The Legal Framework for Environmental Protection in the Hashemite Kingdom of Jordan

Analysis of the Environmental Protection Law No. 52 of 2006

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Abstract

The purpose of this paper is to present a comprehensive analysis of the legal framework of environment protection in the Hashemite Kingdom of Jordan, (referred to as Jordan). It sheds light on the adequacy and effectiveness of the Jordanian laws in protecting the environment by examining existing obstacles and challenges to enforce the law such as the overlap and contradictory provisions with respect to fines and penalties of the different Jordanian laws related to the environment. This makes it difficult for concerned judges to decide which law applies to the case, which results in delays in reviewing and ruling environmental cases by the courts. The paper sheds light on pollution and resources depletion which has become worrisome and pose a threat to the environment of the country. In addition, the paper reflects on the role of the civic society, government entities and their efforts in protecting the environment by addressing environmental problems and working towards sustainable development. Finally, the paper proposes a set of recommendations to enhance Jordan' environmental legal framework to ensure it protects and improves the environment in the country.

Keywords: environmental law, policy, environment, legal framework, pollution, sustainable development, environmental protection

1. Introduction

Scientific and technological development, uncontrolled economic and socio-cultural activities, and unsustainable exploitation and usage of natural resources have contributed to severe environmental degradation, and spread of pollution which poses threats to humans and natural habitats. This situation called for interventions from countries, individuals and organizations to search for appropriate solutions to protect and improve the environment. To achieve good results, a strong legal framework is required.

International efforts were exerted to reach international agreements, which include binding legal rules, among different countries to combat and prevent pollution, mitigate and minimize pollution risks, and enforce environment protection (Adelwahab & Alfar, 1985). Jordan embraced international efforts to protect the environment, signed the international treaties, encouraged and supported the non-profit organizations in protecting the environment in Jordan and prevention of pollution, and passed the First Environmental Protection Law No.12 of 1995, under which the Department of Environment (DOE), that was part of the Ministry of Municipalities and Rural Affairs) became an independent Corporation that is financially and administratively independent. This Law was later amended and issued by the Government as a Temporary Law cited as the Temporary Environmental Protection Law No.1 of 2003, under which the Ministry of Environment was created in 2003 and the DOE was abolished. In 2006, this Law was approved by both Houses of Parliament and ratified by King of Jordan, and was cited as the Environmental Protection Law No. 52 of 2006, and became effective on October 10th of 2006.

But, there are other Jordanian laws, which are enforced in the country, that deal with environment related issues as well. These laws have overlapping and contradictory provisions to the Environmental Protection Law No. 52, such as the Agriculture Law No. 20 of 1973 and Public Health Law No. 21 of 1973, and others (Al-Sharari & Jabir, 1992). The paper will address this issue in following sections.

2. Research Design and Procedure

This research is qualitative. Theoretical approach and analytical examination of the Environmental Protection Law Jordanian No. 52 of 2006 was followed in comparison with some Jordanian laws related to the environment. In addition, a review of relevant sources and references was conducted.

3. Definition of the Environment

Humans and the environment have an interrelated relationship; humans are dependent on the environment which relies on mankind to improve and sustain it. The subject of anthropogenic climate change first witnessed attention in the United Nations Conference on the Human Environment that was held in Stockholm Conference in June 1972. The conference considered the need for a common outlook and for common principles to inspire and guide the peoples of the world to protect the human environment. The Conference called upon Governments and peoples to exert common efforts for the preservation and improvement of the human environment, for the benefit of all the people and for their posterity (United Nations [UN], 1972). The conference had three major outcomes: 1) a declaration named "Declaration of the United Nations Conference on the Human Environment", commonly known as the "Stockholm Declaration", which contains 21 principles; 2) an Action Plan that contains 109 recommendations which were adopted by Participating States by consensus. The Action Plan identifies specific environmental actions to address environmental issues and divides them into categories: a global environmental assessment program ("Earthwatch"); environmental management activities; and international measures to support the national and international actions of assessment and management; and 3) the establishment of a new institution the United Nations Environment Program (UNEP) to serve as a focal point within the UN system for the promotion and coordination of the international environmental agenda (Galizzi, 2005).

The first principle of the Stockholm Declaration gives the sole responsibility of environment protection and enhancement to humans as it states " *Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations. In this respect, policies promoting or perpetuating apartheid, racial segregation, discrimination, colonial and other forms of oppression and foreign domination stand condemned and must be eliminated."*

The general definition of the environment includes all the living (humans, animals, flora and fauna, and micro-organisms) and non-living things (e.g. matter, geography, energy, historical, cultural and aesthetic components, and built environment) and the interaction between them.

