

Security and Environment Crisis of the Caspian Sea and Its Surrounding Areas (North of Iran)

Maryam Verij Kazemi¹

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Abstract

Caspian Sea is situated between the five countries of Iran, Turkmenistan, Kazakhstan, Russia and Azerbaijan and has a special place in discussions of geopolitical and geo- economy of major powers and countries around him because of fossil energy resources and rich account of in aquatic. This sea on the orientation of relatively dry climate, a few years as water tank is to the attention of law enforcement agencies to exploit the sea's five littoral states of the sea in order to soften it (desalination) is for drinking and agriculture. The areas surrounding the sea in the South when it was done suddenly plowed into residential estates. Meanwhile, experts in water management area to supply drinking water in the towns water natural springs of areas inside the forest to residential areas on its agenda have, that it alters the habitat of animals and destroy them will up. The results show that the problem of non-principal of the Caspian Sea and changes in habitat areas around him, environmental insecurity creates the recession, and dry up the sea, the destruction of catastrophic Hyrcanian forest and habitats of animals, the destruction of the species rare plant - animal and drying natural springs, soil erosion, and so the results will be.

Keywords: Caspian Sea, Environmental Security, Receding Sea, The Destruction of Natural Springs and Animal Habitats.

¹ Phd Graduated in Political Geography and Researcher
Email: mariamverijkazemi@yahoo.com

Introduction

In between the five littoral states of the Caspian Sea, Turkmenistan and Kazakhstan, two countries in the Central Asian region due to the deserts of vast, dry, major water sources by the seasonal and passion that only in certain seasons of the year are filled water, the possibility of dam construction is almost impossible and causing the states of the Caspian Sea as a reservoir of water available for drinking and agricultural purposes in competition with each other, learn from desalination (desalination) Caspian Sea water shortages compensate. While Iran with mean annual rainfall of 250 mm in the arid and semi-arid world's only coastal strip north of the country, the three provinces of Gilan Province, Mazandaran Province and Golestan Province humid and forest cover diverse sources of permanent water are, at present with population growth and pressure on natural resources - environmental security of the Caspian Sea in this area is also threatened.

The majority of agricultural land due to the topography specific area adjacent to forested areas or beaches were in the past as the basis for agriculture and agriculture has an important position were due to the absence of officials, experts and regulated in the executive management of urban and the lack of systematic planning land use, the vast reduction in the number of residential towns have been added and experts in water management area to supply drinking water in the towns water natural springs of areas inside the forest to residential areas on its agenda have as explained in the context of this study, the negative consequences of a Will be referred to the issue of water causes changes in animal habitats and their destruction will decide. Analytical – descriptive methods study and field observations and will be paying shooting the negative effects this article by researcher to environmental problems of the Caspian Sea and its peripheral areas, and ultimately provide a playbook.

- **Research findings**

- 1- **Environmental security**

In today's world is one of the basic problems is the human food supply in such a way that food security is one of the most important and sensitive component of national security and of the most important goals of the Governments program (Baraie, 2010). Food security is intimately associated with the environmental security. security environment is a condition which a country or a region of a decent, capable and manage

and sustainable use of natural resources and the environment, can be an effective step to The creation of economic, social, political stability and guarantee the welfare of population. Environmental security on maintaining local, regional, and global environment from any harm and in the current world, as a support system integrated and correlated and human life in such a way it is essential to rely on (Freyberg, 2015).

One of the most important topics in the field of environmental security takes into consideration food problems, including poverty, hunger, excessive consumption and diseases associated with it, the loss of fertile soil and water resources is (Gharib, 2012: 367). environmental factors that human security and national security, especially with the threats and challenges facing the natural in two dimension builds that include energy security, global warming, freshwater shortages and drought, the effects of a lack of quality soil And desertification, air pollution and human dimension of ethnic groups and minorities, an increase in the population, immigration and religious diversity are a significant analysis (Freyberg, 2015) and of the challenges facing Governments and Nations around the world.

The challenge every year in Iran with the release of statistics, the destruction or the destruction of the ecosystem by the scientific communities of the country broader dimensions, so that it is the responsibility of the Government notice before anything, and then the people's lack of awareness of their environmental issues.

While the principle of the Constitution, the Constitution to explicitly protect the environment has expressed a general duty (Hasanov, 2012) but in the formulation and implementation of development and construction rules, local-regional-level and the country is the lowest note to this thread.

2- Exploitation of the Caspian Sea and its negative environmental consequences

Caspian Sea with the Aral Sea, Mediterranean, Black and the Persian Gulf, the remnants of the ancient Tethys Sea is great. Now, the Caspian Sea is the largest enclosed water tank.

The sea also has a range of special ecological, aquatic organisms in the sea close to 850 species and more than 500 marine species live.

