

IRAQ'S THIRST

WORKSHOP 1

IRAQ'S INTERNAL WATER RESOURCE MANAGEMENT

CAUSES | CHALLENGES | SOLUTIONS

IN PARTNERSHIP WITH

AL ALAMAIN INSTITUTE OF HIGHER EDUCATION & UNDP

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INTRODUCTION

In the presence of His Excellency the President of the Republic of Iraq, Dr. Abdul Latif Jamal Rashid, on Friday, November 4th, 2022, the activities of the fifth session of the **Iraq's Thirst Initiative** were launched. The event was held by the Bahr Alolom Forum for Dialogue and the Al Alamain Institute for Higher Education.

The first workshop was held in cooperation with the UNDP. The workshop was attended by the Ministers of Health, Environment, Water Resources, and Agriculture, in addition to the chairman and members of the Parliamentary Water and Agriculture Committee, the chairman of the Parliamentary Foreign Relations Committee and the chairman of the Parliamentary Health Committee. The attendees also included the undersecretaries of the Ministries of Health, Environment, Agriculture, Water and Foreign Relations, Higher Education, and Scientific Research. In attendance was also the General Secretariat of the Council of Ministers and the National Security Advisory, in addition to senior advisors to the Iraqi government, policy experts, academics, civil society organizations, and member of the United Nations member groups in Iraq.

In the opening statement at the workshop, the President stressed the importance of giving the issue of water scarcity in the country utmost importance, raising public awareness as to its seriousness, and the importance of moving forward towards finding appropriate and realistic solutions to this crisis. The President thanked the Forum and the Institute for their distinguished efforts in raising public awareness to the seriousness of the water scarcity crisis that Iraq suffers. Furthermore, he presented a scientific paper that explores appropriate and realistic solutions to the problem of water shortage.

The Minister of Water Resources, Mr. Aoun Diab, referred to the challenges facing Iraq in the water sector, the most prominent of which is ensuring international cooperation for the protection of shared waters, managing water resources internally, pollution of the two rivers (the Tigris and the Euphrates), and climate changes.

The Minister of Health and Acting Minister of Environment, Dr. Saleh Al-Hasnawi, addressed the main environmental challenges regarding water, air, and soil. He explained that the most pressing of these issues is water pollution and the decline in its quality. The water crisis is one of the most important challenges facing the Iraqi environment.

Mr. Abbas Al-Olayawi, Minister of Agriculture, explained the ministry's mandate to provide food security and to address drought and water shortages. This goal is advanced through the adoption of modern technologies and supporting farmers in providing seeds, fertilizers, and equipment at subsidized prices. He stressed the need for the support of international organizations and neighboring countries in cooperating with Iraq to resolve this crisis.

Mr. Ghulam Isaczai, Deputy Special Representative for Iraq in the United Nations Assistance Mission for Iraq (UNAMI) and Resident Coordinator, referred in his speech to the difficulties that Iraq had faced over the past forty years as a result



of the decrease in water flows – an expected decrease of 60% compared to 2015. The pressures on the country's water resources include: construction of dams by neighboring countries, intensive use of water in agriculture in Iraq, unsustainable domestic water use, the impact of violent conflicts and wars on basic water infrastructure, and the consequences of climate change.

Ms. Zena Ahmed Ali, Resident Representative of the United Nations Development Program (UNDP) in Iraq, focused on the plight of the marshes, the deterioration of 80% of its area and the death of thousands of buffaloes, especially in the previous summer. This represents a real disaster which threatens a civilization of five thousand years that was based on the availability of water and biological diversity. With thousands of people impacted by internal displacement and migration in search of better places to live, the UNDP is implementing several projects to support the government and local communities to address the effects of water scarcity.

The representative of the Bahr Alolom Forum and Al Almain Institute of Higher Education, Dr. Muhammad Hassan Muhammad Ali, praised everyone's cooperation. He welcomed the collaborative efforts of the government, parliament, universities, research centers, neighboring countries, and international organizations to save Iraq from its crisis. Based on the causes, challenges, and solutions proposed by engaging national institutions and international organizations, there is a momentum shared by all parties to find solutions to a problem that threatens the existence of the country. The problem is complex, but cooperative efforts and momentum can create a breakthrough towards laying the correct foundations for dealing with the water crisis.

