



*Journal of Advances and
Scholarly Researches in
Allied Education*

*Vol. V, Issue No. X,
April-2013, ISSN 2230-7540*

REVIEW ARTICLE

**THE LAND POLLUTION AND MEASURES FOR
PREVENTING THE LAND POLLUTION**

AN
INTERNATIONALLY
INDEXED PEER
REVIEWED &
REFEREED JOURNAL

The Land Pollution and Measures for Preventing the Land Pollution

Dr. Sudhir Kumar Rawat*

Associate Professor, Zoology Department, Government Degree College Kasganj, UP, India

Abstract – The right to a clean environment is essential and closely connected to the proper to health and well-being. It's of fundamental importance to note there is a sturdy connection between the quality of the environment and so the health of the people living and/or exposed to the environment. Quality life is possible only in a very excellent environment with clean air to breathe, safe water to drink and noiseless atmosphere. Environmental pollution is one altogether the foremost severe problems that the present living beings face today. Many people do not have access to clean air and water and knowledge health problems due to the ever increasing pollution. One in all the foremost dangerous Pollution which don't effect living creatures directly but also indirectly. The cause is that the buildup of solid and liquid waste materials that contaminate groundwater and soil. These waste materials are often remarked as municipal solid waste (MSW), which includes both hazardous and non-hazardous waste. When waste is deposited onto a component of land, the permeability of the soil formations below the waste can increase or reduce the prospect of land pollution. Before that, waste was typically left on top of the underside in "open dumps," which resulted in rats, mosquitoes, and other disease infestations, further as foul smells and windblown debris. This article is specially written to evaluation the impacts of such land pollution and the way the effect might be decreased with some measures.

Key Words – Land Pollution, Infestations, Waste, Elimination, Environmental Degradation, Overexploitation.

-----X-----

INTRODUCTION

The environmental problems in India are growing rapidly. Industrial pollution, geological process, deforestation, rapid industrialization, urbanization, and land degradation are all worsening problems. Overexploitation of the country's resources is its land or water and thus the industrialization process has resulted in considerable environmental degradation of resources. The value of environmental damage in India would save 4 percent off the country's gross domestic product. MoEF recognizes the necessity to strike a balance between development and protecting the environment in administering and enforcing the country's environmental laws and policies. This amendment however had little power because it contained a clause that stated it had been not enforceable by any court. India is that the primary country within the globe to pass an amendment to its constitution ostensibly protecting the environment. In 2014, around 410 million many solid waste. A touch over half the waste 200 million tons was gathered in landfills. Only about 41% was recycled or composted. Paper and paperboard accounted for quite 19%; food was 15% and yard trimmings were 10.81%. Wood contributed to 5.9% of the garbage; glass was 4.4% and other miscellaneous materials made up about 3%. Commercial or industrial

waste could also be a major slice of solid waste. Much of it's classified as non-hazardous, like construction material (wood, concrete, bricks, glass, etc.) and medical waste (bandages, surgical gloves, surgical instruments, discarded needles, etc.). Households generate hazardous waste additionally, including paints and solvents, motor oil, fluorescent lights, aerosol cans and ammunition.

THE MAIN CAUSES OF LAND POLLUTION

There are many various ways of permanently changing the land, from soil contamination (poisoning by chemicals or waste) to general urbanization (the systematic creation of cities and other human settlements from greenfield, virgin land). Some, like huge landfills or quarries, are very obvious; others, like atmospheric deposition (where land becomes contaminated when pollution falls onto it) are much less apparent. Let's consider the foremost causes and sorts of land pollution successively. While there are many causes of land pollution, here are a number of the foremost contributors:

1. **Waste disposal:** Humans produce vast quantities of waste in factories and offices, in our homes and schools, and in such unlikely places as hospitals. Even the foremost

sophisticated waste processing plants, which use plasma torches (electrically controlled "flames" at temperatures of thousands of degrees) to incinerate waste into gas, produce solid waste products that has to be disposed of somehow. Waste disposal didn't always mean land pollution. There was really nothing we could put into the planet that was more harmful than anything we'd taken from it within the primary place. But during the 20th century, the event of plastics (polymers generally made in chemical plants from petroleum and other chemicals), composites (made by combining two or more other materials). It can take 500 years for a plastic bottle to biodegrade, as an example. And while it's simple enough to recycle simple things like cardboard boxes or steel cans, it's much harder to do to the identical thing with electric circuit boards product of dozens of assorted electronic components, themselves made from countless metals and other chemicals, all tightly bonded together and almost impossible to dismantle.

