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THE LEGAL FRAMEWORK AND ITS ROLE IN THE USE OF ARTIFICIAL INTELLIGENCE TO ACHIEVE THE OBJECTIVES OF THE GREEN ECONOMY

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Abstract:

This paper highlights the legal framework governing the use of artificial intelligence to support the green economy by reviewing the legislative principles that govern its application. It also discusses the importance of compliance with environmental standards in the design and implementation of artificial intelligence solutions while clarifying the legal liability for environmental damage resulting from their use. In addition, the paper addresses national policies aimed at supporting sustainability-oriented artificial intelligence and the role of regulatory bodies in ensuring compliance with environmental standards. Finally, it examines international cooperation in this field, including international agreements and technological partnerships, to develop innovative solutions that promote the green economy.

Keywords: Artificial intelligence; green economy; environmental law; sustainable development; regulatory frameworks.

Introduction:

In light of the increasing environmental and economic challenges facing the world in the modern era, the green economy has become a strategic objective for states and institutions, pursued through the development of an innovative, sustainable approach that balances economic growth with the preservation of environmental resources. Artificial intelligence plays a vital role in supporting the transition toward a green economy, as it can be utilised to analyse data, improve resource efficiency, and reduce the environmental impact of economic activities. However, the optimal utilisation of this technology requires the establishment of a comprehensive legal framework that ensures its

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effective regulation, thereby enhancing its capacity to achieve the objectives of sustainable development.

The legal regulation of the use of artificial intelligence in the green economy requires the consideration of a set of legislative values and principles, including adherence to international environmental standards, transparency in the use of technology, and the safeguarding of stakeholders' rights in this field. This process also requires the formulation of innovative legislation that keeps pace with rapid technological developments while establishing clear boundaries to ensure the responsible use of this technology and address potential risks to environmental and social security.

Through this legal framework, emphasis is placed on achieving a balance between supporting technological innovation and encouraging investment in green economy sectors while ensuring full compliance with legal standards that protect the environment. Legal legislation also constitutes an essential means of motivating companies and institutions to adopt sustainable technologies that harness artificial intelligence, thereby enhancing the efficiency of economic operations and reducing carbon emissions.

States also seek international cooperation through joint legal agreements aimed at establishing a global framework for regulating the use of artificial intelligence in achieving the objectives of the green economy, as the success of these initiatives requires the unification of efforts among governments and international institutions. In this context, the legal framework becomes a driving force for achieving a fundamental transformation in how environmental sustainability is realised through the utilisation of the vast potential of artificial intelligence.

1- Legal Principles for Regulating the Use of Artificial Intelligence to Support the Green Economy

The world is undergoing a remarkable transformation toward the use of artificial intelligence as an effective tool for achieving sustainable development and supporting the green economy. With the increasing reliance on this technology across various fields, the need has emerged to establish legal principles governing the use of artificial intelligence that ensure the achievement of environmental and economic sustainability objectives. Regulating artificial intelligence

within an integrated legal framework is a fundamental step to ensure that its applications align with global environmental standards, preserve natural resources, and reduce environmental harm that may result from misuse or a lack of oversight. This chapter discusses the legal foundations and principles that serve as the cornerstone for achieving this balance between technological innovation and environmental protection.

1.1- Legislative Foundations for Regulating Artificial Intelligence Applications

The legislative regulation of artificial intelligence applications is a fundamental step toward ensuring the optimal use of this advanced technology. Legal rules regulate the use of modern technologies to ensure a balance between innovation and the protection of society and the environment. With the increasing reliance on artificial intelligence across sectors, establishing strong, effective legislative foundations has become an urgent necessity to guide the use of these applications in line with national and international objectives, particularly in support of the green economy.

