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## ENVIRONMENT AND ECONOMIC DEVELOPMENT IN IRAN

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Abstract. In the early 1970s, Iran showed a strong desire to create a healthy environment. However, no one expected Iran to sacrifice economic growth for the environment. Therefore, the constitution included some principles that combined pollution control and environmental protection programs with current development programs to ensure that environmental activities are considered part of national development. Iran's development programs show that in encouraging and preserving the environment, the role of the government before and after the Islamic Revolution, instead of promoting competition, efficiency, and protection through market mechanisms, was direct command and supervision. In this regard, the weakness of executive programs, lack of public awareness and disregard for individuals and factories of policies and laws, prioritization of annual budget allocation in areas other than the environment has led to the inability of environmental control policies in Iran. Therefore, it is very important to answer two basic questions in the future. Do the beliefs of the people of the society matter for the destruction of the environment and call for serious action to deal with the environmental hazards? Has the government provided a suitable platform and opportunity for environmental protection? Answering these questions leads to the formulation of policies and their operational implementation concerning environmental issues in the country's program and budget, and the success of policies depends on the answers to these questions.

**Keywords:** Environmental economics, natural resource economics, ecological economics, green economics, sustainability.

### 1. Introduction

The relationship between economic progress and the environment has always been controversial.

Some see the problem of new pollution and the failure to solve the problem of global warming and population growth in the Third World as evidence that humans are short-sighted and predatory creatures. Others, of course, see the glass half full. They have noticed great progress in the provision of municipal sewage service and the improvement of the air condition in most big cities, and the miraculous progress in the improvement of the condition of the people due to the advancement of technology. The first group focuses on existing environmental problems, which are often very serious; The second group focuses on a long and sometimes irregular history of improved living standards (Panayotou, 1993).

In the economic and planning literature, less attention has usually been paid to the role of nature as a repository for unwanted materials - materials derived from economic activities. When the ability of the environment to absorb or disperse waste exceeds normal, the quality of the environment decreases, and the reaction to this reduction in quality limits progress. Progress may be slow because declining environmental quality requires greater clean-up that reduces the return on investment, and progress may be limited when humans destroy such ecosystems that they cannot be repaired, and a new situation that is less productive of wealth and Stable, deployed. Due to the growing empirical themes between per capita income and pollution, more attention has been paid to the relationship between development and the environment. This theme, known as the Kuznets curve (EKZ), has been very influential. Therefore, the situation is somewhat different; There is much less concern about running out of gasoline and magnesium and more concern

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about air quality, global warming, and industrial products' release. There is a lot of economic material that examines the relationship between development and the environment; They propose the theory of natural resource extraction, a considerable amount of the body of theory being made in the 1960s and 1970s regarding resource depletion and growth; And much was made in the 1990s to examine the implications of endogenous growth theory; And in the last decade, new and growing material has been created about the relationship between pollution and the level of national income (Allan, 2005).

There are many good books on the disposal of recyclable and non-recyclable materials globally, and there are several publications on endogenous growth theory in the world right now. This suggests that man is discussing a new theory in the economic and planning literature that links the quality of the environment to the level of income.

For the most part, the link between industrial pollution and growth is debated, but it shows how new work relates to recent contributions to limited resources and progress. On the other hand, it shows that the importance of the environment in the planning and economic literature is expanding(Fase & Abma, 2003).

However, decision-making processes in Iran indicate that in 1954, with the nationalization of the oil industry, it exercised its right to set oil prices worldwide. With the increase in Iran's oil revenues before the revolution, ambitious plans were made to transform the country from an almost agricultural state to an industrial economy in two decades. The launch of industries and population growth led to increased urbanization, higher living standards, and the spread of new technologies. Economic development and environmental degradation replaced the healthy, vast and peaceful environment. The establishment of various and sometimes large industries led to migration from rural to urban areas. In this regard, agriculture has changed from traditional to large-scale market-oriented agriculture. Rising oil prices and rising wages and job opportunities led to the formation of the middle class and the nobility in society, and as a result, the demand for private cars intensified. The streets in big cities were full of cars, the gases from incomplete combustion of all kinds of pollutants in these cars covered the country's big cities. The synthesis of plastic materials revealed various toxic pollutants that entered the environment in non-recyclable waste materials. The use of chemical fertilizers and pesticides polluted groundwater and soil.

Irregular grazing of pastures, deforestation due to the development of agriculture and housing, and fuel supply caused a decline in the environment (Portney, 2013). In the late 1970s, all this ruined appearance was seen. The imposed war and the Iraq war in 1990 also caused environmental problems for Iran. Acid rain fell in Iran due to the fire in Kuwait's oil wells. On the other hand, the legislator paid attention to the environmental issue in the country's official laws. Environmental issues were included in the five-year development and annual plans, and the government was required to implement them. In this regard, the programs' approaches following the theoretical issues in environmental economics are very important and show the success and failure of programs in creating a platform for environmental protection.

The questions of this article are whether the beliefs of people in society are important for environmental degradation and call for serious action to deal with environmental hazards? Has the government provided a suitable platform and opportunity for environmental protection? We will examine the answer to the first question by looking at environmental indicators in Iran, and we will seek the second question by examining environmental issues that include laws and regulations, especially the country's program laws. Therefore, the purpose of this article, along with the importance and theoretical and theoretical progress that has been done in the world in environmental economics, is mainly to study the prevailing approaches to the environment in Iran, especially in Iranian development laws and programs. First, the issue of the environment and its importance are briefly recounted in theoretical discussions.

So those environmental indicators of Iran are presented briefly to answer the first question of the article. Then, the environment issue in the upstream laws, the vision document and documents of development programs and budget laws, and the way of policy-making on Iran's environment are examined. Finally, development plans are evaluated and discussed, and concluded.

## 2. Evolution of theoretical issues in environmental economics

### 2.1. Production and the environment

Suppose we define economic development as an increase in the capacity of the economy to produce goods and services for the end use of the people. In that case, such growth is usually achieved by maximizing the flow of materials and energy resources by population growth and higher per capita consumption. Thus, on the other hand, the increase in production is an increase in consumption, either due to the increase in per capita consumption or the increase in population. But when production takes place, production inputs or factors of production are used. Production inputs can be divided into different forms. In economic analysis, production inputs are usually divided into three forms, which are

labor (L), amount of capital (K), and land used (D). In applied analysis, a fourth factor called energy (E) is sometimes introduced. These generating inputs are measured either as flow variables (such as L and E) or as storage variables (such as K and D) at any given time. Therefore, the production function is written as follows (Hufschmidt et al., 1983):

$$Q = F(L, K, D, E)$$
 (1)

The basic premise of any economic theory is that we face the problem of scarcity. Scarcity confronts us with another input that is used in the production process but is not visible. Some of these invisible inputs can be attributed to opportunity costs.

These opportunity costs, in economics, are costs that, by using an input in one production process, we deprive it of use in other processes. But the costs of using natural resources are not limited to opportunity costs. This can be better explained with an example. Forest trees are considered as the input of production and are the factor of value production. Forest trees create value for forest dwellers and the whole country by attracting domestic travelers, tourists, etc. They are also used as timber in various industries. Therefore, one of the costs of cutting down trees and using them in the manufacturing industry is to deprive the region's people of the income of attracting tourism. But this is not the only cost of cutting down a tree; The tree is a member of the system and the natural cycle, which has responsibilities from this system, and by cutting it, changes occur in the natural cycle, which ultimately imposes costs on humans, which in the sense of costs. Opportunities cannot be well explained. These are the external costs of production activities. In other words, human production activities can change the cycle of nature and cause ecosystem disruption, and since the mechanism of nature is said to be an active and living system and reacts to any reaction, any reaction The system of nature can bring unpredictable costs to the economy. Thus the inputs of production in each production process in a "new form" are capital, labor, land and natural raw materials, opportunity costs (Oc), and external costs (Fc) (Engel & Engel, 1990).

$$Q = F(L, K, D, E, Oc, F)$$
 (2)

That is why it is so important to realize the "nature tolerance threshold" in economics. It is necessary to know to what extent nature can tolerate the effects of human productive activities and provide the necessary inputs for it. This is where the limitations of growth and development come into play. In economics, goods with negative side effects are usually over-produced in the market, and if property rights are not well defined in such cases, government regulation will need to be enforced (Shi et al., 2020).

