

Investigating the Impacts of Global Environmental Evolutions on Long-term Planning of Natural Resources in Iran

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ABSTRACT: The main objective of the current study is to investigate the impacts of environmental evolutions at global scale on Iran's environmental planning. Thereby, all political movements towards solving environmental issues in Iran were accurately reviewed to find out the impressibility of the events by the global environmental evolutions. The findings indicated that Iran has joined the conventions and protocols with a time lag. During the period 1948-1993, the mean time lag between holding an international convention until its approval in Iran was eleven years while from 1994 to 2007, the average lag time was shortened to four years. As the results show, attention to environmental issues was improved from one note on First Development Plan of the country (1989-1993), to three notes on the Second Development Plan (1995-1999), and one complete chapter on the Third Development Plan (2000-2005). Moreover, one of the six chapters of the Fourth Development Plan (2005-2009) (about 20 percent of the whole program) was dedicated to the environmental issues. In the Fifth Development Plan (2011-2015), sixteen topics have been raised at Environment Chapter and thirteen legal articles have been proposed in other chapters with a focus on environmental issues. It can be concluded that there has always been a direct link between international treaties and major political decisions in Iran.

Key words: Environmental conventions, Development programs, Protocols, Convections, Iran

INTRODUCTION

Nowadays, due to the growing trend of environmental degradation and destruction of natural resources, environmental protection has become an important task for governments towards achieving sustainable development and protecting the rights of future generations (Spanou *et al.*, 2012; Lahijanian, 2012; Mossalanejad, 2012; Feng *et al.*, 2012; Basso *et al.*, 2012; Amiri *et al.*, 2013; Mondejar-Jimenez *et al.*, 2013; Faryadi and Taheri, 2009; Yuan *et al.*, 2010). In recent decades, there have been joint efforts to protect the environment (Ciavola *et al.*, 2011; Chung, 2010; Miller, 2007). Organizing three world conferences in Stockholm, Rio de Janeiro and Johannesburg by United Nations Environment Program (UNEP) as well as ratifying more than twenty conventions and protocols in the field of

environment are among the most important affairs carried out in the last two decades (Carr and Norman, 2008; Seyfang, 2003; Spalding-Fecher *et al.*, 2005). Given the large number of member countries, environmental conventions and protocols have played a significant role in the performance of the governments to prevent environmental degradations. In other words, an international determination has currently been made for environmental conservation. The issue has strongly influenced development plans in Iran. In recent years, the leaders of the countries have recognized the importance of the environmental issues (Mossalanejad, 2013; Moghimi and Alambeigi, 2012; Junquera and Del Brio, 2012; Perez-Calderon *et al.*, 2012; Mondejar-Jimenez *et al.*, 2012; Vukicevic and Nedovic-Budic, 2012; Sanchez-Ollero *et al.*, 2012;

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Escobar *et al.*, 2012; Nejadi *et al.*, 2012; Fumagalli and Toccolini, 2012; Kim *et al.*, 2012; Mossalanejad, 2011; Pirani and Secondi, 2011). Accordingly, they have attempted to impose some environmental regulations at national levels or sign some international agreements. In fact, countries are looking for ways to reduce environmental degradations, along with economic development. The concept of sustainable development emphasizes that economic prosperity regardless of environmental issues is quite impossible. Due to the fact that environmental problems cannot be restricted to political boundaries, an international cooperation is needed to solve them. During the recent decades, the world has witnessed a number of environmental challenges such as climate change or loss of biodiversity and consequently, many conventions and summits have been held to overcome the issues. Obviously, the success of such treaties is related to how they are being implemented in countries. Accordingly, the current study aims at investigating the impacts of global environmental evolutions on macro-level policy-making in Iran. It was attempted to show the impressibility manner of the long-term plans by the transboundary contracts.