Over the course of the two-day workshop, titled "Scarcity and Water Management in Iraq," the issue of water management was discussed in depth, with a focus on the current emergency in the marshes. Experts presented scientific analyses of the crisis and its causes related to climate change, the reasons leading to mismanagement, and visions for solutions. The agenda of the workshop, after the opening session, included holding four specialized sessions. It included the participation of public officials, undersecretaries, experts, specialists, and activists. The workshop dealt with the causes of water scarcity and its effects on agriculture and the economy, as well as its impact on humans and animals in the marsh areas, government solutions and measures to confront the drought crisis, and the support required from the international organizations to mitigate the effects of drought on Iraq.



WORKSHOP OBJECTIVES

First, to highlight the problem of water scarcity.

- What are the main causes of water scarcity?
- What is the size of the economic damage to Iraq? Over what time span?
- What are the geographical areas most affected by water scarcity?
- Is the effect of water scarcity long-term?
- What is the extent of land degradation and damage to agriculture in Iraq?

Second, to shed light on some examples of the effects of water scarcity, including:

- Drought in the marshes of Southern Iraq;
- Pollution in the Tigris and Euphrates Rivers;
- The effect of the saline tongue on the Shatt al-Arab in Basra;
- Impact on rice cultivation in the Middle Euphrates region; and
- The impact on orchards and agriculture in Diyala Governorate.

Third, to shed light on governmental solutions, procedures, policies, and strategies related to water.

- What are the relevant internal government policies and strategies?
- Is there a need to update current strategies and policies in light of the water scarcity crisis?
- What are the applicable statutes for the management of internal waters in Iraq?
- What is the importance of enacting a law to establish a higher council for water?
- What are the regulatory procedures for water shares between the Kurdistan Region and the central government in Baghdad?
- What are the regulatory procedures for water shares between the governorates of central and southern Iraq (especially between Maysan and Nasiriyah, Basra and Nasiriyah, and Maysan and Basra)?

Fourth, what are the solutions, projects, and practical response of the Iraqi government to confront drought and water scarcity?

- Is there a need for more dam construction in Iraq?
- Is there an early warning plan to deal with drought in Iraq, especially in the summer?
- Has water scarcity been adopted as a national security problem?

Fifth, to shed light on international support for practical projects on the ground that are part of a practical solution that helps reduce the negative effects of water scarcity and prevent the migration of the local populations.

- Which international organizations and foreign embassies are working on the problem of water scarcity in Iraq?
- Has the problem of water scarcity been adopted as a priority for the work of international organizations?



- What is the number and quality of projects implemented and planned on the ground to reduce the negative effects of water scarcity, and what are the budgets allocated for this issue?



CAUSES OF WATER SCARCITY

The participants, headed by His Excellency the President of the Republic Iraq, the Minister of Water Resources, the Minister of Agriculture, the Minister of Health and the Environment, and representatives of the United Nations, agreed that the causes of water scarcity in Iraq are linked to six causes that were diagnosed in detail in the workshop, namely:

- Large dam and irrigation projects and operational plans for water resources and dams in the upstream countries, particularly Turkey and Iran.
- Transgressions in the distribution of water to the south of Iraq.
- Weakness and mismanagement of water resources inside Iraq.
- Low irrigation efficiency (30-35%) due to old irrigation techniques.
- Pollution of the Tigris and Euphrates rivers, as well as tidal salt in the Shatt al-Arab and the lower reaches of the two rivers.
- The impact of climate change on Iraq and the region.

