

Analyzing the Performance of Environmental Programs and Politics before and after the Iranian Revolution

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Abstract

The world is confronted with two important approaches - planning and environment - in pursuit of sustainable development, resulting in the emergence of a new term called environmental law, of which program laws are a part. Designing and implementing development programs without systematic attention to environmental considerations poses serious challenges to the path to achieving sustainable development. Therefore, assessing the level of attention to the environment in past development documents can provide a basis for reviewing future policies. The present study, using a text-based and category-based content analysis method relying on the Environmental Performance Index (EPI), analyzes the course of attention to the environment in five development programs before the revolution and six development programs after the Islamic Revolution. The findings show that although in the early stages, the concept of environment did not exist in the text of the programs and only some related categories (such as natural resources) were referred to in the agricultural section, later, with the approval of the Fifth Development Plan, the environment entered the planning structure as an independent section. After the revolution, the status of the environment gradually improved, but in recent years, despite legal emphasis, a 22-point decline in Iran's EPI performance index has been observed, indicating a gap between the approved content of programs, laws, and their effective implementation.

Keywords: Environment, Pre-revolution Development Programs, Post-Revolution Development Programs, Politics, Iran.

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1. Introduction

Today, environmental protection has become one of the fundamental challenges of the global community. In recent decades, numerous meetings and conventions have been held with the aim of combating environmental degradation, and various countries, including the Islamic Republic of Iran, have committed to observing the principles of sustainable development and protecting biological resources by joining these conventions. At the same time, international institutions such as the United Nations and academic centers have developed indicators such as the Environmental Performance Index (EPI) to assess the environmental status of countries in order to provide a benchmark for monitoring and improving environmental policies (Mortezazadeh et al.,2023; EPI,2024). On the other hand, the development plans of each country are subject to its own specific time, place, and environmental conditions. In Iran, the formal development planning process began in 1948 with the formulation of the first development plan. These programs have been developed over time with the aim of responding to the economic, social, cultural and political needs of the society. Especially after the end of the imposed war in 1989, five-year development plans have been used as the most important policy-making tool of the country in various dimensions (Parliamentary Research Center,2023). These programs have attempted to pave the way for achieving sustainable development by creating coordination between various dimensions of development. However, achieving sustainable development is not possible without optimal utilization of natural resources and effective protection of the environment (Ziari et al., 2024; Mortezazadeh et al.,2023; EPI,2024). The most important development plans of any country is to pay special attention to sustainable development, taking into account all the determining criteria (Ziari and Golzar,2025). One of the fundamental challenges on the path to sustainable development is the neglect or lack of attention to environmental requirements at the policy-making and implementation levels. Despite the implementation of 11 development programs from 1948 to 1974, evidence indicates a significant gap between the goals of the documents and the country's actual environmental performance. For example, Iran's 22-point drop in the Environmental Performance Index in 2024 compared to previous years indicates poor performance in this area (Bagheri Dehabadi ,2013; Ziari et al., 2024; Shamsipour et al.,2020; Mortezazadeh et al.,2023). In addition to

analyzing the content of past development programs, a review of recent data and authoritative international reports such as EPI also shows that structural and geopolitical factors have had a significant impact on Iran's environmental performance. In fact, macroeconomic variables such as gross domestic product (GDP) growth, population growth, industrialization, and high energy consumption have had significant effects on the Environmental Performance Index (EPI) (EPI,2024). Unlike some developing countries that have coordinated economic growth with environmental improvement, in Iran this growth has been mainly accompanied by unsustainable exploitation of natural resources, increased greenhouse gas emissions, and ecosystem destruction. Development programs, especially after the imposed war, have often emphasized agricultural development and industrialization, which has led to an exacerbation of problems such as deforestation, depletion of water resources, and increased pollution from dependence on fossil fuels. For example, in 2020, Iran ranked first in carbon dioxide emissions from land-use change and sixth in black carbon emissions growth. These trends indicate a gap between environmental goals in development plans and their implementation, which has led to increased ecological vulnerability and social consequences such as climate migration (Ziari et al.,2024; Ziari et al., 2024; Mortezaadeh et al.,2023; Shamsipour et al.,2020). Special attention to macro-management issues and documented and timed planning for various components (Ziari et al.,2025), as well as structural and managerial factors in Iran's development programs, have also played an important role in weakening the Environmental Performance Index (EPI). Weak implementation of environmental policies included in development plans, centralization in resource management, and lack of effective coordination between different sectors have been the main obstacles to achieving the Sustainable Development Goals (Gholami et al.,2024; Kavianirad et al., 2022; Ziari et al.,2024; Mortezaadeh et al.,2023; EPI,2024; Golzar,2015; Shamsipour et al.,2020). In addition, restrictions imposed by international sanctions have reduced Iran's ability to implement environmental commitments in development plans and prevented it from participating effectively in global cooperation. These challenges, coupled with unsustainable exploitation of natural resources in development plans, have led to a decline in environmental quality and Iran's downgrade in the EPI index, highlighting the need to review environmental policy approaches.

Accordingly, the aim of the present study is to analyze the content of the development programs of the Islamic Republic of Iran, focusing on the status of the environment and the level of attention paid to it in the periods before and after the Islamic Revolution. This comparative analysis, using the EPI index, attempts to provide a detailed picture of the development policy process related to the environment and to suggest ways to improve and revise future programs.

2.Theoretical Foundations

2-1.Environmental Performance Index

2-1-1.Concept and Importance of the Environmental Sustainability Index

Environmental challenges prompted the World Economic Forum, in collaboration with Yale University and the Center for International Geoscience Information Network at Columbia University, to develop indicators for comparative assessment of the environmental status of countries. These indicators were designed to provide transparency into the environmental status of countries and support the achievement of the Sustainable Development Goals. The Environmental Sustainability Index (ESI) was first introduced in 2000, but was revised in 2002 due to shortcomings and was calculated and published in 2005 with changes for 146 countries (Mortezazadeh et al.,2023; EPI,2024).

2-1-2.Index Structure and Use

The Environmental Sustainability Index (ESI) assesses the ability of countries to protect their environment over the coming decades. The index is composed of 76 datasets that, in the form of 21 environmental sustainability indicators, examine issues such as natural resource capacity, pollution levels (current and past), environmental management efforts, and the capacity of society to improve environmental performance. The tool helps countries identify their strengths and weaknesses and formulate policies for sustainable development (Mortezazadeh et al.,2023; EPI,2024).

