**POST GRADUATE DIPLOMA IN PUBLIC HEALTH**

**MODULE 5 ASSIGNMENT: ENVIRONMENTAL ISSUES IN PUBLIC HEALTH**

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**Introduction**

The responsibility of industry does not end at the factory wall. It extends to all human activity. Human environment is dependent on environmental health and stability. All elements in the human environment contribute to a complex cycle of total health; physical, psychological and socially. If one of these elements surrounding human beings are remove, the total health of the human being is affected. All the people have a right to a standard of living adequate for the health and well-being of themselves and their families, including food, clothing, housing, healthcare, and the necessary social services. Human beings are constant interaction with all the aspects of their environment, be they natural (water, air, soil, plants), manufactured (materials, machines, tools or animal in origin.

**Question 1: Environmental Health and its purpose**

World Health Organisation (WHO) defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The definition of health acknowledges the broader dimensions of health. It states that health is physical, mental and social well-being, and not merely the absence disease and infirmity. This implies that health is seen as a product of person’s positive interaction with the total environment and that all environment factors need to be taken into account. In other words, a population does not exist in a vacuum, but is part of living, vibrant environment in which it plays various roles. Hattingh and Acutt (2003:465) define environment as all that which is external to the individual human host. It can be divided into physical, biological, social, cultural etc., any or all of which can influence health status in populations. This definition is based n the notion that an individual’s health is basically determined by two factors; the genetic make-up of the individual and his or her environment.

Bassett (2004:5) defines environmental health as a composition of those aspects of human health, including the quality of life, that are determined by physical, biological, social and psycho-social factors in the environment. It refers to the theory and practice of assessing, correcting and preventing those factors in the environment that can potentially affect adversely the health of present and future generations. Environmental health is the control of all those factors in the physical environment of human beings that exercise or may exercise deleterious effects on their physical development, health or survival. Environment health is a condition of optimal physical and social wholesomeness of the human being’s living environment that have a negative or positive effect on health.

Environmental health addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviours. It encompasses the assessment and control of those environmental factors that can potentially affect health. It targeted towards preventing disease and creating health-supportive environments. WHO (2016) goes further to define environmental health services as those services which implement health policies through monitoring and controlling of the activities. They also carry out the role by promoting the improvement of environment parameters and by encouraging the use of environmentally friendly and healthy technologies and behaviours. They also have a leading role in developing and suggesting new policy areas. In other words, the purpose of environmental health is to ensure the conditions of human health and provide healthy environments for people to live, work and play. The Environmental Health 2012 strategic vision reported that by addressing the wider determinants of health, including food, housing standards, occupational health and safety, air quality, noise and environmental issues generally, environmental health makes fundamental contribution to the maintenance and improvement of public health and improving quality of life and well-being. As a result, the following stressors have to be taken into consideration:

* **Environmental health stressors**: Environmental health stressors are features of the environment that may include harm in or damaging responses to a living system or organism
* **Biological stressor:** Those biological elements of the natural and man-made world which present a direct risk to human health through ingestion, inhalation, inoculation or physical contact and those miscellaneous elements that may influence biological systems to the detriment of humans and their environments
* **Physical stressors:** Those measurable physical manifestations induced naturally or through human activity that may impact unfavourably on human health through their damaging effects on cells, tissues, organs and homeostatic systems, as well as their impact on mental and social well-being
* **Social stressors:** Those behaviours associated with human life that are a consequence of settlement in communities and habitation and which have impacts on health and well-being
* **Psychosocial stressor:** Those attitude of mind and mental processes that may have an adverse impact on the health of a person or community

**Question 2: 5 focal practice areas of environmental health**

**Clean, safe and sufficient water**: Water is essential to the life of all living objects including human beings. We need to drink one or two litres of water per day. After about four days without water, a person will die. In addition, water is essential for plants animals and agriculture, so throughout the human history, people have clustered along the shores and lakes and rivers to get water. Many blood wars have been fought over water resources. For example, tensions about the rights to the lake that lies between Tanzania and Malawi have been brought to boiling point again. Known to Tanzanians as Lake Nyasa but as Lake Malawi to those across the border, the lake is at the centre of a boundary dispute that has simmered for decades. In the latest exchanges, the foreign minister of Malawi has threatened to escalate the dispute to the International Court of Justice in The Hague.