The scale of the challenges

The participants in the workshop discussed the challenges facing Iraq due to water scarcity. The challenges include:

- The current negotiating frameworks on the management of shared waters with upstream countries, especially Turkey and Iran, is weak. It has not been able to achieve an agreement that guarantees a fair and reasonable share of water for Iraq.
- Poor implementation and the absence of legal and administrative mechanisms do not allow for distributing water fairly to all beneficiaries and consumers in Iraq. This is particularly the case in relation to delivery of water resources to the far south, especially the marshes of southern Iraq and the Shatt al-Arab region.
- Legal violations on the rivers, such as unauthorized agriculture and fish farms, impede the access of water to its intended beneficiaries.
- The areas most affected by water scarcity are the marshes in southern Iraq, especially in the summer. Urgent contingency plans are required to save them from drought.
- The infrastructure of irrigation networks is outdated and needs to change to modern irrigation methods, including closed irrigation systems. At the same time, Iraq must improve its efficiency of water management and begin to adapt to water scarcity.
- Weakness or absence of coordination with the Kurdistan region regarding the construction and operation of dams is also an issue.
- River waters are constantly being polluted, especially the Tigris River in Baghdad. Pollution rates have exceeded the threshold limit, and the governorates of southern Iraq have been affected accordingly. Pollutants include wastewater in urban areas, hospital sewers, and industry. In addition, the waters of the Shatt al-Arab were affected by the saline tongue coming from the Gulf as a result of water scarcity.



- There is an absence of a unified vision and adequate coordination between the concerned authorities in drawing up and implementing internal and external water policies based on constitutional articles, applicable laws, regulations, and guidelines.



UNITED NATIONS VISION

The United Nations summarized its vision of the causes of water scarcity and the most important challenges and proposed solutions as follows:

- Integrated management of water resources is the key to addressing the water problem in Iraq.
- Ensure that communities can withstand increasing water scarcity while safeguarding, protecting, and enhancing the natural system, and associated ecosystem services.
- Ensure that diplomatic channels for water remain constantly open for negotiation and cross-border exchange as a key to securing the flow of water in the Tigris and Euphrates rivers.
- Upgrading and expanding water treatment plants, supporting enforcement frameworks, and engaging in public awareness campaigns and dialogue.
- Adaptation to climate change opens scope for cooperation that goes beyond the distribution of resources and water shares, and multi-purpose joint projects between riparian countries can help manage water resources more efficiently.
- Access to a clean and healthy environment is a universal human right, with specific recognition of the right to clean water.
- The issue of water should not be a source of conflict, but an area for cooperation.
- The United Nations in Iraq is ready to consider requests for support on proposals resulting from the workshop and the Iraq's Thirst Initiative.
- The United Nations invites all stakeholders from non-governmental organizations, academic institutions, the global community, and the private sector to participate in the United Nations Water Conference, which will be held in 2023 at the United Nations headquarters in New York and will be co-hosted by Tajikistan and Poland.



OUTPUTS OF THE FIRST WORKSHOP – PROPOSED SOLUTIONS AND TREATMENTS

First, raising the efficiency of water management.

- Raising the efficiency of water management through firmness in operation and control of waste (implementation by the central government), reducing the chokepoints in the operation process (drinking water intakes, for example), and managing water quality (pollution and mixing of water) while simplifying the mechanism for approving water projects (following decentralization in its implementation).
- Addressing consumption pressure through reducing losses in irrigation water transmission networks (through implementing closed irrigation systems), changing and improving field irrigation methods (laser land leveling for irrigation channels, for example), and pricing irrigation water (through incentive legislation), while reducing drinking water losses.
- The necessity of forming the National Water Council to draw up water policies, coordinate between the concerned sectors, and adopt a single vision for all sectors.
- Use of sea water: a study of a proposal to desalinate sea water at a rate of 5 million m³/day during the next decade to meet the current scarcity.
- Reuse of treated wastewater to save 2.8 billion m³/year and use it for landscaping and other purposes.
- Expanding the use of groundwater in a considerate manner during seasons of scarcity. In this context, relying on groundwater for cultivating 1 million hectares of crops should not be repeated because this water is a strategic storehouse for the country. Therefore, reviewing and updating strategic research is needed in regard to both surface and ground water.
- Continue to explore deep and transboundary groundwater and cooperate with the Ministry of Oil by modeling water during drilling for all formations, especially deep ones.
- Artificial seeding in selected locations – increasing the rainfall rate by 10% or more, improving vegetation cover, semi-arid irrigation, and water harvesting.

Second, management of water resources and agriculture.