In response to the multifaceted issues and challenges related to environmental concerns, the World Economic Forum, in collaboration with the Yale Center for Environmental Law and Policy and the Center for International Earth Science Information Network at Columbia University, developed a set of indicators for comparative studies of countries' environmental situations. The objective of this initiative is to ascertain the status and environmental score of countries, as well as to establish the requisite frameworks for achieving

sustainable development goals. In this context, the Environmental Sustainability Index was first introduced in 2000. However, due to the presence of inherent weaknesses and deficiencies, it was revised in 2002. The index was recalculated and published for 146 countries in 2005, with minor modifications. The Environmental Sustainability Index (ESI) is a measure of a country's capacity to safeguard the environment over the coming decades. This is achieved by integrating 76 datasets that indicate natural resource capacity, current and past levels, pollution, environmental management efforts, and societal capacities to improve environmental performance, all within the framework of 21 environmental sustainability indicators(According to Figure1).

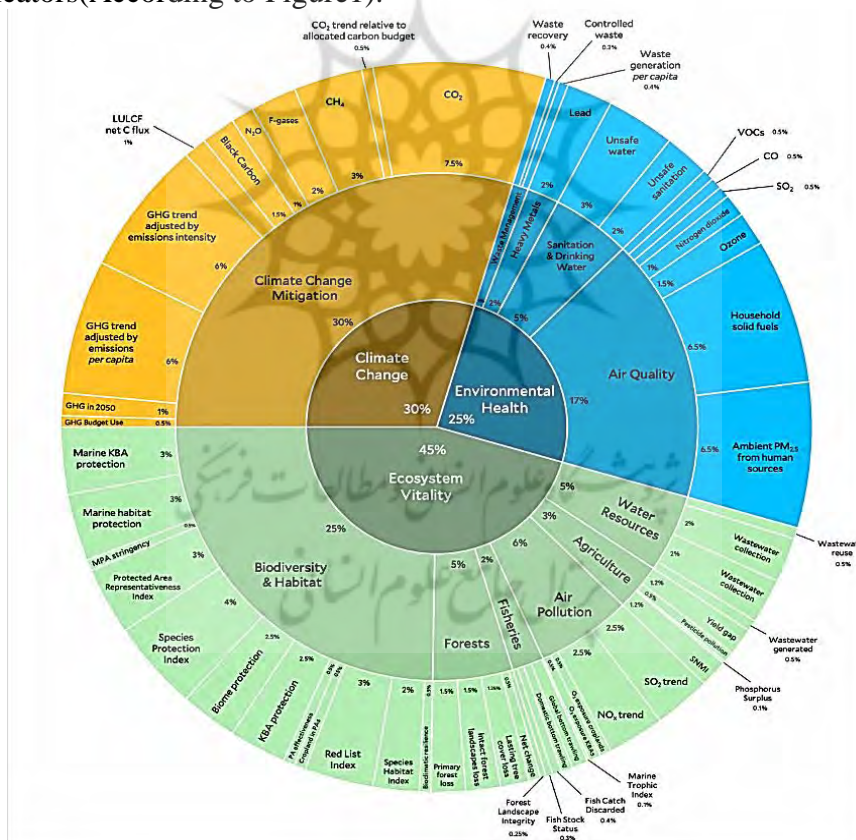


Figure (1):The Environmental Sustainability Index (ESI) is a Measure of a Country's Capacity to Safeguard the Environment over the Coming Decades.

2-2. Concept of Development, Theoretical Models of Development and Development Programs

2-2-1. The Concept of Development

Evolution of the concept of development

In the years after World War II, development was mainly considered equal to economic growth and its roots went back to economics (Bagheri Dehabadi, 2013:200; Fallahzadeh, 2012:35). Over time, this concept evolved and more comprehensive definitions were presented that went beyond economic growth (Panahi, 2015:2). Development is a fundamental challenge, especially for developing countries (Gill, 2000).

Dimensions of Development

Development includes political modernization, establishing stability, strengthening democracy, popular participation, strengthening the national government, and providing the necessary conditions for economic, social and legal development (Huntington, 1998:370). In other words, development means expanding the possibilities of human life and should be designed with a forward-looking perspective (Hosseini-Nasab et al., 2019:466). Development is achieved when the social system is coordinated with the needs and desires of individuals and moves from an undesirable situation to a better one in terms of material and spiritual conditions (Todaro, 1994). To achieve this goal, planners and managers must provide a healthy and suitable environment for society through proper management. This requires attention to areas such as governance, health, education, infrastructure, access to global markets, and environmental protection (Mahboobi et al., 2019:147; Wang, 2010:259).

2-2-2. Theoretical Models of Development

Review of Models

Since the 1940s, technological advances have led to the emergence of seven theoretical models of development: capitalist growth, structuralism, neo-Marxism, dependency, Maoism, basic needs, and neoclassical (Ziari, 2004). In this study, capitalist, structuralism, and basic needs growth models are emphasized because they are more suitable for Iran's development programs.

Capitalist Growth Model

This model equates economic development with economic growth and introduces a lack of savings as the main obstacle to investment (Todaro, 1994). From the perspective of this model, the main problem of developing

countries is the small size of the capitalist sector and the low share of investment in national income (Kuznets,1966). To solve this problem, more income should be allocated to the capitalist class, because this group has a greater tendency to save (Lewis,1966). This model emphasizes capital-intensive techniques, infrastructure development, the establishment of financial and industrial institutions, and the transfer of labor from the traditional agricultural sector to the industrial and urban sectors. Its characteristics include the lack of support for labor unions and limited government intervention in the economy (Hosseinzadeh Bahreini,1998).

Structuralist Model

Unlike the capitalist model, this model considers economic development to be beyond economic growth and based on productivity. Inequal income distribution in this model is not desirable and the interdependence of economic sectors is emphasized (Smith,2009:31). This model supports user-oriented techniques and believes that developing countries should rebuild their comparative advantages through structural changes. This model considers itself a complement to the capitalist model, not a replacement for it (Hosseinzadeh Bahreini,1998).

Basic Needs Model

This model defines development beyond economic growth and focuses on improving general well-being by emphasizing the provision of basic needs for all (Campbel,1997). Political participation of the people in the process of development and the provision of basic needs are key principles of this model. Concepts of social and economic justice have been reinforced since the nineteenth century with the development of educational systems and the welfare state (O'Connor,2015:503).

