

Annex 41



Environment protection law number (42) for year 2014

With it's modification by law number (99)
for year 2015



Law No. 42 of 2014

As amended by

Law No. 99 of 2015

Promulgating The Environment Protection Law

1. Having perused the constitution,
2. and the penal law promulgated by law no. 16 of 1960, and amending laws thereto,
3. and the law No. 17 of 1960 on promulgating the penal procedure code and amending laws thereto,
4. and the law No. 12 of 1964 regarding the prevention of polluting navigational water with oil, and amending laws thereto,
5. and the law No. 30 of 1964, of establishing the Audit Bureau, and amending laws thereto,
6. and the law No. 37 of 1964 of establishing the Central Tenders Committee, and the amending laws thereto,
7. and the Decree issued for determining the width of the regional territorial seawaters of the State of Kuwait on 17/12/1967
8. and the law No. 28 of 1969 regarding the work in oil sector activities,
9. and the law No. 19 of 1973, concerning conservation of the petroleum resources,
10. and the law No. 131 of 1977 organizing the use of ionizing radiation and protection against its dangers,
11. and the Law Decree No. 18 of 1978 regarding the safety systems, and the protection of public utilities and the public wealth resources, and amending laws thereto,
12. and Kuwait regional agreement for cooperation in the protection of the marine environment against pollution for the year 1978
13. and the Law Decree No. 31 of 1978 on the rules of preparing public budgets sheets, monitoring their implementation, the final account and amending laws thereto,
14. and the law No. 15 of 1979 regarding the Civil Service, and amending laws thereto,
15. and the Decree promulgated on the Civil service issued on 4/4/1979
16. and the Law Decree No. 28 of 1980 of issuing the law of maritime trade

- and the Law No. 94 of 1983 regarding the establishment of the Public Authority of Agriculture Affairs and Fish Resources, and amending Laws thereto,
 - and the Law Decree No. 9 of 1987 prohibiting certain activities which are detrimental to the public cleanliness and plants,
 - and the Law No. 15 of 1995 regarding combating smoking,
 - and the Law No. 21 of 1995 regarding the establishment of the Environment Public Authority, amended by the Law No. (16) of 1996;
 - and the Law No. 56 of 1996 concerning the establishment of the Public Authority for Industry and amending laws thereto,
 - and the Law No. (10) of 2003 of issuing the Unified Customs Law for the countries of the Gulf Cooperation Council,
 - and the Law No. (5) of 2005 concerning Kuwait Municipality and the amending laws thereto,
 - and the Law No. (6) of 2010 regarding the Labour in the Private Sector,
- The National Assembly approved the following law, which we hereby ratify and promulgate:

Preamble Section
General Provisions
Chapter One: Definitions

(Article 1)

In the enforcement of the provisions of this Law, the following terms shall each have the meaning assigned opposite thereto:

- The Authority: The Environment Public Authority (EPA)
- The Supreme Council: The Environment Supreme Council
- The Board of Directors: The Board of Directors of the Environment Public Authority
- The Director General: The Director General of the Environment Public Authority
- The Concerned Authorities: All the executive authorities concerned with any of the affairs related to environment and development
- Closed Public Place: the place that has the shape of an integrated building, and is not aerated except through outlets prepared for this

purpose. Public Means of Transportation are considered among the closed public places.

- Semi-Closed Public Place: the place that has the shape of a non-integrated building and is directly opened to external air and cannot be completely closed.
- Environment: The biological and physical surroundings that enclose living organisms including humans, animals, plants and all their surroundings of natural habitats, air, water, soil, and their contents of solid, liquid, gas materials, or natural radiations, in addition to fixed and mobile constructions erected by humans.
- Polluting Materials and Factors: Any materials, whether liquid, solid, or gas, or smoke, or vapor or microorganisms (like bacteria and viruses) or other micro- and non-micro-organisms or odours or noise or radiation or heat or glare of light or vibrations resulting from the activity of humans, or nature such as earthquakes and floods, which directly or indirectly cause the pollution of the environment or lead to violation of the environmental balance or causes damage to the human health or the health of other living organisms.
- Environment Pollution: All human and natural activities that contribute to the existence of any of polluting materials or factors in the environment, in amounts or characteristics that, directly or indirectly, lead, either alone or through interaction and reaction with other materials, to the damage of the public health or performing such works or activities that may lead to the deterioration of the natural ecological system, or hinder enjoying life and benefiting from the private and public properties.
- Pollution Source: The place through which there is a release or emission of substances or pollutants or energy to the surrounding environment (air, water and soil). The pollution source may be a point source (like chimneys, sewers, industrial areas and waste dumping areas " landfills") or movable source (such as vehicles, ships and aircrafts).
- Environment Protection: a set of policies and measures that aim at protecting the natural resources and environmental systems and the procedures that ensure the prevention of pollution or mitigation of its severity or combating it as well as the conservation of environment, its natural resources and biodiversity and the rehabilitation of areas

degraded because of the harmful practices and the establishment of land and marine reserves, defining buffer zones around point sources of pollution as well as preventing harmful behaviors or detrimental practices to the environment, and encouraging positive behavior patterns.

- **Air Pollution:** is the introduction of any polluted materials or factors (chemical or physical or biological) or energy into the air leading to a change in the characteristics and specifications of natural air and atmosphere, and their existence in concentrations and for long time periods that have adverse and hazard effects to the human health or to the environment, whether such pollution is the result of natural resources or resulting from human activity.
- **Internal Environment:** the physical surroundings and installations where humans exist. This applies also to the environmental conditions that surround humans within the residential, commercial facilities, etc.
- **Work Environment:** the physical surroundings, circumstances and conditions surrounding the human being in places where he exists to carry out his work, whether inside or outside buildings and facilities.
- **Ozone Layer:** is one of the upper atmosphere layers (the lower part of the stratosphere layer of the atmosphere) containing high concentrations of ozone gas, and absorbs harmful ultraviolet radiation emitted from the sun and prevent its arrival to the earth surface.
- **Ground Ozone:** a gas that is formed as a secondary pollutant near the ground as a result of the interaction between the primary air pollutants (nitrogen oxides and vapours of organic compounds) and sunlight.
- **Substances Depleting the Ozone Layer:** is a group of manufactured chemical materials (such as Chlorofluorocarbons, Freon gases, and Halons) which, when released into the air and raised to the upper atmosphere (stratosphere) react with the ozone molecule and deplete it, thereby leading to the deterioration of the ozone layer and the expansion of the ozone hole.
- **Greenhouse Gases (GHGs):** are any of the gases that contribute to the absorption of infrared rays emitted from the Earth's hot surface and preventing it from spreading and scattering in outer space, which leads to the trapping of heat in the ground atmosphere and therefore making it warm.

- **Climate Change:** is the occurrence of significant changes in the distribution of statistical forms of climate over time periods extending to tens of years. Such changes occur in medium time period and severe weather conditions around the world (such as increased temperature of the atmosphere, sea-level rise and changes in the forms of wind, etc.).
- **Water Pollution:** the release of any material or energy in the aquatic environment deliberately or unintentionally, directly or indirectly, resulting in damages to living resources or threatening human health or obstructing water activities including fishing, spoiling navigational activities, tourism and development, or quality of seawater, or deprives its suitability for use by people thereof, or altering its properties.
- **Soil Contamination:** incidental changes in the physical, chemical or biological characteristics of the soil in a manner that adversely affect its efficiency.
- **Integrated Environmental Management of Coastal Areas:** A style of management that depends on contribution of all concerned authorities through coordination among them in a manner that guarantees conservation of the environment in the coastal areas.
- **Natural Resources:** are all materials and natural compounds that are exploited by man for industrial and development purposes and improving the style of life. They can be utilized either directly (such as air, water, land, animals, fish and plants) or indirectly (such as oil, gas and alternative energies).
- **Biodiversity:** These are the numbers, types, species, races and genetic variations in living organisms located in a particular geographical area or in natural habitats or ecosystems. The extent and degree of biodiversity serve as indicators to measure the health of ecosystems.
- **Sustainable Development:** The development which is aimed at the rational use of natural resources to satisfy the needs of the present generation while maintaining these resources and without disturbing the ecosystems to meet the needs of future generations.
- **Environmental Impact:** is the tool through which positive and negative impacts - whether direct or indirect, immediate or future - are detected and which result from projects, via prediction of measures to avoid

adverse impacts on human health and protect the surrounding environment.

- **Environmental Impact Assessment Studies:** are comprehensive scientific studies to assess the overall impacts associated with the various projects and activities on environment before starting to implement such projects, or when any modifications or extensions to existing ones are applied, pursuant to the decisions issued by the competent authority. These include studies to determine the expected effects, predicting them, measuring and interpreting them, as well as identifying methods controlling them to reduce or minimize their negative impacts during the various phases of the project.
- **Environmental Auditing:** A set of assessment procedures conducted by specialized environmental consulting firms to identify executive environmental compliance gaps in the system and the environmental management of the facility, and the corrective actions related to the same. These actions include the preparation of the facility for obtaining the international certification of approved environmental management systems.
- **The Competent Minister:** Prime Minister or First Deputy Prime Minister.
- **Environmental Inspection:** are the field operations carried out by judicial officers at all facilities, on activities and development projects in order to verify the degree of commitment to the application of the environmental regulations, requirements and measuring standards, which may require the use of appliances and equipment, different mechanisms and systems, sampling and the relevant scientific and technical documentation of such samples.
- **Judicial officers:** are the Authority employees or others who are appointed by the Competent Minister, and qualified to monitor the implementation of this Law and its Executive Bylaw and regulations.
- **Marine Environment Pollution:** means that human activity, either directly or indirectly - intentionally or unintentionally - adds or extracts materials or energy from the marine environment in a manner that could result in drastic impacts on human health or adversely affect vital resources or ecosystems or hinder aspects of maritime activity, including fishing, or those that can reduce the degree of water quality and its validity for certain uses or lead to negative effects to the legitimate uses of the marine environment.

- **Discharge:** is all leakage, spillage, emission, release or discharge, whether intentional or unintentional, of any type of polluted materials (solid, liquid, gaseous and dust) or a form of energy, to the surrounding environment (air, water, soil) or their disposal in the restricted areas.
- **Hazardous Materials:** are materials that result in detrimental hazards to human health or living organisms, either directly or indirectly, and include, but not limited to, chemical, biological and radioactive materials, and solid and liquid wastes.
- **Sewage Water:** is water discharged from human complex sites (such as residential commercial, industrial areas, etc.), containing human solid and liquid effluents (such as oils, grease, sediment and solid residues and substances dissolved in water, and from germs and bacteria) which are transferred to treatment sites through sewage networks or by tankers allocated for this purpose.
- **Sewage Water Treatment Plants:** are facilities or equipment which are specially designed for the reception of raw sewage waters for the purpose of their treatment through mechanical, physical, chemical and biological methods and extracting the same from polluted materials that are harmful to the environment and public health and allows from benefiting from the same once again.
- **Sludge:** are substances that are precipitated during the treatment of liquid wastes in specialized hygienic and industrial treatment plants. Such materials are usually in semi-solid form and contain many organic or hazardous materials and require a special treatment depending on their composition.
- **Industrial Discharge:** These are liquid wastes generated by a set of manufacturing processes in industrial facilities and development activities which need to be treated on site or transferred to specialized treatment sites.
- **Solid Municipal Wastes:** These are solid wastes and materials that result from houses, residential communities and commercial activities (such as foodstuff wastes, house wastes including paper, cardboard, packing wastes, canning wastes, as well as plastic, wood, glass and metal wastes).
- **Waste Dumping Sites (Landfills):** are the sites which are selected, used

and managed in order to dispose of one type or more of wastes through dumping above the ground or in low sites or under the ground, which may result in many environmental impacts, depending on the type of wastes and the method adopted for their disposal.

- **Hazardous Waste:** highly toxic liquid, solid or gaseous wastes or wastes having the ability to cause corrosion to materials or as a result of being flammable or explosive, and which constitute, either directly or indirectly, a high risk to human health, living organisms and ecosystems.
- **Medical Waste:** these are wastes resulting from the activities of medical complexes and hospitals, medical centers and health clinics, and all kinds of blood banks, clinical laboratories, medical research centers, and veterinary clinics.
- **Hazardous Materials:** are materials with hazardous properties that are harmful to human health or adversely affect the environment, such as infectious, toxic, explosive or flammable substances or those with ionizing radiation.
- **Nuclear Waste:** these are materials of radioactive nature that emit ionized radiations such as cesium and uranium and which result from operations of power generation from nuclear plants and some industrial and medical uses, as well as the phases of the nuclear fuel cycle. The nuclear waste is divided into three levels: the first level of high radiation power, the second level of medium radiation power, and the third level of low radiation.
- **Radioactivity Rate:** The ratio that must not exceed the extent that harms human health or the environment, in any amount of ionizing radiation to which the body is exposed continuously or intermittently or for an indefinite period of time that shall not result in perceptible damage thereto.
- **Polluted Materials Reception Facilities:** are plants, equipment and docks allocated for the reception, precipitation, treatment, and discharge of waste and polluted materials.
- **Pollution Damage:** means every loss resulting from the pollution of environment with a harmful substance whatever its cause may be,

including the cost of pollution control measures, rehabilitation and all loss or damage caused by such measures.

- **Rescue Measures:** means all preventive measures taken by any person or entity before, during or after any pollution accident for the purpose of combating pollution and reducing its effects.
- **Incident:** means every incident or series of incidents from a single source or multiple sources, which resulted in pollution.
- **Oil:** Includes all types of crude oil (petroleum) and products. This includes any type of gaseous and liquid petroleum hydrocarbons, lubricants, fuel oils, refined oils, furnace oil, bitumen and other materials extracted from the oil and its wastes.
- **Oily Mixture:** means any mixture containing a quantity of oil regardless of its content.
- **Unclean Balance Ballast Water:** is the water placed in the tank of a ship which is used to keep the balance, if its contents of oil are in excess of 10 parts per million.
- **Ship:** any floating marine vessel, regardless of its shape or form, and whether it is fixed or moving freely.
- **Drilling Associated Water:** it is the contaminated water resulting and discharged from drilling operations, exploration, well testing or oil production operations.
- **Rehabilitation:** Every measure taken to restore balance to the environment after being exposed to a pollution incident, including all administrative and site efforts to ensure the restoration of the environment to its natural state and in accordance with the criteria set out by the competent authorities.
- **Visual pollution:** distortion of any scenery that can be visually received by the human eye that compromises public contentment which is considered an alteration; for example, landfills, disorganized structures, billboards and advertisements.
- **Jon Al-Kuwait;** also known as Kuwait Bay: a shallow aquatic environment that lies at the center of Kuwait's coastline that is bordered to the North by Al Subbiya and Jal Al Zour, to the south which is

bordered by Kuwait City and the Sulaibikhat bay. The island is bordered by Boubyan island to the North, and by Failaka at the entry into the Arabian Gulf.

- **Abrasive materials:** materials extracted from quarry sites used in various construction procedures which are the sources of solid pebbles, crushed sand and limestone.

Chapter Two: Scope of Enforcing the Law and Its Objectives

(Article 2)

The provisions of this law are applicable to all public and private entities, as well as the individuals.

(Article 3)

This law aims at achieving the following objectives:

1. Protection of the environment and its natural resources and maintaining the natural balance in the entire territory of the State.
2. Combating the environmental pollution and degradation in all its forms and avoiding any immediate or long-term damage resulting from the plans and programs of economic, agricultural, industrial, touristic, architectural development or other activities and development programs that aim at improving the living standards.
3. Development of natural resources and ensuring the achievement of the sustainable development objectives and the conservation of biodiversity in the full territory of the State.
4. Protection of society, human health and living organisms against all hazard activities.
5. Protection of the environment against the hazard activities and actions that take place outside the territory of the State.

Chapter Three:
Management of Environment Affairs
First: Environment Supreme Council

(Article 4)

The Environment Supreme Council shall be formed under the chairmanship of the Prime Minister or the First Deputy Prime Minister and the membership of a number of Ministers to be selected by the Chairman of the Supreme Council. The Director General of the Authority shall be a member of the Council and its rapporteur. The Supreme Council shall include in its membership three members who shall be duly competent and experienced in the field of environment protection, to be appointed in a virtue of a decree for four years renewable for another similar term. Such decree shall fix their remunerations. The Supreme Council shall issue an internal regulation that regulates its work procedures, and the manner of adopting its decisions. The Supreme Council shall work within the frame of the general policy of the government, and shall take all necessary measures that protect the State territorial areas against pollution regardless of its source, and shall achieve of the objectives stated in this law.

Also, the Supreme Council shall be concerned with the following:

1. Drafting the general policy of environment protection in the State.
2. Approving the national plans for environment protection and emergency plans for confronting environmental disasters.
3. Following up the implementation of all concerned governmental authorities of the provisions of this law, and settling any disputes or conflicts in the jurisdictions that may hinder the achievement of policies and objectives and clauses therein.
4. Approving the Authority annual balance sheet.
5. Selecting the representatives of two non-governmental societies concerned with the environment affairs for the membership of the Board of Directors.
6. Approving the internal regulation of the Board of Directors pursuant to the proposal made by the Board.

7. Approving the Authority annual work plan as well as reviewing and assessing the same periodically.
8. Following up the environmental situation and working on the enhancement of the environment quality and management in the country.
9. Reviewing and approving the annual report of the environmental performance of governmental agencies, and following up the remedy of any default by the State agencies stated in such report.
10. Adopting the financial regulations of salaries and wages of the Authority employees.
11. Approving the organizational structure of the Authority.
12. Adopting the formation of the auxiliary standing committees and adopting their financial budgets.
13. Imposing legal penalties on companies, establishments and agencies in violation of the provisions of this law and the environmental regulations and standards provided for in its Executive Bylaw.
14. The delegation of Ministers that specialize in and are capable of the implementation of the provisions of this law along with its bylaws and regulations. Moreover, to grant them judicial authority to prove violations to the court of law with accordance to the provisions of the Articles with relation to their competence.

(Article 5)

A decision shall be issued by the Supreme Council for the formation of the Authority Board of Directors for a term of four years, renewable for one similar term. The Board of Directors shall be under the chairmanship of the Director General and the membership of:

1. A representative for each of the Ministry of health, Ministry of Interior, the **Ministry of Defense**, the Ministry of Communication, Ministry Electricity and Water, Ministry of Commerce and Industry, Ministry of Public Works, Ministry of Information, Ministry of Oil, **Ministry of Education**, Kuwait Municipality, Public Authority for Industry,

Kuwait University, Kuwait Institute for Scientific Research, Public Authority for Agricultural Affairs and Fish Resources, provided that the grade of each representative shall not be less than an Assistant Undersecretary, to be selected by the Competent Minister.

2. Two representatives of the Public Utility Societies concerned with the environment.

Second: The Environment Public Authority

(Article 6)

The Environment Public Authority (The Authority) is a public body with legal entity and has its annexed budget. It concerns with the affairs of the environment and has the general jurisdiction over environmental affairs in the State. The Authority is annexed to the Council of Ministers and is overseen by the Environment Supreme Council.

(Article 7)

The Authority shall be concerned with all works, tasks and activities that protect the environment in the country, including but not limited to the following:

1. Setting and enforcing the general policy of the government concerning environment protection, and setting the strategies and work plans for environment protection and conservation of natural resources and ecosystems, as well as achieving the objectives of sustainable development, including the appropriate scientific, environmental and health criteria for the human living, as well as industrial and structural expansion besides the utilization of natural resources for maintaining the workers' health, and the safety of all utilities and work environment, in addition to the protection of environment and maintaining environmental balance in general.
2. Preparing and supervising the implementation of integrated work plans including all these relevant to the environment protection on both the short and long term in coordination with the competent authorities and in the light of the environmental policies.
3. Supervising and controlling the activities, procedures and practices concerned with environment protection, in addition to their follow up and evaluation.

4. Defining pollutants and setting standards for the quality of the environment and preparing drafts of laws, regulations, systems and stipulations for the protection of the environment and following up their implementation and sets the necessary controls to prevent, reduce and control environmental pollution, in coordination with the State concerned authorities.
5. Preparing and participating in the guidance and support of researches and studies in the field of environment protection, and conservation of resources as well as realizing the environment development and following up the evaluation of their results as well as implementing the recommendations issued in this concern through the competent authorities in the State.
6. Identifying the problems arising from environmental pollution and degradation in cooperation with the local and international organizations and agencies concerned with such environmental issues and propose suitable solutions thereto and traces the implementation thereof.
7. Studying regional and international agreements concerned with the environment and providing opinion regarding the accession of such agreements in coordination with the concerned authorities and cooperating and coordinating with such organizations with regard to the implementation of the provisions of those agreements.
8. Following up the recent developments in the International Law in the field of environment protection.
9. Coordinating the State relationship with the international and regional organizations concerned with environmental affairs.
10. Setting the general framework for environmental education and awareness programs, increasing the level of environmental awareness as well as achieving the positive community participation in environmental protection.
11. Developing and conducting comprehensive environmental surveys and continuous monitoring programs of the environmental criteria and parameters in all environmental sectors as well as carrying out the environmental surveillance and measurement operations and the continuous follow up of environment quality.