2. **Litter:** Every food wrapper tossed out of a window may be a tiny low contribution to a monumental issue. 76% of litter found on roadways is from pedestrians and motorists. Not all litter, however, is intentional. An outsized volume of litter also comes from unsecured items that fall off the rear of vehicles or out of trash receptacles. Take a glance at our blog post on littering to seek out out more about the results of littering and therefore the due to in the reduction of it in your community.
3. **Urbanization and Construction:** While urbanization isn't in itself littering, large quantities of people living, producing trash and littering in an exceedingly dense area does inevitably cause land pollution. To accommodate this increased population, construction activities also occur, which cause large waste materials, like metal, plastic, wood, and bricks. To help to reduce the environmental impact of construction sites, it's important to work with partners provide comprehensive builder solutions to comprehend cost-effective construction recycling and waste disposal plans. Humans are making permanent settlements for a minimum of 10,000 years and, in need of some major accident or natural disaster, most of the cities and towns we've created, and also the infrastructure that keeps them running, will remain with us for thousands more years into the long term. Even so, urbanization marks a hugely important change to the landscape which will cause land pollution during a type of subtle and not-so-subtle ways.

4. **Mining:** Mining is that the extraction of minerals and other geological materials from the underside, which are then used for a decent range of purposes, including but not limited to, producing gasoline for automobiles, generating electricity, and selling materials like gold and silver. Although there are many responsible mining companies, and environmental laws now tightly restrict mining in some countries, mines remain among the foremost obvious scars on (and under) the landscape. Most metals, as an example, occur in rocky mixtures called ores, from which the valuable elements should be extracted by chemical, electrical, or other processes. That leaves behind waste products and thus the chemicals accustomed process them, which historically were simply dumped back on the land. When mines were completely discovered, all that was left behind was contaminated land that couldn't be used for the opposite purpose.

5. **Agriculture and Agriculture Chemicals:** Agriculture is foundational for both standard of living, furthermore for the economy as a full. Agricultural pollution occurs when contamination created as a by-product of raising livestock and growing food crops is released into the environment, and also the contamination is vast. Those who are lucky enough to live in rich countries take our basic survival for granted apart from trips to the food Market, we don't worry about where our food comes from or how it gets to us. The actual fact is that seven billion hungry people consume an infinite amount of food. Feeding the world on such a scale is simply possible because agriculture now works in an industrial way, with giant machines like tractors and blend harvesters doing the work that several people would have tired the past, and chemicals like fertilizers and pesticides (herbicides that kill weeds and insecticides that kill bugs) increasing the amount of food which will be grown on equally of land. Unfortunately, most pesticides are by definition poisons, and much of remain within the soil or accumulate there for years.

6. **Atmospheric deposition:** pollution doesn't remain pollution forever. Sometimes, though, it falls back to the underside and becomes either pollution (if it enters the oceans, rivers, and lakes) or land pollution. These chemicals accumulate within the soil where they'll undergo reactions with one another and form substances that are even more toxic.

EFFECTS OF LAND POLLUTION

The only effect of land pollution is that it takes land out of circulation. Illnesses like cancer develop over years or decades for a range of reasons and it's extremely difficult to prove that they have been caused by something like local environmental the dimensions of the matter and its ultimate effects are impossible to work out. We know, as an example, that lead can be a toxic heavy metal that has all sorts of unpleasant effects on human health; it's been implicated in developmental deficits (such as reductions in intelligence) in children. We all know that some chemicals are carcinogenic (cancer-causing) while others cause congenital defects like disorder. Land pollution impact every area of living world, including:

- Water that isn't safe to drink
- Polluted soil, which finishes up in an exceedingly loss of fertile land for agriculture
- Climate change, which causes an onslaught of disastrous problems, including flash floods and irregular rainfalls
- Habitat shifting, where some animals are forced to flee where they board order to survive
- An increase in wildfires, due to polluted areas often becoming very dry
- Increased pollution, which burning waste contributes to Deceased Life.

HOW TO PREVENT LAND POLLUTION

Why does land pollution matter? Although Earth might sound a fairly big place, only a pair of third of its surface is roofed in land, and there are now over seven billion people trying to survive here. Most of our energy (around 85 percent worldwide still comes from fossil fuels buried under the underside and, since we've got not yet figured out the due to mine in space, so do all our minerals. Much of our food is grown on the surface of the planet; the water we'd like comes from the planet's surface too or from rocks buried just underground. In short, our lives are as intimately tied to the surface of Earth because the plants those grow from the underside. Anything that degrades, damages, or destroys the land ultimately includes a sway on human life and will threaten our very ability to survive. That's why we wish solutions to the matter.

What quite solutions? Ideally, we'd observe every aspect of land pollution successively and take a glance at to look out how of either stopping it or reducing it. We all know that recycling which will dramatically reduce the need for sending waste to landfills; it also reduces the requirement for

incineration, which can produce "fly ash". We'll always need mines but, again, recycling of old materials can reduce our need for brand new ones. Greater interest in organic food and farming might, one day, cause a reduction within the employment of harmful agricultural chemicals, but that's unlikely to happen anytime soon. Meanwhile, international efforts, just like the international organization Convention to Combat Desertification (UNCCD), are helping to focus attention on major problems like geological process. Some of the effects of Land pollution are as below

1. **Using Fewer Pesticides and Chemicals in Agriculture:** on condition that the use of pesticides and chemicals in farming and agriculture greatly contribute to land pollution, finding alternatives will help to chop back the environmental impact. On the individual level, supporting environmentally-conscious, local farmers at your closest farmer's market or local foodstuff can help to make up business for farmers with more sustainable farming practices. An alternate choice is to contribute to or volunteer in an urban garden in your neighborhood.
2. **Reforestation:** Reforestation involves replanting a region with trees. This process helps to bind the soil, which helps to safeguard it from land pollution and prevents erosion and flooding.
3. **Reduce, Reuse and Recycle:** At the individual level, there are many things we are going to do to reduce our contribution to land pollution. One of the sole ways to do to to the current may be to reuse or recycle items so you aren't creating waste out of a cloth or item that also includes a purpose. With the growing awareness around what could also be recycled and an increase in recycling bins in many cities, it's never been easier to recycle.