2-3.Development Programs

2-3-1.Definition and Structure of Development Programs

Development programs are tools for improving the economic and social conditions of societies and their goal is to promote material and spiritual well-being. These programs include three main parts: goals, policies, and plans and projects and are designed for short-term, medium-term, and long-term periods. The development planning process includes three stages: design, implementation, and performance evaluation.

2-3-2. Performance Evaluation of Development Programs

Performance evaluation of development programs includes two main processes: performance monitoring and performance evaluation (Khosrowshahi,2008). Performance monitoring examines and monitors the implementation of strategies, policies, and projects during the implementation period and their compliance with the program objectives, while performance evaluation analyzes the effects of program implementation on the country's development, especially after the implementation period is over. In fact, performance evaluation of programs is essential to measure their efficiency and effectiveness. Productivity is a combination of efficiency (quality of the production process) and effectiveness (profitability and impact of the product) (Ziari,2004). Policy analysis also plays an important role in improving development. Parsons (2006) divides policy analysis into two types: "policy analysis," which involves determining and analyzing the content of policy, and "analysis for policy," which means using the results of the analysis to improve the policy process (Homayoon and Farajnejad,2014: 12).

3. Method

Content analysis is the process of systematically examining and interpreting the content of a communication source, such as texts, images, audio, and video. The purpose of this method is to identify and describe the specific features of the content and ultimately extract general meanings and concepts from it. In fact, content analysis is a method for objectively, quantitatively, and systematically studying communication products (the explicit content of the message) to reach an interpretation. Also, according to the needs of the research, two quantitative-qualitative methods can be used simultaneously. The methods for classifying types of content analysis are related to the goals and approach of the research. Therefore, quantitative, qualitative, inferential, descriptive, Communicative, Conventional, Summative, and directional content analysis can be named, each of which will be used according to the nature of the research. In this research, a text-based and categorical content analysis approach has been used. In categorical content analysis, the desired text (different types of messages) is first decomposed into components. Then, these components are classified into classes using the Environmental Performance Index (EPI). The frequency of each class is counted, their percentage is determined, and finally, these

percentages are analyzed. In addition, statistics from the Management and Planning Organization and the Statistical Center of Iran have also been used. In this regard, and to achieve an accurate and transparent result, this research, based on comparative evaluation, has attempted to compare the performance of Iran's development programs before and after the Islamic Revolution. Therefore, by using key variables such as development, goal, and performance in the stages of formulation, implementation, and monitoring, we intend to reach a generalizable conclusion (in accordance with the goal-performance model).

4. Research Analysis and Findings

4-1. Structure of Development Programs Before the Revolution

First Development Program

In 1948, the country's first development plan was formulated for the years 1948-1955. The most important chapters of this plan, in terms of allocated funds, were social and urban reforms, agriculture, development roads and railways, industries and mines, oil, and postal, telegraph, and telephone services (Mashhadi Zadeh Dehghani, 1955). In the first, second, third, and fourth development plans before the revolution, we do not encounter a concept called "environment," and what is seen in relation to the environment is not the concept of environment but environmental categories. This means that in these plans, environmental categories such as forests, rangelands, waters, seas, etc., are mainly considered under the sub-chapter of agriculture and irrigation, and perhaps the reason for this is the lack of influence of environmental movements and discourses in Iran. Nevertheless, in the first development plan, what can be implicitly recognized as the environment is related to forests, rangelands, and similar issues. The first chapter of this plan is dedicated to agriculture, and forests, rangelands, irrigation, and dam construction are mentioned, and funds are allocated for them (Ziari and Mohammadi, 2015).

Second Development Plan

It was prepared and formulated for a seven-year period, implemented with financial backing following the re-export of Iranian oil and the conclusion of the consortium agreement with the government after the establishment of the coup government. The important parts were, in order: Chapter One - Communications and Telecommunications, Chapter on Road Construction, Railways, Ports and Airports, Agriculture Chapter including Dam

Construction and Irrigation sections, Dam Construction and Irrigation Studies, Agricultural Machinery, Rural Development and Lands. In this plan, oil continued to provide the majority of expenses. So much so that oil's share in government revenues increased from 13% in 1954 to 61% (Ziari,2015). The plan review results in 1952-1958 showed that in the agricultural and irrigation system, the costs for large dams were significantly higher than predicted (Ziari and Mohammadi,2015).

Third Development Plan

In accordance with the continuation of previous policies, the third development plan was also formulated. The plan was structured around a series of key areas, with the chapters on Communications and Telecommunications, Agriculture and Irrigation, Power and Fuel, Culture, Industries and Mines deemed of particular importance. The rationale behind the substantial allocation of credit to agriculture in this plan was the significant credit earmarked for the implementation of land reforms. The implementation of land reforms during this plan resulted in the migration of thousands of villagers to cities and the intensification of growth in the private sector. On the one hand, this provided cheap labor for economic activities in cities, including industry and construction services. On the other hand, it placed the production and consumption market of villages under the domination of growing capitalism. In this plan, like the first plan, the environment and protection of the country's natural resources did not gain much importance, and what can be considered in relation to the environment and its preservation was included in the chapter on agriculture and irrigation, like the first plan. However, in this plan, unlike the first plan, where a part of the agriculture chapter was dedicated to preserving national wealth, no section with such a title was included. However, clauses were included for some environmental categories, such as forests and also issues related to water. The fundamental problem in achieving the level of attention to the environment and environmental categories in this plan, like the first plan or perhaps even more severely, is that this plan does not specify how much of the credits have been allocated to the preservation and protection of the environment and related issues. By carefully examining the clauses of this chapter, one can encounter categories that are of environmental type or can infer environmental issues from them. For example, forests are considered environmental categories; however, from clauses 1, 2, 5, 7, 12, and 13, one

can make inferences about the environment and the impact of the plan on the environment. In this plan, loans were granted for the first time for the construction of "qanats and deep wells." This has resulted in a problematic situation that has emerged today, 60 years after the inception of the plan. In the final years of the second plan, the approval of the law on the nationalization of forests and rangelands was one of the important measures that, along with the hunting law of 1956, had positive environmental and protective effects on nature and wildlife. Furthermore, the establishment of the "Hunting Center" in 1956 constituted a further positive measure, whereby the supervision of animal hunting was placed under the control of the state.