Causes make a point in economics that, in the absence of transaction costs, the private sector can solve

the problem of external tolls with an intermediate contract, regardless of the initial distribution of resources. This case acknowledges that transaction costs should be small for the private sector to address the under-allocation of resources. In practice, however, this is not always the case, and governments usually act as an effective institutions to address externalities. Governments can act in two ways. The first is regulatory policies in the form of laws, one of which could be development program laws, and the second is market-based policies that motivate the private sector to solve the problem of external tariffs. In the first case, they usually established environmental organizations, which have also been established in our country. Environmental protection organizations are usually set up to put in place appropriate rules to reduce pollution. In the case of the second type of intervention, governments influence market performance and external duties by establishing a system of taxes and subsidies. In both cases, i.e., the establishment of pollution exchange licenses and Pigo-type taxes are embedded to internalize external duties (Dasgupta & Chaudhuri, 2020).

### 2.2. Environment, economic growth, and development

Issues related to the possibility of growth and its continuation were theoretically raised for the first time by Malthus. He said that the increase in population growth rate to the growth rate of future agricultural production is not a good expectation. This issue was eliminated with the Industrial Revolution and the increase in efficiency in agricultural production. Still, some economists, such as Nordhaus, have proposed a new form of Malthus theory, which with increasing economic growth, issues such as air, land, and hot pollution. Globalization, etc., has negative effects on economic growth (Engel & Engel, 1990).

Human economic activities aimed at economic growth have also changed the nature of risks and risks. Anthony Giddens makes an interesting point about this. By distinguishing between past and present risks, Anthony Giddens distinguishes between two types of risk: external risk and generated risk. Giddens argues that the best way to explain the distinction between external risk and generated risk is to look at events in the physical world due to the impact of knowledge and technology. Decades before global integration intensified, most of the risks people were concerned about came from nature; Such as low agricultural yields, climate change, earthquakes, hurricanes, and natural disasters. In the past, the variety of risks was due to nature. Now those thoughts are almost dead, and slowly our worries about nature that can do things for us have diminished, and today we are worried about what we do with nature ourselves. This transition marks the emergence of environmental policy

and environmental interests. When we start worrying about what we have done to nature, we enter the period of risk produced. Risk generated means human risk environments, part of which is created by advancing knowledge and technology. The risk generated can be defined by human intervention in history and nature through knowledge and technology. The risk generated is the discovery that the spheres of growth in human knowledge have collapsed on us. Some economists believe that the goal of classical economics is the optimal allocation of resources and that attention to environmental issues is outside the framework of classical economics. This is presented in the twodimensional coordinate space of the same production curves (Fig. 1). So that if labor and capital are production inputs, the optimal point of production is where the production curve is tangent to the same cost curve (Gibbs, 2005).

## Strategy of Unbalanced Growth

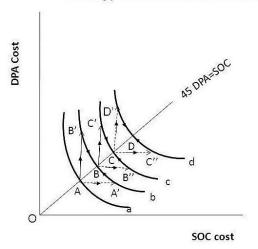


Fig. 1. Economic development path curve

In this case, if the firm's total payments increase (while labor and capital prices are constant), the firm's identical cost curves are shifted in parallel and tangent to the same higher output curves. Since these tangential points are the optimal point of production, the "growth path" of the firm is obtained by connecting these optimal points. Thus, our only limitation in this view is the cost curve, and no constraints on labor and capital are considered. Therefore, providing costs and monetary resources makes it possible to grow indefinitely without any restrictions in terms of labor supply and capital (including natural resources). Because of this view of classical economics, it is said that attention to environmental issues is outside the framework of classical economics.

Contrary to this view, another view tries to create a neoclassical framework for environmental degradation

issues, which is usually done in the form of resource economics or environmental economics. This group of economists seeks to trace the scope of environmental issues back to the time of the formation of classical economics and to examine the contribution of Smith, Malthus, Ricardo, and Stuart Mill to the development of natural resource economics. Most of the early economist's discussions revolved around land constraints and the disproportion of population growth to food growth, with Robert Malthus (1766-1834) having a special place in this field. "In the evolution of classical economics to neoclassical economics, there has always been a fear of depletion of limited natural resources. Apart from very recent analyzes of the effects of limited resources, there are many examples of depletion of natural resources over the centuries", Perman said. 19 to 20. For example, Jones (1865) observed the physical limitations of coal supply during the British Industrial Age and predicted that these limitations would eventually halt the Industrial Revolution "by reducing natural and environmental resources and growth constraints." From the 1960s onwards, environmental sciences and the key elements of the natural sciences spread, some of which led to the emergence of environmental economics, the founders of which introduced the "modern economy" system by addressing the natural science issues in classical economics. "Environment."

Economists have differing views on the ability of environmental problems to limit growth. Contrary to the views of the members of the Club of Rome, as generally found in the books Restrictions on Growth (1972), Human Quality: The Indictments Against Modern Humanism (1975), The Human Riddle, The Future and Learning (1979), The Future in Our Hands (1981) and The World on the Threshold Twenty-one (1982) is reflected and has a pessimistic view of the future of economic growth. In their view, the shortage of raw materials and other minerals is not a concern, and what is important is that production methods must be changed. There is no possibility of a resource-destroying catastrophe, and no cause will hinder continuous growth because economic growth has existed throughout history. Economic growth is the growth of the value of production, and it is possible that an increase in the value of production does not require a completely equal increase in materials and energy. Sustainable growth is possible, and inputs and resources used in production can be permanently reduced (They have grown by 2.23 percent annually)(Gwartney et al., 1999).

## 2.3. Types of theoretical models of economic growth and the environment

In the economic growth literature, four models have been developed concerning economic growth and

environmental constraints. One of these models is the Green Solow model. In this model, the emission reduction is due to the exogenous advancement of technology in the pollution prevention process. Although this model is very simple, it gives three useful results. First, it shows that even with the intensity of pollution prevention in the economy constant, the dynamics of the solo model combined with standard reproduction operations are sufficient to form the Kuznets curve. The transition to any sustainable growth path initially worsens the quality of the environment with economic growth but then improves as we move toward a balanced growth path.

This is a surprising result. Although many explanations have been given for the relationship between the Kuznets environmental curve, this explanation is simple, new, and general because it depends only on the basic properties of the growth function. Second, the green solo model provides a useful and scientific benchmark in this field because it predicts; Strict environmental policy has no long-term effect on progress. In the main Solo model, different intensities of prevention cause change in the amount of income but do not affect the intensity of economic progress on the path of balanced growth. This result is a relative justification for the current method of measuring the cost of pollution control, which includes the sum of current private and public costs and has arisen without any correction to reduce growth. It also points to the precise conditions required for tougher policy-making that does not harm economic growth. Third, the model clearly shows how technological advances in producing goods have a very different effect on the environment than advances in pollution prevention technology. Advances in technology in the production of goods affect increasing emissions, and on the other hand, advances in technology in the ability to prevent, improve techniques and reduce emissions. In the green solo model, both rates are exogenous. Whether or not technological advances in pollution prevention are key to reducing emissions, supporting sustainable growth, and providing an acceptable estimate of pollution control costs(Prasad, 2003).

