate change and other factors, it has shrunk drastically.



The International Union for Conservation of Nature, considering the importance of this lake and the negative effects of reducing its water volume on the environment and economy of the region, has called on the governments of Kazakhstan and Uzbekistan to cooperate in the restoration of the Aral Lake. This union believes that only with interaction and cooperation between these two countries, it is possible to preserve and restore the Aral Lake. In the case of Lake Urmia, the International Union for Conservation of Nature has requested the Iranian government to take responsibility for the protection and restoration of Lake Urmia and to make every effort to improve it from its current state to an ideal state. This union wants the government of Iran to cooperate with other governments and international organizations in order to benefit from their experiences and technical knowledge. Also, the government of Iran should formulate and implement appropriate cooperation programs with the efforts of neighboring countries in order to revive Lake Urmia with joint efforts. In general, the responsibility of governments in protecting and restoring lakes should be based on the obligations of the International Union for the Protection of Nature and international agreements related to the protection of water resources and the environment. These obligations should be taken seriously and cooperation between governments to fulfill these obligations should prevail.

### **Conclusion**

Today, as much as the institution of international responsibility is respected and its rules and techniques are better known, and steps are taken towards the development and evolution of the international responsibility law system, the ground for better and more effective implementation of international law regulations is provided. The international responsibility of governments in protecting the environment and water resources is very broad and complex and requires cooperation between countries and international organizations. Each country can determine its responsibilities in this field based on national and international laws and standards and take necessary

## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

---

measures to protect the environment and water resources. Lake Urmia, one of the largest salt lakes in the world, is rapidly losing water and drying up. This environmental hazard has raised concerns about its consequences and impact on surrounding communities. Maintaining and improving the condition of Lake Urmia requires the cooperation of all related people and institutions. This includes governments, organizations, researchers, civil society and the international community. Everyone should pay attention to this issue and take appropriate measures to maintain and improve the condition of Lake Urmia. It is important for all individuals and institutions to understand that the drying up of Lake Urmia is a global issue and requires the cooperation of all relevant parties to combat it. By adopting appropriate measures and effective interaction, it is possible to realize a significant improvement in the condition of Lake Urmia. Based on the provisions of international conventions and environmental principles and the viewpoint of international organizations, governments have international responsibility in various environmental fields, including the protection and restoration of lakes. Governments are responsible for preserving natural resources such as water, soil, forests and biological resources. Carrying out numerous development projects in the area of Lake Urmia, such as the construction of the Shahid Kalantari highway and numerous reservoir dams on the rivers that supply water to the lake, disturbs the ecological balance and hydrodynamics of Lake Urmia, and in the framework of the Ramsar Convention, it is considered contrary to the commitment to promote reasonable use. The inefficiency of environmental impact assessment systems, starting projects before presenting the results of environmental assessment, not publishing and informing the public about the results, not using the best available technology, etc. which has finally endangered the life of this valuable wetland more and more. Therefore, the government of Iran is responsible for the drying up of Lake Urmia and its environmental damage according to international conventions and is required to comply with environmental principles to preserve and improve the conditions of Lake Urmia. The government of Iran should formulate and implement appropriate policies



and laws to prevent illegal exploitation, pollution and sabotage in these resources. Also, the government of Iran should try to reduce air, water and soil pollution and apply necessary measures to control industrial and habitat pollution. The government can be effective in reducing pollution by encouraging the use of renewable resources, setting environmental standards and regulations, and encouraging clean technologies. Also, the government of Iran should work in the field of environment with international cooperation and coordination. The government is obliged to implement programs and policies to preserve and manage water resources. Therefore, efforts should be made to preserve marine ecosystems and decontamination of Lake Urmia.

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## *The Approach of International Environmental Law Regarding the Responsibility of the Iran Government for the Drying Up of Lake Urmia*

*Meisam Norouzi, Mehdi Eskandari Khoshguo*

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