The Jordanian Environmental Protection Law No. 52 of 2006 Article II thereof defines the environment as "*The surroundings that include living and non-living beings and matter and all of the components of the surroundings in terms of air, water and earth and the interaction thereof and things erected by Man thereof.*

The Egyptian Environmental Protection Law No. 4 of 1994 in Chapter 1 Article I define the environment as "The biosphere which encompasses living organisms together with the substance it contains and the air, water and soil that surrounds it as well as the establishments set up by man".

The above definitions of the environment do not only list the different components of the environment, but emphasize the relationship and interaction between humans and its surrounding environment.

4. Environmental Threats, Challenges and Protection

The global, regional and local environments face numerous threats, dangers and challenges, as a result of human activities, and in some cases due to natural disasters. This paper will present the most threatening sources of environmental dangers and the legal framework for the protection of the environment.

The Jordanian Environmental Protection Law No. 52 of 2006 Article II thereof defines the environmental protection as: "Protection of the components and elements of the environment and improvement of same and prevention of the deterioration or pollution thereof or the reduction thereof to within the safe pollution thresholds, and these components include the air, the water, the soil, natural beings and Man, and the resources thereof."

The Government of Jordan has been keen on the rational use of its natural resources, prolonging the use of non-renewable resources by considering different alternatives, and achieving economic development whilst sustaining a healthy natural balance and ensuring pollution prevention (Algendy, 2000).

4.1 Pollution

Pollution whether it is originating from nature or resulting from human intervention in environmental

ecosystems poses an immense threat to the environment and endangers human lives. Since human beings inhabited this earth, they have been facing pollutants emitted from natural components of the environment itself such as natural disasters causing epidemics, famine, and etc. (Alqassas, 2000). With technological progress, the environment has become contaminated with pollutants caused by industrial effluents and noxious wastes, in addition to the misuse of natural resources leading to ecological imbalance and poses a threat to the environment (Mekhamer, 1984).

There are many opinions with regards to defining pollution. The Stockholm Conference defined pollution is as: "Human activities which inevitability lead to compounded introduction of substances, and sources of energy to the environment in which these substances threatens and endangers human health and natural resources and habitats, in this case we are subject to pollution".

According to the Environmental Protection Law No. 52 of year 2006, Jordan, Article 2, the Jordanian Legislator defined pollution "*Any change in elements of the environment that might lead directly or indirectly to harming the environment, or negatively affecting its elements or affecting Man's exercise of his natural life, or upsetting the natural balance*".

And since pollution is considered one of the oldest and most common dangers that face the environment and human beings, individuals, groups and states are obliged and are responsible for preventing and overcoming this problem. One of the most important instruments required to protect the environment is having a strong legal framework that deals with this issue and aims to improve the right of persons to live in clean environment free from pollution (Alabiedy, 2011).

4.2 Environment Deterioration and Depletion of Its Resources

The United Nations has warned from environmental deterioration resulting from economic, agriculture and industrial activities that is practiced by humans. It has continuously called for commitment from countries to take affirmative actions to combat and prevent harmful effects leading to further environmental degradation and to work towards improving the environment. It is evident that vast areas of green lands are facing desertification. The General Secretary has announced that desertification and drought are threatening the lives of more than one billion human in more than 110 country in the world (UN, 2003).

Jordan, similarly to other countries, is encountering environmental deterioration due to the severe overexploitation of its natural renewable and non-renewable resources, encroachment of urban construction and diminishing agricultural land due to uncontrolled grazing and logging. As a result, desert land has been increasing in Jordan and currently constitutes about 84% of the total area of the country (Alseoud, 2000).

Jordan is one of the poorest countries in the world with respect to water resources. Statistics and studies confirm that the Jordanian citizen's annual share of water does not exceed 150 cubic meters which is drastically lower the water poverty line of 1,000 cubic meters per person per year (Alkharbshah, 2013).

Furthermore, the continuous flow of refugees from neighboring countries into Jordan, has led to an incessant extra demand for water, and has resulted in further degradation of the environment and over exploitation of the natural resources of the country. The newly set up refugee camps with inadequate sanitary services, and water supplies had also negative effects on neighboring agricultural land and water resources.

4.3 Intentional Damage to the Environment

Intentional damages to the environment are defined as impairments caused by acts committed intentionally and have a detrimental effect on the environment, any of its components, and/or living organisms and their surroundings. The Jordanian Civil law deals with this matter in article 256, which requires the person or entity that causing the harm or damage to pay compensations.