The second model, called the Stoke Alternative, is inspired by Nancy Stokey (1998), which Brooke and Taylor (2005) offer a simpler model. However, it has two significant consequences: The first is that when the goal is less resource use, and we model pollution prevention as an economic activity, an increase in the intensity of prevention that is needed to keep pollution under control has an effect on The increase in prevention has a technical effect by reducing emissions per unit of output. Still, it also reduces pollution by reducing the rate of production growth. Faced with declining levels of pollution, neoclassical assumptions about prevention, not specific

advances in prevention technology, must be steadily increased over time. For example, in Stoke analysis, the share of "potential output" allocated to prevention goes to one.

Because this share represents the cost of pollution prevention compared to the added value of the economic activity, models based solely on prevention usually make false estimates of the cost of prevention. This is true even though advances in technology drive sustained economic progress, and so the result is another emphasis on the importance of technological advances in preventing pollution.

The third model of growth and environment establishes a relationship between the role of source and reservoir 1 of nature. This model is presented on the assumption that energy use reduces both the reservoir of finite resources and creates pollutant emissions that reduce the quality of the environment. This formulation of "source and reservoir" allows us to see how changes in the amount of energy in our products help us meet environmental constraints. In this model, the intensity of prevention is considered constant, and there is no technological advancement in prevention. Instead, the economy reduces the rate of pollution into production over time by choosing a cleaner combination of production methods. Such models focus on the role of combined effects in considering environmental constraints. In these models, the economy can grow by reducing pollution, and this is due to constant changes in the composition of its inputs, but prevention in this way and procedure is costly. Because less and less natural resources can be used in production, progress is slower (Ekins, 1997).

In general, in the theoretical discussion of environment and economy, especially economic growth, explaining the issue of property rights plays a pivotal role. In the economics literature, the existence of property rights for environmental goods has two important implications. The first is that the market provides clear indications of how to use the commodity, and the second is that despite the ownership rights for an environmental commodity, its price can provide evidence of its importance in production. But in the case of environmental goods for which there are no property rights, their use has external consequences, so government intervention, in this case, should be more powerful, and there is no market price as a summary of evidence of the importance of goods and government regulation, due to market failure in the theoretical literature. Therefore, theoretical issues of economics do not provide optimism, especially regarding market failure in environmental issues. In an attempt to theoretically understand economic growth, the position of the environment has been proposed by limiting economic

growth. Most of the theories and models presented, especially from the 1960s and 1970s in the framework of outbound growth models and from the 1990s onwards with the advent of endogenous growth models, are mainly based on the green solo growth model, the stocky model, the source role model, and reservoir. That role of exchanging technology and the environment has been essential to achieving economic growth (Avdeeva et al., 2020).

### 3. Environmental degradation and its costs in Iran

At present, environmental resources are among other scarce resources, and since the future of economic development depends on these resources, economic rationality must be used in their use. Therefore, according to the theoretical arguments presented, economic logic in the case of many environmental goods dictates that if we use a factor for production, we must consider the share proportional to its production value Because today, the interaction of economy and environment with each other is an inescapable reality so that every economic decision directly affects the environment and environmental policies also affect the economy. Despite all this, in our country, the rial value of indirect benefits of natural resources is not calculated yet, and as long as the idea of free God-given natural resources is in our minds, we will not see an improvement in the regression of natural resources. Therefore, this negligence will have many consequences, both in the national economy and environmental protection (Ibrahim, Alola; 2020). Here are some examples of fundamental skepticism about environmental protection: In terms of forest status, the per capita share of each Iranian in the forest is less than 0.2 hectares, which is less than a quarter of the global per capita. Also, the rate of harvesting from forests by villagers and official exploitation is almost twice the natural growth and production capacity of forests. In terms of rangeland status, the trend of rangeland degradation in our country, estimated at one percent per year, has caused soil erosion, reduced the production capacity of natural rangeland cover, and reduced the area of land usable for the production of plant and medicinal products. Annually, an area of 322 thousand hectares of fertile lands is eroded. In a report published in 2006, the World Bank stated that the annual damage caused by land degradation in Iran is equal to 15 thousand and 332 billion Rials. According to this report, the salinization of farms annually causes 12 thousand and 72 billion Rials, the destruction of pastures, 1.372 billion Rials, the destruction of fertile lands, 2,800 billion Rials, and the occurrence of floods cause 1.192 billion Rials annually to Iran. In terms of air pollution, the pollution situation was estimated at more than \$ 7 billion in 2001, according to

the comprehensive air report of the National Inspection Agency. According to the latest report of the World Bank, the annual damage of air pollution in Iran by 2016 will reach about 13 billion dollars (Khodayari-Zarnaq et al., 2020).

In terms of waste status, currently, an average of 2710 grams per hospital bed is produced infectious waste, which in terms of about 32 thousand hospital beds, the total waste generated per day will reach about 21 tons, and unfortunately, due to the very poor condition and Critical Hospital Waste Disposal imposes an additional \$ 2 billion annually on the country's health care system(Siwar et al., 2009). In terms of soil erosion, the rate of soil erosion in the world is about 75 billion tons, of which Iran's share is more than 2 billion tons and is about three times the average of Asia. One million hectares of agricultural land is estimated, and about two billion cubic meters of sediment accumulates annually due to soil erosion in dams. This volume of sediment is three times the volume of sediment in the watersheds of China. According to some existing reports, the capacity of the country's dams is reduced by an average of 220 million cubic meters per year, and the deposition process in dam reservoirs is such that about 33 % of the reservoir capacity of newly built dams is lost. They invested 522 billion rials. From 1954 to 1994, the annual destructive floods had an upward trend with 195, 233, 431, 934, and 1108 cases, respectively, which indicates the severe destruction of vegetation. The average annual soil erosion is 12 to 15 tons per hectare per year, while this figure is 3.8 tons in Asia, 0.5 tons in Europe, and 0.3 tons in Australia. All of the above indicate that, firstly, the beliefs necessary to protect the environment in the Iranian economy are not serious. Secondly, the rules and regulations and even the functioning of the market have not been very successful in resolving environmental issues. To examine the role of rules and regulations in the environment, we will discuss this issue in detail and evaluate Iran's plans for environmental protection (Raza, Shah; 2020).

# 4. The environment in the laws and upstream documents of Iran

As explained in the theoretical section, studying environmental issues and how it affects economic growth in the economy depends on how one thinks about intellectual property rights. If there are intellectual property rights for environmental factors, the market provides valuable signals about their use, and if there are no property rights for environmental goods, their use has external consequences. The justification for government intervention, in this case, becomes powerful. In this study, we examine how Iran deals with environmental

issues by examining the environmental issue in the constitutions and the mother and the development plan documents.

One of the main goals of development programs in Iran has been and is to achieve economic growth. When a planner considers economic growth, what usually comes to mind are its myriad benefits: increasing life expectancy, reducing infant mortality, higher incomes, expanding the range of goods and services available, and so on. Hand. But what about the costs of economic growth? At the top of the economic growth list, costs are environmental issues such as pollution, natural resource analysis, or global warming. In rich countries, the costs of economic growth are overshadowed. In the early stages of economic growth, their pollution rate increases (as in the mid-nineteenth century in London or present-day Mexico City). As mentioned, environmental economists have documented evidence of a formal relationship during the growth process: that is, in the early stages of an economy, pollution increases, but gradually the situation improves. There is no dispute that economic growth requires certain costs, especially at certain times, places, and people. However, these costs are generally less than can be offset by the benefits of economic growth(Li et al., 2020).

However, the current environment of Iran shows that the legislator in Iran has always benefited from the proposition of the benefits of economic growth over its costs and has been a major goal in all development programs. In this regard, it has always had a glimpse of the costs of economic growth. As the institutional history of environmental protection in Iran dates back to 1957, this year, due to environmental degradation, an independent device called "Hunting Center of Iran" was formed to preserve the hunting generation and monitor the implementation of related regulations. Following this, in 1968, following the approval of the Hunting and Fishing Law, the "Hunting and Fishing Supervision Organization" replaced the above center. Under the recent law, the Hunting and Fisheries Supervision Organization was composed of the appointed ministers of agriculture, finance, war, and six qualified individuals. According to Article 6 of the above law, the duties of the Hunting and Fisheries Supervision Organization go beyond the scope of monitoring and enforcing hunting regulations and conduct research and studies related to the country's wildlife, reproduction, and breeding of wild animals and protection of their habitats and designation of areas as It also included zoos and zoological museums. In 1972, the name of the Hunting and Fishing Supervision Organization was changed to "Environmental Protection Organization," and the name of the High Council for Hunting and Fishing Supervision was changed to "High Council for Environmental Protection." Previous was added.

