

	Think India (Quarterly Journal) ISSN: 0971-1260 Vol-22, Special Issue-08 in collaboration with Indira Gandhi Government Post Graduate College, Bangarmau, Unnao-209868, Uttar Pradesh, India	
--	--	--

Environment Challenges to Public Health

Dr. Preeti Chand Negi

Assistant Professor

Mahamaya Government Degree College, Mahona, Lucknow

E- mail – preet1974@gmail.com,

Mobile - 9560533802

Abstract

The environment plays a crucial role in people's physical, mental and social well-being. Despite significant improvements, major differences in environmental quality and human health remain a global paradox. The degradation of the environment, through air pollution, noise, chemicals, poor quality water and loss of natural areas, combined with lifestyle changes, may be contributing to substantial increases in rates of obesity, diabetes, diseases of the cardiovascular and nervous systems and cancer all of which are major global public health problems. Reproductive and mental health problems are also on the rise with asthma, allergies and some types of cancer related to environmental pressures of particular concern for children.

A substantial burden of communicable and non-communicable diseases in the developing and developed countries is attributable to number of environmental risk factors. WHO estimates that the environmental factors are responsible for an estimated 24.0 per cent of the global burden of disease in terms of healthy life years lost and 23.0 per cent of all deaths; children being the worst sufferers. Given that the environment is linked with most of the Millennium Development Goals (MDGs, 2000) and Sustainable Development Goals (SDGs, 2016), without proper attention to the environmental risk factors and their management, it will be difficult to achieve many MDGs and SDGs in globe particularly in developing countries. The environmental disease burden is attributable to a few serious risk factors like insecure water and sanitation, exposure to indoor smoke from cooking fuel, outdoor air pollution, exposure to chemicals such as arsenic and climate change with subsequent urgency of environment, health and sanitation aspects to become a national priority, both in terms of policy and resources allocation. This paper discusses relationship of various environmental issues with public health in Indian diaspora.

Keywords: MDGs, SDGS, Environment, Pollution, Climate Change, Health and Sanitation

Introduction

	Think India (Quarterly Journal) <i>ISSN: 0971-1260 Vol-22, Special Issue-08</i> in collaboration with Indira Gandhi Government Post Graduate College, Bangarmau, Unnao-209868, Uttar Pradesh, India	
--	---	--

The world is reeling under the pressure of climate change evident in global warming, ozone depletion, acid rain, greenhouse gas emissions having unprecedented effects of grave consequences for the very future of the globe and humanity at large. Pollution knows no boundaries with deleterious effects on the masses and classes without discrimination. The precious resources of Mother Earth, Air, Water, Soil are getting contaminated consistently decimating their life supporting qualitative traits. Reckless exploitation of natural resources is taking its toll in the form of loss of valuable irreplaceable biodiversity be it of plants, animals or microorganisms.

The globe has become drier in the last decade as water resources per capita have diminished under the pressure of fast-growing population. Water availability is below scarcity levels in the Middle East and North Africa and South Asia. Forest cover has fallen in Latin America and the Caribbean, South Asia, and Sub-Saharan Africa. In developing countries the net loss of forest area for 2000–07 is at 80,000 square kilometers a year, roughly the size of Portugal. Also, the lack of access to energy consumption continues to be an important health risk factor in the poorest countries, where nearly 50 percent of energy use comes from biomass fuels and waste. According to data collection and environment assessment studies of World Bank experts, between 1995 through 2010, India has made one of the fastest progresses in the world, in addressing its environmental issues and improving its environmental quality. Still, India has a long way to go to reach environmental quality similar to those enjoyed in developed economies.

Environment Challenges

Major environmental issues are forest and agricultural degradation of land, resource depletion (such as water, mineral, forest, sand, and rocks), environmental degradation, public health, loss of biodiversity, loss of resilience in ecosystems, livelihood security for the poor. The major sources of pollution in India include the rapid burning of fuel wood and biomass such as dried waste from livestock as the primary source of energy, lack of organized garbage and waste removal services, lack of sewage treatment operations, lack of flood control and monsoon water drainage system, diversion of consumer waste into rivers, cremation practices near major rivers, government mandated protection of highly polluting old public transport, and continued operation by Indian government of government owned, high emission plants built between 1950 and 1980. In poor/underdeveloped countries with annual per capita incomes of \$300 or less, at least 90 per cent of the population depends on wood and dung for cooking which adds up to the greenhouse gases burden on globe. Moreover air pollution, poor management of waste, growing water scarcity, falling groundwater tables, water pollution, preservation and quality of forests, biodiversity loss, and land/soil degradation are some of the major environmental issues India