12. Setting a comprehensive plan for confronting environmental disasters, and taking the necessary actions for confronting the same during the time of war and peace in coordination and cooperation with the concerned authorities.
13. Setting a comprehensive work plan for supporting the nongovernmental organizations, and training different sectors of the society on the different means and methods of environmental protection, in cooperation with the concerned authorities.
14. Preparing a system for environmental impact assessment of the different State projects, and developing the necessary guidelines and procedures, as well as giving its firm opinion prior to the approval of their execution by the concerned authorities.
15. Studying the environmental reports submitted to it about the environmental conditions in the country and taking the necessary actions as well as preparing an annual report that includes the general environmental situation and the environmental performance of the governmental organizations in the State of Kuwait.
16. Issuing the necessary approvals to specialized companies, organizations and consulting offices in the field of preparing environmental impact assessment studies, or providing environmental consultancy or environmental auditing and organizations working in the field environmental services and environmental laboratories for practicing such activities.
17. Establishing and developing an environmental comprehensive database for the State and working for improving the procedures of taking decisions regarding the environment and achieving the electronic linking with the State organizations, and the exchange of information between them.
18. Preparing the environmental statements and indicators of the State of Kuwait and publishing them in official reports and statistics of the Authority and the relevant authorities inside and outside the State of Kuwait.
19. Setting the necessary standards and regulations to be applied by project owners and installations, and taking necessary actions stated in the law against the violators of these standards and regulations.

(Article 8)

The Authority shall have a Director General to be appointed by a Decree in the Grade of an Undersecretary for the term of four years renewable to one similar term. The Director General should be competent, experienced and specialized in the environment related fields. He should be responsible for implementing all decisions of the Authority. The Director General represents the Authority before Judiciary, and in its relationship with third parties. He may have one or more Deputies, to be appointed by a Decree.

(Article 9)

The Board of Directors of the Environment Public Authority has all the capacities necessary for achieving its objectives as stated in this law, and in particular:

1. Supervising the execution of policies set by the Environment Supreme Council.
2. Proposing national plans for environment protection and emergency plans for confronting environmental disasters and supervising the implementation of the same after being duly approved by the Supreme Council.
3. Preparing the organizational structure of the Authority and designating the necessary bodies thereof and determining its jurisdictions.
4. Preparing the internal regulations for the Board of Directors provided it includes the following:
 - a. Specifying the jurisdictions of the Director General and his Deputies.
 - b. Organizing the functions of the Board of Directors, the manner of taking its decisions, the rules and regulations for committees and work teams meetings.
 - c. Determining the remunerations of the members of the Board of Directors, Deputies of the Director General, members of the committees, members and work teams as well as experts and consultants.
5. Issuing the internal regulations of the Authority including the

administrative bylaws, employee's appointment regulations, their remunerations, their promotions as well as their in cash and in-kind benefits, cash grants, disciplinary penalties and termination of their services without violation of the provisions of articles 5 and 38 of the Civil Service Law. The provisions of Civil Service Law and System apply to all the employees of the authority, unless otherwise particularly stated in its internal regulations.

6. Approving the drafts of the Authority annual budget.
7. Proposing the drafts of laws and decrees related to the Authority.
8. Proposing the formation of standing supporting committees and approving their recommendations. The Board may delegate the Director General or any of its committees in some of its jurisdictions.
9. Setting schedules of fees and charges collected by the Authority against the services it renders.
10. Approving the development, upgrading and amendment of environmental standards, regulations, and bylaws.
11. Reviewing and approving the imposing penalties against violators as stated in the law of environmental protection, and approving reconciliation regulations with those committing environmental violations.

(Article 10)

The Authority shall have an annexed budget within the General State Budget. In preparation of this budget, the rules and regulations applicable to the general budget of the State shall apply. The fiscal year of the Authority shall commence with the fiscal year of the government and end therewith. The only exception to this shall be the first fiscal year, which shall commence with the date of putting this law into effect, and shall end with the end of the next fiscal year to the date of issuing this law.

(Article 11)

The Authority financial resources consist of:

1. Its annual allocations in the State General Budget.
2. Fees against services the Authority render to other parties.
3. Aids and donations granted by national and international authorities for the purposes of environment protection and development as approved by the Board of Directors.
4. The revenue from any experimental projects carried out by the Authority.

(Article 12)

In exception of the provisions of article 16 of the Law number 15 of 1978 referred to above, the aids and donations by national and international authorities to the Authority shall be its own property for the purpose of environment protection and development as approved by the Board of Directors. Such aids and gifts should only be spent for the purpose they are given to, and with a decision from the Board of Directors.

Third: Environment Protection Fund

(Article 13)

A special fund shall be established in the Authority under the title of Environment Protection fund, and should be supervised by the Supreme Council of Environment, and the following shall devolve to it:

1. The amounts allocated by the State in its budget for supporting the fund
2. The fines and compensations as ruled by the court or agreed upon for damages to the environment.
3. Any other resources as approved by the Supreme Council.

(Article 14)

The Environment Supreme Council shall issue a decision concerning the internal regulations of the fund, specifying its purposes and working system.

(Article 15)

The fund shall be concerned with the following:

1. Establishing projects aiming at protection of the environment and conserving its resources, as well as maintaining its natural balance.
2. Supporting the containment efforts of natural disasters.
3. Establishing the projects of rehabilitating damaged sites in the country.
4. Encouraging shift towards green economy and sustainable development.
5. Supporting investment in the field of environment sciences and technologies, and upgrading national cadres for working in this field.
6. Supporting investment in the sector of environmental education and establishing educational and awareness centers related to the environmental fields.
7. Supporting environmental researches and studies relevant to the fund projects.
8. Supporting official environmental civil community institutions, and encouraging the participation of other civil community organizations operating in non-environmental fields to enable them to drive in the direction of protecting environment, each in its field of jurisdiction.

Section One
Development and Environment
Chapter One:
Environmental Impact Assessment

(Article 16)

All entities subject to the provisions of this law are prohibited to commence the implementation of any project, or conducting any alterations or expansions to the existing activities, or obtaining any licenses of the same, but after carrying out environmental impact assessment studies pursuant to the rules, regulations and procedures set by the Executive Bylaw of this law.

(Article 17)

No entity, whether a company, an organization, a consulting office, a center or a laboratory, or any other entities with multiple activities may practice any

activity or service or provide any consultancy in the field of environment unless it obtains the approval of the Authority to the same, pursuant to the regulations and procedures set by the Executive Bylaw of this law.

**Chapter Two:
Professional Surrounding and Internal Surrounding**

(Article 18)

All installations shall comply with all the engineering and environmental regulations set by the Executive Bylaw of this law.

(Article 19)

In practicing their activities, all installations shall ensure the safety of its workers and shall not expose them to any damage resulting from the emission or leakage of any polluted materials in their working environment, whether resulting from the nature of practicing the activities or due to a malfunction of its devices. Every installation should take the necessary precautions for not exceeding the allowed safe limits for exposure to chemical materials, noise, vibrations, heat, humidity, light, ultrasonic waves, non-active radiations and to abide by any other regulations specified in the Executive Bylaw of this law.

(Article 20)

It is conditional that closed and semi-enclosed public places should satisfy the satisfactory ventilation conditions that match the size of the place and its capacity as well as the type of activity practiced therein, in order to guarantee air renewal and purity, along with abundance with the airflow rates as specified in the Executive Bylaw of this law.

Section Two

Protection of Terrestrial Environment from Pollution

**Chapter One: Management of Chemical Substances and Hazardous
Wastes**

First: Management of Chemical Substances

(Article 21)

Production or handling chemical substances specified in the Executive Bylaw of this law is prohibited unless the necessary license is obtained from the competent authority upon the approval of the Authority.

The Authority may cease the activity or file an application for cancelling the license from the issuing authority if the product is proved to be hazard to environment or health. In all cases, approval of the Authority for the product is a pre-requisite prior to its marketing or importing.

(Article 22)

All parties that produce, pack, handle, store, transport, import or export chemical substances or while their transit across the territory of the State of Kuwait should abide by the environmental procedures and criteria specified in the Executive Bylaw of this law.

(Article 23)

Approval of the competent authorities should be obtained upon importing or exporting hazardous or chemical materials. This is conditioned by the completion of testing, compliance, and auditing procedures by the competent authority or by companies duly qualified for this purpose.

The Executive Bylaw of this law specifies the procedures and requirements regulating this, and the required records, and the responsibilities of the competent authorities towards the same.

(Article 24)

The Authority shall coordinate with the competent authorities for implementing the requirements of the international agreements regarding the management of chemical substances, hazardous wastes as well as the conduct of comprehensive national surveys of the emission of chemical compounds. The Authority is also concerned, within two years of the issuance of this law, with the preparation of the national program for chemical safety, and setting the plans and time tables for implementing the same in cooperation with competent authorities in the country.

**Second: Management of Hazardous,
Medical and Solid Municipal Waste and Sludge**

(Article 25)

Importing, bringing, dumping, sinking or storing nuclear wastes or their disposal in any form within the territory of the State of Kuwait is completely prohibited.

To allow the transit of any marine, air, or land means of transportation carrying any of such wastes through the territory of the State of Kuwait is strictly prohibited without a prior permission of the Authority in coordination with the competent authorities in the State of Kuwait.

(Article 26)

It is strictly prohibited to handle the low radiation radioactive waste generated from hospitals or certain industries without a prior license from the competent authorities. Such wastes should be disposed of pursuant to the environmental regulations and standards specified in the Executive Regulations of this law.

(Article 27)

It is totally prohibited to import or export hazardous wastes, or allowing their transit across the territory of the State of Kuwait, with the exception of exporting the hazardous waste which the State of Kuwait does not have the technical ability, the necessary facilities or the appropriate means or ports for the disposal of the same. In all cases, the approval of the Authority to such action is obligatory.

(Article 28)

Collection, transportation, and disposal of solid municipal wastes, hazardous and medical wastes and the sludge resulting from sewage and industrial wastes are totally prohibited without getting the necessary license from the competent authorities. The Executive Bylaw of this law specifies the procedures and conditions of issuing such licenses as well as the mechanism of handling and dealing with such materials.

(Article 29)

All types of hazardous and medical wastes and all types of sludge shall be disposed of pursuant to the environmental regulations and standards specified by the Executive Bylaw of this law. It is prohibited to dispose of any type of such wastes by direct dumping in sites that are not environmentally allotted for this purpose.

(Article 30)

Solid municipal waste should be disposed of pursuant to the environmental regulations and standards specified by the Executive Bylaw of this law. The

concerned authorities shall abide to the completion of the infrastructure necessary for recycling the solid municipal wastes within a maximum period of five years from the date of issuing this law.

(Article 31)

The sources that generate the hazardous waste, medical waste, or sludge in addition to the competent authorities entrusted to the collection, transportation and disposal of all types of wastes shall abide to provide the Authority with the details of such wastes, and maintaining a special register for the same. The Executive Bylaw of this law shall specify the required information, transport and management mechanism.

(Article 32)

Throwing, treating, or burning solid municipal wastes is prohibited except in facilities allocated for this purpose, and it must be taking into consideration that such facilities shall be far away from human populations and environmentally sensitive areas. The Executive Bylaw of this law specifies the specifications and regulations related to these facilities and their locations.

(Article 33)

It is strictly prohibited to throw garbage or wastes of all types except in the containers allocated for this purpose.

(Article 34)

The Authority is concerned with coordinating with other competent authorities for the preparation of the National Program for Integrated Waste Management, including the preparation, development and upgrading of a national strategy for the integrated management of solid municipal waste, medical, liquid and hazardous wastes, duly accompanied with the necessary work plans, State organization liability, supervision and monitoring programs and scheduled tables for their implementation. The Authority abides to present the said program to the Supreme Council for approval within three years maximum from the date of issuing this law.

(Article 35)

It is prohibited to connect the clinical and industrial liquid wastes with the public storm water and sewage waste networks. The concerned authorities

are **abide** to establish special treatment plants for these areas within the maximum period of seven years from the date of issuing this law.

(Article 36)

It is prohibited to construct new landfills in the State of Kuwait or to expand the existing ones without the approval of the Supreme Council. In all cases, environmental impact assessment studies should be carried out, and such new construction or expansion should abide to the regulations stated in the Executive Bylaw of this law. The competent authorities should set a detailed plan for the management, rehabilitation and restoration of all landfills in the country within one year from the issue date of this law, provided that this plan shall be submitted to the Supreme Council for approval.

(Article 37)

Concerned authorities shall, within five years of issuing this law, conduct a comprehensive inventory of the types, amounts and locations of Asbestos waste in the country, and dispose of such hazardous wastes in qualified sites for this purpose. The government shall bear the financial obligation resulting from the collection, transport and disposal of such wastes from private residence and governmental facilities areas.

(Article 38)

The authorities concerned with the construction of sewage networks and storm water networks, shall obtain the necessary environmental approvals prior to the construction of the same. They shall also monitor and maintain the same to ensure the safety of marine environment and quality and efficiency of treatment plants.

(Article 39)

The concerned authorities are abided to set the necessary standard specifications for all recycled materials, the nature and type and utilization mechanisms in such a manner to ensure the safety and competence of such utilization. The government shall grant the recycled materials within its territory, which match the standard specifications, priority of use in its projects, in support of the recycling industries.

**Chapter Two:
Protecting Land and Agricultural Environment from Pollution**

(Article 40)

Whoever visits the wild areas for camps erection or any other purpose is prohibited to carry out any other activity that may cause damage to soil or affect its natural characteristics or polluting it in a manner that affects its productivity. The Executive Bylaw of this law shall specify the regulations and standards to be abided by in this concern.

(Article 41)

Direct grazing or using lands in agriculture or exercising any other activity that would be detrimental to the quality or quantity of vegetation in any area in a manner leading to desertification, degradation of the environment or wildlife is strictly prohibited.

Also, it is prohibited causing damage to plants and trees, picking flowers in public squares and streets and public areas or uprooting trees and wild plants in the public lands.

The only exception of the above is what is specified in the Executive Bylaw of this law for development purposes. In all cases, such removal of greenery areas and trees should be compensated for.

(Article 42)

The Authority shall, in cooperation with the concerned authorities, determine the conditions for insecticides, pesticides, fertilizers and soil improving materials with respect to the following:

1. Types and specifications of such materials that may be produced, manufactured, imported, handled, or used in the country.
2. The controls for the allowed insecticides to be applied on locally produced or imported foods.
3. Conditions to be abided by disposal of the wastes of insecticides or compounds used in manufacturing them, or whose validity has expired.
4. Procedures of registering or renewing the registration of such materials.
5. Conditions and specifications of sampling such materials and the methods used in the analysis and evaluation of results.

6. How to monitor, evaluate and address the pollution resulting from the trading of these materials or their unsafe or incorrect usage.

(Article 43)

It is prohibited to spray or use pesticides, organic chlorine insecticides or any other chemical compounds for the purposes of agriculture, public health or other purposes unless the conditions, controls and safeguards are determined by the Executive Bylaw of this law.

(Article 44)

The competent authority concerned with the activity of extraction or importing quarry materials shall cooperate with the Authority and the rest of the competent authorities to identify areas and land allocated for the extraction of these materials or organizing the existing ones according to the terms and conditions specified in the Executive Bylaw of this law and taking into account the demarcation of such lands on the basis of geological and environmental surveys for the various areas in the territory of the country.

(Article 45)

The authority granting the license for practicing the quarry material activity should monitor all other activities related to this work such as extraction, handling, import, storage and sale of these materials, including supervision, control, prevention of contraventions and reactivation of penalties provided in this law.

(Article 46)

It is not allowed to construct, expand, develop or merge any quarry or divide the same into more than one project, or conduct any form of change, unless a license in this regard is issued by the concerned authority. No license may be issued to practice this activity except for the companies qualified by the competent authorities.

In all cases, the practitioners of this activity shall abide to rehabilitate the sites after the expiry of the term of their work, pursuant to the conditions specified by the Authority in this concern.

(Article 47)

Upon constructing installations in the wild environment, it should be taken

into account the application of protective methods against sand encroachment to reduce their environmental and economic impacts pursuant to what is stipulated the Executive Bylaw of this law.

Section Three **Protecting The External Air Against Pollution**

(Article 48)

The Authority shall carry out continuous monitoring and evaluation operations and prepare research and studies for maintaining air quality and reducing the adverse impact resulting from the emission of polluting gases. The Executive Bylaw of this law shall determine air quality standards.

The Authority, in coordination and cooperation with the concerned competent authorities, shall take the necessary actions when exceeding those standards.

(Article 49)

The Authority, in coordination with the competent authorities, shall prepare and develop a national strategy for air quality management in the State of Kuwait and sets the necessary work plans and schedules for implementing the same. The Authority shall also be concerned with updating such strategy and evaluating it every five years.

(Article 50)

The Authority shall publish the air quality indicators on electronic websites, and inform the public about air quality levels, and the necessary actions to be adopted upon reaching levels of concentration that may affect community health or a particular sector of the society.

(Article 51)

The Authority abides to establish, develop and update a national network for continuous monitoring and control of air quality in the State of Kuwait. Authorities in government and private sector also abide by establishing air monitoring and control systems within the scope of their work, and linking such systems with the Authority, as detailed in the Executive Bylaw of this law.

(Article 52)

In practicing their activities, all installations abide not to allow the emission or leak of air pollutants above the allowed limits, as specified by the Executive Bylaw of this law.

Those in charge of the installation should use the appropriate means for continuous monitoring of the rates of gas emissions from different sources in the installation, and reporting immediately to the Authority upon exceeding the permitted limits. The Executive Bylaw of this law specifies the type of installations to which this paragraph applies.

(Article 53)

The owner or operator of the installation shall abide by the periodical maintenance of machines and equipment, and by taking all necessary precautions to prevent any leakage or emission of any pollutants which may contaminate the environment.

(Article 54)

All entities and individuals, upon practicing any production or service activity, particularly those operating machines and equipment and using the alarming devices and speakers, shall abide not to exceed the allowed limits of noise, and they shall be installed in places prepared for this purpose and do not exceed their borders.

Licensing authorities should take into consideration the use of appropriate machines and equipment, so that the total sounds emerging from point sources are within the allowed limits.

The Executive Bylaw of this law determines the allowable limits of sound intensity, and the allowed period of exposure.

(Article 55)

The establishment of installations emanating noise and causing damage to the neighboring environment is strictly prohibited. The Authority shall work on guaranteeing the enforcement of noise limiting systems in roads, public projects, and around human populations, and pursuant to the Executive Bylaw of this law.

(Article 56)

Smoking is prohibited in public transportation.

It is also prohibited in enclosed and semi-enclosed public places (with exception to the places specified in accordance with the requirements and standards set by the bylaws of this Article) and all means of public transportation. All authorities shall take the necessary action for prohibiting smoking in these places in such a way to prevent detrimental health effects to others.

(Article 57)

The competent authority shall abide to the preparation, development, implementation and the updating of the national plan for the disposal of ozone depleting materials and the supervision of its implementation in cooperation with the concerned authorities and the regional and international organizations. The competent authority shall submit an annual report to the Board of Directors on the progress of the plan. The Executive Bylaw of this law shall determine the competent authority and its working mechanism.

(Article 58)

It is prohibited to import or export or re-export materials subject to the international agreement governing the ozone depleting materials or its mixtures, or alternatives recycled materials thereof, unless the approval of the Authority is obtained. The Executive Bylaw of this law specifies the ozone depleting the materials and the relevant environmental regulations and standards to be used in handling them. It is possible to delete or add to the list of such materials pursuant to a decision from the Director General.

(Article 59)

It is prohibited to manufacture or import all devices, equipment and products that contain or work with the controlled materials referred to in the above article, including trucks, vehicles, aerosol bottles, sprays and all cooling, air conditioning and water-cooling devices, insulating materials, and industrial sponge unless the approval of the Authority is obtained.

(Article 60)

It is not allowed to manufacture or use the controlled materials referred to in Article (59) of this law in any new industries or constructions, or in the

expansion of any existing installations or in the process of cleaning electronic circles, industrial equipment, air conditioning and refrigeration systems, or in sterilization and drying clothes, unless the approval of the Authority is obtained.