Therefore, based on this evidence, it can be said that in the early 1970s, Iran showed a serious desire to

create a healthy environment. Although no one expected Iran to sacrifice economic growth for environmental protection, it was unwise to abandon the environment. Therefore, pollution control programs were combined with current government programs to ensure that environmental problems are not separate from economic and development activities. In 1975, after the World Environment Conference in Stockholm and with the approval of the Law on Environmental Protection and Improvement in 21 articles, this organization enjoyed new legal powers and in terms of organization to some extent of dimensions and quality compatible with the needs of growth programs and development enjoyed. Therefore, this year, the Iranian parliament approved the first law on environmental protection and improvement. A year later, the National Clean Air Regulations were added to the law as an appendix, promoting a common approach to air pollution control across the country, the effective implementation of air pollution control measures, and the leadership role of the Environmental Protection Agency in setting national standards. Air quality, control of fuel composition, collection of information on the source of pollution, and setting national standards for motor and industrial vehicles were added to the tasks of the Environmental Protection Agency. In this regard, control strategies were adopted for two sources of air pollution, namely industry and cars (fixed and mobile sources). However, fixed source pollution control strategies were implemented using specific industrial pollution standards. Regarding mobile sources, installation of auxiliary oxidation device (Catalytic oxidation) in some cars and making minor changes in the construction and engine adjustment of some cars, an intermittent inspection of exhaust gases of old private cars, rental vehicles, taxis, trucks, and wornout buses, conversion of rental vehicles with Gasoline and diesel fuel to CNG and LPG, improving traffic management by increasing roads, highways and public transportation(Peng et al., 2020).

In 1985, the Council of Ministers for the Control of Water Pollution also passed regulations on surface water, rivers, groundwater, lakes, the sea, the shores of the Caspian Sea, and the Persian Gulf. The government introduced human and animal wastes, animal carcasses, soils, industrial and municipal wastes, biological and chemical wastes, sewage, and hospital waste as sources of water pollution. Waterfront parks, camps, tourist attractions, and recreational areas by the sea and lakes are also subject to the Water Pollution Control Act. Safe water pollution standards were set according to this regulation. After the revolution, the air pollution regulations adopted in 1974-75 remained in place with minor changes in the executive mechanisms and the administration of personnel affairs, and the explanation of the various sources of air pollution and the fines for violators were added to the existing laws (Rodrigue, Notteboom; 2020).

#### 4.1. Constitution

The Constitution of the Islamic Republic of Iran explicitly outlines the country's economic system based on general, orderly, and correct planning (Articles 43 and 44). There is no place for the environment in the constitution and its amendment, but in the four principles of the constitution, efficient use of natural resources is emphasized, justice and intergenerational use of the environment, the exact description of which is given in Articles 45, 153, 48 and 50 and has been considered by the legislator. In other words, it is considered a national pact on environmental values (Dzwigol et al., 2020).

Principle 45: Anfal and public wealth such as vacant or abandoned lands, mines, seas, lakes, rivers, and other public waters, mountains, valleys, forests, reeds, natural forests, pastures that are not the sanctuary, inheritance without heirs, and The property of the unknown owner and the public property that is returned from the usurpers own the Islamic government to act following the interests of the public. The details and order of use of each are determined by law.

Article 153: Any contract that causes foreign domination over the natural and economic resources, culture, army, and other country affairs is prohibited. Principle 48: There should be no discrimination in the exploitation of natural resources and the use of revenues at the provincial level, and the distribution of economic activities in the provinces and different regions of the country so that each region has the necessary needs and growth potential, capital and facilities available (Brock, Taylor; 2005).

Principle 50: In the Islamic Republic, protecting the environment, in which present and future generations should have a growing social life, is considered a public duty.

Therefore, economic activities other than those related to environmental pollution or its irreparable destruction are prohibited. Therefore, in the constitutional principles of the country of natural resources, non-discrimination in the exploitation of natural resources is in the hands of the government, and environmental protection is a public duty.

The environment in the 2030 20-year vision document: Iranian society in this perspective will have the following characteristics: health, welfare, food security, social security, equal opportunities, proper income distribution, a strong family institution away from poverty, corruption, discrimination, and a favorable environment. Therefore, in the vision document, the image of the environment presented in the landscape is a desirable environment, but the definition of a desirable environment is not defined (Jones, Vollrath; 2013).

# 4.2. Environment in the laws of the post-revolutionary development program

First Socio-Economic Economic Development Plan Law (1994–1999): The law of the first program, consisting of a single article, fifty-two notes, 104 decrees, 11 general tables, and an appendix (quantitative objectives of sectoral programs), was approved by the Islamic Consultative Assembly in February 1990. This program was formally the most comprehensive development program in Iran from the beginning until now. The program bill was presented to the parliament in the form of the main document, two annexes related to the goals and plans of the sector, and the appendix of the development plans. The main document and the quantitative goals of the sector plans were approved. Therefore, the first development plan is the only one after the Islamic Revolution with an appendix of approved sectoral plans. In this plan, only Note 13 deals directly with the protection of the environment. Despite the destruction of a large part of the natural areas of the southwest of the country and the exploitation of natural resources, due to the imposed war and the adopted environmental strategies, it did not reach the status and importance it deserved in the old program. And the general policies of the first program did not pay attention to the category of environment and natural resources, and only in the policies of the program, to achieve other goals, to some extent, and in general, environmental protection was considered (Perrings, 1987).

According to Note 13, as mentioned in this program, the government is trying to solve environmental problems by adopting market-based policies that motivate the private sector to solve the problem of external tolls. In other words, in this program and the form of Note 13, the government has sought to influence the environmental impact on the economy by establishing a system of taxes and subsidies on market performance and foreign duties. It should be noted that Note 13 later became a permanent law as paragraph "d" of Article 45 of the Law on Receipt of Some Government Revenues and its Consumption in Certain Cases. Note 13 can be mentioned as one of the incentive rules of the first program due to the tax exemption it creates for industries, factories, and workshops, which is one of the benefits of this note (Zekavat, 1997).

During this program, he also participated to some extent in the international arena of environmental issues. Iran also pursued Iran's environmental goals at the 1993 Earth Summit in Rio. This year, at the Rio Summit, Iran presented a national environmental report on Iran's land, water, human resources, and environmental pollution sources, plans to improve environmental quality, and Iran's cooperation with international environmental organizations. The report detailed the public awareness, research, pollution control, monitoring projects, and

environmental protection projects. Also, in the first development plan, all development projects were implemented nationally and did not have any provincial plans. A picture of the future in all provinces and the study of environmental pollution caused by mining activities was implemented in some provinces and welcomed, which caused the necessary conditions for implementing provincial projects in the second program(Amirnekooei et al., 2012).

