



# Necessity of Establishment an Independent Environmental Court in Iraq

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## Abstract

The issue of the environment and its protection receives resonance at the Iraqi Law. Under the Environmental Protection and Improvement Law No. 27 of 2009, the ministry of environment MoE is entrusted with creating a commission or members among the MoE employees tasked to take necessary action to stop any pollution act. Also, they enjoys a judicial mandate to reveal the environmental crimes and their circumstances after they occur, to bring them to trial, and to impose punishment on those who committed it by unspecialized courts on environment. These environmental courts in Iraq described with poor and smoth procedures regarding environmental issues. Therefore, under SDGs, Iraq obligated to detect fair and justice for future generations , exactly SDG16. This study revealed that this observing mechanism, whether proactive or preventive, is unsatisfactory. The findings underscore the essential need for a legal framework in establishing environmental court in Iraq could improve access to justice in a manner that is fairer, faster, and more cost-effective than general court systems.

## Keywords

Sutainable Development, Environment Pullotion, Legal Protection, Environmental Court, Iraqis Environmtal Ministry

## Introduction

The issue of the environment and its protection receives resonance at the Iraqi national level, as it is of great interest internationally. This is due to its close connection with human life and the entire ecosystem. The judiciary is an effective guarantee to protect the environment and deter environmental violations and degradation. In addition to the judiciary, the administration, represented by environmental police and environmental monitors by the Ministry of Environment (MoE), is crucial in safeguarding the environment and controlling individual activities (Ajeel, 2019). However, the judicial role seems ineffective in tackling environmental issues seriously due to the existence of an independent court or a court that consists of judges with environmental experience.

In Iraq, the observation against environmental damages or pollution is assigned to those judiciaries aside from their origin delegations, which cooperate with administrative authority (See Target Five and Seven of the report by United Nations Environment Programme on Law and National Biodiversity Strategies and Action Plans , 2018). For example, the civil judge is the one who redresses and compensates environmental damages, while the criminal judge imposes punishments and deters perpetrators of environmental crimes. Hence, no independent environmental court looks at environmental cases accurately.

This, the existence of an environmental court and its necessity inherited in several international conventions, the most significant was the Global Agenda of Sustainable Development Goals (SDGs) 2030. As a member of this convention, Iraq is committed to adopting the regulations and policies imposed by SDGs. In terms of responsibility to achieve the objectives of this convention, Iraq has taken the required mechanisms to comply with the convention's objectives. However, establishing such an environmental court has not yet been proposed (Lafta, 2019).

This demands a study of the mechanisms of protecting and observing environmental issues by judicial and administrative authorities. This paper will then seek to establish an environmental court, focusing on the challenges of the existence of such a court. Consequently, it will discuss the merits of implementing an independent environmental court to understand the possibility of integrating with administrative mechanisms.

### **Overview of Iraqis' Observation and Combating the Environmental Pollution**

The Iraqi parliament approved the Environmental Protection and Improvement Law No. 27 of 2009, regarded as one of the most effective laws in dealing with environmental problems and setting strict controls to deal with pollution. It includes a special paragraph for the establishment of an (environmental police) to seize violators and to raise the level of environmental control (Jassem, 2014). The first article of this law specified the objective and reasons for adoption, indicating that "The law aims to protect and improve the environment by removing and treating the damage that exists in it or that may occur to it, and to preserve public health, natural resources, biodiversity, cultural and natural heritage in cooperation". Other than that, cooperate with relevant authorities to promote sustainable development as well as foster international and regional partnerships in this area.

According to the Environment Protection and Improvement Law No. 27, 2009, the environmental administration plays its role, as represented by the MoE, and cooperates with other governmental bodies to safeguard the environment from pollution. The law empowered the minister to nominate several members in special legal and administrative structures to observe the execution and implementation of environmental legislation, regulations, and other codes (Iraqi's Environmental Ministry website, n.d.). Those members, called environmental members of monitoring and observing, play a prominent role in observing and reducing environmental pollution. Mainly, their mission could be included (proactive and preventive) to stop and mitigate environmental degradation (Abdullah, 2021), and this is as follows:

#### **Environmental Law Enforcement (Proactive)**

According to Article 24 Para 1 under the Environmental Protection and Improvement Law No. 27 of 2009, the ministry of environment MoE is entrusted with creating a commission or members among the MoE employees tasked to take necessary action to stop any pollution act

(Environmental Protection and Improvement Law No. 27 of 2009, 2009). This delegation was general without setting specific conditions restricting this authority. Therefore, the appointment and nominating of those members is subject to the discretionary authority of the MoE. The only condition of this authority is that the environmental observer must be an employee of the MoE.