CONCLUSION

Ideally, we don't just must stop polluting land we also must clean up the various contaminated sites that exist already. Many former nuclear sites have already been cleaned up the utmost amount as possible; for an example, the Nuclear Decommissioning Authority is currently spending around \$146,000 million to clean up 17 former nuclear sites and so the figure keeps on rising. Within the US, a program called the Superfund has been decontaminating many polluted sites since 1980. Where such sites cannot be restored fully then an effort shall be made to recycle the same and anyhow make available some benefit to the environment in some other way. For an example various mining sites have been converted into wind farms or sites for large areas of solar panels. Now a day's a new system of disposal of waste has emerged known as plasma gasification, in

which unused or former Landfills can be mined and can convert the old waste into Gas resource and relatively safe solid waste which is able to be used as a artifact. Another technique which is now a day's used for cleaning of the Land known as Bioremediation in which varied types of microbes eat and digest the whole waste and makes it a very safe end use product. Phytoremediation may well be the same concept but involves using plants, like willow trees, to pull contaminants from the soil of those things offer hope for a more robust future a future where we value the environment more, damage the land less and realize, finally, that Earth itself might be a limited and precious resource.

REFERENCES

1. Agarwal, A. S., Singh B. R. and Kanehiro, Y. (1971). Ionic effects of salts on mineral nitrogen release in an allophanic soil. *Soil Sci. Soc. Am. Proc.*, 35: pp. 454-457.
2. Boopathy, M. (1978). Studies on the effect of application of Zn and K to Pol. 2 Groundnut (*Arachis hypogaea* L.). Growth in three soil series of Dharmapuri district. M.Sc.(Ag) Dissertation, Tamil Nadu Agricultural University, Coimbatore.
3. Chauhan, U. K. and Kaur, P. (1991). Impact of pulp and paper mill effluent on soil microflora. *Proc. Ind. Sci. Congr. Ass., Indore*, 78 p. III Sec. VIII, pp. 24-25.
4. Doraisami, P. (1978). Studies on the effect of paper industry effluent irrigation on certain common crops. M.Sc. (Env. Biol.) thesis. Tamil Nadu Agri. Univ., Coimbatore.
5. Ghosh, A. K., Kumar, P. and Roy, N. P. (1999). Physico-chemical analysis of distillery effluent and their effect on germination of some legumes. *Neobotanica*, 7: pp. 27-32.
6. Gupta, A. and Nathawat, G. S. (1991). Effect of textile effluent on seed germination and seedling growth of *Pisum sativum* var. RPG-3, *Acta. Ecol.*, 13(2): pp. 109-112.
7. Indian Standard Institution (1974). Tolerance limits for industrial effluents discharged into inland surface water subject to pollution (First Rev.) No. 2496, New Delhi.
8. Jain, R. K. and Kumari, S. (1990). Effect of saree printing industry effluent on seed germination, seedling growth and total biomass of *Spinacea oleracea*. *Acta. Ecol.*, 12(1): pp. 19-22.
9. Kanna, S. K. and Mukuldas (1991). Toxicity carcinogenic potential and clinico - epidemiological studies on dyes and dye intermediates. *J. Sci. Ind. Res.*, 50: pp. 965-974.
10. Lokhande, S. V. and Bhosale L. J. (1983). Effect of distillery waste on inorganic constituents of *Dichanthium annulatum*. *Poll. Res.*, 2: pp. 57-58.
11. Mamta, G. and Naik M.L. (1992). Effect of fertilizer effluent on chlorophyll contents of *Cyamopsis tetragonoloba*, *Taub. J. Environ. Biol.*, 13: pp. 169-174.
12. Nirmalarani, J. and Janardhanan, K. (1989). Impact of Coimbatore alcohol and chemicals factory effluents on seed germination, seedling growth and chloroplast pigments contents in five varieties of maize. *Seed Res.*, 17: pp. 88-92.
13. Prasad, R. (1996). Soil contamination in India, an over view pp. 513- 542. In: *The soil environment in Australia - Pacific region*. R. Naidu, R. S. Kookune, D., P. Oliver, S. Rogers and M. J. McLaughlin (eds.), Kluwar Press, London.

Corresponding Author

Dr. Sudhir Kumar Rawat*

Associate Professor, Zoology Department,
Government Degree College Kasganj, UP, India