Fourth Development Plan

In the Fourth Development Plan (1967-1972), as in the first three plans, no separate chapter was devoted to the environment, and environmental issues were addressed in the agricultural and water resources chapters. During this period, the environment was largely synonymous with natural resources, and issues such as air, water, or noise pollution, which became more important in later years, were not a priority in planning. As a result, conservation measures were limited to resources such as forests, pastures, water, and wildlife. Despite the lack of a separate chapter, the Fourth Plan took more concrete steps in the field of natural resource conservation than previous plans. One of the highlights of this plan was the allocation of a separate chapter to water resource management, through which plans were envisaged for the exploitation, protection, and management of surface and groundwater. Also, a significant amount of the total agricultural appropriations was allocated to the natural resource conservation sector. In this program, the preservation, development and improvement of natural resources such as water, soil, pasture, forest, hunting and fish were raised as one of the general objectives of the agricultural sector. Executive measures were also taken in this direction. Among these measures, we can mention the implementation of the hunting law and monitoring of fishing, industrial exploitation of the forests of the north of the country, restoration of degraded forests, creation of artificial forests, and development of forests in the Caspian region. In the field of soil resources, programs were also carried out to combat erosion, stabilize quicksand, create vegetation cover and hold specialized seminars. Also, in order to increase fish stocks, workshops were launched for the reproduction and cultivation of aquatic animals. Other important measures were to

strengthen training related to natural resources and train specialized human resources. In the field of pastures, their improvement, maintenance and principled exploitation were also considered with an emphasis on the use of public participation. These activities represent a gradual expansion of the development-oriented perspective on natural resources and the beginning of a more structural focus on environmental dimensions in national planning.

Fifth Development Plan

In the Fifth National Development Plan, more attention was paid to regional planning and emphasis was placed on a good balanced economic growth for the provinces, fair distribution of services, public participation and consolidation of the economic base. In the framework of this plan, 5-year development plans were prepared for each province and a budget planning office was established due to the lack of centralization and the regional planning system.

This plan was more complex and comprehensive than previous plans and addressed issues such as education, culture, tourism, construction and housing, along with other issues raised in previous plans. Another chapter that was given attention in the Fifth Plan, while there was no trace of this chapter in previous plans, is the issue of the environment. The seventh chapter of this plan is dedicated to the environment and therefore special development and management credits and plans have been considered for it. Also, the environmental protection chapter of the Fifth Plan consisted of six plans, which include the following plans: 1. Environmental protection plan; 2. Plan to establish a hunting unit; 3. Plan to create public parks and recreation areas; 4. Plan to create a nature park; 5. Plan to develop and protect the Arjan International Park; 6. Plan to build and equip environmental education centers. Another advantage of the Fifth Plan over previous development plans is in paying attention to pollution (water, soil, air, noise); as in the basic policies, the plan emphasized the fight against environmental pollution, and in this matter, priority was given to preventive programs rather than remedial ones. It was also decided in the executive policies to gradually formulate a pricing and tax policy in such a way that polluters of the environment would bear the costs of preventing pollution in the final stage, and therefore, this policy would lead to the spontaneous prevention of pollution to some extent. From the perspective of the program organizers, in the first stage of pollution

control, the government should provide credit and technical assistance to prevent industrial pollution, and priorities were also determined for this task.

4-2. Post-Revolutionary Programs

First Development Program

From 1978 to 1989, that is, during the 11 years since the victory of the Islamic Revolution, there was no development program in Iran. Finally, on 11 Bahman 1989, the First Development Program (after the Revolution) was approved with the aim of increasing the gross national product, rehabilitating industrial centers and the population damaged by the war, creating economic growth with an emphasis on self-sufficient agriculture, controlling inflation, meeting the needs of the people on a minimum scale, progressing in the organization and special and executive management of the country, spatial organization and geographical distribution of the population, controlling prices, and paying subsidies to producers. Despite the destruction of a large part of the natural areas of the south and west of the country and the exploitation of natural resources, this program was unfortunately approved in the First Development Program after the war due to the imposed war and the urgent need at that time. The environment did not achieve the status and importance it should have in development programs, so much so that even in the general goals and policies of the First Program, the category of environment and natural resources was not considered, and only in the program's policies, in order to achieve other goals, environmental protection was considered to some extent and in general. The First Program Law consists of a single article and fifty-two legal notes, among which only Note 13 directly deals with environmental protection. Note 13 can be considered the only note in the First Program that clearly deals with environmental protection, although at that time (after the imposed war), the environment did not achieve its central position and role in the First Development Program despite numerous environmental problems and issues, and appeared in a very limited way. According to this note, in order to provide the necessary facilities and equipment to prevent and stop pollution from polluting sources, factories and workshops are required to spend one thousandth of their product sales, with the approval and supervision of the Environmental Protection Organization, on controlling pollution, compensating for losses caused by pollution, and creating green spaces.

Second Development Plan

The Second Development Plan was approved by the Islamic Consultative Assembly on December 11, 1993. The main objectives of this plan included:

- Realization of social justice
- The spiritual growth of cultural and Islamic values
- Increased productivity
- Training of needed workforce
- Agriculture-centered economic growth
- Development of non-oil exports
- Environmental protection
- Strengthening national defense
- Efforts toward the rule of law and reinforcing public participation
- Strengthening research
- Creation of job opportunities

This plan consisted of a single article and one hundred and one notes, among which three notes directly emphasized environmental protection and natural resources. Additionally, to support and revive natural resources and prevent encroachment and obstruction of natural resource land transactions, the legislator obligated the government to implement appropriate measures in the context of other activities such as annual budget bills, economic activities, agriculture, and industry in several notes.

This plan mandated the government to implement laws briefly outlined here:

- Protection of forests (organizing livestock removal from forests and consolidating forest dwellers)
- All economic and social activities during the plan should consider environmental considerations.
- Conducting environmental impact assessments before, during, and after major production and service projects
- Any industrial and mining activity must consider sustainable development goals within environmental regulations and standards.
- The government is required to reduce air pollution in Tehran, Mashhad, Tabriz, Ahvaz, Arak, Shiraz, and Isfahan to World Health Organization standards during the second plan.
- To prevent and eliminate water resource pollution by industrial wastewater, industries and factories in cities and industrial towns are

obliged to create and operate collection networks, transfer, and industrial wastewater treatment facilities based on Environmental Protection Organization standards, with the participation or supervision of provincial water and wastewater companies.

