



العدد:

التاريخ:

## Iraq's Thirst Initiative Outputs

Published reports on "Iraq Thirst" initiative 2022-2023

### Contents:

- *One pager* outlining the workstreams of the BahrAluloom Foundation (BAF).
- *Iraq's Thirst Road Map*- The road map was put together with the support of + 20 experts inside and outside of Iraq
- *Workshop 1: Iraq's Internal Resource Management*
- *Workshop 2: Prospects for cooperation in regional water resource management- Iran and Iraq as a model*
- Roundtable discussion on *Joint cooperation in internal water resource management- Ministry of Water resources and Regional Agriculture and water resource ministry*
- *The Opportunities and Challenges in Climate Action*
- *Strengthening Journalism in water scarcity and climate change*
- Roundtable discussion on *Joint Cooperation on Water Scarcity and Climate change between Iran and Iraq*
- *The Role of the Educational System in addressing Climate change & Water Scarcity*
- *Workshop on Climate Adaptation and Environmental Protection*
- *Harmonizing Waters: Collaborative Solutions for Climate-Resilient Regional Resource Management*

We welcome your feedback and will keep you updated on the sessions progress.



# The Bahr Alolom Charitable Foundation

Bahr Alolom Forum

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## Al Alamain Institute of Higher Education, Najaf

- **First and only Private** Institute with *Postgraduate studies* in *Law ,Political Science & Media*
- **+800** Graduates
- Higher Diploma in *Electoral Systems and Good Governance, 2020*
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- Upcoming **Campuses** – Baghdad



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- Library of **Congress Classification**

## Al Alamain Journal

- The **Quarterly Journal** of Law peer-reviewed academic journal published
- Participants across **Iraqi Universities**
- Reputable **academic source**

## Al Alamain Publication Series

- Periodic publications distributed across Iraq
- Themes included: **Oil & Gas** Law and Personal Status Law, Federal Court, Administrative Judiciary, **Election Mechanisms** and **Peaceful Co-existence**

Bahr Alolom Charitable organization was established under the Patronage of the late **Sayed Mohammed Bahr Alolom** in *2005* and is a registered NGO Charity in Iraq **1Z42071**

## Bahr Alolom Forum

- Established in 2010. Key Projects:
  - **Crisis of Iraq's Political System**
  - **Reform of the National Alliance**
  - **National Reconciliation**- In partnership with UNAMI
  - **Iraq's Relationship with neighbouring countries**
- ❑ **Iraq Sovereignty Crisis (2020)**
  - *Phase 1:* 1st Document that discusses concept National Sovereignty in the thoughts of **Iraqi Presidencies and academic elites**
  - *Phase 2:* Iraq Universities awareness + Academic competition, Political Parties and KRG- **concluding** with a Dialogue with **President Salih in June 2021**
  - **8** committees formed to study the reforms needed to achieve Sovereignty
  - **+60 sessions** convened
- ❑ **Iraq's Constitution Amendment Crisis (2022)**

## Monthly Forum

- An attempt to stimulate **dialogue** between Iraqi elites and various Iraqi segments away from partisan, sectarian and national tensions.

## Bahr Alolom Award for Innovation

- To Encourage **Research** in: Medicine, Agriculture, Energy, Business and Law
- **Fourth year** running
- Participants from **inside and outside** Iraq
- Brilliant **female researchers and awardees**

## Bahr Alolom Award for Small Businesses

- Recognize young **Iraqi Entrepreneurs** who have been successful in setting up their small businesses

## Fatima Medical Complex

- **+3,000** registered **Orphans**
- Subsidized Medical and dental care to **poverty-stricken citizens**
- Periodic Workshops around **Women's and Men's health**
- Distribution **livery and basic needs** to citizens in the South of Iraq.
- A model **integrated healthcare Complex** to be completed in by **2024**





# IRAQ'S THIRST

September 2022

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## AN INTRODUCTION

Since its inception, the Bahr Alolom Forum for Dialogue has been tackling topics that affect the political, economic, social and the cultural future of Iraq. Most importantly, this included:



- **Crisis of the Iraqi Political System** (2011)
- **Iraq's Strategy with Neighboring Countries** (2016)
- **Iraq's Sovereignty Crisis** (2020)
- **Constitutional Amendments Crisis** (2022)

In its *fifth season*, which will run from October 2022 until April 2023, the forum announced it will focus on the *water and environment problem* in Iraq under the theme (*Iraq's Thirst*).

Iraq today faces a *serious water and environmental crisis* that has been exacerbated by climatic changes due to global warming. This has led to drought and desertification and warns of severe consequences. The most prominent example today is the drought that affects the marshes of southern Iraq.

Over the past month, the Forum's efforts focused on holding meetings with the relevant executive authorities, environmental and water resources experts, and academicians from inside and outside Iraq to develop a road map to discuss the crisis and propose potential solutions. The outcomes of these discussions have been consolidated as follows:

## CHALLENGES OF WATER MANAGEMENT

The discussions included diagnosing defects in the internal policies of water management in Iraq, including:

1. **Water management policies:** The establishment of a comprehensive *national vision for water management* in the country, organizing its management at the internal level and strengthening it with plans to manage drought and adapting to it, and benefiting from the accumulated Iraqi experiences to develop it.
2. **Wasted water from the Kurdistan Region:** The preservation of wasted water resources (rainwater, floods, and melting snow) in the Kurdistan region, and effectuating joint efforts between the central government and the regional government to solve the internal water management issue.
3. **The drought of the Southern Marshes:** The absence of plans to stop the migration of citizens from the countryside, due to desertification and drought, and the discussion of short-term plans to support the survival of the rural and marsh residents in their areas, especially in the summer.
4. **Water pollution and the Saline Tongue:** The absence of integrated plans to treat the pollution of river water from increased waste and the need for scientific treatments for the expanding saline tongue in the south.



5. **The National Strategy for Agriculture 2015-203:** Discussing the need to update the strategy and identifying the root causes for the delay in its implementation

## CLIMATE CHANGE AND ITS IMPACTS ON IRAQ

Global warming is a global phenomenon that has led to rising temperatures and the evaporation of large quantities of water amounting to 8.5 million cubic meters per day. Iraq is one of the countries most affected by the climate crisis. Discussion points included the following:

1. **The southern regions are the most affected:** The climatic impact is different in Iraq and the southern regions are most affected, especially the marshlands. Discussions must explore ways to reduce drought damage, such as undertaking extensive afforestation campaigns to reduce sandstorms.
2. **Reducing emissions and supporting renewable energies:** The role assigned to Iraq in the Paris Agreement to reduce greenhouse gas emissions from fossil fuels and the possibility of the oil industry being subject to a zero-sum policy of burning gas, supporting the trend towards renewable energies, and entering the carbon markets.
3. **The international community and improving the environment:** Influencing the international community to provide Iraq with technology and training its personnel to raise environmental quality standards – including improving waste disposal methods – and cooperating with international organizations to access green funds to invest in this context.
4. **Regional cooperation in climate adaptation:** Setting environmental plans to address the effects of climate changes at the level of the region and neighboring countries.

## WATER POLICIES OF NEIGHBORING COUNTRIES AND THE LEGAL DIMENSIONS

The water crisis has become a point of tension between Iraq and upstream countries, and has recently been exacerbated by climate changes. It is suggested that the following points should be discussed in this regard:

1. **Ensuring the water quota:** Ensuring Iraq's rights to the water quota from neighboring countries, especially Turkey and Iran, through in-depth dialogues to lobby neighboring countries towards adopting



- policies of no harm and commitment to joint and equitable water management.
2. **Activating memorandums of understanding and international agreements** regarding riparian countries and keeping to the rules and provisions of international law.
  3. **Joint economic cooperation:** Exploring with neighboring countries areas to jointly manage water in return for mutual economic incentives.
  4. **Activating water and environmental legislations:** Negotiating capabilities and the administrative structures required to organize negotiations with the riparian countries, all with the help of international organizations.

## CONCLUSION

After reviewing the experts' observations and the above-mentioned main points, the Forum proposes to adopt 6 working areas for the upcoming Forum season:

- Internal water resource management and practical solutions
- Climate change and its impact on the environmental and economic reality for Iraq
- Water Policies of neighboring countries and the Iraqi predicament
- Legislative and administrative structures for water and environmental regulation
- Reviving the marshes of Iraq
- Community awareness in rationalizing water and environmental management

## METHODOLOGY

1. Establishing monthly workshops, where a specific area is addressed by a committee consisting of experts, specialists, and university professors, with the hosting of an *executive figure* to discuss opinions.
2. The participants present a vision of the solutions through working papers that constitute the outputs of each committee.
3. At the end of these committee meetings, a major conference will take place in cooperation with the [Al-Alamain Institute for Higher Education](#) in April 2023, to discuss proposed solutions to the water and environmental crisis in Iraq. An invitation will be extended to a number of academicians and researchers in Iraqi universities. Stakeholders specializing in water and environmental policies and



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legislation will participate in the final conference according to the aforementioned themes.

4. A committee will be formed to consolidate conclusions and recommendations for the conference, and it will be presented to decision makers and relevant institutions, and ways to implement them will be discussed with legislative and executive authorities.

## CONFERENCE AND WORKSHOP SCHEDULE

TOPIC	PERIOD
Internal water resource management and practical solutions	2022
Climate change and its impact on the environmental and economic reality for Iraq	2023
Water Policies of neighboring countries and the Iraqi predicament	2023
Legislative and administrative structures for water and environmental regulation	2023
Reviving the marshes of Iraq	2023
Community awareness in rationalizing water and environmental management	2023
Conference: Conclusions and Recommendations	2023



# IRAQ'S THIRST

## WORKSHOP 1

### IRAQ'S INTERNAL WATER RESOURCE MANAGEMENT

CAUSES | CHALLENGES | SOLUTIONS

IN PARTNERSHIP WITH

AL ALAMAIN INSTITUTE OF HIGHER EDUCATION & UNDP

BABYLON HOTEL, BAGHDAD 4<sup>TH</sup> AND 5<sup>TH</sup> OF NOVEMBER 2022

BAHR ALOLOM FORUM- SESSION 5 2022-2023

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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 4<sup>th</sup>, 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 m<sup>3</sup>/day during the next decade to meet the current scarcity.
- Reuse of treated wastewater to save 2.8 billion m<sup>3</sup>/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 m<sup>3</sup> per second according to a strategic study, but the region consumes 60 m<sup>3</sup> 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 m<sup>3</sup> 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-Masijji, 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.

# IRAQ'S THIRST

## WORKSHOP 2

### PROSPECTS FOR JOINT COOPERATION IN REGIONAL WATER MANAGEMENT

IN PARTNERSHIP WITH

AL ALAMAIN INSTITUTE OF HIGHER EDUCATION

HOLY CITY OF NAJAF 4<sup>TH</sup> MARCH 2023

BAHR ALOLOM FORUM - SEASON 5 2022-2023



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## INTRODUCTION

Water scarcity in Iraq has become a real problem and it is expected to persist-exacerbated by climate change and disputes with its neighbors. The region faces various challenges, some of them internal in Iraq and others external, therefore, As a societal and scientific response from the BahrAlolom Foundation (BAF), ‘Iraq’s Thirst’ initiative aims to shed light on the water scarcity and Climate change challenges from various perspectives bringing together and including the local communities, the Iraqi government, council of representatives, the international community, academic institutions and local organizations as well as the upstream countries of the Tigris and Euphrates rivers and their tributaries.

*Iraq’s Thirst* was launched in November 2022 in Baghdad, in a workshop held in cooperation with United Nations Development Program in Iraq and civil society organizations where all participants *unanimously* agreed that water scarcity is a real problem, and everyone must cooperate to confront it. The workshop report was able to summarize many of the internal causes related to water mismanagement, water pollution, and the additional impacts of climate change, including the need for coordination with the Kurdistan Region of Iraq. The recommendations were widely accepted, and the report distributed to decision makers inside Iraq and to the international community.

As part of the *Iraq’s Thirst* initiative working plan, several workshops and discussions were implemented at the academic level with the active participation of the Alalamain Institute for Higher Education and universities of Al-Nahrain, Dhi Qar and Anbar. The working group will continue its effectiveness in communicating with the universities across Iraq as part of its awareness campaign on water scarcity.

The success achieved at the internal level encouraged the working group to start researching prospects for cooperation externally with the upstream countries of the Tigris and Euphrates rivers and to adopt a technical and scientific dialogue at the level of ‘track two’ cooperation path, which aims to dissect the causes of the problem of regional waters and reach recommendations that would help the dialogue process between governments.

The Alalamain Institute for Higher Education in Najaf hosted the first panel of discussions of the second workshop on March 4, 2023. The workshop highlighted the problem of water scarcity from two perspectives:

- i. *Internal water challenges in Iraq and Iran* and their internal water management – focusing on the impact on the environmental systems, water pollution, and climate change.
- ii. *External water challenges between Iraq and Iran* - causes, solutions, benefits, and common interests.

The representative of the President of the Republic of Iraq, His Excellency the Minister of Agriculture, the Advisor to the Prime Minister, members of parliament agriculture, marshes and water committee, the undersecretary of the ministry Water Resources, the undersecretary of the ministry of Agriculture, advisors in the Prime minister’s office, director generals and experts in the Ministries of Water

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Resources, Agriculture, Environment, Higher Education, and the National Security Advisory participated in the workshop. On the Iranian side, a group of *ambassadors* attended the workshop as well as academics specializing in water and climate change from the *Institute for Political and International Studies and Governance and Policy Think Tank*. A delegation representing the Ministry of Agriculture and Water Resources in the *Kurdistan region* also attended, in addition to several experts and academics from state institutions and universities as well as Civil Society Organizations in Iraq.

BAF is a *non-profit* civil society organization and in its fifth season - *Iraq's Thirst*- works to support the role of civil society organizations working in the field of climate change and water scarcity and always seeks to support in furthering solutions and increasing societal awareness towards challenges faced in Iraq.

## OPENING SESSION: PROSPECTS FOR JOINT COOPERATION IN REGIONAL WATER MANAGEMENT

Speaker	Role
Dr Zaid al Ogaily	Dean of Alalamain Institute
Mr Mohammed Ameen Faris	Advisor to H.E. President of Iraq
H.E. Mr Abbass Elayawey	Minister of Agriculture
Dr Hussain Bugaa	Undersecretary for Technical Affairs at Ministry of Water Resources
Dr Mahdi Ahmad	Executive Director of Iraq's Thirst Initiative
Dr Sadiq Imamian	Sharif University of Technology, Tehran
Ambassador Mojtaba Ferdossi Poor	Institute for Political and International Studies, Foreign Ministry, Iran

### Session 1: Internal Challenges to water management - the environmental system, water pollution and climate change

#### Session Moderator: *Dr Mehdi al Jubori, Deputy Minister of Agriculture*

- Water governance from the Iraqi point of view at the national and regional levels - *Ambassador Dr. Hassan Al-Janabi*
- Governance of Iranian water resources between challenges and success at the national level - *Prof. Dr. Dhargami - Sharif University of Technology, Tehran*
- The reality of the water in the Shatt al-Arab River and ways to reduce the saline tide- *Dr. Abdel-Zahra Abdel-Rasoul - Director General of the Center for Marine Sciences - University of Basra.*
- Reviewing water policies in the Tigris and Euphrates basins - observations and suggestions for Iraq's Thirst initiative - *Dr. Saeed Murid - Tarbiat Modares University, Tehran*
- The need to integrate water policies to meet the challenges - *Dr Rebwar Khansey, Water Resource Advisor to the Prime Minister of Kurdistan Regional Government*
- Towards an Iraqi Iranian strategy for managing water resources in the Diyala River- *Dr Rashed Mohammed, Diyala University*

#### Open discussions and comments:

- The environmental impact of the drought on the marshes - Al-Hawiza Marsh as a model - *Dr. Haider Lafta - Marsh Restoration Center, Ministry of Water Resources*
- Migration of animals in the marshes - *Dr. Omar Al-Sheikhly – Baghdad University*
- Effects of Saline Tide- *Mr Alaa al Badran, Agricultural Syndicate in Basra*
- Environmental Protection and Improvement Law - *Dr Emad Ebeid - Former Director of the Legal Department - Ministry of Environment*



## Session Two - External Challenges to Water Management - Common Benefits and Interests

Session Moderator: *Dr Nadheer Abood Fazaa*, Member of the Preparatory Committee for Iraq's Thirst Initiative, University of Baghdad

- Regional relations and their impact on water management between the two countries - *Ambassador Dr. Ferdowsi Pour- IPIS, Tehran*
- The role of water policies in the bilateral relations between the two countries - *Ambassador Dr. Salih Pour- IPIS, Tehran*
- Ensuring Iraq's share of water in common rivers - *Expert Ali Ghaleb - Ministry of Water Resources*
- The challenges of the water on overall bilateral relations- *Advisor Mr Yassir al Mahdawi, Ministry of Foreign Affairs*
- Completing the gaps in water diplomacy to achieve better results- *Dr Sadiq al Jawad, Advisor, Prime Ministers Office*
- Water Policies and strategies- *Dr Ramadhan Hamaza, Dohok University*
- Iran's role in sustaining Iraq's recovery - *Dr Najm Tarish - Dhi Qar University*

### Open discussions and questions

- Reviewing water policies in the Tigris and Euphrates basins, *Dr Saed Murid, Tarbiat Modares University, Tehran*
- Economic relations and their impact on facing challenges *Dr Sina SadKhan-al Nahrain University*
- Diplomacy of elites and experts – *Dr Imamian, Sharif University of Technology, Tehran*
- Legal legislation for water management - *Advisor Sabah al Baythaney, Parliamentary Committee of Agriculture, Water and Marshes*



## OUTCOMES OF OPENING SESSION:

The workshop was kicked off by a poetic presentation from a talented young child, Sadiq Ali Al-Ghuraifi, from Dhi Qar Governorate. The poem reflected the suffering and drought of the marshes, calling on all parties to work to save the area from water scarcity.

Dr Zaid al Ogaily, Dean of Alalamain Institute for Higher Education in Najaf, welcomed the participants and warned that the southern governorates are continuously suffering from drought, desertification, pollution, the rise of the salt tongue in the Shatt Al-Arab and the *disappearing* of the marshes in the governorates of Maysan and Dhi Qar and immediate actions are necessary.

Advisor Mr Mohammed Ameen Faris conveyed the greetings of *His Excellency Dr. Abdul Latif Jamal Rashid, President of the Republic of Iraq*, with his wishes of the participants success to serve Iraq and its people. The advisor referred to extracts from the President's speech for the need to give the water scarcity issue in the country utmost importance and to alert public opinion to the seriousness of this issue, calling for finding appropriate and realistic solutions within a clear scientific methodology to discuss the challenges. He also focused on the need to include all stakeholders in the discussion in order to find viable solutions based on common interests and mutual benefits.

*His Excellency the Minister of Agriculture, Mr Abbass Elayawey*, recognized the active role of institutions, including BAF and the Alalamain Institute in raising the public awareness on the water crisis, considering its effects related to the fate of the country. His Excellency encouraged the proactive role Academic institutes as well as civil society organizations play in complementing the governments to find solutions to crises.

Dr Hussain Bugaa, *Technical Undersecretary of the Ministry of Water Resources*, referred to the ministry's plan that adopts the concept of water governance in managing available water resources. He explained that It works in coordination with the upstream countries through negotiation to reach a comprehensive, fair, and equitable agreement, according to which Iraq's water share is determined. Therefore, the ministry calls on neighboring countries for cooperation and joint coordination to share the damage caused by water scarcity and adhere to holding urgent meetings in this regard. Iraq expressed its urgent desire to discuss the issue of shared water with the Islamic Republic previously during the recent a visit of the Minister of Water Resources to Iran in February. Dr Bugaa called on all those concerned with water affairs to rationalize water consumption and take measures that would adapt to the scarcity of water, considering that 2023 is one of the unprecedented years of drought, the likes of which have not been recorded since 1930.

The Ministry of water resources applauded the national effort represented by the BahrAlom Forum for Dialogue and the Alalamain Institute in their mission for adopting a national project entitled (*Iraq's Thirst*) and suggested that this initiative is complementarity in the roles between the actors and stakeholders in the water crisis. In addition, these meaningful dialogues, and meetings far from political





## WORKSHOP 2: PROSPECTS FOR JOINT COOPERATION IN REGIONAL WATER MANAGEMENT

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tensions would lead to creating a space in which participants can agree with neighbors on cooperation in managing shared waters, exchanging experiences, and searching for solutions. Dr Bugaa concluded his speech by calling on the two neighbors, Turkey, and Iran, for serious cooperation in this matter.

As for the *Executive Director of the initiative*, Dr. Mahdi Ahmad, stressed that BAF represented by its academic and dialogue working streams- the Alalamain Institute and the BahrAlolom Forum for Dialogue, has taken upon itself to contribute to solving the challenges facing Iraqi society in a scientific methodology that seeks to diagnose the causes and propose effective solutions within a common space between stakeholders. He also stated that the water crisis is a complex problem that requires it to be dismantled and that BAF is working to benefit from the accumulated academic and practical experience to create common spaces, community awareness and support the executive authorities to solve the crisis.

The first workshop of the initiative took place at the beginning of November of last year under the title (*Iraq's Internal Water Resource Management*). The workshop included important recommendations: the problem of pollution of rivers- the Tigris River, the drying of the marshes, especially in the summer and the importance to accelerate the drafting law of the Higher Water Council in Iraq. The workshop participants also highlighted the need to coordinate efforts in regulatory procedures between the federal government and the Kurdistan region of Iraq as well as the provinces, to reduce waste, and ensure fair distribution.

## PROSPECTS FOR COOPERATION IN WATER MANAGEMENT | THE IRANIAN PERSPECTIVE

The Iranian ambassadors, experts and academics participated in the discussion of the internal and external challenges in water management between the two countries and the prospects for cooperation were highlighted. Benefiting from Iran's experiences in water management, facing climate challenges, bilateral and international agreements, and the political vision towards Iraq as follows:

1. Strengthening the academic and professional ties between the two countries by activating the 'track two' cooperation path. Experience has proven that this path is more effective than the governmental path in finding common ground and formulating solutions and that the continued weakness of relations and bridges between academics, experts, and scientific institutions negatively affects the correction of relations between the two countries. The support of governments in taking future steps that guarantee the interests of the two nations is completed with the help of *bright creative minds* and not by relying entirely on executive teams. To strengthen this path in managing shared waters and facing climate changes, the Iranian experts suggested the following:
  - I. The establishment of a joint *water governance council*, which deals with water wastage, salinity, rationalization of its consumption, environmental issues, dust, and desertification and to have a complete and comprehensive picture to activate and enable the role in the joint management that considers environmental, societal, security and economic issues to solve common problems.

