

# International Journal of Innovative Research in Science, Engineering and Technology

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## Prevention of Pollution: An Individual's Moral Duty

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**ABSTRACT:** There has been a great concern on earth's ailing condition especially when effects of man's inadvertent progression in the world of science and technology created a network of environmental problems. thus the word 'pollution' comes to mind. in this essay, I would be looking at environmental pollution particularly, land and noise pollution, how are they evolved and what can be done to curb the problem from aggravating.

I think it is very important for people to realize that different types of pollution such as water, air and soil are not inconsequential of one other. in fact, each of the parts of an environment – air, water, soil – depends upon the others and the flora and fauna within the environment. the relationships among all living and non-living things in an environment make up an ecological system, known as the ecosystem. all the ecosystems of the earth are interdependent. thus, pollution that seems to affect only one part of the environment may also affect other parts.

### I. POLLUTION

**Pollution** is the introduction of contaminants into the natural environment that causes adverse change. Pollution can take the form of chemical substances or energy, such as noise, heat or light. Pollutants, the components of pollution, can be either foreign substances/energies or naturally occurring contaminants. Pollution is often classed as point source or nonpoint source pollution.

### II. ROLE OF AN INDIVIDUAL IN PREVENTION OF POLLUTION

Environment protection has been burning issue in last half century. In order to tackle the menace of pollution, urgent steps have to be taken at not only global or country level, but also at local level. In fact, the role of individuals in prevention of pollution is of critical importance, because it is the individuals that make a community or country. The effort by each individual at his or her level can have a significant effect on a global level. It has been aptly said, "charity begins at home".

Aware and inspired individuals are the strongest tool to tackle pollution. This is because an aware individual not only lessens the burden on the state but also he/she can tackle the problem of pollution more effectively as he/she is more familiar with problems persisting at the local level and he himself/herself deals with them in his/her day to day life. It is better and more viable to prevent pollution by educating individuals than controlling pollution. Individuals should encourage to modify their lifestyle and living habits if that are not healthy for the environment.

### III. TYPES OF POLLUTION AND HOW THEY CAN BE PREVENTED:

1. Air Pollution
2. Water Pollution
3. Noise Pollution
4. Land Pollution

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## AIR POLLUTION:

Air pollution is a chemical, physical or biological agent that alters the natural characteristics regarding the atmosphere. While the atmosphere is a multifaceted system of gas that all life on earth needs to survive, air pollution threatens its stability through stratospheric ozone depletion and other concerns. A host of major sources of pollution has been identified as the greatest source of emissions surrounding our automobiles. An assortment of gasses, such as carbon dioxide, which helps make the global warming problem worse, is also a newly recognized culprit for air pollution.

### HOW CAN AIR POLLUTION BE PREVENTED:

#### HOUSEHOLD:

- An individual should avoid smoking at home as residual gas and particles from cigarette smoke that settle can cause serious health problems to even the person smoking and every individual present at home. QUIT SMOKING IS THE BEST ANSWER FOR OVERALL HEALTH.
- Gas stoves that are not well ventilated with hoods to outside (can increase exposure to nitrogen dioxide (NO<sub>2</sub>), carbon monoxide and formaldehyde).
- An individual must use craft supplies in well-ventilated areas.
- An individual must make sure your gas stove is well-ventilated.
- Many people have to carpet in their houses so they must remove carpeting if possible.
- An individual must use a dehumidifier and/or air conditioner to reduce moisture.
- An individual must keep trash covered to avoid attracting pests.
- An individual must remove shoes at the door as it may bring a lot of pollution from outdoor to indoor.
- An individual must have car emissions tested regularly.
- An individual must minimize air freshener use as they contain chemicals that are harmful to one's health.
- An individual must use carbon monoxide detectors.
- An individual must fix water leaks [if any].
- An individual must dust surfaces and vacuum frequently.
- An individual must wash bedding weekly in hot water.
- An individual must make sure exhaust fans are functioning in your bathrooms and kitchen.
- An individual must keep a lid on scented candles.

#### PUBLIC PLACES:

- Cars and trucks are responsible for around half of the air pollution in the world. The best way to approach a reduction in vehicle-related air pollution is to drive less and exercise smart driving habits. One way to cut air pollution is to take fewer trips in a car or truck. Some people are reluctant to lessen their weekly driving because they feel they will be stuck in the house with nowhere to go.
- A reduction in air pollution also comes when individuals make a strong effort to save energy. Whenever fossil fuel is burned, air pollution takes place. This means using less gasoline, natural gas, and electricity (that comes from burning power plant materials) greatly helps. Individuals may transform careless and wasteful habits by implementing a few changes in their household behaviors. This may include turning off lights when leaving a room; replacing incandescent lights with fluorescent lighting, and purchasing energy-saving appliances.
- Instead of using your cars, choose to walk or ride a bicycle whenever possible. With this eco-friendly practice, you will also be healthier and happier by staying fit.
- Use eco-friendly or biodegradable materials instead of plastic which are made up of highly toxic substances injurious to your health.
- Take very good care of your pets and their wastes.
- Do not litter in public places. Anti-litter campaigns can educate the populace.

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- Say a big “NO” to GMOs or genetically modified organisms. Genetically engineered crops are not only bad for the environment since they require amassive amount of fungicides, pesticides, and herbicides; but GMO altered foods are also health risks and negatively impact farmers’ livelihood.

## WATER POLLUTION:

Water pollution is the contamination of water bodies (e.g. lakes, rivers, oceans, aquifers, and groundwater). This form of environmental degradation occurs when pollutants are directly or indirectly discharged into water bodies without adequate treatment to remove harmful compounds.

