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Middle East's Environmental Contamination and Responsibilities of the Islamic Republic of Iran Regarding Compensation of Environmental Damages (Haze and Water Contaminations)

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Abstract

Environmental destruction currently is considered as a worldly issue. However, in the geopolitical area of Middle East, this problem is more severe. Existing indications show that environmental damages are among very important challenges of this area. Contamination of water and soil resources in the Middle East is also on the rise. This problem is occurring while deficiencies of these two vital elements are quite obvious. Besides being contaminated, the Middle East's water resources are subsiding. So many countries will encounter problems in the future. Political instability, frequent political changes that are accompanied by contentions and wars and poverty in the Middle East area are factors that give rise to continuation of environmental destruction in this zone. In addition to addressing how environmental contamination occurs in the Middle East, this paper attempts to explain the Islamic Republic of Iran's responsibilities regarding compensation of environmental contamination in this zone. Of course in this paper, damages caused by water contamination and damages raised by haze are more emphasized.

Keywords: the Middle East, environment, environmental damages, water contamination, haze contamination

Introduction

The term "environmental damage" was first brought up by a French lawyer and it mostly refers to damages that cause environmental imbalance. Environmental damage refers to every kind of direct or indirect measurable destruction applied on the environment that involves severe damages on human health, natural species and the environment (Taghizadeh Ansari, 2003:6). For an environmental damage to get realized certain elements are required including one or several definite or determinable contaminating agents, objectivity of damage, and causality between contaminating agent and damage. It should be noted that the Middle East is one of the world's most polluted areas ecologically. Natural traits specific to this area include water limitation, desertification over most of the area, and sandstorms as well as managerial weakness of developing countries in this area, which has caused more environmental damages in this area.

Local contaminating resources, weak transportation systems, and lack of control on industrial contaminating resources display poor management in most of the areas in different countries, and poor management affects considerably increased in environmental damages. Below, some of the most important environmental damages in the Middle East are considered.

Water pollution

The subject of water resources and water contamination has always been discussed as an important issue in internal policy of countries, especially in dry and droughty areas of the world, keeping its importance to this day (Ziba Kalam, 2008, 112). Water contamination involves variation

in soluble or suspended materials or change in temperature and other physical, chemical, and biological traits to such an extent that makes it harmful or useless for determined usage of the water (Vafadar, 2007, 108). However, polluted water is considered as a kind of water in which the amount of solved oxygen is less than amount required for aquatic creatures' life (Taghizadeh Ansari, 2010, 15).

Currently in the Middle East, 88% of water resources for the area are used in agriculture sector. Despite limitation of water resources, use cases and usage type are increasing given population growth. Therefore, per capita share of the area's inhabitants will decrease in years to come. Thus, an individual's share of 1045 cubic meters in 1997 will decline to 740 cubic meters in 2015 (Asgari, 2010, 6).

In spite of existing limitations on water resources of the Middle East, improper use of various chemical fertilizers and pesticides and ingress of different types of chemical and industrial contaminations and urban sewage lead to increased contamination for these resources. At present, the Shatt-al-Arab River in its upper part before the Karun enters it, thus forming the Tigris, is among the most polluted rivers of the Middle East. Sefid-Rud, which is also known as Iran's Volga, is considered as one of the most contaminated rivers of Iran. The Nile has various kinds of contaminations at its embouchure, which are caused by industrial and agricultural activities of countries where the Nile originates or passes (Asgari, 2010, 7).

Internal rivers of Iran, Turkey and Syria are not away from pollution. By the way, inner water ponds are getting polluted too. Expansion of industrial activities in planning and developing them principles of stable development is not regarded aggravates pollution of water resources. Attempting to industrialize, on the one hand, and to increase agricultural productions in response to growing population needs, one the other hand, justifies off-takes from underground substrates. Due to usage more than feed in most of the Middle East countries, level of underground waters is creeping, thus resulting in undesirable consequences in the future.

Soil erosion

Among natural elements, soil has a relatively long process of formation. However, depending on natural circumstance, its duration of formation changes from place to place. Averagely, a period of 200-400 years is needed to form a 1cm thickness of a soil.

In the Middle East, soil is one of the elements under destruction. Besides erosion just mentioned above, wars and using different types of armament and chemical weaponry are considered factors give rise to soil pollution. Average war frequency in the Middle East has been more than other parts of the world in recent centuries. Use of chemical munitions by the Iraqi regime in its war against Iran caused contamination for huge parts of war areas. According to the views of environmental exprts, effects of chemical weapons remain for over 20-30 years in soil, thus completely disrupting animal lives.