(Article 61)

The Authority, in coordination with the competent concerned authorities, and within two years of the effective date of this law, shall establish a Bank for Halons to list the quantities available and imported from these materials and control them. The Executive Bylaw of this law shall determine the jurisdiction and the work system in this bank.

(Article 62)

It is prohibited to import, export or manufacture the materials controlled under the attachments (B, C, E) of the Montreal Protocol or to import, export of devices or equipment containing such substances, unless the Authority (EPA) approval is obtained.

(Article 63)

Upon carrying out any repairs or maintenance of devices or equipment containing any of the controlled materials, all authorities and individuals shall abide to the environmental regulations and standards specified in the Executive Bylaw of this law.

(Article 64)

It is prohibited to dispose of containers, cylinders, or wastes containing the materials subject to control unless this is made pursuant to the conditions and regulations stated in the Executive Bylaw of this law.

Section Four

**Protecting Water and Coastal Environment Against Pollution
Chapter One: Protecting Marine Environment Against Pollution
First: Protection Scope**

(Article 65)

The authority shall prepare and follow up the execution of the national plan for marine environment management, accompanied by a timetable for the execution phases, and the liabilities of the concerned authorities towards the same, and the requirements of execution thereof.

(Article 66)

The Authority shall establish a national network for monitoring the marine environment, which shall cover all territorial waters of the State of Kuwait. This includes monitoring all indicators of the environmental situation of the marine environment. The Authority shall also be concerned with providing all the requirements for the success of this network, like the infrastructure, such as laboratories, and the prequalification of national cadre etc., within five years of issuing this law. All concerned governmental authorities shall cooperate with the Authority for the execution of this plan.

(Article 67)

The provisions of this Chapter shall be applicable to all ships, equipment, ports, land, marine and air facilities located within the borders of the marine areas, and the upper atmosphere layers above them as well as the seabed as stated in Article (68) of this law, regardless of their shape or form, whether they are fixed or movable, as well as the floating and submerged pipelines, the shipping and unloading facilities, etc. It applies also to the high seas if it causes pollution to restricted waters. In exception of the application of the provisions of this chapter are the vessels and military means of transportation and the like. The exempted vessels and means of transportation shall take all the necessary precautions for preventing the pollution of the restricted marine areas.

(Article 68)

The following marine areas and the upper atmosphere layers above them as well as the seabed under them shall be considered as restricted areas in which no pollution of the marine environment is permitted regardless of the type of material and the source or the quantities thereof. Committing any action of this type shall be considered as a crime pursuant to the provisions of this law:

- a. The internal waters of the State of Kuwait located behind Kuwait Bay closure line.
- b. The territorial sea of the State of Kuwait which extends up to 12 nautical miles from the base line.
- c. The area adjacent to the territorial sea, which extends up to 24 nautical miles from the base line from which the territorial sea width is measured.

- d. The water adjacent to the territorial seas, which extends up to 50 nautical miles from the base line from which the territorial sea width is measured.

(Article 69)

The Authority, in cooperation and coordination with other concerned authorities in the country, shall set an integrated national plan within two years from the date of issuing this law, aiming at mobilizing all the capabilities of all authorities operating within the restricted marine areas, and other related parties, including the equipment, machinery, materials and experiences, for controlling and combating pollution cases and others. The Executive Bylaw of this law shall specify the authority concerned with the management of the plan, its coordination mechanism and its enforcement method.

**Second: Pollution from Vessels
and Land Sources**

(Article 70)

The ships using the restricted marine areas should be equipped with the equipment and devices necessary for pollution prevention and waste treatment pursuant to international regulations.

(Article 71)

All land sites and the ships allocated for transporting oil with a load over one hundred fifty tons or more and all other ships with a load capacity of four hundred tons or more shall maintain an emergency plan for combating any possible oil pollution which may arise thereof and provide devices and equipment necessary for the implementation of such plan.

(Article 72)

The ships, regardless of their nationality, are prohibited to discharge or throw oil or its wastes or any other harmful materials in the restricted area. They should abide by unloading any waste causing pollution in the reception facilities.

(Article 73)

All industrial, commercial and touristic installations and private residence, whether governmental or non-governmental, are prohibited to discharge any materials or wastes or liquids, which can cause pollution in beaches or nearby water areas thereof, whether intentionally or non-intentionally, directly or indirectly.

(Article 74)

The owner or holder of any place onshore or a device for keeping or transporting oil or waste or sewage waters or any other harmful materials is prohibited to discharge the same in the restricted area.

(Article 75)

National and foreign companies and organizations which are duly licensed to explore, produce or utilize marine oil fields and other marine natural resources, including oil transport, are prohibited to discharge any polluted materials or the water associated with drilling or exploration operations or wells testing or production in the restricted areas.

(Article 76)

The national and foreign companies and organizations which are duly licensed to combat pollution in the restricted areas should use the safe and secure means that do not result in any harm to the marine environment, and should treat the polluted substances pursuant to the latest technical systems and in conformity with the provisions of this law and the Executive Bylaw thereof.

(Article 77)

It is not allowed to keep any ship or facility in the restricted marine areas without obtaining a prior permission from the Authority, which will specify the terms and conditions to be followed upon submitting such application. All the above shall be without prejudice to the civil liability terms and for compensation for the losses and damages resulting from the pollution and removal of its impacts.

Third: Records and Administrative Procedures

(Article 78)

The ships carrying harmful or polluted materials should keep a record of the shipment, in which the captain or any other person in charge on deck shall record all data related to the shipment, its destination, and the precautions taken to prevent any pollution, pursuant to the international conditions.

(Article 79)

All ships allocated for oil transport are abide to keep a record for the oil wherein the captain or any other person in charge on deck shall record the date, time and location of all operations of shipping, transport and unloading oil for every shipment separately. The Executive Bylaw of this law shall determine the records by which oil ships/tankers should abide.

Fourth: Administrative and Judicial Procedures

(Article 80)

In case of any incident of pollution of the marine environment with oil or other hazard materials, the person in charge of any means or equipment, or marine or land or air facility is obliged to report the said incident immediately to the authorities specified in the Executive Bylaw of this law.

(Article 81)

The Executive Bylaw of this law determines the following matters:

1. Conditions to be satisfied by Kuwaiti ships and certificates it holds, as well as the rules and procedures of their inspection pursuant to local and international regulations.
2. Acceptable certificates of guarantee covering the pollution hazards should be available in Kuwaiti and foreign ships and all other land and marine facilities located in restricted marine areas.
3. Rules of settlement of disputes in case of violations pursuant to the provisions of this chapter.
4. Charges collected by the State against services it renders, including the salaries of pollution monitoring inspectors, and the entity concerned with the same.

5. Cases of seizing ships and other means, and the mechanisms of shutting down facilities and properties that caused pollution, and procedures of their release.
6. Inspection rules of ships, other means and facilities.
7. The mechanism of forming committees concerned with estimating the cost of measures taken for combating environmental pollution and damage for each and every pollution incident, and determining their affiliation.
8. Issuing the licenses necessary for building and managing the polluted materials receiving facilities.

(Article 82)

The owner of the ship carrying polluted materials and facilities for storing and transporting oil and harmful materials, operating in the restricted marine areas mentioned in Article (68) should submit to the competent authority a financial guarantee or a bank guarantee to cover the civil liability for the damages of marine pollution, pursuant to the controls set by the Executive Bylaw of this law. The guarantee certificate should be effective when submitted to the competent authority upon the entrance of the ship to the territorial waters of the State of Kuwait.

(Article 83)

The following shall be liable for pollution in the restricted marine areas referred to in Article (68) of this law:

- a. The owner of the ship or aircraft, or the captain, if the pollution is caused by a ship or aircraft.
- b. The owner or operator of the facility if the pollution is caused by a facility.
- c. The owner, its user or holder of the device, if the pollution is caused by a device for keeping oil or polluted materials.
- d. The owner of the ship or its captain or the owner of the facility who leaves the same prior to obtaining the permission of abandoning it.

(Article 84)

The person in charge of pollution stipulated in this chapter may determine the liability arising from marine pollution per every incident in the restricted area in a maximum rate of Fifteen Million Kuwaiti Dinar (**K.D.** 15,000,000/-) or the amount of Eighty Kuwaiti Dinars (**K.D.** 80/-) for each registered ton of the shipment of the ship or the device prepared for keeping oil or harmful materials, whichever less.

(Article 85)

The civil liability pursuant to the previous article shall not be specified in the following cases:

- a) If it is proved that the incident causing the civil liability was due to the non-compliance with the environmental regulations or due to gross negligence.
- b) Violations of safety and navigation rules and regulations.

In all cases, the determination of liability does not cover the cost of disinfection and removal of pollution or reduction of the same and environment rehabilitation.

(Article 86)

The competent authority shall notify the Ministry of Interior to inform diplomatic or consulate representatives of the State to which the source of pollution belongs and that caused the pollution incident pursuant to the provisions of this law, the committed incidence, the supporting evidences, and the measures taken by the State. The competent authority is also entitled to inform neighboring countries in addition to regional and international agencies with the incident.

The Executive Bylaw of this law shall determine the competent authority, and the responsibilities of other authorities towards the incident.

(Article 87)

The supreme Council authorizes the Competent Minister shall delegate the necessary employees to monitor the execution of the provisions of this chapter, and the regulations and decisions thereto, and providing of evidence of any violations of its provisions. Such employees shall have the authority of judicial

apprehension, and in this concern, they have the right of access to all facilities, means, equipment and ships existing in the restricted marine areas and those located onshore that have contributed or may contribute to pollution. They also have the right to inspect and collect evidence and apprehend cases violating the provisions of this chapter, and write the necessary official reports of the violations and refer them to Public Prosecution, and may, if necessary, seek the assistance of policemen. The employees delegated in the article shall take the following oath before the Competent Minister or before the person, he delegated/ deputized at the body to which they belong:

"I swear to Allah almighty that I shall perform my duties faithfully, loyally, impartially, and honorably and shall not reveal a professional secret I come to know in the exercise of my duties, even after I quit work."

that they will perform their work with total honesty and devotion and will not reveal any of the work secrets which they may have access thereto by virtue of their functions, even after leaving office.

Chapter Two: Drinking Water and Ground Water

(Article 88)

The Authority shall cooperate and coordinate with the concerned authorities to conserve water sources in the State of Kuwait to guarantee the safety of drinking water, pursuant to the standards of the World Health Organization, as well as the environmental regulations and standards specified in the Executive Bylaw of this law.

(Article 89)

The Authority shall cooperate and coordinate with the concerned authorities to prepare a national program for the management of drinking water in the country within five years from the date of issuing this law, provided that the program shall include the liabilities of the concerned governmental authorities and the coordination mechanisms between them, specify the monitoring programs of all phases of production, transport and distribution, and the plans for protecting the water resources used in this regard such as sea water and underground water. Also, the Authority shall abide to update this program every seven years as a maximum.

(Article 90)

The competent authorities shall abide by monitoring the quality of all types of locally produced drinking water, whether in desalination plants, underground water, bottling factories, etc. as well as all types of imported water from abroad, including bottled drinking water, or mineral water and the like. The

Executive Bylaw of this law shall specify the liabilities of the competent authorities, the mechanisms of monitoring, supervision, and auditing, and the conditions of producing, transporting, storing, inspecting, trading and marketing water in the country.

(Article 91)

The authority shall cooperate with the competent authorities for publishing all data and results of drinking water quality for consumers, and shall work for the continuity of awareness programs related to the same.

(Article 92)

The competent authorities shall maintain the safety of drinking water in the internal networks of governmental institutions and buildings like schools, hospitals, authorities etc., and to monitor the quality of such water via documented periodical inspection. All competent authorities also shall warrant water quality within their facilities. The Executive Bylaw of this law shall specify the regulations and standards to be followed for achieving this.

(Article 93)

The competent authority shall warrant the validity of fresh water transport tanks to guarantee maintaining the quality of drinking water transported to consumers, and supervise the quality of water in their bottling sites.

(Article 94)

Products related to drinking water such as filters and coolers may not be circulated or marketed without obtaining the necessary approvals of the competent authorities. The Executive Bylaw of this law shall specify the conditions to be observed in this regard.

(Article 95)

The drinking water means of transport, tanks, connections and coolers should satisfy the regulations and standards stipulated in the Executive Bylaw of this law to guarantee the validity of drinking water for human use.

The Authority, in coordination with the competent authorities, shall conduct a periodical checking of the water tanks and connections of water coolers to verify their validity. The owners of buildings and utilities should be notified of the actions to be followed. In case of non-compliance of such instructions, necessary repairs may be performed, at all their cost.

(Article 96)

The underground and surface water are a national wealth, and should not be utilized without a prior permission from the competent authorities. The Authority shall supervise the utilization works of such waters in the manner that protects it from pollution and guarantees its sustainability. The Executive Bylaw of this law shall designate the competent authorities and the liability of each of them as well as the regulations and standards related thereto.

Chapter Three: Protection of Coastal Environment Against Pollution

(Article 97)

It is prohibited to pull out rocks and gravels, remove beach sands, or fill up beaches, build jetties, breakers or cemented rock wall or the like except after the approval of the Authority and concerned authorities and the compliance with regulations and standards determined by the Executive Bylaw of this law.

(Article 98)

It is prohibited to use evaporation pits for the disposal of polluted water associated with production operations in oil fields. The best methods should be selected for recycling or treating such water on site, pursuant to regulations and standards determined in the Executive Bylaw of this law.

(Article 99)

Upon construction of water distillation and power generation plants, ports and harbors or other coastal installations, the necessary environmental approvals from the Authority and the necessary permits from the competent authorities must be obtained, as well as the compliance with regulations and standards prescribed by the Executive Bylaw of this law.

Section Five
Biodiversity
Chapter One: Endangered Wild Organisms

(Article 100)

It is prohibited to hunt, kill, catch, collect, harm, acquire or transport wild land and marine organisms, whether alive or dead or prejudice their juveniles, eggs, nests or their habitats, and the Executive Bylaw of this law shall determine the types and numbers of organisms allowed to be hunted or fished in certain seasons and specific areas.

Hunting or fishing for scientific purposes shall be exempted after the approval of competent concerned authorities in coordination with the Authority.

(Article 101)

It is banned to trade in endangered species of wild organisms or any part of it or its products as specified in the CITES Convention and other valid international agreements.

It is possible, via a decision from the Director-General and in cooperation with the competent authorities, to add some other species to those mentioned in the said convention. The exception to the above will only be the cases licensed by competent authorities and approved by the Authority for scientific or treatment purposes or for Zoos and exhibitions.

Chapter Two: Natural Reserves

(Article 102)

The natural reserves (protected areas) shall be determined by a decision from the Supreme Council. The decision shall include their geographical borders, classification, organization, management method and their monitoring, in a manner which shall ensure their protection from pollution and maintenance of biodiversity and natural heritage.

(Article 103)

Natural reserves (protected areas), ecological fences and fenced zones for research and scientific purposes as well as border areas isolated for protection and the like are considered as areas subject to environmental regulations and basic rules of natural reserves as specified by the Executive Bylaw of this law.

(Article 104)

It is not permitted taking any part of the reserves approved by the government unless by a decision from the Supreme Council after the Authority presents the reasons for this action. In all cases, it is not allowed taking any part thereof involving a biological or natural diversity which is not available in other locations of the country.

(Article 105)

It is prohibited to introduce any type of animals or plants which are not indigenous to the environment in the natural reserves or to take any action that might hinder the exerted efforts for preserving the natural environment in general or affects the same or exposing to risk or harming land or marine organisms inside such natural reserves or damaging their contents in any form. This includes particularly the following:

1. Fishing of fish, shrimp, oysters and other living organisms.
2. Collecting shells, corals and other marine animals or causing damage thereto in any way.
3. Seizing wild animals or hunting or killing or catching the same or damaging their nests or holes or causing disturbance to the same way.
4. Grazing or seizing sheep or livestock or other grazing animals.
5. Damaging, uprooting or setting fire on wild plants for any reason.
6. Traffic of cars and all types of vehicles outside paved roads or lanes designated for that purpose.
7. Sailing or berthing of ships and boats and movement of amphibious vehicles or other similar motors in mudflats and tidal areas.
8. Takeoff and landing of all types of aircrafts or flying at low altitudes above or near protected areas.
9. Building works or construction of floating facilities or fixed drilling platforms, or carrying out any dumping works or construction of berths or wave breakers or others.
10. Constructing camps or recreational facilities, whether permanent or temporary.

11. Destroying or vandalizing fences of reservations in any way.
12. Exploring or producing minerals, quarrying or exploiting quarries or using explosives or pulling out coral reefs or coastal rocks, removing sands or conducting dumping operations or other works that lead to changing the coastline or the topography of land and marine protected areas.
13. Discharging or throwing or dumping contaminated liquid or solid materials or hazardous materials or the use of insecticides or pesticides or toxins or entering the same into natural reserves or throwing human wastes, ship wastes or oils or the like therein.
14. Carrying out explosion operations or fire shooting or training therein.

(Article 106)

The competent authority specified by the Supreme Council shall manage the natural reserves in the State territories. The Supreme Council shall have the right to entrust other authorities to supervise and monitor certain reserves or fenced zones. In all cases, the Authority shall approve the policies, plans, programs, decisions, and regulations of managing natural reserves and shall supervise continuous monitoring operations to guarantee the implementation of plans, decisions and regulations related to natural reserves, as well as implementing the relevant programs for protecting and deployment of animals and plants, particularly endangered ones, and resettle extinct species.

(Article 107)

The competent authorities shall determine the grazing load in land areas based on the capacities of pastoral areas in the State of Kuwait. The competent authorities abide to update the grazing locations every ten years maximum. In all cases, all forms of grazing are prohibited in islands and natural reserves. The competent authorities shall also abide to provide the necessary monitoring capabilities. The Executive Bylaw of this law shall determine the competent authorities and the liabilities of each of them, as well as the mechanism of issuing annual follow-up reports.

Chapter Three: Kuwait Bay (Article 108)

It is prohibited in Kuwaiti Bay, as an area of a special nature, to practice any activity that may harm the environment, particularly the following activities:

1. Disposal of sewage or industrial waste or throwing any type of waste.
2. Carrying out reclamation operations using dredged materials from deepening works of navigational waterways.
3. The establishment of fishing areas and fish farms.
4. Building chalets on the Bay shores.
5. Fishing of all marine organisms, with exception of where is specified in the executive regulations subject to time provisions of Article 121 of this law.

It is possible through a decision from the Supreme Council to prohibit any other activities that may negatively affect the Bay upon recommendation by the Authority in this regard. In all cases, the approval of the Supreme Council is required for establishing projects within the waters or shores of Kuwait Bay.

(Article 109)

The Supreme Council shall issue a national plan for managing the environmental situation in Kuwait Bay, including monitoring, protection and rehabilitation requirements in addition to the approval of erected projects within the scope of Kuwait Bay within three years from the date of issuing this law. The Supreme Council shall also update the said plan every ten years. All government institutions shall abide to support the plan and comply with it.

(Article 110)

The approval of the Supreme Council should be obtained for all projects of the oil sector within Kuwait Bay. In all cases, all oil companies operating in this area, pursuant to the approval of the Supreme Council, shall provide the maximum level of protection available for its works, as a guarantee for protecting the environmental situation in Kuwait Bay.

Section Six

Environmental Management Chapter One: Environmental Strategies

(Article 111)

The competent authorities shall abide to develop clear working strategies within the scope of their work related to the environment, accompanied by the time schedules and mechanisms of execution as well as the annexed projects thereto. The Supreme Council shall determine the concerned authorities with the setting and approval of such strategies, and the annual follow-up of their implementation phases. Also, the Authority shall set the general framework for the preparation and supervision of such strategies, and guarantee the necessary integration between them.

(Article 112)

Working on the preparation of these strategies shall be completed within five years from the date of issuing this law, and the concerned authorities shall abide to provide the necessary financial credentials for their successful implementation. In all cases, the term of the strategies shall not be less than twenty years, provided they are developed and updated every five years.

Chapter Two: Environment Police

(Article 113)

A martial specialized unit shall be established in the Ministry of Interior to be called "Environment Police", and shall be concerned with following up the enforcement of environmental laws and regulations in sectors and fields specified by the Supreme Council. The unit shall also support the activities of the judicial officers affiliated to the Authority.

(Article 114)

The Environment Police shall be subject to all laws, rules, regulations and decisions governing the activities of the Police Force in the State. The Ministry of Interior shall manage this force, provide all capabilities necessary for performing its work, and submit an annual report to the Supreme Council about its activities.

