

Artemia, also known as brine shrimp, has become active anew and resumed their life cycle in Lake Urmia following recent rainfalls.
SOHEIL FARAJI/ISNA

Similar conditions, of course with differing intensity, existed in the catchment area of Lake Urmia.

Notwithstanding these conditions, when you examine the news pertaining to the region, you observe that the export of products such as apples, sugar beets, fodder, alfalfa, peaches, and other agricultural products still occupies the forefront of the news. This region, in a condition in which it confronted severe water deficiency and water stress, was reckoned one of the major exporters of water-intensive products to other provinces and even abroad, and this process still continues. This contradiction demonstrates that we have not yet seriously apprehended the reality of the water crisis and its dimensions, and this matter has not found its true position in our planning. We must alter the course. Alternative livelihoods, the creation of new occupational opportunities, the development of service activities, and the utilization of border capacities must be placed on the agenda. One cannot, in a region that confronts a serious water crisis, still emphasize the development of activities that are dependent upon high consumption of water resources.

In spite of all of these matters, we must not neglect the positive occurrence that has now transpired in nature. Today, in comparison with previous years, we observe the lake with a substantial water expanse, and even its islands again experience indications of life. Birds have returned to this habitat, they lay eggs, and beautiful scenes of the return of life in the region have taken form.

Given the international significance of Lake Urmia and that this water expanse is one of the important habitats of migratory birds and diverse animal species, has not the time arrived for international supports for its revitalization to be pursued more seriously?

Precisely so. Lake Urmia is covered by the Ramsar Convention and is reckoned a protected habitat of international significance.

Of course, our country possesses considerable capabilities with respect to scientific capacities, specialized human resources, experience, and hardware facilities. We possess this capacity to accomplish many of the requisite measures within the country. Our principal problem pertains more to the weakness of integrated management and the matter of the governance of water resources.

Yet, the utilization of international capacities, the experiences of other countries, and the facilities of global organizations can accelerate the process of the revitalization of the lake. In previous years as well, collaborations with entities such as the United Nations Development Programme (UNDP) and the Food and Agriculture Organization of the United Nations (FAO) have been undertaken.

One of the successful examples of these collaborations is an activity that the Urmia University's Lake Urmia Research Institute has commenced during the past four years with the assistance of the FAO. This program is executed with the objective of promoting novel methods and eliciting the participation of beneficiaries in the preservation of water and soil resources.

Within the framework of this scheme, several pilots of smart agriculture and smart irrigation are being executed in the plains of Nazlu and Baranduz and also in the regions of Naghadeh, Mahabad, and Miandoab.

Of course, it is necessary that the Ministry of Agriculture pursue the matter of the promotion of novel methods and soft measures more seriously. Furthermore, the national working group must move toward the creation of a structure that ultimately conduces to the integrated management of water resources.

Until such a structure takes form and the two important ministries, Agriculture and Energy, enter the field seriously, we will still confront difficulties. In sum, movements have commenced and favorable measures are in progress, but the extent of collaborations and international communications is still at a distance from the expected level, and greater effort must be undertaken in this context.

If we return to the precipitations of the past several days, what precisely has been the impact of these precipitations upon the alteration of the condition of the lake? Is the fourfold increase of the expanse of the lake principally the result of these recent rainfalls?

The statistics that I presented to you indicate that the rise in the water expanse of the lake in comparison with the previous year has been substantial. The precipitations of the past several days as well have had a direct impact upon the amelioration of the condition. Of course, one must not attribute all of this augmentation solely to the rainfalls of the past several days because prior to these rainfalls, the lake had already attained a substantial level of water intake by reason of the favorable precipitations of the current water year.

The more important and more auspicious point is that predictions indicate that the major portion of the principal precipitations of the coming water year is still en route. We anticipate a precipitation-rich autumn, and in all probability, winter as well will be accompanied by favorable snowfalls.

If we can, alongside these rains, exercise greater control over the rivers and conduct a greater share of the runoffs toward the lake, in particular in the non-agricultural season, we can create a favorable water reserve in the lake prior to the commencement of the warm season.

This matter is exceedingly important, for summer is reckoned the most difficult season for Lake Urmia. In this season, we practically have no considerable water inflow, and on the other hand, the quantity of evaporation attains its maximum. For this reason, we usually confront the minimum water expanse of the lake at the end of summer.