## HOW CAN WATER POLLUTION BE PREVENTED:

### HOUSEHOLD:

- DO NOT pour fat from cooking or any other type of fat, oil, or grease down the sink. Keep a “fat jar” under the sink to collect the fat and discard in the solid waste when full.
- DO NOT dispose of household chemicals or cleaning agents down the sink or toilet. Simsbury has a Hazardous Waste Collection day usually from 8:00am to 1:00pm at Henry James School. Connecticut Resource Recovery Authority lists all collection dates.
- DO NOT flush pills, liquid or powder medications or drugs down the toilet. For recommendations on proper disposal for all types of medical wastes, visit the CT DEP publication here.
- Avoid using the toilet as a wastebasket. Most tissues, wrappers, dust cloths and other paper goods should be properly discarded in a wastebasket. The fiber reinforced cleaning products that have become popular should never be discarded in the toilet.
- Avoid using a garbage disposal. Keep solid wastes solid. Make a compost pile from vegetable scraps.
- Install a water efficient toilet. In the meantime, put a brick or 1/2 gal container in the standard toilet tank to reduce water use per flush.
- Run the dishwasher or clothes washer only when you have a full load. This conserves electricity and water.
- Use the minimum amount of detergent and/or bleach when you are washing clothes or dishes. Use only phosphate-free soaps and detergents.
- Minimize the use of pesticides, herbicides, fertilizers. DO NOT dispose of these chemicals, motor oil, or other automotive fluids into the sanitary sewer or storm sewer systems. Both of them end at the river.
- If your home has a sump pump or cellar drain, make certain it does not drain into the sanitary sewer system. If you are unsure, please call Simsbury Water Pollution Control at (860) 658-1380 and we can assist in determining the discharge point.

### PUBLIC PLACES:

- Never throw rubbish away anyhow. Always look for the correct waste bin. If there is none around, please take it home and put it in your trash can. This includes places like the beach, riverside and water bodies.
- Use water wisely. Do not keep the tap running when not in use. Also, you can reduce the amount of water you use for washing and bathing. If we all do this, we can significantly prevent water shortages and reduce the amount of dirty water that needs treatment.
- Do not throw chemicals, oils, paints and medicines down the sink drain, or the toilet. In many cities, your local environment office can help with the disposal of medicines and chemicals. Check with your local authorities if there is a chemical disposal plan for local residents.
- Buy more environmentally safe cleaning liquids for use at home and other public places. They are less dangerous to the environment.
- If you use chemicals and pesticides for your gardens and farms, be mindful not to overuse pesticides and fertilizers. This will reduce runoffs of the chemical into nearby water sources. Start looking at options of composting and using organic manure instead.

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- If you live close to a water body, try to plant lots of trees and flowers around your home, so that when it rains, chemicals from your home does not easily drain into the water.

## NOISE POLLUTION:

Noise pollution or noise disturbance is the disturbing or excessive noise that may harm the activity or balance of human or animal life. The source of most outdoor noise worldwide is mainly caused by machines and transportation systems, motor vehicles, aircraft, and trains. Outdoor noise is summarized by the word environmental noise. Poor urban planning may give rise to noise pollution since side-by-side industrial and residential buildings can result in noise pollution in the residential areas. Documented problems associated with urban noise go back as far as Ancient Rome. Outdoor noise can be caused by machines, construction activities, and music performances, especially in some workplaces. Noise-induced hearing loss can be caused by outside (e.g. trains) or inside (e.g. music) noise. High noise levels can contribute to cardiovascular effects in humans and an increased incidence of coronary artery disease. In animals, noise can increase the risk of death by altering predator or prey detection and avoidance, interfere with reproduction and navigation, and contribute to the permanent hearing loss.

## HOW CAN NOISE POLLUTION BE PREVENTED :

- Noise-free electronic appliances: Such appliances are easily available in the market. You just need to pay a few bucks extra but if you don't do this you have to pay more than this eventually to your doctor for the treatment of your weakening nerves and hearing.
- Use of headphone for TV and Music: It may seem a little extra sophistication but if someone in the family wants to listen to music in loud voice others should not pay its price. That is why more than one headphone must be available in your home.
- No honking in front of home: When you reach home the sound of the engine of your vehicle is enough to let your housemates know about your arrival. You need not honk and disturb the calm of your home.

## LAND POLLUTION:

Land pollution is the deterioration (destruction) of the earth's land surfaces, often directly or indirectly as a result of man's activities and their misuse of land resources.

## HOW CAN LAND POLLUTION BE PREVENTED:

- Don't use garbage bags—just empty your trash into the garbage bin.
- If you don't like that approach, get yourself some recycled or biodegradable, compostable garbage bags.
- Request that your daily newspaper not is wrapped in plastic when delivered. (Or cancel your newspaper subscription and go totally online for your news fix— you'll save hundreds of trees as well.)
- Take your own plastic or metal container to the restaurant to take home your leftovers when you're eating out. Sure they'll look at you funny, but remember you're an eco-trend-setter!
  - Remind your favorite take-out place to leave out the plastic utensils when they pack your food to go. Your drawers are full of them already! And politely decline the bag if you only have one or two items to carry home.
  - Ask your favorite dry-cleaners to eliminate the plastic wrap on your clothes. Don't forget to choose an eco-friendly, non-toxic dry cleaner too.
  - Buy biodegradable products.
  - Store all liquid chemicals and waste in spill-proof containers.
  - Eat organic foods that are grown without pesticides. Look out for fertilizer or pesticide free products when you go to the market.
    - Don't use pesticides if you can.

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- Use a drip tray to collect engine oil.
- Buy products that have little packaging.
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- Don't dump motor oil on the ground.

## IV. CONCLUSION:

In this way role of an individual takes place in prevention of pollution and an individual must follow measures or precautions that should be taken in the prevention of pollution.

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