1.1.1-The Importance of Legal Rules in Regulating the Use of Modern Technologies

Legal rules constitute the foundation for regulating the use of modern technologies, including artificial intelligence. With rapid technological development, numerous challenges arise concerning the risks of misuse and the need for societies to ensure the safe and sustainable use of these tools. The importance of legal rules in this context lies in achieving the following objectives:

A- Protection of individuals and society: Legal rules safeguard individuals' rights against violations arising from modern applications, such as breaches of privacy or misuse of personal data.

b- Ensuring transparency: Laws promote transparency in the use of artificial intelligence by defining data collection and processing methods and ensuring that individuals are informed of the operational mechanisms of these technologies (Belassel Bent Nabi & Amrouche, 2022, p. 124).

c- Reducing environmental harm: Legal rules help limit environmental damage from modern technologies by imposing mandatory environmental standards during their design and implementation.

c- Promoting sustainable innovation: Legislation helps direct companies and developers toward responsible innovation, ensuring that new technologies align with economic, social, and environmental objectives (Thabeti & Berkatou, 2014, p. 155).

Laws are not merely instruments of oversight; rather, they constitute a tool for encouraging the positive use of modern technologies that contribute to the development of societies and reduce their negative impacts.

2.1.1-The Role of National and International Legislation in Monitoring Artificial Intelligence Applications:

National and international legislation plays a pivotal role in monitoring and regulating the use of artificial intelligence, ensuring the comprehensive application of laws at both the local and international levels. This role is reflected in the following points:

A -At the national level:

a. National legislation establishes clear controls for the responsible use of artificial intelligence within the state. These laws encompass data protection, transparency, and the prevention of discrimination and unethical exploitation.

b. Governments also establish regulatory bodies responsible for overseeing the implementation of these laws to ensure that companies and developers comply with legal standards (Gueham & Mojalled, 2006).

b -At the international level:

- Through international agreements and treaties, common legal frameworks are established to regulate the use of artificial intelligence, thereby enhancing cooperation among states in addressing shared challenges.

b. These efforts include the harmonisation of legal standards for the design of artificial intelligence technologies, contributing to the reduction of disparities between national legislations.

- This legislation enables global regulation that protects developing countries from technological exploitation and provides an opportunity for equitable participation in benefiting from technological innovations.

In summary, national and international legislation plays a fundamental role in regulating and monitoring artificial intelligence

applications to achieve a balance between innovation and technological progress on the one hand and the protection of human rights and the environment on the other.

2.1 - Second Subheading: Environmental Protection as a Foundation for Achieving the Green Economy in Legal Legislation

Environmental protection plays a central role in achieving the objectives of the green economy, as the legal principle focused on preserving natural resources and reducing environmental harm constitutes a fundamental basis in the formulation of legislation related to artificial intelligence applications. By adhering to environmental standards, artificial intelligence technologies can be designed and implemented to support environmental sustainability Ensuring legal liability for damage caused by intelligent applications is a core element in achieving a balance between technological development and environmental protection.

1.2.1 Compliance with Environmental Standards in the Design and Implementation of Artificial Intelligence Technologies

Compliance with environmental standards is essential for ensuring that the design and implementation of artificial intelligence technologies account for environmental sustainability and preserve natural resources. This commitment encompasses several aspects:

A- Energy consumption reduction

Artificial intelligence technologies rely on large-scale data processing, which consumes significant energy. Compliance with environmental standards requires the use of more energy-efficient solutions, such as reliance on renewable energy sources or the optimisation of algorithms to reduce consumption.

b- Limiting electronic waste

During the design and implementation of devices used to operate artificial intelligence, consideration must be given to reducing electronic waste and ensuring that components are recycled in ways that preserve the environment (Thabeti & Berkatou, 2014, p. 155).

c- Alignment of design with global environmental standards

Many international agreements stipulate that artificial intelligence technologies must comply with environmental principles,

such as reducing carbon emissions and using sustainable materials in manufacturing.

c- Environmental assessment:

Prior to implementing any artificial intelligence project, a comprehensive environmental impact assessment must be conducted to ensure that it does not cause long-term environmental harm (Belassel Bent Nabi & Amrouche, 2022, p. 124).