The Jordanian Environmental Protection Law No. 52 for the year 2006 uses various terminologies to describe harmful effects resulting in environmental damage, and illegitimate prohibited acts by law to refrain persons and entities from inflicting damage to the environment. It also sets fines and penalties for violators. For example, paragraph (a) of Article 9 punishes with imprisonment for a period of not less than one year and not exceeding three years or a fine of not less than ten thousand Jordanian dinars (1 JD is equivalent to \$US 1.40) or both penalties for the captain of the ship or tanker or boat that has thrown or poured from any of them contaminated substances in the territorial waters of the Kingdom or beach area. Also, paragraphs (a) of Item 1 of Article 11 states *"It is forbidden to dump, dispose of, or collect any materials harmful to the environment, whether such materials are solid, liquid, gaseous, radioactive or thermal, in the sources of water"*. The punishment, penalties and fines for any person or entity perpetrating the acts in paragraph (a) are set in paragraph (b) of the same Article. Violators face imprisonment of not less than three months and not exceeding two years or a fine of not

less than ten thousand dinars and not more than fifty thousand dinars or both penalties, or both, and it obliges to remove the causes of violation within the period specified by the court on the basis of a technical report. If the perpetrator fails to meet this obligation, the ministry or its delegate will remove this violation at the expense of the perpetrator. The ministry will charge an additional 25% of the total cost of the removal as administrative expenses, and will fine the perpetrator with an amount not less than fifty dinars and not more than two hundred dinars for each day s/he fails to remove the violation after the end of the period set by the court.

The intentional damage to the environment is one of the worst environmental crimes especially if it is caused by the State itself. Examples of such acts include but not limited to: the burning of oil wells, intentional contamination of drinking water or rivers in wars or intentional discharging of untreated waste water into the sea.

Acts that are committed against the environment and its components are considered international crimes as stated in the text of Article 55 of the Additional Protocol I to the four Geneva Conventions issued in 1977 which obliges Participating States to protect the natural environment during act of war and bans revenge attacks against the environment (Series of International Humanitarian Law No.9, 2008).

5. The Development of Environmental Legislations

5.1 International Environmental Legislation

Since the beginning of this century, the world has taken long strides in developing internationally binding legislative instruments such as conventions, treaties, protocols and national laws, aiming to protect the environment. And, the environmental international legislation has developed to become what is currently named the International Environmental Protection Law.

There are more than 155 international conventions and agreements relevant to the environment. The Jordanian Government has ratified many of these agreements, and considers them as main sources for the Jordanian Environmental legislative framework. Article 5 of the Jordan Environmental Protection Law No. 52 of 2006 explicitly stresses the implementation of these agreements. This Article states: *"The Ministry, in cooperation and coordination with bodies concerned with environment matters on the local, Arab and international levels, shall be responsible for protecting the elements and components of the environment from pollution and shall endeavor to execute agreements concerning environment matters."*

The international environmental legislation was developed after the Stockholm Conference in 1972 which stressed the important relationship between the environment and development. The Conference emphasized the human right to clean environment free from pollution, and recognized the threat imposed by the continuous increase in human population, which results in uncontrolled and overexploitation of natural resources and habitats leading to environmental deterioration. The Participating States agreed on the creation of a new institution the United Nations Environment Program (UNEP) to serve as a focal point within the UN system for the promotion and coordination of the international environmental agenda in1972.

In 1981, the African Charter on Human and Peoples Rights (also known as the Banjul Charter) was adopted. Article 24 of the Charter recognizes the right of people to "*a general satisfactory environment favorable to their development*". Similarly, the Organization of American States affirmed the right of every person to live in a safe and healthy environment in the Additional Protocol to the U.S. Charter on Human Rights (Protocol of San Salvador).

In 1982, World Charter for Nature (known as the IUCN) was adopted. In Principle 23, it reaffirmed that: "All persons, in accordance with their national legislation, shall have the opportunity to participate, individually or with others, in the formulation of decisions of direct concern to their environment, and shall have access to means of redress when their environment has suffered damage or degradation".

In 1992, the Earth Summit was held in Rio de Janeiro. Jordan participated in the Summit. Important conventions were presented during the Summit which formed the basis of the international Environmental Protection Law. These conventions include (Kashash, 1998):

- Convention on Biological Diversity that aims to protect the biodiversity and the distribution of natural resources fairly among member states.
- Convention on climate Change that requires developed (industrial) countries to diminish pollution by reducing and controlling industrial emissions into the atmosphere.
- United Nations Convention to Combat Desertification that aims at combating desertification and mitigating the effects of drought in countries suffering from desertification.

• World Summit on Sustainable Development which was held in Johannesburg in 2002 in South Africa. The Summit focused on translating development plans to action plans, and it requested to take binding measures to provide adequate financial resources necessary for sustainable development.