Those members were defined accurately in Article 20 Part 2 of the same law as "an employee assigned in accordance with provisions of this law is to observing the implementation of legislation related to the environment and other legislations there too". This definition clearly indicates that the concept of environmental member or observer is linked to the concept of environmental control and that the phrase (legislations related to the environment). This definition came in the general form, and the only restriction is that it must be related to the environment, which means the authority of the environmental observing to monitor includes various types of legislation, whether original (ordinary) issued by its legislative authority, or in the form of laws or subsidiary codes issued by the other administration in the form of regulations and instructions.

Moreover, the role of the environmental member in environmental observing is not limited to purely environmental legislation such as the active Environmental Protection and Improvement Law No. 27 of 2009. However, their mission expands to include the regulations and instructions issued by the MoE. This goes beyond it to include all legislation related to the environment, even if it is included in other legislation, regardless of the entity that issued it, whether it is the MoE or legislative authority (Dulaimi, 2016).

### **Protect Environmental Degradation (Preventive)**

The process of combating pollution requires administration intervention to preserve and overcome environmental degradation, especially in the field of monitoring, inspection, and control violations that constitute an infringement on the environment following the environmental legal constraints and controls issued by the administration. As mentioned in the previous section, technically, the MoE is authorized to delegate certain members to do this mission. Thus, it is necessary to highlight what law has been demarcated so that they can exercise their assignment.

Basically, those members are assigned to exercise the authority and powers granted to them by the law. However, their main task assigned is to control and observe the activities affecting the environment, subject to the provisions of the Environmental Protection and Improvement Law No. 27 of 2009 (United Nations Development Programme in Iraq, 2016). They conduct and organize inspection reports and submit them to the MoE to take the necessary measures.

Among the measures that the MoE can take in light of what the environmental monitor reported are environmental control measures to protect the public environmental system, such as administrative control for environmental protection, which aims to stop and fix the causes of environmental pollution and combat pollution if it occurs.

Although the Environmental Protection and Improvement Law No. 27 of 2009 granted the MoE a wide administrative mandate to protect the environment from pollution, it still has the powers of environmental protection and observing violations under the member's reporting. These powers were briefly mentioned in the law, which left the MoE with the discretionary power to choose the environmental monitor and grant him additional powers. Given the requirements for protecting the environment and within the limits permitted by law, this grants the minister these powers. This revealed the necessity to issue a system or instructions specifying

the environmental controller's powers in the administrative control field. This is so that the minister is granted a degree of discretion in taking appropriate action against the facility polluting the environment. This is especially required if the degree of pollution poses a serious threat to the environment, such as radioactive pollutants, following some comparative legislation.

### **The Role of the Environmental Observer as a Judicial Officer**

According to Article 24.2 of Environmental Protection and Improvement Law No. 27 of 2009, the environmental observing member enjoys judicial power on environmental control as authorized by this law. This is aside from the authorization as administrative power. Since judicial control is distinguished from administrative control in various aspects, it is necessary to discuss the tasks delegated to these members in the field of judicial control.

Basically, the member enjoys a judicial mandate to reveal the environmental crimes and their circumstances after they occur, to bring them to trial, and to impose punishment on those who committed it as a punishment and a deterrent to others (Ahmed Khurshid Hamidi, 2018). Therefore, the business of Judicial observers is considered a judicial context that is subject to the oversight of the ordinary judiciary. Accordingly, no specialized court is responsible for deciding on damages arising from violators.

In light of the above, the environmental observer, as a judicial officer, can exercise his duties specified in the Environmental Protection and Improvement Law No. 27 2009, as outlined in Article 24, in investigating environmental crimes and conducting information and complaints. Therefore, the minister assists in revealing environmental pollution to investigative judges, investigators, police officers, and commissioners, as well as confirming that the procedures are recorded and signed by him.

