IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A Study On Environment And Health: Issues And Challenges

[1]A. U. Rasool, [2]Prof. J. Iqbal

[1]Research Scholar, Department Of Zoology, Bhagwant University, Ajmer

[2] Assistant Professor, Department Of Zoology Govt. P.G. College Nowshera

Abstract

This Paper present the Environment and health impacts of energy are discussed according to the scale at which they occur. About half of the world households use solid fuels (biomass and coal) for cooking and heating in simple devices that produce large amount of air pollution. Pollution that is probably responsible for 4-5 percent of the global burden of disease. The chief ecosystem impacts relate to charcoal production and fuelwood harvesting. At the workplace scale solid fuel fuel cycles create significant risks for workers and have the largest impacts on populations among energy systems. In communities fuel use is the main cause of urban air pollution through there is substantial variation among cities in the relative contributions of vehicles and stationary sources. Diesel fuelled vehicles, which are more prominent in developing countries, pose a growing challenge for urban health. The chief ecosystem impacts result from large scale hydropower projects in forests although surface mining causes significant damage in some areas. At the regional scale fine particles and ozone are the most widespread health damaging pollutants from energy use, and can extend hundreds of kilometres from their sources. Such deposition is associated with damage to forests, soils, and lakes in various parts of the world. At the global scale, energy system accounts for two-thirds of human-generated greenhouse gas increases. Thus energy use is the human activity most closely linked to potential climate change. Climate change is feared to have significant direct impacts on human health and on ecosystem.

Key words:- Pollution, Health, Ozone, Climate change, Diseases, Environment.

Introduction

Environmental health refers to aspects of human health (including quality of life) that are determined by physical, chemical, biological, social and psychosocial factors in the environment. Environmental Health is the branch of public health concerned with all aspects of the natural and built environment affecting human health. Human activities scatter a wide variety of biologically and climatologically active elements and compounds into the atmosphere, surface waters, and soil at rates far beyond the natural flows of these substances. The results of these alterations include a 10-fold increase in the acidity of rain and snow over millions of square kilometers and significant changes in the global composition of the stratosphere (upper atmosphere) and troposphere (lower atmosphere). The importance of energy supply systems, both industrial

and traditional, in the mobilization of such toxic substances as sulphur oxides and particles as well as in the release of carbon dioxide, the principal greenhouse gas. Also shown is the human disruption index for each substance, which is the ratio of the amount released by human activities to natural releases. This indicates that together with other human activities, energy systems are significantly affecting the cycling of important chemical species at the global scale. Although by themselves these indexes do not demonstrate that these insults are translated into negative impacts, their magnitudes provide warning that such impacts could be considerable. In the past hundred years most of these phenomena have grown from local perturbations to global disruptions. The environmental transition of the 20th century—driven by more than 20-fold growth in the use of fossil fuels and increased by a tripling in the use of traditional energy forms such as biomass—has amounted to no less than the emergence of civilization as a global ecological and geochemical force. The impacts from energy systems has occur from the household to the global scale. At every scale the environmental impacts of human energy production and use account for a significant portion of human impacts on the environment. Environment and Health examines the insults and impacts of energy systems according to the scale at which the principal dynamics occur— meaning the scale at which it makes the most sense to monitor, evaluate, and control the insults that lead to environmental impacts. Impacts are divided into two broad categories: Those directly affecting human health (Environmental health impacts) and those indirectly affecting human welfare through impacts on the natural environment (ecosystem impacts). Because of their ubiquity and size, energy systems influence nearly every category of environmental insult and impact. The air we breathe contains emissions from motor vehicles, industry, heating, and commercial sources, as well as tobacco smoke and house hold fuels. Air pollution harms human health, particularly in those already vulnerable because of their age or existing health problems. Environmental health consists of preventing or controlling disease, injury, and disability related to the interactions between people and their environment.

National Burden Of Disease from Household Solid Fuel use in India

A large portion of the Indian population is potentially exposed to indoor and outdoor levels of pollution produced by cooking stoves. Based on risks derived solely from studies of the health effects of individual diseases occurring in biomass-using households in developing countries, many in India itself, it is possible to estimate the total national burden of disease in India from use of these fuels:

Acute respiratory infection. More than a dozen studies around the world have found that household use of solid fuels is associated with acute respiratory infection in young children. Acute respiratory infection is the leading cause of death of the world's children and the largest category of ill health in the world in terms of disease burden. Almost 9 percent of the global burden of ill health and 12 percent of India's is due to acute respiratory infection. Acute respiratory infection linked to solid fuel use is estimated to cause 290,000–440,000 premature deaths a year in Indian children.