Wars and various continuous fights intensify contamination of the Middle East area. After Iran-Iraq war, several important fights have occurred in the area. Occupation of Kuwait by Iraq, Afghanistan war, and Iraq's occupation by the USA are some examples. Environmental damages resulted by fight and violence as well as post-war destruction of relevant organizations threatens today hygiene, subsistence and security of human beings in majority of countries. Dryness of Sothern Iraq's canebrakes during 1980s and 1990s is one example of targeting the habitat intentionally with the purpose of achieving political and military goals of Saddam Hussein. Besides, very diverse direct and immediate impacts on Iraqis' people, this incidence has had long-term effects such as air pollution and shattering of suspending mist in the area atmosphere and that of many Iranian cities.

Recent studies reveal that at least 100 regions in Iraq are contaminated with depleted uranium and the effects of American and British radioactive weaponry during two years of the Gulf War. From the time destruction of over 600 oil wells in Kuwait at the end of the first Gulf War broadened, fragile environment of this area has lost a majority of biological diversity and its production capacity.

One typical and destructive result of inner wars is vagrancy of a great many people who escape from violence and insecurity. No only does population relocation to this extreme cause suffering and pain for people as well as interrupt financial activities, it also leads to severe damages to the environment, especially in dry and barren regions or areas low in terms of biology.

Another part of contaminations for the Middle East refers to destructive industrial activities. Acid rains lead to polluted soil and entry of different kinds of detergent, industrial, and urban materials causes polluted soil. Since most of the big countries of the Middle East lack urban sewage system, every possible means is used for sewage repelling. Leaving them in rivers and injecting them in impermeable soils around cities are among natural facilities that lead to increased pollution (Asgari, 2010, 10). A collection of erosion activities in the Middle East has created a very dangerous process in world scale. Currently, over 75 billion tons of precious soil is devastated by erosion. Average erosion in the Middle East is higher than that of the world. Iran has the highest erosion among Middle East countries. Dams stockpiling with eroded minerals and sediments is one of most important results of erosion.

Haze pollution

Air is one the most critical elements of the nature and without it no life will be possible on earth. Thus, geographical contaminations regarding air occurs much simpler and quicker than other contaminations. On the other hand, boundaries and international segregations are not obstacles against expansion of atmospheric contaminations (Daily Times, October, 2005).

One of the most important types of weather pollutions involves pollution caused by haze. Soil structure is a collection of various particles that consists mainly of sand, silt and clay. These articles are categorized according to their diameters. The smallest of these articles with sizes of 2 µm or 2 µm. Clay articles are very tiny. One gram of surface clay articles covers an area of 300 square meters. If these soil articles are not adjoining, they will have a high susceptibility. It should be noted that soil erosion occurs in one of two ways: Firstly, natural factors like drought, lack of rain, little vegetation, global warming and climate change which causes danger to soil and with a typical breeze the soil texture is disrupted and starts moving. Secondly, it involves human activities performed on soil that have the biggest impact on soil erosion and leads to convey of sediments, thus forming dust in air. Manipulation of nature in every part of the globe creates problems. However, this is seen less often in regions with low rain fall and sufficient humidity (Habibi, 2003, 155-160).

Thus, given the specific natural conditions, Middle East countries have experienced atmospheric pollutions in different forms. Issue of atmospheric pollution exists in some way across all Middle Eastern countries. This problem is either resulted by non-geographical concentration and location of polluting industries as well as improper use of fossil fuels. After Tehran, air pollutions of Baghdad, Cairo, and Abu-Dhabi could be mentioned. Since there was not a comprehensive study done regarding these cities, there is no much information available concerning the extent to which pollutions affect people's lives (Jaeschke Fathi, Zereini, 2004:157).

Limitations of agricultural lands of this area compared to other areas, more evaporation than rain and expansion of deserts are some other natural problems of the Middle East, leading to

formation of haze. Progression of deserts and salt marshes are typical of several Middle Eastern regions, and actions conducted so far were not able to prevent it.

Despite limitations and the said issues, regional inhabitants continue to pollute the environment disregarding regional traits and restrictions, thus doubling force and effect of the limitations. According to recent researches done by "Yale University" and NASA's satellite photos, three cities of Tehran, Istanbul, and New Delhi in the Middle East have the highest concentration of air polluters.