Third Development Plan

The Third Development Plan was approved by the Islamic Consultative Assembly in a public session on 17/1/1939 with amendments and approved by the Guardian Council. The Third Law of the Development Plan has been organized into two cross-sectoral and sectoral areas (Deputy of Justice Education of Tehran Province). The cross-sectoral areas, including 12 chapters, address issues such as reforming the administrative structure and management, organizing state-owned companies, transferring shares and managing state-owned companies, regulating monopolies and making economic activities competitive, the social security system and subsidies, employment policies, the tax and budget system, the provincial revenue-expenditure system, monetary and foreign exchange policies, organizing financial markets, developing science and technology, and environmental policies. Sectoral affairs also include water and agriculture, industry, mining and agriculture, energy, post and telecommunications, transportation, urban development and construction, housing, education, culture and art, mass communications and physical education, defense and security affairs, public affairs, domestic policy and foreign relations, judicial affairs, health and treatment, and implementation and supervision, which are organized into 14 chapters. Chapter Twelve of the Third Development Plan, titled "Environmental Policies," includes two articles addressing environmental issues in the domain of cross-sectoral activities. Realizing a significant portion of general environmental guidelines depends on the approach of policies, plans, and projects of relevant agencies whose activities significantly impact the environment and natural resources. Therefore, for this purpose, Articles 17 (paragraph A), 61 (paragraph B, part 1), 85 (paragraph C), part 1 of Article 114 (paragraph B), Article 121 paragraph (A), Article 134, and Article 173 refer to the following matters respectively:

1. Attention to environmental measures by private applicants for receiving shares and management of state-owned companies;
2. Exchange of agreements for new for-profit and non-profit development projects shall take place only after going through various stages, the first of

which is attention to conducting studies based on technical, economic and environmental justification;

3. Compliance with environmental conditions in the implementation of projects and plans;

4. Protection of genetic resources (plant and animal) and the environment in order to prevent exports to other countries;

5. Preparation and compilation of criteria and technical specifications for energy consumption in order to reduce energy consumption and pollution;

6. Attention to water resources as well as collection and treatment of wastewater;

7. Preparing a comprehensive plan for the establishment of military centers outside the cities, considering the extent and type of environmental destruction;

8. Creating a balance in livestock and pastures, moving livestock out of the forest and providing fodder for livestock and fuel for forest dwellers;

9. Expanding public participation and delegating affairs to the people are among the general objectives of the Third Plan (in the matter of environmental protection and natural resources as predicted in paragraph B of Article 104 of the Third Development Plan Law);

10. Dealing with fixed polluting sources such as factories and workshops after issuing a warning and failure to remove the pollution, issuing an order to stop the activity of the said source or, as the popular term is commonly used, sealing and closing factories and workshops (paragraph "C" of Article 104).

Fourth Development Plan

The Fourth Development Plan comprises 161 articles, out of which 80 articles are political development articles (Misaie et al., 2019). The overall objectives of the Fourth Economic, Social, and Cultural Development Plan include interaction with the global economy and the development of a knowledge-based national economy; protection of the environment; spatial planning and regional development; the development of health, human security and social justice; the preservation of the Islamic-Iranian identity and culture; the provision of national security; and the modernization of the government and the improvement of the efficiency of the administration (Review of the Objectives of the Fourth Development Plan Law, 2007).

The Fourth Development Plan Law has 6 major sections, which are the main axes of the plan, and 15 chapters under them. The second axis of the law is

the "Environmental Protection, Land Use Planning, and Regional Balance," which shows the concern of the fourth plan with the environment and land use planning, as chapter five is on environmental protection. The environmental chapter consists of 14 articles and one note from Article 58 to 71, and since Article 71 reiterates two articles of the Third Plan Law, namely Article 105 and Article 104, the total number of main articles in the Fourth Plan Law concerning the protection of the environment is 15 articles. (Section Five itself contains two chapters: Environmental Protection and Land Use Planning and Regional Balance (Chapter Six)).

In addition to elevating the status of the environment, there are strengths and weaknesses as follows:

- The government is obligated to create necessary coordination between relevant agencies to expedite the implementation of the action plan for the conservation and utilization of the country's biodiversity so that by the end of the Fourth Development Plan, we witness a situation at the level of global standards in the field of biodiversity in the country (Article 58);
- A new term, "environmental economics," has been given attention, which was not previously considered in our country. Based on this article, the Management and Planning Organization is required, in cooperation with the Environmental Protection Organization and other relevant agencies, to prepare guidelines for estimating the economic values of natural and environmental resources, as well as the costs of pollution and environmental degradation in the development process and calculating it in national accounts (Article 59).
- Environmental education for the general public and for specific categories, assistance in financing investment in the environmental and natural resources field, and the establishment of suitable conditions for environmental activities (Article 60).
- Self-declaration of production units in relation to the monitoring and control of polluting sources (Article 61).
- The problem of extreme and critical contamination and devastation of the Caspian Sea (Article 63).
- Promoting public awareness for the realization of sustainable development (Article 64).

- Conservation and improvement of ecosystems, restriction of hunting weapon permits, conservation, restoration, improvement, development, and utilization of renewable natural resources, putting into practice the rangeland management plans and rangeland management through nomads, and raising public awareness (Articles 67, 69, 70).

Fifth Development Plan

The Fifth Development Plan Law, approved on January 5, 2010, was designed for the years 2011 to 2015 of the country. It was also extended for one year. The most important chapter of this plan is the fifth chapter, which is specific to economic issues (Article 82, Part A). The government's duties are specified for various matters. The most significant weakness of this plan manifested itself due to economic sanctions (Pirsalami and Gholami, 2018). The sanctions were obstacles to expanding foreign economic relations and attracting foreign investments. The main reason for the reduced performance of the Fifth Development Plan was economic sanctions (Dehghani, 2013).

Sixth Development Plan

The Sixth Development Plan (2017-2021): According to Article (2) of the Sixth Development Plan Law, the environment has been designated as a special and strategic subject of the plan, which should be considered one of the fundamental principles and orientations of the eleventh and twelfth governments, and creating the necessary platforms for environmental sustainability should be considered a serious priority. In the ninth section of the Sixth Development Plan Law, under Article (38), actions have been defined for the government to improve the country's environmental situation, the most important of which are: monitoring the strategic environmental assessment in development policies and programs and assessing the environmental impacts of large projects; reviving, managing, and properly utilizing the country's wetlands with the participation of other executive agencies and local communities, especially in relation to registered wetlands; providing the necessary foreign exchange and rial credits to implement the international commitments of the Government of the Islamic Republic of Iran in the field of environment; reviving, developing, and enriching forests over an area of eight hundred and fifteen thousand hectares; desertification and control of its critical centers in at least one million one hundred and forty thousand hectares; presenting a comprehensive program to combat fine

particles by the end of the first year of implementing the Sixth Plan Law and its practical and effective implementation from the second year of this law's implementation. It has identified environmental monitoring, organizational structure, and international interactions and cooperation. In this regard, based on the importance of performance analysis and the use of expert opinions in the environmental field, 14 priority strategic issues for the Seventh Plan have been identified, which can serve as a basis for formulating general policies and provisions of the Seventh Plan. Some considered the Sixth Plan to be environmentally focused. In that plan, the government was obligated to carry out four fundamental axes in the environmental field: reducing the emission of environmental pollutants, preventing environmental degradation and pollution, preserving and restoring biodiversity, and finally, environmental governance.

