

## STUDY OF THE EFFECT OF ECONOMY ON ENVIRONMENTAL SECURITY

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**Abstract.** Given that the "growth-oriented economic model", on the one hand, relying on more consumerism, has extensively attempted to destroy non-renewable resources and, on the other hand, by turning these resources into hazardous and voluminous materials, threatens the environment of mankind, as a result, environmental security", this research has tried to test the effect of adopting a growth-oriented economy model (independent variable) on environmental security (dependent variable) through a descriptive-explanatory method, using library materials and reports from environmental institutions. For this purpose, firstly, by examining several capitalist economics schools as well as Fordist and post-Fordist economies, the mass production and consumption indicator was extracted as the most important and most prominent indicator of the growth-oriented economy. In order to operate this index, the status of production and consumption of various products and services was studied in three parts of industry, agriculture and services, and it was found that during the period of approximately 50 years and ending to 2012, the rate of production and consumption of selected products and services has grown dramatically and far more than the population growth rate. On the other side of this equation, the environmental situation has become critical over this period. In order to study the environmental situation, the two indicators of "environmental footprint" and "bio-capacity" as well as "environmental performance index" are based. The hypothesis was tested and, according to the documentation provided, it has been proved that adopting a growth-oriented economy model has caused extensive environmental degradation and endangering environmental security, and therefore the hypothesis is confirmed.

**Introduction.** The environmental crises and fears of the future of humanity have put a lot of questions to the scholars. Is the environment at risk of destruction? What is the relationship between economic growth and the environment? And basically what is the cause(s) of environmental issues and problems? The environment as a set of living and inanimate elements of the planet, which have mutual are complex relationships, are influenced by issues such as population, consumption, use of resources, pollution, etc. By promoting the world standards of living as a means of development, more and more people in the world are always seeking to achieve these standards, and obviously achieving them lead to use more resources and exacerbating environmental problems such as soil erosion, forest degradation, the loss of the ozone layer and so on. In this way, the link between economic growth and the environment is detected. Economists have assumed that natural resources are unlimited. In the West, neoliberal school and pro-economists often have explicit ideas about this. They believe that technological advances will solve all the problems caused by scarcity of natural resources. There on er roo torhonrerer n nt ein eh nreooetrerer rtn onoroenrere re rtn iorirt t rt rtn eron in hh rrtn t nn rn iorirt ee cnrrno To a oin e o nro nnnano rn nreereen iorirt r oeeian iarc a e o nr i eaa cn rtn ehn a or rn rn rtn nreerer rtnt on n ronon toe reo rerer eh nonn ro hn rrtn en eo rn nreereen acno rerer rtn naeeee rere rn c ooenoo rr n ter a rooereno " c onh re rtn Comprative **Advantagetrnr** r eh a oenrr ee rtn eerorhonrere rr teo crr r "inraecno aeoea T yoenn " ent na eeo rt r cr rtneeei aeorrn" nreochnoo enraecno aeoeer ee rtn neoor ta nnr rtntor rn to nrenno ee traeren a nreeren it rtn i r nro rtn on aeo rere rn nerontonenoe a nonnhreo eh eeheeeho a o eaaoo ee rtn eeorerore a no eniro r tro nn roono eocnee i rn toe-eenaohn tri nonoa toe m tortnr oeitror nonn e o nro eh nonn ro hnr eh n e crror rtn inaaIn this way, the central axis of neoliberalism's thought is emphasis on individual freedoms, and focusing on the concept that people like Friedrich August von Hayek and Milton Friedman are trying to theoretically re-construct a liberalism's thought. Neoliberalism in the field of political economy is a response to the economy based on John Maynard Keynes' views and the theory of welfare state. With this introduction, a general outline of the theory of neoliberalism can be illustrated with regard to the two concepts of the individual and the state and with regard to the role of the market. This intellectual process, in view to the individual, is committed to the ideals of personal liberty (freedom of speech, private property rights, and free competition).

**Problem statement.** In neoliberal theory, the government, based on what David Harvey's book suggests, is an institution that must protect individual and legal freedoms such as strong individual private property rights, domination of law, institutions related to the free performance of the market and free trade. In pursuit of these goals, special policies are proposed by neoliberal economists for economic prosperity, the main direction of which is the liberalization, privatization and reduction of state affairs. The set of policies, sometimes referred to as moderation policies, includes privatization, trade liberalization, capital flow liberalization, reduction of public responsibilities for public welfare, the adoption of flexible labor market rules, the guarantee of a competitive free market and private ownership by the state. It is on the basis of the notion that you do not need to deal with the environmental problems encountered in public policy; because, the market is fixing these issues. For example, as oil prices rise, other energy sources like solar energy, which are already expensive, are becoming more competitive and more consumable.

After nearly two decades of observation, analysis, vigorous political debates, and the assessment of environmental degradation, it has now become clear that there is no longer a balance between economic growth and measures to ensure environmental sustainability (Stiglitz, 2016: 277), and although, according to Warwick E Murray, in the book "Geography of Globalization": Despite the fact that four-fifths of the world's population lives in Third World countries, consumption in terms of size is much higher in the West than these countries (Murray, 2015: 418), but developing countries stepping into the same path of the developed countries, have increased their contribution to resource consumption and pollution production. In the past 25 years, East Asian revenues grew by 5% per year, poverty declined sharply - between 50% and 70% in Indonesia, Malaysia and Thailand (Johansen, 2015) - but environmental degradation (pollution, traffic, deforestation and biodiversity loss) In all parts of the world, outpaced poverty. Approximately 20 percent of the vegetation cover in East Asia suffered from soil erosion, which is the result of flooding, erosion, and overgrowing of livestock. Bio-diversity in the 50 to 75 percent of coastal areas and protected marine areas is heavily endangered. In countries that began liberalization and grew rapidly in the 1980s, such as China, Malaysia and Thailand, carbon dioxide emissions tripled (Tamas, 2015: 205). In this research, the effect of economics on environmental security has been studied.