5.2 Jordanian Environmental Legislation

Since the creation of the modern state of Jordan, the Government of Jordan has been keen to protect the rights and freedoms of individuals as mandated by Article 7 of Chapter 2 of the Constitution of 1952 and its amendments of 2011; "1) Personal freedom shall be guaranteed; 2) Every infringement on rights and public freedoms or the inviolability of the private life of Jordanians is a crime and punishable by law". And since clean healthy environment is considered a fundamental human right, the Jordanian legislators considers inflicting harm to the environment a criminal act punishable by law. In addition, preserving and protecting the environment from pollution is a sacred duty for present and future generation. Moreover, the Constitution gives the legislative authority the right to issue laws to protect the environment of the country. However, environmental protection was not a priority to the Government until the late 90's. As such, the legislators partially tackled environmental issues by including environment related provisions in a number of Jordanian Laws.

For example, the Jordanian Penal Code No. 12 of 1960 Article 449 Item 1 states that "*Any individual that cut or damage plantations, trees or bushes that grow in nature or are planted by others and/or releases animals to intentionally to destroy them will be punished by imprisonment from one week to three months or a fine of five dinars to twenty-five dinars, or both*". Also, stipulated in Article 458 of the same law "*Anyone who intentionally contaminates a source of drinking water will be punished by imprisonment of one to three years and a fine of not more than fifty dinars*". It is obvious that the penalties and fines set by the Penal Code are extremely low and inadequate with the severity of the harm and damage inflicted by the perpetrators on human health and the environment.

Other Jordanian laws that include environment related provisions which are:

- 1) Crafts and Industries Law No. 16 of 1953
- 2) Civil Defense Law No. 12 of 1953
- 3) Municipalities Law No. 29 of 1955
- 4) Cities, Villages and Buildings Organization Law No. 79 of 1966
- 5) Jordan Valley Development Law No. 19 of 1968
- 6) Housing Corporation Law No. 27 of 1968
- 7) Public Health Law No. 21 of 1971
- 8) Agriculture Law No. 20 of 1973

In the 1980's, the Government recognized the fact that these laws cannot provide adequate legal framework to protect the environment, and keep pace with developments in contemporary life. Therefore, the Government adopted a new policy to address environmental issues which included the amendment of some laws, and the creation of the Department of Environment (DOE) in 1980 under the Ministry of Municipalities and Rural Affairs. The DOE was tasked to draft a National Environment Strategy to address international environment related obligations and overcome existing national administrative and legal challenges with respect to dealing with environmental issues. The first Jordanian Environment Strategy was adopted in 1992. It tackled multiple sectors and called for the draft of an Environmental Protection Law.

The First Environmental Protection Law No.12 of 1995 was passed and became effective in 1995. This Law was later amended and issued by the Government as a Temporary Law cited as the Temporary Environmental Protection Law No.1 of 2003 and DOE was abolished, and the Ministry of Environment was created pursuant to this Law. In 2006, this Law was approved by both Houses of Parliament and ratified by King of Jordan, and was cited as the Environmental Protection Law No. 52 of 2006, and became effective on October 10th of 2006. The paper will later discuss this law, and the challenges of enforcing it in the country in details.

6. The Legal Framework for Environmental Management in Jordan

6.1 Government Institutions

There are a number of ministers and government organizations that have environment related duties and responsibilities as mandated by the Jordanian Laws. This creates ambiguity and overlapping responsibilities with regards to managing and protecting the environment. However, as stipulated by the Environmental Protection Law No. 52, the Ministry of Environment is deemed the competent entity to protect the environment of the Kingdom

and reference at the national, regional and international levels as regards to environmental matters and affairs. It is expected to cooperate and coordinate with other competent parties (government and non-government organizations) in fulfilling its responsibilities. Some of these institutions are mentioned below:

• **Ministry of Health:** pursuant to the Public Health Law No. 47 of 2008, the Ministry is the competent authority accountable for the protection of public health in the country. It is also responsible for monitoring the water and food quality to ensure its safety and adequacy for human consumption.

• **Ministry of Water and Irrigation:** in accordance to the Water Authority Law No. 18 of 1988 and its amendments, the Ministry is responsible for water protection and pollution prevention; modernizing and implementing water policies; execution of water projects such as the construction of dams in the country; and caring for and defending Jordan's water rights in the region. The Ministry is comprised of two government entities: the Water Authority and the Jordan Valley Authority

• **Ministry of Agriculture:** the Agriculture Law No. 44 of 2002 provided the Ministry of Agriculture with the responsibility of protecting various environmental elements including soil, flora and fauna. The law also gave the Ministry the authority to monitor the quality of local and imported food products, pesticides and insecticides sold in the local market to ensure that they meet the Jordanian Standards and do not contain harmful material to the environment and human health.

• The Standards and Metrology Organization: is entrusted in ensuring the health and safety of Jordanians and protection of the environment by issuing adequate national standards and making sure that local and imported products are in compliance with the these standards and any other technical regulations adopted by the Organization for the purpose.

• **Ministry of Municipal and Rural Affairs:** according to the Municipal Law No. 13 of 2011, the responsibilities of this ministry are to plan urban and rural areas (zoning), provide construction licenses and collect solid waste.