This requires:

- i. Establishing a *water data bank* for cooperation between the two countries to become a reference for researchers and academics on the issue of water. The bank can be expanded to include other countries in the region including Turkey, Syria, Qatar and Kingdom of Saudi Arabia.
- ii. *Joint monitoring systems*: between Iraq and Iran that help in exchanging technical data and enables stakeholders to assess the situation more realistically and accurately at the regional level and provides capabilities to model data and the contribution of each party and articulate it in a numerical form.
- iii. Enhancing research and academic cooperation between the two countries through the following:
  - Grants support for joint academic research between the two countries, especially at the doctoral level, to contribute to developing non-traditional recommendations that benefit both countries, based on accurate information and data.



- Exchange of information between universities and research centers in Iraq and Iran through the signing of joint memorandums of understanding and the readiness of the Alalamain Institute in Iraq and the Governance and Policy Think Tank in Tehran, and the Center for Political and International Studies of the Iranian Ministry of Foreign Affairs is a positive step in this context. Work on an exchange between students, university professors and researchers between the two countries.
- iv. The establishment of scientific alliances *far from politics* and in various branches, including political science and law. Politics is not the effective solution to face the challenges, but rather the evocation of technical solutions and the ability to promote them and convince decision makers of them.
2. Benefiting from Iran's experiences in water management and agriculture:
- a) Methodology on how Iran was able to solve the problem of Lake Urmia to avoid the problem of water scarcity.
  - b) To review joint agreements between Iran, Azerbaijan, and Turkey regarding the management of the Aras River as an example of managing cross-border rivers jointly.
  - c) To study doctoral dissertations that recommended making an agreement with Iraq like what was done between Iran, Azerbaijan and Turkey
  - d) Establishing a *fund to compensate* agricultural losses, relying on startup companies, as well as Iran's experience in monitoring and managing artesian wells.
  - e) Benefit from growing plants that do not need large amounts of water, such as the saffron plant and others. As well as the introduction of modern methods in agriculture to achieve better cultivation through water use techniques
3. Confronting climate change
- The two countries should give priority to redressing the impact of climate change, as the challenges facing the region are frightening and disturbing for the future generations. In the framework of the planned technical cooperation between the two countries, Iranian environmental problems resulting from climate change should be considered in addition to the policies of some neighboring countries.
  - Benefiting from the religious institutions in the two countries to raise community awareness of the expected climate changes impacts over the next 100 years and empowering them in solving challenges is a necessity for future generations.
  - Activating dialogue between the two countries at the level of "*knowledge diplomacy*", which will enable everyone to increase cooperation to face the challenges of climate change, environmental impacts, water scarcity and quality, dust storms and desertification.



- The necessity of educating and raising awareness about the outstanding problems between the two countries by presenting data and facts in a transparent and realistic manner and avoiding false media and fictitious numbers.
4. Bilateral and international agreements
- Adopting bilateral agreements between the two countries is better than relying on international agreements, and the Algiers Agreement is important and comprehensive and provides a good basis for resolving the problem in its full and not partial framework. It is worth noting that there exists a preliminary governmental agreement since 2019 to activate the appropriate ground, and we must push for the continuation of dialogue
  - Commitment to international agreements and try to update and expand bilateral agreements related to water to more comprehensive agreements by adding Turkey and Syria. It is important to consider the repercussions of climate change and the inclusion and participation of all countries- Iraq, Iran, Turkey and Syria is important.
5. Hawizeh marsh and Saline Tide
- There is a directive from the Iranian government regarding the problems of pollution coming from Iran to the Shatt al-Arab and the pollution coming from Iraq towards the Shatt al-Arab, as well as the saline tide in the Shatt al-Arab coming from the Gulf.
  - 85% of the water in Iraq comes from the Turkish side and nearly 15% from the Iranian side through forty rivers shared between Iraq and Iran, twenty-six rivers of which are permanent and continuous, and many of them are seasonal rivers that stop in the spring and summer seasons.
  - The Ramsar agreement includes the Hawizeh marsh and the role of the joint organizing committee between the two countries must be activated to overcome the obstacles.
  - A large part of the Iranian lands suffer from water scarcity and increased salinity and part of it has left the agricultural stripe since 2010 and the lands of the southeast of the country will be removed from agriculture should the crisis continue.
6. The political vision towards neighboring relations with Iraq
- Iran does not accept the *thirst of Iraq* and that it adopts a balanced foreign policy, dynamic diplomacy, and intelligent interaction.
  - The Iranian-Iraqi relations are at its best and continuing this momentum requires more political, security, economic, cultural, and religious understanding. It also requires participation in *Asian trade corridors* and priority for cooperation in the field of combating terrorism and the economic field.
  - Focusing on the importance of economic and trade capabilities between the two countries. The more economic relations expand, the

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more common destiny will be between them and the possibility of benefiting from capabilities will become greater. Among the most prominent of these is the encouragement of religious and commercial tourism through the railway project from Chalamcha to Basra, which will play a role in employing the labor force in southern Iraq and opens horizons for its expansion to link Iran with the Kingdom of Saudi Arabia and northern Iran to transport pilgrims.



## PROSPECTS FOR COOPERATION IN WATER MANAGEMENT | THE IRAQI PRESPECTIVE

Iraqi experts and academics focused on their inputs to activate ways of cooperation in water management between the two countries in an integrated manner on the suffering of critical Iraqi regions due to water scarcity and focused on the principle of *equitable distribution* and sharing of damage between the two countries, as well as water governance from an Iraqi point of view, in addition to the most important internal challenges as follows:

1. The Diyala River, the Hawizeh Marsh and the Saline Tide in the Shatt al-Arab
  - The need for Iran's response to address water scarcity and pollution by increasing water allocations and cooperation to sustain biodiversity, especially in the following areas:
    - Immediate procedure to increase the allocations required for the Diyala River, as well as the need to support the University of Diyala to increase its research and work on the issue of artificial seeding.
    - Increasing the allocations and discharges of the Karun River to the Shatt al-Arab and stopping the drainage water to reduce the problem of salinity in the Shatt al-Arab. The formation of a regulatory dam, not a storage, in the Abu Flus area to address the problem of the saline tide.
    - Establishing regulatory gates on the dam adjacent to the Hawizeh marshes to ensure the sustainability of biodiversity in the marshes. As well as increasing academic cooperation related to the preservation of common wildlife between the two countries, especially in the Hawizeh marsh.
2. Equitable water distribution and damage sharing between the two countries
  - Iraq stresses the importance for reviewing, discussing and coordination regarding the organization of common water paths through the following methods:
    - Sharing data regarding the expansion of irrigation projects, the construction of dams, and the diversion of some rivers from the Iranian side, which was done without approval and coordination with the Iraqi side.
    - An urgent need to deal in good faith on a continuous basis between the two countries regarding shared rivers, although Iran and Turkey did not join the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses
    - The need to review the fairness of water distribution from the Iranian side, and to consider the geographical location





of the border agricultural lands, which are inhabited by millions of Iraqis.

- Establishing *joint measurement stations* and a joint engineering effort between the two countries that works to measure and stabilize the transboundary waters
- Iran indicates that the agreement with Iraq is a protocol that follows the *Good Neighbor Agreement* of 1975, therefore, Iraq seeks to conclude an agreement with neighboring countries (Iran, Turkey and Syria) to divide the waters.
- Proposing the conclusion of a new agreement that includes the water issue completely and discusses the future of the Shatt al-Arab, in addition to preserving the waterways from pollution and deterioration, since the Algiers agreement has become ineffective.
- Iraq believes that the damage resulting from the scarcity of water should be shared between the parties.
- Benefiting from the economic relations between the two countries, through establishment of a *negotiation strategy* that includes stakeholders from all the competent authorities concerned and benefiting from the border rivers agreement by building joint projects.

### 3. Water governance from an Iraqi perspective

- The need for *horizontal governance* between the concerned ministries and *vertical governance* between the region, the center, and the governorates.
- There is a gap in governance at the regional level between Iraq, Iran and Turkey. Building dams in the upstream countries is against the concept of governance.
- Preserving the accumulated expertise in the Ministry of Water Resources and not neglecting it to develop governance
- Water scarcity is the responsibility of all relevant authorities and ministries, and not just the Ministry of Water Resources responsibility.
- Installing *early warning and forecasting systems* for dry years to deal with the problem of water scarcity.
- Increasing allocations in the budget of the Ministry of Water Resources.
- Work on the construction of small dams and the construction of regulatory dams, not storage dams.





#### 4. The internal challenges of water scarcity

It was emphasized that serious steps should be taken to face internal challenges in water management and to work on the following:

- Legislating the *National Water Council* law, working through the formation of a *higher water council* that draws water policy and the Ministry of Water Resources implements these policies to avoid the process of structural changes and different viewpoints.
- The impacts of climate-related hazards are occurring and are projected to worsen in many areas of Iraq because of its *geographical location* and being a downstream country.
- The most common shocks and stressors resulting from climate change are intense rains, heat waves, droughts, cold spells, and gaps in energy and water supply. Therefore, there is a need for regional cooperation in undertaking *Climate Impact Assessments*
- Addressing the pollution of the Tigris and Euphrates rivers, which greatly affects the Shatt al-Arab
- Lining the edges of Iraqi rivers to reduce waste.
- Plans are needed to avoid internal problems resulting from water scarcity between the governorates, while giving priority to the poorer governorates such as Muthanna, Diwaniyah, Dhi Qar and working to reduce *forced population displacement* due to water scarcity and consequently death of livestock by providing appropriate solutions.

## RECOMMENDATIONS

1. Initiation of ‘track two’ cooperation path between the two countries in managing shared waters, addressing water scarcity in affected areas, and mitigating climate change impacts and moving forward with renewable energies through the following means:
  - Establishment of a *Water and Environment Governance Council*, comprising:
    - *Data bank for water and the environment* for cooperation to become a *reference for researchers and academics*.
    - *Joint monitoring systems*: that enable the two countries to assess the situation more realistically and accurately at the regional level and to provide capabilities for data modeling. Exploring the possibility of establishing joint measurement stations that will measure and stabilize the transboundary waters.
    - *Enhancing research and academic cooperation* between the two countries by signing joint memorandums of understanding to exchange information between universities and research centers and support grants for higher academic studies on issues of common need to develop non-traditional recommendations that benefit both countries based on accurate information and data.
    - *Enhancing Partnerships between non-governmental and civil society organizations* in both countries specializing and interested in water scarcity and Climate change issues.
  - Establishing a *technical and scientific forum* to confront water scarcity and the impacts of climate change. The forum will be far away from politics and will encourage scientific solutions to water problems, climate change and renewable energies as well as the ability to promote them and convince decision makers about them. The forum could be expanded to include other regional countries such as Turkey, Syria, Qatar and KSA.
  - A memorandum of understanding was signed between the *Alalamain Institute of Higher Education* in Iraq and *The Governance and Policy Think Tank* in Tehran. A memorandum of understanding will be signed between the *Institute for Political and International Studies* of the Iranian Ministry of Foreign Affairs and *Alalamain Institute* in Tehran in the near future.
2. Benefiting from the experiences of the two countries in managing water and the environment challenges. A proposal to have a series of panel discussions to be held with Iraqi universities, research centers and the Governance and Policy Think Tank aimed at:



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- Studying Iran's experience in common rivers and addressing water pollution in the joint agreements for the management of the Aras River signed between Turkey, Iran and Azerbaijan as well as reviewing the results of the academic studies on the possibility of replicating these with Iraq.
- Studying the sustainability of *biodiversity* in the Hawizeh Marshes, activating the Ramsar Agreement, and finding the necessary remedies to preserve the wildlife species common to both countries.
- To study the sharing of *harm and benefit* in the distribution of water and explore the possibility of concluding a new agreement that includes the issue water completely between the two countries. As well as to study the principle of sharing the damage between the countries resulting from the water scarcity.
- Reviewing Iran's approaches to the problems of water pollution and saline tide in the Shatt Al-Arab
- Environmental remediation resulting from climate change and exploring the prospects for cooperation between the two countries in the common challenges, such as desertification, sandstorms, and other environmental problems.

# IRAQ'S THIRST

## ROUNDTABLE DISCUSSION

### PROSPECTS FOR COOPERATION BETWEEN FEDERAL MINISTRY OF WATER RESOURCES AND THE MINISTRY OF WATER RESOURCES AND AGRICULTURE IN THE KURDISTAN REGION

IN PARTNERSHIP WITH

AL ALAMAIN INSTITUTE OF HIGHER EDUCATION

HOLY CITY OF NAJAF 4<sup>TH</sup> MARCH 2023

BAHR ALOLOM FORUM - SEASON 5 2022-2023

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## INTRODUCTION

Iraq finds itself amid a water crisis that far exceeds previous experiences with water scarcity and acute shortages. Declining quantity and quality of water, outdated and damaged infrastructure, and inefficient water use have uncovered deficiencies in existing water governance, severely affecting the country's socio-economic, political, and security situation.

*Iraq's Thirst* initiative attempts to shed light on the water scarcity crisis and the environmental challenges facing Iraq today. The first workshop of the initiative was launched in November 2022 in Baghdad, in cooperation with *United Nations Development Program in Iraq*, discussing the internal water challenges from various dimensions, including presentations from local civil society organizations in the impacted areas, mitigating actions undertaken by the Iraqi government and the Kurdistan regional government, the role of provinces, legislations by the House of Representatives and the role of the United Nations member organizations in Iraq supporting in the water scarcity crisis.

Based on the recommendations of the first workshop, Iraq's Thirst working group sought to activate the recommendations by discussing prospects for cooperation between the *Federal Ministry of Water Resources and the Ministry of Agriculture and Water Resources in the Kurdistan Region* and ways to enhance coordination between them. A high-ranking delegation from the Federal Ministry of Water Resources participated in the roundtable discussion- headed by the *Technical Undersecretary of the Ministry* and with a delegation of director generals, technical experts and advisors.

A high-level delegation from the Ministry of Agriculture and Water Resources in the Kurdistan Region participated, including the advisor of the *Prime Minister of the region for water affairs*, director generals and the directors of dams in the ministry, in addition to the participation of a group of advisors, experts and academics from state institutions, official and private Iraqi universities, the private sector and non-governmental organizations.





**ROUNDTABLE DISCUSSION: PROSPECTS FOR INTERNAL COOPERATION IN WATER MANAGEMENT**

**SESSION MODERATOR: DR ABDUL HUSSAIN BUGGA, DEPUTY MINISTER OF WATER RESOURCES**

**PARTICIPANTS:**

Speaker	Role
Mr Mohammed Ameen Faris	Advisor to H.E. President of Iraq
Dr Rebwar Khansey	Advisor to the Prime Minister of KRG
Engineer Hameed Hatim	Director General, National Center for Water Resource Management
Engineer Ahmed Abdul Kathum	Director General, Operating Authority, Water resource Ministry
Mr Alaa al Turki	Director General, Planning and monitoring, Water Resource Ministry
Dr Karwan Sabah	Director General of Water Resources in KRG
Mr Akram Rasool	Former Director General of Dams in Kurdistan
Engineer Mohanad al Mamoori	Director of Diyala Water directorate, Ministry of Water Resources

The report deals with the most important dialogues and interventions of the participants in the session over a period of two hours to discuss cooperation between the center and the region considering the water scarcity and the repercussions of climate change and the mechanisms to enhance the coordination required between the center and the region to manage water in Iraq.





### Cooperation from the perspective of the *Federal Ministry of Water Resources*

The Technical Undersecretary of the Federal Ministry of Water Resources, general managers and experts participating in the discussion reiterated the need for cooperation between the center and the region to preserve the water rights of Iraq and they discussed the most important requirements for coordination to address water scarcity and adapt to climate changes:

- *The National Water Council Law:* The legislation of this law is considered one of the most important solutions for the management of water resources in Iraq for the coming years, as it is expected that competition and conflict over water will increase due to scarcity, and the need for a supreme authority to draw water policies becomes a necessity to face external and internal challenges. Since last year, H.E President of the Republic formed a committee for this purpose, with the participation of the concerned authorities in the federal government and the regional government, towards enacting a special law for a higher council for water. In addition to revitalizing the work of the Higher Committee for Water, which is chaired by the Prime Minister, and raising the level of representation to ministers to assume the tasks listed in the Council Law until it is enacted.
- *The cooperation of the center and the region is a necessity:* officials consider that coordination between the government and the region regarding the management of water resources is not an option but an urgent necessity, otherwise the scarcity increases because of the continuous change in the region's infrastructure. The participants applauded the collaboration between the *National Center for water Resources* and the *Commission for Dams* despite the occurrence of some discrepancies at times around water allocations, as is the case among the rest of the governorates ( need to implement the water allocation mechanism among all governorates according to the strategic study of water and land resources in Iraq 2015-2035).
- The need to review the *strategic study of water and land resources in Iraq*, which was prepared in 2014, after updating the data and factoring the effects of climate change. The inclusion of reputable specialized companies is needed for this review such that this will become a road map for both Federal and regional governments in the construction of dams and water consumption. This needs to be done with consideration of the water shares of the central and southern regions (quantity and quality) as they are the most impacted by climate change
- *Transgressions:* officials stressed the need for cooperation between the ministry and the region to reduce the issue of transgressions that occur throughout Iraq's rivers, such as installing pumps and fish lakes, which are one of the biggest challenges facing water management. Furthermore, the need to strictly enforce the law to limit the interference of some officials and influential personnels in water management who obstruct the work of the concerned departments.

**ROUNDTABLE DISCUSSION: PROSPECTS FOR INTERNAL COOPERATION IN WATER MANAGEMENT**

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- *River operation Maintenance*: The need increases the efforts and support of maintenance departments to take major measures for the purpose of treating water scarcity, dealing with transgressors, and delivering water to river tails



### Cooperation from the perspective of the *Regional Ministry of Agriculture and Water Resources*

Officials of the Ministry of Agriculture and Water Resources in the Kurdistan Region stressed the importance of researching prospects for cooperation and coordination with the center to overcome obstacles and face challenges, focusing on :

- *Enhancing coordination and cooperation between the federal government and the region* in the field of planning for sound management of water resources. The region needs to implement without any conditions the operations of the dams. The region believes that these meetings contribute to strengthening the internal front represented by fair distribution between the central and southern governorates and coordination with the region.
- The need to evaluate *water infrastructure changes in the region*: officials pointed out the need for cooperation and planning through the exchange of information to assess the critical change in the water infrastructure in the governorates of the region due to climate changes, the policies of neighboring countries, the urban development of the region and the increase in migration rates to the region, taking into account the effects of this on allocations water to central and southern Iraq.
- *Smart management of water*: The region's experts stressed the need for Iraq and the Kurdistan region to embrace smart management of water resources, and this management begins with water harvesting and ends with filtering and redistributing sewage for irrigation, agriculture, watering and green areas. With priority given to sewage purification projects throughout Iraq, including the region.
- *strategic study of water and land resources*: officials raised the repercussions of not implementing the recommendations of the strategic study, which was completed in 2015 and included recommendations to build several dams and a number of irrigation projects in the region, stressing the need to make the necessary financial allocations for the ministry to implement projects related to water resources management in Iraq, including the region In order for the region to support to solve the water scarcity in central and southern Iraq.
- *Compensating those affected*: The region indicated that 53% of the villages and small towns in the Kurdistan region were exposed due to the lack of rain and the drying up of river sources, and there is a need for the support of the federal government to compensate those affected in the region because of drought waves to reduce the process of migration from the countryside to the city.
- *Groundwater depletion*: The region expressed its concerns about the depletion of 60% of groundwater for agriculture, which threatens the strategic storage of drinking water and essential needs. The depletion must be stopped and the wells subject to strict control.
- *Assessment of water bodies in the region*: There is a need to strengthen academic cooperation between Iraqi universities to encourage postgraduate students to conduct academic research by providing correct



data on water bodies in the region as a result of melting snow and rain, and to study the possibility of optimizing these bodies to meet the needs of the center and south.

- *The effect of climate change:* It has a significant impact on the volume of water reserves in Iraq and the region. As an example, the rain that in the Dokan Dam this year was 300 mm, which is half of the amount that fell in the past year, therefore, the current situation does not bode well. And an urgent technical treatment of the Darbandikhan Dam is needed due, because it was damaged by the earthquake in 2007
- *Establishment of medium and strategic dams for the region:* The region stressed the need to provide the necessary allocations from the federal government to carry out periodic maintenance programs for the region's dams. In addition to carrying out a technical review to address the emergency defect of the Darbandikhan Dam after it was damaged by the earthquake in 2007, and at the same time planning to build additional dams as indicated by previous strategic studies as follows:
  - *Construction of medium dams:* These dams are needed especially in the complex mountain areas in the far north and northeast of the Kurdistan region, which are very good areas for the purpose of storing water. Among the benefits of constructing these dams is the reduction of evaporation, which sometimes reaches from 30 to 25% in normal areas, while it is less than 10% in mountainous areas, and that storing water in these dams will help central and southern Iraq, especially in the summer.
  - *Establishment of strategic dams on the Great Zab:* review the feasibility of constructing the four dams in the Kurdistan Region, namely (Dawa Dam, Bakrman Dam, Dalkeh Dam, and Derlak Shawa Dam) and to understand the thoughts of the Federal Ministry of Water Resources regarding these and taking into consideration building strategic dams on the Great Zab as one of the main dams to feed central and southern Iraq.
  - *Effects of Iranian Dams on the Lower Zab:* To discuss the issue of dams on the Iranian side, which are built on the Lower Zab outside the Iraqi borders, which directly impact Iraq. For example, the Lower Zab extends to more than 125 meters inside the Iranian borders, and three dams have been constructed on the Iranian side, feeding irrigation projects, agriculture, and electricity generation

## RECOMMENDATIONS

The participants of the roundtable highlighted necessity for *regulatory procedures* in water management between the central government, the regional governments, and the governorates. The discussion concluded with many recommendations in this regard, the most prominent of which were:

- Coordination between the federal government and the Kurdistan region regarding the management of water resources and the drafting of a new law between the center and the region (according to section 7 of Article 114 of the constitution)
- To explore ways of effective coordination to achieve policy integration between the center and the region to ensure maximum benefit from water efficiencies and avoid wastage, with the help of academics, experts, civil society organizations and the International Community
- The need of coordination between the federal government and the regional government to study the construction of a dam on the *Great Zab* (Bekhme Dam, according to its absorptive capacity) and water harvesting dams
- The management of dams must be centralized and in coordination with the region to ensure efficient and fair management of water resources





**ROUNDTABLE DISCUSSION: PROSPECTS FOR INTERNAL COOPERATION IN WATER MANAGEMENT**







*Roundtable Discussion*

# THE CHALLENGES & OPPORTUNITIES IN CLIMATE ACTION

*In Partnership with*

**BAHR ALULOOM FOUNDATION &  
UNDP**

**Dr. Abdallah Al Dardari**

*Assistant Secretary-General and Director of the  
Regional Bureau for Arab States, United Nations  
Development Programme*



**Dr. Ali Al-Alaq**

*Governor of the Central Bank of Iraq*

**FIFTH SEASON 2022-2023**

**20-6-2023 | BAGHDAD – JADRIYAH**



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## INTRODUCTION

Climate change presents a formidable challenge for Iraq, a country already burdened by 50 years of war and political instability, and an economy anchored on fossil fuels. The present government, driven by the resolutions of the Basra Climate Conference, aims to integrate and enforce climate change policies, notably the Nationally Determined Contributions (NDC), into national development plans across various sectors and provinces. Implementing these initiatives is intricate and fraught with difficulties. Yet, the Iraqi government sees potential economic benefits and new job opportunities in this endeavor, leveraging the support of public and private sectors, along with civil society organizations, with a special emphasis on the most vulnerable regions and communities.