**The global governance of a growth-oriented economy.** The capitalist system continues to exist in the light of a growth-oriented economy, by manipulating the lifestyle of peoples and building consuming societies. The debate between Veblen and Bourdieu on consumption is the starting point for sociological discussion about consumption patterns. Veblen considers wealth in the modern world to be the basis of social honor and prestige and social base, according to him, the individual's financial strength is the basis of human fame in society, and if conspicuously displayed, it becomes a conspicuous leisure, but in the urbanization stage, it is the "conspicuous consumption" that serves the purpose of showing wealth, and this is where a phenomenon called "fashion" appears. (Ruling, 2010) and, among other things, luxury-orientation of women's and some leisure time activities of the rich lead to a lifestyle and a pattern of consumption (Corrigan, 2011: 21). Veblen, when discussing the emerging class in the United States, has been referred to a kind of lifestyle that is associated with "conspicuous consumption". According to Veblen, this class shows its wealth and assets through its dramatic lifestyle (Veblen, 2004). In Simmel's opinion, rebuilds his lost identity and escapes anonymity in metropolises, an urban man approaches in a way of life that comes with fashionism and consumption (Rabbani and Rastegar, 2008: 47). Max Weber also uses consumption more as a concept of lifestyle, and sees it along with education and work as a source of social status. (Weber, 1996 & Borocz, & Southworth, 1996). Douglas & Isherwood, 2013, contrary to Veblen, who thought that eye and of was the source of modern consumption, and contrary to Simmel, who believed that differentiating from others (by fashion) was a stimulant for consumption, stabilization of cultural categories was a stimulant of consumption, and on that basis, he considers any commodity as a non-verbal medium, and more importantly that the formation of consumer preferences for different commodities depends on the amount of information that each product sends. In this way, commodities are placed at the service of creating an understandable world for all. (Corrigan, 2011: 16

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<sup>1</sup>The butterfly effect in a famous statement suggests that the fluttering of a butterfly in New York will cause a storm in China.

<sup>2</sup>In this example, other consequences and aspects of this cycle have been ignored.

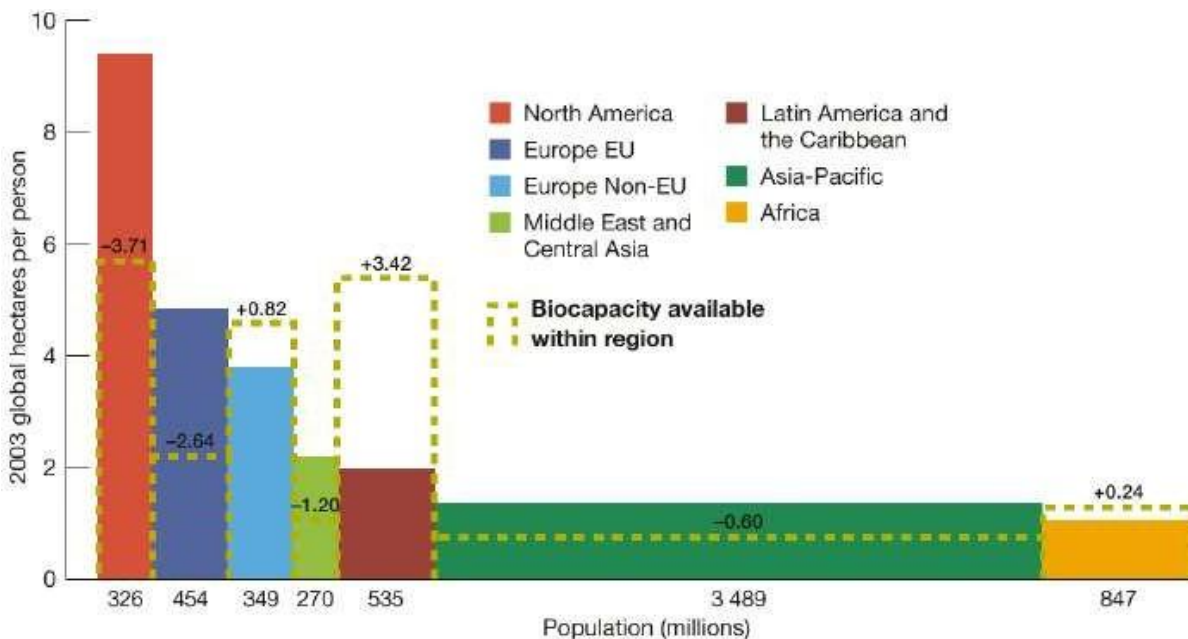
**Environmental footprint and bioaccumulation**

The ecological footprint index, in its general definition, refers to human perception and productivity of nature in six groups of agricultural land, grazing land, water zones, forests, built-up areas and carbon footprints, as well as wastes from the use of these resources. Biological capacity is another spatial scale that includes fertile soil, clean water, forests, and so on (Miller, 2011: 194-252). In fact, "biological capacity" is the measurement of the ecological capital stock of the earth. In fact, this indicator shows the ability of nature to meet human needs. If we want to show these two indicators in a simplified economic format, the supply and demand function is the best form in which the environmental footprint is in the demand side and biological capacity is in the supply side.

Another concept that emerges from these two indicators is the concept of environmental debtors and creditors who have a strong relationship with the economy. If, in a region, the environmental footprint exceeds the biological capacity, it means that harvesting from nature and the production of waste is greater than its capacity, and that area is owed to nature, and vice versa, if harvesting from natural resources is less than the capacity of nature, it is creditor of the nature. The link between the economic growth-driven model (mass production and consumption) with these two indicators is not so difficult. In fact, the consumption of natural resources and the production of waste caused by it over the past century has been so vast that the environmental footprint has surpassed the capacity of the environment and has been owed to the environment.