(Article 115)

The Minister of Interior shall issue a decree on the regulation of the unit within six months from the date of issuing this law, provided that the unit shall commence its work within a maximum period of two years from the date of issuing this law.

Chapter Three: Environmental Data Management

(Article 116)

The Authority abides, in cooperation with the competent authorities in the State of Kuwait, to set a national plan for managing the environmental data, to be approved by the Supreme Council. All State Departments shall abide by sharing their data, whether environmental or related to environmental affairs, with the Authority, periodically and directly. The Authority shall publish such data and make them available to the public in a transparent and documented form. The Executive Bylaw of this law shall determine the type of data, the mechanism of circulation, and the liability of each authority thereof.

(Article 117)

All State departments shall abide by establishing monitoring and control systems for their projects and work sites affiliated to them, and linking the same with the Authority. The Executive Bylaw of this law shall specify the type of projects and their linking mechanism with the Authority.

Chapter Four: Environmental Crises and Disasters

(Article 118)

The Authority shall cooperate with the competent authorities for preparing emergency plans and natural risk management plans, including dust and sand storms, droughts, sudden flash floods, earthquakes, mass kill cases of fish and other marine organisms etc., in addition to other environmental risks that may result from human activities. In all cases, the competent authorities shall manage such plans and provide their requirements of success, while the Authority shall follow up their performance and submit the necessary reports to the Supreme Council.

Chapter Five: Authority Management Systems

(Article 119)

Environment specialized departments shall be established in the State authorities to guarantee the follow up and enforcement of the environmental laws within their scope of work. The Supreme Council shall designate the authorities concerned with the establishment of such departments, and the Authority shall specify their scope of work and their organizational structure in coordination with the competent authorities in this regard.

(Article 120)

The Supreme Council, when necessary, shall appoint environmental inspectors from the staff of the Authority or from other governmental institutions to monitor the environmental performance therein. The Supreme Council shall determine the time period, specific functions and remunerations of the said inspectors. All the State departments shall cooperate with the environment inspectors and provide them with all necessary data for performing their work and achieving the tasks required from them.

The Executive Bylaw of this law shall determine the jurisdictions of the environmental inspectors, and the conditions of their selection. In all cases, their qualifications shall not be less than a University Degree with an experience of not less than ten years.

(Article 121)

All concerned institutions in the State are abide to cooperate with the Authority in calculating the environmental loads within the scope of their works, such as pastures, fisheries, air and underground water quality, etc. These institutions shall abide by maintaining these loads in a manner which shall achieve environmental sustainability thereto.

(Article 122)

All governmental institutions shall abide by using energy saving systems in their new establishments. The Authority shall be concerned with including the energy saving requirements within its environmental regulations.

(Article 123)

Within two years from the date of issuing this law, the concerned authorities in the State shall specify the conditions and standard specifications for all

energy devices, equipment, systems, mechanisms and consumable materials. The import of any materials not fulfilling these specifications shall be banned. The Executive Bylaw of this law shall determine the authorities concerned with identifying the specifications, the mechanism of issuing them and warrantee of its application.

(Article 124)

The damage or prejudice or trafficking of cultural heritage, whether movable or immovable, is strictly prohibited. The same applies to the establishment of military or civilian facilities in archaeological sites of valuable historical, touristic and religious nature.

Chapter Six: Mass Media and Environmental Awareness

(Article 125)

The government shall establish a museum for the natural history of the State of Kuwait for enhancing environmental citizenship, and preserving the natural history of the State of Kuwait in all forms, whether geological, geomorphological, biological or marine, and whether currently existing, lost or extinct. This museum shall be established within five years as of the date of issuing this law as a maximum.

The Supreme Council shall determine the governmental entity responsible for the establishment of this museum, and the governmental authority to be concerned with its management.

(Article 126)

It is prohibited to publish and rumors false news or information about the environmental situation in the country or any of its components which may cause public panic or questioning the quality of the environmental situation, unless it is based on scientific facts. This is in order to preserve the social security and the State stature.

(Article 127)

All owners of the real estate properties in the country shall abide to improve the situation of their real estates by providing the necessary rehabilitation and rectify their facades to prevent sight pollution, and improve their general appearance.

The competent authority, in collaboration with the Authority, shall abide by setting the detailed conditions in the Executive Bylaw of this law within one (1) year from the date of issuing this law. The competent authority shall also abide by applying what is mentioned in the Executive Bylaw in this regard within **three (3) years** of the date of its issuance.

Section Seven Penalties

(Article 128)

Whoever violates the provisions of **articles (16, 17, 18, 26, 47 126)** of this law shall be punished with a fine of not less than five thousand Kuwaiti Dinars and not more than fifty thousand Kuwaiti Dinars.

(Article 129)

Whoever violates the provisions of articles (19, 20, 21, **22, 23, 43**) of this law shall be punished with imprisonment of a period not exceeding three years and a fine of not less than ten thousand Kuwaiti Dinars and not more than fifty thousand Kuwaiti Dinars or with either of the two penalties.

(Article 130)

Whoever violates the provisions of article (25) of this law shall be punished with the death penalty or life imprisonment and a fine of not less than five hundred thousand Kuwaiti Dinars and not more than one million Kuwaiti Dinars.

Violators of the first paragraph of article 25 of this law shall be punished with a life imprisonment and a fine of not less than two hundred fifty thousand Kuwaiti Dinars and not more than five hundred thousand Kuwaiti Dinars.

Violators of article (25/second paragraph) shall be abided by re-exporting the nuclear waste subject of the crime at their own expense.

(Article 131)

Whoever violates the provisions of articles (27, 28, 29, 30) of this law shall be punished with imprisonment of a period not less than three years and not exceeding ten years and a fine of not less than twenty thousand Kuwaiti

Dinars and not more than two hundred thousand Kuwaiti Dinars. Violators of the provisions of article (25) of this law shall abide by re-exporting hazardous substances subject of the crime at their own expense.

(Article 132)

Whoever violates the provisions of articles (31, 35, 46) of this law shall be punished with imprisonment for a period not less than one year and not exceeding three years, and a fine of not less than ten thousand Kuwaiti Dinars and not more than fifty thousand Kuwaiti Dinars or with either of the two penalties.

(Article 133)

Whoever violates the provisions of article (33) of this law shall be punished with a fine of not less than fifty Kuwaiti Dinars and not more than five hundred Kuwaiti Dinars.

(Article 134)

Whoever violates the provisions of articles (40) of this law shall be punished with a fine of not less than two hundred and fifty Kuwaiti Dinars and not more than five thousand Kuwaiti Dinars together with binding the violator to remove the effects of the violation within the time limit to be fixed by the Authority. If he fails to do that, the Authority shall carry out the removal at their own expense. In addition, a violator of provisions (127, 32) of this law is punished with a fine not less than five hundred Kuwaiti Dinars and not more than ten thousand Kuwaiti Dinars.

(Article 135)

Whoever violates the provisions of article (41) of this law shall be punished with a fine of not less than two hundred fifty Kuwaiti Dinars and not more than five thousand Kuwaiti Dinars.

(Article 136)

Whoever violates the provisions of article (52/paragraph one) and article (53) of this law shall be punished with a fine of not less than fifty thousand Kuwaiti Dinars and not more than two hundred thousand Kuwaiti Dinars.

The fine shall not be less than fifty thousand Kuwaiti Dinars and not to exceed two hundred thousand Kuwaiti Dinars for violators of the provisions of article (52/paragraph two).

(Article 137)

Whoever violates the provisions of article (54) and (55) of this law shall be punished with a fine of not less than five hundred Kuwaiti Dinars and not more than five thousand Kuwaiti Dinars along with confiscation of the used machinery and equipment.

(Article 138)

Whoever violates the provisions of article (56/first paragraph) of this law shall be punished with a fine of not less than fifty thousand Kuwaiti Dinars and not more than two hundred thousand Kuwaiti Dinars.

Also, whoever violates article (56/second paragraph) shall be punished with a fine of not less than fifty Kuwaiti Dinars and not exceeding one hundred Kuwaiti Dinars. Moreover, the manager of the organization violating the provisions of the second paragraph of the above-mentioned article shall be punished with a fine of not less than one thousand Kuwaiti Dinars and not exceeding five thousand Kuwaiti Dinars.

(Article 139)

Whoever violates the provisions of articles (58, 59, 60, 62) of this law shall be punished with imprisonment for a period not to exceed than one year and a fine of not less than ten thousand Kuwaiti Dinars and not more than fifty thousand Kuwaiti Dinars. In all cases, the materials, products, machinery and equipment, the question of the crime, shall be confiscated.

(Article 140)

Whoever violates the provisions of articles (63, 64) of this law shall be punished with imprisonment of a period not to exceed six months and a fine of not less than one thousand Kuwaiti Dinars and not more than five thousand Kuwaiti Dinars or with either of the two penalties.

(Article 141)

Whoever intentionally causes pollution in marine zones stipulated in article (68) of this law in violation to the provisions of articles (71,72, 73,74, 75, 76), shall be punished with imprisonment of a period not to exceed six months and a fine of not less than fifty thousand Kuwaiti Dinars and not more than two hundred thousand Kuwaiti Dinars or with either of the two penalties.

(Article 142)

Whoever un-intentionally causes pollution in the marine zones stipulated in article (68) of this law in violation to the provisions of articles (72, 73, 74, 75, 76,71) shall be punished with a fine of not less than thirty thousand Kuwaiti Dinars and not exceeding one hundred fifty thousand Kuwaiti Dinars.

(Article 143)

Whoever violates articles (77) and (82) of the law shall be punished with a fine of not less than ten thousand Kuwaiti Dinars and not exceeding fifty thousand Kuwaiti Dinars, and any person who do one of the following:

1. Failure to equip the ship with pollution reduction equipment in violation of the provisions of article (70) of this law.
2. Failure to take all the necessary precautions for preventing or minimizing the impacts of pollution prior to or after the occurrence of the fault in the ship or one of its equipment.
3. Failure to immediately notify the competent administrative authority of any oil leakage or any other material incident in violation article (80) of this law.

(Article 143- bis)

Whoever dumps any type of garbage (trash) or waste on Kuwaiti public shores and islands is punishable by a fine of not more than Ten Thousand Kuwaiti Dinars.

The owner of a small boat whose workers dump any type of garbage (trash) or waste in the marine environment is punishable by a fine of not more than Ten Thousand Kuwaiti Dinars. In the event of repetition and confiscation the same penalty is imposed.

The owner of a medium-sized, commercial and personal vessel whose crew members dump any type of garbage (trash) or waste in the marine environment is punishable by a fine of not more than Thirty Thousand Kuwaiti Dinars. In the event of repetition and confiscation the same penalty is imposed.

The owner of an oil tanker or commercial vessel whose crew members dump any type of garbage (trash) or waste in the marine environment is punishable

by a fine of not more than One Million Kuwaiti Dinars. In the event of repetition, the penalty is doubled.

In all cases, the EPA may seize the boat or vessel until payment of the fine. The proceeds of the said fines are transferred to the Environmental Protection Fund.

(Article 144)

Without prejudice to the provisions of articles (160, 161) of this law, the Competent Minister or whom he authorizes in this regard may, upon the request of the concerned parties, accept settlement in the cases of unintentional caused pollution as follows:

1. Paying the amount of not less than fifty thousand Kuwaiti Dinars, in case of the violation of any of the provisions of articles (72, 73, 74, 75, 76).
2. Payment of pollution combating measures costs issued by the competent technical committee as stipulated in article (81/item 7) of this law.

Accepting the settlement shall result in the expiry of the penal case against the accused.

(Article 145)

Whoever commits one of the following acts shall be punished with a fine of not less than ten thousand Kuwaiti Dinars and not exceeding forty thousand Kuwaiti Dinars:

1. The ship does not maintain a record for oil or for the shipment of other hazardous materials referred to in articles (78, 79) of this law, or ignored to register the due date therein, or deliberately registered misleading information.
2. The ship does not hold the international certificates related to oil pollution prevention pursuant to international agreements, and those endorsed by the Competent Minister for ships raising a flag of a country which is not a member of the international agreements in this regard.

(Article 146)

The owner of the ship shall be punished with imprisonment of not less than two months and not exceeding two years and a fine of not less than ten thousands Kuwaiti Dinars and not more than one hundred thousand Kuwaiti Dinars or one of these two penalties if he left the ship or his facility in the restricted marine area without obtaining the necessary permission from the competent department, along with binding him by the expenses of the remedy of the contravention pursuant to the decision of the competent committee as stipulated in article (81/item 7) of this law.

(Article 147)

Whoever violates the provision of article (95/first paragraph) of this law shall be punished with a fine of not less than one hundred Kuwaiti Dinars and not exceeding one thousand Kuwaiti Dinars.

(Article 148)

Whoever violates the provision of article (96) and (97) of this law shall be punished with imprisonment for a period not exceeding one year and a fine of not less than two thousand Kuwaiti Dinars and not exceeding twenty thousand Kuwaiti Dinars.

(Article 149)

Whoever violates the provisions of the first paragraph of article (100) of this law shall be punished with imprisonment for a period not exceeding one year and a fine of not less than five hundred Kuwaiti Dinars and not exceeding five thousand Kuwaiti Dinars or with either of the two penalties, along with confiscation of the seized wild organisms, and the used tools.

Also, whoever violates the provision of the third paragraph of article 107 and article 108 of this law shall be punished with imprisonment of not less than one year and not exceeding three years and a fine not less than five thousand Kuwaiti Dinars and not exceeding fifty thousand Kuwaiti Dinars or with either of the two penalties.

(Article 150)

Whoever violates the provision of article 105 of this law shall be punished with imprisonment for a period not exceeding one year and a fine not less than five hundred Kuwaiti Dinars and not exceeding five thousand Kuwaiti Dinars or with any of the two penalties.

(Article 151)

Whoever violates the provision of articles 101 and 124 of this law shall be punished with imprisonment of a period not less than one year and not exceeding three years and a fine not less than five thousand Kuwaiti Dinars and not exceeding fifty thousand Kuwaiti Dinars or with any of the two penalties. In all cases, the seized wild organisms and heritage pieces, the subject of the crime, should be confiscated.

(Article 152)

Whoever violates the provision of article 173 of this law shall be punished with imprisonment for a period not exceeding one year and a fine not less than one thousand Kuwaiti Dinars and not exceeding five thousand Kuwaiti Dinars or with either of the two penalties.

(Article 153)

The penalties stipulated in this law shall not be applicable to pollution cases resulting from:

- a) Securing the safety of lives or means of transportation or goods.
- b) The unloading operations resulting from a fault incurred by the ship or aircraft or the devices of either of them, provided it should not have taken place by the person in charge of any of them with the purpose of breaking down or damaging the same, or due to negligence. In all cases, it is conditional that the person in charge of any of them should have taken, prior to the fault and thereafter, all the necessary precautions sufficient for prevention or reducing pollution effects, and shall immediately notify the competent department.
- c) A sudden break in a pipeline carrying the oil or oil mixture during operations, drilling, exploration, or well testing, without negligence in pipelines monitoring or maintenance, and provided that all necessary precautions are taken for the pipelines monitoring operation and controlling pollution and its source once it occurs. The above shall be made without prejudice to the right of the affected person's right to claim the causing party for the costs of removing the effects resulting from such pollution and compensation for the damages and losses resulting thereof.

(Article 154)

In all cases, if the person who caused of the pollution commits any violation of the provisions of Chapter One of Section Four of this law within five years from the date of the first violation, the punishment shall be doubled, and the rules of settlement stipulated in this Chapter shall not be applicable to him.

(Article 155)

Every person entrusted with monitoring the implementation of the provisions of this law, and its bylaws and regulations shall be punished with imprisonment for a period of not more than one year if the violation to such provisions has taken place as a result of his contribution with the violator.

(Article 156)

Whoever commits a violating act to the provisions of this law shall be punished with imprisonment for a period of not less than one year and not exceeding seven years, if his act causes a permanent disability to a person. However, the imprisonment shall be not less than three years and not more than ten years if the violation causes a permanent disability to three persons or more. If this act results in the death of a person, the imprisonment penalty shall be not less than five years and not exceeding fifteen years. The punishment shall be with life imprisonment if it leads to death of three persons or more.

(Article 157)

In case of issuing a court verdict for violation of this law, the court may order the publication of the full verdict or its summary in the newspapers it selects or via the audible and visible means of mass media, or to stick copies of the verdict or its summary on the places it specifies, and for not more than one month, at the expense of the convict.

Whoever removes such photocopies or hide them in any manner or damages the same shall be punished with imprisonment for a period of not more than three months and a fine not exceeding one thousand Kuwaiti Dinars or with either of the two penalties. If the doer is one of the persons in charge of the original violation or one of his labourers, he shall be punished with imprisonment for a period of not more than six months.

Section Eight

Civil Liability and Compensation for Environmental Damages

(Article 158)

The person in charge is responsible for the damage resulting from pollution, even if he is not mistaken, and the person causing the damage shall be held liable only if he commits a mistake.

(Article 159)

In case multiple persons are responsible for a pollution incident, the liability shall be a joint liability.

(Article 160)

Without prejudice to any other law, the person who is civilly liable for pollution shall be committed to compensate for:

- a) The damages incurred by natural resources.
- b) Any damages affecting the environment or limiting its beneficial use.
- c) Costs of cleansing, and pollution removal or mitigation of the same, and environment rehabilitation.
- d) Public utilities obstruction costs.

(Article 161)

Nothing in this law may prevent any normal or legal person or persons in charge to claim the person liable for pollution for compensation for the damages incurred by him as a result of such pollution.

(Article 162)

Both the producer and the distributor shall ensure the safety of the product whose contents or method of use, may expose the life of persons or properties to damage.

Liability for the products shall be established, whether the producer or the distributor is connected to the affected person with a contract or not.

(Article 163)

If the sources of damage are numerous, and the affected party cannot attribute the damage to its doer, the affected party may require one of the parties causing the damage to pay the full compensation for the damage incurred by him. The defendant may deny the liability that the activity he practices was not the cause of the damage, and that the damage occurred by virtue of an alien source which is not related to him.

(Article 164)

Whoever occupies a place for residence or other purposes shall be liable for any compensation to the affected party and for the damage incurred by him due to noise, odours or others, unless he proves that the damage occurred due to an alien reason, he has nothing to do with it.

(Article 165)

Whoever is threatened by the risk of pollution may ask the court to order the owner of the installation with the hazard activity or the owner of the waste site to submit a report or data about the materials produced or dealt with by him.

(Article 166)

The person who is liable for pollution shall be released from his liability if the damage was proved to be due to:

- a) Force majeure.
- b) If it totally took place due to intentional misconduct by one of the persons who is not related with the owner or the operator, whether contractual or subordinate.
- c) If it totally took place due to the negligence or fault of the competent administrative authority.

For the enforcement of the previous paragraph, it is conditional that the person liable for pollution has notified the competent department of the incident and its causes, if he is aware or should be aware of the same, and that he had taken all precautions necessary for preventing the accident or reducing the pollution effects.

(Article 167)

The cases arising from pollution incidents shall expire after the lapse of three years from the day the affected party is aware of the same and also who is responsible for the damage, and from the day of completing the limitation of the damages with respect to the claim of compensation for the damages incurred by the natural resources or from the day of completing the procedures for cleansing and removal of contaminated materials and rehabilitation of the environment with regard to the claims of those expenses.

Section Nine Concluding Provisions

(Article 168)

The Director General of the Authority along **with the higher council** or other concerned administrative authorities shall determine the employees necessary for conducting the required inspection works for implementing this law and its executive Bylaws, regulations and decisions, except for Chapter One of Section Four thereof, and proving the crimes violating its provisions. These employees shall be granted the status of judicial officers and shall have the right in this regard to enter all places where these crimes are committed, write the minutes, collect the samples, conduct the necessary measurements and studies in order to determine the extent of environment pollution and its sources, and ensure the enforcement of the regulations and systems related to the protection of workers and the environment. They shall also check the licenses and records and any other documents, obtain a photocopy of the same, and request the necessary information from the business owners or their representatives pursuant to the Executive Bylaw of this law and to seize all what they find in breach of the provisions of this law. Also, they may seek the assistance of policemen in this regard, if necessary.

(Article 169)

The employees entrusted with the execution of the provisions of this law and the implementing rules and regulations, referred to in the previous article of this law, shall take **the following** oath before the Director General **or someone delegated/ deputized by the higher council** that they will perform their work with total honesty and devotion, and will not reveal any of the work secrets which they may have access thereto by virtue of their functions, even after leaving office.

"I swear to Allah almighty that I shall perform my duties faithfully, loyally, impartially, and honorably and shall not reveal a professional secret I come to know in the exercise of my duties, even after I quit work."