In fact, atmospheric pollution of the Middle East doubles when unfavorable natural factors are present. Extraordinarily dry atmospheric conditions in the region cause phenomena such as sandstorms, and dust. Most of Middle Eastern spots usually face dust storms. However, some parts have the highest number of storms during a year. The most important areas in the Middle East where dust storm occurs include the Jordan Desert and lower areas of the Peninsula from Baghdad to northern shores of the Persian Gulf, where over 15 storms occur daily. Thus, contamination of this area will increase in the future due to factors such as migration, concentration of industrial and economical activities, improper use of fossil fuels, lack of scientific and geographical organization of urban space and incorrect location of industries

Destruction of forests and pastures

Forests and pastures are among the most important natural resources. And, they play important roles in keeping temperature in a balanced state, oxygenation, keeping constant the amount of atmosphere's carbon dioxide, etc. Geographical diversity of forests is not equally distributed on the globe and natural factors have caused inequality in forests' being shattered. Over the last 3 centuries, about 20 percent of the world's forest areas and pastures have been devastated. If deforesting continues this way, 15 percent of existing species will be destroyed. 66 percent of species and 14 percent of herbaceous species will be destroyed till late 21st century in these areas. Currently, about 400 tree species are becoming extinct (Mosadegh, 2004, 22-30).

Wood production, on one hand, and creation and expansion of agricultural fields and excess grazing, on the other hand, destroy pastures in Middle Eastern countries. Especially, at basins of rivers Tigris and Euphrates, majority of eroded materials in Turkey, and Syria, Iraq, and Iran are directed to the Persian Gulf. One reason for advent of the phenomenon *soil erosion* is the destruction of pastures and forests. Therefore, entry of eroded materials to the Persian Gulf through Tigris causes the shore to progress 56 square meters into this sea annually. That is the area of the Persian Gulf is lessened by 5600 square meters annually (Elahi, 2009, 40-46).

There is currently a great pressure on pastures of Middle Eastern countries due to excess plowing and grazing. Subsequent result of these pressures is intensified erosion. In Iran, one million hectares of forests and pastures are destroyed every 5 years.

Middle Eastern countries' activities to decreases environmental damages

According to one of the most recent analyses, costs due to environmental destruction across the Middle East and northern Africa are as follows: 4.8% of gross national product in Algeria, 5.4 % gross national product in Egypt, 4% of gross national product in Lebanon, 4.6% gross national product in Morocco, 4.7 % gross national product in Syria, and 2.7 % gross national product in Tunisia. Similar results by the World Bank have been reported as follows for costs raised by environmental destructions:

Over 4% gross national product in Bangladesh, 5% gross national product in Indonesia, 6% gross national product in Pakistan, and 4.8-10% gross national product in Iran (Michel, pandya, 2010, 11).

Thus, given high costs of environmental damages in Middle Eastern countries, many of the regional governments have adopted environment-support policies to resist increased environmental damages. Enacting some domestic rules, joining some international conventions such as the Convention to Combat Desertification and special support for environmental researches sector are among these policies, to name a few.

Evaluating legal conditions of most Middle Eastern countries concerning kinds of governmental responsibilities on environmental damages shows that although a considerable number of international treaties in this region consider necessary establishment of legal regimes to decrease environmental damages, existing regimes have not formed completely in the region. Nonetheless, concept of damage to the environment has increasingly been identified among regional countries, and international rights will develop on this basis. Thus, development of civil rights in the Middle East requires development of domestic rights in countries of this region, and civil responsibility of environmental damages along with other types of responsibilities affected by rain fall and damages compensation could be considered more effective practical approaches for the issue of compensating environmental damages.

Therefore, the first step as well as essential and effective step to resist contamination and decrease environmental damages in the Middle East and to prosecute and punish committers of crimes done against the environment is to collect and devise rules and provisions in different environmental areas. These requirements sometimes have technical and specialized aspects relating to consideration of standards and environmental orders of organizations and relevant systems, and sometimes they refer to damages caused by illegal activities against the environment and how it can be compensated. Some other rules which have a penal aspect include environmental violations and crimes and how to prosecute and punish committers. All these rules have a common goal which is prediction or resisting environmental pollution. It should, however, be noted that these domestic activities are not much effective without regarding the environmental damages.

Given the fact that wide international macro-scale and multi-aspect decisions to resist contaminations and preserve the environment has a slow and gradual process in the region and they basically encounter a lot of problems in action, considering regional orders is of great importance. Usefulness of regional orders is obvious from the fact that in addition to using global theoretic artifacts on a regional level, these orders have more conformance and compatibility with ecological and geographical traits as well as political assistances of each region. This condition related to supporting and preserving the environment of the Caspian Sea could provide a considerable example in the Middle East. Meanwhile, necessity of utilizing experiences and principles of hypothetic provisions is also an evident proved matter. As said before, supporting environmental researches sector today has logically become one important policy. In the following section, supporting regional countries through environmental studies is briefly discussed, and then environmental damages in Iran will be considered.