The regions of the world can be divided into environmental debtors and creditors. The regions of North America, Europe EU, Europe Non-EU, Middle East and Central Asia, Latin America and the Caribbean, and Africa are environmental debtors, meaning their environmental footprint exceeds their biological capacity. The regions of Asia-Pacific and South America are environmental creditors, meaning their biological capacity exceeds their environmental footprint.

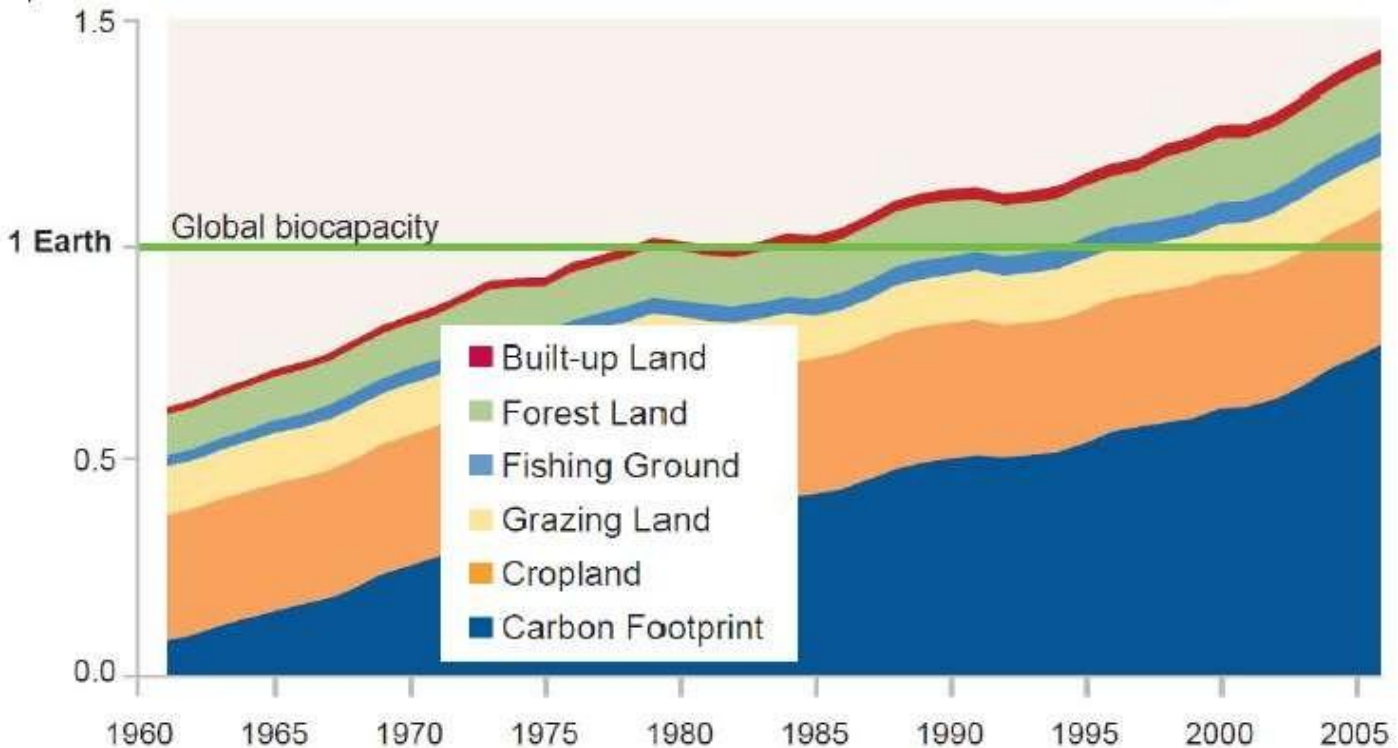
**Chart 1 : Biological Capacity of Regions**



Source: WWF, 2006

The rate of harvesting from the natural resources of the earth has been such that around 1980, the environmental footprint has been equaled with biological capacity, which means that the earth has needed one year to rebuild what has been harvested from it within the same year. This reconstruction period has reached one and a half years in 2006 (Chart 2) and is expected to reach about three years in 2050 (Chart 1). It takes three years for Earth to compensate all what have been deducted from it in one year. This is a terrible perspective on the effect of human activities on the environment.

Chart 2: The Human Environmental Footprint, 1961-2005



Source: <http://www.footprintnetwork.org/>

Chart 2 shows the human environmental footprint from 1961 to 2005. The footprint is measured in Earth equivalents (EE) and is composed of six categories: Carbon Footprint, Cropland, Grazing Land, Fishing Ground, Forest Land, and Built-up Land. The total footprint has increased from approximately 0.6 EE in 1961 to nearly 1.5 EE in 2005, significantly exceeding the global biocapacity of 1.0 EE. This indicates that humanity's demand for natural resources has surpassed the Earth's ability to regenerate them.

The increase in the human environmental footprint is primarily driven by the expansion of cropland and grazing land, which are used for agricultural production. This is largely due to the growing demand for animal products, particularly meat and dairy, which has led to a significant increase in livestock production. The expansion of cropland and grazing land has also led to the conversion of natural habitats, such as forests and wetlands, into agricultural land. This conversion has resulted in a loss of biodiversity and a reduction in the Earth's ability to provide ecosystem services. The carbon footprint, which is a result of the burning of fossil fuels, has also increased significantly over the period, contributing to climate change and global warming. The overall increase in the human environmental footprint is a clear indication of the unsustainable nature of current consumption patterns and the need for a transition to a more sustainable and equitable world.

allocation of agricultural land for livestock feed production (Rudel et al., 2011 ; Naylor et al., 2005). Putting the earth under the pressure for the production of livestock and agricultural products has grown dramatically since the 1960, so that the 1990s are called the Green Revolutionary Decade in Food Production. This pressure on the earth to produce food is apart from the pressure that the production of biofuels has put on it.