(Article 170)

The Director General or whoever he authorizes, may request any information, data and documents he deems necessary from any public or private entity which practices any activity that may cause environmental pollution. The Authority may, in the place it deems appropriate for this purpose, establish monitoring centers pursuant to the requirements of environment protection, in coordination with the competent authorities. Also, the Authority may establish monitoring laboratories that shall be concerned with the final opinion in laboratory results related to environment pollution.

(Article 171)

The Public Prosecution shall undertake the investigation and prosecution in all crimes arising from the enforcement of the provisions of this law and the implementing bylaws, regulations and decisions. **Within two years from the date of application of this law, the court shall appoint a single, or multiple departments to deal with environmental crimes and disputes.**

(Article 172)

Every citizen or society concerned with environment protection may resort to the competent administrative and judicial authorities for the execution of the provisions of the law of environment and those stipulated in the Executive Bylaw of this law.

(Article 173)

Every public employee or others, during the performance of their duty, who is aware or may be aware of any violation for the provisions of this law or its Executive Bylaw that may result in an environmental damage, should notify the same immediately to the Authority or the Public Prosecution or the Policeman.

(Article 174)

With the exception of Chapter One of Section Four, the Director General or whoever he authorizes may grant the violator of the regulations and standards stipulated in this law or its Executive Bylaw, a grace period to immediately rectify his violation. If he fails to do so within thirty days, or it becomes evident during such period that the continuity of the violation may inflict serious damages to the environment, the Authority may, in agreement with the competent authorities, take the necessary legal procedures for ceasing

the violating activity, closing down the facility, or cancelling the license without prejudice to the penalties contained in this law, and to the compensation for the damages arising from such violations.

(Article 175)

The law No. 21 of 1995 establishing the Environment Public Authority, as amended by the law No. 16 of 1996 shall be cancelled, and also the law No. 12 of 1964 preventing the pollution of navigational waters with oil as well as any provision which is contradictory to the provisions of this law.

(Article 176)

The enforcement of the penalties stipulated in this law shall not prejudice the enforcement of any more severe penalty stipulated in any other law.

(Article 177)

The enforcement of the provisions of this law shall not prejudice the provisions of the law No. 19 of 1973 and the law No. 131 of 1977 referred to herein above, and shall not also prejudice the provisions of any other law regulating the protection of environment in special fields.

However, the authorities that implement these laws or any other authority having the power of issuing rules, regulations, and conditions related to environment protection should obtain the approval of the Authority prior to issuing such rules, regulations, and conditions.

(Article 178)

The Authority shall be subject to the prior control pursuant to the provisions of the law No. 30 of 1964 of establishing the Audit Bureau, and shall be also subject to the provisions of the law No. 37 of 1964 concerning public tenders.

(Article 179)

The Competent Minister or Specified Minister shall issue the necessary decisions, rules and regulations necessary for implementing the provisions of Chapter One of Section Four of this law. The Director General, upon the approval of the Board of Directors, shall issue the rules, regulations and decisions necessary for the implementation of this law, except Chapter One of Section Four thereof, within one year from the effective date of this law.

(Article 180)

The effective rules, regulations and decisions applicable at the time of issuing this law shall continue to be effective in all matters not contradicting with its provisions, until the issuance of the executive decisions, rules and regulations thereof.

(Article 181)

The Prime Minister, and Ministers, each within his jurisdiction, shall implement this law, which will be effective after the expiry of three months from the date of its publication in the Official Gazette.

Law No. 42/2014

Issued at Sief palace on: 1st Ramadan, 1435 A.H.
Corresponding to 29th June 2014. A.D.

Amir of Kuwait
Sabah Al-Ahmed Al-Jaber Al-Sabah

Law No. 99/2015

Issued at Sief palace on: 9th Dhule Qaida, 1436 A.H.
Corresponding to 29th June 2014. A.D.

Deputy Amir of Kuwait
Nawaf Al-Ahmed Al-Jaber Al-Sabah

Annex 42

[emblem]
State of Kuwait

**Speech by the Representative of His Highness the Emir of the State of Kuwait
Sheikh / Nawaf Al Ahmad Al Jaber Al Sabah - May God protect and bless him**

His Highness Prime Minister

Sheikh / Sabah Al Khalid Al Hamad Al Sabbah - May God protect him

**Head of the Kuwaiti Delegation Participating in the
Twenty-Sixth Conference of the Parties to the United Nations Framework**

Convention on Climate Change

United Kingdom - Glasgow

1-2 November 2021

Your Excellency Mr Boris Johnson - Prime Minister of the United Kingdom

Your Excellencies and Highnesses

Your Excellency Mr Antonio Guterres - Secretary-General of the United Nations

Ladies and Gentlemen

Peace be upon you and God's mercy and blessings...

Firstly, I am pleased to convey to you the greetings of His Highness Sheikh / Nawaf Al Ahmad Al Jaber Al Sabah – the Emir of the State of Kuwait, may God protect and bless him, along with his best wishes to you for success in the twenty-sixth Conference of the Parties (COP 26).

I am also pleased, at this international forum, to express my gratitude and appreciation to the United Kingdom, its leadership, government, and people for the warm reception, generous hospitality and good organization we have experienced. I must also congratulate Mr Alok Sharma on his election as President of COP 26.

Your Excellencies, Highnesses, Ladies and Gentlemen,

The phenomenon of climate change is one of the serious challenges facing the international community in our time, and combating it has become a priority for all countries of the world, out of their sense of collective responsibility. Indeed, its negative dimensions have become a threat to all aspects of economic, environmental and social life, thus requiring all of us to combine efforts to confront it, reduce its effects, and work together to achieve the goals of sustainable development, achieve the goals of the United Nations Framework Convention on Climate Change, and implement the Paris Agreement.

In compliance with the provisions of the Paris Climate Agreement, the State of Kuwait updated its Nationally Determined Contributions document on 12 October 2021. Indeed, the State of Kuwait is investing in a package of development projects based upon a vision aimed at avoiding an increase in greenhouse gases, corresponding to 7.4% of its total emissions, until the year 2035. Moreover, sustainable development plans and programs have been approved at the national level, in order to move to an economic system with a low carbon footprint, based upon forecasts of its future emissions under business as usual work patterns for the period from 2015 to 2035.

The State of Kuwait attaches great importance to diversifying the sources of energy production in the country, through the introduction of renewable energies and the replacement of fossil fuels with liquefied gas, to ensure the sustainability of energy supplies for future generations. Moreover, we have voluntarily and deliberately come a long way, based upon the capabilities available to us, in rehabilitating our oil and industrial facilities and turning to modern oil refineries to produce clean environmental fuels.

Ladies and Gentlemen,

The State of Kuwait seeks to adopt a national low-carbon strategy until 2050, built upon the principles of the circular carbon economy, work to enhance the reduction, disposal, reuse and recycling of greenhouse gases, and enact legislation and laws related to reducing emissions and adapting to their negative effects at the national level, in line with local, regional and international environmental obligations.

The State has also paid great attention to increasing the number of natural reserves to over 15% of the total area of the country. This is in addition to planting mangroves on the coasts and northern islands of the State of Kuwait, with the aim of capturing and storing carbon.

Your Excellencies, Highnesses, Ladies and Gentlemen,

The State of Kuwait actively participated in the Clean Development Mechanism program within the Kyoto Protocol. We look forward to participating in the mechanisms of Article 6 of the Paris Climate Agreement, as it related to market and non-market mechanisms and joint cooperation, in order to promote sustainable development and environmental safety. We hope that the Agreement's guidelines will be approved at this conference, provided that the methodologies and guidelines are in line with the requirements of developing countries and help with implementation of their future national contributions in a manner that achieves their sustainable development goals.

In conclusion, I reiterate my gratitude and appreciation to the government of the United Kingdom. I hope that the work of COP 26 will culminate in ambitious decisions that

serve as a basis for international cooperation to reach the goals of the Framework Convention on Climate Change and the Paris Climate Agreement

Peace be upon you and God's mercy and blessings,

Annex 43

Speech of

His Highness the Amir of the State of Kuwait

Sheikh Nawaf Al-Ahmad Al-Jaber Al-Sabah

&

His Highness the Crown Prince of the State of Kuwait

Sheikh Mishal Al-Ahmad Al-Jaber Al-Sabah

Presented By

His Excellency the Minister of Foreign Affairs of the State of
Kuwait

Sheikh Salem Abdullah Al-Jaber Al-Sabah

For the

28th Conference of the Parties of the United Nations
Framework Convention on Climate Change (COP28)

Dubai, United Arab Emirates

1 – 2 December 2023

Your Highness Sheikh Mohamed bin Zayed Al Nahyan, President of the United Arab Emirates

Your Excellency Mr. Antonio Guterres, Secretary-General of the United Nations

Your Majesties, Highnesses and Excellencies,

Ladies and Gentlemen,

It is my great honor to represent His Highness Sheikh Nawaf Al-Ahmad Al-Jaber Al-Sabah, Amir of the State of Kuwait, and His Highness Sheikh Mishal Al-Ahmad Al-Jaber Al-Sabah, the Crown Prince of the State of Kuwait, as we extend our heartfelt wishes for success in the twenty-eighth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change.

I would also like to express our sincere gratitude to the United Arab Emirates for their warm reception, generous hospitality and meticulous organization of this crucial international conference which is a testament to the high-level international participation it has garnered.

Your Majesties, Excellencies, and Highnesses,

The State of Kuwait, aligned with the global community's commitment to mitigating the impact of climate change on our planet, recognizes the paramount importance of managing the climate change portfolio at the national level. This involves the development of programs and plans capable of reducing emissions and implementing low-carbon development strategies across key sectors such as oil and gas, energy, transportation, industry, land use and agriculture. These strategies incorporate a comprehensive roadmap for achieving sustainable economic growth, utilizing innovative technical solutions in the realm of the circular carbon economy.

In pursuit of addressing the adverse effects of climate change on social, economic and security fronts, as well as its repercussions on food security and public health, the State of Kuwait, through the Kuwait Fund for Arab Economic Development, has contributed to a range of low-carbon development projects in developing countries. The Kuwait Fund has financed projects in 105 countries totaling more than \$23 billion, with approximately \$523 million specifically allocated to green initiatives in the past decade. Additionally, in 2017, Kuwait, through the Kuwait Investment Authority, joined the One Planet Initiative for sovereign wealth funds, aligning investment with climate change goals to transition towards a resilient, low-carbon economy.

Your Majesties, Excellencies, and Highnesses,

The State of Kuwait has played a substantial role in the Clean Development Mechanism program under the Kyoto Protocol, presenting 14 projects aimed at reducing carbon emissions. We look forward to active participation in both market and non-market mechanisms, fostering collaboration within Article 6 of the Paris Climate Agreement, which strives to reduce emissions and uphold the principles of sustainable development.

In line with the Paris Agreement, particularly paragraph 19 of Article 4 focusing on long-term strategies, the State of Kuwait is set to deposit a low-carbon strategy with the agreement's secretariat in the near future. This strategy aims to achieve carbon neutrality in the oil and gas sector by 2050, paving the way for the entire State of Kuwait to attain carbon neutrality by 2060, anchored in the principles of the circular carbon economy.

Finally, I would like to reiterate our sincere gratitude and appreciation to the leadership, government, and people of the United Arab Emirates. We wish this conference resounding success.

Annex 44



UNITED NATIONS
KUWAIT



EXPLORING CLIMATE ACTION IN KUWAIT

A FOCUS ON ENVIRONMENTALLY SUSTAINABLE FINANCE

UNITED NATIONS
RESIDENT COORDINATOR OFFICE IN KUWAIT

5 JULY 2021



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United Nations
KUWAIT
United for Peace, Rights and Development for All

EXECUTIVE SUMMARY

Over the past few decades, it has been a widely accepted phenomenon that industrialization in Kuwait has been realized largely based on a fossil fuel-driven production method. It does, however, contradict the contemporary global normative force of low-carbon growth. In effect, fossil fuel accounts for over 90 per cent of the domestic energy consumed in the country. As such, the trend of per capita GDP in Kuwait has inevitably been associated with the dynamics of CO₂ emissions. Besides, such growth pattern has been characterized by the inefficient use of available energy resources, further causing a greater carbon footprint combined with growing energy needs from population growth and rising living standards. **This growth pattern without a proactive policy for the country's long-term climate resilience raises doubt about the sustainability of future growth trajectory in this regard.**

Kuwait is currently confronted with a series of climate challenges – the country is known for its harsh climate, hot weather and frequent sandstorms, all of which pose serious health threats to its citizens and are further associated with unfavorable dynamics in socio-economic activities. The marine ecosystem is particularly at risk largely due to climate change affecting increased temperatures of sea surface waters. Such a climate trend especially puts a burden on the fisheries sector, the second largest after oil-related industries. Furthermore, the country's soil is considered inadequate for farming, attributed to the relatively small amount of rainfall. Partly as a consequence, Kuwait is restrained by the amount of land available for farming and the number of crops which further put the country's food security at serious risk. In the meanwhile, fresh water is a scarce resource, owing to Kuwait's geographical features, including the absence of rivers and the small amount of precipitation. Coupled with such restrains, the increasing population and its associated water demand remain additional burdens. As a result, Kuwait has both one of the highest per capita energy consumptions in the world and one of the highest waste generation rates, collectively resulting in severe air pollution.

In response to those stylized climate challenges, the Government of Kuwait has made significant efforts by designing and implementing several environment quality-enhancing projects and programs. For the electricity sustainability initiative, the country invests in energy efficient desalination plants, while projects on solar and wind energy parks are also underway, thereby targeting to increase the share of renewable energy in the electricity mix. Furthermore, the country has scaled up its efforts in improving data infrastructure to be used for environmental research that could further better inform decisions on environment policies. Meanwhile, wastewater treatment plants are being built for industrial use, which could further be used for the irrigation of green spaces that are being built in the fight for climate conservation. In terms of promoting behavioral change, the government attempts to strengthen awareness raising initiatives, collaborating with various non-governmental organizations to increase the sustainable/efficient use of water resources; individual-level recycling and changing its waste management practices to environmentally responsible ones are also emphasized in the form of awareness campaigns.

Notwithstanding such tremendous nationwide efforts, there still exists several policy gaps. These can be categorized into: (i) the still-high level of energy consumption and air pollution; (ii) a relative lack of modern technologies employed in the sectors of seawater desalination, wastewater treatment and waste management facilities in an integrated manner; (iii) a weaker understanding (uncompetitive knowledge base) of the complexity between climate change and socio-economic dimensions; and (iv) a lack of proactive measures against climate change, engaged by the private sector in terms of finance and investment. Although the first gap can be associated somewhat with macro-level industrial strategies, the other three gaps could be addressed in a more effective manner by embracing a focus on sustainable finance practices. It is mainly because doing so could strengthen private sector engagement and any form of capital (both human and financial) would thus contribute to environmentally-friendlier processes, particularly on the technology front. While being engaged in sustainable finance practices, the continuous efforts on promoting a culture of recycling and responsibility especially at the individual and community level would be required to maximize the likely impact on society as a whole.

The experience of neighboring GCC countries, where various sustainable/green finance practices have been incorporated in their national climate actions, is instructive. The Government of Bahrain, for instance

collaborates with the National Banks Association to promote Environmental, Social, and Governance (ESG) reporting and guidelines while granting loans to innovative entrepreneurs with green ideas. The Bahrain Stock Exchange is also committed to such ESG practices. In the meanwhile, the United Arab Emirate could be considered at an advanced level in many aspects of environmentally sustainable finance. For instance, a special environment fund was created for the private sector to transition towards greener practices; meanwhile, a new legislation was passed aimed at recycling 75 per cent of all municipal solid waste, and ESG guidelines were adopted by the Dubai Stock Exchange and many financial institutions in the country. In Saudi Arabia, awareness is being raised to imbed recycling and other environmentally friendly practices into society; and regulations are being employed to promote green projects – i.e., the private sector participation law aims to promote private investment, strengthen public private partnerships and regulate the national Privatization Program by establishing a more transparent legislative framework.

In short, after a series of systematic discussions and analyses (i.e., an identification of the five stylized facts of climate challenges, a policy gap assessment and a thematic review of neighboring GCC countries), **it is recommended that the Government of Kuwait take into account the following five policy ideas:**

- **ESG Standard on Reporting and Disclosure:** Stimulate ESG reporting and disclosure practice by (a) designing an incentive mechanism to the reporting companies, (b) providing capacity building for materiality assessment and alignment with business strategies, (c) shaping a supportive regulatory framework in relation to ESG practices and (d) targeting sustainable finance policies and rules to become mandatory. The initiative can primarily focus on the firms operating in sectors, which concern waste, efficient desalination plants, wastewater treatment plants as well as making use of underdeveloped open spaces for more greenery;
 - **Kuwait Green Innovation Fund:** Establish a blended financing window (with the principle of “vulnerability-responsive”) by partnering with leading banks for sustainable/green transition projects and initiatives, and potentially categorizing a (a) *Green Energy* pillar (renewable energy project), (b) *Clean Air* pillar (air pollution reducing project) and (c) *Blue Ocean* pillar (biodiversity and food security project), through the provision of loans (SDG-linked loans) or performance-based payments under the technical assistance facility, which mainly prioritizes MSMEs, entrepreneurs and women-led small businesses;
 - **Integrated Waste Management Public Private Partnership:** Promote a public-private partnership for a waste management system that focuses on an integrated system of “prevention-sorting-recycling-recovery-reuse” towards a sustainable waste treatment factory and logistics. This should be accompanied with a well-structured regulatory framework in collaboration with the WRDM and WTRT programs in relations to MYAH and TADWEER initiatives under the KNDP. Various procurement options, depending on the nature of proposed waste management projects, need to be explored in terms of a feasibility assessment, including solicited or unsolicited procurement schemes, Minimum Revenue Guarantee and Redemption of Excess Revenue, New Risk-Sharing Structure as well as procurement schemes (e.g., BTO, BTL, BOT, BOO);
 - **Kuwait Climate Action Lab:** Form an innovative action platform under co-management among national environmental authorities, international organizations, and partnering with the private sector, universities and NGOs, with a focus on a (a) *Climate Fund Partnership* cluster in the strengthening of a global and regional network for green funding and collaborating with green promoting platforms in place, (b) *Knowledge for Advisory* cluster in providing innovative and technical advice while exploring opportunities to establish a green material bank to cope with construction-related pollution and (c) *Tool of Change* cluster in integrating awareness raising efforts for behavioral change at the individual, community and corporate level; and
 - **Climate-Related Statistical Capacity:** Integrate a set of climate change-related indicators with particular focus on the SEEA (System of Environmental Economic Accounts) framework into the existing national statistical system (i.e., eMISK, Baetona and CIS) that could help better inform decisions on climate action and environmental policies towards sustainable economic transformation. The set of proposed indicators consists of five areas including drivers, emissions, impacts, mitigation, and adaptation, thus associating emission with indicators in social, economic and environmental domains and sustainable development.
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EXPLORING CLIMATE ACTION IN KUWAIT:

A FOCUS ON ENVIRONMENTALLY SUSTAINABLE FINANCE

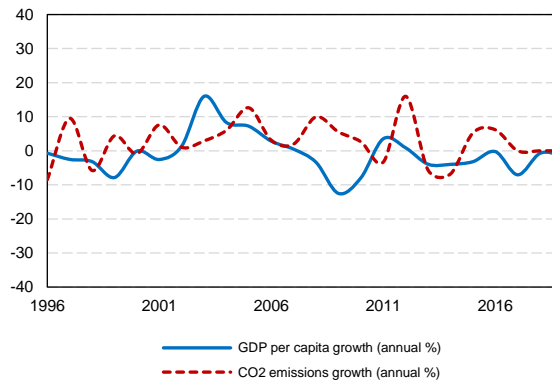
1. Stylized facts about climate challenges in Kuwait

Over the past few decades, it has been a widely accepted phenomenon that industrialization in Kuwait has been realized largely based on a fossil fuel-driven production method. It does, however, contradict the contemporary global normative force of low-carbon growth. In effect, fossil fuel accounts for more than 90 per cent of domestic energy consumption (with over 50 percent and nearly 40 per cent of the system being powered by oil and natural gas, respectively). As such, the trend of per capita GDP in Kuwait has inevitably been associated with the dynamics of CO2 emissions (see Figure 1.1). Besides, such a growth pattern has been characterized by the inefficient use of available energy resources, further causing a greater carbon footprint combined with growing energy needs from population growth and rising living standards as well as the increase in temperature in recent years. This growth pattern without a proactive policy for the country's long-term energy resilience raises doubt about the sustainability of future growth.