Water also provides natural transportation, is used for disposal of wastes, and plays an essential role in farming, fishing and in the industrial sector. Although water is regarded as a renewable resource, there is I a limited supply. Water, according to Hattingh & Acutt (2003:479), is also unequally distributed among the countries of the world and the people of the world. In many areas, shortages of water are the main obstacle to food production. The agricultural regions are drawing water from underground quantifiers faster than those sources can replenish themselves. Water is also the source of many life-threatening and health-threatening diseases. In fact, more than 80% of all diseases in developing countries is attributed to unsafe water and improper disposal of excrement. Nearly half of the world’s population suffer from diseases associated with contaminated water, affecting mostly the poor in virtually all developing countries. Many people are at risk from waterborne and foodborne diarrhoeal diseases, which are the main cause of millions of deaths each year.

Recently, many parts of the world suffered from floods, and a cholera epidemic was an obvious outcome. Schistosomiasis and dracunculiasis transit other life-threatening diseases such as malaria, onchocerciasis and dengue. Water shortages usually lead to problems such as:

* Water quality polluted with for example sewage
* Industrial wastes
* Agricultural and urban runoff
* Industrial emissions

**Clean air:** Air is essential for life because without it the human race, plant life and animal life would not be able to survive. Air pollution is one of the most serious environmental problems in societies at all levels of the economic development. As many as 500 million people are exposed daily to high levels of indoor air pollution in the form of smoke from open fires or poorly designed stoves. More than 1 500 million people live in urban areas with dangerously high levels of air pollution. Industrial development has been associated with large quantities of gaseous and particulate emissions from both industrial production and from burning fossil fuels for energy and transportation. When technology was introduced to control air pollution by reducing emissions of particles, it was found tat gaseous emissions continued and caused problems for their own. Current efforts to control both particulate and gaseous emission have been partly successful in much of the developed world, but recent evidence suggests that air pollution is a health risk even under these relatively favourable conditions.

In societies that are rapidly developing, sufficient resources may not be invested in air pollution initially because of other economic and social priorities. The rapid expansion of industry in these countries has occurred at the same time as increasing traffic from motor cars and trucks, increasing demands for power for the home, and concentration of the population in large urban areas called mega-cities. The result has been some of the worst air pollution problems in the world. In many traditional societies, and societies where household energy resources that are considered to be clean are not yet available, air pollution is a serious problem because of inefficient and smoky fuels used to heat buildings and to cook. This causes air pollution both outdoors and indoors. The result can be acute respiratory infections, lung disease, eye problems and increased risk to cancer. Where there is no legislation or standards, particularly in poor and developing countries, workers and the community are particularly exposed.

The quality of air indoors is a problem in man developed countries, because buildings were built to be airtight and energy efficient. Chemicals produced by heating and cooling systems, smoking and evaporation from building materials accumulate indoors and create air pollution problem. Hattingh and Acutt provide that the general diseases associated with air pollution include:

* Chronic obstructive disease, which include obstructive airway disease, such as emphysema and bronchitis, asthma, acute respiratory infections, cardiovascular diseases and cancers
* Acute respiratory tract infections may occur due to air polluted with nitrogen dioxide and sulphur dioxide
* Throat irritation and headache may occur due to ozone pollution

**Safe and nutritious food:** Safe and sufficient food is essential for life. The human being needs between 1 000 and 2 000 calories each day to stay alive, depending on the person’s age, height, build and the type of activities he/she performs. Food provides essential nutrients, such as amino acids, vitamins, inorganic nutrients, essential fatty acids and energy. Most foods contain variety of nutrients but, as nearly all are deficient in one or more, requirements for essential nutrients are most likely to be met if a wide variety of foods is eaten in moderation. In general, the essential nutrients are found in greater amounts and in more bio-available forms in animal products such as meat, fish, cheese, milk and eggs.

