

Environmental Management of Southern parts of the Caspian Sea Coastal Zones (Iran)

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Abstract. The present study investigates environmental management issue of the Southern Parts of the Caspian Sea Coastal Zones. Environmental protection of the Southern Parts of the Caspian Sea Coastal Zones demands efforts on the part of the state officials, cooperation among the beneficiaries, private sector and other ones. It needs appropriate tools, legislations and supervision over its proper implementation, adequate financial resource, political support and public participation in affairs related to decision-making, training, and enlightenment of public awareness. Thus, to solve the exiting environmental issues, rules and regulations, administrative and organizational issues in this zone, Environmental Coordination Council of the Caspian sea Coastal Zones (E4CZ) was established comprising of the representatives of sectors involved in the coastal zones.

Keywords: Natural Resources Management, Water Resources Management, The Caspian Sea, Coastal Zone.

1. Introduction

The Caspian sea is the largest lake in the world, surrounded among five Coastal Countries, Islamic Republic of Iran, Federation of Russia, Azerbaijan, Kazakhstan and Turkmenistan which is quite significant from various aspects, such as different economic, social and ecological.

Among the factors that will result in the extinction of this lake in the future decades are over explosion of the population residing on the coast of the Caspian Sea, human activities, destruction of natural environment, production and discharge of wastewater and solid wastes, oil pollution, illegal fishing of the aquatic organs related to off-shore environment (sea) and in-shore environment (coasts) and in addition, lack of efficient planning and management in exploiting the present resources (Abbaspur and Saeed-Hoseini, 2003).

Protection of the environment of the Caspian Sea and its coasts needs a series of environmental obligations in coastal management, such as:

- Preventing pollution and destruction by enforcing regulatory, economic, and legal policies.
- The process of controlling the pollutants, destruction and transformation in the coastal areas.
- Monitoring the pollutants.

Implementation of all the environmental obligations in the management of the coasts requires the cooperation of the government authorities, collaboration of the beneficiaries of coastal areas, joint effort of the private sector and the other sectors (the public and government), enjoyment of proper instruments and sufficient financial potential, optimum utilization of the specialists' potential and professional manpower. Furthermore, measure as application of adequate regulations and formalities and supervision over their impressive performance as an instrument for implementation of management, coordination and operational versatility, and sustainable development as the most effective executive procedure, assessment of the effects of development on the environment prior to implementation of any project directly or indirectly on the environment of the southern coasts and the Caspian Sea consistent and adequate policy-making and

standardization by the government, culture formation, enlightening the public beliefs, informing and increasing the level of public awareness through the non-government environmental organizations must be taken (Farshchi and Tortell, 2001).

Therefore, to protect and prevent the destruction of the Caspian Sea and its coasts, we can act through a comprehensive planning and management regarding the Caspian Sea throughout this region.

The objective of implementing comprehensive management is to support and supply the elements needed for development. Both in national and regional level, and to create a balance among the environmental development elements and the factors to protect the environment and achieving sustainable development, which according to Chapter 17 of Agenda 21, could be utilized by comprehensive management and planning for the coasts (Robert and Alder, 1999).

Since the protection and prevention of destruction of the Caspian Sea and its coasts is not referred to a particular coastal country, therefore, comprehensive planning and management of the Caspian Sea's coasts need the cooperation of all the Caspian Sea coastal countries.

In national level, in every coastal country, different organizations and bodies are responsible for special and identified tasks and jobs regarding the multi-utilization of the Caspian Sea and its coasts. This would not be possible, unless a co-ordination is made among these bodies to execute comprehensive management of the Caspian Sea's coasts (Farshchi, 2002).

In the Islamic Republic of Iran, a number of government bureaus are responsible for the management of the southern coasts of the Caspian Sea, by identifying and removing the interactions within the tasks, whereas lack of coordination among these bureaus are one of the reasons for creation of environmental complications in the Caspian Sea and its coasts. Further, the subject of solving the environmental problems of the Caspian Sea and its coasts need the partnership of the Governmental Organizations, the Non-Governmental Organizations (NGOs), the public, and other social groups (Farshchi and Tortell, 2001).