Seventh Development Plan

The bill for the Seventh Development Plan has been drafted in 24 chapters and 118 articles. Based on the analysis conducted in this research, this plan lacks a separate chapter on the environment. However, various chapters address environmental issues directly and indirectly, such as budget structure reform, food security and agricultural production enhancement, integrated water resources management system, energy imbalance resolution, transit and sea-based economy, and foreign policy. In total, according to the review, there are 15 articles related to the environment in this bill. Unfortunately, some provisions of this plan represent a regression compared to previous development plans.

Some of the environmental articles in this bill include Articles 37, 38, 39, 40, and 41. Climate change and drought in recent years have been among the main factors exacerbating the country's water stress, and therefore, special planning is necessary to counter the adverse effects of these factors. However, as mentioned, the Seventh Development Plan bill has paid little attention to environmental issues overall.

Summary of the Discussion of Pre- and Post-Revolutionary Programs

Table (1) compares the key environmental axes in the country's development programs before and after the Islamic Revolution, based on Environmental Performance Indicators (EPI), and shows the gradual and increasing trend of paying attention to various aspects of the environment in development policies. As can be seen, the pre-revolutionary programs only addressed some

traditional components such as the protection of forests and water resources and in the form of natural resource concepts, and many new components such as climate change, air pollution, public participation, climate migrants, and waste management have been ignored in them. In contrast, the post-revolutionary development programs, especially from the third plan onwards, have included a wider range of environmental indicators, including greenhouse gas production (CO₂ and methane), environmental health, biodiversity, dust control, and even environmental crimes. This content and institutional transformation shows that the concept of the environment has been elevated from a marginal issue in early plans to a strategic axis in the country's major development plans and has become more consistent with international standards such as EPI.

Table (1): Comparison of Environmental Axes in the Country's Development Plans, Emphasizing EPI 2024 Indicators

Program		Climate Change		Environmental Health			Ecosystem Vitality			Research Center					
		Climate Migrants	CO ₂ Emissions	Methane Production	Waste Management	Drinking Water	Air Quality	Water Resources	Agriculture	Air Pollution	Fisheries	Forest Protection	Biodiversity & Habitat	Dust Control	Public Participation
Before Revolution	1 st Program						*				*				
	2 nd Program														
	3 rd Program											*			
	4 th Program						*	*		*	*	*			
	5 th Program						*	*		*	*	*			*
After Revolution	1 st Program														
	2 nd Program					*	*				*				
	3 rd Program					*	*				*			*	*
	4 th Program					*	*				*	*		*	*
	5 th Program		*			*	*				*	*	*	*	*
	6 th Program		*			*	*				*	*	*	*	*
	7 th Program					*	*								

However, the findings of the comparative analysis show that despite the quantitative and qualitative expansion of environmental considerations in development documents, there is a significant and deep gap between the approved programs and the implementation process. The persistence of

problems such as severe air pollution in metropolitan areas, degradation of water and soil resources, excessive dust expansion, loss of biodiversity, and inefficiency in waste management are clear evidence of this failure to achieve the approved goals. In fact, the presence of environmental requirements in programs alone is not a guarantee for achieving sustainable development, and in the absence of implementation infrastructure, sustainable financial resources, strong institutional capacity, and effective monitoring, these programs have remained largely at the level of documents. This implementation gap has not only reduced the effectiveness of environmental interventions, but has also brought the country's environmental challenges to a structural and chronic level.

Therefore, in addition to developing comprehensive documents and policies, it is necessary to focus more on practical implementation, efficient monitoring, institutional transparency, and accountability in implementing environmental requirements. Also, strengthening genuine stakeholder participation, improving technical and managerial capacities, and institutionalizing strategic environmental assessments can provide a platform for reducing the gap between policymaking and field realities. In short, the main challenge in Iran's environmental policies is not the lack of a plan, but their poor implementation. Passing this stage requires a review of the environmental governance system, strengthening the executive annexes of the documents, and expanding intergenerational justice in the exploitation of natural resources.

5. Conclusions

This study examined five pre-revolutionary and seven post-revolutionary development programs using the Environmental Performance Index (EPI, 2024). The findings indicate gradual progress in incorporating environmental considerations into Iranian development policies, as the programs' approach has evolved from a focus solely on natural resources to a more comprehensive, ecosystem-based approach. However, despite the legal and institutional frameworks envisaged in development documents, Iran's position in the EPI index has fallen 22 places in 2024, indicating a mismatch between the programs' approved objectives and their practical results (EPI, 2024). Based on Table (1), which compares various environmental axes including ecosystem vitality, environmental health, climate change, environmental crimes, public participation, dust control, biodiversity and

habitat protection, forest protection, fisheries, air pollution, agriculture, water resources, air quality, drinking water, waste management, methane production, CO₂ production, and climate migrants in the country's development programs from the perspective of the EPI 2024 indicators, it can be seen that:

- In the first to fourth programs before the revolution, environmental axes were mainly limited to the protection of forests, water resources, and agriculture, and little attention was paid to issues such as air pollution, public participation, environmental health, and climate change. In other words, environmental considerations were defined more in terms of the protection of natural resources and economic development, and less attention was paid to the broader dimensions of the environment.
- The pre-revolutionary Fifth Plan was a turning point in environmental policy-making, dedicating an independent chapter to environmental protection for the first time and considering preventive policies for pollution control, which indicated a more serious introduction of comprehensive environmental concepts into development plans.
- In post-revolutionary development plans, especially from the Third Plan onwards, the scope of environmental axes has expanded significantly. Axes such as environmental health, public participation, dust control, biodiversity, air quality, waste management, and climate change-related indicators such as methane and CO₂ production gradually entered the plans. This trend reflects increased awareness and attention to the more complex and multifaceted dimensions of the environment in the country's macro policies.
- The fourth, fifth, and sixth development plans after the revolution have seen significant quantitative and qualitative growth in the integration of environmental issues, and indicators related to climate migrants, environmental crimes, and sustainable development have been more tangibly included in these plans.