2.2.1Legal Liability for Environmental Damage Resulting from Artificial Intelligence Applications

Legal liability is a fundamental element in ensuring that environmental damage resulting from the irresponsible use of artificial intelligence technologies or noncompliance with environmental standards is properly addressed. This liability is reflected in the following points:

A- Determination of legal responsibility: The entities responsible for environmental damage, including the companies developing the technology, users, and operating bodies, are identified This aims to ensure the accountability of the parties concerned in the event of any environmental harm (Gueham, 2006, p. 35).

b- Legal sanctions: Legislation imposes strict penalties on entities that violate environmental standards during the design or implementation of artificial intelligence technologies. These sanctions may include financial fines or corrective measures (Habib, 2022–2023).

c- Compensation for environmental damage: Laws oblige the parties responsible for environmental damage to provide compensation, whether through the restoration of affected areas or by financing projects to offset negative environmental impacts (Belgachai, 2021, p. 356).

d- Establishment of regulatory provisions : Regulatory bodies monitor projects that rely on artificial intelligence to ensure compliance with environmental standards and prevent harm (Belassel Bent Nabi & Amrouche, 2022, p. 125).

E- Preventive legislation: Legal responsibility is not limited to addressing damage after its occurrence but also includes the enactment of preventive laws designed to avert environmental harm from the outset (Tograt, Merdassi, & Boutaba, 2017, p. 368)

By adhering to these legal requirements, a balance is achieved between technological progress and environmental protection, thereby reinforcing the objectives of the green economy and contributing to sustainable development.

2- Implementation Mechanisms and International Cooperation to Support Artificial Intelligence in Achieving the Green Economy

International cooperation and implementation policies play a pivotal role in achieving the objectives of the green economy through the use of artificial intelligence. With the growing importance of this technology as an effective tool for environmental sustainability, a clear legal framework that strengthens national and international efforts to regulate its use has become essential. This chapter addresses the role of national policies and international cooperation mechanisms in activating this legal framework to maximise the benefits of artificial intelligence technologies in supporting the transition toward a green economy.

Chapter Two examines the practical steps and procedures necessary to activate the legal framework and support artificial intelligence applications in achieving the objectives of the green economy. It focuses on implementation policies at both the national level and the international level, as well as on the role of international cooperation in unifying global efforts to address environmental challenges. It also highlights the importance of coordination among states and international institutions in enhancing the utilisation of artificial intelligence in achieving sustainable development.

1.2-National Policies to Support Artificial Intelligence in Achieving the Green Economy

Supporting national policies constitutes a fundamental pillar in the development and use of artificial intelligence to achieve the objectives of the green economy. With the increasing importance of this technology in improving resource efficiency and reducing environmental emissions, it has become essential for governments to assume an active role in adopting strategies that support technological innovation and direct it toward achieving sustainability. This includes providing financial and regulatory support, as well as ensuring the existence of regulatory bodies that oversee compliance with environmental standards, thereby guaranteeing the responsible

deployment of artificial intelligence technologies aligned with the objectives of the green economy.

1.1.2-Government Support Strategies for Developing Artificial Intelligence Technologies Oriented Towards the Green Economy

There are numerous international initiatives aimed at supporting artificial intelligence in achieving the green economy, including the following:

A- The United Nations partnership with e&Group: This initiative was launched to harness artificial intelligence for sustainable development in the Arab region. It aims to enhance digital inclusion, support the transition toward a digital economy, and expand the use of artificial intelligence to address climate challenges (Belassel Bent Nabi & Amrouche, 2022, pp. 125–126).

B- Artificial Intelligence for Sustainable Development Platform: This initiative seeks to provide digital solutions, data, and technologies to support the ethical use of artificial intelligence in achieving sustainable development goals. It also includes developing a platform for climate and natural disaster crises to improve adaptation to climate challenges.