**Chart 4: Use of agricultural land and grazing land (by region) and global change between 1960 and 2010**

Source: www.unep.org

Greenhouse gas emissions from deforestation should not be ignored either. According to the FAO database (FAOSTAT), the change in forest use in Brazil over the period from 1990 to 2010 has emitted 25.8 billion tons of carbon dioxide. After Brazil, Indonesia with 13.1 billion tons, Nigeria with 3.8 billion tons, the Democratic Republic of Congo with 3 billion tons, and Venezuela with 2.6 billion tons have been the five top countries on the list. Also, according to the statistics of the same database, it is estimated that greenhouse gas net emissions from agricultural land to organic solid land have been expanded. Indonesia, with 5.6 billion tons of carbon dioxide emissions, is in first place, followed by the United States with 1.4 billion tons, Papua New Guinea, 816 million tons, Malaysia with 690 million tons, and Bangladesh with 612 million tons. The rate of the greenhouse gas emissions in Indonesia, Papua New Guinea, and Malaysia have been high due to the drainage and conversion of high paludal turbines. In the wake of these statistics, the human carbon footprint appears due to the destruction of forests.

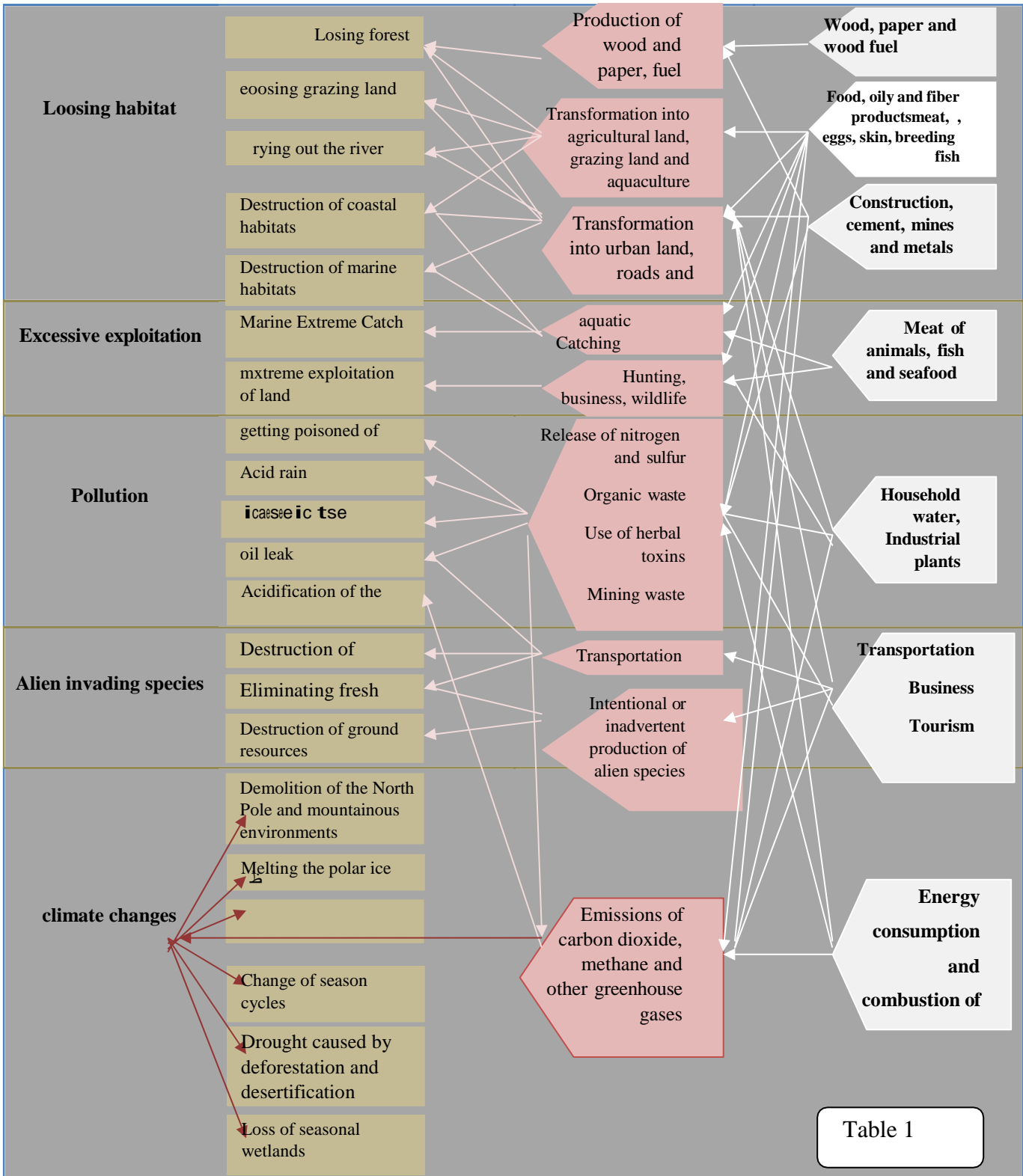
In total, Brazil with 25.8 billion tons and Indonesia with 18.7 billion tons had the largest share in greenhouse gas emissions due to land-use change. The sum of greenhouse gas emissions of these two countries over the 20-year period, which were examined by the FAO, has amounted to 134% of the current annual emissions of fossil fuels, or four and a half times the amount of greenhouse gas emissions in China in 2011. According to the results recent studies, deforestation contributes about 10% to the greenhouse gas emissions from human activities in the world. Agriculture and the degradation of diagonal lands with less percentages than deforestation are also among the other factors contributing to greenhouse gas emissions. Another example of deforestation to produce agricultural land:

In sum, although humanity's efforts to produce more food have reduced the number of hungry people and have improved the quality of life of many people, but they have had irreversible harms to the environment and have had bad effects on the quality of life. This is a contradiction that it can not scape from it.