• Nuclear Regulatory Commission: pursuant to the Radiation Protection, Nuclear Safety and Security Law No. 43 of 2007, Article 4, "the commission, in cooperation and coordination with concerned authorities aims to achieve the following: 1) regulating and monitoring the use of nuclear energy and ionizing radiation, 2) protecting environment and human health and property from the hazards of radiation and related pollution, and 3) ensuring the availability of conditions and requirements of general safety, radiation protection, and nuclear safety and security". As per Article 5 of the same Law, the Commission is responsible for granting licenses and permits for nuclear facilities, radiation institutions and workers operating in the radiation and nuclear fields.

• **Royal Administration for Environmental Protection:** the administration was first introduced in 2006 under the name of Environmental Police Administration. On December 15th of 2008, the administration was renamed as the Royal Administration for Environmental Protection. The purpose of this administration is to introduce the concept of environmental security. It does so by applying and implementing policies and national legislations that protect the Jordanian environment. The administration derives its authority from the eighth and ninths articles of the Criminal Procedure Code. The administration acts as police officers authorized to track environment related crimes and enforcing the laws in the Kingdom (Al Zoghby, 2013).

• **The Ministry of Environment:** was established as pursuant to the Temporary Environmental Protection Law No. 1 of the year 2003. It is the competent entity to manage and protect the environment of Jordan. This Law defined the ministry's functions, duties and powers, which will be discussed in more details in section 6.3.

6.2 Civil Society's Organizations

Civil society's organizations have been playing a prominent role in spreading environmental awareness through outreach programs. They were successful in adding environmental content into school curriculums and creating environmental social clubs. These organizations have also been working towards finding a sustainable balance between economic development and the protection of the environment (Yehya, 2003). The organizations have been very active in managing environmental matters and affairs, and addressing environmental problems and challenges in collaboration with government agencies.

• The Royal Society for the Conservation of Nature (RSCN): was established in 1966 and was the first non-profit organization to deal with biodiversity protection. The Ministry of Agriculture delegated the responsibility of nature reserves management in the Kingdom and protection of the country's wildlife to RSCN. The society is also responsible for implementing the International Convention on International Trade in Endangered Species (CITES) that prevents the trafficking of endangered wildlife (plants and animals that face extinction). Furthermore, it manages and controls hunting areas and provides hunting licenses.

• Jordan Environment Society (JES): was established in 1988. The primary objective of JES is to protecting the environment and its basic elements (water, air, soil and wildlife). JES collaborates with other organizations and concerned individuals and specialists to identify environmental problems and find solutions for them. And, it works towards the adoption of policies and application of necessary standards and procedures to protect the environment, and control pollution in the country. Furthermore, it promotes environmental awareness to all sectors of the society and helps create individual and national commitment to preserve the environment and deal with environment related issues.

• Jordanian Society for Desertification Control and Badia Development: was established in 1990 upon the recommendations of the permanent committee for desertification control adopted by the League of Arab Countries. The main objectives of the society is to conduct research and studies to determine the causes of desertification, develop and implement solutions to combat desertification, protect agricultural land and the wildlife affected by desertification to maintain environmental balance. In addition, it oversees the construction of dams in the Jordanian deserts for the purpose of water harvesting.

• Friends of the Environment Society-Jordan: was established in 1995 and aims to create an environmentally conscious generation. It works mainly with schools to educate young school children in order to increase their environmental awareness. The society collaborates with the private sector, government organizations and other non-profit societies to address Jordan's chronic environmental issues and to reach sound comprehensive solutions.

All the afore-mentioned societies play vital roles towards achieving a balanced sustainable environment. The Jordanian Environmental Protection Law supports these societies. Article 15 of the Law calls for the formation of an advisory committee where the NGOs concerned with the environment can be members of this committee. In addition, Article 23 states: "the Ministry, upon the approval of the Council of Ministers, may delegate any of it is duties and powers to any ministries, corporation or volunteer organizations concerned with the field of environmental protection, provided that such delegation shall be specific and in writing".

In Jordan, the civic societies generally face a number of obstacles that hinder their capabilities in achieving their goals which include: weak administrative performance due to the limited number of volunteers; insufficient financial resources to support their activities; lack of access to required environmental information and data; and poor coordination among themselves. In order to achieve the ultimate goal of protecting and preserving the environment they must primarily enhance the cooperation, coordination and collaboration with one another to overcome some of these obstacles (Mosalha, 1996).

6.3 Environment Protection Law No. 52 of 2006

In 2006, the Temporary Environmental Protection Law No. 1 of 2003 was passed by the Upper and Lower Houses of Parliament and ratified by the King. It became permanent and was cited as the Environmental Protection Law No 52 of 2006. It came into effect on October 10^{th} of 2006

The law contains 27 articles that include definitions, general principles, objectives, and duties and powers of the Ministry of Environment. It also sets the principles for cooperation and coordination between the Ministry and local, regional and international organizations that work in the environment field, in order to achieve the goals of protecting the environment and improve its various elements in a sustainable manner.