The output of the world’s food-producing systems has matched the population growth over the last few decades, and there is no global shortage of food production. However, the distribution of food sources is unequal, for example Africa’s food production has kept pace with the population growth. A large part of the world’s population suffers from under -nutrition and infections associated with polluted food and or lowered body resistance due to inadequate quality of essential nutrients. The rapid degradation of the soil and water resources also poses an important threat to food production, and many nutrients found in food are absent because the essential elements are depleted from the soil. Poor countries often export their best foods such as vegetables, meat, and fruits, leaving those in the country depleted of food sources.

The following are some of the effects of an adequate diet:

* Starvation or obesity
* Premature and underweight babies
* Weakened immune system resulting in disease
* Non-infectious chronic diseases such as cardiac, bone and blood diseases
* Unproductive workforce

With the control of undernutrition, and of infections in which nutrition has played a part in the Western affluent countries, interest in other diseases which may be caused by inappropriate dietary habits has increased. Epidemiological studies show clearly that the cause of some of the most common diseases in Western populations, such as heart disease, stroke and cancer of the breast and bowel, are environmental, since migrant populations the incidence changes to that of the host country within one or two generations. Diet is one of the environmental factors implicated and a comparison of diets eaten in populations at high risk show that animal protein intake, particularly meat is strongly associated with risk from colon, caner, fat intake with caner of the breast, and salt and animal fat intake with stroke and heart disease. The association between sugar consumption and tooth decay is well known and a substantial proportion of the population in Western countries is overweight and even obese. All these factors influence the ability of people to perform optimally as a workforce.

**Safe and peaceful settlements:** A safe and peaceful place to live and to work in is a necessity for health. Inadequate housing and inappropriately constructed buildings to work in have an adverse effect on the physical, psychological and social health of residents. Other social influences include:

* Low income
* Unemployment or uncertain employment
* Insecurity in residential tenure
* Climate rate
* Lack of facilities for recreation and exercise
* Overcrowding
* Stress
* Lack of space
* Lack of adequate housing
* Sanitation

Residents are exposed to pathogens and other diseases associated with stress, pollutants, violence and trauma hazards. Conditions often lead to psycho-social problems such as drug and alcohol abuse, family violence and breakup, child abuse, rape, suicide, violence to family members, murder and criminal activities.

**Stable global ecosystem suitable for human habitation:** Human and ecosystem health are inextricably linked. The following are threats to a stable global environment:

* Long-range transport for pollutants
* Transboundary movement of hazardous products and wastes
* Stratospheric ozone depletion
* Climate changes
* Loss of biodiversity

**Question 3: Role of the government of Lesotho in ensuring environmental health**

Environmental protection is of the one three pillars of sustainable development, along with social and economic considerations. It contributes to both the conservation of natural resources and improvements in public health. It has long been recognized that public concern plays a major role in the development of environmental legislation. It was for example, public complaints in the 1860s about emissions from alkali works that resulted in a parliamentary inquiry, which in turn led to the first major piece of industrial pollution control legislation, the Alkali etc. Works Regulation Act 1863. The great London smog of 1952, which was responsible for 4000 deaths, aroused intense public outrage. The outcome was detailed study of air pollution by Beaver Committee, as a consequence of which the Clean Air Act of 1956 was enacted.

As scientific knowledge about the effects of our actions on public health, ecosystems and global climate has increased, media interest and concern has inevitably intensified. Incidents such as the escape of toxic gases at the Bhopal in 1984 and the nuclear reactor failure at Chernobyl in 1986 would have been always regarded as tragedies. However, because of the increased engagement with environmental issues around that time, they were also seen in the context of their longer-term effects, not only on the health of people living nearby but also on the viability of ecosystems. As evidence emerges that issues such as global warming present real and tangible threats to people’s way of life, public anxiety escalates.

As a result of this increase in concern, campaign groups such as Friends of the Earth and Greenpeace have gained higher profile and their activities have served to generate yet more interest and political pressure. The disposal of the Brent Spar oil storage buoy in 1995 would have been unlikely to have been such a major media issue had it occurred 20 years earlier. This heightened public concern, given rise to a change in the attitude of governments.