The member must immediately send this information, complaints, papers, and seized materials to the investigating judge. This ensures the importance of having written procedures approved by the competent court as evidence of proof.

### **Sufficiency of Legal protection for the Environment**

Against the backdrop of the legal protection of the Iraqi environment and ecosystem, it raises a question: Is this observation and protection process sufficient to combat pollution? In other words, is the existence of an ordinary court that takes a mission on environmental issues as a final step for judicial members sufficient? The Iraqi legislator has devoted the fourth chapter of Law No. 27 2009 to clarify the regulations for environmental protection and enhancement. The Iraqi legislator organized these environmental protection and improvement provisions into seven branches. However, no provision indicates or demarcates a specialized court against wrongful acts or policies on environmental cases.

Note that this observing mechanism, whether proactive or preventive, is unsatisfactory. Therefore, it is necessary to investigate the issue of the existence of a specialized environmental court.

### **Necessity of Establishment Under Global Conventions**

In the post-Iraq invasion of 2003, the country witnessed wide memberships in several Multilateral Environmental Agreements MEAs, such as United Nation Framework of Climatic Change UNFCCC, United Nation Convention on Biological Diversity UNCBD, and their protocols, attaches, and initiatives. However, membership in SDGs 2016 was a great step to impose the

environmental international policy on the national level. For Al-Taie, this highlighted the country's growing interest in the significance of environmental issues concerning Iraq, making the preservation of Iraq's environment essential for safeguarding public health and enhancing productivity through the efficient use of natural resources. Protecting the ecosystem was seen as a top priority among these concerns and one of the most vital resources (Taie, 2018).

On the international level, a scholarly movement elaborated on member countries' need for a specialized national environmental court. However, to examine this direction of scholars, it must underpin the significance of Iraq's attitude toward these MEAs and the method of adopting and merging them at the national level. Afterward, in this section, it is necessary to examine the feasibility of creating an environmental court in Iraq as well as the challenges of the establishment.

### **Adopting MEAs in Iraq**

The mechanisms for adopting international treaties differ according to the constitutions. In the constitutions that adopt the theory of legal unity, there may be a contradiction between international treaties and national law. Nevertheless, in the constitution that adopts the theory of the duality of laws, there may be a conflict between them. Hence, the judge may try to reconcile the conflicting texts of the law, or the legislation may resort to integrating them.

Article 61 Para 4 of the Iraqi Constitution stipulated: "The Council of Representatives shall be responsible for organizing the process of ratifying international treaties and agreements by a law enacted by a two-thirds majority of the members of the Council of Representatives." (See the Iraqis Constitution Article ). The constitutional wording clearly indicates that the ratification with regard to international treaties and agreements is accomplished through legislation approved by a two-thirds majority of the House of Representatives. This demonstrates these treaties as well as agreements, attain the status of standard domestic laws by virtue of the legislation enacted by parliament.

The previous Iraqi judicial attitude was to neglect the application of the texts of international agreements if they conflicted with national legal texts, considering that they still represented a foreign element. Ironically, the current Iraqi judicial system made a great step toward accepting international agreements and treaties as part of the legislative system, according to the 2005 Constitution, which made the agreements and treaties ratified by Iraq part of the Iraqi national legislative system (Almahdi, 2016). However, in the event of a conflict, the law of the treaty or agreement does not differ from other national laws except under the rules of interpretation in the event of a conflict between two national laws. This is also according to the rule that the specific restricts the general, and the latter abrogates the earlier and other legal rules related to interpretation and preference. This trend encouraged judges to deal with the texts of these agreements as national law and not foreign law, and they can be referred to in establishing the court's doctrine to resolve the dispute before it. This would be in accordance prior to the provisions of these international agreements, especially those associated with human rights, equality, and the environment.

In this context, enforcing international environmental protection norms imposes on Iraq the guarantee of justice for individuals and future generations, as stated in the Global Agenda of SDGs 2030, Target 16, is necessary. Despite the legal system being built on determined cases distributed on several branches of courts, no specialized court can accurately reflect the vision of international movement on the environment. Instead, the cases of violating the environment and

the cases of degradation that judicial members reported were delegated to judges to make decisions that carry a possibility of inadequacy.