Egyptian Administration of Science and Research with support from the National Research Center has conducted numerous studies with an emphasis on sectors of materials science and engineering, ecology, and agriculture, and has created appropriate cooperation among Islamic world countries. Besides cooperating with its counterparts in the Islamic world, Qatar’s Scientific and Educational Institution, founded in 1996 by Qatar’s emir, conducted some research activities in conjunction with several American universities. The Middle East Science Fund has attracted huge finances from King Abdullah Ordoni in terms of holding congresses with subjects of agriculture and the environment, thus cultivating a good ground for connection of Middle Eastern civil communities and scientific centers with American counterparts.

Some higher-level educations have been conducted with an emphasis on the environment in some poor countries of the Islamic world such as Pakistan. Pakistan claims that it has dedicated very good universities for environmental researches, including submarine researches (Karachi University) and studies regarding forests (Peshawar University). Islamic University of Technology in Dhaka, which is also a sub-branch of the Islamic Conference, has founded a research center concerning the environment and energy.

Environmental damages in Iran

Iran ranked as 177 among 133 countries in 2006 in terms of air pollution, 99 in terms of healthy water access, and 117 in terms of stable energy consumption. However, it ranked 45 in terms of natural resources and biological diversity among these countries (Pilot Environmental Performance Index,2006).

Biological stability is an indication of stability in environmental biologic systems, pressure on the environment, human susceptibility, extent of human and social development, and extent of international cooperation. These ranks show how unfavorable Iran's environmental state is. With a closer look at the causes of these biological problems, it could be inferred that Iran's geographical condition (for example it is located in a dry climate) is not only the factor giving rise to these issues, and , similar to other countries of the Middle East, managerial factors are also effective in creation or intensification of these problems.

In Iran, two topics of damage caused by water pollution and damage caused by haze are among the most critical environmental pollutions. That is because during recent years, haze phenomenon has increased considerably in desert and semi-desert regions of Iran (that's majority of southern, south-western, eastern and even western cities of the country), thus leading to damages for natural and human biology for these regions. On the other hand, water pollution especially that of the Caspian Sea and the Persian Gulf is a problem that threatens severely these two natural settlements. Therefore, considering duties of the Islamic Republic of Iran's government regarding said issues is an important subject.

Regulations regarding biological pollution in Iran

Numerous sparse and parallel regulations and rules have been ratified concerning the preservation of the environment. Ratification of most of fundamental rules regarding preservation of Iran's environment dates back to pre-revolutionary years and no significant revision has been added ever since.

Examples of such regulations include *regulation for preservation and utilization of forests and pastures* (8/21/1967), *regulation for plant preservation* (5/2/1963), *regulation for sea and central rivers' preservation from petro-pollutions* (1/24/1976), and *regulation for novelty and coastal estates* (7/20/1975). Main approach of this set of rules is to preserve several certain environmental domains (especially animals), resist pollution, and apply mild environment-related punishments. General inclusive as well as preventive approaches regarding management of the environment is not observed. Environment Protection Agency is a resultant of this approach and this set of rules. Regulations of the Environment Protection Agency and its tasks and goals are propounded in parallel in the regulation *protection and rehabilitation of the environment* (ratified 6/18/1974, revised 11/15/1992) and the regulation *hunting law* (ratified 6/6/1985, revised 12/15/1996). However, as two fundamental environmental rules, these two regulations suffer from different deficiencies and vacuums in terms of complete clarification of organizational roles, cooperation of other institutes with this organization in terms of environment preservation and laws for protecting environmental totality. Therefore, the need to merge and revise, adopting new

environmental legislation principles and congeniality with novel managerial changes in them is observed (Valizadeh, 2013, 110).

Regulation of *environmental protection and rehabilitation* is in proportion with article 50 of the constitution. In the constitution, preserving the environment is a public duty and not just confined to the Environment Protection Agency. A governmental organization or even a ministry cannot conduct suitably task of preserving the environment without help from other governmental systems. Regarding air pollution, for instance, Tehran Municipality, the Military Force, and about 28 more organizations are involved. That's the reason why environmental preservation is not purely within power domain of an organization i.e. the Environment Protection Agency. Instead, cooperation of other organizations and institutes are obligatory for this goal to be achieved (same, 111). Given the importance of water pollution and pollution caused by haze in Iran, regulations regarding these two kinds of environmental damages in Iran are considered below.

Water pollution in Iran and relevant regulations

While there have been diverse viewpoints regarding water pollution, in its most recent report, the World Bank announced a 40 % increase in Iranian water pollution.