Bassett (2004:622) provides that increasingly, politicians see a need for a strategic, proactive approach to environmental protection that aims to avert disasters rather than deal with them once they have occurred. The willingness of world leaders to participate in the United Nations Conference on Environment and Development in Rio de Janeiro in Brazil in 1992, and subsequently, the World Summit on Sustainable Development in 2002 has demonstrated the higher profile that environmental matters now command. In joining other countries, the government of Lesotho has pledged to improve the environment and climate change governance by:

* Establishing environment and climate change registry and build capacity of to compile statistics, undertake vulnerability assessments and utilise them got medium to long term forecasting, policy and planning
* Enhancing capacity and networking of institutions to share information domestically and internationally
* Enhance public education on environment and climate change and create incentives for communities to be more aggressive on the issues (NSPD: 2012/13-2016/17).

However, climate change and environment degradation represent a great threat to poverty reduction and to achieve Sustainable Development Goals (SDGs). In the past 10 years, Lesotho has experienced successive climate shocks such as recurrent droughts, dry spells and floods which have negatively affected communities and households’ livelihoods, with serious consequences for people’s food security. The convergence of multiple vulnerabilities in Lesotho has created a complex risk profile, in which poor households and communities are continually exposed to a wide range of economic, health, environmental, income and climate risks and shocks. Girls and women bear the greatest burden as compared to men. With drought and erratic rainfall, women must work harder for their families. This put added pressure on the girls within households, who may be forced to drop out of school to help their mothers manage the heavier burden. Women and girls spend many hours; averaging 8 hours collecting water-this undermines productivity and fuels cycle of poverty that limits the economic and social capital that would be generated to combat climate change.

Abundant evidence exists of environmental degradation in the form of deforestation, exogenous plants invasion, desertification and acidification of soils, greenhouse effect and inappropriate waste disposal. Human activities like farming, construction, cutting of trees, and use of wood are some of the factors responsible for the environmental degradation. The most affected are the highlands and Senqu valley. According to UNDP report (2017) about 66% pf households live on degraded lands, and mostly depend on biomass for heating (51%) and cooking (53%) due to limited access to clean energy. Only 23% have access to electricity. Lesotho has one of the lowest forests covers in Africa and only 0.4% of the land area is under conservation. The Food and Agriculture Organisation (FAO) estimates that Lesotho loses 2% of its topsoil each year. The topography as well as Lesotho’s geographical location as a land-locked country contributes to the vulnerability profile of the population.

The government and development partners have committed to mitigating the effect of climate change and environmental degradation. Lesotho is in the process of developing a National Resilience Framework. This was borne out of a quest for sustainable solution to address the multi-faceted challenges posed by all types of shocks and stresses. The important role of National Resilience Framework is to facilitate and increase mainstreaming of climate and disaster risk management in the national and sector plan and strategies. The root causes of environmental degradation and negative impact of climatic changes include the following:

* Increased climate change and lack of strategies to address its impact
* Poverty (over 57% of the population is poor)
* Limited risk-based planning and tools form resilience building
* Corruption and poor governance and management of natural resources

**Question 4: Identification and explanation of four (4) diseases that are common among older generation**

Nearly 90% of children in developing countries survive to be adults, even in some of the poorest countries of sub-Saharan Africa, due to substantial reductions in child mortality. Too many of these adults still die relatively young. Among the survivors, many suffer from chronic impairments, frequent illnesses and injuries. The ill health of adults imposes a major burden on health services as well as large, negative consequences on families, communities and societies. Demographic trends have had the effect of increasing the absolute and relative importance of adults and their health problems. Feachem et all (1992:3), indicate that the elderly, 60 years and older, have their own distinct health problems, are more likely to be dependent than to have dependants, are a group for which premature death becomes increasingly difficult to define and for which health goals are concerned more with the quality of life than its prolongation. Younger adults are at risk from maternal ill-health, injuries, and alcohol and drug use. Older people are more likely to suffer from cardiovascular diseases and cancers. This paper will identify and explain five (5) diseases namely, diabetes, tuberculosis, dementia, cancers and cardiovascular diseases as some of the common diseases among the older generation.