Law of the Second Plan of Economic, Social and Cultural Development, 1996-2000: The bill was submitted to the Islamic Consultative Assembly in December 1996, but because the Assembly needed more time to consider the bill, the consideration of the second program bill was postponed to 1995, and the Islamic Consultative Assembly approved the bill on 12/95. Receipt. The second development plan covered the period 1996-1998, and thus 1995 was a country without a development plan. The law of the second development plan consisted of 3 chapters. Chapter One: Macro Qualitative Objectives, Basic Policies, and General Policies, Chapter Two: Single-Article and Notes (including 101 notes and a total of 278 sentences) and Chapter Three: Quantitative Objectives and attached tables. The main strategy of the Second Development Plan was to consolidate the achievements of the First Development Plan and stabilize the country's economic trends and reduce the heavy burden of economic developments on society. The second development plan's law consists of 1 single article and 101 notes, three of which directly emphasize the protection of the environment and natural resources(Mahdavi & Sajadi, 2021). In addition, to support the revival of natural resources and prevent the encroachment and prevention of natural resource land transactions, the legislator, in a few remarks, obliges the government to implement appropriate measures such as annual budget bills, economic, agricultural, and industrial activities. In general, in this program, with the above three notes, the protection of forests and the prevention of air pollution were considered and in the form of three notes, the protection of natural resources with emphasis on forests and ensuring sustainable use of resources and prevention of air and water pollution. The Second Development Plan was also influenced by Iran's environmental goals at the 1993 Earth Summit in Rio. Other differences with the first program include the inclusion of small goals (Janicke, Jacob; 2012).

Third Economic, Social and Cultural Development Plan (2001–2005): The approach of this law was slightly different from the previous laws. The Islamic Consultative Assembly approved the bill on April 4, 2001. This law consists of 3 parts: the first part of the subsectoral areas (including the first to twelfth chapters), the second part of the departmental affairs (including the thirteenth to the twenty-fifth chapters), and the third part

of the implementation and supervision (including the twenty-sixth chapter). This law contains 199 articles, 57 notes, and a total of about 540 executive orders. It should be noted that the law of the third program does not have attached tables (except for two tables of government employees and forecast foreign exchange earnings from crude oil exports). Although quantitative goals have not been approved by the Islamic Consultative Assembly in the third development plan and have only been approved and announced general policies and policy-making in the mentioned areas, the government has tried to set small tables to achieve the desired goals in important fields and areas of economics. Announce the "goals of economic reform" and follow the program as a document. Therefore, it can be said that in the third plan, there is a tendency towards a kind of strategic planning.

Chapter 12 of the Third Development Plan Law, entitled "Environmental Policies", includes two articles dealing with the environment in the field of cross-sectoral activities.

The implementation of a significant part of the general environmental guidelines in the group of approaches, policies, plans, and projects of relevant agencies whose activities have an important impact on the environment and natural resources, therefore, Articles 17 (paragraph A), 61 (paragraph B, part) A) 85 (paragraph c part one), Article 114 (paragraph b), Article 121 (paragraph a), Articles 134 and 173 in this program have been in this regard.

Paragraph B of Article 104 can be considered as the legislator's attempt to create the beliefs of people in the community to create importance for the preservation of the environment, due to the planner's view to create beliefs from top to bottom and its lack of spontaneity.

Paragraph (c) of Article 104 changes the way of looking at environmental issues in the country's laws. According to the permanent laws, the first solution and confrontation with fixed sources of pollution, such as factories and workshops, after issuing a warning and non-elimination of pollution, is to issue an order to stop the activity of the mentioned source or so-called common, closed factories and workshops, but, according to paragraph c of the article The closure of the plant is the last resort. During this period, polluting and destructive sources of the environment must pay fines commensurate with the environmental damage and pay to the government.

In this program, in terms of studies related to land management, the studies started from the second development plan were continued. The results of these studies were compiled in the spring of 2001, and by presenting a set of studies of the first stage, including "Basic Theory of National Development" and "Long-term view of the country's spatial development" to the esteemed cabinet, it took its first step towards compiling a land management document. The formulation of the

basic theory of national development outlined the main lines and directions of the country's development. Therefore, in the absence of a vision document for the country's development, it became necessary to fill the gap in the existence of upstream development documents. By presenting the basic theory of national development in the cabinet and the government's emphasis on continuing studies, the set of approaches of "basic theory of national development" in the meetings of the "Land Management Council of the Management and Planning Organization" was finalized and the basis of land management studies in the detailed stage. The results of these studies were compiled and published as the final land management document at the end of the third program.

In general, the observance of environmental considerations in the Third Development Plan is not limited to the mentioned chapter, and in Articles 134 and 173, as mentioned above, decisions related to development activities are implicitly left to the observance of environmental considerations. The position of the environment in the Third Development Plan is more important than the first and second development plans, and the integration and environmental considerations in the planning processes are more emphasized than before. It turned proactively.

Law of the Fourth Economic, Social, and Cultural Development Plan 2006–2016: This program was developed in the form of a vision document for the future in the long run and with the example of "sustainable economic growth based on knowledge and global approach," to reform structures and processes. Unlike the third development plan, which considered the reform of the country's structure with the approach of reforming internal structures, this program has been developed with a knowledge-based approach and active interaction with the outside world to reform the country's structure. Simultaneously with the development of this program, attention to the needs and requirements arising from the ideals of the constitution, international developments, the new world economy, scientific developments, and new technologies, especially information technology and socio-economic development needs of the country at the current stage (including investment growth, production, and Employment) and in the long run (including the establishment of a strong, dynamic and growing economy based on knowledge components to achieve mass exports instead of export raw materials, especially crude oil), led to a rational approach to the forthcoming developments. And drawing a vision of the future is considered necessary, so the fourth development plan was prepared in the form of a long-term economic vision.

The law of the Fourth Development Plan contains 161 articles, 34 notes, and 9 appendices. This law has 6 main sections that represent the main axes of the program and the following 15 chapters. The second part or axis of the law is dedicated to "environmental protection, land

management, and regional balance." The number of main items of the Fourth Plan Law in environmental protection reaches 15 articles and one-note, while other items in the same law are related to the environment, which in some cases are less important than the items in Chapter Five. The number of related materials is over fourteen. One of the formal characteristics of the law of the fourth program, which did not exist in the laws of the previous programs, is the implementation and continuation of the articles of the law of the third program without any changes.

Regarding environmental issues, 7 articles and paragraphs of the articles of the law of the third plan have been implemented exactly (Hosseini et al., 2020).

Environmental protection, land management, and regional balance: Chapter 5 of the program, dedicated to environmental protection, contains 14 articles (from Article 58 to Article 71). In Article 58 of the Fourth Development Plan Law, as the first article of the environment chapter, the parliament obliges the government to establish the necessary coordination between the relevant departments to expedite the implementation of the protection plan and exploiting the country's biodiversity. Let's see the world standards in the field of biodiversity in the country.

In Article 59 of the Fourth Development Plan Law, a new word and concept called environmental economics have been considered, which has not been considered in our country before. According to this article, the Management and Planning Organization is obliged in cooperation with the Environmental Protection Organization and other relevant agencies to estimate the economic values of natural and environmental resources and the costs of pollution and environmental degradation in the development process and its calculation in national accounts. Set its instructions (Khaksari et al., 2014).

Article 60 of the Fourth Development Plan Law refers to the tasks assigned by the legislature to the government to strengthen and empower the structure related to the environment and natural resources so that the necessary mechanisms for general and specialized environmental education support investment in the environment sector. Organize and establish natural resources and appropriate structures for environmental activities(Banakar & Ziaee, 2018).

In paragraph (a) of Article 61 of the Fourth Development Plan Law, a paragraph what the legislator has considered is the new policies in the field of monitoring and control of polluting sources, which is a participatory movement that includes a self-declaration plan for monitoring polluting sources. It should be noted that, according to the permanent laws, the Environmental Protection Organization was obliged to visit and sample polluting units and industries, and in case of pollution, take the necessary legal measures.

It can be said that the environment, in terms of planning, in the Fourth Development Plan, took a greater share than other programs, both quantitatively and qualitatively. In this program, in addition to the topics of the third development plan, in the fields of environmental education, environmental information at the national and regional levels, prevention of poaching, economic valuation of resources, integrated ecosystem management, and implementation of the biodiversity action plan, environmental evaluation of projects, self Declaration, reduction of air pollution, organization and prevention of pollution and destruction of beaches, the establishment of the National Environmental Fund, monitoring of polluting sources, had legal materials in the environment.