As per Article 4 of this Law, the Ministry's duties are:

• Developing a general policy to protect the environment and preparation of various plans, programs and projects necessary to achieve sustainable development.

Drafting the specifications and standards for the various elements of the environment.

• Monitoring and measuring the elements of the environment and its components. And, monitoring and supervising the public and private corporations, companies, and projects. The purpose of this function is to ensure compliance with environmental specifications and standards. This function is done in coordination with competent scientific centers and labs authorized by the Ministry.

• Issuing environmental instructions, pursuant to this law, to protect the environment and its elements and setting the licensing conditions for the establishment of entities (companies, projects) operating in various economic sectors including but not limited to agriculture, industrial, mining, and others.

• Setting the principles for handling harmful and hazardous material to the environment. This includes classifications, collection, transportation, storage, destruction and disposal. A specific regulation shall be drafted for this purpose.

• Approving the establishment of nature reserves and national parks and supervising and monitoring their management.

Preparation of environmental emergency plans.

• Conducting environment related research and studies and issuing publications related to the environment including State of the Environment reports.

• Strengthening the relationship between the Kingdom and Arab, regional and international states and concerned authorities and organizations in matters related to protecting the environment. In addition, enhancing cooperation in implementing international environment related conventions and agreements.

Pursuant to Article 25 of the Law, the Council of Ministers shall issue regulations necessary for the execution of the Law which include:

1) Nature Protection Regulation (not issued)

2) Environment Protection from Pollution in Emergency Situations Regulations (No 26 of 2005; issued pursuant to Temporary Environmental Law No. 1 of 2003)

3) Water Protection Regulation (a draft was prepared in 2005 but was not issued)

4) Air Protection Regulation (No. 28 of 2005; issued pursuant to Temporary Environmental Law No. 1 of 2003)

5) Marine Environment and Coastal Protection Regulation (No 51 of 1999; issued pursuant to Environmental Law No. 12 of 1995 which was later amended and cited as Marine Environment and Coastal Protection Regulation as No. 23 of 2005)

6) Natural Reserves and Natural Parks Regulations (No. 29 of 2005; issued pursuant to Temporary Environmental Law No. 1 of 2003)

7) Management, Transport and Handling of Harmful and Hazardous Materials Regulation (No. 24 of 2005; issued pursuant to Temporary Environmental Law No. 1 of 2003)

8) Management of Solid Wastes Regulation (No. 27 of 2005; issued pursuant to Temporary Environmental Law No. 1 of 2003)

9) Environmental Impact Assessment Regulation (No. 37 of 2005; issued pursuant to Temporary Environmental Law No. 1 of 2003)

10)Soil Protection Regulation (issued; No. 25 of 2005)

11) Charges and Wages Regulation (not issued)

12)Environmental Protection Fund Regulation (No.66 of 2009; issued pursuant to the Environmental Law No. 52 of 2006)

The Law requires the public and private sector to implement the regulations, instructions and decisions issued under the provisions of this Law. The law provided the staffs of the Ministry with the Judicial Police authority to enable them to monitor and inspect environmental elements in the country.

The Law calls for the establishment of the Environmental Protection Fund to finance environmental projects and initiatives aiming at protecting the environment and conservation of its elements. In addition, and upon the recommendation of the Minister, the Council of Ministers may form a consultative committee comprised of competent members representing various entities concerned with the environment.

The Law also includes specific legal provisions for each environmental element (air, water, soil, and other components). For example, in the area of soil protection, all corporations, companies and enterprises are mandated to adhere to the terms and conditions set for the establishment of agricultural projects, development, industrial, commercial, housing, mining and other related services. Licensing of these establishment and the renewal of the license will be subject to compliance with these terms and conditions.

The Law sets the principles for handling harmful and hazardous material to the environment and entrusted the Ministry of Environment to issue a list prohibited harmful and hazardous material. Special and strict rules and regulations with regards to handling harmful and hazardous material are enforced by the government to ensure adequate monitoring and control of the entry of these materials into the country and ensuring that prohibited hazardous substances do not enter Jordan or pass through it. These rules and regulations are compliant with the requirements of the Basel Convention. Furthermore, the producers and handlers of hazardous materials and waste, whether in gaseous, liquid, and solid, radioactive or in thermal form, must take necessary precautions to ensure avoidance of inflicting harm or damage to humans and the environment. They are also required to

maintain a record of these materials including the disposal method used. The Ministry is obligated to monitor these facilities and check the records to assure that they match the actual facts gathered by the Ministry. It is worth mentioning that the Ministry is currently managing the hazardous waste landfill located in Swaqa south of the capital Amman.