Table 1, extracted from <http://www.footprintnetwork.org/>, has been attempting to illustrate the relationship between human activities and environmental threats in a framework similar to that of the ecological footprint. In this table, the environmental threats mentioned are: loss of habitat, over-exploitation, pollution, invasion of foreign species and climate changes. The origin of these threats is the loss of direct and indirect biodiversity due to human activities. The direct relationship between human activities and the emergence of threats means that with increasing or decreasing human activities, environmental threats also increase and decrease. Although this table has attempted to provide a complete and comprehensive picture of the effects of human activities on the environment, but it has defect due to the lack of a system approach and the lack of butterfly effect. In fact, this table has not paid attention to the destruction cycle. For example, Man attempting to produce more food has begun deforestation for land production; one of the effects of deforestation has been increasing greenhouse gas emissions, and in particular carbon dioxide gas, and subsequently influencing climate change, but this table has ignored the effect of deforestation on climate change.

In this section, we tested the effect of a growth-based economy on environmental security in the framework of the contrast between the two indicators of environmental footprint and bio-capacity. According to the documentation, the environmental footprint of humankind has increased dramatically due to the massive consumption of natural resources and the production of waste resulting from it over the past century, and in particular since the 1960s, so that, around the 1980, it equaled the Earth's bio-capacity, and after the date, has surpassed bio-capacity. Increasing human exploitation of land and reducing the ability of land to rebuild these harvests will endanger the environmental security and therefore, the research hypothesis is confirmed.

<b>Threats</b>	<b>direct loss of biodiversity</b>	<b>Indirect loss of biodiversity / human activities</b>	<b>Environmental footprint / consumption section</b>
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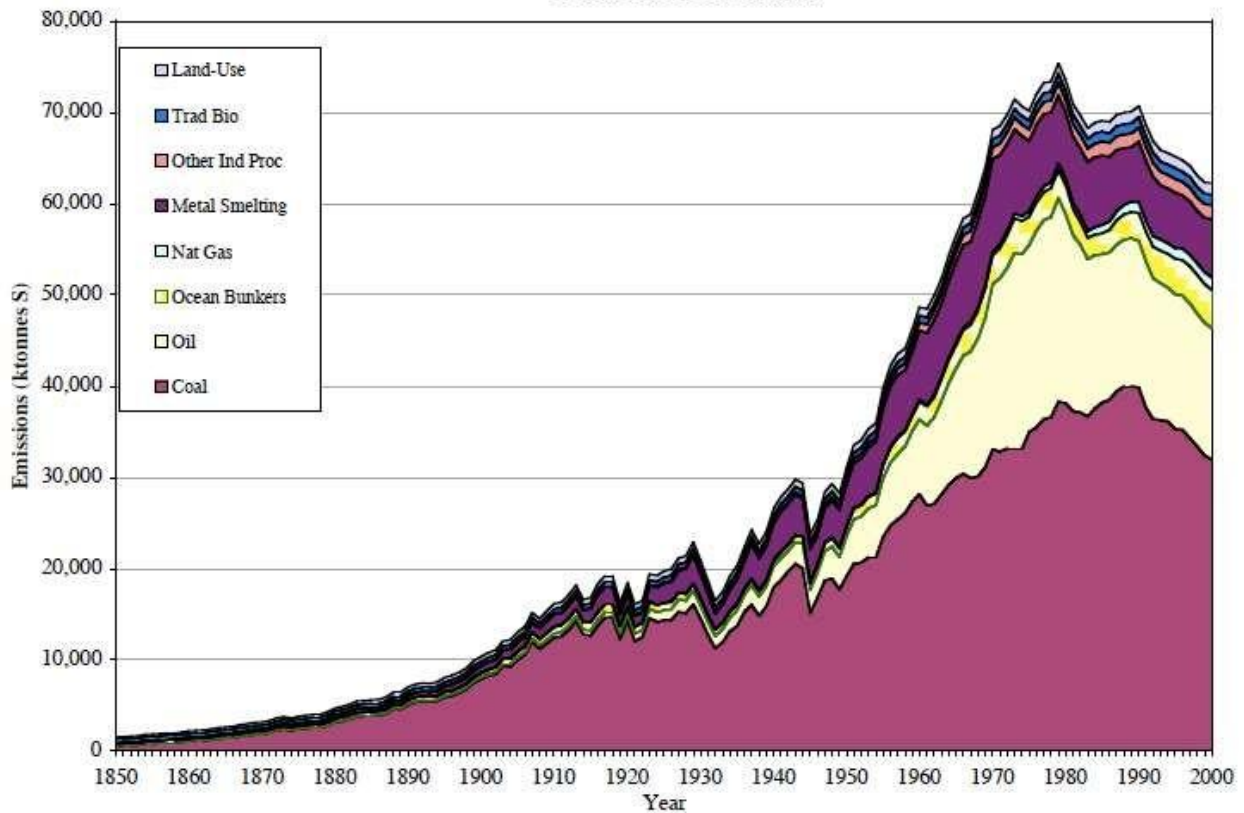




The chart shows a significant increase in global sulfur emissions from 1850 to 2000. The total emissions grew from near zero in 1850 to approximately 70,000 kilotonnes per year by 2000. The primary source of emissions throughout the period is coal, which accounts for the largest portion of the total. Other major contributors include oil, natural gas, and metal smelting. The emissions show a steady upward trend with some fluctuations, particularly a sharp increase starting around 1950.