The existence of numerous legal articles and notes related to the environment, the adoption of an environmental assessment system, and sustainability indicators in post-revolution development plans indicate the establishment of a strong institutional and legal framework to ensure environmental protection in development processes.

These structural and institutional developments in the country's development plans have paved the way for potential improvements in environmental performance, and efforts have been made to reduce the negative effects of climate change and improve the quality of life of citizens. However, the main obstacle to Iran's environmental policymaking is not the lack of documents and plans, but rather inefficiency in their implementation. Overcoming this challenge requires reforming the environmental management structure, strengthening the operational mechanisms of development documents, and paying attention to the sustainable exploitation of natural resources with the aim of protecting the rights of future generations (EPI, 2024). Attention to new dimensions such as dust control, public participation, and environmental crimes represents a multidimensional approach that is in line with international standards and can put Iran on the path to sustainable development. Ultimately, this increasing and deepening trend in environmental policy-making provides an opportunity to improve environmental performance and enables the country to address national and global environmental challenges using appropriate scientific and legal mechanisms.

6. Suggestions

Although some of the aforementioned axes have been considered in some past development plans, these measures have been scattered, limited, and discontinuous, and due to the lack of a comprehensive and integrated approach, they have not been able to lead to a sustainable improvement in the country's environmental situation. Therefore, it is essential that all these dimensions (domestic and international) be considered in a coordinated and coherent manner in the formulation of future development plans; an issue that international reports such as the Environmental Performance Index (EPI) also emphasize. In this regard, in the following, and with regard to the development plans before and after the revolution as well as the EPI report, some suggestions are presented for the systematic improvement of the environmental situation in the country's development process.

Table (2): Suggestions

Additional Information	The Focus of the Discussion	Suggestion Title	Policy Type
Development plans before and after the revolution have mainly considered the environment as a sub-part of other areas (such as agriculture and irrigation) or a qualitative objective in the service of economic goals. Therefore, it is recommended that the environment be included explicitly, independently, and with specific terms and credits as one of the main pillars and fundamental objectives in all national development plans.	Macro-Policymaking	Elevating the status of the environment from a secondary component to a primary goal in national development plans	National
One of the fundamental problems of past development programs has been the lack of transparency in budget allocation for environmental protection. It is essential that the necessary funds for environmental plans and projects be determined in a specific, transparent, and trackable manner at all levels of national and regional planning.	Finance and Planning	Clear and specific allocation of budget for environmental protection	
The Second Development Plan (before the revolution) called for the need to conduct technical, economic, and environmental feasibility studies for both profitable and non-profitable development projects. This approach should be fully and seriously applied to all government and private projects, in the early stages of planning and implementation.	Project Management and Evaluation	Require comprehensive technical, economic, and environmental assessments for all development projects	
Forests, rangelands, and water resources have always been key environmental components in development plans. Issues such as Caspian Sea pollution and dust control should also be given more attention in future plans.	Natural Resources and Biodiversity	Strengthening the protection and management of natural resources	
Early development plans emphasized the control of pollution from factories and workshops, and even included requirements to allocate a portion of revenue to this issue. Tightening environmental regulations to control air and water pollution from various industrial and urban sources, along with investment in pollution reduction technologies, is recommended.	Pollution Control	Intensifying and diversifying water pollution control measures	
Environmental education and public participation have been addressed in previous programs. Lack of sufficient knowledge about phenomena such as climate change can be challenging. It is essential to design and implement comprehensive environmental education programs at all levels of education and for the general public, along with establishing and strengthening mechanisms for public participation in decision-making and monitoring the implementation of environmental policies.	Education and Culture Building	Expanding environmental education and awareness for the public and increasing public participation	
The Fourth Development Plan (before the revolution) referred to the necessity of self-declaration by production units in the field of controlling polluting sources. Improving and upgrading self-declaration systems, as well as developing continuous and	Monitoring and Implementation	Strengthening supervision and control over production and industrial units using self-declaration	

technological monitoring systems, is important to ensure compliance with environmental standards.		mechanisms and continuous monitoring.	
The article points out that in the first post-revolutionary development plan, the environment was mainly used to serve economic goals. The EPI report also shows that normalization based on GDP benefits richer countries. Therefore, it is necessary to adopt a sustainable development paradigm that balances economic growth and environmental protection. This requires internalizing environmental costs and benefits in economic calculations and macro-decision-making.	Sustainable Development	Balancing economic and environmental approaches to development	
Early development plans have addressed the issue of financing investment in the environment and natural resources. Establishing support funds, providing financial incentives and credit facilities for eco-friendly projects, as well as encouraging the private sector to invest in green areas and clean technologies are key measures in this regard.	Green Investment	Investing and facilitating financing for environmental projects	
By adopting an active approach to climate and environmental diplomacy, Iran can enhance its position in international forums such as COP and UNEP and benefit from capacities such as the "Green Climate Fund" and the "Technology Transfer Mechanism" to attract financial and technical resources. In this direction, establishing a national institution to coordinate climate diplomacy, formulating a national climate security strategy with a human approach, defining projects compatible with international standards, and providing specialized training for diplomats and environmental experts are key measures.	International Cooperation	Expanding international cooperation to combat climate change	
Given the poor environmental situation in West Asia, according to the EPI report, coordinated and structured cooperation is essential for sustainable management of water resources, reducing tensions, controlling pollution, and effectively dealing with dust. Iran should cooperate with neighboring countries in dealing with fine dust, managing shared water resources, and protecting transboundary ecosystems to increase the environmental resilience of the region. The success of this path requires active diplomacy and international agreements based on common interests. Iran can expand its cooperation through the International Union for Conservation of Nature (IUCN) West Asia region and play an effective role by establishing specialized and joint working groups.	Regional Cooperation	Water diplomacy and international cooperation for sustainable management of water resources and reduction of hydropolitical tensions	International

