

ENVIRONMENTAL POLLUTION AND ITS IMPACT ON HEALTH

Prof. B. G. Dharwad,

Asst. Prof.,

K. S. R.College Of Education (B.ed),

Nehru Nagar, Belagavi 590010 (Karnataka)

And

Dr. N. S. Jadhav

Asst. Prof.,

K. S. R.College Of Education (B.ed),

Nehru Nagar, Belagavi 590010 (Karnataka)

Introduction:

The significance of environmental factors to the health and well-being of human populations' is increasingly apparent. Environment pollution is a worldwide problem and its potential to influence the health of human populations is great. Pollution reaches its most serious proportions in the densely settled urban-industrial centers of the more developed countries (Kromm, 1973). In poor countries of the world more than 80% polluted water have been used for irrigation with only seventy to eighty percent food and living security in industrial urban and semi urban areas. Industry, clustered in urban and semi-urban areas surrounded by densely populated, low-income localities, continues to pollute the environment with impunity. Over the last three decades there has been increasing global concern over the public health impacts attributed to environmental pollution, Human exposure to pollution is believed to be more intense now than at any other time in human existence. Pollution can be made by human activity and by natural forces as well. Selfish private enterprise and their lack of awareness of public well-being and social costs (Carter, 1985) and natural disasters (Huppart & Sparks, 2006) e.g. volcanic ash from Iceland are the one of the main reason of pollution.

Environmental health:

Environmental health is the branch of public health that is concerned with all aspects of the natural and built environment that may affect human health. Other terms referring to or concerning environmental health are environmental public health, and public health protection / environmental health protection. Environmental health and environmental protection are very much related. Environmental health is focused on the natural and built environments for the

benefit of human health, whereas environmental protection is concerned with protecting the natural environment for the benefit of human health and the ecosystems.

Environmental health has been defined in a 1999 document by the World Health Organization (WHO) as:

Those aspects of the human health and disease that are determined by factors in the environment. It also refers to the theory and practice of assessing and controlling factors in the environment that can potentially and affect health.

Environmental health as used by the WHO Regional Office for Europe, includes both the direct pathological effects of chemicals, radiation and some biological agents, and the effects (often indirect) on health and well being of the broad physical, psychological, social and cultural environment, which includes housing, urban development, land use and transport.

As of 2015 the WHO website on environmental health states "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 is targeted towards preventing disease and creating health-supportive environments. This definition excludes behaviour not related to environment, as well as behaviour related to the social and cultural environment, as well as genetics."

The WHO has also defined environmental health services as "those services which implement environmental health policies through monitoring and control activities. They also carry out that role by promoting the improvement of environmental parameters and by encouraging the use of environmentally friendly and healthy technologies and behaviors. They also have a leading role in developing and suggesting new policy areas.

Environmental health addresses all human-health-related aspects of the natural environment and the built environment. Environmental health concerns include:

- Air quality, including both ambient outdoor air and indoor air quality, which also comprises concerns about environmental tobacco smoke.
- Climate change and its effects on health.
- Disaster preparedness and response.
- Food safety, including in agriculture, transportation, food processing, wholesale and retail distribution and sale.
- Hazardous materials management, including hazardous waste management, contaminated site remediation, the prevention of leaks from underground storage tanks and the prevention

of hazardous materials releases to the environment and responses to emergency situations resulting from such releases.

- Housing, including substandard housing abatement and the inspection of jails and prisons.
- Childhood lead poisoning prevention.
- Land use planning, including smart growth.
- Liquid waste disposal, including city waste water treatment plants and on-site waste water disposal systems, such as septic tank systems and chemical toilets.
- Medical waste management and disposal.
- Noise pollution control.
- Occupational health and industrial hygiene.
- Radiological health, including exposure to ionizing radiation from X-rays or radioactive isotopes.
- Recreational water illness prevention, including from swimming pools, spas and ocean and freshwater bathing places.
- Safe drinking water.
- Solid waste management, including landfills, recycling facilities, composting and solid waste transfer stations.
- Toxic chemical exposure whether in consumer products, housing, workplaces, air, water or soil.
- Vector control, including the control of mosquitoes, rodents, flies, cockroaches and other animals that may transmit pathogens.

According to recent estimates, about 5 to 10% of disability adjusted life years (DALYs) lost are due to environmental causes in Europe. By far the most important factor is fine particulate matter pollution in urban air.^[7] Similarly, environmental exposures have been estimated to contribute to 4.9 million (8.7%) deaths and 86 million (5.7%) DALYs globally.^[8] In the United States, Superfund sites created by various companies have been found to be hazardous to human and environmental health in nearby communities. It was this perceived threat, raising the specter of miscarriages, mutations, birth defects, and cancers that most frightened the public.