Chart :6 Global Emission

Global Sulfur Emissions

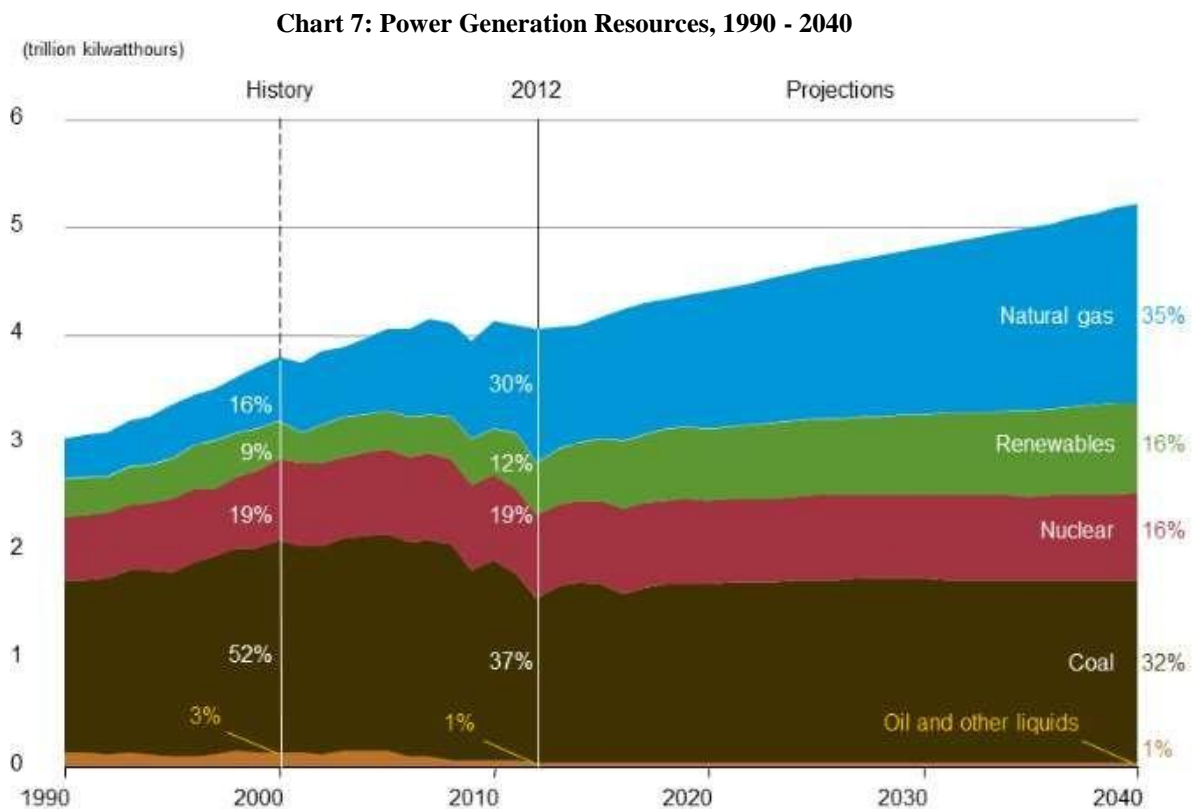


Source: <http://www.skepticalscience.com/>

According to the International Energy Agency (IEA), coal consumption has doubled in 2012 compared to the 1980. Also, oil consumption and natural gas consumption have become 1.4 times and 2.2 times respectively. Coal is still the most important source of electricity generation, and increasing and decreasing its consumption has a significant effect on the increase and reduction of sulfur dioxide. China is currently the largest consumer of coal, and it is not strange that it is at the peak of sulfur dioxide producers. The largest producers of coal are China, the United States, India, Indonesia, Australia and Russia. 37% of electricity generated in 2010 was due to coal combustion. The expansion of urbanization and the revolutionary prevalence of the use of electronic products have increased the need for electricity. Due to the lack of in

generating electricity from renewable sources and nuclear energy, the most important sources of power generation are fossil fuels, and in spite of all environmental friendly measures, the emission of sulfur dioxide from the combustion of these fuels has still continued.

The consumptions of fossil fuels should not be limited to electricity production, but the consumption of these fuels in the industries is also vital. Consider the steel case: its production is dependent on coal. About 70% of the world's total steel production is directly dependent on coal inputs. About a billion tons of coal in global steel production, which is about 14% of the total coal consumption, is used in world steel production. A look at the statistics on steel production better illustrates the volume of coal use. Steel production in 2011 was 7.6 times higher than in 1950. If coal consumption statistics are considered constant in the steel industry since 1950, coal consumption in this industry has become almost 8 times (even taking into account the productivities of the industry). There is now a clearer understanding of the amount of sulfur dioxide entering the atmosphere due to the growth of the steel industry.



Source: <http://www.eia.gov/>

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### Climate changes

As in the environmental footprint indicator, carbon footprint is the largest trace of humans in nature, carbon dioxide emissions also has an important place in environmental performance indicator. Carbon dioxide is produced from carbon and oxygen combination due to the combustion of coal and organic materials, respiration of humans and animals. The most important source of carbon dioxide is the combustion of fossil fuels. By increasing fossil fuel consumption, concentration in the atmosphere has also increased. Carbon dioxide is the most abundant greenhouse gas emissions in nature. This gas will



account for 77 percent of the greenhouse gas emissions that any change in its concentration will have a significant impact on climate change and global warming

Figure 5-4 highlights the most significant changes in greenhouse gas concentrations from 1990 to 2013. The concentration of carbon dioxide (CO<sub>2</sub>) has increased by 12.5 percent, methane (CH<sub>4</sub>) by 26.5 percent, nitrous oxide (N<sub>2</sub>O) by 17.5 percent, and fluorinated gases by 105 percent. The increase in CO<sub>2</sub> concentration is the most significant, and it is the primary driver of global warming. The increase in methane concentration is also significant, as methane is a potent greenhouse gas. The increase in nitrous oxide concentration is also significant, as nitrous oxide is a potent greenhouse gas. The increase in fluorinated gases concentration is also significant, as fluorinated gases are potent greenhouse gases.