Although, entrance to the Caspian Sea waters is sweetly, but it's fairly full of the salty water. This sea area is constantly changing. The

surface areas of the sea are exposed to the fluctuations in water between 10 to 20 percent.

Although the volume of changes, sometimes things natural sea as the ice in the winter in the northern parts of it, but the involvement of human factors such as rerouting the river Volga as the largest supplier of Caspian Sea to the plantations Russia and most importantly water desalination of Caspian for drinking and agriculture by five littoral states, the changes effective water volume (Jajarmi, 2013: 203-210).

Now Kazakhstan, Turkmenistan and Azerbaijan by installing desalination plant on the shores of the Caspian Sea are attempting to exploit. It should be noted that desalination device is said to be the salt water and it is suitable for drinking.

The country has the world's largest nuclear plant salt formation (Rmezzani, 2012: 236) [6].

On the other hand, according to the President of Turkmenistan is building a desalination plant on the shores of the Caspian Sea port of Turkmenbashi is included. The main priority of desalinated water, for transfer to the cotton fields of the country is considered (Saazmand, 2013, 82). Azerbaijan's Caspian desalination projects in one of the oil companies trying to 1,000 cubic meters of fresh water per day derived from these centers. The country now with population growth faces and the River Kura can't meet the needs of the growing population of the country, hence the country's various projects to exploit the Caspian Sea plans by European countries in the running (Verij Kazemi, 2015).

Iran is also a plan to transfer the Caspian Sea water to the Central Plains is in the hands of its action that the water of the sea to the Persian Gulf and Oman, which of course also a lot of dissent with this plan. Russia has so far a certain operation of the Caspian is not done. Solely prevent the action in the event of their vast plains for irrigation the Volga River to the Caspian Sea.

According to the geographic position of the five countries of the Caspian Sea coastal zone in the dry and low water, the countries in the region attempting to dam on the river entrance to the Caspian Sea, hence the volume of sea water can be eased.

The main effect of destructive storms of this salt is in addition to the direct impact on people's lives on farming, agriculture, horticulture, animal husbandry, environment and health is influential countries in the region.

According to the researchers, the long-term effects of exposure to salt storms affect the health of residents and the incidence of lung disease and blood becomes inevitable. The negative consequences of the exploitation of the Caspian Sea are tapering marine aquaculture.

According to eyewitness researcher this article on the Caspian Sea over the past five years greatly increased, as in Figure (1) rocks of the coast, often in areas of shallow sea with admission for life oysters that fishmeal and fish to up to receding sea water is visible. Life on the rocks due to exposure to water and sunlight, destroyed the aquatic food thus faces a sharp decline.

As previously mentioned five littoral states of the Caspian Sea several years that of sea water in the form of continuous use to continue the process and the lack of proper management, so the sea can be a lot of problems for the habitations of the human species of plants and animals, habitats marine and coastal economy created five Caspian littoral states.

Increased demand for water due to population growth and changing consumption patterns of mismanagement of water mismanagement of resources, including resources, surface and ground water resources, drought caused by global warming, abandoned agricultural fields, drying reservoirs dams, the growing desertification and rural migration, the development of salt marsh and expansion Storm salt, severe pollution caused by salt and harmful salts and the incidence of various diseases such as blood problems and lung, as well as genetic changes and the birth of babies with birth defects, significantly reducing arable land anomalies political, economic and social, etc., will be a threat to public order Disrupt the main challenges faced by the countries of the Caspian region to make.

The construction of canal connecting the Caspian Sea to the Persian Gulf and Sea of Oman that Iran was discussed, as well as the channel Volga - Don that invasive species such as the comb jelly, can cause an influx of invasive species with Sea ecosystem in contrast Caspian, Caspian and native fish are a serious threat (<http://news.xinhuanet.com/>).

With this interpretation will not be far from the fact that the fate of the Caspian Sea, the Aral Sea was once among the two countries, Uzbekistan and Kazakhstan, to be with. Due to the construction of dams on rivers entering the Aral Sea as well as operation and transfer it to the cotton fields vanished.



Figure(1) regression of the Caspian Sea. Chalus shores. Mazandaran.

3- Agricultural land use changes on the southern shores of the Caspian Sea

Most of these rich soils and foundation make up the human food supply. In Iran, because agriculture, industry and the economy is not a change in land use arable quite normal and is subject to severe destruction of soil, so that the speed of development of soil erosion in six standard the world which is equivalent to a million hectares of degraded agricultural land [2].

Increase farmland and raise agricultural production and self-sufficiency in the field of development and ensuring consistently safe Ensuring the national security of countries considered, but not in the least due to this issue.