In previous years, conditions were such that we practically could no longer speak of a lake with a natural character; for a lake that possessed the capacity of about 12 billion cubic meters of water, when only a few hundred million cubic meters of water remain in it, loses a major portion of its ecological character.

Nevertheless, we hope that with the forthcoming precipitations and, in particular, a snow-rich winter, the condition of the lake in the coming year will be far better than in the current year. If the government undertakes the requisite measures and the people also cooperate, we can utilize this opportunity for the storage of greater water in the lake.

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Boats are lined up again for use by tourists who'll come visit Lake Urmia, northwestern Iran, on November 13, 2026.
SOHEIL FARAJI/ISNA



If in the coming years as well, we witness rains analogous to the current water year and managerial measures are also pursued with seriousness, may one be hopeful that Lake Urmia will attain the condition of revitalization?

Without doubt, the continuation of rains has a direct impact upon the amelioration of the condition of the lake. But the reality is that we have not been as successful as we ought in the matter of the prevention of the development of agricultural lands and land-use changes, and for this reason, our dependence upon precipitation has become exceedingly great.

The condition at present is such that if precipitation occurs, the condition of the lake ameliorates, and if we do not have favorable precipitation, given the quantity of consumption and extraction of water, the condition will again move toward crisis.

Of course, we must not necessarily think of the precipitations of the previous year and the current year as a sustainable climatic process. Our region possesses a semi-arid climate, and we must not anticipate that henceforth, we will encounter abundant and continuous precipitations every year.

It is possible that climatic changes and novel atmospheric patterns will impact this process, but in this context, the experts of the Meteorological Organization can better pronounce upon the prospect of the coming years.

In sum, we must not imagine that the climate of the region has suddenly transformed and that henceforth, we will always confront favorable precipitations. Therefore, we must, along with hopefulness for the continuation of precipitations, also pursue managerial measures and the rectification of the water consumption pattern so that we can still have Lake Urmia as a living water expanse upon the map.

You have directly followed the condition of Lake Urmia for more than two decades and have conducted research in this context for years. Given the current condition, are you more hopeful concerning the future of the lake in comparison with the past?

I have a good feeling about the fact that the awareness and attention of the people, farmers, and officials has changed a lot within the past two decades. Today, the matter of water and its impact upon the lives of people, and also the consequences of environmental destruction, have become more tangible for society.

We in the Lake Urmia Research Institute have been active in this region for approximately 15 years, and we now observe that the farmers themselves, spontaneously and consciously, seek methods that diminish water consumption without any decline in their yield and quantity of production.

The objective is that even despite lesser water consumption, they get to have greater production, diminish the extent of the utilization of fertilizers and agricultural pesticides, and simultaneously boost their product yield. This alteration of attitude is extremely precious. I hope that relevant officials and organizations as well will work alongside this movement with greater seriousness so that we can, with the collaboration of all sectors, delineate a better prospect for the future of the lake.

Nature has now assisted us and has placed a renewed opportunity at our disposal. I predict that in the coming year as well, we will witness a far greater water expanse in the lake. If the precipitations that are predicted for the continuation of autumn, winter, and early spring materialize, the water expanse of the lake may even attain around two times the current level.

This opportunity permits us, with the favorable storage of water prior to the commencement of the coming summer, to have a lake with a better condition and an acceptable water reserve at the end of the current water year; so much so that the lake can also receive the rainfalls of the following year, and the cycle of desiccation and the loss of its ecological life not be repeated. This process assists the lake to take a breather and to be able to preserve its condition.

You have devoted years to the study and pursuit of the condition of Lake Urmia and naturally have had difficult days upon this path. Seeing this quantity of water and the return of hope to the region in recent days, what sentiment has it engendered in you? Did you imagine that one day the lake would again experience such a condition?

The reality is that, given the experience of the former condition and the desiccation of the lake, and today with the observation of these auspicious precipitations and the water-covered surface of the lake, the hair of my body stands on end from the intensity of emotion. The water-abundance of the lake and the waves that have again taken form in it have engendered a sensation of liveliness and hope not only in me but among the people of the region. I occasionally encounter Iranians who have traversed kilometers of road and have come to this region from distant locations to see the lake filled with water again. This occurrence truly imparts hope to us.

I hope that these precipitations will continue, that the grace of God will still encompass this region, and that we can correctly utilize the opportunity that has been placed at our disposal. We must endeavor more than in the past and convey a greater share of water resources to the lake.