- Willingness to adapt to water scarcity by increasing the flexibility of systems. This requires updating a set of policies, practices, and projects that aim at modifications that will improve and raise the efficiency of the social and economic infrastructure surrounding water use.
- Adopting the principle of centralized management of water resources, without neglecting the participation of local institutions in the region and governorates, as well as non-official institutions such as the private sector and civil society. This will allow for ensuring real and broad participation.
- Coordination between the central government and the Kurdistan region regarding the management of water resources and drafting a new law between the center and the region. Formation of working groups of



academics and experts to nurture trends in achieving integrated policies between the center and the region to ensure maximum benefit from water resources and avoid waste. This includes a study on the construction of a dam on the Great Zab (Bakhme Dam).

- Establishing regular irrigation and drainage networks, establishing infrastructure and lined irrigation channels, and dealing with the aging and breaking of old irrigation networks. For example, the consumption of northern Baghdad is supposed to be within the limits of 20 m³ per second according to a strategic study, but the region consumes 60 m³ per second at the present time due to the aging and breaking of networks.
- Using modern irrigation systems (such as pivot irrigation systems) to achieve 50% efficiency in cultivating 1.5 million hectares of wheat with modern irrigation. This will require the installation of 20 thousand systems. However, this would replace the yield of the current cultivating 4.5 hectares with flood irrigation. The government should support farmers to purchase modern systems.
- Attempting to link the yield of agricultural production to a unit of volume and not only to a unit of area. Taking advantage of the Ministry of Agriculture's allocations to support feed for large animal breeders, and ensuring that sheep, camel, buffalo, and cow breeders are the beneficiaries and target segments. This can only be done by eliminating corruption at the level of the issuing governmental employees.
- Supporting the return and activity of farmers associations. They are often the only outlet for the farmer to raise and addressing their problems and concerns.
- Addressing the problems of agricultural land ownership. Shifting to a policy of investing large areas for agriculture and not just relying on small lands that operate on the principle of ownership division. At the same time, the government should continue to support owners of small agricultural property.
- Supporting the establishment of agricultural companies from the private sector or in partnership with credible foreign companies subject to Public Companies Law No. (22) Article (35). This is especially necessary where such companies use modern agricultural channels and employ specialized Iraqi personnel.
- Emphasizing the exclusion of Tharthar, Habbaniya and Razzaza lakes from the hydrological system in Iraq due to the scarcity of water and the high volume of evaporation. The purpose for which Lake Tharthar was created is negated and it is used only when flooding occurs.
- Allocating sufficient resources for each governorate for all purposes, based on the population and the area of arable land. Special emphasis should be placed on allocating the amount of water needed to revive the marshes – not less than 5 billion cubic meters – which requires reviewing and enforcing current laws and enacting new laws related to this matter.

Third, river pollution.

- Wastewater: Separating sewage networks from the storm networks to prevent floods, especially in the capital, Baghdad, to reduce pressure on



wastewater treatment projects. Storm water can be better utilized, as it is less polluted but still requires treatment before being dumped into rivers. For example, Baghdad alone offsets 1.4 million cubic meters of sewage water daily of which only partial is treated, this amount is directly pushed to the river, and its large effects are concentrated in the central and southern regions.

- Sewage from hospitals and health centers must not be dumped into rivers unless it is treated according to international standards.
- Discharge of industrial waste into rivers must be prevented, unless it is treated according to international standards.
- The saline tongue: The Strategic Study for Water and Lands Resources in Iraq (SWLRI) for the years 2015-2035 recommended ensuring the flow of water to the Shatt al-Arab at a rate of not less than 70 m³ per second to repel the saline tongue. It also recommended the construction of a dam on the Shatt al-Arab.

Fourth, the drying of the marshes.

The Strategic Study for Water and Lands Resources in Iraq (SWLRI) indicated that the marshes need more than 5 billion cubic meters of water per year to flood 2000 square kilometers in the case of a moderate wet year. However, in cases of drought, the water reaching the marshes and the water reaching agriculture decreases, so SWLRI developed three scenarios for drought management in the marshes.

