## **Diseases and pollutants !**

## According to the book "Capitalism and the disaster of environmental pollution" written by Hassan Abbasi

We all know that capital increases the productivity of the labor force, and also reducing its need for this force relatively, and intensifies the process of erosion and destruction of worker in the process of profit production and her or his separation from work and product of work, and finally, in the calculations of capital owners, the existence and life of worker has no value. Commodity production and its most advanced form, capitalist production, is the basic source of the fetishistic transformation of the product of human labor, and basic spirit of replacing the relation between humans with the objects and goods implies that everything becomes commodity or capital and the worthlessness of human beings. In order to gain profit and accumulate as much as possible, capital flourishes technical and academic sciences, and by using it in the production process, it adds a new volume of infinite profits to process of accumulation of capital. From the point of view of any worker who has a minimum of class consciousness, the crimes of capital and capitalist governments throughout this hellish capitalism in relation to the spread of Corona (Covid-19) are not hidden. The corona virus is transmitted from one person to another, and on this basis, the gathering of people in the same environment with as many as possible is the most important and most serious factor in the transmission of the mentioned virus and the epidemic spread of this disease. Referring to this basic feature of the virus on the one hand, and the lack of any type of medicine to definitive treat of the disease on the other hand, it is clear to explain that the shutdown of work and production centers in hell of capitalist system should have been at the top of all the solutions and ways of the challenge of Covid-19. ! All states of capital all around the world not only did not pay the least attention to this issue, but did the exact opposite. We are all more or less aware of the death toll of the Corona pandemic around the world, but about the long-term effects (what is called longterm Corona) and (Post-Covid), about those who survived from this virus, especially masses of millions of workers, anyone has not been hearing any statistics comment by any capitalist institutes. Because the worker's life is much more worthless for capital and the process of its accumulation than to allocate a place for that in any of the calculations of the capitalist state. Autopsies of people who died due to covid-19 have shown that this virus causes irreparable damage to the lungs and immune system. Even if the disease is treated, the damage to the lung tissue will remain in the body forever, and a possible complication is shortness of breath, the effects of Covid-19 on the human body are similar to a combination of acute and chronic respiratory infections, because the virus severely damages both the lungs and the immune system. The Changes that lead to pulmonary fibrosis and the formation of scars in the lungs which disorder free breathing. The range of damage of the corona virus does not end only in the lungs, but also the pancreas can also be the target of attack. Covid-19 infects insulin-producing cells in the pancreas and disrupts the work

of this organ. The presence of diabetes symptoms or the worsening of sugar metabolism in diabetic patients is one of its consequences. According to researches conducted in China, two-thirds of patients who were severely infected with Covid-19 had long-term complications such as muscle pain, fatigue, and mental disorders up to six months after being infected with the corona virus. Also Covid-19 causes inflammation throughout the body, including the lungs, brain and heart, another effect of this disease on the heart is cardiomyopathy, in which the heart muscles become stiff, thickened, or stretched. These conditions affect the ability of the heart to pump blood, so that it can cause problems with low intensity such as fatigue to high intensity such as organ failure. Inflammation in the brain is one of the long-term effects of being infected with Covid-19 and can cause various psychological and neurological problems. In patients who experience long-term symptoms of Covid-19, not only physical symptoms such as fatigue and respiratory distress, but also things such as memory, depression, anxiety and sleep disorders have occurred. Even in people who have experienced this disease in a mild form, brain dysfunction, stroke or severe meningitis occur after recovery. The Covid-19 virus can cause serious damage to the human brain and nervous system. including the attack of the body's immune system on the nerves, causing stroke, paralysis or memory loss, which is usually diagnosed too late. A type of brain damage has been observed that can lead to memory and concentration problems in the long term. This virus can directly affect the brain through the nasal cavities. Other symptoms include shortness of breath, a cough that does not go away, joint's and muscle pain, hearing and vision problems, headache, loss of sense of smell and taste, as well as damage to the heart, lungs, kidneys and intestines. Also mental health problems such as depression, anxiety and mental disorder have also been reported. These have severe negative effects on people's quality of life. The corona virus can directly infect many types of cells and cause an excessive immune response and damage to the whole body. Corona virus also has a strange effect on the blood, including abnormal coagulation and damage to the capillaries network of the body and premature aging of the capillaries that deliver oxygen and nutrients to the tissues. Kidneys of the sick person can also be attacked, in which case the possibility of kidney infarction and as a result, the possibility of irreparable damage to other body organs will increase. Guillain-Barré syndrome is a disorder that causes the body's immune system attacks the nerves, resulting in paralysis and death in five percent of cases. For such serious damage to occur even in patients who have had very mild symptoms of the disease, it is guite unusual but true. Biologically, numbness, weakness and loss of memory, suffering after infection, have similarities with multiple sclerosis (MS). The attack of the body's immune system on other body parts, which is common in children and is known as (MIS-C) (multisystem inflammatory syndrome in children associated with covid-19) which has caused blood clotting, hyper infection, high fever, severe stomach pain, fainting and confusion, heart failure and even death. Corona is a mild and short illness for many, but some struggle for months with symptoms such as extreme fatigue, constant pain, and shortness of breath. This type of illness,