As for the solid waste, the Management of Solid Wastes Regulation No. 27 of 2005 addresses and sets the conditions for the management, collection, transport, disposal and recycling of solid waste.

In case of environmental related emergencies, the Environment Protection from Pollution in Emergency Situations Regulations No 26 of 2005 calls for the formation of a national committee for the protection of the environment from pollution. This committee shall be headed by the Minister of Environment and comprised of competent members representing various entities concerned with the environment.

In accordance to the Environmental Impact Assessment (EIA) Regulation No. 37 of 2005; based on the intended operation and classification of a proposed project, every corporation, company or establishment is obliged to conduct an EIA as per the requirements of this regulation prior to the buildup of a facility or execution of a project that might have adverse impact on the environment. It is a prerequisite to obtain the license for execution. Also, any future facility expansion may require the conduction of an EIA.

With regards to the environment element air, the Ministry adopts the definition of Air as defined by the Jordanian Standard (JS) No. 1140 of 2006: Environment-Air quality-Ambient air quality standards: "a mixture of gaseous that has its own natural properties and of known constitutes". It includes ambient air outdoors, in working areas, public places, and etc. Air pollution is any change in the composition of ambient air that may lead directly or indirectly to harming the environment or negatively affecting human health. This may be caused by human activities, or natural disasters. All corporations, companies and enterprises in the agricultural, development, industrial, commercial, housing, mining and other related services are mandated to adhere to the requirements of the Air Protection Regulation No. 28 of 2005. Effluents must not exceed permissible limits specified JS No. 1140.

With regards to noise pollution, the Ministry issued instructions to define the sources of noise and the maximum permissible limits. Noise is defined undesirable sounds with different frequencies leading to a sense of discomfort to individuals. Jordan adopted the International Standard ISO 2204 of 1979 and its amendments methodologies to measure airborne acoustical noise and evaluate of its effects on human beings. The instructions prohibit the use of horns, bells or alarm devices except in emergency cases and situations permitted by law. The use of loudspeakers at weddings in open areas is also forbidden. In addition, the instructions does not permit the use of construction equipment that produce loud noise between 8 pm until 6 am, except the cases that have been pre-approved by the Minister of Environment, upon recommendation of the General Secretary.

As for the protection of water, several legal texts were passed that are directly related to the subject of water, whether in the Water Authority Law No. 18 of year 1988 or the Penal Code No. 16 of year 1960, as amended, or the Environmental Protection Law No. 52 of year 2006. The Environment Law tackles mainly maritime environment related issues, and protection of sources of water including water basins. In accordance to Article 11, the Law forbids the dumping or disposal of harmful material whether solid, liquid, gaseous, radioactive or thermal in the sources of water. In addition, it does not all allow the storage of these materials in the proximity of water resources within the safe limits set by the Minister. The Water Authority Law deals with the other water related matters including drinking water, surface and ground water, waste water, etc.

The Environmental Protection Law Article 8 forbids the discharge of any polluting or harmful materials into the marine environment, in the territorial waters, or at the beach areas within the boundaries and distances specified by the Minister. Pursuant to this Law, the Ministry issued the Marine Environment and Coastal Protection Regulation as No. 23 of 2005 to protect and manage the maritime environment. The regulation defines permissible water activities such as swimming, fishing, scuba diving, and other water sports. The Ministry, in cooperation with competent authorities will conduct environmental inspection as well as monitor the maritime water quality and marine biodiversity.

As stipulated by the Environmental Protection Law, sanctions may range from administrative penalties such as revoking a business license or closure, to criminal penalties which may include imprisonment and fine payments depending on the violation, to civil penalties. The Law requires the owners of factories, vehicles, workshops or any entity that conduct activities that have adverse impact on the environment and emit environmental pollutants to install equipment and take necessary measures to prevent or reduce these emissions to within permissible limits specified by air standards. If the owner does not comply with the Law, the Minister or his delegate may refer him to the Court, which can decide to shut down the factory and punish the perpetrator by imprisonment for

a period of not less than one week and not exceeding thirty days, or by a fine of not less than one hundred Jordanian Dinars and not exceeding one thousand or both. The owner must remove the violation within the set period; otherwise he will be fined an amount of not less than fifty Jordanian Dinars and not exceeding one hundred for each day he fails to remove the violation after the set period. In addition, their license may be either suspended or revoked.

The penalties for the following environmental violations include imprisonment from three to fifteen years or fines of up to fifty thousand Dinars, or both:

- Any person who enters hazardous waste into the country.
- Any person who enters harmful materials (pollutants) illegally into the country.

• Any person who discharges any polluting or harmful materials into the maritime environment, in the territorial waters, or at the beach areas within the boundaries and distances specified by the Minister.