2. Results and Discussion

The comprehensive planning and management of the coastal areas accounts as an important instrument to reach sustainable development, protect the environment, improve the knowledge related to the problems of the coasts, achievement of the inter-sectoral co-operations takes the necessary steps for economic development with the least effect on the environment, optimization of the utilization of the coastal resources, adequate allocation of the applicants of coastal spaces, and revival and renovation of the environment.

In addition the execution of the coastal management programs in the developing countries needs training and public awareness, public participation as an essential instrument. The proper organizational, administration and legal, financial mechanisms, political support, and public participation in decision making regarding the comprehensive management of the coastal areas is extremely necessary.

Considering the complications of the case of implementation of the environmental management of the southern coasts of the Caspian Sea, the variety of the applications in these areas as well as the multiplicity of the organizations, and respective ministries related to the subject matter is discussed therefore, it is the responsibility of the management of the southern coasts of the Caspian Sea which is a combination of the tasks of a number of organizations and ministries. Thus, the proposal to establish an environment coordination committee for the Caspian Sea (in the frame of a legal act), would be one of the most appropriate options that has been considered and reviewed (Set of Environmental Protection Rules and Regulations of Iran, 2000).

The study and review of the tasks, authorizations, and responsibilities of the bodies in charge of the cases regarding the protection and exploitation of the southern coasts of the Caspian Sea that have already been explained and specified for each of the operational bodies indicates that, in practice, we can not appoint one body in charge of all the affairs pertinent to the management of the coastal areas. Therefore, separation of the responsibilities and tasks of the different operational bodies in the framework of a single discipline and design of a comprehensive management for the coastal areas, the responsibility of a coordination committee, and considering the experiments of the other countries would be essential. Consequently, It is necessary to act in this respect with the coordination of the respective operational bodies.

In accordance with the First Chapter of the Third Economic, Social and Cultural Development Plan (1998-2004), as well as the policy of improving the national bureaucratic and management structure emphasized in Article 2, the new policy of the government of the Islamic Republic of Iran is to eliminate the unnecessary governmental units and organizations who have common tasks and objectives to reduce the bureaucratic size of the government. Therefore, according to the objective of accumulating the related activities in the ministries and reducing the number of decision making bodies, which is stressed on in the Clause A through Y of Article 2 of the Third Economic, Social and Cultural Development of the Islamic Republic of Iran, the following recommendation is being presented:

It is recommended to establish the environmental Coordination Council of the Caspian Sea in the framework of a single article bill to be presented to the Parliament of the Islamic of Iran for ratification.

3. Recommendation for Establishment of the Environmental Coordination Council of the Caspian Sea

Article 1

In order to coordinate the related development plans and projects as well as any activity in the coastal limits of the southern shorelines of the Caspian Sea necessarily the Persian Gulf and the Sea of Oman which requires destruction or alteration of natural environment has negative impacts on the environment as well as all the comprehensive plans within the coastal city limits that have direct or indirect negative effect of the environment, the Ministry of Road and Transportation, Ministry of Energy, Ministry of Jihad Agriculture, Management and Planning Organizations, Department of the Environment, Ports and Shipping Organization and Ministry of Housing and Urban Development are obligated to establish the Environmental Coordination Council of the Caspian Sea.

Prior to the implementation of a project, it has to be approved by the aforesaid Coordination Council and every big project has to have an environmental Impact Assessment approved by the Department of the Environment in order to be reviewed by the Council.

Title: 1

Members of the Council

- The Director of the Department of the Environment
- Pertinent deputy of the Department of the Environment
- Urban Development and Architecture Deputy of the Ministry of Housing and Urban Development
- Water Affairs Deputy of the Ministry of Energy
- Pertinent deputy of the Ministry of Jihad Agriculture (managing director of Shilat Joint Stock Department)
- The representative of the three coastal provinces with full authority (Gilan, Mazandaran and Golestan Provinces)
- Pertinent deputy of the Ministry of Road and Transportation (director of Ports and Shipping Organization)

Title: 2

Caspian Sea, It's chairperson would be the Vice President of the Islamic Republic of Iran (Director of the Department of the Environment) and it would include the directors of the council committees, a reporter and a coordinating secretary.