C- The use of artificial intelligence in green technology: This technology is utilised to enhance sustainable technologies, such as by simulating future environmental scenarios, collecting environmental data, and protecting natural resources. Experiences in countries such as Germany and the United States have demonstrated the effectiveness of these technologies in addressing environmental challenges (Kermani & Nayli, 2024).

D- Integrated support strategies to promote technological innovation

Since governments are the principal parties responsible for directing and developing artificial intelligence applications to achieve the objectives of the green economy, states adopt integrated support strategies to promote technological innovation and ensure its sustainable, environmentally friendly use. These strategies may be clarified through the following points:

- **Encouraging research and development**

Governments fund research projects to develop artificial intelligence applications with a positive environmental impact.

Financial grants are provided to universities, research centers, and start-ups working on technologies that serve the green economy, such as improving energy efficiency or reducing carbon emissions (Tograt, Merdassi, & Boutaba, 2017, p. 346).

- Financial incentives for companies

Governments provide financial incentives, such as tax exemptions and direct subsidies, to companies that develop artificial intelligence applications oriented toward sustainability. These incentives aim to encourage investment in green technology and increase its adoption across various sectors (Thabeti & Berkatou, p. 156).

- Launching national initiatives

Governments launch strategic initiatives to strengthen the role of artificial intelligence in the green economy. For example, national plans may be introduced to integrate artificial intelligence into natural resource management or to develop sustainable smart cities (Thabeti& Berkatou, p. 156).

- Partnership with the private sector

Governments provide opportunities for collaboration with the private sector to implement joint projects aimed at developing artificial intelligence applications oriented toward the green economy. These partnerships accelerate innovation and facilitate more effective technology transfer (Saadan & Echadli, 2024, p. 137).

- Supportive legislation

Governments adopt laws and policies that support the development and dissemination of environmentally oriented artificial intelligence technologies. These policies include providing the digital infrastructure necessary to support green artificial intelligence applications and ensuring their alignment with environmental objectives (Belassel Bent Nabi & Amrouche, p. 124).

- Education and training

Governments work to prepare a new generation of specialists and professionals in the field of artificial intelligence through educational and training programs aimed at enhancing understanding of the sustainable applications of this technology and its role in the green economy (Saadan & Echadli, p. 136).

These strategies drive technological innovation toward achieving environmental sustainability objectives, thereby ensuring a balance between economic progress and the protection of natural resources.

2.1.2-The Role of Regulatory Bodies in Ensuring the Implementation of Environmental Standards at the National Level

In Algeria, several regulatory bodies operate to ensure compliance with environmental standards, each with a specific role in strengthening environmental oversight in line with applicable laws. The following are some of the principal bodies and their roles, along with the relevant legislation:

A- Ministry of Environment and Quality of Life

The Ministry of Environment and Quality of Life in Algeria is the authority responsible for formulating environmental policies, implementing environmental programs, and ensuring quality of life by protecting natural resources and reducing pollution. The Ministry aims to achieve sustainable development through environmental legislation, awareness-raising, and international cooperation in environmental matters (Official website of the Ministry: https://www.me.gov.dz).

- **Its role:** Formulating environmental policies, monitoring the implementation of laws, and preparing national programs for environmental protection.
- **Relevant legislation:** Law No. 03-10 of 2003 relates to the protection of the environment within the framework of sustainable development. Law No. 03-10, dated 19 July 2003, concerning environmental protection within the framework of sustainable development, Official Gazette of the People's Democratic Republic of Algeria, No. 43, issued on 20 July 2003, as amended and supplemented.

B- National Fund for the Environment and the Coast (FNEL)

The National Fund for the Environment and the Coast (FNEL) is a financial mechanism aimed at financing environmental projects, supporting coastal protection, and implementing environmental measures in Algeria. It was established pursuant to Executive Decree No. 20-157 dated 8 June 2020, which determines the modalities for managing the special allocation account of this fund.