known as "prolonged corona", has a debilitating effect on the lives of those who, after recovery, complain of extreme fatigue even with a short walk. The most common feature of "prolonged (Corona) illness" is debilitating fatigue. Other symptoms include shortness of breath, a cough that won't go away, joint pain, muscle pain, hearing and vision problems, headache, loss of smell and taste, as well as damage to the heart, lungs, kidneys, and intestines. Mental health problems such as depression, anxiety and foggy thinking have also been reported. Prolonged Corona is not only for those who are admitted to the intensive care unit and need to rest at home for a while after discharge. Even those with a relatively mild infection may experience prolonged and severe problems.

Pollutants and brain and mental diseases caused by air pollutants In November 2014, the World Health Organization recognized Ahvaz's (a city in the south of Iran) climate as the most polluted city in the world for the second time. Also, Sanandaj and Kermanshah were among the ten most polluted cities in the world too. The same organization said in September 2021 that the incidence of memory loss is increasing alarmingly, and according to statistics, the number of sufferers will increase by 40% by 2030. In September 2020, based on the research of the European Environment Agency, several hundred thousand people die every year due to the consequences of air pollution. In these studies, other environmental factors that threaten the health of citizens have also been investigated. The European Environment Agency (EEA) published its annual report on the environmental challenges of the EU member states in Copenhagen, in Denmark too. Air pollution is the cause of one-eighth of premature deaths : According to the agency's research, air pollution is still the main cause of premature deaths in the European Union, and about oneeighth of deaths are caused by its consequences. The agency's report also says that the pollution of water sources and the excessive use of antibiotics that cause disease-causing agents to become resistant are also environmental disorders that contribute to premature deaths. Researches by the British Meteorological Department shows that the concentration of carbon dioxide gas in the earth's atmosphere this year will reach its highest level since the beginning of recording this information in 1958. In February 2021, the Reuters news agency wrote in a report that in this research, part of the reason for the increase in the concentration of carbon dioxide gas in the Earth's atmosphere is the recent massive fires in Australia. According to the forecast of this British institution, this concentration will exceed the limit of 417 parts per million (or parts per million, the unit of measurement of the concentration of substances ppm) in May. Also, its annual average will reach about 414 parts per million (ppm), which is 3 parts per million more than the previous year's average. Note that in the September 2014 report of the World Meteorological Organization (WMO), the increase in carbon dioxide concentration in the Earth's atmosphere was 2.9 ppm in 2013, which is the largest increase to date in the period after the beginning of capitalism. This number increased the total concentration of this gas to 396 ppm, which is only 4 ppm less than the limit that IPCC considered a turning point in the history of the increase of this gas !! 9 years have passed since that date and we have witnessed the passage of 17 parts per million of carbon dioxide in the earth's atmosphere, and this is just one of the greenhouse gases, the amount of methane gas, water vapor, nitrogen oxide or nitrous oxide, ozone, fluorine compounds. We did not calculate in this increase of pollutants.