According to this report, the World Bank announced "pollution distributing contribution of industries in Iranian waters in 2003 were as follows: food and beverage industry 43.8 %, primary metals production industries 17.2%, textile industries 12.5 %, chemical industries 10.8 %, paper and paste 7.1 %, wood industries 0.8 %, stone, ceramic and glass industries 0.6%, and other industries 7.2 %. The World Bank's most recent report in 2007 concerning water pollution state in various countries of the world indicates that Iran's 1990 organic pollution was 102,689 Kg, but this figure increased to 141,982 Kg per day in 2003.

In terms of distribution of water's organic contaminators and industrial contribution in propagating such materials, the World Bank's report *World Development Indices* emphasizes "propagation of organic water contaminators in 1990 was 0.16 Kg per worker, and this value has remained fixed until 2003. It is interesting to note that water contaminators propagation over 1990-2003 has declined in most countries including China, USA, Russia, India, Japan, German, and Brasilia.

The World Bank's report can be considered a warning sign to Iranian water administrators. Actually, despite provision of a major amount of Iranian tap water using water wells and underground resources, there has been no suitable supervision to prevent contamination from permeating underground water, thus leading to increased pollution of underground water substrates each year compared with previous year.

Industries and plants without a sewage discharge system in Iran especially in big cities, quick population growth, and lack of accurate announcement to people concerning dangers of improper discharge of domestic and industrial sewage, etc. are among major reasons of increased pollution for underground water substrates as well as waters of the Caspian Sea and the Persian Gulf. Below are addressed some rules regarding water pollution.

Just distribution of water: The most important rule that supports Iranian water resources is the rule "just water distribution ratified in 1982. This rule does not differentiate surface waters and rivers, putting all among receptive waters and divides its contaminating resources into urban sewages, agricultural drainage and industrial sewage. Article 47 of this rule puts the responsibility of presentation and conducting water and sewage filtration on shoulders of sewage companies, which, was to be completed by the end of 2009 in provinces Khuzestan and three north provinces and Tehran. Also, the study activities of other cities should have been conducted by regarding priorities.

On the other hand, tunneling agricultural waters is also a duty of the Environment Protection Agency, unless farmers use forbidden toxins.

Fifth chapter of *just distribution* rule *of water* considers compensation. Of course, this compensation mostly refers to deduction and deficiency and uselessness of aqueducts, wells, and resources, without addressing conduction of water contamination. It is only article 46 that prohibits water pollution and assigns its prevention on the Environment Protection Agency. Executive constitution of this law was ratified in 1994.

Preservation and stabilization of corners and beds of boundary rivers: This rule was ratified in 9 articles by the Islamic Parliament. Article 1 of this rule states "As of approval of this rule, duty of preserving and stabilizing boundary rivers' margins and beds and occasionally correcting their routes with complete observation of article 78 of the Islamic Republic of Iran's Constitution will be assigned to the energy administration, and it will act in continuous cooperation with civil, agricultural, defense (military geographical management) ministries by regarding context of agreements and contracts and boundary protocols between Iran and juxtaposed governments as determined in this rule, in terms of conducting technical and executive issues. Article 4 of this rule suggests that "The agriculture ministry has the responsibility of preservation and creation of vegetation and trees pruning for strengthening and fixing margins and conducting plans for soil preservation and water yielding in auriferous domains of borderline rivers".

Constitution for preventing contamination of water resources in Iran: Assembly of administrators in its 5/7/2004 session, with proposal 21-876 dated 7/11/2014 of the Environment Protection Agency and based on article 46 of the *just water distribution* regulation, ratified 29/9/1994, approved constitution for preventing water pollution.

Note 2 of article 2 from this constitution has placed water pollutions of boundary seas and lakes and rivers within the domain of *rule for protecting sea and marginal rivers from pollution by oil products*, ratified 1975, and this regulation mostly addresses criteria regarding refineries and oil companies. Article 7 addresses inclusive warnings of type and amount of pollution and deadline for its removal given to relevant custodian in case pollution exceeds standards of article 5. Not observing context of this warning, according to article 9, leads to the institute being closed according to article 11 of the *rule for protection and rehabilitation of the environment.* Article 22, which considers damage to the environment of aquatic creatures and natural resources by violating this law, has counted this law a factor for compensating damages based on court order.

Regulation for waste management : Regulation for waste management was ratified in 23 articles and 9 notes on 5/9/2004. By regulating waste disposal, different contexts of this law prevent transfer and discharge of waste to natural places like rivers and seas.