- Its role is to finance environmental projects, support emergency interventions for coastal protection, and promote sustainable development.

*- Relevant legislation: Executive Decree No. 02-507 of 2002 concerning the establishment of the National Fund for the Environment and the Coast. Executive Decree No. 02-507 dated 2002, determining the modalities for the establishment and management of the National Fund for the Environment and the Coast in Algeria, Official Gazette No. 42, 2002.

C- Provincial Directorates of the Environment

- Their role includes monitoring industrial, agricultural, and service activities at the local level; implementing environmental policies; and inspecting classified establishments.

- Relevant legislation: Executive Decree No. 03-434 of 2003 regulates the functioning of the Provincial Directorates of the Environment. Executive Decree No. 03-434 of 2003 regulating the functioning of the Provincial Directorates of the Environment, Official Gazette No. 41, issued on 15 August 2003, as amended and supplemented.

D. Environmental Police

The Environmental Police is based on Law No. 03-10, which is related to environmental protection. Its functions include the following:

-Industrial and agricultural activities should be monitored to ensure compliance with environmental standards.

-Enforcing penalties against violators in accordance with environmental laws.

-Intervening in cases of environmental pollution and taking the necessary measures to limit damage (Mekaddes, 2019).

-Relevant legislation: The Algerian penal Code, which contains provisions related to environmental protection and the punishment of violators. Articles 432, 433, and 434 of Penal Code No. 15-19 dated 30 December 2015, Official Gazette No. 71 of 2015, address environmental damage and stipulate penalties for offenders.

E- Interministerial Committee Responsible for Examining Risk Studies

- Its role: Assess the environmental risks of major projects and ensure compliance with environmental standards prior to the granting of licences (Mohamed Ben Moussa Omar, 2019, p. 68).

- Relevant legislation: Executive Decree No. 2006-141, which establishes the maximum permissible limits for industrial discharge. Executive Decree No. 2006-141 dated 20 Rabi' al-Awwal 1427 corresponding to 19 April 2006, regulating the maximum permissible limits for liquid industrial discharge.

Regulatory bodies also play a fundamental role in ensuring the implementation of environmental standards for artificial intelligence technologies, thereby contributing to achieving green economy objectives. Their role includes the following aspects:

- **Continuous monitoring and evaluation:** Regulatory bodies oversee projects that utilise artificial intelligence to ensure compliance with environmental standards. This includes periodically assessing the environmental impact of technological applications and identifying any violations that may cause environmental harm.
- **Enforcement of laws and legislation:** Regulatory bodies are responsible for implementing national environmental legislation, including laws on emissions reduction and electronic waste management. These bodies ensure that companies and institutions comply with sustainability standards during the design and implementation of artificial intelligence technologies (Saadan & Echadli, p. 136).
- **Issuance of licences and approvals**: Projects based on artificial intelligence cannot be implemented without regulatory approvals. These bodies examine the extent to which projects comply with environmental standards before granting the necessary licences.
- **Awareness and guidance**: Regulatory bodies guide companies and institutions toward the sustainable use of artificial intelligence. They provide training programs and guidelines to educate relevant stakeholders on best environmental practices.
- **Addressing violations:** In the event of violations or environmental damage resulting from artificial intelligence

applications, regulatory bodies take strict measures such as imposing fines, suspending projects, or obliging responsible entities to remedy the damage (Mohamed Ben Moussa Omar, p. 69).

- **Coordination among concerned parties:** Regulatory bodies act as a link between the government, companies, and civil society to ensure the adoption of a comprehensive approach to achieving environmental objectives through artificial intelligence.

Through these roles, regulatory bodies help strengthen compliance with environmental sustainability standards, thereby ensuring a balance between technological progress and environmental protection at the national level.