The history of winning these honors can be traced back to the past decades !! (Ever since the royal capitalist regime began to drain the Horul Azim wetland to access oil and gas resources.) However, the current weather condition of Iranian cities only reveals a part of the decay and corruption of Iran's capitalist regime. Light and fresh air, which are the most vital human needs, are no longer natural phenomena available for humans. All of them revolve around capital's value addition and profitability, and accessibility to workers, or whether are healthy or not, is subject to the coercion will of capital.

according to the latest studies on air pollution in Ahvaz which oil industries burn huge amounts of gases containing sulfur (SO<sub>2</sub>), as well as waste liquids in burning pits and the emission of carbon monoxide (CO) and other particles in the air contribute the most in the creation of environmental pollutants and their spread in the surrounding area of Ahvaz city. In the next rank, the greatest load of pollution caused by sulfur dioxide (SO<sub>2</sub>) pollutants is in the power industry, especially the Ramin power plant, which is a result of heavy fossil fuel consumption. Regarding the emission of suspended particulate matter, the largest share of emission belongs to steel factories and the highest percentage of emission of hydrocarbon pollutants also belongs to the production activities of non-metallic mining industries. In 2016, the average concentration of dust in Kermanshah city reached 710 micrograms per cubic meter of air, which is four times the standard limit and indicates a critical situation. In the same year, it was said that with the drying up of Lake Urmia, fine dust threatens people's health. According to the capitalist organizations in Iran, problems such as eye irritation, lung cancer, skin diseases, respiratory diseases and blood pressure are other consequences of this environmental event for the residents of the areas around the largest inland lake of Iran. In addition to these cases, the drying up of Lake Urmia has led to the migration of 7 million people as a result of salt storms, desertification and the spread of sand. At present, the agriculture of the eastern and northwestern margins of Lake Urmia has disappeared and salt dust has put people's lives at risk in terms of health and skin cancer has increased more than 30 times in animals and humans. It is also important to mention that the masses of the people of Sistan and Baluchistan, despite living hundreds of kilometers away from Khuzestan, complain strongly about the air pollution and the increase in dust concentration in the region. Here, too, the amount of air pollution has reached 35 times the global standard, and sandstorms create disasters. The reason is the same as we said about Khuzestan and Azerbaijan, that is, the drying of lakes and wetlands, which continues with unprecedented speed.

The occurrence of these disasters in the provinces of Fars, Khuzestan, Sistan and Baluchistan and other regions of Iran is not a new phenomenon. The harmful effects of air pollution and the increase of pollutants on human health and the role of these pollutions in creating diseases such as lung and respiratory infections, chronic obstructive pulmonary disease and stroke, lung cancer and heart diseases. But in recent years, in parallel and step by step with the more and more global invasion of capitalism, has continuously expanded to all aspects of human life, and until now, diseases such as memory loss (Dementia), and Alzheimer and Parkinson, which means diseases of the nervous system and brain, have also been added to it. The cause should be found in the spread of particles released in the air, such as heavy metals, carbon particles, rubber and asphalt wear particles, nano particles, sand and dust particles, etc. If it used to be about 10,000 to 100,000 particles per cubic meter of air, now we are talking about millions of particles per cubic meter and their effect on the creation of diseases. Particles that not only cause the diseases mentioned above, but are also one of the important reasons for the occurrence and spread of complex and hitherto unknown diseases, i.e. degenerative brain diseases. While coarse particles do not go down from the upper parts of the respiratory system, fine and ultra fine particles enter the brain through the nose and nerve channels and gradually cause brain diseases. This close and direct connection with the brain causes the rapid transfer of small particles in the air along the olfactory nerve fibers to directly reach the brain and penetrate it. In other words, as cocaine addicts take this powder directly to the brain through nose sniffing and affect it, small pollutant particles also enter this important organ of the body. These materials, which are made of metals, including heavy metals, asphalt and rubber particles, soil particles that are formed with chemicals from fuel, enter the process, which results in damage to brain tissues and nerve cells. Various evidences and researches now show that covid-19 damages the brain cells and the entire nervous system in the same way. Pollutant particles in the earth's atmosphere are not uniformly distributed. Fine particles travel up to a radius of thousands of kilometers, so they can pollute a long distance and pass through large areas, while ultrafine particles cover a narrower distance (10 km) by travel through the wind. That is, if we live and work in a relatively short distance from busy roads, factory chimneys, oil installations, and metalworking factories, the most pollution we breathe with the air are these ultrafine particles.