The Bahr Aluloom Foundation (BAF), representing civil society institutions and closely linked with the private sector and civil society organizations, aims to expedite the climate action transition to the implementation phase. It seeks to bolster the resilience of Iraqi society, support the economy, combat poverty and unemployment.

Hence, BAF aspires to collaborate with pertinent governmental and community authorities, UN organizations in Iraq, and supporting nations. The United Nations Development Programme (UNDP) is a key player in Iraq's climate action, backing numerous related ongoing and future projects.

Considering the crucial role of streamlining climate action implementation in Iraq, the need to review projects, plans, and national policies for alignment with UN strategies (including the UNDP) for the region and Iraq, BAF and the UNDP have agreed to convene a roundtable. This meeting will focus on critical issues pertaining to the implementation of climate action, its interplay with national and regional plans and programs, aiming to facilitate and enhance the process.



## ROUNDTABLE DISCUSSION



The dialogue session at the Bahr Alolom Forum Hall in Jadriyah, Baghdad on 20<sup>th</sup> June 2023 involved 10 representatives from the UN Development Programme (UNDP), headed by Dr. Abdallah Al Dardari, with Resident Representative in Iraq, Mr. Auke Lootsma, and his deputy, Mr. Ghimar Deeb, and 30 Iraqi stakeholders from government, parliament, private sector, and civil society.



The session began with speeches by Dr. Al Dardari and the Governor of the Central Bank of Iraq, Dr. Ali Al-Alaq, after a presentation by Dr. Nadheer Abood Fazaa on global environmental issues and Iraq's post-2003 response. His talk included warnings from a 1972 report on resource depletion, the identification of nine determinants of human existence in 2009 (including ozone depletion, ocean acidification, chemical pollution, and human-induced climate change), and the "4 Driving Forces": growth of human population to 9 billion by 2050, 60% loss of biodiversity, rise of greenhouse gases to 400 ppm, and sudden phenomena like hurricanes.

The session addressed the adoption of the Global Sustainable Development Goals (SDGs) and Paris Climate Agreement in 2015, global plans for 2020-2050, aims to reduce emissions and ration natural resources, and the process of decarbonizing the global economy. Iraq's situation, its participation in international agreements despite economic challenges due to reliance on fossil fuels, and its submission of related documents in 2015 and 2021 were discussed. The dialogue was part of the cooperation between UNDP and the Iraqi government, aiming to develop joint work and review regional plans and Iraq's progress. UNDP's advancement of SDGs, particularly Goal 13 on climate change, was also emphasized.

## SESSION OBJECTIVES

- Review UNDP's regional plans for Iraq.
- Shedding light on Iraqi national plans, strategies and policies in relation to climate action.
- Exploring the challenges and opportunities resulting from climate change at both regional and national levels in Iraq.
- Evaluating the viability of implementing climate-related projects based on Sustainable Development Goals (SDGs) progress indicators.
- Discussing the potential of diversifying the Iraqi economy by leveraging opportunities presented by climate action.
- Offering recommendations to promote and support the implementation of climate action in Iraq.

## SUMMARY

**1. Government and Planning Sector Interventions:** These encompassed plans, policies, and direction concerning climate action, sustainable development goals, and national development plans, including:

- The Ministry of Environment's sectoral planning for climate action.
- The Ministry of Planning's integration of climate and environmental change into national development.
- The Prime Minister's Office's alignment with climate action and planning at both national and regional levels.

**2. Technical Sectors Interventions:** This section focused on implementation levels based on the NDC document:

- Priority actions were identified in the water resources, agriculture, electricity, oil, and gas sectors, targeting adaptation and mitigation strategies.

**3. Monitoring and Evaluation:** Intervention from the Iraqi Parliament emphasized the importance of overseeing projects.

**4. Private Sector and Civil Society:** The discussion highlighted the need for collaboration and fostering debate among these groups.

## Environmental Challenges and Global Context

**Dr. Nadheer Abood Fazaa**, National Expert in the Environment and Climate Change Sector, highlighted global environmental problems and Iraq's response, including:

- Man's depletion of earth's natural resources and the critical determinants of human existence, such as biodiversity loss, climate change, ozone depletion, and more.
- The adoption of the Global Sustainable Development Goals (SDGs) and the Paris Climate Agreement.
- The challenges and opportunities faced by Iraq in implementing the SDGs and reducing emissions, given its reliance on fossil fuels.
- Iraq's response and cooperation with international efforts to preserve the planet.





**Dr. Abdallah Al Dardari,  
UNDP Perspective**

Dr. Abdallah Al Dardari discussed the regional plans of the UNDP and their interdependence with Iraq's national agenda. Key insights include:

- The critical point humanity has reached in terms of environmental degradation.
- The opportunity for change in Iraq through planning and collaboration.
- The need for assessment and alignment of economic growth with climate change considerations.
- UNDP's commitment to mobilize resources, support investment programs, and work with the Iraqi government to prepare for COP28.
- Iraq's approach to climate issues is praised for its scientific and credible perspective. Coordination between economic diversification, climate protection, effective institutions, and private sector participation can lead to a historic shift for the country.
- UNDP offers technical support for green finance and stands ready to assist in planning, monitoring, implementation, and financing.
- The focus on green job opportunities, clean energy, effective agriculture, and industrial diversification offers a future for Iraqi youth that aligns with the country's values.

**Dr. Ibrahim Bahr Alolom,  
Bahr Aluloom Foundation (BAF) Perspective**

- Dr. Ibrahim Bahr Alolom of the Bahr Aluloom Foundation praised the government's recent efforts to tackle the challenges of water crisis and climate change, including actions announced at climate conferences and international water conferences. Various ministries are working coherently, and there are hopes to see parallel efforts from the judiciary sector.
- A significant concern was raised over the water scarcity in Iraq, with fears of a more severe drought in the coming period. Iraq was identified as particularly vulnerable, and the integration of societal, governmental, and parliamentary roles was emphasized to limit damage, with support from international organizations.

- Three specific messages regarding international support for Iraq were focused on:
  1. Supporting the national effort: Emphasizing the need for exceptional efforts to enhance Iraqi capabilities at various levels due to its critical situation.
  2. Supporting regional efforts at the government level: Advocating for joint regional cooperation, with the example of the marshes, which are vital in adapting to climate change and reducing pollution. The need to formulate a regional vision, especially by UNDP, to provide water for the marshes was stressed.
  3. Regional effort at the community level: A call for international organizations to activate regional expertise in tackling climate challenges, including the establishment of a Water, Environment, and Renewable Energy Governance Centre. Collaboration in research, joint monitoring, and studying regional experiences was encouraged.

**Dr. Ali Al-Alaq,**  
**Governor of the Central Bank of Iraq**

- Dr. Ali Al-Alaq, the Governor of the Central Bank of Iraq, recently addressed various questions about Iraq's stance on the green economy and economic reforms. Here are some key insights:
- **The Green Economy's Role:** Achieving the green economy in Iraq requires a fine balance between sustainable development and environmental sustainability. This entails an integration of economic, social, and environmental factors, making the economic model both dynamic and challenging.
- **Launch of the Term 'Green Economy':** Although the concept is not an official economic indicator, it is vital in achieving growth. Key aspects include:
  - Environmental conservation.
  - Proper investment in natural resources.
  - Developing technical capabilities to enhance resource utilization.
- **Strategic Planning and Threats:** The country's strategic planning is moving towards shaping the future green economy. Acknowledging and addressing broad threats and factors is crucial to ensure sustainable growth.

- **2% Reduction Scenario:** Although there are government indicators for a 2% reduction in all business, clear planning and actual implementation are lacking.
- **Budget and Direct Financing:** The general budget includes trends and plans related to environmental challenges. The Central Bank of Iraq supports these through direct financing.
- **Initiatives for Green Economy:** Several initiatives have been launched to stimulate various sectors. These are integral to creating a green economy, especially in light of oil price fluctuations.
- **Renewable Energy Financing:** Despite the allocation of one trillion Iraqi dinars to this initiative, its progress is slow. Finding means to activate and ensure its success is vital.
- **Challenges:** Weaknesses in societal awareness and state institutions necessitate creating a balanced environment with social, economic, and educational stability.
- **Awareness Creation:** The Central Bank's reports highlight the impact and relationship between climate change and financial indicators.

## PLANNING AT THE SECTORAL LEVEL REPRESENTED BY THE MINISTRY OF ENVIRONMENT

Dr. Jassim Al Falahi

Deputy Minister of Environment

- The Deputy Minister of Environment emphasized the real efforts made in facing climate change, aligning with the Paris Agreement and the Sustainable Development Goals (SDGs), and tackling challenges like water security.
- **Climate Change Impact:** Iraq is recognized as a victim of climate change's effects, experiencing drought, desertification, and water scarcity. A national activation plan is urgently needed.
- **National Efforts:** Significant efforts are being made at various governmental levels to combat climate-water challenges and to support the Ministry of Environment's initiatives.
- **Central Bank's Initiative:** It includes creating economic diversification through encouraging sectors like smart agriculture and environmentally friendly infrastructure, falling under the sustainable green economy.
- **Government Actions:** Through the Iraqi National Team, the government is working diligently on climate action. The planning stage is complete, and the focus is now on implementation.

## PLANNING AT THE LEVEL OF THE PRIME MINISTER'S OFFICE

**Dr. Ali Abdul-Zahra Al-Lami**

*Climate Advisor to the Prime Minister*

- The Prime Minister has shown a strong interest in climate action, personally inaugurating the Basra Climate Conference last March. This event marked a successful collaboration between the United Nations and the Iraqi government, guiding climate action from planning to implementation.
- The conference emphasized enhancing structural measures within the Ministry of Environment. For example, the Directorate climate change was elevated from a department to a directorate under the Prime Minister's authority.
- An annual Basra Climate Change Conference was instituted by the Prime Minister, who also approved a special team within his office to oversee the conference's outcomes.
- Key decisions of the conference included translating draft plans into projects for implementation. The Ministry of Planning is tasked with executing these plans within their area of specialization.
- Preparations for a regional conference in Baghdad are underway, focusing on regional cooperation on climate change. The conference is set to precede COP 28 next fall.
- Gratitude was expressed for the support of UNAMI and UNDP. Their continued assistance in implementing plans and addressing challenges is seen as vital.

## COMPREHENSIVE PLANNING FOR THE GOVERNMENT AND ALL SECTORS

**Dr. Maher Johan**

*Deputy Minister of Planning*

- The Ministry of Planning's mission is twofold, encompassing both climate change policies and support for related projects.
- Climate change considerations are now integrated into every aspect of life, not simply confined to a dedicated chapter, as reflected in the development plan for 2018-2022.

- The first national report on the comprehensive impact of climate change has been issued, exploring interconnections, integration, and priorities.
- The growth rate's effect on various sectors, including the economy, water security, education, health, and more, is recognized.
- Climate change was a focal point in the newly released National Population Policy Document.
- Significant budgetary changes reflect a clear governmental response, with approximately \$23 billion over three years allocated for climate action.
- Implementation paths will be clear in all ministries, and climate action will be a priority, supported by the Ministry of Environment.

**Dr. Mohammad Abdul Hadi Al Hakeem**

*Strategy advisor to the Prime Minister*

- **Governmental Interest:** The current government's engagement in environmental and climate change matters has been increasing.
- **Practical Measures:** Efforts are being made to tackle gas flaring and other significant issues such as electric power generation through solar energy.
- **The Most Affected:** Iraq's unique position as one of the most affected countries by environmental danger offers opportunities to invest in sustainable infrastructure.
- **Economical Aspect:** The monolithic oil-dependent economy poses a financial risk, requiring a shift towards a green economy.
- **Subject of Rights:** Iraq's history and challenges entitle it to exceptional international support and flexibility. This includes financing environmentally friendly infrastructures and conditional cooperation that ensures development and growth.

**SECTOR-WIDE IMPLEMENTATION**

- Iraq's diverse ecosystems are vulnerable to climate change, especially in the agricultural sector, which consumes 85% of water revenues.
- Government action includes transitioning to modern irrigation, requiring 100,000 pivotal and 1 million fixed systems; the adoption of climate-smart agriculture; the development of drought-tolerant crops; and promoting smart agricultural practices.





- Solar energy initiatives and projects to reduce dust storms and greenhouse gas emissions also aim to increase resilience and achieve sustainable development goals in agriculture.
- Emphasizing international obligations, the Ministry has implemented a mitigation plan since 2006, including gas-based electricity production plants and renewable energy initiatives.
- Challenges in maintaining solar energy systems were noted, along with the need for international support.
- Iraq is the second-largest country to burn gas, with an intention to reduce gas flaring to near zero by 2030. Progress has been made, increasing the gas utilization rate from 44% in 2018 to an expected 58% in 2023.
- Other efforts include converting 40,000 cars to gas and seeking international loans to reduce gas burning, contributing both to the economy and environmental protection.
- Highlighting the discrepancy between oil production and consumption globally there is a need to address carbon emissions and pollution more broadly.
- Strategies include using seawater and salty groundwater in oil wells, filtering water produced from refineries, and launching an initiative to use seawater to compensate for low pressure in oil fields.
- Large projects have been affected by oil prices, but focus remains on carbon capture, solar energy projects, and the potential production of green and blue hydrogen, akin to developments in neighboring countries.

### **Monitoring and Legislation at the Level of the Iraqi Parliament**

- On the legislative front, future laws, particularly the Renewable Energy Law are being examined and the Integrated Waste Management Law. The latter addresses a significant problem in Iraq: the accumulation of 10-12 million tons of unutilized waste.
- Working towards environmental sustainability and a green economy is critical, despite challenges in reducing oil dependency.
- Iraq must also adopt modern technologies for irrigation and address the high rate of water evaporation in river channels.
- Efforts are being made to address environmental and water scarcity issues through initiatives like Iraq's Thirst project. A request is made for UN





intervention with neighboring countries over water allocations, dividing the crisis into natural and human components.



- Challenges in Najaf include water scarcity and pollution, affecting both agriculture and the economy. Parliament is working on laws to reduce environmental pollution, with significant government interest.

- The international community must be better informed about Iraq's internal crisis. Participation in global conferences such as COP27 and COP28 is essential, although Iraq lacks proper representation.



- Positive changes are occurring, with successful initiatives like UNGC. Partnerships with UNDP, waste management, and solar energy plans all present opportunities for growth.



- Various projects and campaigns are underway to combat desertification and encourage organic agriculture, reducing emissions, and increasing green spaces.





### Conclusion:

- The implementation phase involves careful planning, coordination, monitoring, and reporting.
- International negotiations and agreements must guide actions.
- Iraq must strategically position itself within the global climate action landscape, considering both immediate gains and long-term commitments.

**Additional Written Intervention on Climate Action Implementation:**  
*Dr. Nadheer Abood Fazaa*

**Investing in Carbon Returns:** Discussions around regulating climate action have included investing in carbon returns, aligned with international climate agreements such as the Kyoto Protocol.

**Clean Development Mechanism (CDM):**

- Adopted under the Kyoto Protocol to reduce greenhouse gas emissions.
- CERs (Certified Emission Reduction) were granted for approved projects and sold internationally.
- The mechanism ended in 2020 due to issues with remaining CERs during the COVID crisis; closure scheduled for 2023.

**Transition to Voluntary Mechanism:** Developed countries are shifting to a voluntary system based on Article VI of the Paris Agreement.

**Recent Conferences of the Parties (COP):**

- No new mechanism agreed upon in COP26 (Glasgow) or COP27 (Egypt).
- Anticipation for COP28 (Dubai) to agree on a new global carbon market mechanism to replace the CDM and Kyoto Protocol.

**CDM Executive Board Meeting:** Recommendations from the 118th meeting in Bonn to be discussed in Dubai at COP28.

**Iraq's Role and Position:**

- Important for Iraq to monitor meetings and inform Arab nations and the Group of 77 + China.
- Iraq must articulate political, diplomatic, and technical positions.
- Consideration for temporary pilot projects in bilateral carbon trade.

**Global Carbon Market Changes:**

- Years 2020-2023 saw bilateral cooperation in carbon sales.
- Carbon prices fluctuated; collapse of Kyoto Protocol changed negotiation directions.
- Paris Agreement oriented towards a voluntary market.

**Funding and Prices:**

- Green Climate Fund approved but not fully funded.
- Carbon prices currently high but future unpredictable.

**Implementation Phase Definition:**

- Planning: Ministry of Environment's completion of plans; integration with government development plans.
- Role Distribution: Coordinated efforts among the Ministry of Planning, Finance, and Environment.
- Kurdistan Region's collaboration with central Ministry of Environment.
- Sectoral Ministries' role in project implementation; alignment with climate action framework.
- Capacity-building programs.



## Recommendations:

### Global Awareness and Cooperation

1. Heed UNDP's warning that environmental degradation threatens global economic growth, comparing the destruction to nuclear warfare.
2. Recognize that environmental degradation has outpaced economic growth due to pollution.
3. Foster cooperation between Iraq, UNDP, Saudi Arabia, and the Gulf countries for financing alternatives for climate action.
4. Urge UNDP to mobilize international resources to support Iraq's climate change investment programs.
5. Emphasize Iraq's victim status in climate change and pollution, seeking distinguished international support.
6. Demand international cooperation's flexibility with Iraq, ensuring parallel growth and meeting development goals.
7. Encourage regional collaboration through international organizations like UNDP for environmental governance. Support the establishment of a Water, Environment, and Renewable Energy Governance Centre in the Tigris and Euphrates region to activate regional expertise. This includes creating an advisory arm to governments for mitigation and adaptation strategies, with a focus on independent data, joint monitoring, and research collaboration.

### National Strategy and Planning

8. Integrate Iraq's economy with climate action by linking with development plans.
9. Implement balanced measures in economics, social, and environment, especially when transitioning from fossil fuels.
10. Adopt a dynamic economic model that aligns with overall strategies.
11. Review the global energy transition, aligning Iraq with future plans.
12. Present Iraq's unique situation, seeking global support for infrastructure building.
13. Integrate environmental concerns into all sectors within the Ministry of Planning.
14. Analyze environmental interconnections and prioritize climate change in national policies.
15. Strengthen government commitment by allocating \$23 billion to environmental and climate change sectors (2023-2025).
16. Ensure that the Ministry of Planning prioritizes climate action in all ministries, developing a cohesive climate vision for Iraq.



17. Collaborate with parliamentary committees to enhance climate action legislation.

### **Environmental Initiatives and Implementation**

18. Assess negative environmental impacts, target GDP growth, and identify best practices for projects.
19. Develop practical national initiatives, like the Central Bank's renewable energy initiative, through the Ministry of Environment.
20. Translate Basra Climate Conference recommendations into action.
21. Implement environmental and climate plans on the ground.
22. Utilize gas plants and invest in gas associated with oil production to support cleaner energy.
23. Explore alternatives in oil production, such as seawater injection and water recycling.
24. Support additional government initiatives related to seawater injection into oil fields.
25. Develop early warning systems for climate change and dust storms across Iraq.
26. Enhance the Ministry of Environment's role in Monitoring, Reporting, and Verification (MRV) and certify greenhouse gas reduction.

### **Agriculture and Food Security**

27. Support the Ministry of Agriculture's adaptation measures, including transitioning to modern irrigation systems and acquiring pivotal and fixed systems for food security.
28. Implement breeding programs for resilient crops at subsidized prices.
29. Adopt modern technology, including solar energy in agriculture, and reduce fertilizers and pesticides.

### **Economic Diversification and Sustainability**

30. Utilize the Central Bank's support for green economy initiatives.
31. Diversify the economy to ensure financial sustainability, especially given oil price volatility.
32. Acknowledge Iraq's social and environmental challenges, insisting on international support due to historical context.

### **Community Engagement and Education**

33. Increase awareness among decision-makers and civil society.
34. Collaborate with UNDP and the Iraqi government to prepare Iraq's COP28 file and secure funding.
35. Raise awareness of Iraq's perspective on the green economy, seizing opportunities for sustainable infrastructure.



36. Enhance private sector and civil society participation in climate action development and implementation.
37. Seek international support to maximize Iraqi capabilities to respond to critical national needs.
38. Support regional governmental efforts for joint cooperation, like marshland protection, to face climatic repercussions.