The necessity for a sustainable energy structure is increasing as the country is highly vulnerable to climate change, owing to its geographical characteristics. For instance, the country is located in the most water-stressed region in the world. Therefore, a large portion of its population's livelihood is greatly exposed to climate risk especially concerning water and

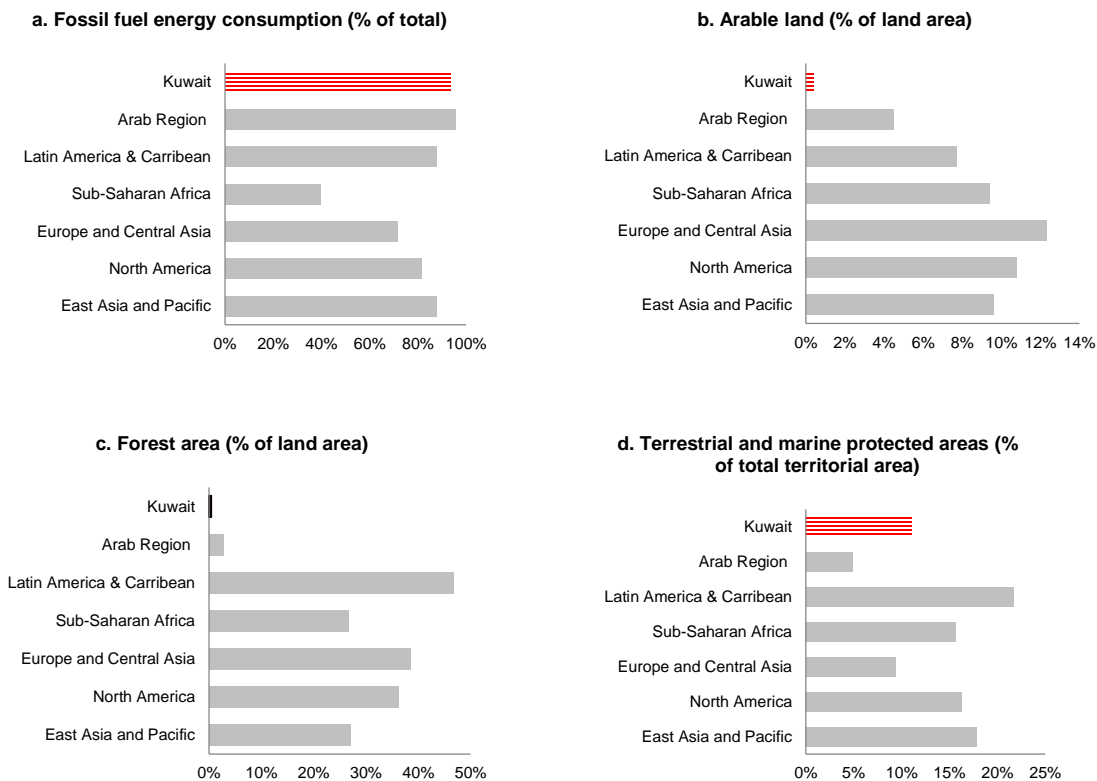
food security. Besides, an unpredictable weather pattern caused by climate change effects is likely to impact agriculture in the country. This is mainly due to high temperatures, droughts, floods, soil degradation and extreme weather events. The negative effect of climate change, thus, is likely to pose a severe threat to the human health and sustainable development for Kuwait and its citizen (see Figure 1.2).

Figure 1.1. Carbon dioxide emissions vs. per capita GDP growth in Kuwait



Source: Author's own elaboration on the basis of the WDI (2021)

Figure 1.2. Climate change vulnerability in selected countries/regions



Source: Author's own elaboration on the basis of the WDI (2021)

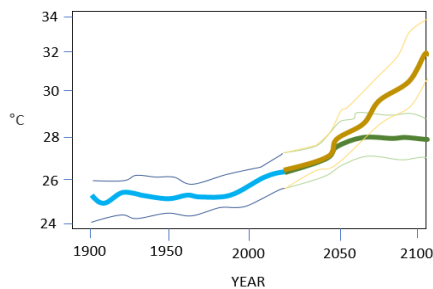
Unaccommodating weather

It is true that the country has adapted to its very harsh weather conditions over the past few decades. Kuwait is positioned on a dry tropical and sub-tropical desert with a hyper arid climate and its annual rainfall has a range of 75 – 150 mm, reaching as high as 600 mm per year. Meanwhile, summers and winters in Kuwait experience significantly different temperatures.

The temperature can reach up to 48 °C and has an average of 44 °C in the summer. During these periods, which are significantly longer than the winters, aggressive northwestern dust storms are very common events. From March through to April, the frequent dust storm¹ events rose from 8.3 days per year in 1987 to 97.4 days in 2016. In the later summer months, between May and September, the climate’s humidity is felt. By the end of October, the winter-summer cycle starts again, with the temperature dropping to as low as -6 °C at night-time. Meanwhile, daytime sees a wider range of temperatures at 10 – 17 °C (Kuwait National Adaptation Plan 2019-2030, 2019).

Overall, temperatures are expected to increase from 2.4 to 4.8 °C by the end of this century according to the World Health Organization (WHO, 2015) (see Figure 1.3). Under the current emissions scenario, the mean annual temperature in Kuwait is projected to rise by about 6.2°C on average from 1990 to 2100. If emissions decrease rapidly, the temperature rise will be limited to about 1.7°C.

Figure 1.3. Projected scenario of temperature evolution in Kuwait



Source: WHO Kuwait Climate and Health Country Profile (2015)

A difficult soil for farming

The nature of Kuwait’s soil restrains farmers in the number of crops they can plant and the methods they can use. Due to the country’s arid climate, it is nearly impossible for the soil to form, as the evaporation rainfall ratio is very low, and most parent material is formed from marine-origin sedimentary rocks. The soil is coarse and has a high saline content. Vegetation in these soils is not very useful due to the ineffectiveness of the biological weathering to provide organic matter. Strong wind erosion, which displaces the topsoil layer, also limits the soil formation. Very small percentages of the land are being used

¹ These frequent dust events significantly contribute to an increase in air quality particulate matter PM2.5 and PM10. As a result, the annual PM2.5 levels have a median of 75 of µg/ m3, which is at least seven times the annual recommended limit set by the WHO.

² Approximately 85 per cent of the Protected Agriculture is carried out in uncooled (57 per cent) and cooled (28 per cent) plastic tunnels, with the remaining

for agriculture, about 5.7 km². The water used for plants is saline water from wells. This, along with other factors like wind erosion, low rain, high evaporation, temperature, and the hardness of the soil, all limit the productivity of the soil.

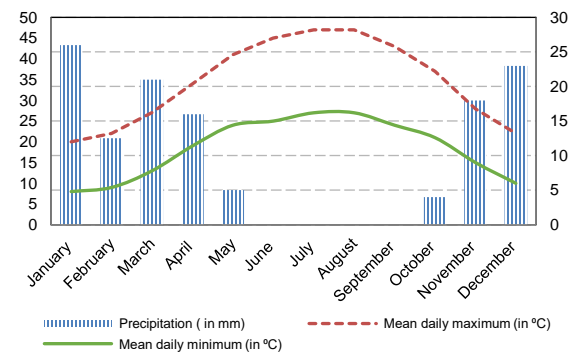
As a result, the total area that could be potentially used for agriculture is marginal, less than 1 per cent of the country’s total land and the area that is actually used for cultivation is even less so (see Figure 1.2). There are several areas in the country equipped for agriculture: the Ahmadi occupies about 3,935.3 ha, the Jhara district is 6,206.9 ha. Meanwhile, the water used for irrigation is either groundwater or from nonconventional sources, amounting to 7,742.1 ha and 2,400.1 ha, respectively (FAO, 2013).

Due to the country’s harsh climate and the huge negative impact the Gulf War had on the land and agriculture, farmers had to rely on Protected Agriculture,² which ranges from “simple uncooled and unheated plastic tunnels to very sophisticated computer-controlled, cooled and heated, metal-frame glasshouses. Cucumber and tomato are the two main crops grown in the Protected Agriculture, accounting for approximately 90 per cent of the total area”.

Lack of freshwater resources

Concerning water scarcity, the country has few natural fresh water sources³ (see Figures 1.4 and 1.5), so it has adopted some costly energy techniques to overcome this challenge. With population growth increasing, water from wells was no longer enough, and so the government built a desalination plant in Kuwait in 1953, followed by two others in Doha with the capacity reaching 138 M gallons per day, to keep up with the increasing water demand caused by the population growth. A third plant was built for desalination by reverse osmosis nearby. Increased temperatures may have indirect effects on the water desalination, such as increasing seawater salinity and water irrigation demands. There are three main water sources for urban and agricultural uses in Kuwait, desalinated water groundwater and treated wastewater.

Figure 1.4. Average annual temperatures and precipitation



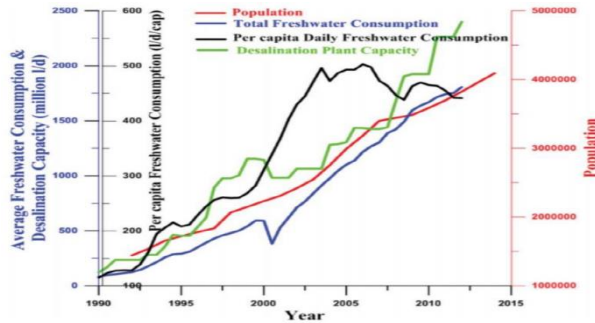
Source: Author’s own elaboration on the basis of Kuwait National Adaptation Plan 2019-2030 (2019)

15 per cent in cooled greenhouses covered with fiberglass, glass, or acrylic material.

³ Endogenous precipitation is 121 mm/year (long-term average), which amounts to 2.156k 10⁹ m³/year in 2014, which is respectively low. It increases to 39.18 mm in December 2017 from 13.26 mm in November of 2015 as shown in the figure below.

In effect, there are no permanent rivers in the country and when considering how high the level of evaporation is, streams and runoff water only last a few hours after rain. Groundwater replenishing is even scarcer due to how dry the soil is and the infamous evaporation rate. The groundwater produced internally amounts to nothing, as too the surface water, meaning that there is no overlap between the ground and surface water.

Figure 1.5. Variation of freshwater consumption, population growth, and desalination plant capacity in Kuwait 1990-2015



Source: Mukhopadhyay and Akber (2018)

Marine ecosystem at risk

Over the years, the country has experienced the extinction of many species due to extensive and unregulated hunting,

habitat loss and fragmentation, genetic pooling, species isolation and the loss of proper habitat for specific species. And unless immediate and drastic changes and actions take place to protect and preserve these species, Kuwait will continue to suffer a drop in its biodiversity.

A raking of climate change risks helps identify the most urgent risks and vulnerabilities that need to be addressed, and to do so each risk is given a grade on multiple criteria then a weighted average is computed (see Table 1.1). In particular, increased Sea Surface Temperature (SST), increased salinity and ocean acidification were given the highest scores among the climate change risks. Increased SST was given the highest score (5) in all criteria because it is the most threatening risk in coastal and marine environments as it has already reached intolerant levels (Al-Yamani et al., 2004; Glibert et al., 2002). Furthermore, increased salinity was given a score of four in damage, risks and impact since organisms living near estuarine systems such as those in coastal and marine environments of Kuwait exhibit a degree of tolerance to the salinity fluctuation. Ocean acidification was given a score of four in mitigation since it is caused by very complex factors including anthropogenic activities that can be controlled. The high SSTs⁴ in summer seasons and overall increasing SSTs due to climate change (Al-Rashidi et al.,2009) pose a serious threat to these valuable ecosystems. Coral reefs experience thermal stress during winter and summer seasons. Ocean acidification along with other stressful factors, such as increasing seawater salinity⁵, are expected to have serious negative effects on biotic and abiotic processes within Kuwait’s marine and coastal ecosystems.

Table 1.1. Ranking of climate change risks and vulnerabilities

Climate Change Risks/Vulnerabilities	Sector	Damage (30%)	Risks (20%)	Urgency (20%)	Mitigation (15%)	Impact (15%)	Weighted Sum		
Increased SST	Marine and Fisheries	5	5	5	5	5	5		
Increased salinity	Marine and Fisheries	4	4	5	5	4	4.35		
Ocean acidification	Marine and Fisheries	4		3		5	4	4	4
Increasing air temperature	Water resources	4	5	5	3	4	4.25		
Saltwater intrusion	Water resources	4		4		5	2	4	3.9
Inundation of low laying areas	Coastal zone	5		4		5	3	4	4.35
Increased dust events	Health	3		3		5	3	3	3.4
Heat waves	Health	3		3		5	3	3	3.4

Source: Author’s own elaboration on the basis of Kuwait National Adaptation Plan 2019-2030 (2019)

The living standards and air pollution nexus

Kuwait has been confronted with challenges related to greenhouse gas emissions and air pollution which cause much of the country’s environmental damage directly and adversely affect human health (see Figure 1.6). As the contributor to over

90 per cent of the oil consumption in Kuwait, vehicles that emit pollution are strictly regulated by the authorities responsible. Buildings (government, residential, and commercial) consume about 80 per cent of the electricity generated. In the business-as-usual case, residential electricity demand grows by 1.2 per cent per year. Partly as a consequence, the per capita energy

⁴ SST Kuwait waters increase from January (15.4 oC) and February (15.7 oC) to August (32.4 oC) and then in December decrease again (18.1 oC). This wide temporal range of SST significantly disturbs coral reef ecosystems that relatively extend in warmer waters most of the year.

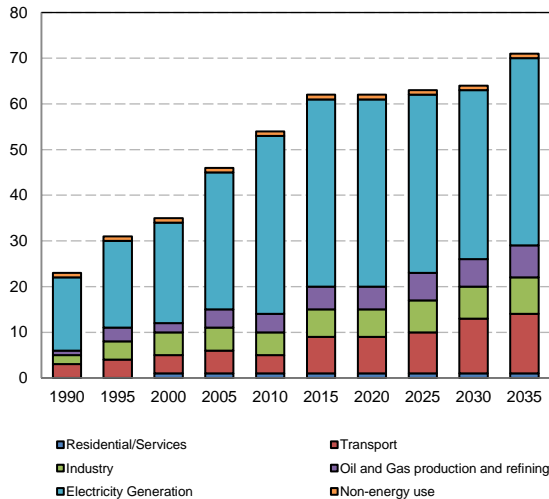
⁵ Kuwait seawater salinity ranges from 38.6 to 42.4 psu: This range is relatively high compared to the southern Arabian Gulf waters near the Strait of Hurmoz that has an average salinity of 36.5–37 psu.

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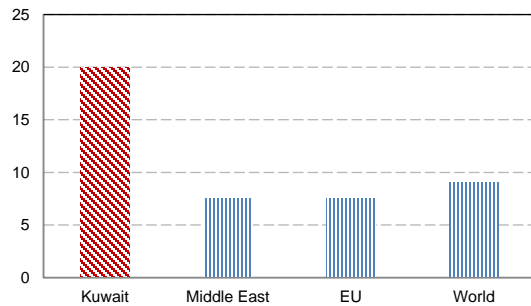
consumption in Kuwait is among the highest in the world (see Figure 1.7).

Figure 1.6. CO2 emissions by sector in Kuwait (in million tons of CO2)



Source: Author's own elaboration on the basis of the Kuwait Institute for Scientific Research (2019)

Figure 1.7. per capita emissions as of 2018 (in tons of CO2)



Source: Kuwait Institute for Scientific Research (2019)

Due to historically lax energy-efficiency regulations and codes along with its hot climate, demand for air conditioning services in Kuwait accounts for some 70 per cent of residential electricity demand, the highest in the GCC region. In terms of equipment and appliances, Kuwait lacks in national mandatory Minimum Energy Performance Standards (MEPS) and labels, which allows the country's market of inefficient appliances, particularly air conditioners, to grow. The same problem holds true for lights; an absence of energy-efficient lighting leads to intensive-energy-consuming lights.

In effect, Kuwait's populated areas are affected by suspended dust, partly due to natural resources as well as uncontrolled emissions from industrial and power plants. One challenge is the increase of uncontrolled emissions directly related to residential areas, thereby increasing exposure to pollution. In this respect, Kuwait is particularly vulnerable to air pollution (see Table 1.2) that may result from industrial activities and climate change. Any slight shift in the weather may result in significant air pollution.

Table 1.2. Ranking of the world's most polluted countries in 2020, selected countries out of 106 countries

Rank	Country	Score
1	Bangladesh	77.1
2	Pakistan	59.0
3	India	51.9
4	Mongolia	46.6
5	Afghanistan	46.5
6	Oman	44.4
7	Qatar	44.3
11	Bahrain	39.7
15	Kuwait	34.0
20	United Arab Emirates	29.2
29	Saudi Arabia	23.3

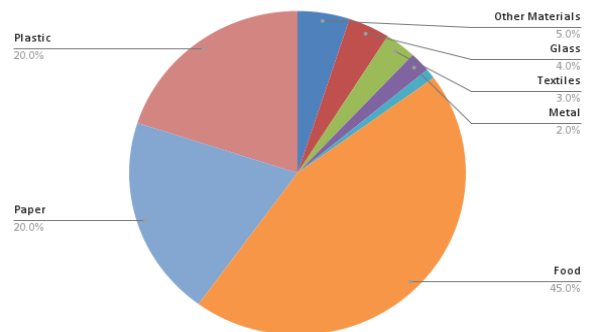
Source: Author's own elaboration on the basis of the World Air Quality Report (2020)

Note: Arranged by annual average PM2.5 concentration ($\mu\text{g}/\text{m}^3$), weighted by population based on the available data

The burden of waste management

Another by-product of high standards of living is having to deal with the huge amount of waste, which is a burden for the country's society as a whole, considering the health threat it causes. Solid waste has increased substantially in the last decade in the country due to several reasons like industrial growth, population increase, and slow development of solid waste management. Kuwait has one of the highest waste generations in the world, coming at 2 million tons per annum, largely owed to a high standard of living and lack of awareness about sustainable solid waste management. Currently, the rate at which the Municipal Solid Waste (MSW) is generated stands at 1.32 kilo-gram/capita/day (KPPC, 2019b). This far exceeds the global average of 0.74kg/capita/day, and the regional average of 0.81 kg/capita/day. Waste in Kuwait is made up mostly by food which makes up about 45 per cent which is around 1.5 times the world average, while 20 per cent is caused by paper and 20 per cent by plastic (see Figure 1.8). There are limited recycling and reuse activities in the country. Currently, less than 2 per cent of municipal waste is recycled, which is mainly done through scavenging activities by collectors, while the rest is collected by solid waste management companies and transported to landfills daily all year long.

Figure 1.8. Kuwait waste composition



Source: Author's own elaboration on the basis of KPPC (2019a)

2. Kuwait’s recent climate action and policy gap

To deal with those climate-related challenges prevalent in the country, the government has made significant effort in designing and implementing several environment quality-enhancing projects and programs. It is then important to review the Kuwait National Development Plan (KNDP) policies in the area of the environment in relation to the stylized facts facing

the country. Table 2.1 shows close convergence between the objectives of the policies and the special needs stylized in the country. However, their implementation remains no easy task in maximizing the impact on society, which requires an additional but systematic review at the program and initiative level.

Table 2.1. KNDP policies to build a livable and harmonious environment in relation to the stylized facts

KNDP Policies	Implementation	Areas of development (stylized facts)
Improve water resource management, including wastewater treatment and reclamation, water use efficiency, and desalination	<ul style="list-style-type: none"> Develop an institutional capacity to govern water resource management Grow capabilities to develop and implement integrated water resource management policies 	Water scarcity and high energy consumption
Build eco-cities using green building and green infrastructure principles, and smart technology	<ul style="list-style-type: none"> Roll out a smart meter system across all of Kuwait Train staff to operate the new systems 	Sustainable living environment, high energy consumption and renewable energy
Boost the role of renewables in the utilities sector	<ul style="list-style-type: none"> Complete construction of energy parks in partnership with the private sector Increase capabilities to operate and maintain the energy park 	Renewable energy, high energy consumption and air pollution
Integrate solid waste management, with a focus on improving waste disposal and resource recovery	<ul style="list-style-type: none"> Complete facility construction Increase manpower and capabilities to operate and maintain an integrated waste management system 	Waste management, recycling and renewable energy

Source: Author’s own elaboration on the basis of the KNDP (2020)

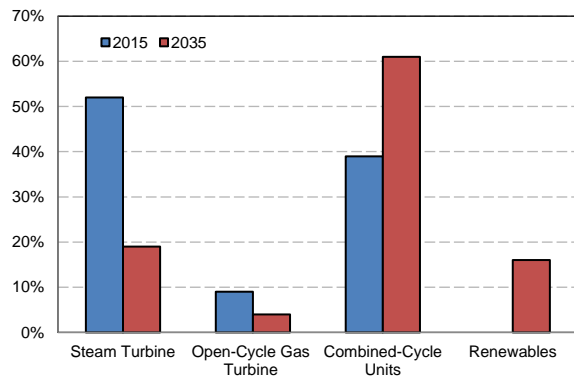
Energy consumption to be sustainable

Kuwait has been taking proactive measures to efficiently meet the future clean water and energy demands of its people. As such, Kuwait is investing USD 5.5 million jointly with MIT to conduct research on updating the current desalination plants and next-generation desalination plants. The government has been responsible for the implementation of this project since 2016 until today, with a budget of 320 million EUR. Furthermore, the country has a total of 40 operating multi-stage flash desalination units, with a total production capacity of 234 MGD (millions of gallons per day) while other units are under construction. Efforts are being put in place to cover the lack of modern technologies in the desalination of the seawater, noting that seawater desalination is the main source of freshwater in Kuwait. In particular, the SHABAKA initiative proposed by the KNDP aims to create a smart electricity grid across Kuwait. This will include installing smart meters in homes to track power consumption and equipping the electricity grid with smart management technology. The goal is to improve the management of energy resources and to facilitate the inclusion of distributed renewable energy into the energy mix.