Tuberculosis has been associated with household solid fuel use in a national survey in India involving nearly 90,000 households as well as in smaller studies. Although this relationship is not yet established with complete certainty, it would be highly significant because tuberculosis is on the rise in many developing countries due to HIV infection and the increase in drug resistant strains. In India 50,000–130,000 cases of tuberculosis in women under 15 are associated with solid fuel use.

Chronic respiratory disease, such as chronic bronchitis, is almost entirely due to smoking in the industrialized world. But studies in Asia and Latin America have found the chronic respiratory disease develops in women after long years of cooking with solid fuels. In India 19,000–34,000 women under 45 suffer from chronic respiratory disease linked to solid fuel use. **Lung cancer**, which is also dominated by smoking in industrialized countries, has been found to result from long-term exposure to cooking with coal in

more than 20 studies in China. No such effect has been shown for biomass fuels, however. In India 400–800 women under 45 suffer from lung cancer linked to solid fuel use; the number is small because households rarely use coal.

Cardiovascular (heart) disease. Although there are apparently no studies in biomass-using households, studies of urban air pollution suggest that in India 50,000–190,000 women under 30 suffer from pollution-related heart disease.

Adverse pregnancy outcomes. Stillbirth and low birthweight have been associated with solid fuel use by pregnant women in Latin America and India. Low birthweight is a big problem in developing countries because it is a risk factor for a range of health problems. In India, however, there are too few studies to calculate the impacts of solid fuel use on adverse pregnancy outcomes.

Total. Because there is more uncertainty in the estimates for tuberculosis and heart disease, only the low ends of the estimated ranges are used. In India 410,000–570,000 premature deaths a year in women and children, of 5.8 million total, seem to be due to biomass fuel use. Given the age distribution of these deaths and the associated days of illness involved, 5–6 percent of the national burden of disease in women and young children can be attributed to biomass fuel use in households. For comparison, about 10 percent of the Indian national burden of disease is attributed to lack of clean water and sanitation.

Environmental health issues

Drinking water, basic sanitation and nutrition, because these are a major health hazard for the majority of children in the world. The effects of environmental issues, such as global warming on health is a major health issue in the world. Another global health priority you identified was the link between our health and the environment we live in, from the water we drink, to the air we breathe, to the food we grow and eat. More than three million children under the age of five die each year from environment-related causes, such as polluted indoor and outdoor air, contaminated water and lack of adequate sanitation. WHO's programmes and initiatives on water and sanitation, vector-borne diseases, indoor air pollution, chemical safety, transport, ultraviolet radiation, nutrition, occupational health, food safety and injury prevention all address issues critical to improving environmental health. The Healthy People 2020 Environmental Health objectives focus on 6 themes, each of which highlights an element of environmental health:

- Outdoor air quality
- Surface and ground water quality
- Toxic substances and hazardous wastes
- Homes and communities
- Infrastructure and surveillance
- Global environmental health

Creating healthy environments can be complex and relies on continuing research to better understand the effects of exposure to environmental hazards on people’s health.

The most important environmental challenges faced by India

It is essential to make the public aware of the challenging consequences of the Environmental Degradation, if not responded and reformative measures undertaken would result in the extinction of life. We are facing various environmental challenges. It is essential to get the country aware with these challenges so that their acts may be eco-friendly. Some of these challenges are as under:

- Growing Population
- Poverty
- Agricultural Growth
- Need to Ground Water
- Developments and Forests
- Degradation of Land
- Reduction of Genetic Diversity
- Air and Water pollution

Acts are enforced in the country, but their implement is not so easy. The reason is their implementation needs great resources, technical expertise, political and social will. Again the people are to be made aware of these rules. Their support is indispensable to implement these rules.

Conclusion

Maintaining a healthy environment is central to increasing quality of life and years of healthy life. Globally, 23% of all deaths and 26% of deaths among children under age 5 are due to preventable environmental factors. Environmental factors are diverse and far reaching. They include: Exposure to hazardous substances in the air, water, soil, and food, Natural and technological disasters, Climate change, Occupational hazards, The built environment. Poor environmental quality has its greatest impact on people whose health status is already at risk. Therefore, environmental health must address the societal and environmental factors that increase the likelihood of exposure and disease. The chief ecosystem impacts result from large scale hydropower projects in forests although surface mining causes significant damage in some areas. At the regional scale fine particles and ozone are the most widespread health damaging pollutants from energy use, and can extend hundreds of kilometres from their sources. Such deposition is associated with damage to forests, soils, and lakes in various parts of the world. At the global scale, energy system accounts for two-thirds of human-generated greenhouse gas increases. Thus energy use is the human activity most closely linked to potential climate change. Climate change is feared to have significant direct impacts on human health and on ecosystem.