# Roundtable Participants

<p><b>DR. ALI AL-ALAQ</b> <i>Governor of Central Bank of Iraq</i></p>	<p><b>DR ABDALLAH AL DARDARI</b> <i>UN Assistant Secretary-General and UNDP Regional Director</i></p>
<p><b>MR. MOHAMMED AL ABID RABO</b> <i>MP- Head of Electricity and Energy Committee</i></p>	<p><b>DR. ALI AL SHUKRI</b> <i>Head of Advisors to President</i></p>
<p><b>MR. AHMED AL-HAMMAL</b> <i>Regional Advisor, UNDP</i></p>	<p><b>DR. MAJID AL SHINGANI</b> <i>MP - Head of Health and Environment Committee</i></p>
<p><b>DR. OMAR AL BARZANJI</b> <i>Deputy MoFa</i></p>	<p><b>MR. XAVIER MICHON</b> <i>Deputy Executive Secretary, UNCDF</i></p>
<p><b>DR. MAHDI AL-ALAQ</b> <i>National Expert and President of the Iraq Association of Statistics</i></p>	<p><b>DR. MAHER JOHAN</b> <i>Deputy MoPI</i></p>
<p><b>MR. TAOUFIK RAJHI</b> <i>UNDP Economist</i></p>	<p><b>MS. IBTISAM AL IBRAHIMEY</b> <i>MP - Member of Agriculture, Water and Marshes Committee</i></p>
<p><b>ENG. BASSIM KHADHER</b> <i>Deputy MoO (Upstream)</i></p>	<p><b>MR. TAREK AKEL</b> <i>Private Sector Specialist, UNDP</i></p>
<p><b>SHAIKH THAIR AL JIBOURI</b> <i>MP - Member of Agriculture, Water and Marshes Committee</i></p>	<p><b>DR. JASSEM AL FALLAHEY</b> <i>Deputy MoEn</i></p>
<p><b>MR. AUKE LOOTSMA</b> <i>Resident Representative, UNDP Iraq</i></p>	<p><b>DR. MOHAMMED AL HAKEEM</b> <i>Strategy Advisor to the PM</i></p>
<p><b>DR. MAHDI AL JIBOURI</b> <i>Deputy MoA</i></p>	<p><b>MR. HAIDAR SALIH AZIZ</b> <i>Advisor, MoFa</i></p>
<p><b>ENG. BASSIM AL GHORABEY</b> <i>MP - Member of the Health and Environment Committee</i></p>	<p><b>MR. MOHAMMED AMIN</b> <i>Advisor to President on Water and Climate Change</i></p>



<p><b>DR. AMMAR ATAA</b>  <i>Advisor to the Health and Environment  Parliament Committee</i></p>	<p><b>DR. THANI AL ZAGRAWY</b>  <i>MP - Health and Environment Committee</i></p>
<p><b>DR. ESAM AL SADEY</b>  <i>Deputy NSA</i></p>	<p><b>DR. KURDO AL JAFF</b>  <i>President Office</i></p>
<p><b>DR. ALI AL LAMEY</b>  <i>Climate Advisor to the PM</i></p>	<p><b>DR. EZET SABER</b>  <i>Deputy MoO (Gas)</i></p>
<p><b>DR. MOHAMMED AL JAWAD</b>  <i>Iraq Energy Academy</i></p>	<p><b>MR. FAYADH NIMA HASSAN</b>  <i>Energy Advisor to the PM</i></p>
<p><b>DR. KHALED SHIMAL</b>  <i>DG and Spokesperson MoWR</i></p>	<p><b>DR. MOKHTAR KHAMIS</b>  <i>Iraqi Green Climate Organization</i></p>
<p><b>MR. MOHAMMED MOHAMMED JAWAD</b>  <i>DG of Trade Bank of Iraq</i></p>	<p><b>MS. MAHA DAWOOD IBRAHIM</b>  <i>Head of Environment Dept, MoElc</i></p>
<p><b>DR. NADHEER ABOOD FAZAA</b>  <i>National Expert - Environment and Climate  Change</i></p>	<p><b>MR. YOUSIF MOUAYAD</b>  <i>Head of Climate Change Directorate in MoEn</i></p>
<p><b>DR. MOHAMMED AL DULAMEY</b>  <i>Private Sector</i></p>	<p><b>MR. SALAR AMIN</b>  <i>Deputy Head of Investment Commission</i></p>
<p><b>MR. NAWAR AL OBAIDI</b>  <i>Association of Private Banks</i></p>	



ظمأ العراق  
IRAQ'S THIRST





العدد:

التاريخ:

## **Strengthening Journalism in water scarcity and climate change**

**July – August 2023-Baghdad**

As the first media training course on climate change concludes, it marks a significant milestone in our collective journey on fighting climate change.

The series of training sessions enabled journalists to develop a deeper understanding of climate change and water scarcity in Iraq, while also bridging the previously acknowledged gap in collaboration between government officials, legislators, technical experts, and journalists. Presently, a team of 15 Iraqi journalists representing diverse media platforms have improved their ability to convey the complexities of climate change and its effects on the economy and local communities. This contributes to increasing awareness and readiness of the citizens and the government for taking proactive measures against climate change.

The training culminated in a competition among journalists to produce the best-written media reports on climate and water, with awards given to the top three winners. The trainings also concluded with the set of 8 recommendations aimed at enhancing cooperation between the media and the government, facilitating informed decision-making and encouraging citizens to take personal climate actions.

This transformative initiative was co-organized by Al-Alamain Institute and UNDP in Iraq, with the successful implementation of six comprehensive workshop sessions that commenced on July 19. The culmination took place during the final session, graced by the presence of esteemed figures including HE Mr. Awn Thiab, Minister of Water Resources; HE Mr. Ahmad Al Mobarkaa, Minister of Youth and Sports; Dr. Muzahem Al-Khayyat, Chairman of the Parliamentary Higher Education Committee; the Technical Undersecretary of the Ministry of Environment, Dr. Jassim Al-Falahi, and various other officials. The event welcomed the active participation of more than 15 media outlets.

As this media training course reaches its conclusion, our shared commitment to fostering climate change awareness and driving impactful action remains resolute. Together, we navigate towards a future characterized by sustainability and resilience.





# ظمأ العراق

IRAQ'S THIRST



العدد:

التاريخ:

## Recommendations:

- Establishing a media alliance or the "Environmental Media Cell" to organize media efforts to raise the level of environmental awareness of community members and adopt social behaviors that help address the effects of climate change, water scarcity, desertification, and pollution.
- Establishing a website for climate change and water scarcity that includes the partners of the Media Alliance or the "Environmental Media Cell", and the work is in accordance with the (*Environmental Media Guide and its keywords*) and opens channels of communication with the concerned government agencies in order to adopt the unity of discourse and the accuracy of the information, taking into account the possibility of creating an application related to the climate change and water scarcity.
- Producing video, audio and photographic educational materials, and distributing them and to be broadcasted continuously to raise the environmental awareness of citizens through the use of communication features, persuasive methods, and paths of evidence used in dealing with climate changes, with the need to measure the public's interaction with these materials that deal with climate changes.
- The urgency to adopt (the issue of media and climate change) and its effects on Iraq in diplomatic negotiations on issues of water scarcity, and to intensify media campaigns to support the efforts of the state at the internal and external levels, and that the water issue is not considered separate from it.
- Expanding the base of participants in training courses, attracting social media influencers and digital content creators and involving them in alerting on the dangers of Climate change and water scarcity and avoiding ignoring the importance of addressing their impacts.
- Increasing awareness through the media on the need to re-introduce health and environmental safety and the study of agriculture in the educational curriculum, as well as urging the Ministry of Higher Education to direct postgraduate students to undertake research on climate actions and water scarcity and benefit from research centers in providing an integrated vision and opening a media departments specializing in the environment and climate changes and linking the concept of Citizenship by preserving the environment and rationalizing the consumption of energy, water, electricity.
- Coordination, communication, unification of position and information, and exchange of information between the central government and regional governments, through the media alliance and the electronic site, and the involvement of the Kurdistan media in this alliance and activating its efforts and expertise.
- To consider the presence of trained media professionals in international conferences on climate change and to accompany official delegations in COP28





بِسْمِ تَعَالَى

# ظمأ العراق

IRAQ'S THIRST



العدد:

التاريخ:





# IRAQ'S THIRST

## ROUNDTABLE DISCUSSION

### JOINT COOPERATION ON WATER SCARCITY AND CLIMATE CHANGE BETWEEN IRAN AND IRAQ

IN PARTNERSHIP WITH

AL ALAMAIN INSTITUTE OF HIGHER EDUCATION

&

INSTITUTE FOR POLITICAL AND INTERNATIONAL STUDIES (IPIS)

TEHRAN 15-16<sup>TH</sup> OCTOBER 2023

BAHR ALOLOM FORUM - SEASON 5 2022-2023

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## **INTRODUCTION**

Water scarcity in region has become a real problem and it is expected to persist-exacerbated by climate change. The region faces various challenges, some of them internal in Iraq and others external, therefore, As a societal and scientific response from the Bahr Aluloom Foundation (BAF), 'Iraq's Thirst' initiative aims to shed light on the water scarcity and Climate change challenges from various perspectives bringing together and including the local communities, the Iraqi government, council of representatives, the international community, academic institutions and local organizations as well as the upstream countries of the Tigris and Euphrates rivers and their tributaries.

Iraq Thirst initiative has taken a new approach in water diplomacy, based on cooperation between water sharing countries in search for identifying areas of commonality that can facilitate the management of interests between governmental and non-governmental players. A roundtable of discussions *Prospects for Joint Cooperation on water scarcity and climate change between Iran and Iraq* was jointly organized by BAF and The Institute for Political and International Studies (IPIS) in Tehran during 15th and 16th of October 2023. The roundtable discussion was a follow up on the workshop that took place in Najaf between Iraqi and Iranian experts on Joint cooperation on water resource management in March 2023.

The success achieved during the workshop in Najaf and the recommendations that emphasized the necessity of sustaining dialogue and meetings, BAF was invited by IPIS to jointly arrange a roundtable to discuss the common environmental challenges between Iran and Iraq, aiming to involve stakeholders to explore systematically and objectively a vision that may support decision-makers in both countries to reach practical and satisfactory solutions on water scarcity and climate change. BAF responded positively and partook in the roundtable in the Iranian capital, Tehran with the participation of deputy ministers, general directors, advisors, academics and experts from Iran and Iraq.

BAF is a non-profit civil society organization and in its fifth season - Iraq's Thirst-works to support the role of civil society organizations working in the field of climate change and water scarcity and always seeks to support in furthering solutions and increasing societal awareness towards challenges faced in Iraq.





## OPENING SESSION: JOINT COOPERATION ON WATER SCARCITY AND CLIMATE CHANGE BETWEEN IRAQ AND IRAQ

Speaker	Role
Dr. Muhammad Hassan Sheikh Al-Islami	Undersecretary of Foreign Affairs and Head of IPIS
Dr. Ibrahim Bahr Alolom	President of BAF
Dr. Mojtaba Ferdowsi Pour	Head of the Western Asia department at IPIS
Dr Jassim Al-Falahi	Undersecretary for Technical Affairs at Ministry of Environment
Dr. Niazi Shahraki	Undersecretary of the Iranian Ministry of Agriculture for Water and Soil Affairs
Dr. Mithaq Al-Khafaji	Undersecretary for Technical Affairs at Ministry of Agriculture
Dr Mahdi Ahmad	Managing Director for Iraq's Thirst

### Session 1: The devastating effects of climate change and water scarcity on the two countries, Iran and Iraq

Session Moderator: *Dr Qassim al Jinabi, BAF*

- The effects of climate change from the Iraqi perspective and regional adaptation proposals| Dr Jassim al Falahey, Deputy Minister of Environment for Technical Affairs, Iraq
- Dr Mahdi Rahmanar, Head of the Meteorological Institute – Iran
- Climate change and its impact on water resources| Expert Dr Sadiq al Jawad, Advisory Board, Iraqi Prime Minister Office
- Dr Sadiq Dhiaeyan, Head of the National Center for Climate and Drought Management – Iran
- Open discussions and comments

### Session 2: Biodiversity and Pollution

Session Moderator: *Dr. Ali Saleh Pour IPIS*

- Dr. Najm Tarish Al-Ghazi - Dhi Qar University - The impact of pollution on the water situation in the marshes and Dhi Qar Governorate
- Mr Omid Siddiqui - Director General of Marine Pollution Treatment
- Dr. Mukhtar Khamis – Iraq Green Climate Organization - Biological diversity along the border with Iran
- Discussions and Q&A



### **Session 3: Dust storms and Desertification**

**Session Moderator: Dr Mohammed Yas, Head of Political Science Department at Alalamain Institute**

- Dr Methaq al Jibouri, Deputy Minister of Agriculture, Iraq
- Dr. Tahmasbi - Advisor to the President of the Environmental Protection Organization
- Expert Dr Rawya Mazal -Assistant Director General of Forests and Desertification Control - Ministry of Agriculture, Iraq - Lessons in the Success of Combating Storms and Desertification
- Dr. Wahid Jafarian - Director General of the Desert Affairs Office at the Natural Resources Organization
- Dr. Amira Omran - Al-Qasim Green University, Iraq - Combating desertification - Babylon as a model
- Discussions and Q&A

### **Session 4 - Water Scarcity**

**Session Moderator: Dr. Khalil Sher Gholami IPIS**

- Keynote by MP Dr Sameya Roufaey, Head of Environmental Committee, Iranian Parliament
- Head of the Environmental committee, Iranian Parliament
- Dr Saeed Moreed, Academic- Tarbeyat Modarees University
- Expert Dr Samira Al-Shabib - Advisor to the Ministry of Water Resources, Iraq - Al-Hawizeh Marsh - Sustainability and Challenges
- Expert Mr Ali Radhi - Director General of Dams - Ministry of Water Resources, Iraq - Joint projects with Iran on water scarcity solutions
- Dr. Amir Safai - Head of the Frontier Rivers Center - Water Research Institute - Ministry of Energy, Iran
- Open discussions and comments
- Roundtable recommendations and closing

## **OUTCOMES OF OPENING SESSION:**

The roundtable included four scientific sessions, preceded by an opening session moderated by Dr. Khalil Sherghalami, Assistant Head of the IPIS, and included keynote speeches by officials from both countries. The session was opened by Dr. Muhammad Hassan Sheikh Al-Islami, undersecretary of Foreign Affairs and Head of IPIS who welcomed the visiting Iraqi delegation and expressed his appreciation for the efforts of BAF in seeking to open horizons for cooperation between the two countries through dialogue between academics and experts, which will ultimately contribute to connecting outlooks regarding the outstanding issues between the two countries on shared waters. Furthermore, Dr Al Islami expressed his readiness to provide all the support for the proposals and recommendations agreed upon by the roundtable participants by submitting them to decision makers.

Dr. Ibrahim Bahr Alolom, President of BAF extended his thanks and appreciation to the Iranian Ministry of Foreign Affairs and IPIS for their warm reception and wishing the participants at the meeting a prosperous discussion and outcomes. Dr Bahr Alolom stated in his speech that crisis of climate change and water scarcity is impacting the entire region: Iran, Turkey, Syria- and Iraq in particular, because Iraq is one of the most affected and fragile countries and is ranked fifth among the countries most affected by climate change. The effects of climate change have direct impacts on the security of people and their development paths and will continue unless there is an exceptional effort on our part to confront it. These challenges and this exceptional effort are not limited to government only, but also extend to the academic communities and other societal sectors. Thus, we find the necessity of doubling the efforts to activate the role of the effective academic and executive leaders who understand the risks of the future and who influence the political decision in Iraq and Iran. Furthermore, Dr Bahr Alolom stressed the necessity of activating the role of the research institutes, think tanks, universities, and community institutions that will have a parallel role to that of the governmental efforts. He described that in his experience in Iraq, the role of the track 1.5 dialogue could play in identifying the common spaces between the two countries and for governments to build on these discussions and outcomes and being pivotal role in broadening areas of cooperation and finding tangible solutions, with the focus being the interests of the citizens and the necessity of driving public interest and common good between countries.

Dr Bahr Alolom concluded his speech with reiterating that there are no other options apart from dialogue as there exists a lot of commonalities between the two nations- including cultural and historical and that all stakeholders involved need to work together to convert the challenges into opportunities for cooperation and integration. The region requires a system of governance for water and the environment to play a vital role to deal with the various challenges in climate changes, water scarcity, dust storms, desertification, water rationalization, consumption and water quality. All this must be within a conscious, aware, leading vision, not only at the national level, but at the regional level. BAF is actively exploring the establishment of a water, environment, and renewable energy governance Centre in the Tigris and Euphrates region to activate regional



## ROUNDTABLE: JOINT COOPERATION ON WATER SCARCITY AND CLIMATE CHANGE BETWEEN IRAN AND IRAQ



expertise. This includes creating an advisory arm to governments for mitigation and adaptation strategies, with a focus on independent data, joint monitoring, and research collaboration.

Dr Mujtaba Ferdoussi, the head of the Western Asia department at IPIS referred to the workshop held last March in Najaf and the results achieved in the recommendations was a culmination of this follow up roundtable and expressed his desire to continue and open new horizons to cooperate with BAF and Alalamain Institute for Postgraduate Studies.

Dr Jassim Al-Falahi, deputy minister of Environment, Iraq, in his speech, described the role of BAF's active contribution with state institutions in addressing the issue of water scarcity and climate changes in Iraq and in its current season Iraq' Thirst. He stated that the roundtable comes at a critical timing within an important historical stage where all nations are looking to confront the impacts of climate change, which is the challenge that threatens us all, which requires real and serious solutions to solve through cooperation and shared responsibility in reducing the damage caused to counter climate change.

Iraq is one of the countries most affected by climatic change and regional adaptation against impacts of climate change is a national priority. This requires efforts, contribution and effectiveness of all countries and within the principles of the United Nations Framework Convention on Climate Change and the Paris Agreement. All countries of the region are exposed to a growing effect of climate changes but its impact on Iraq is detrimental amid the water scarcity crisis, unprecedented rise in temperatures beyond global rates. Dr Al-Falahi described that one of the most important challenges facing Iraq is water security which is impacting our economy and our development. He stressed that is vital for water shortage to be dealt with especially in areas of the country facing severe droughts. The shortage in our water resources reaches 11bcm annually, representing a major challenge, meaning 30% of our water revenues, in addition to climate change, which has become a real threat to human life.

Undersecretary for Environment, Dr Al-Falahi pointed out that the climate challenge has become a real challenge and one of the most important challenges facing Iraq in its economic, social, health, security, and even political trajectories. All of this causes a change in the ecosystem and biodiversity, in addition to exposing Iraq to an unprecedented scarcity of water. Climate vulnerability is causing extreme weather conditions such floods, land degradation, increasing rates of desertification, dust storms, coupled with poor water resource management requires concerted regional and national efforts to reduce this crisis.

Finally, Dr Al-Falahi praised the efforts made in this roundtable discussion and the efforts made by BAF and the Iraq Thirst Project, in which the Ministry of Environment is an active participant. We rely greatly on the outcomes of this roundtable and these workshops will be a helpful factor in the government sectors in exploring areas of joint dialogue and great support for decision makers in creating an infrastructure capable of generating many visions and ideas in a way that supports climate action between the two countries in establishing a flexible and responsive regional system capable of confronting the climate challenge.



## ROUNDTABLE: JOINT COOPERATION ON WATER SCARCITY AND CLIMATE CHANGE BETWEEN IRAN AND IRAQ

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Dr. Niazi Shahraki, Undersecretary of the Iranian Ministry of Agriculture for Water and Soil Affairs, pointed out the importance of the round table discussions between the two countries, especially since water scarcity has become one of the urgent issues and the necessity of relying on modern technologies to reduce water waste in all uses. He expressed his desire to find ways of cooperation between the two countries in the field of Water management.

Dr. Mithaq Al-Khafaji, Technical Undersecretary of the Ministry of Agriculture, described the risks of achieving food security due to climate changes that affected the agricultural cycle and the nature of agricultural products, and called for the necessity of bilateral cooperation between the two countries in the agricultural sector to face the challenges of food security. Regional issues have an impact on each other, and critical issues push us to deal, cooperate, integrate, and support each other. Climate change impacts are threatening the existence of some species in the biodiversity system. We must consider climate change as a regional issue because neighboring regions share a large percentage of the same problems and challenges. The solutions are not in the processes of independent adaptation to solve these problems however, through cooperation and joint work regionally.

Dr. Al-Khafaji pointed out that food security and water security have a real impact on our region and its security. There is no country whose food profile is safe and its neighbors are threatened in terms of food because it has a primary impact on climate change. These indicators have begun to appear, including an unprecedented rise in the prices of agricultural and livestock, in addition to global military crises, diseases, etc.

Dr. Al-Khafaji stated that today we are calling for cooperation and integration in confronting transboundary climate changes. There is a need for there to be an alternative word to climate change, which is *transboundary climate changes*, so that it becomes embedded in the culture of the recipient's mind in various groups, that climate changes are not a local occurrence, but rather a regional issue.

At the conclusion of the session, Dr. Mahdi Ahmed, Managing Director of the Iraq's Thirst Project, provided an overview of the project's objectives, its scientific paths, and what has been accomplished in the phases of the project, which was launched on November 4, 2022 in partnership with the UNDP in Iraq.



## SESSION 1: THE DEVASTATING EFFECTS OF CLIMATE CHANGE AND WATER SCARCITY ON THE TWO COUNTRIES, IRAN AND IRAQ

The first scientific session was moderated by Dr. Qasim Al-Janabi from the BAF, which was held on October 15, 2023. Four papers were devoted to researching the devastating effects of climate change and water scarcity on Iran and Iraq. The first research was presented by Dr. Jassim Al-Falahi, the Technical Undersecretary of the Iraqi Ministry of Environment, in which he presented the impact of climate change on the level of Iraq and proposals for regional adaptation strategies. At the regional level, Dr. Mehdi Rahmna, head of the Meteorological Institute in Iran, presented the rise in temperatures and their future expectations and impacts on climate changes. As for the expert, Dr. Sadiq Al-Jawad, from the Board of Advisors in the Prime Minister's Office, he presented the impact of climate changes on Iraqi water resources, while Dr. Sadiq Dhayaian, head of the National Center for Climate and Drought Management in Iran, presented the devastating effects of drought regionally.

## SESSION 2: BIOLOGICAL DIVERSITY AND POLLUTION

The second session of the first day was dedicated to biological diversity and pollution. The session was moderated by Dr. Ali Saleh Pour from IPIS.

Dr. Najm Abd Tarish from Dhi Qar University presented on the impact of pollution on the reality of water in the marshes of Dhi Qar Governorate. The second presentation was by Mr Omid Sedqi, Director General of Addressing Marine Pollution in Iran on the issues of pollution in the marine environment.

The session was concluded by Dr. Mukhtar Khamis from the University of Baghdad, on biological diversity along the border strip between Iraq and Iran.