MATERIALS & METHODS

The current research is a descriptive-analytical study focusing on the impacts of global environmental evolutions on long-term planning of natural resources in Iran. For this propose, all the relevant literatures were accurately reviewed by referring to the related organizations and research centers including Department of Environment (DoE), Vice President of Strategic Planning and Monitoring (VPSPM), Central Library & Documentation Center (CLDC) of University of Tehran, Library of Islamic Consultative Assembly (LICA) and National Library and Archives Organization of Iran (NLAI). During data collection, some interviews were conducted with experts in the fields of environment and politician to bridge the gap in information available on environmental legislation procedures, both in Iran and in the world. Accordingly, all conventions and protocols related to environmental issues were listed. In the analytical phase of the study, all political movements towards environmental issues in Iran were accurately reviewed to find out the impressibility of the events by global environmental evolutions.

RESULT & DISCUSSION

Between the years 1948 - 1971, the International Union for Conservation of Nature and Natural Resources (IUCN-1971) was founded. Several environmental conventions such as "Convention on Wetlands of International Importance especially as

Waterfowl Habitat" so-called Ramsar Convention were also approved during the same period of time (Ramsar, 1971; Berwick, 1969). Simultaneously, the medium-term development plans of Iran were enforced in the form of four different development plans from 1948 to 1972. In general, the environmental achievements of these plans were only limited to utilization of natural resources as well as rehabilitation and exploitation of forests and aquaculture. In 1971, by establishing Iran's Department of Environment (I.R.-DOE), conservation affairs such as prevention of any actions leading to pollution or environmental degradation were assigned to this organization (DOE, 2004; Tofigh, 2006). In 1972, "International Conference on Environment and Humanity" was held by UN (United Nations) which holds human beings responsible for maintaining and improving the environment for present and future generations. It also emphasizes on the rational planning of natural resources to solve any conflicts between development needs, conservation requirements and environmental improvement (Vasseur, 1973). After the Stockholm Conference in 1977, United Nations General Assembly (UNGA) voted in favor of launching the United Nations Environment Programme (UNEP). The decision was adopted to enjoy a healthy environment, encourage environmental activities at regional and international levels, and reform laws and international treaties for controlling environmental degradation (Sandbrook, 1999). Establishing environmental protection agencies, the global approach to environmental protection in Stockholm Conference and holding several conventions caused many evolutions in Iran and in the world during the twenty years until Rio Conference in 1992. Among the evolutions in Iran can be pointed to the approval of Environmental Protection and Improvement Law in 1974 (DOE, 2004) by which not only the organizational structure of the DOE was changed, but also an extensive authority was given to the organization in order to prevent environmental degradation. This caused to be considered environmental issues in the five-year development plans before the Islamic Revolution (1973-77). However, the environmental issues were generally discussed in the plans. During these years, Iran joined three conventions including Protection of the World Cultural and Natural Heritage (1975), The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (1976) and Kuwait Regional Convention (1980) (Table 1).

For the first time since the Islamic Revolution in 1979, one principle was assigned to the environmental issues in the Constitution of Islamic Republic of Iran (Hamd haidari *et al.*, 2008). The fiftieth principle of Islamic Republic of Iran Constitution states: "In Islamic