Reference

[1] Agarwal, B. 1985. Cold Hearths, Barren Slopes. New Delhi: Allied Pubs.

[2] Akimoto, H., H. Mukai, M. Nishikawa, K. Murano, S. Hatakeyama, C. Liu, M. Buhr, K.J. Hsu, D.A. Jaffe, L. Zhang, R. Honrath, J.T. Merrill, and R.E. Newell. 1996. "Long-range Transport of Ozone in the East Asian Pacific Rim Region." Journal of Geophysical Research 101: 1999–2010.

[3] Albright, D., and H.A. Feiveson. 1988. "Plutonium Recycling and the Problem of Nuclear Proliferation." Annual Review of Energy 13: 239–65.

[4] American Honda Motor Company. 1999. "Honda Hybrid To Be Called 'Insight'—Will Feature (IMA) Integrated Motor Assist System, Lightweight Aluminum Body Structure." http://www.honda2000.com/ insight/press.html

[5] Armstrong, J., and R. Menon. 1998. "Mining and Quarrying." In J.M. Stellman, ed., Encyclopaedia of Occupational Health and Safety. 4th ed. Geneva: International Labour Organization.

[6] Arndt, R.L., G.R. Carmichael, D.G. Streets, and N. Bhatti. 1997. "Sulfur Dioxide Emissions and Sectoral Contributions to Sulfur Deposition in Asia." Atmospheric Environment 31: 1553–72.

[7] Arthur, E.A., ed. 1997. "Technology Development Examples Applicable to Nuclear Energy and Fuel-Cycle Improvement." Report LA-UR97-2989. Los Alamos National Laboratory and Sandia National Laboratory, Los Alamos, N.M.

[8] Bascom, R., and others. 1996. "Health Effects of Outdoor Air Pollution. American Journal of Respiratory Critical Care Medicine 153: 477–98.

[9] Bezdek, R. H. 1993. "The Environmental, Health, and Safety Implications of Solar Energy in Central Station Power Production." Energy 18 (6): 681–85.

[10] Bolin, B. 1998. "The Kyoto Negotiations on Climate Change: A Science Perspective." Science 279: 330–31.

[11] Bower, B.T., and others. 1987. "Guide for Analysis for Integrated Residuals Management." Draft final report. Resources for the Future, Washington, D.C.

[12] BP (British Petroleum). 1998. BP Statistical Review of World Energy 1998. London.

[13] Chameides, W.L., P.S. Kasibhatla, J. Yienger, and H. Levy. 1994. "Growth of Continental-scale Metro-agro-plexes, Regional Ozone Pollution, and World Food Production." Science 264: 74–77.

[14] Charlson, R.J., S.E. Schwartz, J.M. Hales, R.D. Cess, J.A. Coakley, J.E. Hansen, and J. Hoffman. 1992. "Climate Forcing by Anthropogenic Aerosols." Science 255: 423–30.

[15] Hallenbeck, W.H. 1995. "Health Impact of a Proposed Waste-to-Energy Facility in Illinois." Bulletin of Environmental Contamination and Toxicology 54 (3): 342–48.

[16] Novice, Robert (editor) (1999-03-29). "Overview of the environment and health in Europe in the 1990s" (PDF). World Health Organization.

[17] WHO (n.d.). "Health topics: Environmental health". Retrieved 10 January 2015.

[18] Environmental Health: from Global to Local (2 Editor= Howard Frumkin ed.). San Francisco: John Wiley & Sons. 2010.

[19] World Resources Institute: August 2008 Monthly Update: Air Pollution's Causes, Consequences and Solutions Archived2009-05-01 at the Wayback Machine Submitted by Matt Kallman on Wed, 2008-08-20 18:22. Retrieved on April 17, 2009.

[20] IPCC (Intergovernmental Panel on Climate Change). 1990. Climate Change: The IPCC Scientific Assessment. Cambridge: Cambridge University Press.

[21] MacKenzie, J. 1997. Climate Protection and the National Interest: The Links among Climate Change, Air Pollution, and Energy Security. Washington, D.C.: World Resources Institute.

[22] Mage, D.R., and O. Zali, eds. 1992. "Motor Vehicle Air Pollution: Public Health Impact and Control Measures." WHO/PEP/92.4. World Health Organization, Geneva.

[23] Seigneur, C., and others. 1996. "Multipathway Health Risk Assessment of Power Plant Water Discharges." Water Air and Soil Pollution 90 (1–2): 55–64.

[24] UNEP and WHO (United Nations Environment Programme and World Health Organization). 1992. Urban Air Pollution in Megacities of the World. Blackwell Publishers.

[25] Wigley, T.M. 1999. The Science of Climate Change: Global and U.S. Perspectives. Arlington, Va.: Pew Center on Global Climate Change.