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References

1. Bagheri Dehabadi , A. (2013). A study of the challenges and prospects of development in the least developed countries of the Non-Aligned Movement. *Quarterly Journal of International Relations Research*, Volume (1).
2. Campbell, S; Susan, F. (1997). *Reading in Planning Theory*, London, Blackwell: 151-152.
3. Dehghani, S.J. (2013). *Foreign Policy of the Islamic Republic of Iran*, Tehran: Samt.Environmental Performance Index. (2024). Retrieved from <https://epi.yale.edu/>.
4. Fallahzadeh, H. (2012). *Reza Khan and the Development of Iran*, Tehran: Research Institute of Islamic Culture and Thought.
5. Gholami, M; Hassani, M; Shafi, S. (2024). Strategies for Iran's Security Policy in the twenty-year Vision. *Geopolitics Quarterly*, 20(4), 78-104. doi: 10.22034/igq.2024.429355.1822
6. Gill, G. (2000). *The Dynamic of Democratization Elites, Civil Society and Transition Process*, Memillan.
7. Golzar, M. (2015). Investigation of Geomorphological Factors in Location and Distribution of Rural Settlements by Hierarchical Analysis System. In *First International Conference on Geographical Sciences*, Shiraz.Iran.
8. Homayoon, M; Farajnejad, M.H. (2014). A Comparative Study of Cultural Policies of the Islamic Republic of Iran at Macro and Intermediate Levels. *Journal of Religion and Cultural Policy*, Number 3. https://www.jrcp.ir/article_15517.html.
9. Hosseinzadeh Bahreini, M. (1998). "Paradigm and Theoretical Perspective and Programs and Their Approach to Development," *Major Development Issues and Planning System*, Tehran: University of Tehran Publications.
10. Huntington, S. (1998). *The Change to Change in A Cantori and A Ziegler*, Comparative Politics in the Post Behavioural Era, London.
11. kavianirad, M; Sadrania, H; Nasri Fakhredavood, S; Hamid, H. (2022). Water Diplomacy Role in Easing Iran-Iraq Hydropolitical Tensions. *Geopolitics Quarterly*, 18(4), 71-93.
12. Kuznets, S. (1966). *Modern Economic Growht*, New Haven, Yale University Press: 51.
13. Lewis, AW. (1966). *The Theory of Economic Growth*, London, Allens: 80.
14. Mahboobi, N; Eftekhari, A; Rokn al-Din; Farajiha, M; Fallahi, L. (2019). Content Analysis of Social Citizenship Rights of Women in the Five-Year Social, Economic, and Cultural Development Programs of the Islamic Republic of Iran, *Women's Research Journal*, Tenth Year, Number Two. <https://doi.org/10.30465/ws.2019.4364>.

15. Mashhadi Zadeh Dehghani, N. (1995). An Analysis of Urban Planning Features in Iran "Iran University of Science and Technology, Parliament Research Center.
16. Misaie, G; Deenparast, F; Taqipour, A. (2019). Analysis of the Political Development Position in the Development Programs of the Islamic Republic of Iran. Quarterly Journal of Strategic Policy Research, Year Seven, Number 82. <https://doi.org/10.22054/qjss.2019.29919.1898>.
17. Mortezaazadeh, F; Amiri-Hosseini, S; Gholami-Borujeni, F. (2023). Comparison of EPI in the field of climate changes indexes in Iran and other countries in 2020 and the relationship between GDP and EPI. Environmental Health Engineering and Management, 10(1), 23–31. <https://doi.org/10.34172/ehem.2023.03>.
18. O'Connor, J.S. (2015). Gender, Class and Citizenship in the Comparative Analysis of Welfare State Regimes: Theoretical and Methodological Issues, The British Journal of Sociology, Vol. 44, No. 3 , pp. 501-518.
19. Panahi, M.H. (2015). "Cultural Development; The Necessity of Economic, Social, and Political Development." Third Conference of Iranian Islamic Model of Progress. <https://doi.org/10.22054/qjss.2015.1469>.
20. Parliament Research Center (2023). Comparative Study of Planning Systems in Iran during Programs Before and After the Islamic Revolution. Office of Program and Budget Studies.
21. Parsons, E.A. (2006). Reflections on air capture: the political economy of active intervention in the global environment.
22. Pirsalami, F; Gholami, M.H. (2018). Iran's Economic Diplomacy in the Context of Development Program Laws, Legal Studies Journal of Shiraz University, Volume 10(2). <https://doi.org/10.22099/jls.2018.28577.2832>.
23. Shamsipour, M; Kashani, H; Younesian, M; Naeini, K; Hassounizadeh, M.S; Saedi, R; Hadi, M; Mosadeghi, A. (2020). Evaluation of Iran's environmental health status based on the Environmental Performance Index (EPI) report in 2018. Journal of Health and Environment, 13(2), 183–208.
24. Todaro, P.M. (1994). Economic development (5th ed.). New York: Longman Publishers.
25. Wang, Z; Chen, L; Tao, J; Zhang, Y; Su, L. (2010). Satellite-based estimation of regional particulate matter (PM) in Beijing using vertical-and-RH correcting method, Remote Sensing of Environment, Vol 114, Pp 50–63.
26. Ziari, K.(2004). Plan & planning in Iran. Iranian economic review, volume 10 spring No 13: 15-43.
27. Ziari, K; Golzar, M. (2025). Analysis of construction and function of new towns in Iran. Cities, 158, p. 105639. <https://doi.org/10.1016/j.cities.2024.105639>.

28. Ziari, K; Golzar, M; Ebrahimipour, M; Ardalan, D (2025). A comparative study on floodplain pathology in Iranian rivers (case study: Cheshmeh Kileh, Tonekabon city). *Nat Hazards* 121, 13629–13650 . <https://doi.org/10.1007/s11069-025-07331-y>.
29. Ziari, K; Goodarzvand Chegini, R; Hosseinkhani, H. (2024). Designing a model for establishing integrated regional governance in Iran, *Scientific Journal of Land Management*, 16(2), pp. 223-237.
30. Ziari, K; Mansouri Etminan, A; Golzar, M. (2024). Qeshm Geopark and an Evaluation of its Capabilities for Various Activities. *Geopolitics Quarterly*, 20(2), 323-349. doi: 10.22034/igq.2024.431873.1825.
31. Ziari, K., Mohammadi, A.R. (2015). "PATHOLOGY OF REGIONAL DEVELOPMENT MANAGEMENT IN IRAN." *International Journal of Engineering and Management Sciences* 7, no. 1.
32. Ziari, K., Parizadi, T., Hosseinkhani, H. (2024). Analysis of the impact of climate change on spatial-spatial changes in population in Iran (case study: Karaj city), *Geography and Regional Urban Planning*, 14(52), pp. 1-26.

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