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Republic of Iran, conservation of the environment where the present and coming generations should continue a growing social life is considered as a public duty. Therefore, economic and other activities which may be followed by the irreparable pollution or destruction of environment shall be prohibited". Due to the failure to implement the medium-term plans in Iran between the years 1979-1982 and the pilot program set for the year 66-1362, practically nothing happened in the realm of environment unless Iran's joining the United Nations Environment Programme (UNEP). After a one-year time lag (1988), the First Five-Year Economic, Social, and Cultural Development Plan of Iran (1989-1993) was presented in which only one note was considered for the environmental restoration (ICA, 1989). Throughout these years, Iran became a state member of Vienna (1987) and Basel (1989) conventions. In 1992, Rio Conference was held under the title "United Nations Conference on Environment and Development (UNCED)". The conference achievements can be summarized as The Rio Declaration on Environment and Development; often shortened to Rio Declaration and an International Action Plan (Agenda 21). Among the significant impacts of the conference on the world can be pointed to holding important conventions and protocols such as Convention on Biological Diversity (CBD), and United Nations Framework Convention on Climate Change (UNFCCC). Iran joined these conventions after a four-year delay. At the same time, the country was a member of the United Nations Convention to Combat Desertification (UNCCD). Before Iran's Third Cultural and Socio-Economic Development Plan in 1999, the National Commitment to Environmental Protection (NCEP) was established by a group of experts, planners and policymakers which played a key role in future movement towards sustainable development in Iran. The program was compiled in cooperation with other relevant agencies with the aim of motivating to solve environmental issues and achieving sustainable development objectives. A schema of the real status of natural resources including forests, grasslands, deserts, as well as air, soil and water pollution was also presented in the program. Finally, some practical strategies were offered to mitigate the adverse impacts. All the mentioned items provided the context for greater attention to environmental issues in the Third Development Plan (1999-2004) so that one complete chapter was assigned to the environmental issues in The Third Economic, Social and Cultural Development Plan Act. In addition to the previous concerns, public participation issues, environmental crimes, environmental impact assessment of major projects and air pollution in metropolitan cities were considered in the program for the first time. In these years, Iran joined

"International Convention for the Prevention of Pollution from Ships" (MARPOL, 1973), and also "Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade" (PIC Convention, 2001). In this regard, the World Summit on Sustainable Development was held in Johannesburg, South Africa in 2002. The achievements of the summit were reflected as consideration of sustainable development perspective in the development plans of Iran.

The attention to environment and sustainable development reached its peak in the Fourth Development Plan of Iran (2005-2009), so that one section was devoted to the environmental issues. In addition to the topics raised in the Third Development Plan, some legal materials in the fields of environmental training, prevention of pollution and degradation of coastal areas, establishment of national environment fund, monitoring of pollution sources, ecosystem management and economic valuation of resources were also mentioned in the Fourth Development Plan of Iran. In 2005, Iran joined the "Stockholm Convention on Persistent Organic Pollutants", "the Framework Convention for the Protection of the Marine Environment of the Caspian Sea" as well as the "Kyoto Protocol". Iran also joined "The Convention on the Conservation of Migratory Species of Wild Animals", also known as CMS or Bonn Convention in 2007.

The Legal materials mentioned in the Fifth Development Plan of Iran (2011-2015) include public education and environmental notification at national and regional levels, prevention of illegal hunting, economic valuation of resources, integrated ecosystem management, implementation of biodiversity action plan, environmental assessment of projects, reduction of air pollution, volume reduction of wastes entering landfills, identification and control of dust distribution centers, control and reduction of greenhouse gas emissions, prohibition of mineral and industrial exploitation of local wetlands and integrated management of wetlands. Table 1 gives the venue and date of international conferences on environment. The environmental conventions and protocols, along with their approval year in Iran are also shown in Table 1. Table 2 shows the venue and date of environmental conventions and protocols as well as the interval passed in Iran. It is worth noting that the content of the second and third columns are taken from Table 1.

Iran's planning process can generally be divided into three periods of time, each in turn, is described in the followings:

The first period (prior to 1979): before the Islamic Revolution, despite the structural changes in Iran's

Table 1. The venue and date of the important environmental conventions and protocols