## SESSION 3: DUST STORMS AND DESERTIFICATION

The second day of the roundtable discussions included two scientific sessions, the first of which was devoted to dust storms and desertification and was moderated by Dr. Muhammad Yas Khudair from the Alalamain Institute for Graduate Studies, the session included five research papers, in which Dr. Mithaq Al-Khafaji, Technical Undersecretary of the Iraqi Ministry of Agriculture, participated and presented the challenges of food security in Iraq, especially related to environmental challenges.

Dr. Tahmasbi, advisor to the head of the Iranian Environmental Protection Organization, pointed to the devastating effects of storms during his presentation titled Dustiness and the effects of desertification on development paths. As for the expert, Ms Rawiya Mazal, Assistant Director General of Forests and Desertification Control in the Iraqi Ministry of Agriculture, touched on the projects adopted by the Iraqi Ministry of Agriculture to confront desertification

Dr. Wahid Jafarian, Director General of the Office of Desert Affairs in Iran reviewed the desertified areas threatened by desertification and the corrective actions mechanisms implemented in Iran.

## ROUNDTABLE: JOINT COOPERATION ON WATER SCARCITY AND CLIMATE CHANGE BETWEEN IRAN AND IRAQ

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The session was concluded with a presentation by Dr. Amira Omran from Al-Qasim Green University on the experience of combating desertification in Babil Governorate.

### SESSION 4: DUST STORMS AND DESERTIFICATION

The final session was moderated by Dr. Khalil Sher Gholami from IPIS, the participating papers addressed water scarcity and its devastating effects. The session was kicked off by Dr Saeed Murid from Tarbiat Mudarres University and included expert Ms Samira Al-Shabib, advisor to the Iraqi Ministry of Water Resources, who specializes in marshes and wetlands where she touched on the environmental management needs for the Hawizeh Marshes.

As for joint projects with Iran to confront the water scarcity a presentation was conducted by expert Mr Ali Radi, Director General of Dams at the Ministry of Water Resources.

During the presentation of Dr. Tamir Safaei, head of the Border Rivers Center at the Iranian Ministry of Energy, he touched on the necessity of cooperation in the field of shared border waters. The Session was concluded by a Keynote by MP Dr Sameya Roufaey, Head of Environmental Committee, Iranian Parliament.

## RECOMMENDATIONS

The scientific sessions observed an official, academic and technical participation and included interventions and proposals that led to contributing to the maturation of the ideas presented in the research papers. The participants in the roundtable agreed to consider climate change, drought, desertification, water scarcity and dust storms as an existential challenge that could lead to serious repercussions on the economic, social, health in addition to the political and security levels. The participants also agreed that these challenges could be a significant cause of internal and/or cross-border disputes and conflicts.

Therefore, the participants recommend the following:

1. The need for continued cooperation between BAF (Iraq) and IPIS (Iran) on issues of the environment, climate change, desertification, and joint water management, leading to the creation of joint workspaces that help decision-makers in both countries make practical decisions on these critical issues
2. Forming a scientific committee that undertakes to follow up on the outcomes of the roundtable and prepare for holding future workshops, provided that periodic meetings are held to follow up on what has been accomplished.
3. Benefiting from the outcomes of the round table as a basis to build upon and involve international organizations focusing on climate matters and advancing beyond the traditional and routine frameworks of governments.
4. To engage with the international community and gain support for climate change and environmental challenges by adopting joint projects such as establishing border natural reserves and national parks or any joint projects that lead to reducing the effects of climate change.
5. Conducting joint research projects based on the outcomes of the round table, and both parties (BAF and IPIS) to advocate these approaches to national research institutions and stakeholders to implement these projects.
6. The necessity of conducting joint studies between Iraq and Iran regarding the shared marshes, provided that these studies lead to developing practical solutions for the sustainability of the shared marshes in order to maintain the environmental balance.
7. Calling for the establishment of a center specializing in water governance and climate change that includes the countries around the Tigris and Euphrates basin and the possibility of other regional countries to join to assisting governments in formulating policies and strategies for environmental challenges and climate change, increasing community awareness, building and developing technologies and capabilities, and strengthening partnerships for experts.





**PARTICIPANS OF ROUND TABLE:**

<p><b>Dr Ibrahim Bahr Alolom</b> President of BAF, Iraq</p>	<p><b>Dr. Muhammad Hassan Sheikh Al-Islami</b> Undersecretary of MoFA and Head of IPIS, Iran</p>
<p><b>Dr Jassim Al-Falahi</b> Undersecretary MoEn, Technical Affairs, Iraq</p>	<p><b>Dr. Mojtaba Ferdowsi Pour</b> Head of the Western Asia department at IPIS, Iran</p>
<p><b>Dr. Mithaq Al-Khafaji</b> Undersecretary for Technical Affairs at Ministry of Agriculture, Iraq</p>	<p><b>Dr. Niazi Shahraki</b> Undersecretary of the Iranian Ministry of Agriculture for Water and Soil Affairs, Iran</p>
<p><b>Dr. Sadiq Al-Jawad</b> Board of Advisors in the Prime Minister's Office, Iraq</p>	<p><b>Dr. Mehdi Rahmna</b> Head of the Meteorological Institute in Iran</p>
<p><b>Dr. Najm Abd Tarish</b> Dhi Qar University, Iraq</p>	<p><b>Dr. Sadiq Dhayaian</b> head of the National Center for Climate and Drought Management in Iran</p>
<p><b>Dr. Mukhtar Khamis</b> Iraq Green Climate, NGO, Iraq</p>	<p><b>MP Dr Sameya Roufaey</b> Head of the Environmental committee, Iranian Parliament</p>
<p><b>Ms Rawiya Mazal</b> Assistant Director General of Forests and Desertification Control in the Iraqi Ministry of Agriculture</p>	<p><b>Mr Omid Sedqi</b> Director General of Addressing Marine Pollution in Iran</p>
<p><b>Dr. Amira Omran</b> Al Qassim Green University, Iraq</p>	<p><b>Dr. Tahmasbi</b> Advisor to the head of the Iranian Environmental Protection Organization</p>
<p><b>Ms Samira Al-Shabib</b> advisor to the Iraqi Ministry of Water Resources, Iraq</p>	<p><b>Dr. Wahid Jafarian</b> Director General of the Office of Desert Affairs in Iran</p>
<p><b>Mr Ali Radi</b> Director General of Dams at the Ministry of Water Resources, Iraq</p>	<p><b>Dr. Khalil Sher Gholami</b> IPIS, Iran</p>
<p><b>Dr. Muhammad Yas Khudair</b> Al alamain Institute, Iraq</p>	<p><b>Dr Saeed Murid</b> Tarbiat Mudarres University, Iran</p>
<p><b>Dr. Qasim Al-Janabi</b> BAF, Iraq</p>	<p><b>Dr. Tamir Safaei</b> head of the Border Rivers Center at the Iranian Ministry of Energy</p>
<p><b>Dr Mahdi Ahmad</b> Managing Director of Iraq's Thirst Initiative</p>	<p><b>Dr. Ali Saleh Pour</b> IPIS, Iran</p>



**ROUNDTABLE: JOINT COOPERATION ON WATER SCARCITY AND CLIMATE CHANGE BETWEEN IRAN AND IRAQ**





# IRAQ'S THIRST

## PANEL DISCUSSION

### THE ROLE OF THE EDUCATIONAL SYSTEM IN ADDRESSING CLIMATE CHANGE & WATER SCARCITY

IN PARTNERSHIP WITH

AL ALAMAIN INSTITUTE OF HIGHER EDUCATION

BAGHDAD UNIVERSITY 2<sup>ND</sup> NOVEMBER 2023

BAHR ALOLOM FORUM - SEASON 5 2022-2023

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## INTRODUCTION

As part of the Bahr Aluloom Foundation (BAF) engagement with the educational sector and its current initiative Iraq's Thirst, it was invited by the Iraqi Institute for Dialogue to lead on the formation and participation of a panel in the 3rd International Conference – Iraq and Climate Change. The conference was attended by the Iraqi President Rashid and several ministers to discuss the climate change challenges facing Iraq and the solutions needed.

BAF responded positively to the invitation in managing and organizing the panel 'The role of the educational system in addressing climate change and water scarcity'.

The panel participants included:

- Dr Haider Thamad, Undersecretary, Ministry of Higher Education,
- Dr Jassim al Falahi, Undersecretary, Ministry of Environment,
- Dr. Hana Abdel Karim, Ministry of Education, Director of the Institutional Quality Framework Department and member of the Energy and Emissions Reduction Committee
- Ms Ines Zegoulli , UNDP in Iraq, Climate Expert
- Professor Saeb Naji Abood , Al alamain Institute of Higher Education
- Professor Adnan Yassin, Expert in Sociology, University of Baghdad

The session was moderated by Advisor to the Minister of Environment Dr Nadher Abood Fazaa.

The panel discussion was attended by His Excellency the Minister of Higher Education, Dr. Naeem Al-Aboudi, President of BAF, Dr Ibrahim Bahr Alolom, the President of the University of Baghdad, Dr. Munir Al-Saadi and a number of academic and scientific experts as well as representatives of the ministry of water resources, agriculture, advisors, students and teaching faculty from the University of Baghdad.

BAF is a non-profit civil society organization and in its fifth season - Iraq's Thirst- works to support the role of civil society organizations working in the field of climate action and water scarcity and always seeks to support in furthering solutions and increasing societal awareness towards challenges faced in Iraq.





**DR NADHER ABOOD FAZAA, ADVISOR TO MINISTER OF ENVIRONMENT**

We congratulate the *Iraqi Dialogue Institute and the College of Political Science at the University of Baghdad* for this conference because it puts climate change at front line and the current Iraqi government has placed the issue of climate change and the environment among its priorities and this conference builds on climate conference held in Basra last March. The ministry of Environment has many activities in this regard, and it is the governmental entity responsible for this issue.

The topic of climate change includes many important terms that we must understand, namely climate exposure, fragility and adaptation capacity. Today we focus on the topic of the climate change challenge and the adaptability of the educational sector and the response of the ministry of education and higher education to this topic. We will take examples from the Al Alamain Institute of Higher Education and the university of Baghdad on this topic and how to make the education sector adapt to the topic of climate change. The discussion will touch on topics of educational strategies, scientific curricula and research, green buildings, and how to make the education sector resilient. The participants will answer key questions on if we need to change strategies, do we need to redefine curricula or focus on the quality of students, families, and awareness? Do we focus on the quality of teachers and professors?

**DR JASSIM AL FALAH, UNDERSECRETARY OF THE MINISTRY OF ENVIRONMENT**

To begin with, I classify the challenge of climate change as an existential challenge for a country like Iraq. Iraq is classified as one of the countries in the world most impacted by climate change.

I feel a sense of joy at the level of increased environmental and climate awareness by decision makers, experts and academics, however we should have been at this level years ago when the international committee was discussing climate change. But it is always better late than never to we see this large crowd and the high level of interest. What is planted will bear fruit, and from here will be the beginning of the launch to consolidate the concepts and the biggest challenge facing Iraq, which was placed as a priority in the government program of Prime Minister Mr Mohammed Shia' Al Sudani. Since the beginning of his leadership, we have seen a focus on environment, climate change, renewable energy, and allocating budgets to the challenge of climate change.

Iraq is witnessing at first hand effects of climate change in forms of droughts, the increase in the rate of dust and sandstorms, the steady increase in temperatures and its repercussions in the sectors of health, society, energy, economy, security, and politics. I believe that today we are in dire need for a new vision to deal with the challenges facing the country, and its most pressing challenge is that of climate change as our economy depends entirely on the production of fossil fuels and the global trajectory is towards reducing the production of fossil fuels as a main source of energy and the economy.



The second challenge is the increase in population numbers accompanied by a contraction in agricultural areas and an unprecedented decrease in our water revenues because of upstream countries and climate change effects. The reduction in water has reached 30% as a result of the policies of upstream countries and the impact of climate changes and the result of the wars that Iraq has faced over four centuries and the terrorist challenge and depletion. Therefore, we need a new vision for the state's capabilities, and I hope that we will emerge from this conference towards developing a realistic academic and scientific vision that is accountable to time limits.

The Ministry of Environment's focus on the climate and environmental dimensions in school curricula is one of the most important issues we focus on. Three years ago, I took the initiative to form a higher committee with the Scientific Undersecretary of the Ministry of Education. I developed a complete curriculum with UNESCO and UNICEF. I am pleased with the focus of climate awareness in many conferences, and I would like to thank BAF for arranging and managing this panel and for the work they are doing on *Iraq's Thirst* initiative.

**WHAT IS THE RELATIONSHIP BETWEEN THE CURRICULUM, THE STUDENT, AND THE ENVIRONMENTAL DIMENSION OF THE MINISTRY OF ENVIRONMENT?**

The dimensions of environmental , renewable energies, and the curriculum are one of the most important foundations that we have been focusing on over the last three years. The initiative of the Ministry of Environment in forming a committee for this purpose, which I have the honor of chairing, includes specialists and professors from the Ministry of Education, and this committee has developed a complete curriculum for an academic year in cooperation with UNESCO and UNICEF, and we have topics within chapters that focused on the issue of the climate dimension, the afforestation sector, the issue of desertification and environmental preservation, but the focus is more on the climate dimension. We now have a vision to form scientific and academic committees , and there will be a higher committee that will result in facilitating between government institutions and academic institutions.

The necessity of integrating the scientific and academic dimension is the biggest driver in bringing about a qualitative change in the mentality of managing many topics and important issues. I am optimistic about this great momentum of environmental and climate awareness represented by holding a series of conferences and this conference is one of them, and I extend my thanks to BAF and the project of Iraq's thirst for holding this important session, integrating the aspect with the environmental and climate dimension, is considered a real maturity for a future vision that contributes to the scientific and academic sectors.

There are more than 11,000 scientific research papers, and there are environmental departments in some universities in Iraq. The Ministry of the Environment supported the climate change specialization at Al-Mustansiriya University, Department of Atmospheric Sciences. There are more than thirty master's and doctoral students funded by the Environmental Improvement Fund for topics that were carefully selected by the Ministry of the Environment, focusing on the themes

of climate change, renewable energy and the National Contributions Document is considered an umbrella for climate action.

**DR HAIDER THAMAD, UNDERSECRETARY OF THE MINISTRY OF HIGHER EDUCATION**

Solutions start from education and scientific research and then are applied in the rest of the ministries. The Ministry of Higher Education considered climate change to be an existential challenge in the country, and the Basra conference last March was a turning point in a fundamental transformation of the idea of climate change. The ministry participated in in the Supreme Committee of the Basra Conference and the Climate Change Conference, and the first fruit that emerged from this conference was the approval of His Excellency the Minister of higher education to conclude a partnership with UNESCO, which is planning a major green education project in the world, in transforming the educational process. This includes sustainability, clean energy, and improving the environment. Last March, we held a large series of meetings with UNESCO, which led to the formation of school teams specialized in raising awareness of the issue of climate impacts. We, as the Ministry of Higher Education, will have an important scientific research paper at the COP 28 conference held in the UAE. We have an additional path in the field of Education with the Intergovernmental Panel on Climate Change (IPCC) in issuing reports of summaries of scientific research based on international scientific research.

Iraqi research amounted to 2445 citations in searches in reports for international organizations through UNICEF, UNESCO, the International Health Organization and others. We have approximately 2% of the research in the IPCC. Scientific research in Iraq has begun to move internationality, which will lead to the exposure of Iraqi researchers to international organizations. It is on the rise, and the number of Iraqi research papers in the field of climate change has reached 11,237, completed by 15,781 Iraqi researchers from various fields since 2018.

The Ministry of Higher Education will seek to establish a National Center for Climate Change Research and from it will produce reports and research specialized in climate change similar to the global IPCC. We are working as a global Ministry of Education to create a true icon of climate change in Iraq by preparing an annual report issued by Iraq. Therefore, the Ministry of Higher Education is the current international scientific body responsible for this topic.

**IS THERE A MOVEMENT TO CHANGE THE DIRECTION OF EDUCATION TOWARDS THE INTERNATIONAL ORGANIZATION?**

The strategy for the Ministry of Higher Education from 2023-2031 included the principles of sustainability and climate change as an essential part of the strategy in education. Therefore, the Ministry of Higher Education included in its strategy the topic of climate change and its impact within a national strategy.





**ARE THERE SPECIALIZED DEPARTMENTS IN SOME UNIVERSITIES ON THE TOPIC OF CLIMATE?**

The number of colleges and departments specializing in the environmental affairs and climate change is currently 20 colleges in Iraqi universities. We have allocated a joint academic committee in every university, whether public or private, specialized in climate change and the environment. There is a central committee in the Ministry of Education in partnership with the representative of the Prime Minister office, Dr. Ali Al-Lami. It is concerned with and specializes in the issue of climate change and coordination with the relevant central academic committees located in universities.

**DR. HANA ABDEL KARIM, MINISTRY OF EDUCATION, DIRECTOR OF THE INSTITUTIONAL QUALITY FRAMEWORK DEPARTMENT AND MEMBER OF THE ENERGY AND EMISSIONS REDUCTION COMMITTEE,**

The Ministry of Education has developed many plans, strategies, and programs, and climate change is one of our key priorities. The Ministry of Education serves around eleven million students and has one million employees.

The first plan developed by the Ministry of Education was to participate in the national initiative established by the Ministry of Environment in cooperation with the Ministry of Electricity. It prepared a strategic plan for the year 2022-2023-the National Strategic Plan for Education. We look forward to building an integrated generation and education that is committed to values and promotes sustainable education of high quality and aligned with global standards. The Ministry also works in cooperation with other ministries, civil society organizations and international organizations to achieve sustainable development goals.

The Ministry of Education is working within the fourth goal, which is quality education, but while developing our plan we are also working to achieve the first goal, the fifteenth goal, and the thirteenth goal, which concerns climate action. Our plan is based on four pillars:

1. Converting traditional energy into clean and renewable energy through school buildings,
2. Awareness and education
3. Capacity building
4. Afforestation campaigns within the Green Sustainable Iraq campaign, and we have the Green School Initiative in cooperation with UNICEF, the Ministry of Education and the General Secretariat.

Regarding the curriculum issue, environmental concepts were identified to increase environmental awareness among students, and they were not limited to science only, but were introduced in the form of concepts according to the age stage, such as pictures, activities, topics, or specific programs.







## WHAT IS THE ROLE OF THE MINISTRY OF EDUCATION IN CREATING CURRICULA ON THE TOPIC OF THE IMPACT OF CLIMATE CHANGE?

Regarding the curricula, environmental concepts were identified in the curricula, starting from children's sports to the preparatory stages. The Ministry worked to increase environmental concepts, the aim of which was to consolidate and enhance environmental awareness among students. These curricula were introduced as concepts according to the age stage, such as pictures or activities. They were also included in multiple curricula such as mathematics, social studies, chemistry, physics, biology and human development curricula.

In the last two years, we have added many environmental and climate concepts, and they have been at a very high level in the school curricula. We have an Earth Science book that is taught to students of higher secondary education of both scientific and literary disciplines, which contain topics on pollution, energy, rationalization of water consumption, climate change, and Earth science.

### DR. ADNAN YASEEN, SOCIOLOGIST, UNIVERISTY OF BAGHDAD

There is no doubt that the issue of climate change is one of the most important challenges that threaten human security in countries around the world, and Iraq is one of the countries most affected in this aspect. I refer to the most prominent developments that are taking place in the forefront of the issue of climate change and its impact on the social fabric.

I would like to point out that there is a global report issued a few days ago by the United Nations regarding the Sustainable Development Goals 2015-2030 and another report that was issued in 2019 titled *Times of Crisis and Times of Change*. I hope that this report will be widely accepted in universities. There is a master's thesis for one of my students on climate change and the impact of sustainable development.

## HOW DO WE CONFRONT THESE VARIABLES IN LIGHT OF VERY WEAK SOCIETAL CUSTOMS?

In the Ministry of Education, we need major and serious work. I participated in an international conference on climate change and its impact on women and children. We found that there is a major development gap, especially at the level of females in rural areas. More than 75% of the females were below the national development average, and this requires great development effort and support. The students journey starts from the Ministry of Education all the way to the university. The university period is a key development and regeneration stage for all data and variables to find appropriate solutions.

We are faced with a development inconsistency. Even though people are on average living longer these advances have not succeeded in increasing people's sense of security. With rising geopolitical tensions, growing inequalities, and devastating climate change-related weather events, threatens to reverse decades of development gains and could fling progress on the Sustainable development goals even further off track, and delay the urgent need for a greener, more



inclusive and just transition. I recommend the respected colleagues to read a report *New threats to human security in the Anthropocene: Demanding greater solidarity*, produced by the United Nations Development Programme (UNDP).

**PROFESSOR SAEB NAJI ABOOD , AL ALAMAIN INSTITUTE OF HIGHER EDUCATION**

Al almain Institute for Postgraduate Studies in Najaf is one of the specialized and licensed institutes in the field of law, political science, and media. Among its goals is to be part of the solution to the problems facing ministries and state institutions, and among these problems are the problems of climate change and water scarcity.

The institute has taken serious steps to resolve these issues, including teaching environmental legislation and climate change. Environmental legislation is taught to doctorate students in the second semester, and climate changes are taught in political science discipline.

Translating these solutions and problems into university dissertations , Al almain has had a total of 19 doctoral dissertations completed in the field of environment and climate change, in addition we have currently 8 dissertations in the writing and discussion phases. The most important fact for these dissertations after their discussion is that they are not put on the shelves but are immediately followed through by a symposium and a scientific workshop in this field. The recommendations for each are then conveyed to the relevant authorities.

In addition to Iraq's Thirst initiative, which was led by the BAF and UNDP in Iraq as well as the Al almain Institute for Graduate Studies, which is a huge project that held many conferences in all governorates in Iraq and with various ministries, including the Ministry of Environment, Water Resources, Agriculture, in addition to meetings in research centers located with upstream countries in both Turkey and Iran. Many meetings and discussion on Iraq's Thirst have taken place in The Center for Political and International Studies of the Iraqi Ministry of Foreign Affairs, which seeks to develop solutions to climate change.

Al almain Institute pursues is to create links with the relevant authorities on water scarcity and climate action and in collaboration with the Ministry of Higher Education, to roll out a higher diploma in environmental legislation and environmental improvement.

Our future vision is to continue to sponsor research and learning on water scarcity and climate action in higher education and to hold conferences, workshops and seminars related to the topic of climate and environmental change with national and international universities.