In the northern coastal strip of the destruction of agricultural land for residential settlements and increase people's income from tourism was the source. Most agricultural land in the coastal strip in northern Iran, and when the forest cover Hyrcanian were affected by the demolition in order to construct residential settlements are located. In the past, this land was repurposed by man for farming and agriculture in its basic form was revived.

Over time, due to population growth and lack of effective plantation land use change and water shortages were. Given that this region has a

permanent water source of rivers and rainfall is plentiful, but officials and executives in the region have failed to conditions in the agriculture permanent enjoying the patterns of industrial innovations in agriculture forward and finally this negligence with population growth and changing lifestyles in the construction of residential estates went unprincipled (Figure 2).



Figure (2) wall fence, farming hill in order to build summer villas.
Kelardasht. Mazandaran.

4- Natural spring water transfer and destruction of habitats of animal species Hyrcanian

Today, the spread of cities, especially big cities in Iran exacerbate pollution, including air pollution, noise, water, soil and mental illness and is physically. The experts remind one of the main ways to deal with pollution and urbanization problems of the relationship between man and nature, you know.

Today, with the increasing population and the need to supply drinking water has led to the installation of water pumps, excessive exploitation capacity of the spring. This issue is very important because the water springs of forested areas in residential settlements practically in the jungle animal habitats are seriously threatened.

Transfer of water springs from the forest to residential towns with a serious threat to the forest to cut down large trees (Figure 3&4) and when the burning of trees (Figure 5) to pave the way water pipe springs is a new challenge for Hyrcanian creates habitats of animals.

Studies show that the lack of a comprehensive program for water management in the areas of forests Hyrcanian causes animal migration to the periphery of residential areas to achieve water and food, which not only damages for humans create, but to kill and seek the elimination of rare species of animal from the consequences of irreparable it will be because animal species to meet your needs, often in human settlements traffic will hence to counter this assault by means of self-defense, killing and extinction of rare species animal will be inevitable.

Undoubtedly, animals need plants to convert solar energy into food to feed their prey and plants need animals to transport seeds and realize they are, hence the natural springs in the area of the forest Hyrcanian source of life for the survival of the forest ecosystem are, because the water in the forest reserves are limited to the same source host (see number7 & 6).

On the other hand, with water fountains, many fruit trees, often on the sidelines of the natural springs are located, will be lost and then the feeding of wildlife will decline and animal species have to migrate to the periphery of residential areas the catering will encounter resistance from people in the face, resulting in the extinction of generations will be inevitable.



Figure (3) Forest formation Hyrkany . kelardasht. Mazandaran extensive forests.



Figure (4) Forest formation Hyrkany . kelardasht. Mazandaran extensive forests.



Figure (5) for the passage of centuries-old trees
Burn Pipes for water from springs in residential areas. Kelardasht.
Mazandaran Province.



Figure (6) springs Hyrkany.kelardasht. Mazandaran areas inside the forest.



Figure(7)springs Hyrkany. Kelardasht. Mazandaran areas inside the forest.

Conclusions

For this reason, coordinated planning between the five littoral states of the Caspian Sea can process reduce this problem. The interaction and cooperation with the government and people five littoral states of the Caspian Sea, the NGOs in the education and culture of the water, using the experiences of dry countries on ways to reduce water consumption, realize the clouds, using tanks for water conservation, promotion and training watershed plans, strengthen the agricultural land with organic matter and fertilizer nutrients to crops without requiring large amounts of water and resistant to drought, the use of modern methods of protection of soil moisture and the use of dryland farming, to resolve the environmental problems caused by the unethical exploitation of the Caspian Sea you By all five littoral states is necessary.

Due to the deterioration of the environment and the loss of agricultural land in the coastal areas of the Caspian Sea, can be used with perennial rivers as the main source for agriculture, agro-industrial and stability along with construction of settlements and greenhouse production or factories processing agricultural products in the region to lay the foundation and prevent the destruction of indiscriminate agricultural

lands as well as improve the livelihoods of people, as well as the implementation of land use planning for sustainable management and non-governmental organizations, especially the indigenous people in order to be aware of the environmental impact on their daily lives, it seems necessary.

The legal protection of various animal species and implementing educational projects for conservation of habitats and parks, shelters, avoid hunting indiscriminate Animals (SPCA each year to see who a lot of people to get legal permits hunting arms that no culture for the be), avoid deforestation and destruction of forests and grasslands, collect garbage in the forest (envelopes, paper, plastic bottles and so on) and can have a positive impact on improving the condition of animals in the forest habitats have Hyrcanian is.

As well as natural springs in the forest as the only source of water for the survival of the habitats of animal in the preparation and implementation of efficient and optimal management of maintenance through the institutionalization of a culture of proper water consumption in residential towns edge of the forest can be used to avoid reducing the volume of groundwater taken a positive step and its surrounding areas will remain as a theory.

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