Despite the fact that the capital government in Iran and numerous environmental institutions do not even spend a dime on the research of air pollution and its destructive effects on the health of the masses. But according to what has been said so far, no explanation is needed that the same conditions as in the big cities of Iran from Tehran with 165 days of unhealthy, smoky and dark air per year, and Kermanshah with 710 micrograms per cubic meter of pollutant particles in the air for a long period of several months a year, the cities of Khuzestan have 66 times the international limit of pollutants in the air, the severe air pollution of the cities around the deteriorating lake of Urmia to the air of the cities of Sistan and Baluchistan province, whose pollution is 35 times the international standard, and from Isfahan brewed under the smoke of traffic, factories and dust, very shocking and miserable results can be obtained.

A few years ago, the World Health Organization (WHO) reported that 50 million people worldwide suffer from Parkinson's and Alzheimer's diseases. In the cities of India and China, the situation is even worse, so that the same organization evaluates their air pollution 3 to 6 times of its standards. It goes without saying that if the air condition and its pollution in the big cities of Iran is not worse than the cities of China and India, it will not be better. The World Health Organization (WHO) announced in the summer of 2018 that 400 million people worldwide suffer from some type of allergy and 339 million people have asthma. Allergy is known as the fourth most common disease in the world and will soon rise to third place. Until a few decades ago, only a small percentage of people in cities had allergies. For example, today, half of the children at the age of puberty have some type of allergy. While 35 years ago, this figure for the same age group was only 3%. Allergy is an inflammation and it is a response of the body's defense system against the attack of a foreign substance on the skin or inside the body. This inflammation manifests itself in various forms such as swelling, redness, warmth, itching, cough and shortness of breath caused by inflammation of the respiratory tract. The current type of urban life, especially after the Second World War is, which brings and spreads the epidemic of this disease, and the spread of pollutants and air pollution in cities affect the respiratory system. Inside the houses, there are pollutions of light chemical substances, for example, floor covering glue, chemicals in clothes, plastic and washing materials, etc too. Indoor air is 5 times more polluted than outdoor air, despite the fact that outdoor air also includes environmental pollutants and plant pollens. In addition, cleaner living and more cleaning leads to less contact with bacteria and micro-organisms, and this, in turn, prevents the body's defense system from getting the necessary information about bacteria and other living organisms, and the lack of information causes the body's defense system to be shocked and defenseless when faced with allergens.

The entire life of the capitalist system is a very insignificant period in comparison with the history of human life, and during this short period of time, we have become human beings who, in the limited environment of cities, in skyscrapers and among piles of smoke and dirt, experience the lives of people who suffering from hundreds of chemical diseases caused by this capitalist production method. But this is not the only problem, billions of our fellow workers work in an environment that is full of chemicals that are harmful to the body and antibacteria that are beneficial to the body. Insects, rodents, weeds, fungi, bacteria, worms, parasites and even spiders and birds are creatures that are attacked by the poisons produced by agricultural and chemical companies, and this is one of the biggest attacks of capitalism on these tiny creatures of nature and the human body, which makes people defenseless against allergy epidemics.