Kuwait also aims to meet 15 per cent of its energy demand with renewable energy sources by 2030 (see Figure 2.1). For instance, the TAQA initiative is expected to increase the domestic production of renewable energy by exploring solar and wind energy sources. Key milestones include the completion of Shagaya energy park, with a planned capacity of 2,000 MW, and the engagement of private sector companies to partake in a public-private partnership procurement scheme on building additional renewable energy. Kuwait has already taken some significant measures to catalyze the introduction of

renewable energy. The 50 MW Shagaya CSP project is a vehicle to catalyze the scaling up of renewables to 15 per cent of generation by 2030 (22 TWh annually, or 8GW by 2030).

Figure 2.1. Generation technology as a percentage of total installed capacity



Source: Kuwait National Adaptation Plan 2019-2030 (2019)

In response to tightening environmental standards on oil products, Kuwait began to significantly invest in the production of environmentally friendly oil products through the largest project in Kuwait’s history, the Clean Fuel Project (USD 15.5 billion), which includes the modernization of Mina Al-Ahmadi and Mina Abdullah refineries. Kuwait also retired its Shuaiba refinery and decided to replace it with the Al-Zour refinery, which is specialized in producing fuel that is compatible with emerging environmental standards.

Preserving natural treasure

In preserving the precious marine ecosystem and the environment, Kuwait faces several challenges related to its policy and institutional settings. The country has failed to integrate its fisheries and marine sectors into adaptation and development plans while it also lacks a strategic adaptive framework capable of responding to emergency situations and hazardous crises. There is also an insufficient amount of information and studies on the impact of the change in seawater temperature on the country's biodiversity and marine ecosystem.

In this context, the Kuwait Environmental Public Authority (EPA) started by laying the groundwork and has established an electronic environmental Monitoring Information System of Kuwait (eMISK) and Beatona. The eMISK aims at building and maintaining a comprehensive geo-environmental database and a GIS system to facilitate updating and analyzing environmental data. While the Beatona initiative aims to increase public awareness through sharing real-time environmental news and information, eMISK aims at promoting and facilitating an information management system in support of policies and programs that enhance integrated coastal and ocean management.

Furthermore, the Coastal Information System (CIS) was established to help in the protection of coastal zones and marine environments, which can provide information about Kuwait's coastal area to planners and decisionmakers. The CIS system is an important initiative under the technology needs assessment of the coastal zones and shore protection sector as a climate change adaptation measure. Together with the CIS, the Coastal Management Program is designed to produce physical modelling, numerical modelling, and field survey measurements. The CMP was responsible for producing Kuwait's Integrated Coastal Zone Management (ICZM).

In addition, awareness campaigns and symposiums regarding rising sea levels are also being conducted at the national level. The "Our Seas: Theories, Data, and Policies" symposium highlighted the importance of human intervention regarding this particular threat, which was attended by international specialists, local researchers, and non-governmental organizations. These measures were put in place to solve the issue of inadequate control of grazing in the natural reserved areas and low public awareness about the importance of natural reservation areas and their role in adapting to climate change, as well as the lack of erosion and sedimentation control measures nearby the marine environments along the country's coast.

Fisheries are considered a vital source of food in Kuwait. The establishment of fisheries farms is an important step to adapt to climate change under the food security sector. Nile tilapia culture is implemented in agriculture farms where crops such as alfalfa, tomatoes, potatoes, onions are cultivated. These farms are located in the Al-Wafra, Abdali and Al-Sulybia areas. Brackish water with a salinity of 5–8 ppt pumped from underground wells is used in these farms. The, "Assessment of historic climate records and future projection" project was designed to assess the historic climate records for the past 70 years and make future projection climatic scenarios until the year 2100. The project was started in 2012 by the Kuwait University and UN Environment Programme.

In the meanwhile, Kuwait has undertaken various adaptation projects such as implementing green belt projects and increasing protected areas to adapt to dust storm. The green belt projects consist of planting areas with trees and shrubs of 50-180 km in length and 5-20 km in width. Besides, Kuwait has implemented a project called the "Kuwait Green Wall", which aims to increase the protected areas by planting 315,000 trees along a 420-km wall along the country's borderline to keep back the encroaching sand.

Finally, it should be noted that there are several underdeveloped open spaces in the country, presenting the opportunity of creating more green spaces and green infrastructure. More than 50 types of trees for greenery and landscape that can reduce the effects of climate change, were introduced under the Agriculture Master Plan by the KISR and the Public Authority for Agricultural Affairs and Fish Resources (PAAFR). An effort to develop new varieties of crops that can adapt to high temperatures and have high resistance to salinity and drought such as Conocarpus, Ficus, Prosopis, and date palm trees, were initiated.

Eco-friendlier water-landfill management

Challenges in water resources management and threats of water scarcity due to irresponsible consumer behavior are major gaps facing climate change adaptation. This is partly because of a lack of awareness, technical knowledge, policies, and strategies on climate change adaptation in the water resources sector. In this context, the government has undertaken education campaigns on household desalination. Kuwait jointly with the United Nations have been teaching the Kuwaiti people in rural areas "in-house water desalination techniques", where households can have freshwater at low cost and short time. The application of water conservation technologies was also one of the adaptation options to reduce water consumption by 20 per cent.

For instance, a water resources development and management program (WRDM) was initiated by the Kuwait Institute for Science and Research (KISR) that helps to identify ways to optimize the use of water resources and management through applied research. The WRDM program was designed to develop integrated water policies, management options, and action plans to solve water scarcity problems and increase Kuwait's water security and resilience. In particular, the Wastewater Treatment and Reclamation Technologies (WTRT) program tries to remediate some of these issues. This program has been initiated by the KISR and aims at conducting research on reclaiming and reusing Kuwait's wastewater for irrigation purposes. The MYAH initiative under the KNDP also aims to implement an integrated water management resources practice through identifying additional needs for wastewater treatment capacity and exploring new usage opportunities for treated water.

A lack of information and studies on groundwater resources, wells, and aquifers including their quality, quantity, extraction, and safe yield has also been a topic of discussion. Meanwhile, there is a lack of rehabilitation and remediation projects that focus on polluted wells and aquifers due to oil or seawater intrusion. In addition, there are inadequate infrastructure networks and facilities to treat and transmit treated sewage effluent (TSE) water all over the country to

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cover all water irrigation needs, which increases the reliance on freshwater resources.

In the meanwhile, Kuwait inefficiently utilizes and maintains landfill areas. Besides, there is an absence of sanitary and e-waste landfills in the country. There is also a lack of awareness, technical knowledge, policies, and strategies, considered major issues for waste management and climate change adaptation. In addition to weak public participation and poor public attitudes, Kuwait suffers from an insufficient knowledge of modern waste-management options in municipalities that include e-waste, solid waste, industrial waste, and wastewater disposal. However, the government is currently laying the groundwork with the KNDP for better waste management practices.

Furthermore, the TADWEER initiative under the KNDP aims to leverage waste for reuse and energy production, and to reduce ecological and health risks posed by untreated waste. The initiative will improve waste disposal and solid waste management processes. A key milestone for this initiative is the completion of the Kabd municipal solid waste treatment facility to treat 50 per cent of the country's solid waste. The Omniya plastic bottles recycling initiative aims to collect empty plastic bottles and recycle them instead of sending to landfills. This is one of the few practical initiatives to adapt to climate change in the waste sector, and a step in the right direction towards mainstream individual recycling.

Policy gap assessment

Based on a review of the ongoing actions taken by the Government of Kuwait and its plans, the four potential policy gaps can be contextualized as shown in Table 2.2. The first one is working towards efficient energy consumption and mainly focuses on filling the gaps in terms of a lack of modern technologies in the desalination of seawater and the issue of high per capita energy consumption. The second is the work being done in terms of protecting the country's ecosystem, and especially to advance in terms of data and studies about marine life and the protection of the coastal areas, all of which can be informed by more systematically defined environmental indicators. Another dimension is associated with acting responsibly towards the environment to overcome the challenges of water scarcity and the high levels of per capita water consumption and to advance in terms of waste management techniques in an integrated manner. With regard to the climate conservation dimension, the government aims to increase the number of green spaces, and introduce a culture of recycling at the individual and community level. Finally, the level of private sector engagement remains weak in general across these contextualized dimensions while a concerted effort to cope with air pollution has not yet been seriously undertaken.

Table 2.2. Analytical presentation on climate action gap

Dimensions	Program/initiative	Description	Potential gap
Efficient energy consumption	Research on updating the current desalination plants and next-generation desalination plants	Energy efficient plants, respectful of the environment and a higher capacity	Lack of modern technologies in the desalination of the seawater, coupled with higher energy consumption in practice
	SHABAKA initiative	Aims to create a smart electricity grid and improve the management of energy resources and to facilitate the inclusion of distributed renewable energy into the energy mix	Little to no use of renewable energy, challenged by a rise in energy demand, with little engagement from the private sector
	TAQA initiative	Increases the domestic production of renewable energy by exploring solar and wind energy sources	
Protecting the ecosystem	Electronic environmental Monitoring Information System of Kuwait (eMISK) and Beatona	eMISK aims at promoting and facilitating an information management system in support of policies and programs that enhance integrated coastal and ocean management, while the Beatona initiative aims to increase public awareness through sharing real-time environmental news and information	Insufficient amount of information and studies on the impact of the change in seawater temperature on the biodiversity and marine ecosystem, which has further been challenged by an absence of accurate data and comprehensive indicators responsive to environmental sustainability
	Technical capacity development on regional database	Establishment of a regional database and information center to support the fisheries management and aquaculture development, which aims at establishing a regional database and information center to support the fisheries management and aquaculture development	
	Coastal Information System (CIS)	The system supports the protection of coastal zones and marine environments through the provision of coastal area information to planners and decisionmakers	
	The "Our Seas: Theories, Data, and Policies" symposium	Highlighted the importance of human intervention regarding rising sea levels	
	Coastal Management Program	Responsible for producing Integrated Coastal Zone Management	Inadequate control of grazing in natural reserved areas, intensified by low public awareness about the importance of natural reservation areas
	Fisheries farms	Important step to adapt to climate change under the food security sector	
	Green belts projects and increasing protected areas	Aims to adapt to the increase in dust storms Plant areas with trees and shrubs of 50-180 km in length and 5-20 km in width	
	Building desalination plants	In the process of protecting freshwater sources and to maintain ecological stability	
Responsibility towards the environment	Education campaigns on household desalination	Teaches people in rural areas the "in-house water desalination techniques" at a low cost	High per capita water consumption, which would require technical expertise from the concerned stakeholders
	Water conservation technologies	Adaptation option designed to contribute to reducing water consumption by 20 per cent	

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	Water resources development and management program (WRDM)	Identifies ways to optimize the use of water resources and management through applied research, which was designed to develop integrated water policies, management options, and action plans	Challenges associated with water scarcity, security and resilience on the ground
	Wastewater Treatment and Reclamation Technologies program (WTRT)	Research on reclaiming and reusing Kuwait's wastewater to utilize it for irrigation purposes	Inadequate infrastructures networks and facilities to treat and transmit treated sewage effluent water
	MYAH initiative	Aims to implement integrated water management resources practices and improve the sustainability of water use by identifying additional needs for wastewater treatment capacity and exploring new usage opportunities for treated water	
	TADWEER initiative	Aims to leverage waste for reuse and energy production, and to reduce ecological and health risks posed by untreated waste and to improve the waste disposal and solid waste management processes	
	eMISK industry project	Aims at establishing a national program for collecting an environmental inventory of industrial facilities.	
	eMISK waste project	Aims at finding and implementing a solution to manage the fleet of industrial liquid waste vehicles and organizing the logistics process	
Climate conservation	Green spaces infrastructure	Development of new varieties of crops that can adapt to high temperatures and have high resistance to salinity and drought	Underdeveloped open spaces and need for more green spaces in the longer-term perspective
	Omniya plastic bottles recycle initiative	Aims to collect empty plastic bottles and recycle them instead of sending to landfills	Lack of awareness about the importance of recycling at the individual and community level.

3. Sustainable finance practice in GCC countries

The experience of neighboring GCC countries, where various sustainability initiatives with a focus on sustainable finance have been associated with their national climate action, is instructive. Figure 3.1 summarizes and compares the sustainable practices that were implemented in the selected GCC countries, including the United Arab Emirates, Bahrain and Saudi Arabia. The sustainable financing initiatives by these countries can be categorized into sustainable finance framework, ESG reporting and guidelines, financial market innovation, and regulatory framework in this regard.

Table 3.1. Sustainable finance practice in selected GCC countries

	Bahrain	United Arab Emirates	Saudi Arabia
Sustainable Finance Framework	✓	✓	
ESG Guidelines	✓	✓	
ESG Reporting	✓	✓	
Financial Market Innovation: Green Bonds		✓	
Financial Market Innovation: Islamic Bonds	✓	✓	
Sustainable Finance Education initiatives	✓	✓	✓
Supportive Regulatory Framework: PPP Laws		✓	✓

Source: Author's own elaboration on the basis of the UNEP (2021)

Bahrain: "A promising and sustainable future"

Launched in 2008, Vision 2030 under Bahrain's national policy framework provides a comprehensive strategy to support sustainable development through the achievement of both financial and economic sustainability to ensure a smooth transition to a greener economy.

It aims to capitalize on the country's natural resources by increasing investment in technologies that reduce carbon emissions and pollution; improving energy efficiency; promoting renewable energy use and production; supporting green infrastructure; and encouraging the optimal use of water resources.

Bahrain's Sustainable Energy Unit (SEU), established in 2014 as a joint initiative between the Office of the Minister of Electricity and Water Affairs and the United Nations Development Program (UNDP), aims to develop a cohesive and sustainable energy policy and to promote renewable energy and energy efficiency. The unit also works toward bridging legal, institutional, and capacity gaps to ensure that Bahrain's energy sector can meet the future challenges.

The SEU develops two key policy documents for Bahrain: the National Energy Efficiency Action Plan (NEEAP) and the National Renewable Energy Action Plan (NREAP). These plans were endorsed by the Cabinet and are currently in the implementation phase. Based on the plans, the USD 480 million Askar Waste to Energy facility expects to have a capacity of 1,068 tons per day when it launches, generating approximately 25MW of electricity. No date has been given for its launch, but the country aims to reach 700MW of renewable energy power generation by 2030 – met by a mix of solar, wind and the Waste-to-Energy (WtE) technologies.

○ *Engaging association of banks*

In 2018, the Bahrain Association of Banks (BAB) established a permanent sustainable development committee to enhance the role of the banking sector and its contribution to sustainable development and economic growth in line with the UN 2030 Sustainable Development Agenda. The committee promotes sustainable finance practices by increasing financial and investment flows to sectors such as education, healthcare, agricultural development, sustainable energy, infrastructure,

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transport, and green financing (Bahrain Urban Planning and Development Authority, 2018).

In so doing, the BAB collaborated with UNDP to promote sustainable finance practices in order to encourage financial investors to contribute to financing initiatives for sustainable development projects. Furthermore, the BAB's sustainable development committee works on developing a national sustainable financial system that focuses on two main areas: establishing a sustainable and green finance framework; and financing sustainable infrastructure (BAB, 2020). These efforts aim to internalize sustainability into banks' operations and strategies, informed by developing innovative green financing tools and disclosing and reporting on green activities.

○ TAMKEEN loan for renewables

TAMKEEN is a national program that promotes sustainable growth, entrepreneurship, and innovation, particularly in renewable energy and sustainable development. To promote banks' extension of green loans and increase the financing of environmentally friendly projects, TAMKEEN recently signed a partnership agreement with several leading banks for an Islamic Shariah-compliant Solar Financing Scheme. The scheme is expected to encourage small, medium, and large enterprises to use renewable and clean sources of energy by purchasing and installing solar panels for power generation, hence reducing their energy costs and carbon footprints.

○ Greening Stock Exchange

The Bahrain Stock Exchange, the Bahrain Bourse (BHB), joined the United Nations Sustainable Stock Exchange (SSE) initiative, to demonstrate its commitment to supporting sustainable and transparent capital markets by promoting Environment, Social and Governance (ESG) practices among the BHB's listed firms and investors (Bahrain Bourse, 2020). In this context, in January 2020, the BHB started to collaborate with an advisory services group to devise a comprehensive action plan of sustainability-related initiatives which include awareness workshops and producing a policy research on the status of sustainability in the national capital market. It is aimed to enhance transparency and the disclosure and reporting of ESG data and information.

The BHB recently launched its voluntary ESG reporting guidelines to support sustainable capital markets through enhanced disclosure.⁶ The guidelines provide stakeholders with a roadmap for integrating ESG considerations into firms' business decisions, reporting processes and strategies. This can help meet institutional investors' demand for ESG information to make better informed decisions with respect to identifying opportunities and hedging risks. Leading by example, BHB has also integrated ESG information on its own performance and impact in its 2019 annual report covering issues such as BHB capacity development, efforts towards gender equality in the marketplace, among others.

⁶ The BHB ESG reporting guide centers on the voluntary disclosure of a set of 32 key performance indicators (KPIs) based on the recommendations of the

United Arab Emirates: "A leading player in the environment"

The United Arab Emirates launched the Green Economy for Sustainable Development initiative, fully endorsing its implementation plan. Their vision aimed to embed green growth into national strategies, position the nation as a model for a low-carbon, green economy and become a global hub for environmentally sustainable development. The initiative is supported by 12 programs, including the Green Diversification Program, which itself consists of several sub-programs such as the Green Finance and Investment Support Scheme. This scheme aims to enhance the financial sector's role in increasing investment in green and clean energy projects and innovating new green financing instruments (UAE Federal Government, 2017).

To that end, the Dubai Green Fund was established as a strategic move to support the implementation of viable green economy projects and programs through the deployment of about USD 27 billion. The fund serves as seed capital to encourage the private sector to increase its investment flows allocated to financing environment friendly ventures, such as climate and energy related activities. The fund's green financing activities include energy efficiency and green energy power generation in Dubai International Airport and Mohamed Bin Rashid Al Maktoum Solar Park.

○ Clean energy and zero waste targets

Their national energy strategy aims to achieve an energy mix of 44 per cent clean energy, 38 per cent natural gas, 12 per cent coal and 6 per cent nuclear. The country has also set a 7 per cent renewables generation target from its total energy capacity by 2020. Abu Dhabi plans to reduce its oil dependency and achieve a 65 per cent contribution to GDP from non-oil sectors by 2030. Similarly, Dubai plans to increase the share of clean energy to 75 per cent of its total generation mix by 2050 (S&P Global, 2019).

Furthermore, the Federal National Council in the United Arab Emirates passed new legislation aimed at recycling 75 per cent of all municipal solid waste by 2021, while seeking to achieve a "zero waste to landfill" target by the end of 2020. In the meanwhile, Emirates Waste to Energy Company, a joint venture between Sharjah's Bee'ah and Abu Dhabi's Masdar, announced plans for a facility that would incinerate around 900 tons of waste per day, generating 30MW, with a view to expanding capacity to 90MW.

○ Sustainable finance declarations

In line with the national vision, the Ministry of Climate Change and Environment (MOCCA) partnered with a number of leading banks and financial institutions to launch the Dubai Declaration on Sustainable Finance in 2016 (Dubai Declaration for Sustainable Finance, 2016). This marked their financial sector's commitment to a transition towards a more inclusive, greener and climate resilient economy. Moreover, in collaboration with the Central Bank of the United Arab Emirates, the Securities and Commodities Authority (SCA) and

Sustainable Stock Exchange Initiative (SSE) and the World Federation of Exchanges (WFE) (Bahrain Bourse, 2020).

