



ENVIRONMENTAL POLLUTION AND ITS INFLUENCE ON HUMAN HEALTH IN THE IRAQI ENVIRONMENT

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Article history:	Abstract:
Received: August 8 th 2022 Accepted: September 8 th 2022 Published: October 14 th 2022	Research Objectives The researcher's purpose in doing this study is to investigate Iraq's environment and the level of pollution in the country It also investigates the negative effects of pollution on human health, such as air, water, soil, food, auditory, and visual pollution, which rapidly affects human health through disease. Understanding Iraq's environmental problems and pollution through investigating the many causes of environmental deterioration in Iraq

Keywords: Environmental Survey; Its Negative Consequences; Pollutant Type

INTRODUCTION

Chemical dangers and dangerous radiation risks from current technological equipment are present, and another sort of pollutant is noise or noise pollution, which is present in industry and agriculture. Cases of suffocation, poisoning, and adverse health effects as a result of pollutants in the air, which are primarily caused by increased energy consumption from polluted sources, with the occurrence of fog, which interacts with these pollutants, producing toxic substances or leading to suffocation cases [1].

A survey of the environment of Iraq and the pollution that happened to it

The Iraqi natural environment has deteriorated significantly in the last twenty years, affecting all of its components, as pollution has affected air, soil, water, and food, as environmental pollution is the third leading cause of death in Iraq after violence and diseases [2], as the circumstances that Iraq went through from the period of the blockade and wars I accompanied by the achievement of these environmental development plans, and as a result, a clear environment[3].

When toxic gas vehicles such as carbon oxide, carbon dioxide, hydrogen sulfur, and numerous solid organic compounds enter the atmosphere, they poison the air. Soil pollution is the entry of foreign bodies into the soil that causes changes in chemical and physical structures, and this type of pollution is frequently

caused by an increase in the use of insecticides containing toxic substances that are used to kill insects, rodents, ground, and fungi, as well as poor air quality and air pollution. Air and Air Quality [4]

(Types environmental of pollution)

-Air Pollution 1

If a person wishes to keep his health, he must regulate air pollution, which kills around 50,000 people each year. Microbial particles are soft dust particles in the air that originate in arid environments, burning fuel, and industrial waste. [5] The air is that part of the atmosphere closest to the earth's surface that, when dry and uncontaminated, consists of several gases, the most important of which are nitrogen gas (78.09% of it) and oxygen gas (20.94%), corconing is 0.93%, and carbon oxide is a very small percentage that does not increase in fresh air on 0.032% and these four gases are 99.99% of the atmosphere[6]

In addition to other gases such as neon, helium, and others, as stated in the table below. When air is inhaled, it enters the alveoli and carries the oxygen that cells constantly require, and air polluted by smoke and combustion gases emitted by factory chimneys, home heaters, transportation exhausts, and many other sources that lack oxygen, which is Harmful because of the toxins it contains, a person may be exposed, especially over time, to diseases of the bronchi and lungs, and it affects the heart and blood in a negative and dangerous way[10].



Table No. (1) Dry, non -contaminated and volumetrics components (concentrations)[7]

focus%	Chemical code	Gas	focus%	Chemical code	Gas
1EGP	KR	Crapton	78.09	N ₂	Nitrogen
0.5EGP	H ₂	hydrogen	20.94	O ₂	Oxygen
0.25EGP	N ₂ O	the first nitrogen oxide	0.93	Ar	Arcon
0.1EGP	CO	The first carbon oxide	0.032	Co ₂	Carbon's second oxide
0.02EGP	O ₃	Ozone	18EGP	Ne	Neon
0.001EGP	SO ₂	Second sulfur oxide	5.2EGP	He	Helium

Fresh water pollution and its effect on human health²-

The elements that produce fresh water pollution are the usage of water tanks in the event that water does not reach the upper roles and that are not cleaned on a regular basis, which is extremely harmful, a lack of sewage services, and the disposal of industrial waste without treatment.