Fifth Economic, Social and Cultural Development Plan Law: This law, consisting of three sections and thirteen chapters, was approved by the Islamic Consultative Assembly on 10/15/2010. One of the important features of formulating the Fifth Development Plan, like the Fourth Development Plan, is determining and preparing the general policies of the plan before formulating it. These general policies have been communicated to the government by the leadership within the framework of the 20-year vision document and with a fundamental approach to progress and justice so that a bill can be prepared and prepared within its framework. The general policies of the Fifth Development Plan have 45 clauses and include the following topics: cultural affairs, scientific and technological affairs, social affairs, economic affairs and political affairs, defense, and security.

Increased activity and uncontrolled exploitation of natural resources, natural ecosystems, and various plant and animal species have put the country in danger despite the approval and implementation of development programs in the province of the Fifth Development Plan.

Therefore, protection can reduce some of the damage and environmental damage to some extent. To achieve this goal, various protection policies have been used in previous programs, but the country's living conditions have deteriorated. This section is included as an environment in this program and deals directly with environmental affairs in Articles 187 to 193. In addition, Articles 123, 134, 135, 138, 139, 140 also deal with the issue of the environment (Nourabadi, Nejad; 2018).

As mentioned in the Fifth Development Plan, these 7 articles with 16 important environmental issues have been approved in the regional development section. In other parts of the fifth program, 13 articles with different notes are dedicated to the environment that other executive bodies are obliged to implement. In this program, the provisions of legal materials related to public education and environmental information at the national and regional levels, prevention of overhunting, and economic valuation of natural resources from the Fourth Development Plan have been implemented. In the field of environment, other legal materials with topics

such as integrated ecosystem management and implementation of the biodiversity action plan, conservation, organization and integrated management of beaches, environmental assessment of projects, selfdeclaration, reduction of air pollution, reduction of landfill waste, identification Dust emission centers and its control, control and reduction of greenhouse gas emissions, ban on industrial and mineral exploitation of inland wetlands, integrated management of wetlands in the country. In the regional development sector, the system of environmental assessment and implementation of sustainability indicators has been approved as two legal articles. In other sectors such as agriculture, transportation, energy, and industry, development activities have been approved for environmental protection (Moghaddam et al., 2013).

General environmental policies of the country: General environmental policies are presented in 15 general policies. The announcement of these policies in terms of time, in 2015 and on the eve of the sixth development plan stated in Policy 5 one, should be applied to all programs, so the Sixth Development Plan will also include general environmental policies. Internationally, the world is on the eve of the Summit on Climate Change in Paris in December 2015 and can affect countries' environmental policies. In these policies, terms such as green economy, green tax, environmental ethics charter, environmental auditing system, groundwater balance, water and energy production model reform, the issue of intergenerational rights, and environmental diplomacy are discussed and shows that there must be international, regional and international interactions to protect the environment (Hamzehlou, Hamzehlou; 2014).

### 5. Evaluate development plans for the environment

Evaluation of development programs can be examined from three perspectives. One is in terms of the number of environmental studies in the letters, and the second is quality and scientific approaches to the programs and the ultimate effectiveness. In general, postrevolutionary development programs have grown rapidly in terms of policy setting, movement framework, and several sentences. From 104 sentences in the first development plan, it has increased to 1114 sentences in the fifth development plan. Also, from the point of view of notes, it has increased from 101 notes in the same period to 192 notes in the Fifth Development Plan. From an environmental point of view, it also provides useful information development programs. Since the first development plan, more provisions have been included quantitatively in the program rules regarding the environment. So that from one note in the first development plan (note 13), the number of materials has reached 32 and one note in the fourth development plan and 17 articles and 9 notes in the fifth development plan.

From the Sixth Development Plan, 15 general environmental policies have been presented. In some policies, such as general policies 8 and 15, these two

policies have included 6 general policies, and quantitatively, we can say that 19 general policies for Iran's environment have been presented (Ghalibaf et al., 2017).

Table 1
Number of materials, notes, and verdicts of development programs

Plan	period	Articles	Paragraphs	verdict	Capital
First	1990–1994	1	52	104	34632
Second	1996–2000	1	101	278	238186
Third	2001–2005	199	57	540	-
Fourth	2006-2010	234	34	774	4118555
Fifth	2011–2015	235	192	1114	-

As stated in the theoretical discussion of the article, governments can act in two ways in the affairs and organization of the environment. The first is regulatory policies in the form of laws, one of which can be development program laws, and the second is market-based policies that motivate the private sector to solve the problem of external tariffs. Regarding the first method, establishing the Environmental Protection Organization in Iran has been in this direction. Environmental organizations are usually set up to put in place appropriate rules to reduce pollution. In the case of the second type of intervention, governments influence market performance and external duties by imposing a tax and subsidy system. In both cases, i.e., the introduction of pollution exchange licenses and Pigo-type taxes to internalize external duties.

In the second case, no serious action has been taken so far in Iran regarding environmental issues. In the economic literature, taxation is done for monetization, policy-making, redistribution, etc. Still, since all taxes have allocative and distributive effects, economists seek to identify the tax bases that cause the least inefficiency in the country's economy. One of the tax bases that has these characteristics is the environmental tax base. This tax base is imposed on the pollution imposed on the country's environment, which in addition to economic inefficiency leads to the strengthening of social benefits, which in the Iranian economy concerning the program of this type of tax has not been fully implemented in the Iranian economy (Ghovati Sefidsangi et al., 2017).

 $\label{eq:Table 2} \label{eq:Table 2}$  Number of materials and notes related to the environment in development programs

Plan	period	Article	Paragraph
First	1990-1994	_	1
Second	1996-2000	_	3
Third	2001–2005	2 legal articles and 7 related articles	-
Fourth	2006–2010	32 (16 direct articles + 16 related articles)	1
Fifth	2011–2015	4 legal articles with 13 topics and 13 related environmental articles in	9
		other program materials	

These two issues are the uncontrolled expansion of the government and a significant amount of ownership. The other is the international and regional environmental issues resulting from the economic and political functions and decisions of the region's governments and the world. On the first issue, the existence of macro-government management and a significant amount of government enterprises in the economy has inevitably become a major challenge in the Iranian economy. In this way (apart from other areas), this can create serious risks, at least in the field of environment. Therefore, solving the above problem, in turn, requires solutions that lead to structural reforms in the economy and minimize the negative consequences of government management in the field of economy and environment. These policies should strengthen the sovereignty and control of the government

while reducing the scope and sphere of government management in economic affairs. Given the significant volume of government presence in the economy and the subsequent significant contribution to the production of pollution and at the same time having the responsibility and management of the Environmental Protection Organization, it seems in the field of environmental pollution agency, and work supervision in an institution (Government) is centralized and does not have the necessary function. Therefore, while strengthening the supervisory and controlling role of the government in the field of environment, the volume of government ownership in the field of economy, which is done in the form of investment and management in economic units, should be minimized (Izadi, 2014).

This, as mentioned, requires structural reform, in other words, a re-engineering of the economic structure of the government. Structural reforms require a national attitude and beyond the authority of the current environmental authorities. In the international arena, along with political diplomacy, the actuality of environmental diplomacy in the world, especially in the region, is necessary to survive intergenerational rights. It seems that its existence was necessary for general environmental policies, but responsible institutions must implement this important task.