	Think India (Quarterly Journal) <i>ISSN: 0971-1260 Vol-22, Special Issue-08</i> in collaboration with Indira Gandhi Government Post Graduate College, Bangarmau, Unnao-209868, Uttar Pradesh, India	
--	---	--

faces today. India's population growth adds pressure to environmental issues and its resources and also neutralizes the effect of counteractions to combat the environment challenges. Rapid urbanization has caused a buildup of heavy industrialization, consumerisation and exploitation of natural resources. Air pollution, unsafe water supply, poor sanitation and hazardous chemicals exert significant pressures on human health, particularly the elderly and the young. While some global trends (e.g. access to improved water sources) are getting better, others – such as urban air pollution and lack of access to basic sanitation – continue to pose a serious risk to human health. Based on Value of Statistical Life estimation from studies in India, authors report an aggregate WTP (willingness to pay) of \$2.7 billion annually to avoid mortality and morbidity cases.

India contains over 68.0 per cent of India's total population, and half of all residents of rural areas live below the poverty line still struggling for better and easy access to health care and basicsupport services even after 73 years of independence. Health issues confronted by rural people are many and diverse – from severe malaria to uncontrolled diabetes, from a badly infected wound to cancer (World Bank, 2002).Postpartum maternal illness is a serious problem in resource-poor settings and contributes to maternal mortality, particularly in rural India (India Today, 2012). Approximately 1.72 million children die each year before turning one.Shortage of healthcare providers, poor intra-partum and newborn care, diarrheal diseases and acute respiratory infections also contribute to the high infant mortality rate. Major cause for the burgeoning rural urban divide is lack of basic amenities and infrastructure like hospitals, roads, water and sanitation in rural areas. The impact on human health from degradation of the environment affects society not only in terms of loss of quality of life, but also in terms of expenditure on health care, loss of productivity and loss of income. Since these impacts are very different, different approaches are required for estimating their magnitude.

Controlling Strategies

The impact of environmental poverty on health may continue well into the future and the situation in fact, is likely to get worse. To meet the challenge of health and environment now and in the future, the following strategic approaches must be considered which include conducting environmental and health impact assessments; strengthening national environmental health policy and infrastructure; fostering inter-sectoral co-ordination and partnerships; mobilizing public participation; and enhancing the leadership role of health in advocacy, stewardship and capacity building.

The quality of life and health of urban dwellers depends strongly on the quality of the urban environment, functioning in a complex system of interactions with social, economic, and cultural factors. Green urban areas play an important role in this context. Amultifunctional network of

	Think India (Quarterly Journal) <i>ISSN: 0971-1260 Vol-22, Special Issue-08</i> in collaboration with Indira Gandhi Government Post Graduate College, Bangarmau, Unnao-209868, Uttar Pradesh, India	
--	--	--

green urban areas is capable of delivering many environmental, social, and economic benefits: jobs, habitat maintenance; improved local air quality and recreation, to name a few.

The natural environments provide multiple benefits to health and well-being, especially in urban areas of contacts with wildlife and access to safe green spaces for a child's exploratory, mental and social development have been shown both in urban and rural settings. Health is generally perceived to be better by people living in more natural environments, with agricultural land, forests, grasslands or urban green spaces near the place of residence.

The public health challenge inherent in meeting the MDG and SDGs targets is to ensure that improvements result in access to water and sanitation for the critical at-risk populations. Coherent and Innovative approaches are required to ensure the availability of low-cost, simple, and locally acceptable water and sanitation interventions and integrating these approaches into existing social institutions such as schools, markets, and health facilities; Prevention of contamination of water in distribution systems; Potential for Water Reuse and Conservation Systems; Implementing Innovative low-cost sanitation system; Reducing disparities within the regions in the country; Sustainability of water and sanitation services in rural and urban areas, Encouraging renewables and local solutions; Promoting and focusing energy R&D for clean cost effective green fuels ; Promoting environmental security through entitlements for the poor, gender equity and empowerment; Creating an enabling environment and regulatory oversight for competitive efficiency. Adopting an integrated approach in health and environmental planning through decentralized planning machinery will definitely make it possible to achieve the goal of sustainability of resources and life on the globe. Education, awareness, people's participation, economic benefits plays a vital role in the adoption of environmentally sound research and development for realizing the mission and vision of MDG and SDG.