Title: 3

The Environmental Coordination Council of the Caspian Sea would have 6 technical committees in the pertinent organizations and ministries at the national level in order to coordinate the activities and studies to attain sustainable development and the protection of the environment. These committees include:

- Pollution Control Committee (Department of the Environment)
- Coastal Architecture and Urban Development Committee (Ministry of Housing and Urban Development)
- Training, Recreation and Public Participation Committee (Department of the Environment)
- Physical Protection of Water Resources and Coastal Lands Committee (Ministry of Energy)
- Transportation, Shipping and Marine Services Committee (Ports and Shipping Organization)

- Protection of Natural Resources Committee (including living aquatic resources) (Ministry of Jihad Agriculture) and (Shilat Joint Stock Department)

Article 2

Executive Responsibilities of the Committees:

1-Pollution Control Committee

- Identifying the environmental consequences and dangers in the southern shorelines of the Caspian Sea
- Assessing the development plans and preparing comprehensive environmental plans in the coastal area of the Caspian Sea
- Monitoring the process of protecting the natural habitats
- Coordinating with the Transportation, Shipping and Marine Services Committee for control of oil contamination in the Caspian Sea
- Cooperating with the other Council committees for the protection of the Environment and prevention of its destruction

2-Coastal Architecture and Urban Development Committee

- Assessing and reviewing the urban development plans (comprehensive and detail plans) in the districts and in the cities
- Prioritizing the growth rate for various levels of city centers
- Coordinating for the planning and decision-making of rural development
- Coordinating amongst the municipalities of the coastal cities and pertinent
- Main Bureau in the Ministry of Housing and Urban Development for issuance of construction permission compatible with the sustainable development and environmental protection of the Caspian Coastal Areas

3 - Training, Recreation and Public Participation Committee

- Cooperating with Tourism Organization in order to determine the tourism capacity of the Caspian coastal areas
- Coordinating with the other committees for establishment of coastal eco-parks in order to enhance the ecological capacity of the coastal areas
- Attracting public participation for the protection of the Caspian Coastal Areas by conducting eco-tours in the framework of environmental policies
- Providing environmental training to enlighten the public opinion in regard to the environmental protection of the coastal areas

4- Physical Protection of Water Resources and Coastal Lands Committee

- Determining the exploitation capacity of water resources of the watersheds in the Caspian Coastal Areas
- Determining the exploitation capacity of sand and gravel in the Caspian Coastal areas and rivers flowing into the Caspian Sea
- Providing environmental perspective and coordinating with the governor generals of the coastal provinces in regard to the issuance of sand and gravel exploitation permit in the Caspian coastal areas and rivers flowing into the Caspian Sea
- Cooperating with the municipalities of the coastal cities and the water and sewage companies located in the coastal cities in order to regulate and systematize the surface waters and urban sewage
- Assessing and providing recommendations in regard to the usage, application and separation lands, buildings and facilities located outside the legal limits of the coastal cities
- Cooperating with the Forests and Pastures Organization for exploitation of coastal lands

5-Transportation, Shipping and Marine Services Committee

- Cooperating with the Department of the Environment for monitoring and control of oil contamination in the Caspian Sea and its coastal areas
- Cooperating with the international organizations and Ports and Shipping Organization for prevention of oil spills in the Caspian Sea
- Establishing mechanisms for monitoring and control of the Caspian Sea and its coastal areas during loading and transportation of goods
- Cooperating with the Department of the Environment for Environmental Impact Assessment of port construction prior to the implementation of the project in the Caspian shorelines

6- Protection of Natural Resources Committee (including living aquatic resources)

- Determining the exploitation capacity of the aquatic resources in the Caspian Sea, especially Sturgeons
- Cooperating with Shilat Joint Stock Department in order to implement environmental perspectives and issuance of fishing permits in the Caspian Sea
- Determining methods for the protection of aquatics in the Caspian Sea
- Cooperating with the Department of the Environment for control of fishing in the rivers flowing into the Caspian Sea
- Cooperating with the Department of the Environment for protection of important aquatic