### **Challenges Regard to the Establishment of an Environmental Court**

A global "explosion" of specialized courts as well as tribunals for handling environmental lawsuits is rapidly transforming the landscape of environmental justice worldwide. The swift spread of these courts, as well as tribunals, marks significant shifts in environmental law and institutions in the 21st century. (Desai, 2020) Justice Antonio Herman Benjamin, Chairman of the High Court of Brazil, stated that "Environmental conflicts require quick action or response, which is incompatible with the slow pace of the court system that, due to its bureaucracy and technical rituals, eventually becomes an obstacle to effective protection of the environment and economic progress." (Benjamin, 2012). However, every nation faces challenges in achieving the UN's 2015-2030 Agenda for Sustainable Development through the defined SDGs. In the judicial branch of government, these challenges can include:

1. Judges who lack training or understanding of international and national environmental laws, who may not possess the expertise to base decisions on complex, evolving, and uncertain scientific and technical information, and who might avoid accountability with regard to balancing the social, economic, as well as environmental impacts of suggested developments, or who may struggle to make fully fair and just decisions (Linda, 2022).
2. Overloaded general court dockets with numerous cases, causing lengthy delays and hindering justice.
3. High expenses for litigants, including security bonds, expert witness fees, attorney fees, court fees, as well as appeal costs.
4. Lack of ability to prioritize cases with environmental impact and limited remedies to address environmental issues effectively.
5. An adversarial, win-lose approach to decision-making rather than a collaborative, win-win approach that supports long-term sustainability.
6. Inflexible court rules, as well as procedures, hinder responsiveness to international environmental standards and laws, limit options for alternative dispute resolution, restrict public involvement in decision-making, impede public access to information, and reduce transparency and accountability to the public.

### **Merits of Existing Environmental Court in Iraq**

The new specialized adjudication of environmental courts is swiftly transforming traditional judicial and administrative systems, fundamentally altering how environmental disputes are handled. In alignment with SDG 16, there is a global push for improved access to environmental justice, a strengthened rule of law, a green economy, sustainable development, as well as climate justice. In response, administrative officials, judges, legislators, stakeholders, decision-makers, policymakers, business leaders, as well as civil society advocates are urged to reevaluate their governance structures. Many are establishing new judicial as well as administrative bodies to enhance justice accessibility and environmental governance, with environmental courts increasingly viewed as a practical solution to the limitations of conventional justice systems.

As stated by Justice Brian Preston, Chief Judge of the Land and Environment Court of New South Wales, Australia, the first environmental court established as a superior court of record

worldwide: "The judiciary has a role to play in the interpretation, explanation, and enforcement of laws and regulations. Increasingly, it is being recognized that a court with special expertise in environmental matters is best placed to play this role in achieving ecologically sustainable development." (Preston, 2012).

Many experts agree that environmental courts at national and subnational levels, when implementing best practices, can significantly support the achievement of the SDGs. Specifically, the environmental court in Iraq may be designed to

1. Advance the environmental rule of law at national and international levels and guarantee equal access to justice (SDG target 16.3).
2. Establish more accountable, effective, as well as transparent institutions across all levels (SDG target 16.6).
3. Ensure decision-making that is participatory, inclusive, responsive, as well as representative at all levels (SDG target 16.7).
4. Guarantee public access to information and safeguard fundamental freedoms in line with national laws and international agreements (SDG target 16.10) and
5. Specifically, encourage and uphold non-discriminatory laws as well as policies to support sustainable development (SDG target 16. b) (Muhammad, 2018).

### **Practical Integration with Judicial Members**

The question raised previously in Section 4 about the sufficiency of the environmental protection process by judicial and environmental members assigned by the MoE. It is shown that an environmental court is required to complete its mission of combating pollution, which violates the environment and the ecosystem. However, a legal integration between the two parts is also required, and this must be looked back on by decision-makers and legislators to address the integration between the main law of Environmental Protection and Improvement Law No. 27 of 2009, specifically Article 24. As mentioned, the environmental members operate like two faces of the coin in their administrative mission and as judicial members. Hence, if integration is demanded to establish, is there a flexible mechanism between the environmental members and the suggested environmental court?