Environmental Pollution and its effects:

One of the greatest problems that the world is facing today is that of environmental pollution, increasing with every passing year and causing grave and irreparable damage to the earth. Environmental pollution consists of five basictypes of pollution, namely, air, water, soil, noise and

light.

Air pollution is by far the most harmful form of pollution in our environment. Air pollution is caused by the injurious smoke emitted by cars, buses, trucks, trains, and factories, namely sulphur dioxide, carbon monoxide and nitrogen oxides. Even smoke from burning leaves and cigarettes are harmful to the environment causing a lot of damage to man and the atmosphere. Evidence of increasing air pollution is seen in lung cancer, asthma, allergies, and various breathing problems along with severe and irreparable damage to flora and fauna. Even the most natural phenomenon of migratory birds has been hampered, with severe air pollution preventing them from reaching their seasonal metropolitan destinations of centuries.

Chlorofluorocarbons (CFC), released from refrigerators, air-conditioners, deodorants and insect repellents cause severe damage to the Earth's environment. This gas has slowly damaged the atmosphere and depleted the ozone layer leading to global warming.

Water pollution caused industrial waste products released into lakes, rivers, and other water bodies, has made marine life no longer hospitable. Humans pollute water with large scale disposal of garbage, flowers, ashes and other household waste. In many rural areas one can still find people bathing and cooking in the same water, making it incredibly filthy. Acid rain further adds to water pollution in the water. In addition to these, thermal pollution and the depletion of dissolved oxygen aggravate the already worsened condition of the water bodies. Water pollution can also indirectly occur as an offshoot of soil pollution – through surface runoff and leaching to groundwater.

Noise pollution, soil pollution and light pollution too are damaging the environment at an alarming rate. Noise pollution includes aircraft noise, noise of cars, buses, and trucks, vehicle horns, loudspeakers, and industry noise, as well as high-intensity sonar effects which are extremely harmful for the environment.

Soil pollution, which can also be called soil contamination, is a result of acid rain, polluted water, fertilizers etc., which leads to bad crops. Soil contamination occurs when chemicals are released by spill or underground storage tank leakage which releases heavy contaminants into the soil. These may include hydrocarbons, heavy metals, MTBE, herbicides, pesticides and chlorinated hydrocarbons.

Light Pollution includes light trespass, over-illumination and astronomical interference.

Air Pollution:

Air pollution may possibly harm populations in ways so subtle or slow that they have not yet been detected. For that reason research is now under way to assess the long-term effects of chronic

exposure to low levels of air pollution—what most people experience—as well as to determine how air pollutants interact with one another in the body and with physical factors such as nutrition, stress, alcohol, cigarette smoking, and common medicines. Another subject of investigation is the relation of air pollution to cancer, birth defects, and genetic mutations.

Environment and its impact

The impact of civilization is now imprinted upon the environment – the environment which is fast deteriorating in its ability to support life forms. With every large stride taken in towards development, we take ten strides back in our failure to protect our environment, to save rare species from serious danger of extinction.

Environment impact can be gauged in the risk to human and ecological health and in the subtle but horrifyingly altering course of nature

Human health is the most obvious aspect which is taken into consideration in every study of environment impact. It includes the dangers and changes to the quality of life, that are determined by physical, chemical, biological and psychosocial factors which in turn shows how far the damage can go. Environmental pollution in its many forms has affected human health - Cancer, asthma, skin diseases, neuro and coronary problems, vision and even foetal illnesses. And all are fatal.

Ecological health impact points to the increasing misbalance of the ecological pyramid. While waste material and the proliferation of simpler life forms (bacteria, insects) that thrive on it are on the rise, there is no population growth in those species that normally prey on them due to predation, climate, and even food scarcity for them due to deforestation. The fast receding balance in the animal planet is causing more and more smaller carnivores to proliferate, very often overstressing herbivore populations, thereby shaking the very foundations of the ecology on which we rest.

Conclusion

Measures that depend on biodiversity are valid indicators of ecological health as stability and productivity (good indicators of ecological health) are two ecological effects of biodiversity. Increasing pollution in its sinister and multiple aspects is crippling our planet. The natural ways man could benefit from nature are no longer viable. Even the simplest of herbs picked for medication cannot be taken in its raw form.

Organizations and governments around the globe are taking up the issue in arms. The simplest global phenomenon is called the Environmental Impact Assessment (EIA). Environmental impact assessment is a planning tool and a formal process that is now generally regarded as an

integral component of sound assessment and decision making which will determine the potential environmental, social and health effects of a proposed development. The EIA is thus one of the forerunning tools to study, identify and improve on past, present and future environment hazards.

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