**Cancers:** Cancer is a leading cause of death worldwide; accounting for 7.6 million deaths globally in 2008; about 70% of these deaths occurred in low- and middle-income countries. About 30% of cancer deaths are due to the five leading behavioural and dietary risks: high body mass index (BMI), low fruit and vegetable intake, lack of physical activity, tobacco use and alcohol use (WHO:2013). Cancer is not one disease but a group of many diseases. aging is a risk factor for developing cancer. Worldwide, tobacco and alcohol use, following an unhealthy diet and being physically inactive are the main risk factors for cancer. For example, elderly men with a history of smoking are at risk of developing gastro-oesophageal reflux disease and once they develop that, the signs and symptoms will be difficulty in swallowing, frequent choking while eating, ingestion and substernal pain.

Clarke (2014:256) adds that the risk factor of aging cannot be addressed, although modification of lifestyle could reduce the chances of developing cancer. It is further commended that 30% of cancer deaths could be prevented by stopping tobacco use, addressing overweight and obesity, change in unhealthy diets by increasing fruit and vegetable intake and becoming physically active. Health education and promotion is the main strategy to prevent cancer, because most of the risk factors for cancers are related to lifestyle factors.

**Diabetes mellitus (DM):** Diabetes mellitus is a chronic, manageable metabolic disease characterised by hyperglycaemia (elevated blood glucose level) due to a deficiency of either insulin secretion, insulin action or both. There are two types of DM: type 1 and type 2. Type 1 DM patients are dependent on insulin injections to regulate their blood glucose level and are also referred to as insulin-dependent DM patients. The main causes of DM type 2 are multi-factored: living an unhealthy lifestyle, overweight/obesity, women who experienced gestational DM had or had infants born with a high birth weight. Diabetes mellitus frequency is a growing problem worldwide, because of long life expectancy and lifestyle modifications. In old age, DM is becoming an alarming public health problem in developed and even in developing countries as for some authors one from two old persons are diabetic or prediabetic and for other 8 from 10 persons have some deglycation. DM complications and co-morbidities are more frequent in old diabetics compared to their young counterparts.

Old diabetics are now classified into two main categories as fit and independent old people able to take any available medication, exactly as their young or middle age counterparts, and fragile or frail persons for whom physical activity, healthy diet and medical treatment should be individualized according to the presence or lack of cognitive impairment and other co-morbidities. Clarke (2014:216) contends that the signs and symptoms of DM are extreme thirst, excessive urination, blurred vision, general body weakness and wounds that do not heal. Consequently, complications and management of DM in elderly vary according to hyperglycaemia duration, personal background, and co-morbidities. Some old people do not have any complication and are easy to manage; others are multi complicated and have additional severe diseases difficult to treat even in highly specialized centres. The last group is encountered among survivors of young onset DM. the main troublesome co-morbidities in elderly are heart and kidney insufficiencies leading to limitation in medicine prescription.

**Dementia**: Dementia is a collective name for conditions in which progressive degeneration of the brain affects memory, thinking, emotions and personality. The most common type of irreversible dementia is senile dementia, of which Alzheimer’s disease is the most common. The disease will progress over a period of years to complete disorientation, labile emotions, extreme agitation or apathy, incontinence, complete loss of self-care ability and loss of language and identity. The old person who has dementia has special needs, so healthcare professionals who care for them should be adequately trained. Respite care is the provision of short-term, temporary relief to those who are caring for family members who might otherwise require permanent placement in a facility outside the home. The family of a client who has been diagnosed with Alzheimer’s disease may require respite care with the view to placing the client into a permanent community facility providing specialised care.