But the implementation of environmental programs in Iran also depends on the resources available, expertise, technology status, and compliance by the general public. As in some materials of developed programs, the government has tried in various stages to solve the beliefs and opinions of the people through a bureaucratic system, the possibility of the effectiveness of these policies is very small and promote the culture of education, and endogenous attention to environmental issues need With tact and prudence in all matters and economic, social and political activities in a special way. In general, considering the problems and indicators of air pollution, especially in large cities, reduction of water resources, soil erosion, pastures and forests, and surface and groundwater pollution, we can say that the success of programs and effectiveness in Iran should be considered. Of course, examining the role of programs in reducing environmental hazards requires a comprehensive and separate study. From the planning point of view and the theoretical point of view, positive developments coincided with the developments in the world in the development programs, so that the third development plan of the country was designed in the field of a good environment and the fourth development plan was very well designed. The fourth program is very little evaluated. The reasons for non-achievement of goals, partisanship, and lack of coordinated communication between executive bodies, low awareness of officials and policy makers in the field of environment, lack of priority of the environment over other programs, lack of expertise and facilities, and weak management have been stated. This indicates considerable gaps between the formulation of the program law and its implementation (Hashemabadi, 2015).

#### 6. Conclusion

With the introduction of environmental economics literature into human activities, the production inputs in each production process were extended to capital, labor, land and natural raw materials, opportunity costs, and external costs. To this end, understanding the "nature tolerance threshold" has become very important in economics. It is necessary to know to what extent nature can tolerate the effects of human productive activities and provide the necessary inputs for it. With this interpretation,

the limitations of growth and development in economics are discussed. Governments can act in the field of environmental economics in two ways. The first is regulatory policies in the form of laws, one of which can be development program laws, and the second is marketbased policies that motivate the private sector to solve the problem of external taxes. In the first case, governments usually enter the economy to establish appropriate rules to reduce pollution. In this regard, the issue of environmental economics in general and the use of economic tools to protect the environment, in particular, do not have a long history in our country. Still, occasionally, there are provisions in the country's development programs that use economic mechanisms and incentives to protect the environment., Emphasize. The purpose of this article is to investigate this issue.

Evaluation of development programs can be examined from three perspectives. One is in terms of the number of environmental studies in the letters, and the second is quality and scientific approaches to the programs and the ultimate effectiveness. In general, postrevolutionary development programs have grown rapidly in terms of policy setting, movement framework, and the number of sentences. From 104 sentences in the first development plan, it has increased to 1114 sentences in the fifth development plan. Also, from the point of view of notes, it has increased from 101 notes in the same period to 192 notes in the Fifth Development Plan. From an environmental point of view, it is also useful to look at the materials of development programs. Since the first development plan, more provisions have been included quantitatively in the program rules on the environment. So that from one note in the first development plan (note 13), the number of materials has reached 32 and one note in the fourth development plan and 17 articles and 9 notes in the fifth development plan. In the Sixth Development Plan, the number of general environmental policies has reached 15. Some policies, such as general policy 8 and 15, have included 6 general policies, and quantitatively, we can say 19 general policies for the environment in Considered.

There have been two major problems in managing and organizing the environment in all development programs. These two issues have continued to exist and expand despite the progress in theoretical discussions in the world, and at the same time, the qualitative deepening of the provisions of the program laws, especially since the Third Development Plan, and have imposed great costs on Iran. These two issues are the uncontrolled expansion of the government and a significant amount of ownership, and the other is the international and regional environmental issues resulting from the functions and economic and political decisions of the governments of the region and the world. Regarding the first issue, it should be noted that it is outside the institutional structure seen for environmental affairs (Environmental Protection Organization) and requires national determination. In the

second case, environmental diplomacy must be active at the same time as political diplomacy. They did not have much success with these two functions of development programs and society. Because from a historical point of view, Iran's economy was self-sufficient in food until 1970 and exported its surplus to neighboring countries. Today, due to the expansion of the economy and urbanization, and other issues, not only is it not selfsufficient, but there is a compelling reason to rely on food imports. Iran is currently trading its natural resources for food imports. At present, the country relies heavily on plant pesticides to control agricultural pests. The use of these pesticides in eradicating plant pests and weeds and increasing agricultural production has been successful, but the main problems are the increasing and indiscriminate use of these pesticides in crop production for the environment that most farmers have not paid attention to. The decline in agricultural productivity in Iran and the strong dependence on food imports is largely due to chemical fertilizers that have burned shallow soils. Therefore, in addition to reducing crop efficiency, the use of soil nutrients has upset the balance of soil nutrients and caused groundwater pollution. The main source of water and land pollution is industrial waste dumped in rivers and lakes, which has led to two major problems following river pollution. One is to create problems for aquatic and terrestrial organisms in swamps at the bottom of rivers. The other is to create health hazards through pollution of groundwater around rivers and the consumption of drinking water and household consumption by river dwellers due to high customs tariffs for new mid-range imported cars, high pricing of domestically produced cars, worn-out cars in the economy, substandard energy carriers, high urban density, lack of necessary public transport infrastructure, and nonimplementation Some laws, etc. The air in most big cities is polluted and critical. Desertification, deforestation, uncultivated grazing, loss of land vegetation, dryland cultivation on hill slopes, improper use of agricultural land, and poor land management by the government have led to widespread soil erosion in Iran.

This evidence shows that despite the proliferation of materials and provisions in development programs on environmental control and protection, its effectiveness has been very low given the main objectives of the economy, namely favorable economic growth. In other words, the government has not provided a suitable platform and opportunity for environmental protection through development programs. Also, the kind of view to create the belief of the people of the society to prevent the destruction of the environment has been more of a firm view in the program, and in this respect, it has not been very successful.

#### References

Allan, J. A. (2005). Water in the environment/socio-economic development discourse: sustainability, changing management

- paradigms and policy responses in a global system. *Government and Opposition*, 40(2), 181–199. doi: https://doi.org/10.1111/j.1477-7053.2005.00149.x
- Avdeeva, E. A., Averina, T. A., Davydova, T. E., & Zhutaeva, E. N. (2020). Automation of Russian industry as an indispensable condition for sustainable economic development in the digital environment. *In IOP Conference Series: Materials Science and Engineering* (Vol. 862, No. 4, p. 042041). IOP Publishing. doi: https://doi.org/10.1088/1757-899X/862/4/042041
- Amirnekooei, K., Ardehali, M. M., & Sadri, A. (2012). Integrated resource planning for Iran: Development of reference energy system, forecast, and long-term energy-environment plan. *Energy*, 46(1), 374–385. doi: https://doi.org/10.1016/j.energy.2012.08.013
- Brock, W. A., & Taylor, M. S. (2005). Economic growth and the environment: a review of theory and empirics. *Handbook of economic growth*, 1, 1749–1821. doi: https://doi.org/10.1016/S1574-0684(05)01028-2
- Banakar, R., & Ziaee, K. (2018). The life of the law in the Islamic Republic of Iran. *Iranian Studies*, *51*(5), 717–746. doi: https://doi.org/10.1080/00210862.2018.1467266
- Dasgupta, P., & Chaudhuri, C. (2020). Environment and economic development: An analysis of electricity demand projections for India. *In Accelerators of India's Growth–Industry, Trade and Employment* (pp. 85–104). Springer, Singapore. doi: https://doi.org/10.1007/978-981-32-9397-7 5
- Dzwigol, H., Dzwigol-Barosz, M., & Kwilinski, A. (2020). Formation of Global Competitive Enterprise Environment Based on Industry 4.0 Concept. *International Journal of Entrepreneurship*, 24(1), 1–5.
- Retrieved from https://www.abacademies.org/articles/formationof-global-competitive-enterprise-environment-based-onindustry-40-concept-9079.html
- Ekins, P. (1997). The Kuznets curve for the environment and economic growth: examining the evidence. *Environment and planninga*, 29(5), 805–830. doi: https://doi.org/10.1068/a290805
- Engel, J. R., & Engel, J. G. (1990). Ethics of environment and development. Tucson: University of Arizona Press. Retrieved from https://cmc.marmot.org/Record/.b16176194
- Fase, M. M., & Abma, R. C. N. (2003). Financial environment and economic growth in selected Asian countries. *Journal* of Asian economics, 14(1), 11–21. doi: https://doi.org/ 10.1016/S1049-0078(02)00237-3
- Gibbs, D. (2005). Local economic development and the environment. London: Routledge. doi: https://doi.org/ 10.4324/9780203994429
- Gwartney, J. D., Lawson, R. A., & Holcombe, R. G. (1999). Economic freedom and the environment for economic growth. *Journal of Institutional and Theoretical Economics* (*JITE*)/Zeitschrift für die gesamte Staatswissenschaft, 155(4), 643–663. Retrieved from https://www.jstor.org/stable/40752161
- Ghalibaf, M. B., Etaat, J., Mohammadi, H., & Moussavi, Z. (2017). The Development Programs in Iran and the Environmental Problems of Urmia Lake. *Research Political Geography Quarterly*, 2(1), 1–29. doi: https://doi.org/10.14207/ejsd.2014.v3n3p219
- Ghovati Sefidsangi, A., Farashiyani, H., & Hasan Zadeh Choocanlu, H. (2017). Reflections of Social Development in Fivefold Project Law about Economy, Social and Cultural in Islamic Republic Iran from 1989–2015.