Even in its usual state, the water is not fully pure. The rain water gathers vast numbers of contaminants in the atmosphere as it falls, so the term pollution means that there are elements in the water outside its vehicles, and the issue of giving agricultural areas and other industries to city people is examined. With water fit for usage and free of contaminants and toxins caused by the complicated difficulties at

- Cholera
- Typhoid
- Dussenia of all kinds
- Hepatitis
- Malaria
- Balha Rasia
- Liver diseases
- Poisoning cases

3- Soil pollution is a type of soil deterioration that includes contamination from pollutants deposited from air in industrial locations, pollution from radioactive elements, and pollution from heavy metals. Iraqi soil contaminants are classified into several categories, including radiological pollution. Radio contamination is one of the global pictures of pollution, and human exposure to radioactive elements happens as a result of the fall of atomic dust from nuclear explosions and emissions from the industrial and military usage of nuclear energy and other radioactive materials such as uranium.

Food pollution⁴-

Dietary pollution or food pollution refers to the presence of microorganisms or other strange, unwanted bodies in food matter, with food considered contaminated if it contains pathogenic germs, is contaminated with radioactive substances, or is mixed with toxic chemicals, resulting in food poisoning [11]. As a result, food contamination manifests itself in a variety of ways, resulting in the appearance of tainted food that is unfit for human consumption.

And dietary pollution takes various forms depending on the type of causing this pollution, as it may work to attack the tissues of the body and cases of disease that are usually classified as the type of microbes or bacteria that invade the body, such as typhoid fever that a person suffers when he is infected with typhoid microbes. A person plays a significant role in the receipt of these organisms to foodstuffs as a result of what may carry them and in large numbers of them in its digestive and respiratory system or on the outer surface of the body, which have become toxic to those who eat and cause serious diseases, and these common diseases that food pollution is the first cause of.[12]

The most important food pollutants

1- Microbial dietary pollution (bacterial)

The pathological bacteria are the ones that cause food transmitted by food. These bacteria grow in the food of the potential risk. The salmonella is that causes intestinal infections of the animal and leads to mass destruction of poultry and the injury of humans with some diseases, as well as the lactic acid bacteria that cause the corruption of milk and juices, and the bacteria that cause the weighing of butter, ghee and oils Fat and products that have a high percentage of them, as well as stavilocox bacteria that cause many food poisoning. [13]

2-Viruses

The viruses are the smallest microscopic neighborhoods that can cause some food-transmitted diseases and are an important sources of viral diseases transmitted by



food, including H5NI, which causes bird flu and virus that causes foot-to-mouth in animal fever. [14]

3-Parasites cannot be seen with the naked eye such as bacteria and viruses, parasites do not grow in food and there are two ways through which parasites can be transferred to humans through food, some parasites are found in human stool Which grows in soils that are restored with this stool. [15]

Types of diseases caused by food pollution:

1- Food poisoning:

It arises from eating foods containing toxic chemicals or toxins caused by microbes, which are

secreted in food before eating it, and its symptoms appear within a short period of time ranging between 12-72 hours. This food that has been contaminated. [16]

2- Nutritional infection:

It arises from eating food contaminated with microbes, which only secrete toxins within the human body and is considered flies and other household insects and mice. It is an active means of transporting pollutants to human food. These pests are greedy in the waste that a person throws in open places close to housing, [17]

Table No. (2) shows the types of diseases caused by food pollution[18]

It produces eating food contaminated in microbiology	Infection
It produces eating food contaminated with microbes, bacteria and food contaminated with chemicals	Intoxication
It produces eating food contaminated with bacteria that grow inside the body and leave harmful toxins in the cells of the body	Pathological bacteria infection

Table No. (3) shows the most important pollutants that live in food and cause diseases[19]

Pathogeneous foods	the disease	Bacteria
Soup and rice Milk and dairy products	Poisoning Infection	Bacillus cereus - Campyloacter
Not cooked meat and legumes poultry meat Eggs, watermelon, tomatoes	Poisoning Infection	- Clostridium - Perfringens - Salmonella
Pathogeneous foods	the disease	Viruses
The ready -to -eat food is not heated Ready and non -cooked food	Infection Infection	Hepatitis A Rotavirus
Pathogeneous foods	the disease	Parasites
Greens, milk, juices and ready -made food Raw products, fish and raw milk	Infection Infection	Cryptosporidium Parvum Cyciospora Cayetanensis



Table No. (4) shows some diseases due to food pollution[20]