• Any person who picks up coral and shells and removes them from the sea, sell them or causes damage and harm to the coral reef.

• Any person who dumps or disposes harmful material whether solid, liquid, gaseous, radioactive or thermal in the sources of water.

The Jordanian law considers the safety, protection and conservation of the environment as a primary responsibility of citizens, the community and the private and public sector. It is our duty to protect the environment for future generations. As such, the Law calls for a coordinated national effort to draft a national environment strategy aiming at enhancing environmental awareness and education, collecting, analysing and dissemination of environmental data and information, as well as developing and implementing environmental projects and initiatives to improve and sustain the environment and its elements to achieve sustainable development.

7. Challenges in Enforcing the Environmental Protection Law in Jordan

> One of the challenges that hinder the implementation (enforcement) of the Environmental Protection Law is the overlap in jurisdiction and duplication of texts with other Jordanian Laws dealing with environment related issues and matters specifically conflicting punishments for violators. For example, Article 54, Paragraph (2) of The Aqaba Special Economic Zone Law No. 32 of year 2000, as amended, stipulates that in the case of violation of this provision which relates to polluting the sea or causing substantial damage to the zone, the perpetrator has to pay a fine of not less than fifty thousand and not exceeding 10 million Dinars. The perpetrator is also obliged to pay compensation and remove the violation. Whereas, the Environment Protection Law maximum fine for damaging the maritime does not exceed twenty- five thousands, mandates the removal of the violation but does not oblige the violator to pay compensation.

It is worth mentioning here that Article 20 of Environmental Protection Law states that "*Nothing in this Law shall prelude that applicability of more severe punishment provided for in any other law in force*", which means that it is up to the Courts to decide on the adequate punishment.

> Another challenge that faces the implementation of the Law is the inability of the judicial system to handle environment related cases properly and within a reasonable time frame. The judges do not have the expertise in environmental issue and are not quite familiar with all environment related legislations, binding Arab, regional and international conventions and agreements, as such it takes the court a long time to reach a resolution and make a ruling.

> Even though the staffs of the Ministry of Environment are given Judicial Police Authority, they encounter a lot of difficulties in taking affirmative actions in enforcing the law due to the absence of clear instruction to guide them.

> Overlap in the responsibilities and duties relevant to the environment protection among various government authorities which creates confusion and ambiguity in handling environment related issues and problems.

8. Conclusion

Jordanian laws pertaining to environmental protection overlap and in some cases are in conflict with one another in dealing with environmental violations which results in confusion in determining the applicable law resulting in delays in issuing a sentence. Furthermore, the set fines in these legislations and are, in most cases, inadequate with respect to the severity of environmental offenses. Thus they do not meet their purpose to preclude violators from committing an environmental offense. Offenders, environmental polluters pay those fines voluntarily without bearing huge losses.

Even though the Jordan Environment Law designates the responsibility of environment protection to the Ministry of Environment, it is still evident in the country that there is ambiguity among various government and non-governmental entities around the responsibilities and duties relevant to environment protection. This is mainly due to duality, overlap and contradiction in the Jordanian laws with respect to this matter, which creates confusion in handling environment related issues and problems.

9. Recommendations

 \checkmark Establish special environmental courts to ensure that the judges have the right expertise, capabilities and resources to consider environmental cases.

 \checkmark Develop sentencing guidelines and databases to assist judges in making fast and appropriate decisions in environmental cases. The guidelines should overcome the existing problem of conflicting sanctions stated in the different Jordanian legislations, and takes into consideration the severity of the violation.

 \checkmark Implement special advanced training programs for judges to specialize in handling environmental cases, and sufficient to meet the demand.

 \checkmark Conduct a national study to investigate compliance with Arab, regional and international conventions and agreements that were ratified by Jordan. The study should cover the legal framework to identify gaps and contradictory provisions within national laws. Based on the outcome of the study, it is recommended to amend the legislations as seen necessary.

✓ Develop a National Compliance Plan to meet Jordan's obligations towards Arab, regional and international conventions and agreements that were ratified by Jordan.

 \checkmark Consider having Environmental Ombudsman to enhance and assure the integrity and quality of the environmental administration in the country. S/he shall report to the Lower House of Parliament. His or her directive is to enquire specifically into environmental administration in the country in response to private sector or citizen's complaints, or initiated by the Ombudsman office on its own accord.

 \checkmark Issue the necessary instructions to facilitate the work and empower the staffs of the Ministry that have Judicial Police authority to assure environmental compliance in the country.

 \checkmark Conduct a national environmental awareness program with an emphasis on environmental law, international conventions and agreements. The program should address national, regional and global environmental issues and challenges such climate change, desertification, scarcity of clean drinking water, etc. and should demonstrate the legislative role in combatting these problems.

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