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the MOCCA, the Abu Dhabi Sustainable Finance Declaration was launched by the Abu Dhabi Global Market (ADGM) at the inaugural Abu Dhabi Sustainable Finance Forum in 2019. This further confirmed the financial sector's commitment to addressing climate change and mainstreaming sustainability by integrating ESG considerations into their business conduct, core strategies and operations at the local, national and regional levels.

In January 2020, the country published its first guiding principles on sustainable finance, a milestone in the nation's efforts to ensure a smooth transition to a sustainable economy by developing a strong sustainable financial sector that can play an instrumental role in supporting the Emirates' efforts to advance both social progress and environmental mitigation. This represented the Arab region's first sustainable finance guiding principles and they are compliant with Islamic Shariah law. In effect, the principles align with international best practices and focus on integrating ESG factors into financial entities' governance, strategy, and risk management frameworks.

○ *Greening capital market and banking*

In this regard, the SCA launched its Capital Markets' Sustainability Plan in 2019, which serves as a comprehensive roadmap driving SCA's sustainability agenda by promoting green and responsible investment, while ensuring the national financial markets' stability and development. The plan is meant to enable regulatory authorities to shift to sustainability-driven investment, to limit risks, to enhance market liquidity and to create a market system that stimulates sustainable investment and finance.

Furthermore, a number of banks have made progress in integrating ESG considerations into their business frameworks. Twenty-five public and private entities signed the Abu Dhabi Sustainable Finance Declaration in 2019 and 11 other entities followed the year later (Saudi Gazette, 2020). Their sustainable finance guiding principles are considered to help national banks to better manage ESG-related risks that would affect their credit profiles. In a survey on green finance practices, the response from financial institutions demonstrated their positive attitudes towards integrating ESG considerations into their business decision-making processes and an understanding that sustainability makes business sense. This is mainly because they believe that integrating ESG factors leads to cost savings and efficiency, additional revenues, an enhanced market reputation, and an improved competitive edge.

○ *Promoting green bond initiative*

The Dubai Financial Services Authority (DFSA) issued the first Green Bond Best Practice Guidelines (Dubai Financial Services Authority, 2019) to provide market practitioners with a reference framework for issuing and listing green bonds and sukks. These voluntary guidelines ultimately led to the listing of high-profile green financial instruments on the Nasdaq Dubai in 2019. These include the listing of two sovereign green sukks by the Government of Indonesia reaching a total of USD 2 billion, and the world's first corporate green sukks by Majid Al Futtaim Holding, valued at USD 600 million. This is in addition to the EUR 1 billion listing by the Islamic Development Bank, IsDB's first green sukuk on the Nasdaq Dubai in late 2019. Both sovereign and corporate green issuances highlight the global shift in sentiment towards investments that consider ESG factors.

Box 3.1. Climate debt swaps possibility for the region

Many Arab countries are facing fiscal stress from high and increasing debt, which consequently drains a large share of revenues to cover debt servicing that could have been spent on financing the SDGs and climate-resilient projects. Moreover, limited fiscal space puts the region at risk of being unable to recover from the COVID-19 pandemic. In this respect, international action to support debt relief is imperative, especially to enable countries to build forward better after the pandemic. This can be achieved by improving the macroeconomic conditions of debtor countries in the short term to manage their outstanding debt liabilities. Debt swaps are a negotiated instrument that can provide debt relief and generate liquidity to fiscally stressed debtor countries to invest in climate-resilient projects, which can also benefit creditor countries. The gains of the proposed debt swap include the following: Climate/SDGs debt swaps can be an effective instrument providing win-win results for debtor and creditor countries (ESCWA, 2020).

For debtor countries, it generates a direct resource effect by providing relief from the payment of interest on external debt, while increasing sustainable public investment in climate-resilient projects that advance the SDGs and the Paris Agreement. In addition, it has positive net indirect effects when such investments lead to higher net aggregate flows from donors, and from private and public sources to climate-resilient projects. Other important socio-economic benefits include job creation, advancing local community development, and promoting women's empowerment that all contribute to bridging inequality gaps.

Debt swap is also beneficial for bilateral and multilateral creditors, since the amount of the debt swap allocated for climate-resilient projects increases ODA disbursement/climate finance pledges that accelerate the implementation of SDGs and the Paris Agreement, without adding extra burdens on their budgets. Furthermore, long-term climate-resilient projects will likely boost economic transformation and future economic growth of debtor countries.

Saudi Arabia: "Fully invested for a greener future"

Saudi Arabia has been working on promoting sustainable development by reducing its dependence on oil as well as its contribution to global carbon emissions. It has been dedicated through boosting the development of non-oil sectors such as tourism, manufacturing and renewable energy. Saudi Arabia

committed to reducing domestic greenhouse gas emissions and submitted its Intended Nationally Determined Contribution (INDCs) in 2015 during the UN Climate Change Conference (COP21) in Paris. It pledged to reduce up to the equivalent of 130 million tons of CO₂ per year by 2030. In 2019, for instance, a new Private Sector Participation Law was drafted to promote private investment, strengthen public private partnership and

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regulate the national Privatization Program by establishing a more transparent legislative framework. This law is expected to boost private investment in sectors such as water, infrastructure, real estate, power, and renewable energy. This is a part of the country's effort in shaping their future energy efficiency and industrial development.

○ *Redirecting national energy trajectory*

The National Renewable Energy Program was launched in 2016 and aims to establish renewable energy as a sector with great potential to generate employment opportunities and to move the country into more service and knowledge-based industries. Their energy mix strategy targets to produce 70 per cent of its power generating capacity from natural gas and 30 per cent from renewables by 2030. It plans to invest between USD 30–50 billion in renewable energy by 2023, attracting private investment to the sector (IRENA, 2019). In 2019, the Ministry of Environment, Water and Agriculture collaborated with the United Nations Environment Programme (UNEP) to ensure the sustainability of its natural resource use and environmental protections where the UNEP supports in implementing its National Environment Strategy and National Transformation Program through technical assistance to develop its human capacities, institutional structure, and regulatory framework. It is also remarkable to note that the Saudi Energy Efficiency Center (SEEC) has registered great improvement in Saudi fuel consumption in the transportation sector over the period of 2015-2017. Fuel efficiency in new vehicles has improved by 3.5 per cent and by 6.5 per cent for previously-owned vehicles. The program spotted an upward trend, estimated at 14.1 per cent, in the usage of fuel-efficient cars.

○ *MUTAJADED A and TADAWUL initiatives*

In contributing to the national energy strategy, Saudi Arabia recently launched the MUTAJADED A program to promote the development of environmentally friendly projects and attract investment into the renewable energy sector. The program provides financial support through the USD 28 billion government financed Saudi Industrial Development Fund (SIDF). Under this program, SIDF grants loans of up to USD 310 million and finances up to 75 per cent of the total project cost. The loan repayment periods extend up to 20 years, with a 36-month grace period for all sectors interested in using renewable energy to reduce oil dependence, while bolstering new sources of energy (Oxford Business Group, 2020). In addition to the MUTAJADED A, the Saudi Stock Exchange (TADAWUL) became a member of the United Nation SSE Initiative, promoting sustainable and transparent capital markets in this regard.

4. Policy consideration

Through a series of systematic discussions and analyses (i.e., an identification of the five stylized facts of climate challenges, a policy gap assessment and a thematic review of neighboring GCC countries), the following policy ideas are suggested for the Government of Kuwait to take into account.

ESG standard on reporting and disclosure

Sustainability Excellence, a leading provider of sustainability reporting, research, and advisory services in the Middle East partnered with Boursa Kuwait to support it and its issuers in their sustainability journey. Every listed company in the main market has independently received a comprehensive and free ESG assessment of the current ESG performance. However, Boursa Kuwait has not required ESG reporting as a listing rule despite their written guidance on ESG reporting and disclosure. While it is still voluntarily, there is an increasing global trend in the practice of corporate ESG reporting⁷ as strong ESG performance can lead to preferential treatment from investors compared to companies whose environmental or other practices pose a greater financial risk.

One particular barrier could be the non-mandatory nature of requirements to adhere to sustainable finance policies and rules. It is true that most Arab countries including Kuwait have yet to enact explicit climate-related financial regulations. Where the ESG guidelines for accessing finance and for reporting disclosures have been developed, they are voluntary and not mandatory. The absence of adequate enforcement mechanisms for green finance policies, rules and regulations is one of the chief barriers to scaling up green finance.

In this aspect, **it is thus recommended that the government stimulate its reporting and disclosure practice by (a) designing an incentive mechanism (e.g. tax incentives and/or exemptions) to the reporting companies, (b) providing capacity building for materiality assessment and alignment with business strategy, (c) shaping a supportive regulatory framework in relation to ESG practice and (d) targeting it eventually for mandatory requirement in adherence to sustainable finance policies and rules.** Strong initiatives and actions could focus primarily on the firms operating in sectors, which concern waste, efficient desalination plants, wastewater treatment plants as well as making use of underdeveloped open spaces for more greenery.

Kuwait Green Innovation Fund

Green Energy, Clean Air and Blue Ocean

The establishment of the Kuwait Green Innovation Fund (KGIF) may be a wise consideration in response to various climate challenges stylized in Kuwait. It can be realized in an effective manner by the government partnering with leading banks, learning from the experiences of Bahrain

⁷ In 2020, 90 per cent of companies in the S&P 500 have published their annual corporate sustainability/ESG reports.

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where the Government of Bahrain recently signed a partnership agreement with several influential banks for an Islamic Shariah-compliant Solar Financing Scheme and where the TAMKEEN loan program is underway.

The KGIF can primarily be a blended financing window for sustainable/green transition projects. The fund is expected to unlock greater potential of green initiatives, including a (a) *Green Energy* pillar (renewable energy project), (b) *Clean Air* pillar (air pollution reducing project) and (c) *Blue Ocean* pillar (biodiversity and food security project) through the provision of loans (SDG-linked loans) and performance-based payments under the technical assistance facility. Particularly, the technical assistance facility is created to validate sustainable transition technologies and innovative business models, while also providing risk management support, with the principle of “vulnerability-responsive” to prioritize the ones developed/proposed by MSMEs, entrepreneurs and women led small businesses.

Integrated waste management Public Private Partnership

Mobilizing the private sector, skilled as it is, does not in itself constitute a solution for better waste management. **To be effective and appropriate, a waste management system must be accompanied by better financing mechanisms, increased technical and institutional capabilities on the part of public authorities, and a well-structured regulatory framework.** Specifically, the project must take into account the town’s socio-spatial *structure*, the type of waste involved, the resources available, the institutional setting, and whether those involved are from the formal or informal sector. A clearly defined regulatory framework enabling companies to compete equitably is a prerequisite for effective private sector involvement.

Furthermore, **the waste management Public Private Partnership procurement scheme would need to prioritize those that focus on an integrated system based on “prevention-sorting-recycling-recovery-reuse” towards a sustainable waste treatment factory and logistics.** It should be noted that such an integrated approach would considerably reduce the waste present in landfills and decreases the health threats to citizens, which goes in line with the KNDP as it helps to boost the role of renewables and solid waste management.⁸

To a large extent, low private investment in climate change projects has been determined by the nature of their risk-return profile. Most such projects are capital intensive and the amount at risk is very high. In addition, a lack of capital, human resources, and technical know-how act as barriers to market formation and private investment. These barriers also underline the perceived lack of profitable investment opportunities, low commercial readiness associated with green projects’ riskiness, a long payback period and low profitability. In this respect,

various procurement options, depending on the nature of the proposed waste management projects, need feasibility assessment, including solicited or unsolicited procurement scheme, Minimum Revenue Guarantee and Redemption of Excess Revenue, New Risk-Sharing Structure as well as procurement methods, including Build–Transfer–Operate (BTO), Build–Transfer–Lease (BTL), Build–Operate–Transfer (BOT) and Build–Own–Operate (BOO). **Such design of this procurement scheme in a technical aspect thus requires a series of consultations with the KISR regarding their experience of the WRDM and WTRT programs in relations to MYAH and TADWEER initiatives under the KNDP.**

Kuwait Climate Action Lab

Climate Fund Partnership, Knowledge for Advisory and Tool of Change

The under-developed capacity of implementing agencies in Kuwait may be limiting their ability to access the private and public climate finance available nationally and internationally. This results from factors including a lack of experience and know-how, and institutional constraints such as the absence of a centralized platform (or think tank) to monitor activities and coordinate between stakeholders. In this context, **it is recommended that Kuwait take into account the establishment of the Kuwait Climate Action Lab (KCAL) under co-management among the national environmental authority, international organizations and other key concerned stakeholders. Partnering further with the private sector, universities, NGOs and other concerned communities would be required to promote nationally-accepted climate actions such as Actioning as One.**

The lab could focus on the three key means of implementations, including the (a) *Climate Fund Partnership* cluster – strengthening of a global and regional network for exploring green funding opportunities from the multilateral climate funds⁹ and collaborating with green promoting platforms (i.e. eco-city initiative) (b) *Knowledge for Advisory* cluster – providing innovative and/or technical advice to the KGIF’s activities mentioned above while exploring opportunities to establish a green material bank to cope with construction-related pollution, and (c) *Tool of Change* cluster – scaling up of awareness raising efforts for behavioral change at the individual, community and corporate level¹⁰. In particular, the awareness raising efforts could further be expanded to a legislation support campaign. As discussed previously, the Federal National Council in the United Arab Emirates has passed new legislation aimed at recycling 75 per cent of all municipal solid waste by 2021, while seeking to achieve a “zero waste to landfill” target. In this respect, the KCAL could explore the idea of using legislation to solve its slim waste reuse problem in order for Kuwait to leverage its legislative power to cover the identified gaps and achieve a greater rate of waste

⁸ As discussed in Chapter 3, Askar Waste to Energy integrated system in Bahrain is expected to have a capacity of 1,068 tons per day, generating approximately 25MW of electricity.

⁹ There are 12 climate funds active in the Arab region; the largest contributions are from the CTF, which has approved a total of USD 866 million for eleven projects in Morocco and Egypt and three regional projects. Most of this finance

has been made available as concessional loans with focus on large-scale wind and Concentrated Solar Power (CSP) projects (Watson, et al., 2017).

¹⁰ It requires continuous promotion of the past campaign in Kuwait, “Our Seas: Theories, Data, and Policies” but such should also be collaborated with private sector since lack of understanding or awareness of the merits of green sustainable finance could act as a barrier for notably private sector – both investors and finance providers (UAE, 2019).

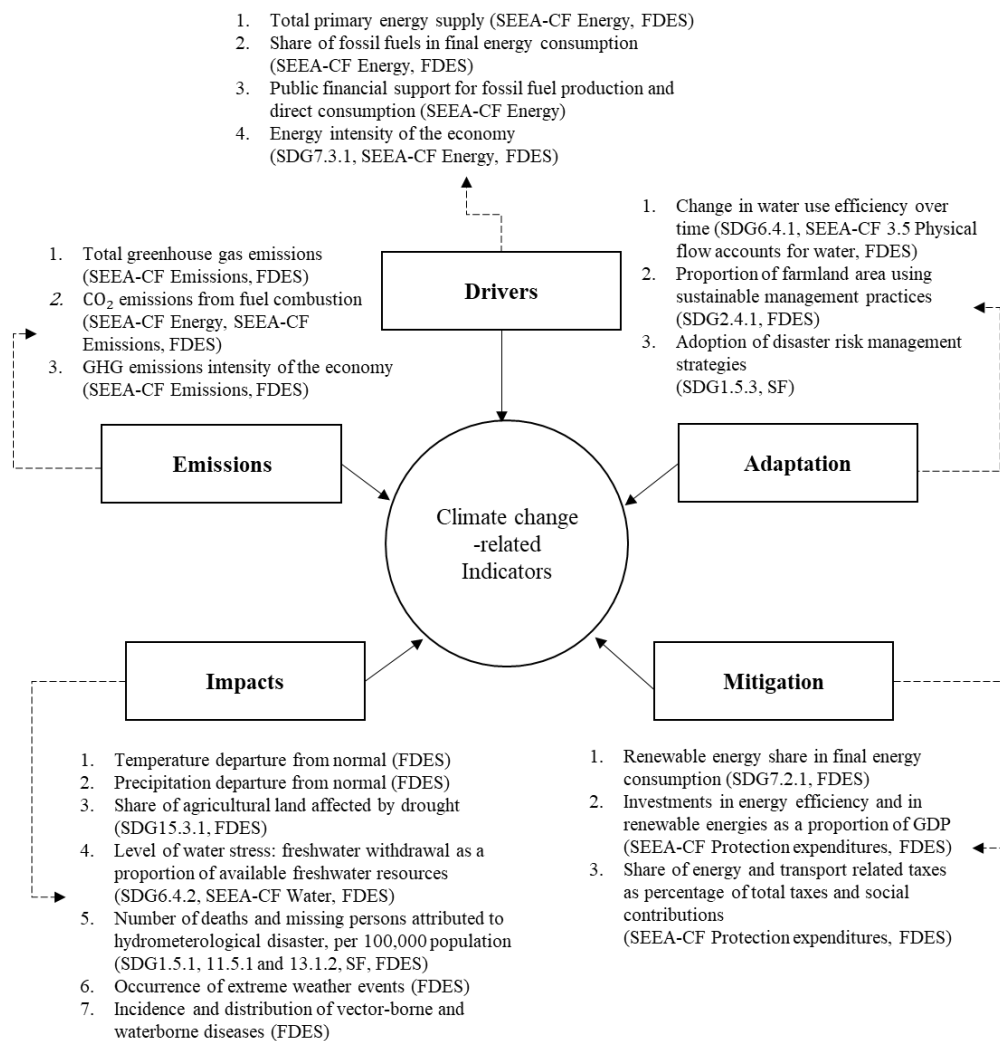
reuse and promoting separation at the source and recycling as proposed by the KNDP.

Climate-related statistical capacity

With rising consciousness and aspirations toward environmental sustainability, reliable statistics are crucial for measuring and monitoring the economic, social, and environmental effects of climate change. The climate-related statistics, however, are relatively of poor quality and not easily accessible in Kuwait. In this context, **a set of climate change-related indicators with consideration of the country**

contexts can be proposed as shown below with particular focus on the SEEA framework (System of Environmental Economic Accounts).¹¹ The set of proposed indicators consists of five areas including drivers, emissions, impacts, mitigation, and adaptation, thus associating emission with indicators in social, economic and environmental domains and sustainable development (see Figure 4.1), where **national authorities such as the National Statistical Office, National Observatory and Environment Public Authority are to target these environmental sustainability indicators during their process of statistical capacity strengthening and their statistics modernizing efforts, especially with regard the eMISK, Baetona and CIS.**

Figure 4.1. Proposed climate change-related indicators



Source: Author's own elaboration on the basis of ESCWA (2017a; 2017b)

Notes: SDG (Sustainable Development Goals), SEEA-CF (System of Environmental Economic Accounting-Central Framework), SF (Sendai Framework for Disaster Risk Reduction), FDES (Framework for the Development of Environment Statistics)

¹¹ In April 2021, the United Nations Statistical Commission adopted the SEEA EA (Ecosystem Accounts) framework to better account for biodiversity and ecosystems in national economic planning and policy decision-making.

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Annex 45

Sustainability

A Sustainable Energy Future

KPC aims to achieve net-zero emissions by 2050, power lives, and care for our planet.

KPC is committed to achieve Net-Zero by the year 2050 by actively reducing scope 1 and scope 2 greenhouse gas emissions from our global operations and continuing to be among the least emissions-intense oil and gas producers. We will continue to be a responsible hydrocarbons producer, and we will drive sustainability within our operations with least greenhouse gas emissions. Our strategy draws a roadmap for energy transition to 2050 through various new energy businesses and growth opportunities. These include carbon capture, utilization, and storage (CCUS), gas flaring, biofuels, among others. KPC's energy transition 2050 roadmap will enable the State of Kuwait to achieve its target of Net-Zero by 2060.



KPC's 11 Environmental, Social, and Governance Goals

KPC has developed its Environmental, Social and Governance (ESG) Strategy in line with the recent global trends of aligning businesses with sustainability goals, as well as achieving New Kuwait 2035 Vision.

ENVIRONMENTAL

This covers GHG emissions, new sustainable business models, water and waste.

SOCIAL

This covers health, safety, employee and contractor well-being, diversity, and human rights.

GOVERNANCE

This covers governance, ethics, risk management and local content.