Apart from the substances that are produced and spread with the aim of killing and destroying micro-organisms and microbes, there are about 10 million known chemicals in the world today. Of these, about 50 thousand types are actively used in various goods and commodities. One third of the chemical products that are used by the general public have one or more allergenic substances, while the same substances were about 16% in 1995. Technical

materials (Processing Aids) which are used to increase the lifespan and change the color, smell and taste of ready and semi-ready foods. These compounds have the European code "E number". These materials, which include 22 different groups, include about 250 official materials. It should be noted that these goods are not only used in the field of food production, but are also used in the preparation of medicine, cosmetics, shampoos and soaps. 41 color substances, 49 preservative substances, 44 antioxidant substances, 12 sweeteners and more than 100 other substances, including polysorbate and the latter group, cause skin allergies. People who are allergic to propylene glycol, which is present in cosmetic products, are also allergic to polysorbate, which is added to food to dissolve fats. In addition to official ingredients, thousands of other legal and illegal ingredients are also added to foods. Among the dyes used, azo compounds are the most famous because they cause allergies, asthma, eczema, and skin changes such as hives. For example, carminic acid, the attractive red color used in milks, syrups, and candies to increase their sales, causes insomnia, hyperactivity, fetal damage and aggression. Sweeteners such as sorbitol cause intestinal problems, intestinal infections, brain diseases, muscle cramps, aggression and depression. The vast majority of these substances are produced by chemical synthesis and therefore, as soon as they enter the body, they are attacked by the enzymes that the liver produces to fight against unfamiliar substances. As a result of high or long-term consumption of some of the mentioned substances, the human body suffers disorders. High sensitivity such as headache, excessive sweating, throat irritation and increased pressure in the chest are among these disorders, and these symptoms are known as Chinese restaurant syndrome. Because this material is widely used in the production of ready and semi-ready Chinese and Asian meals and foods production, and in this way, it has entered the food field of other world markets, including restaurant chains, since the 1970s. Excessive consumption of these substances has destructive effects on the fetus, liver, nervous system and vision, and also causes asthmatic shocks, depression and growth problems in young people and hormonal disorders. Another issue that is important to mention is the addition of phosphorus compounds to ready and semi-ready foods. This substance is absorbed by the body much more than needed. Phosphates are even used for canning, souring the taste of food or as a balancer. The harmful effects of increasing the consumption of phosphorus compounds are very high, and heart diseases, reduced capacity of kidney function and cancer can be mentioned among the side effects of unnecessary consuming it. About 70 percent of semi-prepared foods such as chips, tacos, chili and all kinds of sweets and machine breads contain various phosphorus compounds. Phosphate also plays the role of leavening agent, and by adding phosphate, the dough takes on a natural shape in a short period of time without going through the preparation process of several hours and sometimes several days due to the influence of sourdough in the bread dough. In capitalist production relations, workers are producers of all commodities and capital, but the workers are not only unable to interfere and influence the process and fate of these productions, but the capital imposes on their life, body and health

everything that is necessary for the accumulation of capital in order to earn galactic profits.

Pesticides made by capital are so mercilessly which killing nature and plants, they have such a capacity to produce poisoning, in particular, the life of this poisoning is so long and permanent that the most resistant creatures and cleaners of nature, namely fungi, bacteria, microbes and other beneficial microorganisms, are not able to deal with them and make them safe. An example of these toxins (DDT) which has been used as an insecticide since the mid-1950s. Although its use has been restricted in most countries, its terrible destructive effects on aquatic animals, humans and nature will still remain. D.D.T has destructive effects on the nervous system, decreases bone calcium, and disrupts the sexual system, and remains in soil, water, and animal bodies with high resistance. D.D.T in this way and through the food chain, it is transferred to other organisms and finally to humans. Hormonal changes, sterility and remaining in the long cycle of pesticides in the human body, animals and plants are their side effects. Fabrics are disinfected with antibacterials during production and transportation so that they reach the market both smelling good and healthy. The presence of biocides that have hormonal effects on organisms. These biocides, like other hormonal drugs, not only cause organ disorders in food consumers, but also cause fatal diseases in agricultural workers, but their increase in nature, especially with a relatively long life, causes many disorders to affect all living beings. In most cases, more than several biocides are used per product unit. In this case, the exponential increase in the effect of biocides is a very clear phenomenon, and this can happen even when we use different foods from fruits and vegetables, etc., which contain different pesticide substances. Another very important point are biocides that have destructive hormonal effects. These change from year to year in terms of number and molecular shape. According to reports, grapes are called one of the worst products in terms of the presence of carcinogenic, sterilizing and hormonal substances in pesticides used. Capitalists in the field of agriculture in countries such as France, Italy and Spain are the biggest consumers of biocides. The important factors involved here are the grape and wine production companies of these countries. Some wines even contain 10 different types of biocides, and an average of four different biocides in a bottle of wine is not surprising.