Title	Venue	Year of international approval		Approval year by the parliament of the Islamic revolution of Iran	
		AD	Solar Calendar	AD	Solar Calendar
International Union for Conservation of Nature and Natural Resources (IUCN)	Gland, Switzerland	1948	1327	1974	1352
International Convention relating to intervention on the high seas in cases of oil pollution casualties	Brussels	1969	1348	1997	1375
Convention on Wetlands of International Importance especially as Waterfowl Habitat	Ramsar	1971	1350	1974	1352
The United Nations Conference on the Human Environment	Stockholm, Sweden	1972	1351		
United Nations Environment Programme	United nation	1972	1351	1984	1362
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter	London	1972	1351	1997	1375
Convention Concerning the Protection of the World Cultural and Natural Heritage	UNESCO	1972	1351	1975	1353
International Convention for the Prevention of Pollution from Ships (MARPOL)	MARPOL	1973/78	1351	2002	1380
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	Washington	1973	1352	1976	1355
Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution	Kuwait	1978	1357	1980	1358
Convention on the Conservation of Migratory Species of Wild Animals	Bonn, Germany	1979	1358	2007	1386
Vienna Convention for the Protection of the Ozone Layer	Vienna	1987	1366	1989	1368
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal	Basel - Switzerland	1989	1368	1992	1371
International Convention on Salvage	London	1989	1368	1994	1373
International Convention on Oil Pollution Preparedness Response and Cooperation	London	1990	1369	1997	1376
The United Nations Conference on Environment and Development (UNCED)	Rio de Janeiro	1992	1371		
United Nations Framework Convention on Climate Change (UNFCCC)	New York	1992	1371	1996	1375
Convention on Biological Diversity (CBD)	Rio de Janeiro	1992	1371	1996	1375
United Nations Convention to Combat Desertification (UNCCD)	Paris	1994	1373	1996	1375
Kyoto Protocol to the United Nations Framework Convention on Climate Change	Kyoto	1998	1376	2005	1384
Cartagena Protocol on Biosafety	Nairobi	2000	1379	2003	1382
Stockholm Convention on Persistent Organic Pollutants	Stockholm	2001	1380	2005	1384
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	Rotterdam	2001	1380	2003	1382
Framework Convention for the Protection of Marine Environment of the Caspian Sea Conference	Tehran	2003	1382	2005	1384
	Johannesburg	2002	1381		

Table 2. The venue and date of the environmental conventions and protocols as well as the interval passed in Iran

	Islamic Republic of Iran			World		
	Laws	Membership in conventions and Protocols	Ratification of conventions and protocols	Conferences	Hijri Shamsi	
Five-year plans approved in Iran	Increased penalty for smuggling weapons and ammunition by armed smuggling		1		1348	
	Establishment Act of Iran's Supreme Council of Architecture and Urban Development		2		1350	
	Law of Environmental Protection and Improvement	2	3, 4 and 5	Stockholm and foundation of UNEP	1351	
	Protection act of border marine and rivers of contamination with oil materials				1353	
	Law of protection of and exploitation of forests and rangelands				1354	
No approved five-year plan	The fifth principle of the constitution				1358	
	Maintain and stabilize the sides of the border river				1362	
	Law on way to prevent air pollution- establishment Act of rural water companies - Protection and exploitation Act of aquatic resources in the Islamic Republic of Iran - preservation Act of land use and gardens		9		1366	
	Law of Protection against radiation	9	10 and 11		1368	
	Formation of water and sewerage companies		12		1369	
First Five-Year Plan (with one note)	The legal plan of "Ways to prevent air pollution in Agricultural Commission of the parliament which was raised for the first time				1370	
	Preservation and protection act of natural resources of forest reserves formation of National Commission for Sustainable Development	10	13 and 14	Rio Conference	1371	
	Road and Rail Safety Improvement Act	11	15 and 16		1372	
					1373	
Second Five-Year Plan (with three notes)	The act of "ways to prevent air pollution"- Law of Formation of rural water companies-Law of Protection and exploitation of aquatic resources in the Islamic Republic of Iran - Law of preservation of land use and gardens				1374	
	Biosafety Law - Committee on Biological Diversity, Biosafety Protocol, the subject of Clause A, 18 th agenda of Council of Environmental Protection	1, 3, 13, 14 and 15			1375	
	Waste Management - Executive Procedure of Article 2 Note 82, the Second Five-Year Plan 7/7/22	12			1376	
					1377	
					1378	
Third Five-Year Plan (with two direct articles and 7 articles related to environment)			17		1379	
			18 and 19		1380	
				Johannesburg	1381	
		5, 17 and 19	20		1382	
					1383	
Fourth Five-Year Plan (with 16 legal Articles in Environment Chapter and 16 environmental Articles in other chapters)	Waste Management	16, 18 and 20			1384	
					1385	
			8		1386	
					1387	
		Biosafety Law			1388	
				1389		