Several executive decrees have stipulated the bodies responsible for environmental monitoring and protection, including for example, Executive Decree No. 2000/324 dated 25 October 2000, determining the powers of the Minister of Water Resources, Official Gazette No. 63 issued on 25 October 2000; Executive Decree No. 2000-135 dated 20 June 2000, determining the powers of the Minister of Public Works, Regional Planning, Environment and Urban Development, Official Gazette No. 36 issued on 21 June 2000; and Executive Decree No. 01/09 dated 7 January 2001, concerning the organisation of the central administration within the Ministry of Regional Planning and Environment, Official Gazette No. 04 issued on 14 January 2001.

2.2- International Cooperation to Enhance the Role of Artificial Intelligence in the Green Economy

In light of increasing global environmental challenges, international cooperation has become an urgent necessity to strengthen the use of artificial intelligence in supporting the objectives of the green econ

my. Such cooperation constitutes a principal factor in unifying global efforts and establishing common rules that ensure the responsible and sustainable application of this technology. Through international agreements and partnerships among states, the transfer of knowledge and expertise may be enhanced, and innovative technological solutions may be developed to advance sustainable development and accelerate the transition toward a more environmentally friendly economy.

1.2.2-The Role of International Agreements in Establishing Common Rules for the Use of Artificial Intelligence in Sustainability

International agreements constitute an important regulatory framework for establishing common rules governing the use of artificial intelligence to promote environmental sustainability and a global green economy. These agreements contribute to addressing environmental issues and challenges arising from the use of artificial intelligence through multiple mechanisms, including the following:

A. Harmonisation of international standards: International agreements aim to unify the rules and standards governing the design and implementation of artificial intelligence applications. For example, such agreements may establish common requirements for reducing energy consumption, using recyclable materials, and limiting carbon emissions during the operation of technologies (Naasani & Al Malki, 2017, pp. 96–97).

B. Enhancing cooperation among states: International agreements provide a framework for exchanging information and expertise on best practices for implementing artificial intelligence responsibly and sustainably. This cooperation assists less developed countries in adopting sustainable solutions without the need for substantial additional resources.

C. Management of environmental risks: Agreements outline general principles for addressing environmental risks arising from artificial intelligence, such as electronic waste and potential negative environmental impacts. These common rules ensure that states assume responsibility for managing such risks effectively (Kermani & Nayli, pp. 122–123).

D. Global legal commitment: Upon signing international agreements, states become legally bound to comply with the rules contained therein. This commitment provides guarantees for the implementation of technological projects in a manner consistent with environmental sustainability objectives (Bacha & Bersouli, 2020, p. 112).

E. Encouraging investment in green technology: Through international agreements, states and multinational companies are encouraged to invest in artificial intelligence technologies oriented

toward the green economy, thereby advancing innovation and sustainability at the global level (Kermani & Nayli, n.d., p. 123).

F. Promoting joint innovation: International agreements provide a supportive environment for joint innovation among states, enabling cooperation in the development of artificial intelligence technologies that help address global environmental challenges such as climate change and natural resource management.

International agreements, therefore, play a pivotal role in providing a roadmap for regulating artificial intelligence to advance environmental sustainability and the green economy, thereby reinforcing global efforts to achieve sustainable development.

Subsection Two: The Importance of Partnerships among States for Knowledge Transfer and the Development of Innovative Technological Solutions Supporting the Green Economy

Partnerships among states for knowledge transfer and the development of innovative technological solutions to support the green economy have become essential for addressing environmental challenges and promoting sustainable development. The following examples illustrate such partnerships:

-Partnership between the Global Green Growth Organisation and the United Nations Development Programme (2024): An agreement was signed during the Conference of the Parties (COP29) to strengthen cooperation in supporting a sustainable low-carbon economy and accelerating progress toward achieving the objectives of the Paris Climate Agreement, with a focus on carbon markets and climate change adaptation ("COP29: Partnership between the Global Green Growth Organisation and the United Nations Development Programme," 2025).