**DO YOU THINK THAT THE LABOR MARKET WILL ABSORB THIS NUMBER OF GRADUATES FROM POSTGRADUATE STUDIES?**

Higher education works to open new horizons for these students and researchers in the process of developing and writing research and proposals for the benefit of the competent authorities. We aim at Al almain Institute to create scientific and research competencies that diagnose problems and challenges and work to develop proposals for solutions and legal actions for those problems and



challenges and then submit them to the competent authorities and translate them into laws.

### **PROJECTS PRESENTED BY AL ALAMAIN INSTITUTE FOR POSTGRADUATE STUDIES IN NAJAF?**

We adopted the invitation of specialists from researchers in international centers in the field of water desalination and coordinated with the competent scientific authorities to benefit from this research and specialists. Our future vision is to continue supporting master's and doctoral theses and prepare projects and laws that address the challenges as well as the shortage occurring in the field of the environment. We are also encouraging research on Iraq's relationship with the upstream neighboring countries, Turkey and Iran, in the field of political science. We also seek to create a specialized diploma in environmental legislation.

### **MS INES ZEGOULLI , UNDP IN IRAQ, CLIMATE EXPERT**

#### **HOW CAN UNDP CONTRIBUTE TO THE EDUCATION CURRICULA IN IRAQ?**

First, let me thank you for the invitation to be part of this important panel discussion with the esteemed government members.

This discussion is going to shape the future of Iraq's young population.

We are very pleased to take part in it.

UNDP has been the driving agency internationally on sustainable development for many years now.

UNDP developed technical knowledge on climate change impacts and sustainable development in over 170 countries on all levels: global, regional and country-level competencies.

We develop our programs by working with local partners and counterparts and building a capacity for change. This allowed us to develop many tools to explain and raise awareness of climate change tailored to each country.

UNDP supports government institutions in the education sector in multiple ways:

- Leverage experience and share knowledge between different higher education institutions such as universities, specialized institutions, research labs etc.
- Connect teachers and students through exchange programmes based on similar climate change challenges to develop common solutions for example.
- Share successful examples of programmes implemented in secondary and primary schools.
- Some of our CC awareness campaigns can be useful teaching material for the education sector.

## PANEL DISCUSSION: THE ROLE OF THE EDUCATIONAL SYSTEM IN ADDRESSING CLIMATE CHANGE & WATER SCARCITY



- We have many tools for CC and SDG tools that we have developed through the years that assist with the dissemination of climate change know-how at all levels in the education system.
- We can support the institutions with technical experts
- We can mobilize and scale up financing towards academic programmes and curricula focusing on climate change, that raise awareness on science-based analysis and research.
- We can assist in setting up pilot studies specific to Iraq's CC impacts.

The work the UNDP is doing with Al Almain Institute on climate change and water scarcity in higher education can be scaled up to other universities across Iraq. The inclusion of modules into postgraduate studies in law and political science on CC and water scarcity, encouraging post graduate research into CC and water scarcity and building capacity undertaken with the Media department of Alalamain for more than 15 media outlets on strengthening journalism is an excellent example of how higher education can address CC impacts in Iraq.

UNDP and Al Almain Institute started last year a scientific partnership with Law and political science departments across universities in Iraq where teaching faculties and students are kept up to date with outcomes of the workshops and round table discussions on Iraq's Thirst initiative and stimulating discussion and identifying areas of research for higher education in critical issues facing Iraq in CC and water scarcity.

We're constantly looking for ways on how to be a supportive partner to the education sector to adapt to the new challenges for the future of Iraq such as climate change.

### WHAT IS THE ROLE OF INNOVATION IN THE EDUCATION SECTOR IN IRAQ?

Innovation with young people and youth can be a life-changing tool for development.

It can have negative impacts on the development of our young children and youth by distracting the attention and spreading of misinformation. But it can also be a powerful tool if used appropriately with immense positive impacts, accelerating the development of the next generation.

This is the experience UNDP has compiled from our many different programmes implemented in the world.

The use of digital technology helped many children in developed countries to continue their studies during the covid pandemic for example. We have learned from that.

We believe each child has the right to education and the fastest way of spreading knowledge is to complement traditional learning methods with digital, interactive lessons. We noticed that young children are more interested in the lessons and become more active, are motivated, and ask many questions.

**PANEL DISCUSSION: THE ROLE OF THE EDUCATIONAL SYSTEM IN ADDRESSING CLIMATE CHANGE & WATER SCARCITY**

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UNDP strongly believes in stakeholder development and fostering innovation in the education sector in Iraq is giving local agents the tools to develop the country in an Iraqi-owned and Iraqi-controlled manner.

We have therefore developed many digital packages explaining in a visual and child-friendly manner what climate change is and why it is important to take action now.

This climate box available in multiple languages is very successful in many countries.

We also support research labs and institutions that are active in finding evidence to support combatting the effects of climate change, finding solutions to adapt to climate change, or filling the gaps in data and knowledge.

We created innovation labs focusing on climate change to fast-track finding solutions to fight climate change.

UNDP supports strongly digital transformation and innovative learning platforms. We can mobilize international support for innovations and research to support a way forward for the education sector.

One tool we have been implementing since May 2023 in Iraq is the Youth Portfolio. Youth is a very dynamic and complex issue and to improve the unemployment rate rapidly, we realized that we need to be able to adapt and respond to the needs very quickly. UNDP Iraq has therefore adopted instead of a pillar approach a portfolio approach, in which we touch upon all necessary mechanisms to provide youth with a smart and easy way to build capacity and start businesses in the green economy and climate change-related business or sectors. To do so, we support the environment around youth employment in the green economy (ie supporting smart agriculture or renewable companies), we support building capacity for youth in the green economy (the subject of our discussion here) and we support youth-led businesses not only in the idea but also in how to implement the idea, how to build a business etc.

The portfolio approach allows us to enable all elements in the economy and society to assist youth entering employment very quickly and on a long-term basis.

UNDP Iraq is one of the first to adopt this approach to accelerate sustainable development and youth empowerment.

Many thanks for your attention.



**PANEL DISCUSSION: THE ROLE OF THE EDUCATIONAL SYSTEM IN ADDRESSING CLIMATE CHANGE & WATER SCARCITY**

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**DR NADHER ABOOD FAZAA, ADVISOR TO MINISTER OF ENVIRONMENT**

Gratitude and appreciation from the *Iraq's Thirst* team to all the participants in today's panel and in your quest for finding solutions with neighboring countries, Turkey and Iran. We must continue to work on the issue of water scarcity, and there was a recommendation to the Prime Minister and the President of the Republic to work on the momentum in the negotiations process with upstream countries and the effects of climate change. We need politicians and diplomats to guide the technicians in our discussions on negotiations, it is important that we listen to the programs of international organizations working in Iraq to develop capabilities in the education sectors to confront climate challenges.







## ADDITIONAL INTERVENTIONS

### **DR HAIDER THAMAD, UNDERSECRETARY OF THE MINISTRY OF HIGHER EDUCATION**

The Ministry of Higher Education is concerned with the issue of climate change and it needs public education. We have more than 11,000 studies and we have noticed the repercussions of the findings, but at the public level, their repercussions are very weak. The Ministry of Higher Education, with the approval of His Excellency the Minister, adopted the incentive for Iraqi teachers and the publication of scientific articles to the public in various specializations, and the addition of points for scientific promotions in the schedule of activities, as five points are added if a teaching scholar publishes a scientific article for the public on a scientific platform or newspaper. This issue has a major impact, and this impact will be reflected, we must encourage teaching scholars to publish scientific articles on climate change.

### **DR. HANA ABDEL KARIM, MINISTRY OF EDUCATION, DIRECTOR OF THE INSTITUTIONAL QUALITY FRAMEWORK DEPARTMENT AND MEMBER OF THE ENERGY AND EMISSIONS REDUCTION 'COMMITTEE,**

The Ministry of Education is suffering from a financial shortage as we are on the verge of new developments in curricula and capacity building, regarding the development and skills of students starting from the children's sports stage onwards. We are regularly making posters, conferences, festivals and events within the school environment and health departments, Educational Television and the Iraq Educational Channel which broadcasts educational lessons over a span of 24 hours per day. Through the advertisements on the channels, posters we try to display key messages on the topic of conserving energy and water, preserving the environment and protecting it from pollution. We are now working on setting standards for environmental education by developing new environmental programs according to age groups.

Furthermore, we are establishing scientific and awareness programs for teachers and educational staff. In 2024, the Sustainable School Project will be launched in cooperation with the Ministry of Environment, which facilitate in achieving the goals of sustainable development, and we will request support from other organizations and institutions.

### **DR JASSIM AL FALAH, UNDERSECRETARY OF THE MINISTRY OF ENVIRONMENT**

Yesterday there was a session on climate change and national security. I would like to mention an important and sensitive point. We always focus on a very important triangle, which is water security - food security - national security. It is one of the most important conflicts that threaten civil peace and can be destroyed and have a direct impact on Social, psychological, health sciences, security and political impacts are the effects of the consequences of climate effects, especially those related to drought, land degradation, shrinking agricultural areas, and pressure on livelihoods.



33% of the total population of Iraq lives in rural areas, and they are the most fragile and exposed to the gradual loss of their livelihoods. There were more than 40,000 families displaced last summer from the rural marshland areas because of the lack of non-flooding rates due to the decline in water levels. As we say, the issue of climate change is a technical, scientific, academic, diplomatic and political issue. Certainly, we support the 2% option. There is no option in a world that does not address problems and does not offer solutions. Therefore, it is necessary for scientific research and theses to focus on the problems and develop solutions. We are facing an economic challenge in the face of the new trend of reducing reliance on fossil fuels as the economy's main source of energy, our goal is a sustainable green economy that can only be achieved by benefiting from financial abundance and strengthening infrastructure capable of the sustainable green economy to encourage productive sectors. Reducing the gradual dependence on fossil fuels and providing an economic and social umbrella for future generations from fluctuations in the global oil market.

**DR. ADNAN YASEEN, SOCIOLOGIST, UNIVERSITY OF BAGHDAD**

We are preparing the development plan for 2023-2027. It is important to change behavior regarding issues of rationalization, consumption, resources, water, etc. We need far-reaching visions that need to be presented by the Ministry of Higher Education to change behaviors in this aspect. We need to build capabilities and socially active sciences that interact with society. The goal of the university is to serve society in addition to producing and transferring knowledge. Focusing on the triangle of science, policies, and society and the process of interaction between them. In conclusion, we must move now to review our development and implementation plans for the sake of society, as it is a path that requires an exceptional effort from everyone. A move to take the necessary measures, given that the losses will be large because of climate change. We know that there is permanent or potential damage, and the damage caused by climate change cannot be reversed quickly- let our slogan today be towards a green, sustainable Iraq based on a body of knowledge and effective development policies.

**PROFESSOR SAEB NAJI ABOOD , AL ALAMAIN INSTITUTE OF HIGHER EDUCATION**

Given that Al alamain Institute is a member of the sectoral committee of deans of the faculties of law and political science, we will be presenting proposals and environmental legislation and climate change success in our institute to the committee in a best practice exchange. We will continue teaching Climate environment subject in the master's and doctoral stages, completing cooperation memorandums with relevant authorities from a scientific and academic standpoint, such as the Ministry of Environment, and cooperating with universities at the internal level, such as the northern, central, and southern governorates of Iraq, and at the level of neighboring countries, upstream countries, and research

**PANEL DISCUSSION: THE ROLE OF THE EDUCATIONAL SYSTEM IN ADDRESSING CLIMATE CHANGE & WATER SCARCITY**

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institutes, universities and the international community. We work towards rolling out a higher diploma in the field of environmental legislation.



المؤتمر الدولي الثالث

العراق والتغير المناخي  
انعكاسات الامن والتنمية

ظماً العراق  
IRAQ S THIRST



ادارة اللجنة  
المكتوب نظير عيود فرع  
مستشار وزارة البيئة / عضو اللجنة  
التحضيرية لمشروع ظما العراق

الدكتور جاسم الفلاحي  
الوكيل الفني - وزارة البيئة

الاستاذ شاكّر نعيم  
وكيل وزير التربية للشؤون العلمية

د. حيدر عبد زاهد  
وكيل وزير التعليم العالي والبحث العلمي



السيدة ابتهاج زهوري  
الخبير في البيئة والمناخ - UNDP

د. هادي عيود  
معهد المعلمين للدراسات العليا

د. عفتان ياسين  
جامعة بغداد

قدرة قطاعي التربية والتعليم في العراق على مواجهة تحديات التغيرات المناخية وشحة المياه

الخميس 2 تشرين الثاني 2023 / 9:30 صباحا  
جامعة بغداد - قاعة الحكيم الكبرى



قدرة قطاعي التربية والتعليم في العراق على مواجهة التحديات المناخية وشحة المياه

2 تشرين الثاني 2023

ظماً العراق  
IRAQ S THIRST

المشاركون



# WORKSHOP ON CLIMATE ADAPTATION & ENVIRONMENTAL PROTECTION

## WORKSHOP

IN PARTNERSHIP WITH

MINISTRY OF ENVIRONMENT, IRAQ

&

KURDISTAN REGIONAL GOVERNMENT'S BOARD OF ENVIRONMENTAL  
PROTECTION AND IMPROVEMENT

ERBIL 4<sup>TH</sup> NOVEMBER 2023

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## SESSION 1: OPENING SESSION

The workshop was held in Erbil on the 4<sup>th</sup> of November and kicked off its activity at 9am at the Arjaan Rotana Hotel in Erbil. The workshop was Moderated by by Dr. Mahdi Ahmed, managing director of (Iraq's Thirst Initiative), Bahr Al Uloom Foundation (BAF) with the support of GIZ, German Agency for Development Cooperation.

Speaker	Role
Dr Mahdi Ahmad	Managing Director for Iraq's Thirst
HE. Mr Abdul Rahman Sidiq	Head of Board of Environmental Protection and Improvement
Dr. Najlah Mohsin Hammood	General Director of the Technical Department Ministry of Environment
Mrs. Alexandra Guhr	Consul for Economic Cooperation & Development, Consulate General of the Federal Republic of Germany, Erbil
Mr. Christoph Feldkötter	GIZ Country Director
Mr. Serwan Nowzad	Advisor to the Kurdistan Regional Government
Mr. Yousif Muayad Yousif	Director of the Climate Change Directorate, Ministry of Environment

### **Dr Mahdi Ahmad, Managing Director of Iraq's Thirst Initiative:**

In today's meeting, we seek to learn about the strategies, policies, and procedures for climate change in state institutions, whether in Baghdad or the region.

I am Dr. Mahdi Ahmed, Managing Director of the Iraq Thirst initiative and supporting me is Dr. Imad Obaid who is an expert in environment and administrative law and former Director General of the Legal Department at the Ministry of Environment in addition to Dr. Laith Muhammad who is a researcher in political science and a member of BAF.

Allow me to take the opportunity to briefly introduce BAF- civil society organization in Iraq established since 2005 with three key working streams. The higher education working stream is represented by the Al Alamain Institute for Graduate Studies, which grants doctorates and master's degrees in law, political science, and media, as well as a higher diploma in good governance and elections. The dialogue and research working stream the Bahr Alolom forum for dialogue and finally our humanitarian working team.

BAF adopts projects that examine the major challenges facing Iraqi society. Some examples of previous projects include the crisis of the Iraqi political system, constitutional amendments, Iraq's sovereignty crisis and leading to our current project, which is the Iraq's Thirst initiative. Iraq's Thirst is a national project that addresses the environmental, water and agricultural challenges facing Iraqi society and the region.

This enthusiasm to address the great challenges stems, firstly, from our understanding of the role of civil society organizations in addressing the great challenges and supporting decision-makers in reaching solutions, as well as our scientific methodology that brings decision-makers together around the table and attempts to untangle the complexities, capture the commonalities, and build on them to reach solutions. As well as the experience we have accumulated through the establishment of many projects and initiatives.

In the context of the Iraq Thirst Project, a road map for which was drafted through consultation with many experts inside and outside Iraq and from all regions of Iraq, the important focus was on increasing coordination between Baghdad and the region to address water scarcity, climate change and its devastating effects to support in drafted policies and creating solutions. The initiative has undertaken joint and coordinated activities between the central and regional government institutes and universities.

Considering this background, we responded to the request of the sponsor of this meeting (GIZ), which, as we noted, is looking into policies, procedures, and strategies for climate change between the center and the region, as this matter is of great importance to our project.

**HE. Mr Abdul Rahman Sidiq, Head of Board of Environmental Protection and Improvement:**

First, I would like to welcome the representatives of the German Agency (GIZ) and thank them for their continued support in the legislative and environmental field. I also welcome Dr. Najla Mohsen, Director General of the Technical Department at the Federal Ministry of Environment, and I also welcome Mr. Youssef Moayed, Director of the Climate Change Department. A warm welcome to all colleagues in the Federal Ministry of Environment and in all representatives of the Ministry of Environment and representatives of ministries and agencies in the Kurdistan Regional Government, we welcome BAF and thank them very much for their efforts to moderate this important workshop.

It is a good opportunity today for us to be together to discuss the climate and environmental policies, strategies and challenges facing Iraq, including the Kurdistan region, and how to work together to overcome these challenges and move forward on the right path in our plans and strategies.

We, as everyone know, are witnessing a climatic situation in the region through a decrease in rainfall rates, a decrease in the water levels of lakes, rivers and groundwater, and an increase in heat waves and droughts that varied in intensity and duration. All these factors together have begun to threaten the lives and stability of citizens, and this requires a serious stance from us. We must be realistic in defining our priorities and plans soon in facing these challenges.

We hope that this workshop will be able to present and exchange ideas and solutions and contribute to presenting practical concepts to be adopted as a clear vision for the Kurdistan Regional Government and the Federal Government. These need to be translated into projects that support the green economy and adopt modern methods that enable us to adapt to the effects of climate change and

reduce emissions at the same time, in addition to monitoring and improving air quality and finding environmentally friendly alternatives and nature-based solutions to protect the environment from climate change.

In the field of enhancing climate and environmental action, it is worth noting that the Kurdistan government seeks with all its efforts to strengthen the water and agricultural sectors by adopting sustainable water policies through the establishment of several medium dams and many surface reservoirs in different parts of the region to use rainwater in Irrigation and groundwater recharge. In addition, a number of projects have been approved through which the emission of greenhouse gases will be reduced and commitment to the mitigation measures included in the Nationally Determined Contributions document and the Paris Climate Agreement, such as the establishment of electric power generation stations that operate on liquefied petroleum instead of heavy fuel, clean energy applications, investment in associated gas, all of which are success stories that we hope to benefit from and expand in other fields in the service of all of our environment and as a good step to adopt a real strategy in confronting the challenges of climate change.

The participation of a delegation from the Kurdistan Regional Government in the COP 28 will part of Iraqi delegation to collaborate in unified events and activities of the Iraqi government to meet the ambitions of the Kurdistan region and the rest of the regions of Iraq.

In conclusion, we wish success to all the participants and we hope that this workshop will enhance cooperation and coordination to reach outcomes that contribute to enhancing climate and environmental action.

**Dr. Najlah Mohsin Hammood, General Director of the Technical Department**

**Ministry of Environment :**

The increasing use of natural resources and pollution made leads to major challenges in water scarcity, desertification, high rates of pollution and greenhouse gas emissions. These challenges impact directly on Iraq's food and water security.

The truth behind these challenges is that the new Iraqi government has developed plans within the relevant ministries. The issue of environment, climate and water is one of its most important priorities on the agenda, as it works with all ministries to lay the foundations for the necessary adaptation to the current climate change. From these directives, the Ministry of Environment, under the guidance of His Excellency the Minister of Environment, prepared The National Pollution Reduction Strategy which was approved for the period 2023-2030, and the final draft of the National Environment Strategy was presented, which contains many programs to deal with environmental challenges.

The government also directed the formation of the national negotiating committees for water and climate change to bring views closer together to reduce the significant environmental impacts in Iraq. We, as the Ministry of Environment, know that participatory work is very important in reducing water scarcity and

climate change and the necessity of a gradual transformation to a green economy that supports Iraq's current economy, which is built on fossil fuels.

The reality is that there is a major initiative from the Ministry of Environment, which is the National Initiative for Energy and Reducing Its Emissions, with 5,000 members from all ministries. This initiative contains 11 goals, all of which aim to transform Iraq into a green economy. This initiative received a high standard of acceptability from the Council of Ministers and work has begun. Therefore, the green economy needs to provide technology in the use of renewable energy, as well as saving transformation costs to guarantee the rights of future generations.

The current government is working to establish fifteen solar farms in 15 governorates to reduce pollution levels, increase green spaces, and support environmentally friendly projects.

**Mrs. Alexandra Guhr, Consul for Economic Cooperation & Development, Consulate General of the Federal Republic of Germany, Erbil:**

Mrs Guhr in her speech called for cooperation in the field of the environment and stressed that the German government supports Iraq in the field of climate change and environmental protection in general, and that the GIZ organization supports these topics, especially adaptation and mitigation of the effects of climate change.

Mrs Guhr indicated how to enhance cooperation between the parties participating in the workshop, to achieve adaptation to climate change and protect the environment in Iraq, and the prospects for participation in the Conference of the Parties (28) in Dubai (COP28) on climate change.

**Mr. Christoph Feldkötter, GIZ Country Director:**

Mr. Feldkötter discussed the cooperation in combating environmental threats and pointed out that climate changes have affected agricultural resources in Iraq, which leads to economic and social damage to the population. He also referred to the Nationally Determined Contributions (NDC) document that Iraq submitted to the Secretariat of the Convention, as a contribution to reducing Effects of climate change. He pointed out the importance of creating a climate change formation in the Ministry of Environment and spoke about his organization's readiness to contribute to several other programs and specializations, and these efforts were supported by the Iraqi Prime Minister's meeting with representatives of the German government to support efforts in this field.

Mr Feldkötter reiterated the possibility of supporting Iraq's efforts to benefit from German expertise in the field of environmental protection. He expressed that the workshop aims to match understanding between the federal government and the regional government in the field of the environment.

**Mr. Serwan Nowzad, Advisor to the Kurdistan Regional Government:**

Mr Nowzad discussed during his keynote about the importance of the workshop in coordinating positions between the federal government and the regional government in international conferences and addressing the problems plaguing the Iraqi environment.