- Quarterly Journal of Social Development (Previously Human Development), 12(1), 151–184. doi: https://dx.doi.org/10.22055/qjsd.2017.13052
- Hufschmidt, M. M., James, D. E., Meister, A. D., Bower, B. T., & Dixon, J. A. (1983). Environment, natural systems, and development: an economic valuation guide. Johns Hopkins University Press, Baltimore. Retrieved from https://www.osti. gov/biblio/6702119-environment-natural-systemsdevelopment-economic-valuation-guide
- Hashemabadi, A. G. (2015). Ranking and determination of Iran status in the Middle East region on the development indicator of tourism during the development plan with Topsis method. *Journal of Economic Development, Management, IT, Finance & Marketing, 7*(2). Retrieved from https://www.semanticscholar.org/paper/Ranking-and-determination-of-Iran-status-in-the-on-Hashemabadi/ 346a7a82d1f02f3ccda6479340368741129a5e82
- Hamzehlou, S., & Hamzehlou, S. (2014). Assessment of the Laws and Regulations Regarding to Housing Indicators in Iran. *Journal of Civil Engineering and Urbanism*, 4(3), 328–332. Retrieved from http://www.ojceu.com/main/ attachments/article/32/J.%20Civil%20Eng.%20Urban.,%2 04%20(3)%20328-332,%202014.pdf
- Hosseini, F. S., Azad Armaki, T., Bahar, M., & Azari, H. (2020). Semantic Transformation of the Family in the Documents of the Economic, Social and Cultural Development Law of the Islamic Republic of Iran. *Quarterly of Social Studies and Research in Iran*, 9(2), 449–474. doi: https://dx.doi.org/10.22059/jisr.2020.285560.903
- Ibrahim, M. D., & Alola, A. A. (2020). Integrated analysis of energy-economic development-environmental sustainability nexus: Case study of MENA countries. *Science of the Total Environment*, 737, 139768. doi: https://doi.org/10.1016/ j.scitotenv.2020.139768
- Izadi, A. (2014). Economic sanctions against the Islamic Republic of Iran From the human rights perspective. Retrieved from https://eujournal.org/index.php/esj/article/view/4136.
- Jones, C. I., & Vollrath, D. (2013). Introduction to Economic Growth. WW Norton&Company. Inc. New York, NY. Retrieved from https://wwnorton.co.uk/books/ 9780393920789-introduction-to-economic-growth
- Janicke, M., & Jacob, K. (2013). *A third industrial revolution*. Long-term governance for social-ecological change.
- Khodayari-Zarnaq, R., Kabiri, N., & Alizadeh, G. (2020). Health in first to sixth economic, social, and cultural development plans of Iran: A document analysis. *Journal of Research and Health*, *10*(1), 1–10. doi: https://doi.org/10.32598/JRH.10.1.1
- Khaksari, A., Lee, T. J., & Lee, C. K. (2014). Religious perceptions and hegemony on tourism development: The case of the Islamic Republic of Iran. *International Journal* of *Tourism Research*, 16(1), 97–103. doi: https://doi.org/ 10.1002/jtr.1917
- Li, Z., Wei, G., Wang, R., Wu, J., Wei, C., & Wei, Y. (2020). EDAS method for multiple attribute group decision making under q-rung orthopair fuzzy environment. *Technological* and *Economic Development of Economy*, 26(1), 86–102. doi: https://doi.org/10.3846/tede.2019.11333
- Mahdavi, M., & Sajadi, H. S. (2021). Qualitative analysis of Iranian sixth five-year economic, social, and cultural development plan from universal health coverage perspective. *BMC Health Services Research*, *21*(1), 1–9. doi: https://doi.org/10.1186/s12913-021-06985-1

- Moghaddam, A. V., Damari, B., Alikhani, S., Salarianzedeh, M.
  H., Rostamigooran, N., Delavari, A., & Larijani, B. (2013).
  Health in the 5th 5-years Development Plan of Iran: main challenges, general policies and strategies. *Iranian journal of public health*, 42(Supple1), 42. Retrieved from https://ijph.tums.ac.ir/index.php/ijph/article/view/4704
- Nourabadi, S., & Nejad, M. S. (2018). Analysis of Interdisciplinary Criteria for the Higher Education Curriculum in Upstream Documents and Five-Year Economic, Social and Cultural Development Programs of the Islamic Republic of Iran. *Revista Publicando*, *5*(2). Retrieved from https://ijph.tums.ac.ir/index.php/ijph/article/view/4704
- Portney, K. E. (2013). Taking sustainable cities seriously: Economic development, the environment, and quality of life in American cities. MIT Press. Retrieved from https://www.amazon.com/Taking-Sustainable-Cities-Seriously-Environmental/dp/0262518279
- Panayotou, T. (1993). Empirical tests and policy analysis of environmental degradation at different stages of economic development (No. 992927783402676). International Labour Organization. Retrieved from https://www.ilo.org/public/libdoc/ilo/1993/93B09 31 engl.pdf
- Prasad, B. C. (2003). Institutional economics and economic development: the theory of property rights, economic development, good governance and the environment. *International Journal of Social Economics*, *30*(6), 741–762. doi: https://doi.org/10.1108/03068290310474120
- Peng, J. J., Tian, C., Zhang, W. Y., Zhang, S., & Wang, J. Q. (2020). An integrated multi-criteria decision-making framework for sustainable supplier selection under picture fuzzy environment. *Technological and Economic Development of Economy*, 26(3), 573–598. doi: https://doi.org/10.3846/tede.2020.12110
- Perrings, C. (1987). *Economy and environment*. Cambridge Books. doi: https://doi.org/10.1017/CBO9780511664465
- Rodrigue, J. P., & Notteboom, T. (2020). 3.1-Transportation and economic development. The Geography of Transport Systems. New York: Routledge. doi: https://doi.org/ 10.4324/9780429346323-1
- Raza, M. Y., & Shah, M. T. S. (2020). Analysis of coal-related energy consumption in Pakistan: an alternative energy resource to fuel economic development. *Environment, Development and Sustainability*, 22(7), 6149–6170. doi: https://doi.org/10.1007/s10668-019-00468-4
- Shi, T., Yang, S., Zhang, W., & Zhou, Q. (2020). Coupling coordination degree measurement and spatiotemporal heterogeneity between economic development and ecological environment. Empirical evidence from tropical and subtropical regions of China. *Journal of Cleaner Production*, 244, 118739. doi: https://doi.org/10.1016/j.jclepro.2019.118739
- Siwar, C., Huda, N., & Hamid, A. (2009). *Trade, economic development and environment: Malaysian experience. The Bangladesh Development Studies, Bangladesh Institute of Development Studies (BIDS)*, 32(3), 19–39. Retrieved from https://ideas.repec.org/a/ris/badest/0484.html
- Zekavat, S. M. (1997). The state of the environment in Iran. *Journal of developing societies*, 13(1), 49–72. doi: https://doi.org/10.1163/9789004475076 005