Haze pollution and related laws

In terms of special climatic traits and geographical location, Iran is counted as one of the dry and semiarid parts of the world, and this location is in agreement with global desert belt in terms of geographical longitude and latitude.

Approximated area of Iranian deserts is estimated to be about 450,000 Km, and was placed in Iran in this climate, haze and mist storms are very popular in south-western areas, coastal arena, eastern half and center of Iran. Thus, due to climate changes, recent droughts, usage change of lands, considerable reduction of vegetation, impropriate management of resources, waters of most lakes and humid regions have been dried thus turning into an important resource for production of haze.

Origin of these storms which is said to be raised from parts of Iraq, Syria, Arabia, Khuzestan, eastern Iran, dry lakes, and coastal arenas, comprises one of the most critical dangers that have been distressing people of the Khuzestan Province and western Iran during recent years.

In view of several specialists, therefore, control and reduction of haze have to be started from within Iran. Then requests should be made to other countries to react concerning control and harnessing of haze. That is because if the issue of haze is not considered seriously, in addition to non-recoverable social and economic harms, especially in Southern, western, and even central regions of the country, it will result in development of more haze sources resulted by destruction of agricultural sectors.

Below, some rules concerning air pollution are considered and then Iranian government's promises will be investigated.

Rule of know-how of preventing air pollution

This law was agreed by the Guardian Council in 3 chapters and 36 articles on 5/3/95. Article 1 of this law states "To realize the 50th norm (rule) of the Islamic Republic of Iran's Constitution and to clear and preserve air from contaminations, all systems and institutions and all real and legal persons are responsible to observe rules and policies specified in this law".

According to article 2 of this law, it is not permitted to establish any kind of activity that results in air pollution. This article also states that Aair pollution refers to existence and distribution of one or several contaminators such as solids, liquids, gases, radiating and non-radiating materials in open air, with amount and duration that change its quality so that it becomes harmful for humans as well as other living creatures and plants or heritages and buildings."

Executive constitution of law for preventing air pollution (ratified 9/6/2000)

The Executive Constitution of the law *knowhow of preventing air pollution* was ratified on 9/6/2000. This law was approved in two articles and 3 chapters.

Article 3 of this law states that the Environment Protection Agency is responsible to identify and determine type and amount of air-polluting materials with appropriate methods such as checking documents, required documents, and supervision and investigation if necessary. Under notes for this article comes "all real and legal individuals are responsible provide for the organization (EPA) statistics, information, and the organization's required documents, which are requested to execute law and this constitution.

Article 224 of the Fifth Development Program

According to article 244 for the Fifth Development Program Law, in order to prevent, resist and compensate damages caused by unforeseen accidents and to manage drought, government is allowed to increase revolving fund of article (10) for law of *regulating part of government's financial regulations* ratified in 2001 to 3 % and credits of article (12) of the law *formation of crisis management organization* to 2%. The mentioned credits are expendable by proposals from vice-presidency and ratification by ministries assembly. Part of the mentioned credits with sequencing and amount specified in the law of annual budget is dedicated to the Red Crescent Community in terms of expense and capital asset ownership to be spent for preparation against mishaps and accidents.

Constitution for preparation against harmful effects of haze phenomenon

With proposal from the Environment Protection Agency and based on principle 138 of the Islamic Republic of Iran's Constitution, the Assembly of Ministries ratified *constitution of alertness (preparation) and resisting harmful effects of haze phenomenon (mist) in the country* in 19 articles and two chapters. Article 4 of this constitution states that to determine quantity and quality of haze phenomenon in Southern provinces and west of the country and to identify initial centers for their formation and to prevent and announce about occurrence of this phenomenon, national environment

protection organizations and meteorology stations are responsible for devising a plan for development and equipment of weather surveillance stations, pre-notification and regional weather control systems in cooperation with the Protection Organization of Forests, Pastures and Aquifers within three months and present them for workgroup ratification.

Law for fighting desertification

Law for the Islamic Republic of Iran to join the UN convention to eliminate deserts in companies that are seriously facing drought or desertification, was ratified by the Islamic Parliament on 12/31/96. Article 8 propounds the Asian regional executive appendix on this convention, context of national action, for signing countries as follows:

1- According to article 10 of the convention, general strategy of national action programs should, with reliance on cooperative methods and combining anti-poverty strategies with desert elimination measures to minimize drought effects, emphasize on plans of coherent local development programs. These programs must try to strengthen abilities of local administrators and ensure active presence of communities, layers, and local groups, thus stressing education and mobilization of non-governmental naïve organizations and non-centric governmental structure consolidations.