He pointed out the necessity of moving from the theoretical side to the practical side, because time is not on our side, especially with the increasing severity of climate changes in Iraq, which have even affected the Kurdistan region, which is now suffering from a lack of rain and snowfall in conjunction with the continuous rise in temperatures, at a time when the region was once rich in water resources through rain and snow.

**Mr. Yousif Muayad Yousif , Director of the Climate Change Directorate, Ministry of Environment**

Mr Muayad provided an explanation of Iraq's participation in the upcoming COP28 Conference of the Parties on Climate Change in UAE and the efforts of the Federal Ministry of Environment aimed at organizing the procedures for participation and the priorities that will be adopted during the conference.

He pointed out that during COP 28, Iraq for the first time will have its own pavilion. The Iraqi negotiating delegation will be divided into three groups: the mitigation group, which is concerned with the issue of greenhouse gases, transportation, energy, and industry, the second group, which is concerned with adaptation, which is agriculture, water, marshes, biodiversity and the third group is concerned with technology transfer, transparency issues, capacity building.



## **SESSION 2: CLIMATE AND ENVIRONMENTAL PROTECTION CHALLENGES AND GOVERNMENTAL POLICIES IN IRAQ**

**Dr Mahdi Ahmad, Managing Director of Iraq's Thirst Initiative:**

The Iraqi infrastructure is unable to respond to the great challenges of climate change. On the other hand, the Iraqi economy depends heavily on fossil fuels that affect the environment. In addition, Iraq has entered into international commitments and agreements such as the Paris Climate Agreement and the Nationally Determined Contributions Document, and there are efforts in the Ministry of Planning on sustainable development, as well as the Basra Conference, in which the Iraqi government announced the transition from the planning stage to the implementation stage in the face of climate change. This means that today we are in the stage of reconstruction and integration, that is, integrating climate change policies, the most important of which is the Nationally Determined Contributions Document, and announcing it to the relevant sectors and governorates, and it is an ongoing process.

Starting to implement projects on the ground is a difficult process and faces great challenges. Therefore, through this workshop, we hope to learn about the strategies, plans, procedures, challenges, and special needs in Baghdad and the Kurdistan region.

**Engineer Ghaith Mahdi: Ministry of Environment: National strategies and documents for climate action in Iraq:**

The climate change discussion has become the most important issue at the level of Iraq and the world because of its effects on the environment in general. Most international reports on climate change indicate that Iraq is the country most affected by climate changes that has led to a change in various weather conditions, including drought, desertification, and lack of precipitation. Rain fall has decreased and high temperatures and resulting in social problems, in addition to that, negatively affected the issue of water and food security in general and the resulting climate migration, especially that there are 10 governorates that have faced climate migration.

As we mentioned, Iraq is one of the oil-producing countries whose economy depends to a large extent on fossil fuels. Among the priorities that we are working on is that the period of the assessment is divided into two parts. The first period from the year 2020-2025 includes three basic goals, which are: integrating climate action into national and political plans, and ensuring the reduction of gas emissions, and finally establishing adaptation projects in fragile areas that are highly vulnerable to climate change.

The second period, 2025-2030, has the primary goal of transferring technology regarding emissions. It is possible that in 2025 the Nationally Determined Contributions document will be updated and in 2028 it will be evaluated globally, and in 2030 it will have been completed. The priorities for action under the

document are to reduce gas emissions regarding industry, oil, and methane emissions.

Promoting solutions based on nature and environmental services, good management of water resources and the use of modern technologies in irrigation, encouraging renewable energies, involving the private sector in the economic transformation towards (green economy), integrating youth into issues of climate change and the private sectors, as well as circulating the document to all ministries and embassies in addition to supporting civil society organizations to contribute to this document.

In the governmental context, it included a description of Iraq's geographical and environmental situation, an explanation of what has been achieved in the field of capacity development and the integration of stakeholders into the Green Climate Fund and included an appendix of the priorities of projects that could be submitted to the Fund. All of this aims to transform the model into a complete green economy and increase the growth of sectors to adapt to climate changes.

Engineer Mahdi also touched on the priorities of issues that express Iraq's obligations towards implementing the provisions of the Framework Agreement and the Paris Agreement attached to it, and Iraq's ambition to reduce emissions by a rate of no less than (1-2%), relying on the national effort within the second national communication submitted by Iraq, which includes:

1. The national context: It is general geographical, historical, and political information about Iraq.
2. Greenhouse gas inventory and mitigation measures.
3. National Adaptation Plans (NAP).
4. The negative effects of climate change in Iraq.
5. Nationally Appropriate Mitigation Actions (NAMA)
6. Technology Needs Assessment (TNA)

**Engineer Raya Muhammad: Chief Engineer, Ministry of Environment, Expectations and goals for COP28**

One of the main visions in COP28 and the most important agreements made in COP27 is the establishment of a fund for losses and damages that focuses on countries exposed to climate risks- which attempts to address negative damages, and conveys visions and ambitions to reach innovative solutions, understandings, and new pledges especially on youth-led initiatives.

At the Sharm El-Sheikh conference, climate and security issues were raised for the first time and will be continued in UAE conference, through the preparation of an agenda for a list of parties for the conference behind which both Egypt and the UAE stand.

Regarding Iraq's position, initially, a paper was issued in May 2023, and it will be updated at the end of this month. It will be discussed more widely and will contain

two additions including: a call for a special negotiating group of countries that are especially affected by climate change, and making greater efforts on Article 11 of the Paris Agreement on capacity building.

The negotiating articles in the Paris Agreement are Article 2 on carbon, Article 4 on mitigation, Article 5 on the carbon basin, 6 on the carbon market, 7 on adaptation, 8 on loss and damage, 9 on climate financing, 10 on technology transfer, 11 on capacity building and Article 19 on transparency.

The main negotiating team was divided into three categories:

- Mitigation
- Adaptation
- Cross-cutting issues

The delegation has been undergoing training since August 2023 and continue meeting on a weekly basis through the support of the UNDP, Iraq and international experts.

The delegation includes representatives of Kurdistan, the adaptation team includes the Ministry of Agriculture, Water Resources and Health, and the cross-cutting issues team includes the Ministry of Finance, the Investment commissions, and the Ministry of Foreign Affairs, in addition to youth participation in coordination with the Ministry of Youth and Sports by selecting a delegation of young environmental activists focused on environment and climate activity to participate in COP 28. 15 participants were selected based on certain criteria in a transparent manner and are being trained by UNICEF and UNDP. Women representation and participation will be key to the conference due to the importance of being the most vulnerable to climate changes. We were keen to have women participate as they are environmental activists, and 3 of them were chosen. We were also keen on media participation to create public opinion, and training courses will be created by the UNDP and the most qualified will be selected.

**Engineer Marwa Fahmy Abdel Ghafour, Ministry of Environment, Nature based solution**

Nature based solutions are considered one of the solutions to confront climate change, and they are also considered one of the means to solve the causes of climate change. The International Union for the Conservation of Nature describes natural solutions as one of the necessary measures to protect natural or modified ecosystems, and they are distinguished by their ability to be applied on a large scale.

Transferring technology to countries in the Middle East and North Africa to benefit from it while maintaining government ownership.

The appropriate conditions for its use are when sand dunes increase, when there is a lack of food, when temperatures rise, and when water is scarce.

Some proposed projects:

- Providing a clean source for water pumping operations for farms, such as solar-powered pumps.
- Adapting to climate change by stopping the movement of sand dunes.
- Securing olive trees on agricultural lands.
- Disseminating techniques among farmers, as the project aims to avoid using toxic pesticides.

**Engineer Atheer Ahmed, Ministry of Environment, Green Investment**

The main goal of green investment is to achieve a balance between the economy and the environment with key focus on preserving the environment.

Green investment contributes to achieving sustainability and the provisions of the Paris Agreement. Some green investment projects are renewable energy, green structures, agriculture, forestry, environmental protection, urban development, environmental and climate assessments.

We also support on public awareness, with key focus on the importance of climate change, building capabilities through education, training, and workshops, supporting green research and technology, integrating the private sector and green investment.

**Dr. Faizah Slehat : IUCN, The Potential of Nature based Solutions in the MENA Region**

We work in parallel to meet the needs of communities as well as preserve biodiversity. The concept of nature-based solutions was introduced in 2009 and was presented in the World Conservation Program between 2013-2016 and is considered a great achievement for the International Union for Conservation of Nature.

Nature-based Solutions are actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously benefiting people and nature. Nature-based Solutions address societal challenges through the protection, sustainable management and restoration of both natural and modified ecosystems, benefiting both biodiversity and human well-being. Nature-based Solutions are underpinned by benefits that flow from healthy ecosystems. They target major challenges like climate change, disaster risk reduction, food and water security, biodiversity loss and human health, and are critical to sustainable economic development. These are the most common things that affect societies, and these solutions can often be man-made. We started with nature-based solutions in 2008 up until 2020.

Climate change challenges are addressed through nature-based solutions, such types of solutions that we rely on include bodies of water e.g., oases- both natural and artificial. For the environment, we benefit from the coast in solutions such as planting plants and trees on the coast and places near it.

We can also discuss the importance of increasing green spaces and protecting biodiversity, by taking advantage of the spaces left on the sides of the road, central islands, and coasts, and this is done by planting them to increase green spaces.

It is possible to restore work in areas that have been subjected to climate change due to fires or human action through afforestation so that it has a benefit for humans and nature. We have more than 63 mechanisms that we can work with regarding solutions based on nature, and the number of solutions and projects based on natural solutions has reached more than 3000 projects.

Nature-based solutions work as a common language between the International Union for Conservation of Nature and other organizations, and we now have more than one institution on this subject, and we have eight principles that we work on. Nature-based solutions are effective and ambitious solutions in that they work within a human framework, and nature-based solutions have great benefit for the society.

We use nature-based solutions in the field of decoration and beautification by planting trees, landscaping, and green areas. In the reed experience in Amman, it was a good experience because the reed helps purify water well, and we can use solar energy through solar panels.

As well as benefiting from nature-based solutions in the issue of coastal agriculture to reduce floods and increase soil fertilization.

**Mr. Haval Semo, Head of Climate Change Department, Board of Environmental Protection and Improvement, An overview of climate action in the Kurdistan Region as the Environmental Protection Authority in the Kurdistan Government.**

In the last 20 years, the issue of rising temperatures has become clear compared to previous decades. Based on studies, the rise in temperatures in the Kurdistan Region in the last 4 decades shows a noticeable increase in temperatures.

Regarding the rain and snow that feeds surface and groundwater, the issue of fluctuation in rainfall is clear and the pattern of rainfall changes, which causes water scarcity in rivers, springs and streams and causes temperature and impact on vegetation and heat waves that attack the region. We have lost a variety wildlife and plants and the regular occurrences of fires. As a result of rising temperatures, there are places in the region that are vulnerable to desertification affected by the climate change process.

In our strategy to combat climate change and improve the environment, we formed two committees headed by Mr. Abdul Rahman Siddiq, with representatives from environmental protection, totaling 28 colleagues. The second committee is a technical committee under the supervision of the Environmental Protection Authority, and the tasks of these committees are to try to reduce the effects of climate change.

We have had extensive meetings to clarify their role in adaptation and the effects of climate change through the support of the UNDP in Iraq. We are currently in the process of creating another document, which is locally appropriate mitigation. The adoption of this document is essential for the work in the field of climate change to help us teach the sources of adaptation and encourage us to participate with all stakeholders and encourage sustainability.

We were able to take proactive measures to reduce climate change, preserve environmental systems, and reduce the effects of climate change on the economy. We participated with the Ministry of Environment in preparing the second national communication document for Iraq, and it was part of the work of the Commission. We also work with the Ministry of Health, Environment, Agriculture, and Tourism.

The Kurdistan Regional Government has worked on many solutions to confront the changes and has had a role in several sectors, including the water sector and the agricultural sector. The Kurdistan Regional Government has created several dams and lakes that support the provision of water, collect rainwater and benefit from it, and are also involved in tourism projects. We have also worked on many projects concerning cleaner energy such as fuel transportation. Now we use liquefied gas fuel, which has lower emissions and is more environmentally friendly.

Our priorities are similar to the priorities in the Ministry of Environment. We are all partners in climate action by adopting policies and plans to reduce global warming to confront climate change. We must rely on electric cars, and before relying on them, we must create the appropriate infrastructure for them by installing environmentally friendly car charging stations.

There is also interest in tourism projects because they are environmentally friendly and are considered economic support for the region.

We will be participating in COP 28 and we have good coordination with the Ministry of Environment, and will be participating in the negotiating delegation. We have undertaken good training over the past two months in the process of for an active role in the Iraqi pavilion and participating in the conference activities about forests and green investment. We look forward to COP 28 where Iraq will present important projects in the region.



## INTERVENTIONS

### **Engineer Muhammad Mahmoud, Member of the Technical Committee, Climate Change Department, Kurdistan Region**

There are some projects adopted by some countries that alleviate the problems of water scarcity or migration. Iraqi rice is one of the finest types of rice in the world, but due to poor water management, its production has been reduced. Indonesia has adopted a project through an Indian expert, the Rice and Fish Project, which is creating bodies of water to plant rice. It also contains fish to eliminate algae and parasites, and at the same time it will increase agricultural production of rice and fish. This could be one of the ideas to reduce migration.

The other topic is the use of modern agricultural techniques, one of which is vertical agriculture or soilless agriculture. Many countries are adopting this project, and some other ideas are increasing fish wealth in Germany through the closed farm project. Increased salinity of rivers in the UAE and some countries benefit from the salts and use them for industrial purposes.

In terms of smoke emitting from cars, we look forward to learning about tangible and peaceful solutions to air pollution.

### **Mr. Serwan Nowzad, Advisor to the Kurdistan Regional Government:**

Time is not on our side; most things are theoretical and not applied in Iraq. In the general document, the first seven pages, are all inactive.

The best information available for forests is satellite images we have from 2015.

It is important that we must be practical. Our national team should coordinate with their counterparts in UAE and Saudi Arabia and the training needs to be less theoretical and more scenario based. Finally, it is important for the Participants to be proficient in English and Arabic.

### **Mr. Yousif Muayad Yousif , Director of the Climate Change Directorate, Ministry of Environment**

I have three comments regarding the NDC document. There are four or five appendices specific to it. Most of these documents now are public, but if we are talking about auditing statistics, satellite images, and project numbers, all of them are present in these documents and they were submitted to the Council of Ministers in Baghdad for approval.

On the subject of the negotiating delegation, we started an intensive training program for scenarios, and the method of simulation and training is available through experts as well. Negotiation was not easy, especially in the issue of language manipulation. We currently have 33 colleagues who are being trained during this week, inevitably after evaluations are conducted by the experts, only 15 candidates will be selected according to special criteria, and the language criterion will be the first criterion, as the issue of manipulating letters and words is taken into consideration.

The issue of coordination with Saudi Arabia and the Emirates exists, and there is coordination with Egypt, considering that Egypt is close to us in the waters, and there are bilateral meetings, and we have also been continuing with the UAE side for two months in meetings.

**Dr. Imad Obaid, Member of the advisory team in the Iraq Thirst Initiative, BAF, former Director General of Legal department Ministry of Environment:**

Laws are a regulating tool for all sectors of life, including the environmental protection sector and matters of adaptation to the effects of climate change.

Environmental legislation has specificity and is variable whenever life changes and develops. There are laws that have been fixed for more than 50-60 years, but environmental laws differ from these laws. They have specificity, I did not find, through my review of the procedures that were presented by the Ministry of Environment new environmental legislation.

It is known that laws are a regulatory tool for all sectors of life, including the environment sector, which includes climate change issues. By listening to what was presented by the experts and representatives of the Ministry of Environment, we did not notice that the National Adaptation Plans (NAP) and mitigation measures included the Ministry's efforts to adapt national legislation towards Iraq's international obligations- a member of the Framework Convention and the Kyoto Protocol and the Paris Agreement annexed to it, because of the importance of these legislations in putting the provisions of the Convention into effect nationally and facilitating Iraq's adaptation and mitigation measures.

**Engineer Zohair Abbass Rasheed, Ministry of Planning:**

The Ministry of Planning is preparing a five-year master plan 2023-2027. It is a plan that guarantees goals related to the challenges facing Iraq in water scarcity, the issue of agricultural production, and the issue of desertification and climate change. A forum will be launched during the coming months and its goals will be discussed with the private sectors.

The Ministry of Planning also conducts a voluntary report in which Iraq participates every two years, where Iraq presents progress goals, however, unfortunately, Iraq is still far from achieving the goals that are supposed to be achieved by 2030. Strategies must be unified; we notice that today have many strategies, however the issue of performance indicators is very important, and we are suffering from a problem with this issue.

**Dr. Najlah Mohsin Hammood, General Director of the Technical Department**

**Ministry of Environment :**

The marshes are one of the most natural solutions to reduce the effects of climate change, but we have begun to lose them due to drought- the marshes are the identity of Iraq, especially the southern regions rich in oil, and the water associated with oil is a water source for the marsh areas- more focus needs to be driven towards the marshes to reduce the displacement of families.

## **SESSION 3: OVERVIEW OF GIZ PORTFOLIO IN IRAQ**

### **Mr. Christoph Feldkötter, GIZ Country Director:**

Mr. Christoph Feldkötter gave a brief overview of his organization and its work in Iraq, where he explained that the GIZ is affiliated with the German government, and it aims to unify and organize the efforts of German ministries that aim to provide support for a number of environmental and sustainable development programs and projects, including the German Ministry of the Environment, the Ministry of Economy, and others.

Mr. Feldkötter also talked about the (GIZ) portfolio in Iraq at the present time and the prospects for its work in the future, as it began when the Iraqi government requested to rebuild what was destroyed by ISIS and the organization's participation in reconstruction, focusing on long-term directions and sustainable development, as well as efforts in private sector where they identify the basic points and priorities that need assistance, and how to implement the project in a timely manner, including supporting the work of local governments.

Mr. Feldkötter also discussed the German government's (ESCAP) project that calls for peace, and indicated that his organization is seeking to obtain a project supported by the Green Climate Fund, assuming that his organization has the ability to submit adequate proposals in accordance with the context accepted by the Fund's management, in a way that increases the chances of obtaining financial support for projects submitted by Iraq regarding adaptation and mitigation of the effects of climate change.

### **Mrs. Maren Huser, Advisor PDP, encouraging and enhancing dialogue and participation in Iraq**

Mrs. Maren Huser discussed strengthening dialogue and comprehensive participation mechanisms that lead to the idea of enhancing levels of participation and informing civil society organizations, focusing on addressing the effects of climate change, distributing roles for participation and dialogue and organizing side events for the Conference of the Parties (COP 28) in Dubai.

### **Mr. Daniel Krahl, Advisor DIAPOL-CE, policy management, dialogue and knowledge of climate change protection strategies**

Mr. Krahl explained that their project is supported by the German Ministry of the Environment and their activities are in multiple countries- including Asia and Africa. The activities include capacity building, replanting forests, restoring nature, and training regarding financing. Previous work has included providing capacity-building programs for the League of Arab States, and programs for the purpose of planting mangroves. They have the potential to develop environmental laws, and they have the intention of establishing a climate institute.

**Dr. Najlah Mohsin Hammood, General Director of the Technical Department**

**Ministry of Environment :**

Dr. Najlah Mohsin Hammood suggested that a regional project be established to conclude an agreement between Iraq, Turkey, Iran, and Syria that includes water management and the use of modern irrigation methods in a way that reduces the waste of water resources, with support from climate funds.

**Engineer Ban Fadel, Director of the Air Pollution Department, Ministry of Environment:**

Ms Ban Fadel expressed her interest to submit a proposal to review the instructions for environmental determinants of ambient air due to their importance in protecting the environment from pollution and protecting citizen health.

**Conclusion:**

At the conclusion of the third session, it was a closed session between a representative of the Federal Ministry of Environment, Environment Agency in the Kurdistan Region and GIZ to develop recommendations, a summary of the workshop's work, and procedures for following up on their implementation.

**PARTICIPANS OF ROUND TABLE:**

<p><b>Dr. Najlah Mohsin Hammood</b> General Director of the Technical Department MoEnv</p>	<p><b>HE. Mr Abdul Rahman Sidiq</b> Head of Board of Environmental Protection and Improvement</p>
<p><b>Mr. Yousif Muayad Yousif</b> Director of the Climate Change Directorate, MoEnv</p>	<p><b>Mr. Serwan Nowzad</b> Advisor to the Kurdistan Regional Government</p>
<p><b>Dr Mahdi Ahmad</b> Managing Director for Iraq's Thirst</p>	<p><b>Mr. Haval Semo</b> Head of Climate Change Department, Board of Environmental Protection and Improvement</p>
<p><b>Dr. Imad Obaid</b> Expert in Environmental Legislation, BAF</p>	<p><b>Mrs. Alexandra Guhr</b> Consul for Economic Cooperation &amp; Development, Consulate General of the Federal Republic of Germany, Erbil</p>
<p><b>Mr. Ghaith Mahdi Hamdi</b> Director of the Convention and Paris Agreement Affairs Department, MoEnv</p>	<p><b>Mr. Christoph Feldkötter</b> GIZ Country Director</p>
<p><b>Ms. Raya Mohammed Kadhim</b> Director of the Adaptation Department, MoEnv</p>	<p><b>Mrs. Maren Huser</b> Advisor PDP</p>
<p><b>Ms. Marwa Fahmi Abdulghafoor</b> MoEnv</p>	<p><b>Mr. Daniel Krahl</b> Advisor DIAPOL-CE</p>
<p><b>Dr. Faizah Slehat</b> IUCN</p>	<p><b>Mr Muhammad Mahmoud</b> Head of Waste Management Dep. EPIB</p>
<p><b>Mr Zouhair Abbass Rasheed</b> MoPI</p>	<p><b>Mr Muhand Mustafa Aube</b> Head of Forests Dep. EPIB</p>
<p><b>Mr Atheer Ahmed</b> MoEnv</p>	<p><b>Hysteria Asaad Bapir</b> Ministry of transportation and communications</p>
<p><b>Ms Ban Fadhil Hassan</b> MoEnv</p>	<p><b>Ms Sara Amer</b> Environment Directorate, Erbil</p>
<p><b>Mr Riyadh Sabti Abbas</b> MoEnv</p>	<p><b>Srood Ahmed Feqee</b> Ministry of Trade and Industry</p>
<p><b>Mr Mohanad Saadoon Neamah</b> National Investment Authority</p>	<p><b>Araz Saber</b> Ministry of Municipalities and Tourism</p>
<p><b>Ms Muna Fadhil Khaleel</b> MoEnv</p>	<p><b>Kovar Hama Shareef</b> Board of Investment</p>
<p><b>Ms Rana Ghassan Mustafa</b> MoEnv</p>	<p><b>Mr Luqman Saber Mustafa</b> MoElec</p>
<p><b>Mr Mohammed Ahmed Jarullah</b> MoEnv</p>	<p><b>Dr Laith Mohammed</b> BAF</p>





# IRAQ'S THIRST

COP 28 SIDE EVENT

HARMONIZING WATERS: COLLABORATIVE SOLUTIONS FOR  
CLIMATE-RESILIENT REGIONAL RESOURCE MANAGEMENT

IN PARTNERSHIP WITH

UNITED NATIONS DEVELOPMENT PROGRAMM IN IRAQ

IRAQI PAVILION

DUBAI 6<sup>TH</sup> DECEMBER 2023

BAHR ALOLOM FORUM - SEASON 5 2022-2023



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## INTRODUCTION

The transboundary water resources of the Tigris and Euphrates rivers hold immense strategic importance for the nations of Iraq and its water sharing countries. These rivers are the lifeblood of the region, providing essential water resources for agriculture, industry, and domestic use. However, the sustainability of these shared water sources faces unprecedented challenges, primarily driven by the impacts of climate change.