This integration would characterize several positive features that boost the environmental protection in Iraq. For example, the cooperation between those members with the new environmental court would help them make decisions with expertise. Consequently, expert decision-makers would make more effective choices and enhance efficiency, leading to solid decisions. Therefore, this integration leads to lower costs for litigants and increased consistency in decisions, giving litigants clearer expectations. Other than that, the dual characteristics of compulsory and accountability would strengthen the government's commitment to environmental protection and sustainability and create government accountability for the public. Prioritization and flexibility also play their role in this integration by prioritizing and advancing urgent cases, as well as implementing rules that permit innovative and adaptable procedures and remedies. Integration of issues and remedies allows for a more comprehensive approach to various laws, especially when the court holds civil, criminal, and administrative jurisdiction, combining remedies and enforcement across these areas in a single institution. This setup enables judges to go beyond a strict rule-of-law approach (right vs. wrong) and devise innovative solutions, applying new international environmental law principles and natural justice, along with national or local regulations. Judges, supported by environmental specialists, may also be

empowered to independently investigate environmental issues without the need for a formal case.

## Methods

This study employs a qualitative research approach to examine the necessity of establishing an independent environmental court in Iraq. The research is based on legal analysis, comparative studies, and case law examination to assess the effectiveness of the current environmental legal framework and the challenges posed by the absence of a specialized judicial body.

### Research Design

The study follows a doctrinal legal research methodology, focusing on primary and secondary legal sources. It includes an analysis of national laws, international treaties, and judicial practices to evaluate the gaps in Iraq's environmental judicial system. The research also reviews legal doctrines and principles relevant to environmental protection and sustainable development, particularly within the framework of the United Nations Sustainable Development Goals (SDGs).

### Data Collection

The research relies on the following sources:

- **Primary Sources:** Iraqi national legislation, including the Environmental Protection and Improvement Law No. 27 of 2009 and the Iraqi Constitution, alongside international environmental agreements ratified by Iraq.
- **Secondary Sources:** Scholarly articles, legal commentaries, reports from international organizations (e.g., UNEP, UNDP), and case studies from other jurisdictions with established environmental courts.

### Comparative Legal Analysis

A comparative study is conducted by analyzing environmental courts in other jurisdictions to draw lessons applicable to Iraq. This includes examining models from countries with specialized environmental adjudication, such as Australia and Brazil, to assess best practices and their potential implementation in Iraq.

### Analytical Framework

The study applies a legal and institutional analysis to assess the effectiveness of existing environmental governance mechanisms in Iraq. It evaluates the proactive and preventive roles of environmental monitoring bodies and the judiciary's capacity to enforce environmental laws.

### Expected Outcomes

The research aims to highlight the gaps in Iraq's current legal framework and propose recommendations for the establishment of an independent environmental court. It seeks to demonstrate how such a court would enhance environmental justice, improve legal accountability, and align Iraq with international environmental standards.

## Results and Discussions

First, those members who operate, conduct, and observe both ( main and subsidiaries) environmental legislations (proactive phase) were granted a wide authority that may burden their mission and result in insufficient outcomes. This is because of the diversity of environmental rules distributed between different legislations and not confined by the Environmental Protection and Improvement Law No. 27 2009, such as commercial, civil, and criminal legislation (Hernández, 2024).

Second, observing the implementation of environmental rules by observers (preventive phase) presents the fragility of preventing or overcoming the environmental problem if it occurs. Despite the Environmental Protection and Improvement Law No. 27 2009 granting those members a Judicial authority in certain methods, there are no clear limits to exercising this authority (Brazeiro, 2024).

Third, law No. 27 2009 did not demarcate specific roles for the observers in their cooperation with these courts, or if the environmental cases were taken as first-degree by the courts or aside various cases that included environmental violations.

## Recommendations

1. Establish a specialized environment court where judges with environmental experience operate. This could be achieved by enrolling certain judges in environmental programs that increase their knowledge about ecosystem issues.
2. A harmonization is needed between environmental observing members and the suggested court. This requires the existence of procedures that provide simple, quick, and easy measures to obtain protection for the environment from degradation.
3. Coordination is required between the branches of courts (criminal, commercial, or civil) to empower the environmental court to take its role. This is in case the environmental element is detected in the issues subjected to them.