Article 3

- The Responsibilities of the Environmental Coordination Council and Sustainable Development in the Southern Shorelines of the Caspian Sea (it will be called hereinafter' Coordination Council)
- Coordinating between the pertinent governmental organizations for materialization of sustainable development (coordination between development programs and environmental objectives)
- Cooperating with the Department of the Environment and Ports and Shipping Organization and supporting non-government environmental organizations (NGOs) in order to combat and prevent water contamination in an emergency situation in the Caspian Sea and its southern shorelines in the framework of the national regulations
- Cooperating and preparing appropriate local executive policies for the protection and sustainable exploitation of marine and shoreline resources
- Cooperating and coordinating with the pertinent organizations, universities, educational centers and NGOs in order to prepare and implement environmental training and public awareness programs
- Cooperating with the Planning Councils in the coastal provinces in order to enhance the role of environmental protection in the development plans of coastal provinces

Article 4

The Executive Secretary of the Coordination Council is the governor general of the province and in the region, the governor generals of the coastal provinces who are members of the Coordination Council would be the Executive Secretaries in their own provinces.

Article 5

Environment in each of the Caspian Sea Coastal provinces

Article 6

- The Duties of the Coordination Council Secretariat
- General secretariat tasks, including correspondences, sending and receiving mails
- Determining the date of the Coordination Council meetings and inviting the members to participate in the meetings and providing them with the meeting agendas
- Doing the secretarial duties of the Coordination Council meetings
- Putting in order and notifying the ratifications of the Coordination Council
- Preparing and gathering the necessary information and conducting research Activities in regard to the protection of the Caspian Sea southern shorelines
- Establishing a data bank for the subject under study
- Following up the preparation and implementation of comprehensive Environmental plans according to the ratified priorities
- Conducting specialized sessions with the cooperation of the pertinent Organizations in order to attain the aforesaid objectives indicated in this set of regulations.

Article 7

The Secretary of the Coordination Council is the chairperson of the secondary meetings. Meanwhile, the secretary signs all the correspondences of the secretariat as well.

The Sustainable Development and Environmental Coordination Council of the Caspian Sea is established to coordinate the executive duties of the pertinent organizations in the legal limits of the coastal provinces. Its objective is to establish a coordinated link rather than a pure organizational link between the pertinent authorities. This is similar to the link between an organization and its affiliated subdivisions. This link facilitates the implementation of ratifications made by the Sustainable Development and Environmental Coordination Council of the Caspian Sea.

The Sustainable Development and Environmental Coordination Council of the Caspian Sea acts as a local focal point for the sustainable development of coastal cities and villages. Further, it guides and monitors the planning and implementation of the development plans in the local societies. The Coordination

Council emphasizes on the Articles 7 and 100 of the Constitution has attained the legal backing for the attainment of the above mentioned policies.

In order to improve the performance of the Sustainable Development and Environmental Coordination Council of the Caspian Sea, it is essential to expand the active interaction of the Council with the NGOs and establishing an appropriate link with the governmental institutions in the coastal cities.

4. Acknowledgments

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5. References

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Table1: Illustrates the pertinent governmental organizations for the coastal planning & management (Set of Government Organization Comprising of Valid rules & Regulations, 2000).

	Name of the Organization	Main Tasks	Overlapping Tasks with the other Organizations	Tasks that could be Coordinated	Notes
1	Department of the Environment	Prevention, control and mitigation of pollution and destruction of the environment, protection of wildlife	-With the Ministry of Energy for to the protection of rivers -With PSO in regard to Pollution -With Shilat Joint Stock Department for monitoring of aquatic resources and protection of species in the coastal areas	-Determining the exploitation capacity of water resources for the protection of minimum water flow of the rivers -Not applicable -Control and protection of important species' habitats including sturgeons	-
2	Ministry of Energy	Monitoring coastal areas, marsh beds, natural rivers, streams and public canals	-With the governor general offices in regard to exploitation permission of sand, gravel and clay from the beds and limits of rivers, streams and legal limits of seas and lakes	-Determining the exploitation capacity of sand, gravel and clay from the beds and limits of rivers and streams	-
3	Ministry of Jihad & Agriculture	Implementation of Regulations concerning the sovereignty and incumbency over the soil, Agricultural barren lands outside the city limits, forest lands, constructed coastal lands, forests, pastures and prevention of excessive tree cutting	-With the Ministry of Energy for the structured coastal lands -With DOE for the protection and support of structured coastal lands -With DOE for the establishment of forest parks and natural recreational areas	-Specifying a common approach in regard to the implementation of Structured Coastal Lands Act ratified in 1975 through its legal amendment -Not applicable -Establishment forest Guard	
4	Forests & Pastures Organization	Continuous protection of natural resources and limits of the national forests and pastures as well as forest reserves	-With Ministry of Energy in regard to structured coastal lands -With DOE for changing the use of the lands and areas managed by DOE	Specifying a common approach for the implementation of Structured Coastal lands Act through its legal amendment	For changing the use of areas managed by DOE, The Forests & Pastures Organizations has conflict of interest with DOE