- Normal drought: which is when the water level in the main dams is between 6.770 to 9.220 billion cubic meters. The marshes are reduced by 30% and 70% of the quota determined in SWLRI is given, while agriculture is reduced by 10% and 90% of the quota determined in SWLRI is given.
- Medium drought: If the water in the main dams decreases and becomes between 4 and 6.770 billion cubic meters. In this scenario, the marshes will be reduced by 75% and given 25% of usual allocations, while agriculture will be reduced by 50% and given 50% of usual allocations.
- Severe drought: If the amount of water in the dams reaches the level of 4 billion cubic meters or less, such that the operating rules do not appear. The marshes will be reduced by 90% and 10% of their share will be given, while agriculture will be reduced to 75% and 25% of the water share will be given.

According to the last scenario, the share of the marshes will be 10%, and its annual amount will be 510 million cubic meters. However, what is being released today to the marshes is terrifying and unfair. Al-Hawizeh receives 1 cubic meter for four feeders. Al-Musharah, Al-Masiji, Umm Al-Tus and Al-Zubayr, as well as the central marshes, receive are less than 1.5 cubic meters. The same is the case for the rest of the Iraqi marshes.

When the 40th UNESCO Conference in Istanbul added the Iraqi marshes to the World Heritage List, it provided four key recommendations; the first of which was to provide a minimum level of water for the management of the ecosystem.



To ensure the permanence of the marshes, the participants suggested:

- Establishing an independent commission for the Iraqi marshes to deal with the marshes crisis and to put right the fragmented situation of the region and the dispersal of tasks to the various ministries and sectors, as well as the enactment of a law called “The Iraqi Marshes Preservation Law.” The Marshes Recovery Center should also be transformed into an independent body to facilitate the implementation of decisions and limit the intersection with the work of other ministries.
- Declaring a state of emergency in the marshlands, especially in the summer, to find solutions to keep their residents, as many of them have been displaced and lost their sources of livelihood. Some Iraqi provinces have become unresponsive to their requests to enter their cities as internally displaced citizens. Therefore, an extensive investigation must be conducted to find out the real reasons for the drying of the marshes, and to expedite compensation for the affected Marsh Arabs and provide the requirements for their survival. The population must be included under the umbrella of social care of the Ministry of Labor and be given salaries until the situation in the marshes improves. They should also be included as beneficiaries of Law (140) of the ten million people whose conditions must be improved.
- Investing in the services of natural systems in the marshes. The marshes include a large population of livestock, which is the occupation of many of its local population. The marshes alone produce about 100-150 tons of fish per day, so the marshes are considered the food basket of Iraq. In the district of Chibayish alone, there are 1,500 fishermen, most of whom have lost their sources of work because of water scarcity and drought.
- Reviewing water management plans to increase the water shares of the marshes during times of scarcity due to their economic importance, as their agricultural product are twice the product of other agricultural lands. This is in addition to their importance in tourism. If well invested, the marshes will be a destination for tourists from all over the world due to its wide international fame, thus greatly doubling its economic returns.
- Demanding the Iraqi government to exceptionally manage the marshes file due to its historical and cultural importance and its vital role in limiting climate change and its effects. In addition, taking care of the marshes is international obligation on Iraq after being included on the UNESCO World Heritage List, and Iraq must preventing it from being removed from the list. Iraq must invest in ecotourism in its marshes.
- The use and desalination of the public estuary water to supply some of the marshes with water and to treat desertification hotspots between the governorates of Muthanna and Dhi Qar. This will also partially remedy the shortfall in the waters of the Euphrates and the marshes.

Fifth, legislation for water management and the environment.

- Accelerate the formation of the National Water Council to manage the water issue in terms of its political and diplomatic aspects, develop and



approve policies and plans, follow up on their implementation, and other matters mentioned in the draft law of 2012.