## Conclusion

The rise of environmental courts over the past 15 years highlights broad dissatisfaction with existing judicial bodies for addressing environmental issues, as well as the global and national calls for better access to justice and stronger environmental rule with regard to law. This study concludes that establishing and effectively managing an environmental court in Iraq could improve access to justice in a manner that is fairer, faster, and more cost-effective than general court systems while also strengthening environmental governance and supporting the rule of law (Zhang, 2024).

These elements, encompassing many key factors, can be integrated into enabling legislation or court rules at the national or state/provincial level, accompanied by an adequately independent budget. Note that the enabling law could also outline a phased approach, allowing for future jurisdictional expansion and flexibility after an initial evaluation. Alternatively, if political conditions do not favor a legislated environmental court, judicial or administrative leadership could establish a robust internal one without the legislative and political obstacles.

## References

- Abdul Karim Kazem Ajeel, "The Impact of International Conventions and Treaties in the Protection of the Environment in Iraq", a paper presented to the Legislative Reform Conference: *A Path to Good Government and Combating Corruption*, (2019).
- Ahmed Al-Waeli, and Aseel Lafta. "Challenges Facing Sustainable Development in Iraq within the Framework of the Risk Management Plan." *Al Kut Journal of Economics and Administrative Sciences* 11.34 (2019): 70
- Ahmed Khurshid Hamidi, et.al, "The role of Environmental Ministry control in protecting the environment" participant paper in the Law and Environment Conference 23-24 April (2018)
- Ala'a Abdu-allah Al- Taie, " The role of legislation in achieving sustainable development goals for the environment", conference paper in Statistic and legislating, (2018).
- Asmaa Amer Abdullah."The role of the police in evaluating human behavior towards combating environmental pollution" *Journal of the Faculty of Law for Legal and Political Sciences / Volume 10 / Issue 37 / (2021)*
- Benjamin, Antonio Herman. "We, the Judges, and the Environment," 29 *Pace Environmental Law Review* 582 (2012), <http://digitalcommons.pace.edu/pelr/vol29/iss2/8>
- Brazeiro, A. (2024). Disentangling the invasion process of subtropical native forests of Uruguay by the exotic tree *Ligustrum lucidum*: establishment and dominance determinants. *Ecological Processes*, 13(1). <https://doi.org/10.1186/s13717-024-00512-w>
- Desai, Bharat H., and Balraj K. Sidhu. "International courts and tribunals—the new environmental sentinels in international law." *Environmental Policy and Law* 50.1-2 (2020): 17-33.
- Hayat Jumaa Muhammad, "A future vision for achieving sustainable development in Iraq" *Lark Journal for Philosophy, Linguistic and social science*, (2018).
- Hernández, F. (2024). Admixture With Cultivated Sunflower Likely Facilitated Establishment and Spread of Wild Sunflower (*Helianthus annuus*) in Argentina. *Molecular Ecology*, 33(22). <https://doi.org/10.1111/mec.17560>
- Target Five and Seven of the report by United Nations Environment Programme on Law and National Biodiversity Strategies and Action Plans (2018) 48, available on <https://www.cbd.int/sp/>. (Accessed on January 4 2022).
- Imad Obaid Jassem, "Environmental Legislation in Iraq", *Encyclopedia of Iraqi Laws*, (2014):70.
- Laila Ahmed Mohammed Almahdi, "International environmental legislation and its impact on local laws to protect the environment". " PhD Diss. Shandi University, 2016
- Monem Musharraf Al Dulaimi, "The Role of Organizational Learning in Adopting Environmental Management." *Scientific Journal of Business and Environmental Studies* 7. (2016).
- Preston, Justice Brian J. "Benefits of Judicial Specialization in Environmental Law: The Land and Environment Court of New South Wales as a Case Study," 29 *Pace Environmental Law Review* 396 (2012), <http://digitalcommons.pace.edu/pelr/vol29/iss2/2/>.
- Yanti Sulistiawati, Linda, et al. "Environmental courts and tribunals 2021: a guide for policymakers." (2022).
- Zhang, X. (2024). Research on asphalt surface layer performance over service time and establishment of ageing model for in-service bitumen under Norwegian conditions. *Case Studies in Construction Materials*, 20. <https://doi.org/10.1016/j.cscm.2023.e02824>

Legislations, conventions

Iraqis Constitution

Environmental Protection and Improvement Law No. 27 of 2009

Sustainable Development Goals