Climate change has exacerbated the existing vulnerabilities of the Tigris and Euphrates river basin, leading to a range of interconnected environmental, social, and economic challenges. Rising temperatures, altered precipitation patterns, and increased evaporation rates have all contributed to dwindling water availability, while the region is also witnessing more frequent and severe droughts. These environmental changes have profound implications for the livelihoods and well-being of the millions of people who rely on these rivers.

In this context, the Iraq Thirst initiative, which was launched by Bahr Aluloom Foundation (BAF) and UNDP began discussing the water, environmental and agricultural challenges facing the country. Iraq relies on its water resources from the waters of the Tigris and Euphrates and their tributaries, they constitute to the lifeline of the country and provide the basic need for agricultural, industrial, and domestic use. Therefore, water sustainability for these two rivers considering climate change has become an unprecedented challenge.

Considering these challenges, the Iraq's Thirst initiative was launched from the reality and importance of *Track II diplomacy*, which seeks to find solutions and support decision-makers in discussing these challenges with neighboring countries, and in recognition of the importance of water and environmental diplomacy, which has today become a necessity. There have been several dialogue activities and workshops with experts, universities, and decision-makers from Iraq and neighboring countries on the climate impacts, water scarcity, dust and sandstorms, pollution, natural decline and biodiversity, and the common effects on the region.

These dialogues seek to search for areas of commonality between the region, build on them, and seek to develop joint strategies and mechanisms to adapt to the impacts of climate changes in the region to provide better water quality in the region and reduce the devastating effects of climate changes.

BAF and UNDP proceeded with the organization of the important side event during COP 28 in the Iraqi Pavilion as they recognize that regional cooperation is essential not only for addressing immediate challenges but also for building resilience and sustainable solutions that can withstand the ongoing and future impacts of climate change. By fostering dialogue and sharing knowledge and experiences, this event promoted a deeper understanding of the interconnections between climate change, water resources, and regional cooperation. The event also identified common goals, strategies, and frameworks for sustainable water management that can benefit all the riparian countries.



## HARMONIZING WATERS: COLLABORATIVE SOLUTIONS FOR CLIMATE-RESILIENT REGIONAL RESOURCE MANAGEMENT

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As the world grapples with the complex challenges posed by climate change, it is imperative that countries of the Tigris and Euphrates basin work together to find cooperative solutions that ensure the equitable and sustainable use of shared water resources. The "Harmonizing Waters: Collaborative Solutions for Climate-Resilient Regional Resource Management" side event represented a critical step towards achieving this goal and building a more resilient and secure future for the people of the region.

BAF is a non-profit civil society organization and in its fifth season - Iraq's Thirst-works to support the role of civil society organizations working in the field of climate action and water scarcity and always seeks to support in furthering solutions and increasing societal awareness towards challenges faced in Iraq.



## PANEL PARTICIPANTS:

Panelist	Role
Dr Jassim al Falahi	Deputy Minister of Environment for Technical Affairs, Republic of Iraq
Mr Jihad Kanan	Deputy Minister of Water Resources for Strategic Affairs, Syrian Arab Republic <sup>1</sup>
Dr. Adnan Altay Altinors	Republic of Türkiye Ministry of Foreign Affairs, Head of Department
Ms Afsane Moeeni	Climate Change Expert , Center for International Affairs and Conventions Environmental Protection Organization, Islamic Republic of Iran
Dr Saddam Qahtan Waheed	Ministry of Water Resources, Chief Engineer, Republic of Iraq
Dr Mahdi Ahmad	Managing Director of Iraq's Thirst Initiative, Republic of Iraq

The session was moderated by Advisor to the Minister of Environment, Republic of Iraq Dr Nadher Abood Faza.

<sup>1</sup> Mr Jihad Kanan was called into an emergency meeting and was unable to complete his attendance in the panel discussion

**DR NADHER ABOOD FAZAA, ADVISOR TO MINISTER OF ENVIRONMENT, REPUBLIC OF IRAQ**



- The side event organized by BAF and the UNDP “Harmonizing Waters: Collaborative Solutions for Climate-Resilient Regional Resource Management” is an extremely important side-event at a significant venue- the Iraqi Pavilion at a hugely significant time- COP 28.
- We are proud to see such a side event at the Iraqi Pavilion with transboundary countries
- COP28 has demonstrated a united Iraq at a decisive moment for international climate action.
- We thank the organizers of this side event for their work on Track II diplomacy
- The Track II space creates a vibrant forum for experts, intellectuals, and civil society groups to engage in lively discussions like we are having today
- By fostering open dialogue and cooperation, Track II diplomacy helps pave the way for constructive solutions and deeper understanding between nations.
- Today more than ever, water & climate diplomacy is necessary
- As countries within one region, we each have our challenges, but we must work on identifying our commonalities and work together to find solutions
- Iraq’s Thirst initiative has undertaken excellent steps inside Iraq and outside Iraq to bring the issue of water scarcity and climate action on roundtables between experts- and we praise the team for this success.
- We are excited to listen to the excellent mix of panelists discussing Collaborative Solutions.

**DR JASSIM AL FALAH, DEPUTY MINISTER OF ENVIRONMENT FOR TECHNICAL AFFAIRS, REPUBLIC OF IRAQ**

- The importance of securing fair water shares to preserve biodiversity, especially the marshland areas that suffer from severe droughts that have greatly affected the rich biodiversity in this region such as the Marshlands of Iraq that are listed as a World Heritage Site.
- The marshlands are vital for humans, for other ecosystems and for our climate, providing essential ecosystem services such as water regulation, including flood control and water purification.
- Wetland biodiversity matters for our health, our food supply, for tourism and for jobs. Wetlands also absorb carbon dioxide so help slow global heating and reduce pollution
- This side event comes at a critical timing within an important historical stage where all nations are looking to confront the impacts of climate change
- Climate change is challenge that threatens us all, which requires real and serious solutions to solve through cooperation and shared responsibility in reducing the damage caused to counter climate change.



- Iraq is one of the countries most affected by climate change and regional adaptation against impacts of climate change is a national priority for Iraq.
- This requires efforts, contribution and effectiveness of all countries and within the principles of the United Nations Framework Convention on Climate Change and the Paris Agreement.
- All countries of the region are exposed to a growing effect of climate change but its impact on Iraq is detrimental amid the water scarcity crisis, unprecedented rise in temperatures beyond global rates.
- One of the most important challenges facing Iraq is water security which is impacting our economy and our development.
- water security - food security - national security- is one of the most important conflicts that threaten civil peace and can be destroyed and have a direct impact on Social, psychological, health sciences, security and political impacts are the effects of the consequences of climate effects, especially those related to drought, land degradation, shrinking agricultural areas, and pressure on livelihoods.
- We rely greatly on the outcomes of this side event which will be a helpful factor in the government sectors in exploring areas of joint dialogue and great support for decision makers in creating an infrastructure capable of generating many visions and ideas in a way that supports climate action between the region and in establishing a flexible and responsive regional system capable of confronting the climate challenge.
- We need to explore a *regional Green fund* through the support of the International Community for climate change and environmental challenges by adopting joint projects within the region that lead to reducing the effects of climate change.

**DR SADDAM QAHTAN WAHEED, MINISTRY OF WATER RESOURCES, CHIEF ENGINEER, REPUBLIC OF IRAQ**

- Impacts from the climate change, such as increases in temperatures and decreases in rain, are affecting Iraq's water resources, the agriculture sector and its biodiversity.
- Rising temperatures disrupt precipitation patterns and the entire water cycle.
- water scarcity threatens livelihoods and impacts food security of citizens across the region.
- Climate migration is exacerbated considering the difficult water situation Iraq is encountering
- Regional cooperation is extremely important, and the Ministry of Water Resources supports this model of dialogue
- From a regional perspective, it is important to focus on climate-smart agriculture and modernization of local water supplies, including new technologies in water management to increase resilience to climate change.
- It is equally important that we focus on the issue of policies and how as a region we can work together to setting public policies in the field of the interconnection between water, food, energy and the environment





- Integrated and comprehensive approaches need to be considered regionally such as using data-driven tools including early warning systems- to help us identify the impact of climate change and water Security on social stability of our region, and strategies and interventions we have available to manage, monitor and mitigate water-related risks.
- The Ministry of Water Resources has been working seriously to reduce the impact of climate change through, for example, by lining irrigation canals, using closed-piped and mechanized systems, initiating water harvesting dams, updating the strategic study, and others.

**DR MAHDI AHMAD, MANAGING DIRECTOR OF IRAQ'S THIRST INITIATIVE, REPUBLIC OF IRAQ**

- We thank the participants of the side event for joining us today at this very important Track II dialogue initiative.
- The efforts of BAF and the UNDP through the Iraq's Thirst initiative has resulted in excellent bilateral dialogues between Iraqi experts and peers in neighboring countries
- Iraq's Thirst has explored the internal challenges of water management in Iraq- through the support of decision-makers, experts in national institutions, the Kurdistan region, and the applicable governorates concluded the need to push towards passing the legal framework for water management and focus on finding solutions to the challenges of water pollution and strengthening the relationship between the center and the region in water and environmental issues.
- The initiative has also explored the external challenges to water scarcity and prospects for cooperation with neighboring countries bordering the Tigris and Euphrates rivers in integrated water management, considering climate change impacts that have exacerbated the crisis and created major effects on water, agricultural and environmental security. The project has succeeded in holding workshops and roundtable discussions at the various level of stakeholders in the region with the hope that the dialogues will continue to include the rest of the riparian countries soon.
- Strengthening journalism in water and climate issues was an important aspect of Iraq's Thirst and the learnings can be shared with civil society organizations in transboundary countries to Iraq to replicate a similar approach.
- Iraq's Thirst has focused also on building academic capabilities by establishing partnerships with Iraqi universities to consolidate the process of scientific research- we aspire to extend this academic partnership beyond Iraqi universities and towards academic institutions in riparian countries.
- BAF is currently working on establishing a proposal for *Alalamain Center for Water and Environment* a pioneering scientific center at the national and regional levels in the water and environment sectors that will contribute to finding effective scientific solutions to the challenges facing Iraq and the region as a result of water scarcity and climate change.

**DR. ADNAN ALTAY ALTINORS, REPUBLIC OF TÜRKIYE MINISTRY  
OF FOREIGN AFFAIRS, HEAD OF DEPARTMENT**



- Türkiye approaches the water issue solely from a humanitarian perspective and considers transboundary waters as a source of cooperation rather than conflict among the riparian countries.
- Türkiye is always ready for water cooperation among riparian countries based on reasonable and scientific perspective.
- We are of the opinion that utilization of transboundary rivers in an equitable, reasonable and optimal manner is in the best interest of the riparian States.
- Lasting solutions to transboundary water issues can be reached through confidence building and genuine cooperation among riparian states- Confidence can be built by sharing the benefits of water.
- We are ready to share our experiences on sustainable utilization of water.
- Our country, like the whole region is being adversely affected by climate change, experiencing floods and droughts in a more frequent and intensive way.
- Global warming has an alarming impact on the amount of water resources. We have been experiencing serious drought for four years. However, we are taking decisive steps to increase water efficiency in all sectors, particularly in agriculture.
- As a water-stressed country, Türkiye is establishing river basin management systems in order to manage water resources in a sustainable and integrated manner for sustainable development.
- We are preparing river basin management plans and sectoral water allocation plans, including flood and drought management.
- We have launched the Water Efficiency Mobilization to save water countrywide in all sectors.
- We have been investing only in closed/pressurized irrigation systems to utilize the limited water resources efficiently.
- We believe that not only the upstream riparians but also the downstream countries have the responsibility for effective and sustainable use of water resources.
- Türkiye has always considered the needs of downstream countries. We truly understand the challenges faced by Iraq in relation to water.
- The amount of water measured at the Euphrates-Tigris River Basin is well-below the long-term average.
- Thanks to our water infrastructure, we are able to release more water than the natural flow to the downstream countries.
- Despite the long-term drought, we are pushing our limits to release the maximum amount of water to downstream.
- Efficient and sustainable water utilization is indispensable to address water scarcity.
- The recent technical meetings on water are fruitful and we attach importance to their continuation.
- We would like to enhance our cooperation with Iraq in the field of water.



- We believe that “Joint Standing Committee” (JSC) is the appropriate platform to discuss the water cooperation based on mutual understanding
- JSC constitutes an important opportunity to enhance our cooperation in the field of water
- It is essential to establish a cooperation based on mutual trust with a long-term perspective.

**MS AFSANE MOEENI, CLIMATE CHANGE EXPERT , CENTER FOR INTERNATIONAL AFFAIRS AND CONVENTIONS ENVIRONMENTAL PROTECTION ORGANIZATION, ISLAMIC REPUBLIC OF IRAN**

- Climate change in Iran has been associated with heat waves, temperature rise, and low rainfalls, like other countries in the region, including Iraq. Due to higher evaporation owing to the increase in temperature, decreasing rainfalls, and more demands for water consumption as well as development issues, Iran is facing water shortage, desertification, and sand and dust storms; in such a way that it has adverse tangible impacts on health, economy and well-being.
- Subsequently, broad measures on national, regional, and international scales were proposed and adopted in the country regarding sand and dust storms, which were aimed to reduce the serious effects of this slow on-set disaster.
- At the national level, extensive related research on the origins of the particles (sand, dust ...), and different ways of combating them and preserving traditional knowledge were supported and conducted; also plantation, applying living and non-living windbreaks, seeding, run-off management, arid-land afforestation and mulching went underway. In the same vein of national measures, initiatives on broadening regional and international cooperation were launched.
- Multiple MOU(s) with consideration of expanding regional cooperation were signed. Through the MOU signed between Iran and Iraq, the action plan came into existence after upholding official meetings.
- It was decided to enlist the below as areas of cooperation:
  - sharing of successful experiences and joint action on SDSs,
  - exchange of climate information,
  - cooperation in the field of technologies and promoting capabilities and capacity building
  - picking up pilot areas to provide pilot services, as well as
  - cooperation for the development of regional collaboration
- It is worth mentioning that two ministerial gatherings were organized by Iran regarding the issue of transboundary environmental issues, especially sand and dust storms:
  - Regional Ministerial Meeting on Environmental Cooperation for a Better Future:



The Heads of the Department of Environment, the Ministers of Environment, and senior officials of Azerbaijan, Armenia, Iraq, I.R. Iran, Oman, Qatar, Syria, Türkiye, Turkmenistan, United Arab Emirates, and Uzbekistan participated in the meeting in Tehran, Iran on Tuesday, 12 July 2022. Representatives from the United Nations, UNEP, UNDP, UNESCO, FAO, WMO, ROPME, and APDIM also attended the meeting.

- The main fields of agreement and outcomes of the meeting are as follows:
  - establishing a network for environmental information exchange.
  - called for closer cooperation to observe the economic, social, environmental impacts of climate change.
  - convening a technical working group to program the roadmap, formulating regional cooperation mechanisms and action plans based on considering the needs, strengths, and weaknesses the region and its government parties have.
  - concluding a regional agreement to enhance cooperation among the countries in the region and creating a regional fund to financially support the implementation of joint projects for combating sand and dust storms in their respective countries.
  - developing green belts in affected countries, with the purpose of water management, together with stabilizing, restoring, and strengthening soil as a way of adaptation to climate change and tackling sand and dust storms.
- International Conference on Combating Sand and Dust Storms
  - Based on resolution number A77571 of the United Nations General Assembly in 2022, Iranian Department of Environment (DOE) organized and held an international conference on 9-10 September 2023 in Tehran with the support of the United Nations. The event brought together representatives from more than 50 countries, highlighting the urgency of tackling SDS on a global scale.

The main fields of agreement and outcomes of the meeting are as follows:

- formulation, revision, and implementation of sub-regional, regional, and global action plans towards sand and dust storms through the technical and financial help and support of the Multilateral Organizations and United Nations.
- supporting the establishment of a regional fund platform for West Asia to tackle sand and dust storms in line with “Regional Ministerial Meeting on Environmental Cooperation for a Better Future” in 2022;



- constitution of a regional center, working groups, and/or committees with the membership of countries affected by sand and dust storms so to fulfil the aim of capacity building, attracting technical support, and the preparation and implementation of the regional and sub-regional action plans.
- welcoming the proposal to establish a convention on adaptation, management and tackling SDSs

**INTERVENTIONS FROM AUDIENCE:**

**MR RIDHAIAN, SENIOR MEMBER OF NEGOCIATING DELEGATION, ISLAMIC REPUBLIC OF IRAN**

- At the beginning, and on behalf of my delegation, I wish to extend a warm appreciation to our brothers and sisters in Iraqi delegation for inviting us in this gathering.
- Climate change as major threat that is affecting the globe and all of us. There is no country in the world that is immune of the adverse impacts of global warming and climate change.
- Like many countries such as Iraq, Syria and Turkey, we in Iran are experiencing very similar situation in the form of increased temperature, less precipitation and more drought across the country.
- Due to this situation, we have already lost a considerable share of our surface and ground water resources and this is significantly impacting our development and growth.
- This necessarily forces us to focus more than before on climate change and its adverse impacts. But in our strive, regional and bilateral cooperation are of particular importance.
- We need to address our needs in having a better understanding of the challenges in a more scientific based manner. Accordingly, more efficient collaboration among national meteorological organizations as well as the academic and research centers of the region to provide us with more solid scientific data and information is a must. Such collaborations could enrich our policy making efforts and boost our decision makings to be more rational and sustainable.
- One of the areas of concern which have majorly affected us, is the sand and dust storms phenomena.
- We are happy that for combating this big challenge, Iran and Iraq have jointly taken great initiatives. The International Conference on combating Sand and Dust Storms on 9-10 September in Tehran – Iran, was the result of the 2022 UNGA resolution which both countries pushed for its adoption and implementation.
- This Conference which attended and supported by the UN system resulted in a number of initiatives and decisions including, a final declaration,





proposing a regional plan of action on combating sand and dust storms, request for establishment of a regional fund and consideration of setting up a regional center or committee for boosting regional collaborations.

- Also, adoption of the UNGA resolution on nomination of a day as the International Day of Combating Sand and Dust Storms in this year, is another sample of our collaboration and joint efforts.
- Iran is willing and ready for a genuine cooperation and partnership in all areas related to environment preservation, sustainable development and addressing our common challenges.
- We hope with more interactions and exchanges of delegations, we could move towards preparation and implementation of many joint and regional plans and projects to benefit the prosperity, livelihood and sustainable development of our great nations.
- Once again, I thank you for your kind and valuable invitation.

**CONCLUSION BY MODERATOR- DR NADHER ABOOD FAZAA, ADVISOR TO MINISTER OF ENVIRONMENT:**

- The Iraqi Pavilion is extremely pleased to have hosted this excellent discussion today
- it is without doubt that the need for Iraq and its neighbors to collaborate work together to find cooperative solutions that ensure the equitable and sustainable use of shared water resources.
- The side event demonstrated the enthusiasm for the regional collaboration in building a more resilient and secure future for the people of the region.
- Iraq since 2003 has only one weapon- dialogue and we are committed to finding solutions peacefully and amicably through dialogue only.
- Iraq today more than ever is taking the climate crisis more seriously and this is clear when we compare the previous years participation with today, we see a great Iraq presence at COP28
- Today in this pavilion we witness all of Iraq in its regions, ministries and parliament and experts are here engaged with dialogue with its water sharing neighbors discussing cooperation- this is an excellent step in the correct direction and I congratulate all panelists, attendance and the organizers for this event.
- I convey to you the apologies of Mr Jihad Kanan who needed to leave the side event and attend an urgent meeting.
- The issue of water is a sensitive topic and is one that will not be solved over night, but I am confident this side event is a critical step in the right direction.
- We are seeing at first hand track II diplomacy yielding tangible outcomes and such efforts will lay the groundwork for future progress by encouraging open communication and mutual understanding between the regional countries.





## RECOMMENDATIONS

The side event observed an official, academic and technical participation and included interventions and proposals that led to contributing to the maturation of regional collaboration dialogue.

Therefore, the panelists recommend the following:

1. The need for continued Track II diplomacy in areas of regional collaboration on climate action that will support decision makers in creating an infrastructure capable of generating many visions and ideas in a way that is flexible and responsive for a regional system capable of confronting the climate challenge.
2. To engage with the international community and gain support for climate change and environmental challenges by adopting joint regional projects-through a *regional green fund*
3. The necessity of conducting joint regional academic research that can lead to developing practical solutions for sustainability and maintaining an environmental balance- e.g., shared Marshlands, dust storms and water pollution.
4. Creating a Joint Standing Committee” (JSC) from officials, academics and experts in the region to discuss the water cooperation based on mutual understanding
5. The importance of establishing a center specializing in water governance and climate change that includes the countries around the Tigris and Euphrates basin and the possibility of other regional countries to join to assisting governments in formulating policies and strategies for environmental challenges and climate change, increasing community awareness, building and developing technologies and capabilities, and strengthening partnerships for experts.

HARMONIZING WATERS: COLLABORATIVE SOLUTIONS FOR CLIMATE-RESILIENT REGIONAL RESOURCE MANAGEMENT



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