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<sup>3</sup> Consider the consequences of global warming in Chart 5-4.

### Air pollution

Air pollution is another hazardous effect of gas emissions that occur mainly in large and densely populated cities. According to the Tehran University of Medical Sciences and Health Services, air pollution annually kills 3 million people, 90% of which occur in industrialized countries. The extremely high population density in urban centers, the high traffic of cars, the presence of polluting industries such as thermal power plants, cement and steel plants, etc. near the cities are of the factors for generating pollution. The US Environmental Protection Agency has categorized the major sources of air pollution as follows:

- 1- Transportation such as: ship, plane, train, car and ...
2. Combustion of fuel from static sources such as: power plants and ...
- 3- Industrial processes such as: steel, textile, paper plants and ...
4. Disposal of solid waste such as: burning waste in open space, sanitary landfill, and burning waste with waste incinerators and ...
5. Miscellaneous processes such as home activities like: the use of insecticides and cleaning insecticides and ...

### Biodiversity

The consequences of human manipulation in nature and deforestation have led to increased global warming and the loss of biodiversity. It has been proven that manpower production and consumption activities in a massive and planetary volume has led to a large influx of pollutants into the atmosphere and the emergence of the phenomenon of global warming and climate change. In addition, many measures have been taken to bring the massive amount of poisons and all kinds of waste into the seas and land and have made soil and water poisonous. These actions have resulted in damage to or limitation of the habitat of the living creatures, resulting in extinction or the exposed to extinction of many of them. In the meantime, animal hunting has also exacerbated the problems. The extinction of some animals that have played an important role in maintaining the ecosystem cycle has led to disrupt or collapse this cycle. The case of Sable is an interesting one. A species of this sable that was abundant in the Gulf of California, and its presence had a vital role in the gulf ecosystem, was hunted by the greed of hunters because of its scum, and the massacre began, so that with the destruction of the animal, a cold wind blowing on the California Gulf. "Only by forbidding hunting and discovering a small bunch at a far point that fled the campaign, life gradually returned to the Gulf.

Biological and animal diversity in Amazon and tropical forests has also been considered. Maintaining Amazon is essential to maintaining the biodiversity of the Earth. The area is a habitat to all the species of flora and fauna known on the planet.

Scientists estimate that Amazon has 40,000 plant species, 427 mammal species, 1294 bird species, 378 reptile species, 427 amphibians and 3,000 fish species. We have lost 30% of the biodiversity of the planet in 40 years, and in the tropics, we have had a decrease of 60% in biodiversity.

### reli odoin

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In 1987, the United Nations issued a global agreement to halt the production, sale and distribution of CFCs. This agreement is known as the Montreal Convention or the Montreal Protocol. EU countries have taken steps to protect the ozone layer beyond the requirements of the Montreal Agreement. Under the agreement, the production of CFCs was stopped and new compounds called hydrotarornaororn ocreo (HCFCs) were created and their use was limited to a certain level. One of the differences of these compounds with CFCs is that in these compounds, hydrogen has replaced chlorine and fluorine. The most familiar HCFC is HCFC 22, which is used for air conditioning in many homes. The hydrogen atom, by attacking hydroxyl, makes a molecule and so, a big part of the HCFCs are destroyed before they reach the stratosphere. But some of the molecules reach the stratosphere, which causes much less damage to the ozone layer than CFCs.

### Consumerism and waste production

The vast efforts made by producers to produce and consumers to consume have shown themselves in other face beyond the deceptive appearance of bright lights of Wal-Mart, stylish clothes, luxury cars and skyscrapers: Waste. We have a lot of waste around us, and by neglecting the consequences of waste-making, we are buying, consuming and earning prestige in an glamorous eye and ocular race. Construction waste, electronic waste, nylon bags, etc. has become the dominant but invisible aspect of our modern and consuming life. The consumption we came up with was not due to the core function of the product, but in Bourdieu's opinion, to obtain social dignity and base, or in Veblen's opinion, to obtain identity and to flee from anonymity in metropolises. It is in metropolises that fashion and fashionism become a means of obtaining lost identity and then spread to other places in a cultural diffusion system. In the modern world (pseudo-modern in Iran), consumption loses its instrumental value and changes into the ultimate value to the extent that Weber calls it life style. Modern lifestyle is a mass consumption lifestyle, and it is just at this point that the category of consumption and the category of pollution are tied.

There is pollution and waste before and after each consumption. When we get on a passenger plane to enjoy a comfortable trip, we need to know that there is pollution in producing and using it. When we open a bag of chips and enjoy the contents of it, when we let the TV to watch our favorite series or when in a chain store, we fill our basket with a variety of products, we need to know that for the production of these products, whether soil has been poisonous, air has been polluted, rivers has been dried up, or we might have helped the extinction of a bird in the Amazon. We need to know that we have been contributing to the mass consumption of many products in the production of billions of tons of waste, and we need to know that more and more consumption is not led to just social prestige and dignity, but more pollution and more waste is as its consequences.