-Cooperation between Germany and Sweden in the green economy: Germany and Sweden are among the leading countries in terms of adopting green economic policies, co-operating on the development of renewable energy technologies and promoting innovation in environmental sustainability ("The Green Economy Thrives in Germany," 2025).

-Green economy projects in Arab countries: There are increasing efforts in Arab countries to launch environmentally friendly projects based on renewable energy and clean technology to

achieve sustainable economic development (Kermani & Nayli, n.d., p. 125).

-The Paris Climate Agreement (2015): This agreement aims to limit the rise in global temperatures and promote the transition toward a low-carbon economy ("Climate Action," 2025).

-The World Green Economy Summit (2023): An international platform aimed at strengthening cooperation in the fields of renewable energy and green finance.

-These partnerships help states exchange knowledge and expertise and develop innovative solutions to address environmental challenges (Daas, 2011).

International partnerships play a vital role in strengthening environmental sustainability efforts by exchanging knowledge and expertise and developing innovative technological solutions that support the green economy. Through cooperation among states, numerous benefits are achieved that enhance the utilisation of artificial intelligence in attaining sustainability objectives. The details include the following:

- **Exchange of expertise and technical knowledge:** International partnerships provide opportunities for more advanced countries in the field of artificial intelligence to transfer their expertise to less advanced countries (Kermani & Nayli, n.d., pp. 125–126). This includes providing support for human resource training and transferring technologies that help address local and global environmental challenges (Mejaji, 2009).
- **Promoting joint technological innovation:** Through cooperation among research teams from different countries, innovative technological solutions are developed that combine best practices and global expertise. For example, artificial intelligence tools may be designed to manage natural resources more efficiently or to develop technologies for analysing environmental data.
- **Addressing shared environmental challenges:** International partnerships enable states to work collectively to address global challenges such as climate change, water pollution, and deforestation. Artificial intelligence can serve as an effective tool for analysing these issues and providing intelligent and sustainable solutions (Mahdi & Faek, 2009, p. 351).

- **Encouraging the transfer of green technology:** Partnerships facilitate its adoption on a global scale, thereby improving energy efficiency and reducing carbon emissions. These technologies may include artificial intelligence-based solutions to enhance agricultural efficiency or waste management (Kermani & Nayli, n.d., p. 127).
- **Strengthening investment in joint projects**: Cooperation among states encourages the establishment of joint economic projects aimed at achieving sustainability through artificial intelligence, such as the development of smart cities or renewable energy applications (Djamal El Din, 2017, p. 68).
- **Reinforcing compliance with global environmental rules**: Through international partnerships, states are more inclined to adhere to common standards and rules governing the use of artificial intelligence to achieve sustainability objectives (Naasani & Al Malki, 2017, p. 96).

These partnerships contribute to building a solid foundation for achieving sustainable development through artificial intelligence and strengthen global cooperation in terms of reaching innovative solutions that support the green economy and protect the environment.

Conclusion:

In conclusion, artificial intelligence is a pivotal tool for achieving a green economy and environmental sustainability. However, regulating its use requires the establishment of a comprehensive and precise legal framework. Such a framework must ensure that artificial intelligence applications align with environmental legal principles by enacting binding legislation that safeguards natural resources and supports sustainable technological innovation.

Similarly, international cooperation represents a cornerstone in strengthening this regulatory framework through joint agreements that establish unified legal standards and facilitate the exchange of expertise among states, thereby ensuring the optimal use of artificial intelligence technologies. In this context, specialised regulatory bodies are among the most important mechanisms for ensuring compliance with environmental laws at both the national and international levels.

This legal regulation contributes to achieving a balance between economic innovation and environmental preservation, thereby

ensuring the attainment of sustainable development objectives for present and future generations within a clear, binding legal framework.

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