**Tuberculosis (TB):** TB is caused by caused by Mycobacterium tuberculosis, an airborne pathogen. It is a disease that damages the lungs and is caused by the Tubercle bacillus. It is transmitted from person to person through the air. Mitchell & Haruon (2002:228) provide that almost 2 billion people (one third of the world’s population) have TB infection, and about 10% of these infected individuals will develop active disease sometime during their lifetime. In an era marked by increased international travel and a global marketplace, no region of the world is immune from outside influences. In other words, the golden generation can go and get TB while travelling and spending their well saved retirements packages or the tourists coming to their respective communities or towns can bring them TB. It is common knowledge that old people who have acquired enough wealth and managed to build villas or mansions have turned such into guest houses. They now use their mansions or villas for hospitality purposes and that poses a threat for them, should they host tourists with TB infection.

While renewed efforts to control TB have resulted in a steady decrease since 1992, it remains one of the most common infections in the world and is the leading infectious killer of young adults. The screening test for TB is a skin test. A positive test result does not necessarily indicate disease, but does indicate that the person has had an exposure to the pathogen. A chest x-ray and other tests are done to determine if active disease is present. The signs and symptoms are lethargy, fever, night sweats, cough, weight loss, coughing up blood-tinged sputum, chest pain and shortness of breath. TB primarily affects the lungs, but can affect other parts of the body as well.

**Cardiovascular diseases (CVD):** The aging of the population worldwide will result in increasing numbers of elderly patients, among whom heart disease is the leading cause of death. Changes in cardiovascular physiology with normal aging and prevalent co-morbidities result in differences in the effects of cardiac problems as well as the response to their treatments. Heart disease is the most frequent condition in older adults and the number one cause of death. Heart failure, coronary artery disease and atrial fibrillation are common reasons for health visits and hospital stays for the golden generation or old people. normal aging people’s heart and blood vessels to stiffen, which can lead to these conditions in the later. For people older than 75 years, high blood pressure is the common heart condition. Coronary artery disease and heart failure are next

In 2000, 12% of the United States population was over 65 years old, with predicted growth by 20% by the year 2030; those more than 85 years of age constituted 27% of this older segment of the population. The leading cause of death in those older than 65 years is heart disease, presenting challenges in diagnosis and treatment. The care of elderly patients with cardiac conditions has many important differences from the care of young patients with the same diagnoses. According to Clarke (2014:225), the main risk factors for developing CVDs are age above 60 years, with males being 40% more likely to develop CVD and environmental causes.

According to the Heart and Stroke Foundation of South Africa, up to 80% of cardiovascular diseases can be prevented by making healthy lifestyle choices. Clients should be encouraged and supported to achieve and maintain a healthy body weight, they should remember that both the amount and type of food they eat can have an effect on their weight.

**Question 5: Identification of one health effect that is associated with contaminants in the workplace**

The sources of chemical contaminants are many and include, for example, car emissions which are deposited onto and absorbed by various crops. Mining activities and industrial waste produce poisons that can contaminate water and soil. Workplace pollution is the presence of hazardous materials or noises within a workplace that may affect people while performing their job. Such workplace pollutants may affect workers’ health, especially if exposure continues over longer periods of time even at low levels. The most common exposure is that to workplace air pollution. This involves workplace hazards from airborne pollution, or the presence in the workplace indoor air of hazardous substances either as gases or particulate matter dispersed in the air. Other types of exposure may occur involving skin contact, ingestion, or injection.

Air pollution can have significant effects on human and animal health; damage vegetation; cause the destruction of building materials, fabrics and decoration; and bring about climatic change. The need to ensure the adequate measures are taken to effect its control is a vital part of sustainable development. According to Bassett (2004:670), air pollution is taken to be the presence in the atmosphere of substances or energy in such quantities and such duration as to be liable to cause harm to human, plant or animal life, or damage to human-made materials and structures or changes in the weather and climate, or interference with the comfortable enjoyment of life or property or the other human activity. Although some of the effects of air pollution are well understood, there are issues, especially those related to human health, where the picture is far from clear. Continuing research identifies an increasingly complex series of relationships. The principal issues were summarized as follows:

* Harmful gases or particles may be inhaled by people or animas, or may attack skin, causing ill health or death;’
* Gases may damage leaves and shoots of plants, reducing amenity and the yields of crops and trees;
* Particles of substances that settle out onto soil or vegetation may cause damage or contaminate human or animal food;
* Air pollution can screen out sunlight, corrode structures and be a nuisance in many ways, especially through smells and the settlement of airborne dust

Although it is generally agreed that air pollution has detrimental effect on health, its actions are generally insidious. In only a limited number of cases does it produce a specific disease or symptoms: photochemical smog can cause eye irritation in some major cities, for example, Los Angeles; chest disease can be associated with occupational exposure to dust. Epidemiological studies show connections between air pollution and morbidity and mortality in chronic bronchitis sufferers, there is a demonstrable association between atmospheric sulphate levels and ill health, and there is growing concern at the increase in child asthma. Many factors contribute to this relationship; it is impossible to consider any one in isolation. Effects will depend on:

* General health of the subject
* Duration of exposure
* Concentration of pollutant
* Nature of pollutant

To mitigate the situation, there are several different economic measures that can be used to reflect and encourage environmental protection. These include charges and levies, tradable quotas, and liability compensation schemes. The principle behind these economic measures is that if a market-based approach to the environment is taken, consumers and producers are given a clear indication of the cost of using environmental resources. This is clearly in line with the ‘polluter pays’ principle. Bassett on the other hand, indicates that it is important to recognise that even if economic instruments are widely used, there is still likely to be a role for regulation, enforcement and compliance with standards. Indeed, the two approaches can be combined.

**Question 6: Effects of globalisation on environmental health**

In the last few decades, environmental problems have become a global problem of mankind in terms of their existence and influence, as well as social and economic forces that produce them. Definition of the term globalization is multifunctional and has different meanings, depending on the context in which it needs to be understood. Globalization is a complex process whose pace and direction are determined by a number of factors, while its economic, social and environmental manifestations leave significant and lasting impact. One context (environmental definition) refers to the understanding of globalization as a process of manifestation of widespread environmental crises, caused by global environmental pollution. The environmental crisis that occurred during the last decades of the twentieth century imposed the need for rearrangement of human activities and a serious warning to the basic foundations of the survival of man on Earth. More serious consequences of the environmental crisis resulted in the formal emergence of the concept of sustainable development, which rests on the harmonious relationship of natural resources, economic development, and the environment, in order to protect the health of present generations and preserve the economic wealth of the planet for future generations. The concept is actually formed by hybridization of social development and environmental problems. The idea of developing the concept of sustainability stems from the problematic relationship between society and its natural environment. The concept itself is based on unification of three key dimensions, environment, economic and social.

Globalizing mankind, in a sense, becomes the global society, faced with real global problems. Among these issues, an important place belongs to the disruption of the environmental balance of the planet Earth, which threatens the survival of human life on it, to the extent that one can speak of a global environment crisis. The consequence of rapid development of science and technology in thus-far unimaginable proportions is the emergence of global environment crisis. Expansive development has contributed to improving the living conditions of the human species, but on the other hand, has had negative consequences for the environment and quality of life. When globalisation is considered in the context of ecological issues, environmental issues and modern environmental crises, four interrelated contexts should be mentioned. The process of globalisation is seen as process of manifestation of environmental crises on a large scale, and the problems resulting from the global economic crisis are now very far from the national and regional frameworks. The development of civilisation ahs certainly caused the gradual emergence of global warming and climate change on Earth.

Secondly, the process of globalisation can be seen in the context of developing environmental awareness of environmental issues and developing movements. In the last decades of the 20th century and early 21st century, the opinion that it is not possible to solve the emerging environmental problems by restricting them to a local area or through local action has become engraved in people’s minds. Environmental movements around the world have even suggested the creation of a world environmental organisation for the sake of easier coordination of international environmental policies. When perceiving environmental problems from an ecological point of view, sociological meaning of the term globalization, as the socio-historical process, cannot be avoided. In this regard, it should be noted that globalisation takes place in all areas of life, primarily in the economic, political, cultural and psychological sphere (Smrecnik:2002).