5	Shilat Joint Stock Department	Fishing in the Caspian Sea and manufacturing of fishing industry products and protection and increase offish	-	- DOE in regard to specifying the exploitation capacity of aquatic resources in the Caspian Sea, multiplying the number of aquatics and making it economically profitable to aquaculture in the Caspian Sea	In regard to the domestic fishing (rivers), it is discussed and resolved in the regulations
6	Ministry of Roads & Transportation	Studying, preparing and implementing the comprehensive plans, coordinating in order to attain a common practical approach for national transportation	-	- DOE in regard to the Environmental Impact Assessment of establishment, development and operation of roads and ports	-
7	Ports & Shipping Organization	Administrating national ports, marine and commercial affairs	-With DOE for controlling and preventing the entrance of oil contaminants into the Caspian Sea during loading, unloading and transportation of goods in the national ports	-Determining the environmental capacity to accept contaminants without losing water self purification ability in the Caspian Sea and its coastal area, as well as monitoring -Conducting Environmental Impact Assessment for establishment of ports, prior to the commencement of the project	
8	Ministry of Housing & Urban Development	Coordinating the comprehensive plans in order to determine the population centers and to establish the desirable balance between population, expansion of cities and housing	-With the municipalities for monitoring the urbanization activities of the private sector by criteria and regulations -With Forests & Pastures Organization	-Turning over the aforesaid affairs to the Environmental Affairs & Coastal Sustainable Development Coordination Council	Supreme Council of Housing and Urban Development in the comprehensive plan has identified the legal city limit and has overlaps with the Forests & Pastures Organization
9	National Organization for Land & Housing	Preparing and implementing the housing and urban development plans, implementing the regulations within the legal jurisdiction of cities	-	-With the municipality in regard the urban environmental capacity to withstand the expansion of housing and urban development	-
10	The governor general offices in the three coastal provinces (Gilan, Mazandaran and Golestan)	The governor generals are entrusted to implement the general policies of the government within their jurisdiction and have monitoring authority over the entire practical affairs in the province	-Differences of opinion with DOE for determining the methods of sand and gravel exploitation in the structured coastal lands -With Ministry of Energy, according to Article 66 of the 1984 Budget, issuance of exploitation permit for sand and gravel in the structured coastal lands is entrusted to the coastal governor general offices.	-With Ministry of Energy for determining the sand and gravel exploitation capacity in the structured coastal lands	-
11	Municipalities of cities in Gilan, Mazandaran and Golestan Provinces	-Administrating the urban affairs of the coastal cities and organizing the occupations stationed within the city limits -Determining the garbage and waste dumping sites outside the city limits	-DOE and the Municipalities of the cities in the coastal provinces of Gilan, Mazandaran and Golestan have overlaps in regard to Clause 20 of Article 55 of Municipalities Law.	-With DOE for determining the environmental regulations and standards -With the governor general offices and DOE for determining the garbage dumping sites outside the city limits	

12	Main Bureaus of DOE in Gilan Mazandaran and Glolestan Provinces	-Coordinating the activities of the affiliated units in the three coastal provinces of Gilan, Mazandaran and Golestan in regard to the DOE responsibilities and activities	-With Ministry of Energy in regard to the protection of rivers -With PSO for pollution control -With Shilat Joint Stock Department in regard to the control of aquatic resources	-Determining the exploitation capacity of water resources in order to retain the minimum river water flow - Not Applicable - Control and protection of important species of marine habitats.	-
13	The Water & Sewage Companies located in the Coastal cities of the Caspian Sea	- Development and exploitation of urban water distribution system, collection and transfer as well as treatment of urban sewage within the legal city limits in each province	-With the municipalities for the collection and transfer of surface waters -With DOE for the collection and transfer of surface waters -With Ministry of Heath for collection and transfer of surface waters	-Preparing guidelines for methods of collection and transfer of urban surface waters as well as the recycling of water	-