- Reviewing the legal system and completing it according to the articles of the Constitution and Law No. 114
- Support for the directions of the Parliamentary Agriculture and Marshes Committee to complete the legislative files presented to the committee to ensure the rational use of water for agricultural purposes, the use of modern irrigation techniques, and the treatment of water scarcity.
- Supporting environmental protection: The Environment Protection and Improvement Law No. 27 of 2009 must be reviewed to address its loopholes. Pollution fines should be very high, progressive, and greater than the existing ones (because the value of the fines is small, especially for oil companies).
- Calling for speedy legislation to convert to modern irrigation in the Ministry of Agriculture and the irrigation draft law related to the Ministry of Water Resources. The two laws will represent a leap in the agricultural sector and its management, and change the pattern of surface irrigation to a modern irrigation pattern. This will raise the level of irrigation efficiency to the level required to eliminate the phenomenon of water wastage.
- Investing in international agreements related to water, such as the Convention on the Use of Watercourses for Non-Navigational Purposes of 1997, the Helsinki Convention of 1992, as well as the Ramsar Convention on Wetlands of 1970 and other agreements to support the position of the Iraqi negotiator.
- Strengthening the penalties stipulated in laws, regulations, and directives related to water resources, as well as strengthening deterrents to prevent violators.
- Legislation of the Iraqi marshes law to protect them from drought and criminalize the drying of the marshes so that the crime of the previous regime are not repeated for any reason whatsoever.
- Eliminate legal violations on rivers, including fisheries, which cause the water quota not to reach the marshes. The Ministry of Water Resources allocates a quota for the marshes, as 10% is released but fails to reach the marshes due to the transgressions in Al-Mushrah and Al-Kahla, as well as in Abu Zarek.

Sixth, desertification hotspots in southern Iraq.

Suggested treatments for desertification hotspots between the governorates of Muthanna and Dhi Qar:

- First: Studying the cultivation of the bonicam plant, as this plant has proven its success in many countries that have desertified areas, such as Kuwait, Saudi Arabia, Oman, and Egypt. The number of weeds is large, its plant density is high, and its green weight reaches up to 24 tons per acre.
- Second: The Sand Dunes Project Department in Al-Fajr district of the Forestry and Desertification Directorate, in cooperation with the Directorate of Agriculture in Dhi Qar and Al-Muthanna Governorates,



installed meter or half-meter pumps on the public outfall column after digging branching channels.

- Third: In the event of unavailability of water quotas and the scarcity of water sources, it is necessary to fix the sand dunes using modern methods. For example, the dirt barrier method should be used, which is a barrier of 2.5 meters in height and 4 meters wide, perpendicular to the direction of the wind, with lengths between 250-500 meters. Barrier trenches with a depth of 3 meters and a width of 2 meters should also be used if possible alongside other barriers to catch what comes off the dunes. The method of mud coverage should also be used.
- Fourth: Coordinating the national and regional effort through the formation of a unified team according to the Administrative Command (73) of 2020. This effort will be coordinated with international organizations, namely UNDP, the United Nations Settlement Programme (UN-Habitat), the Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD), and the Iraqi Central Bank, as well as the Al alamein Institute for Higher Education, to develop an integrated plan according to scientific studies that define goals, priorities, and stages of implementation.
- Fifth: Universities and research centers in the governorates concerned should study the problem of desertification in cooperation with the Ministry of Agriculture and its counterparts in scientific and research institutions in the neighboring countries, especially Kuwait (which suffers from the same problem). The purpose is to develop varieties and genotypes that are tolerant to salinity.
- Sixth: Installing stations to treat and desalinate the water of the public estuary to benefit from it in cultivating the areas adjacent to the desertification zone.

Seventh, water policies of neighboring states.

- Reconsidering current frameworks in negotiating shared waters and agreeing on joint management of river basins.
- Accelerating the holding of meetings at the highest levels with neighboring Turkey and Iran to release quantities of water to revive the marshes as a commitment and a human duty to preserve them. The marshes represent a heritage for all humanity in addition to their role in limiting climate change.
- The National Water Council shall form a permanent negotiating team armed with the knowledge and negotiating capabilities of the concerned authorities according to the required standards. The Ministry of Foreign Affairs shall lead the team after developing a national strategy for negotiation and cooperation. United Nations organizations and international partners shall train the team, and the team shall be responsible before the committee for the conduct of negotiations.
- Supporting the demand for increasing water input from the upstream countries based on international laws and linking Iraq's trade policy with the positions of those countries in order to achieve common interests.



Eighth, climate change.