Globalisation cause international trade growth and accelerated financial flows, as well as greater cooperation among countries and innovations in science and technology. However, it has also contributed to environmental degradation. The main causes of environmental problems, in terms of environmental protect and sustainable development, are industrial production, growth of energy production, development of traffic, uncontrolled exploitation of natural resources, development of technics and technology and chemical contamination of agriculture. With the development of society and the increasing population, due to which demand for products necessary for life increases, it has become necessary to shift to the industrial mode of production. Industrial production certainly has positive sides, in terms of increase production, but on the other hand, it endangers environment through the emission of harmful gases into the air, water and soil. The negative effects of globalisation are also manifested through the devastation of plants, destruction of animals and deterioration of human health. Violation of the environment through depletion of raw materials and excessive accumulation of waster of all kinds that the nature cannot decompose are the characteristic of industrial production.

On the other hand, the positive consequences stem from the idea that globalisation increases sharing of health information, ideas and forms of knowledge on modern concepts, prevention and control causation and this has important benefits for environmental health. For example, the collaboration between states over the shared global environment health issues such as TB, air pollution and control can be an important experience. The ease and rapidity of communications have facilitated the diffusion of ideas and policy concern relating to health care and environmental health of community inhabitants. Globalisation is also seen as having a positive effect in terms of promoting gender equality as well as human right to health services. The burgeoning of global travel, printed media and technologically enhanced media (internet) are viewed as positive aspects of global processes. The processes of technological innovation for instance had broader consequences for health care delivery systems. For example, the UK based National Health Service has an internet site called NHS Direct and this is accessed by individual and communities from all over the world as a resource for health issues.

Towards promoting global health, globalization is something to be eoncouraged as it it engenders openness to idea, people, trade and culture. Feachem indicates that, this eventually leads to national wealth accumulation focusing predominantly on the economic justification in terms of increased health with corresponding increased workers’ productivity. Healthy populations abroad represent growing markets for business of the industrial world. If the developed countries invest in improving the health of other populations, their economic returns will be increased. Globalization has helped to reduce inequalities between and within countries. Economic growth is good for the incomes of the poor. This is good for the health of the poor. Globalization is a key component growth. Openness to trade and inflow of capital, technology and ideas are essential for sustained economic growth.

**Conclusion**

Increasing life expectancy in conjunction with increasing rate of obesity and sedentary lifestyle will lead to a higher prevalence of diabetes among old persons. Diabetes mellitus is frequently unnoticed in old patients as it is either asymptomatic or symptoms are nonspecific. Consequently, systematic screening of postprandial is the best way to get an early diagnosis and prevent diabetes-related complications. It has also been identified that there are some psychological effects of aging that can be alleviated by using various innovative strategies, which can reduce the agitated behaviour in the elderly with dementia. The paper has defined the purpose of environmental health and it is clearly the case that environmental health, whilst firmly rooted in the history of public health, needs to adapt and modernize in order to meet the demands and expectations of new generations. Most importantly, the modern practice of environmental health must be embedded within sustainable development in order to deliver the long-term and long-lasting improvements in both our public health and our environment.

At the same time as the new information technology has compressed distances, the market economy is extending its reach. The new global economy is dominated by transnational corporations and brand names that are recognized throughout the world. Its prevailing ideology is liberalisation and deregulation: free trade. Contrasting strongly with the apparently unstoppable spread of globalism has been the rise in concern for the local that takes many forms. For example, there is a new interest in a sense of place and local distinctiveness. Environmentalism has bred a radical, often passionate, attachment to particular landscapes. The global and the local are increasingly at odds with each other, sometimes in open conflict. If there are sensible alternatives to the process of globalisation, they need to be explored urgently.

The consequences that globalization has on the environment are disastrous and should by no means be neglected. Environmental consequences that are difficult to eradicate in the long term cause a number of other consequences. The work starts with the traditional and time-proven opinion that globalization threatens the environment, and places an emphasis on the environmental consequences of globalization, as important obstacles to further economic and social development

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