The case of electronic waste points to danger better. 60 elements out of the elements of the periodic table can be found in these waste. For example, only a personal computer screen contains a typical cathode ray tube that has many toxic substances, including cadmium. Cadmium is highly toxic and dangerous to the environment and humans, and can have a negative effect on the functioning of the kidneys and bones. Also, the use of strong acids for recycling precious metals such as gold in electronic capacitors and amplifiers, polyvinyl chloride from plastic coatings and cables, toxic elements such as lead, palladium and mercury in electrical boards and circuits, lead oxide and cadmium in computer batteries cause these dangerous elements enter the bio-cycle and cause a lot of damage to the environment and to humans.

If we ignore the pollution caused by the mass production and consumption of these products, we still have the risk of waste of these products. According to a new report, it is predicted by 2017, the weight of global volumes of refrigerators,

televisions, mobile phones, computers, dropped screens and other electronic waste reach 200 times of the weight of the Empire State Building<sup>4</sup> in New York. The study, based on data gathered by the organizations associated with UN, governments and scientific and non-governmental organizations, was conducted in a cooperation under title of "Solving Electronic Trash Problem (SETP)," and predicts that the production of electronic waste in the next five years will increase one third of the current level, that China and the United States will be key contributors to this increase.

<sup>4</sup>The 102-storey commercial tower in New York's Manhattan neighborhood which has become one of the city's symbols. According to the world's electronic waste map, the United States and China produce the largest amount of such waste among the countries of the world. It analyzes the status of 184 countries in the world, and estimates the amount of electrical and electronic devices that launch the market and, as a result, the amount of waste that will be produced. This data will help governments and companies manage the amount of electronic waste. Last year, 54 million tonnes of electronic devices were thrown away in the world. That means an average of about 20 kilograms of electronic waste have been generated per person of the 7 billion people living on the earth. However, according to the STEP, it will increase by 33 percent and reach 72 million tons (65 million metric tons) in 2017.

The following graphics, extracted from the United Nations Environment Program website, known as the Great Acceleration after World War II, provide a comprehensive picture of population size, resource consumption, and pollution generation in different ages. This graph shows that the beginning of the Great Acceleration has been since 1960, and an accurate look at it, shows that, over a period of 50 years, from 1960 to 2010, on the one hand a human population of billions of people, water harvesting based on a thousand square kilometers, global consumption of oil, forest level, and total minerals consumption based on gigatons have been dramatically increased, and carbon dioxide emissions, methane gas emissions, and air temperature have risen sharply, on the other hand. An interesting case verifying the finding of the study, to which this graphic has referred, is the 35,000 deaths from the heat wave of Europe in 2005 which has displayed falling in jeopardy of the security of the environment well.

#### **Summary and Conclusion :**

The transformation in the concept of security is one of the changes that have taken place in the field of international relations. The end of the bipolar era, the revolution in the field of communication and information technology, globalization and many other developments required a revision of the concept of security. By the minds of thinkers like Richard Ulman and Barry Bowman, the concept of security is separated from the narrow-minded and state-centered national security framework, and has been proposed in a wider arena which is human security. In the human security approach, it is not the only governments that are considered to be the security reference, but because of the diversity and numerous security threats, this authority has been extended to all human beings, as well as to the transnational and national groups and organizations. Narrow Security and Broadband Security are two schools that have come from within this evolution. In the Narrow school, the focus is on traditional security threats, such as landmines, small arms, violence, and disputes, and so on, but in the Broadband school of thought, it is not only insecure due to internal and external military threats, but also cases and Civilian issues are equally threatened as a threat to their security. Broadband school theorists emphasize issues and civilian issues more than military issues and issues relative to civilian issues and threats. Because it considers the scope and consequences of its irreparable consequences far more than direct military threats. Hence, they give more important to issues such as environmental security, food security, personal security, health security, economic security and political security than military security.

Environmental security is one of the key concepts of human security that has been the focus of attention of the theorists of this approach. The extension of environmental threats such as global warming and climate change, getting poisoned soil and air, Ozone layer hole enlargement, etc., and endangering human life on Earth, have forced the thinkers to contemplate and search for the cause of these threats. Many consider the human economic and consuming behaviors, which has no boundaries in enjoying natural resources, to be effective in emerging these threats. The adoption of a growth-oriented economy model characterized by mass production and consumption, on the one hand, has economic welfare, poverty reduction and reduction of hungers, or in a better expression, improving the quality of life, but at the same time and in a totally contradictory process, this economic method has led to widespread environmental threats and lowered the quality of life.

Some believe that the growth of the world's population (especially in less developed regions), and consequently, higher consuming demand, has exacerbated environmental threats, but many studies have shown that the production of pollution in the underdeveloped regions of the world, which has also experienced a high population growth, is much less than imagined, and the major consumption of resources and pollution production is dedicated to industrialized and developed areas. The findings of this research show that the more harvesting of land resources and the production and consumption of goods and services have grown, in parallel, the more expansion of environmental threats.

Developmental policies in the form of a growth-oriented economic model that is known as unsustainable development has caused an imbalance in the bio world. Either in Bourdieu's opinion, we consider human greed to consume to obtain the

social dignity, or in Veblen's opinion, to escape from the anonymity of big cities, or any other interpretation, has led to a catastrophic result. In the corner of the world, some regions go under water by the flood, and in other corner, drought and famine cause a lot of deaths. In a corner, the insect attacks destroy agricultural products, and acid rain falls in the other corner. These environmental threats, along with a host of other environmental hazards, endanger human life and safety. In our own country, we are watching the drying of the lakes and we have to wait for the salt storms caused by the drying of Lake Urmia. The levels of aquifers have fallen sharply and we have faced the water crisis. In Tehran, according to unconfirmed reports, 300 people daily die from air pollution (direct or indirect). The number of people with cancer and cardiovascular diseases has risen sharply, causing a lot of worry.

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