- Accelerating investment in projects that limit climate change, including limiting the flaring of associated gas, investment in clean energy, and benefiting from the international community's experiences in this regard.
- Initiate plans to respond to climate change and include water scarcity as a priority component. Adequate budgets must be allocated for this effort.
- Focusing on a clear vision for the use of strategic crops related to the minimum level of food security, which do not require a lot of water resources and can face climate change.
- Focusing on the need to reintroduce the Ministry of Agriculture's policy of land reclamation, stopping the desert tide, and enabling the Desertification and Forest directorate to perform the tasks entrusted to it, and focusing on the desertification and forest sector. Vegetation is one of the most important weapons to confront climate change.
- Cooperation with civil society organizations, especially youth in universities and schools, to raise awareness about the impact of climate change and water scarcity.



RECOMMENDATIONS

- Accelerate the formation of the National Water Council to manage the water issue politically and diplomatically, develop and approve policies and plans, follow up on their implementation, and other matters mentioned in the draft law of 2012.
- Enhance integration between the central government and the region on water policies. Ensure the maximum benefit from water takings and avoid waste through the formation of scientific teams that include experts and academics to come up with a coordinated formula for managing water resources.
- Demanding exceptional management of the marshes issue due to their historical and cultural importance and their vital role in limiting climate change and its impact. It is an international commitment on Iraq to ensure their permanence and to prevent them from being removed from the UNESCO World Heritage List. All parties bear responsibility for finding exceptional solutions to deliver water minimums to the marshes, especially in the summer, and work on legislation (the Iraqi Marshes Law) to protect them from drought including penalties for those who cause them to dry up.
- Addressing the deterioration of water quality through cooperation with national institutions, international organizations, and civil society organizations in providing urgent practical solutions that reduce pollutants in rivers by limiting discharge of sewage, sanitary waste, and industrial waste into rivers. All parties must be obliged to limit and eliminate such discharge within a given schedule.
- Initiating plans to respond to climate change, accelerating investment in projects that limit climate change, including reducing associated gas flaring, investing in clean energy, and benefiting from international experiences in this regard. Addressing water scarcity is a priority, and adequate budgets must be allocated for this issue. Priorities must be shifted from water abundance to scarcity, and from flood management strategies to drought management strategies.
- Ensuring Iraq's water share: The National Water Council shall form a negotiating team armed with the knowledge and negotiation capabilities of the concerned authorities. The Ministry of Foreign Affairs shall lead the team after developing a national strategy for negotiation and cooperation. United Nations organizations and international partners shall train this team.



ظمأ العراق

IRAQ'S THIRST



العدد :

التاريخ :

Thanks and Appreciation

The Bahr Alolom Charitable Foundation extends its sincere thanks to the three presidencies and state institutions for their support and cooperation for the success of the first workshop of the Iraq's Thirst initiative. The keen interest and attention of the General Secretariat of the Council of Ministers and its encouragement of the relevant ministries, such as the Ministry of Water Resources, Agriculture, Foreign Affairs, Higher Education, Health, Scientific Research, Environment, and the National Security Adviser to participate and support in the initiative was extremely appreciated.

During the 1st workshop we witnessed exceptional cooperation and coordination of the ministers, undersecretaries, advisors, experts, and general managers in terms of interaction in attendance and participation that had a significant impact on identifying the causes of the problem and understanding the governments solutions. The participation of Head and members of the parliamentary Committee's of Water, Agriculture and the marshes, Health and Foreign Relations reflected the interest of the people's representatives in their enthusiasm to reach serious solutions to the water crisis. The participation of water experts in the Kurdistan region had an important role in understanding the prospects for cooperation and coordination between the region and the center regarding the crisis.

The attendance and participation of academics, research centers and universities was extremely valuable in the process of solution finding for the effects of drought and desertification. The support of civil society organizations for the initiative especially those active in the marshes of Iraq was successful in shedding light on the scale of the disaster experienced by the people of the region.

Thanks and gratitude must be given to the United Nations Mission in Iraq (UNAMI) and the United Nations Development Programme (UNDP) and all the UN member organizations for participating and clarifying the role assigned to them in implementing projects to help Iraq in its water crisis. We are optimistic about this broad cooperation in the possibility of continuing to hold upcoming workshops leading up to General Conference to present practical solutions for managing water scarcity in Iraq.