2- National empirical programs should be appropriate with conditions, including the following criteria:

a) Using previous experiences in terms of desert-elimination and drought effects reduction in compilation and conducting national practical programs considering economic, social, and environmental circumstances.

b) Identification of desertification or drought factors and available required resources and adopting fundamental policies and measures as well as needed reactions and measures to fight the mentioned phenomena or reduce drought effects

c) Expansion of layers participation and local communities including women, farmers, animal keepers, and cession of more responsibilities to them in management.

3- National action programs should also be suited to conditions, including the following:

a) Measures to rehabilitate economic environment with a poverty-elimination view

b) Measures relating to natural resources preservation

c) Measures to improve desert-elimination knowledge

Generally, overcoming the haze phenomenon can be divided into two parts of *crisis management* and *forecast management*. It is obvious that currently, priority is on conducting treatment programs and measures i.e. crisis management which involves specific operations such as much spraying, growing saplings, and building wind breakers. Given regional source of haze, these plans principally have an extra-national aspect and require political will and technical cooperation needed in this sector among relevant systems of regional countries. Presumably, this is the reason why the Blend Commission of the Parliament dedicated a credit of over 55 billion Tomans (some $2,147,639) in budget bill of 2014 (Jalali 93) for the Environment Protection Agency, according to clause '*sh*' of article 224 in the Fifth Program of Development, with purpose of resisting increasing trend and intensity of such phenomena like haze, mist and drought in the country.

Responsibilities of the Islamic Republic of Iran's government in terms of compensations

In Iran, the extent of governmental responsibilities is a mixture of civil responsibility and fault-based responsibility. That is because principle 50 of the Constitution considers environmental

enjoyment one of individuals' most fundamental rights. Thus, it states that today's generation and next generations should have a growing social life in it. So, exercising any kind of irreparable contamination in it is "prohibited". Also, despite rules such as *rule of preventing air pollution* (1975), *rule of hunting (1974),* articles 104 and 105 of the third program of economic, social, and cultural development of the country (2000), notes 81, 82, and 83 of the Second Program (1994) and articles 58 to 70 from chapter 5 of the rule of Fourth Development Program, Waste Management law (2004), many of executive constitutions such as constitution of preventing water pollution (1994), it could be suggested that Iran's system of responsibilities is based on civil liability and fault-based responsibility. Inability of traditional system of responsibility in explaining environmental damages requires ratification of specific law in this regard.

Regarding the afore-mentioned statements, laws and regulations that exist in terms of Environment Protection in Iran are divided into two index groups of *natural environment* (including issues relating to hunting, fourfold regions, habitats, and plant and animal species, etc.) and *human environment* (which mostly concerns issues relating to contaminations and destruction). Given the fact that history of the Environment Protection Agency is related to hunting center and hunting supervision, with a general observation it would become clear that old rules of the environment sector, have had a special tendency toward natural environment. After changes occurred in 1971 and variation of *Hunting and Hunting Supervision Organization* to *the Environment Protection Agency*, this trend caused other laws regarding human environment to be approved too, such as *rule of preventing air pollution* (1975), *hunting law* (1974), articles 104 and 105 in the third program of economic, social, and cultural development of the country (2000), notes 81, 82, and 83 of the Second Program Law (1994), and article 58 to 70 in chapter 5 of the Fourth Development Law, waste management law (2004), many of executive constitutions such as the constitution for preventing water pollution (1994), law for preventing audio pollution (1999), etc and most important of all the 50th principle of the Islamic Republic of Iran's Constitution (1979).

Among traditional laws, law for protection and rehabilitation of the environment, has given the Environment Protection Agency wide and extensive privileges in suspending activities of and closing environment-polluting units. According to article 11 of this law, the Environment Protection Agency is privileged to directly warn environment-polluting units or inhibit their activities until pollution removal. However, various pressure factors and levers have resulted in a situation where the organization cannot use its privileges and rights appropriately for supporting the environment.

With a brief look at Iranian laws and regulations, it seems that the most important problem here is antiquity of these laws because today's world in a quickly moving toward change, variation and industrialization. In these conditions, thus, devising newer rules suitable with emerged innovations and changes are required.

In general, a brief look at state of laws of the environment in Iran so far indicates that both decision-making governmental administrators and authors and people have paid more attention to this issue so that laws regarding the environment have expanded from several notes in the development program to several legal articles in the third program and finally to a chapter in the fourth program. It is hoped that this state still have a growing trend.

Conclusion

It should be said, in general, that legal support from human rights is increasingly a means of reaching environmental protection. Rights such as living, political participation, individual freedom, equality, and compensation of legal damages are all legal means that somehow guarantee environmental protection. Economic and social rights including hygiene, suitable life conditions,

and right for enjoying suitable workplace can be effective in expanding the environmental rights in national and regional levels.