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environmental infrastructures such as establishment of DOE and Supreme Council for Environment (SCE), out of six conventions approved within the years 1969 to 1973, Iran only joined three conventions including Ramsar Convention (1971), the World Heritage Convention (1972) and CITES (1973) which all of them had a concept of natural environment. At that time, Iran became a member of the International Union for Conservation of Nature and Natural Resources (IUCN). The First Five-year Plan of Iran only focused on the natural environment topics including forest restoration and preservation.

The second period: After the Islamic Revolution in Iran until 1996, in line with the objectives of the Stockholm Conference and United Nations Environment Programme (UNEP), the fiftieth principle of Iran's post-revolution constitutional law was allocated to environmental issues. The principle was based on a new approach in environmental planning by which environmental conservation should be considered as a public duty. Accordingly, economic activities causing environmental pollution or uncompensated destruction must be forbidden.

After the Rio Conference (1992) and other important conventions and protocols such as Convention on Biological Diversity (CBD), environmental considerations found a special place in Iran's long-term planning and the country joined the conventions with a time interval less than 4 years. In this period, Iran was more influenced by global environmental evolutions and it also paid a special attention to the international conventions and protocols.

The third period: After 1997, environmental planning process was altered a lot due to the managerial change of the DOE. In 1999, one chapter of the Third Development Law was dedicated to environmental issues for the first time. In addition to the conservation of natural resources and biodiversity, other topics such as pollution prevention, public participation, and environmental assessment of large projects were also addressed in the plan. Moreover, UNFCCC secretariat was launched at the DOE. This illustrates that the management approach played a great role in drawing the attention of the government to the environmental issues in Iran within the third period.

Following the active participation of Iran in Johannesburg Conference (2002), the country accepted five other memberships in conventions and protocols throughout an 8-year managerial period. Subsequently, the Secretariat of the Cartagena Protocol on Biosafety was launched at the DOE. Accordingly, the importance of environmental issues and sustainable

development reached its peak in the Fourth Development Plan (2005-2009). Therefore, one out of the six sections was completely allocated to the environmental issues. It should be mentioned that around twenty percent of the Fourth Development Program Law focuses on environment and sustainable development.

In addition to the legal materials raised in the Fourth Development Plan, identification and control of dust emission centers, control of greenhouse gas emissions, prohibition of mineral and industrial exploitation of local wetland and integrated management of wetlands were also addressed in the Fifth Development Plan (2011-2015).

CONCLUSION

Environmental planning in Iran can be divided into three periods; before the Islamic Revolution (with particular attention to the natural environment), the period after the Islamic Revolution till 1996 (in this period Iran was more influenced by global environmental changes so that it paid a special attention to international conventions and protocols) and the period after 1997, management role and its effectiveness in the government has resulted in growing attention to the environment in development programs. Accordingly, a great progress has been obtained in environmental program of Iran. By reviewing the planning achievements at macro level in Iran, it is concluded that managerial attitude have had a great role in environmental developments in the country. As the results suggest, the ratification of the conventions and protocols has been accelerated in Iran since after the Islamic revolution. During 1948-1994, the average time of holding the international conventions until its approval in Iran was eleven years, while, from 1995-2007, it was reduced to 4 years. Generally, the attention of the government and the parliament of the Islamic Republic of Iran to the environmental issues accelerate the approval duration of conventions and protocols. Clearly, there has always been a direct but delayed relationship between the global environmental evolutions and the decision-making policies in Iran. Generally, the impressibility is assessed positive.

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