The type of disease	Polluted
It transmits viruses from waste such as the polio virus. It transmits salmonella bacteria to food that leads to typhoid fever. It transmits many diseases by polluting food, including cholera	Flies
Poisoning is caused by anaerobic bacteria such as Clostridium Botulinum bacteria	Canning
Poisoning, headache and dizziness, fatigue and fatigue, kidney damage and brain tissue and severe digestive disorders	Mercury
Poisoning, brain cells, nervous system, affects red blood cells, causing anemia	Lead
Histamin poisoning its symptoms: itching and inflammation of the skin, nausea diarrhea and vomiting blood pressure, headache and an increase in heart palpitations.	Unhealthy production and memorization

RESULTS

1. Pollution has many sources and components spread in the environment and not monitoring and following them, leading to a wide range of pollution.
2. Air pollution is one of the most dangerous types of pollution, which unfortunately has reached the most intense years in the last years because of the tripartite aggression against Iraq and the unjust siege and finally the change in parts of Iraq becomes contaminated when a harmful gas vehicles enter into the atmosphere such as carbon oxide, carbon dioxide, hydrogen sulfur and many of Solid organic matter is the presence of harmful substances, which damages healthy human exposure, especially in the long term of bronchial and lung diseases (chronic pulmonary infections, respiratory deficiency, poisoning, cancer) and affects badly and seriously in the heart and blood.
3. The danger of water pollution due to its effects on human health in Iraq by developing intestinal diseases, including cholera, typhoid, malaria, schistosomiasis, hepatitis and other diseases. Marine pollution occurs due to oil caused by ship accidents or carriers, or as a result of sanitation and industrial effects of marine pollution that cause many diseases of the human being, including hepatitis, cholera, intestinal infections, skin infections
4. The spread of various diseases in their types with soil pollution, and the exposure of a person to radioactive materials occurs as a result of the fall of atomic dust from nuclear bombs and emissions in the industrial and military use of nuclear energy and others at an early age and leads to his destruction differently from what was in the past, all due to environmental pollution of all kinds.
5. We make sure that our health is said in our food through this study, which made it clear that most of

the diseases that affect human being are caused by the polluted food, which we eat and which threatens the health of millions of people.

6. There are many diseases that were affected by humans due to food pollution, including: diarrhea, nausea, vomiting, stomach diseases, bowel diseases, skin diseases and allergies, in addition to the chemicals that cause diseases that affect most of the body's tissues and cause severe effects.

7. Manufactured food products are considered one of the most aggressive factors on food because of the added materials, refreshments, enzymes, and foodstuffs improvement materials such as migrants, localities, flavor and color for children in particular, in addition to preservatives of chemicals that are added to food to prevent and corruption during preparation and storage

RECOMMENDATIONS

1. The government that exists in the conditions of the country and protect the environment from the sources and components of the pollution of all kinds.
2. Protecting air from pollution by preventing the phases of the laboratories first and stopping the process of using harmful weapons on the environment in all sides of the world.
3. Control of water and reservation of the following pollutants from the laboratories and not allowing them to reach water and a network
 The most recent tubes of these types currently present and add sterilizers.
4. Providing the necessary health services, and this is unfortunately not currently available due to the conditions of terrorism in which the country lives, the homeland and the loss that imposed on our dear



country the inevitable destiny that is on its forehead from birth.

5. The necessity of maintaining food clean, safe and healthy, even for us to live a healthy life because we cannot dispense with food in our lives.

6. Intensifying the process of controlling all food products in the first step of the food chain from raw material to human consumption, and storing food at a suitable temperature and humidity.

CONCLUSION

The problem of pollution of the various components of the environment has worsened as a result of neglect, corruption and wars that spanned decades, as it accumulated in the Iraqi environment of various types of solid, liquid and gas pollutants of the chemical, vital and nuclear nature, most of which entered into different environmental systems and threatens its democracy and the safety of its resources.

The cities of Iraq also suffer from a decline in air quality due to the contaminated emissions issued by fixed, mobile and different sources spread in all cities, and the soil suffers mainly from the throwing of waste and various waste with different sources in addition to the failure to apply laws and legislations to prevent water, air and soil pollution in this part We mention the most important environmental challenges resulting from pollution of the main environment components.

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