Conclusion

The environment has a major impact on health and investing in environmental health is certainly a good investment. Rapid urbanization, industrialization, globalization and an increasing population is putting further stress on the environment. If planned actions are not taken urgently by all sectors, the problem is likely to get worse thereby impacting human health directly and indirectly in the globe. The impact will be hardest on the poor and vulnerable sections of the population. Given that the environment is closely linked with each of the MDGs and SDGs goals, without priority being assigned to interaction between environment and health, it will be a challenge to achieve MDGs and SDGs.

A broader perspective is needed to address ecosystem and health links and emerging challenges against the background of strongly interlinked environment, health, life expectancy and social inequalities. Much progress has been achieved through dedicated approaches to improving the quality of the environment and reducing particular burdens on human health — but many threats remain. The predominant drive for material well-being has played a major role in the biological and ecological disturbances witnessed today. Preserving and extending the benefits provided by the environment for human health and well-being will require continuous effort to improve the quality of the environment. Furthermore, these efforts need to be complemented by other measures, including significant changes in lifestyle and human behaviour, as well as consumption patterns.

Works consulted:

1. Anandan.M and Ramaswamy.S (2016) “Rural Energy Problems: Sustainable Development in India” International Journal of Advances in Engineering & Scientific Research, Vol.3, Issue 4, Aug-Oct - 2016, pp 18-32
2. Chabukdhara, Mayuri; Munjal, Amit; Nema, Arvind K.; Gupta, Sanjay K.; Kaushal, Rajendra Kumar (2016) “Heavy metal contamination in vegetables grown around peri-urban and urban-industrial clusters in Ghaziabad, India”, Human and Ecological Risk Assessment: An International Journal, Vol. 22 No.3, pp. 736–752.
3. ChabukdharaMayuri, NemaArvind K. (2013), “Heavy metals assessment in urban soil around industrial clusters in Ghaziabad, India: probabilistic health risk approach”, Ecotoxicology and Environmental Safety, Vol.87, pp.57–64.
4. Ganesh S Kumar, SitanshuSekharKar, and Animesh Jain (2011) “Health and environmental sanitation in India: Issues for prioritizing control strategies” Indian J Occup Environ Med. 2011 Sep-Dec; 15(3): 93–96.
5. KlementTockner and Jack A. Stanford (2002) “Revering flood plains: present state and future trends”, Environmental Conservation, Vol.29, No.3, pp.308–330.
6. MilindKandlikar, GurumurthyRamachandran (2000) “The Causes and Consequences of particulate Air pollution in urban India: A Synthesis of the Science”, Annual Review of Energy and the Environment, Vo.25, pp.629–684
7. Narain (2012) “The challenge of health & environment: Profiling risks & strategic priorities for now & the future” Indian J Med Res, Vol.136, August 2012, pp.185-191.
8. Pandve HT (2008) “Environmental sanitation: An ignored issue in India”, Indian J Occup Environ Med. 2008 Apr; 12(1):40.
9. RameshaChandrappa and Ravi D R (2009) “Environmental Issues, Law and Technology – An Indian Perspective”, Research India Publication, Delhi, ISBN 978-81-904362-5-0
10. Steve Hamnera, TripathiAnshuman, Mishra Rajesh Kumar, BouskillNikBroadaway, Susan C Pyle, Barry H Ford, Timothy E. (2006) “The role of water use patterns and sewage pollution in incidence of

	Think India (Quarterly Journal) <i>ISSN: 0971-1260 Vol-22, Special Issue-08</i> in collaboration with Indira Gandhi Government Post Graduate College, Bangarmau, Unnao-209868, Uttar Pradesh, India	
--	--	--

water-borne/enteric diseases along the Ganges river in Varanasi, India”, International Journal of Environmental Health Research, Vo.16, No.2, pp.113– 132.

11. The New York Times (2010) “Drowning in a Sea of Garbage”, The New York Times, 22 April 2010.
12. The World Bank (2011) Environment Assessment, Country Data: India,
13. The World Bank, 2011.
14. “The Little Green Data Book”,
15. The World Bank, 2010.