## Allergenic substances in consumer chemical products !

Allergy is the fourth most common disease in the world and according to reports, it will become the third most common disease in the world within a few decades. Currently, hundreds of millions of people around the world suffer from allergies. No factor has contributed more than polluted air, the dramatic increase in the use of chemicals in their epidemic. In recent decades, along with the increase in the production of chemicals, the number of people suffering from allergies has increased 7 times, and about 40% of people in industrialized countries suffer from various types of allergies. All research really points to one important thing. The type and way of life that capitalist production relations have imposed on humans along with its own narrative of modernization, life has become

immersed in a multitude of chemical substances that are foreign to the human body and soul. Right now and during the period after the second imperialist war, more than 100 dangerous chemical substances circulate in the human body, without being destroyed. A new arena and realm for capital is the production of materials in the form of nano (nanotechnology), that is, chemical substances in very small sizes at the level of atoms and molecules (1 to 100 nanometers). The bioaccessibility (state) of nanomaterials is different from conventional materials, as they easily pass through the sidewalls of cells and vessels and enter them. Cancer complications in the world are on an astronomical rise, the official sources of the Islamic Republic of Capital in 2019 reported the cancer rate in Iran to be 158 cases per 100,000 people. Researches by the Ministry of Health of the capitalist government shows that cancer will double in Iran in the next 15 years. The situation is the same in the entire capitalist world, the number of cancer patients in Sweden in 2011 (annual prognosis) was 58,000 cases, which is 644 cases per 100,000 people. According to this annual report, 1.7% is added to this figure, which in 2017 is 72,000 people per 100,000 people, that is, 758 people per 100,000 people in Sweden. In the central province of Iran, in 2019, an increase in cancer, sterility, heartless fetuses and children's disabilities, skin diseases and finally death have been reported. The pollution caused by the "oil refinery, petrochemical and thermal power plant" has been identified as the cause of the epidemic of serious diseases among the people of this region. Environmental damage includes the illness of most of the people in this region, the poisoning of agricultural lands and livestock.

In recent decades, humanity has witnessed the emergence and rise of all types of cancer, allergies, sexual disorders, birth defects, and hormonal disorders. One of the biggest and most important genetic and sexual changes in humans in the period after the second imperialist war is the decrease in fertility and the occurrence of sexual disorders. So that gradually after the war, humans are forced to use more and more other means such as in vitro fertilization or artificial insemination. For example, in Denmark, one out of ten children is born this way and it is expected that this trend will increase. Danish researchers consider the primary reason to be the decrease in the activity of male sex cells. At the same time as the 400% increase in testicular cancer after the imperialist war among Danish youth, researchers concluded that these two factors reduce the activity of sex cells, in addition to testicular cancer, and increase infertility. In their further research and analysis, they declared the increase of hormone-like chemicals, its penetration in the fetus and the occurrence of genetic changes in the sex cells of boys at the age of 13 years as the main cause of all these diseases and disorders. Similar results have also been observed in Norway, New Zealand, Scotland and France. Other complications caused by hormonal changes related to similar substances are children's cancer, obesity and diabetes. In the meantime, the mutual effect and the exponential increase in the destruction of several chemicals (Cocktail effect) should not be overlooked. Aren't these signs of the process of annihilating humanity and sacrificing the entire life and survival of billions of workers on the verge of massive profit making by capital ? Hasn't it come time for capitalist relations and wage labor relation to be brought down and destroyed ?, the relations that in accordance with the real needs and desires of all human beings, and away from any wage labor relation, and also based on the preservation of nature ? Of course, if such a radical change does not happen soon, this social system and production relations under the pressures of its inherent contradictions and crisis process for re-production of itself, and most importantly the sharp drop in the possibility of capital accumulation will lead to destruction of billions of human beings.

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