Usefulness of regional orders is obvious from the perspective that, in addition to possibility of using theoretic artifacts of global orders in a regional level, they have more conformity and compatibility with climatic and geographic traits as well as political supports. This condition, respectively, is concerned with support and protection of the environment in region *Persian Gulf and* can present a noticeable example, while necessity of utilization and enjoyment of experiences, principles, and global rules is also an obvious and proven matter.

Regarding environmental issues, it could be said that the most important problem that is gradually emerging in the Middle East region and no absolute solution has been given for it so far involves environmental issues. If, therefore, destruction of the Middle Eastern environment continues with current trend, national and international tensions will be witnessed in the region in years to come. What makes this state more complex involves natural shortages and decreases, on one hand, and population growth, civilization growth, and striving for industrialization on the other hand.

In addition to the items mentioned above, human and unpleasant factor of war should be addressed, which is a very important factor in environmental destruction and its critical elements contamination. Existing natural deficiencies and destruction intensification constitutes a big challenge facing relations between this region's countries, as will show its effect gradually.

The Middle East region will only experience a clear and free from crisis future when all decide to solve existing problems. It should be noted that all outer decisions for this region's future lack native knowledge. So, not much hope is expected for success of these approaches. Required approaches for solving Middle East's regional issues should have a regional approach, and if a regional approach is accompanied with ratification of national laws in regional countries against environmental damages, or alternatively, if civil responsibility is accompanied with other kinds of governmental responsibilities, future ecosystem of the Middle East region can be promising.

On the other hand, evaluating legal condition of most countries of the Middle East region regarding kinds of governmental responsibilities in terms of environmental damages reveal the fact that although a considerable number of international treaties consider necessary establishment of legal regimes in this regard, mentioned regimes have not yet been created. Thus, developing international regimes requires development of national rights over this matter, and civil responsibility of environmental damages along with other types of responsibilities could be considered effective practical solutions in the issue of compensating environmental damages due to preclusion effects and damage compensation.

Therefore, one of the primary, essential, and effective steps to confront environmental pollutions in the Middle East region, is to devise and compile laws and regulations in different environmental domains among regional countries. These regulations sometimes have technical and specialized aspects concerning observation of standards and environmental instructions of relevant organizations and systems, and sometimes they relate to damages resulted from prohibited activities against the environment and how to compensate them. Some other regulations have penal aspects. All of these regulations have a common goal which is to prevent or resist environmental contamination.

Generally, in some countries, environmental damages are prosecuted by applying traditional regulations and laws of civil responsibility, and in some other countries, damage compensation is prosecuted by conducting special laws of civil responsibility regulations regarding public rights or a combination of traditional systems and public rights. These two systems are different in two ways:

- Goal: In traditional regulations, supporting possessions and individuals is intended and only compensation of damages incurred by individuals is noticed. In regulations of public rights, however, support of public rights and advantages for totality of community are intended.
- Methodology: Given different goals, these two have obvious distinctions regarding responsibility, definition of a responsible individual, and factors justifying responsibilities.

In public rights, therefore, given prediction in cases where damage has not occurred yet and there is a serious threat for damage occurrence in future, responsibility is realized and it is called *forecast responsibility*, and the most important principle in accepting such a responsibility is *principle of precaution*.

Traditional civil responsibility, which is based on traditional theories like fault is not responsive for many environmental damages that, in many cases, lead to public damages, because in regulations for civil responsibility, individual rights and possessions are supported, and to support public environmental rights, special preventive structure and damage compensation in laws should be foreseen.

As mentioned earlier in the paper, in Iran's history of legislation, different laws and regulations have been approved to support the environment. According to the issues mentioned in this article, it could be said that Iran's responsibility in compensation is a mixture of civil responsibility and fault-based liability. That is because principle 50 of the Constitution, has considered environmental enjoyment a basic right for all individuals and accordingly states "today's generation and future generations should have a growing social life". Importing every kind of irreparable contamination is therefore "prohibited". Despite laws such as *law for prevention air pollution* (1975), *law for hunting* (1974), articles 104 and 105 of the third program for economic, social and cultural development of the country (2000), notes 81 and 82 and 83 of *law for the second program* (1994), and articles 58 to 70 of chapter 5 of *law for fifth development program*, *law for waste management* (2004), many of practical constitutions such as *the constitution for preventing water pollution* (1994). It could be suggested that Iranian system of responsibility is based on civil responsibility and fault-based responsibility, and the collection of these national and international regulations can provide a suitable potential to preserve the environment.

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