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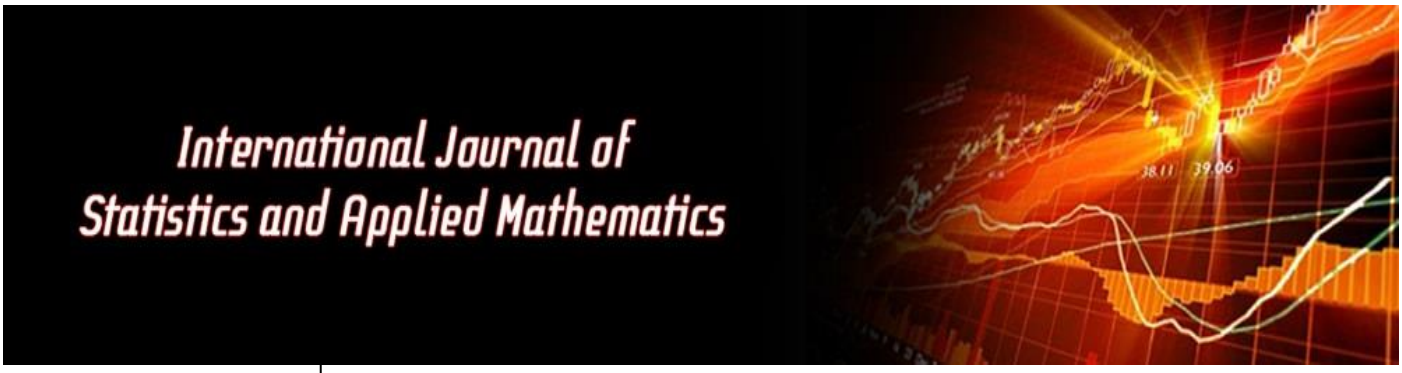

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Environmental pollution analysis in developing countries

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Abstract
Environmental pollution is a big worry in the world's developing countries, particularly in Nigeria. Pollution has a dreadful detrimental vibration or effect on all living things and the environment. Pollution of the environment by human activities via air, land, and water is destructive to the life of all living creatures within civilization, which is not an acceptable development. Several reasons contribute to air pollution, including emissions from motor cars, industrial operations, volcanic eruptions, toxic emissions, forest fires, deforestation, bush burning, and cosmic dust clouds. Oil spills, human erosion, and hazardous material contamination all contribute to soil pollution. Water contamination is caused by oil discharge from boats, dumping from ships and aircrafts, land waste disposal, oil spills, organic sources, and other causes of pollution. Pollution is a critical environmental disaster since certain recognized and undiscovered illnesses are identified and may be difficult to control. Environmental pollution will be explored in this study in three categories: air pollution, noise pollution, and water pollution.

Keywords: water pollution, disaster since, aircrafts, land waste disposal

1. Introduction
The term "environment" refers to the Earth's surroundings, which comprise all of the factors and circumstances that impact life on Earth. To put it simply, environment refers to nature. The environment includes all living and nonliving objects on Earth. We may also define environment as a mix of natural and man-made events. It includes everything in our environment that effects our ability to exist on Earth - air, water, plants, animals, and many more. Everything on Earth is tied to the environment, without which nothing would survive. To keep everything well on Earth, the environment must be correct and ideal, suited for everyone on Earth. Mankind and the environment are linked by a very thin thread; both must be balanced. If one of the two is afflicted, the other is immediately affected. The entire population has grown dramatically as a result of modernization, and the environment has been severely altered by population growth. The basic makeup of the environment is changing in today's world as a result of urbanisation and other developments. Some of the negative consequences of these shifts include deforestation, global climate change, and pollution. Pollution is one of today's biggest challenges, and we can see that it is becoming worse by the day. There are several reasons why our environment is being contaminated. Pollution is defined as hazardous substances that enter the environment in a variety of ways and disrupt the basic makeup of the ecosystem.

Thus, pollution increases the number of chemicals or particles that are not a natural component of the ecosystem or that cannot be absorbed by the environment to preserve its fundamental makeup. Pollutants are substances or particles that alter the basic makeup of the environment. Pollutants are typically waste items of many types that contribute significantly to pollution.

Air pollution, water pollution, noise pollution, soil contamination, and light pollution are all examples of pollution. Pollution can be created by a variety of sources, some of which can be identified, monitored, and controlled, while others are difficult to manage. According to Pure Earth, a non-profit environmental group, this harmful environmental contamination affects more than 200 million people globally.

Children's IQ levels have been reduced by 30 to 40 points in some of the most polluted areas owing to cancer and other ailments, life expectancy has been reduced, and there are many other negative impacts of the polluted environment. Pollution of the environment can be generated by a variety of factors, including industry, transportation, agricultural operations, trading activities, fast urbanization, population increase, and so on. Many toxic chemicals are discharged into the environment as a result of industrialization, and they are primarily responsible for air, soil, and water pollution. Another source of pollution is transportation; the number of automobiles on the road today has expanded dramatically, and these vehicles utilize diesel and gasoline, which emits harmful emissions to the environment and is a major source of air pollution. As the number of cars increases, so does their loudness, resulting in noise pollution. Agriculture produces pollution since the usage of pesticides has risen. Pesticides, as we know, contain chemical components that are hazardous to the land, water, and health of living beings. As the world's population grows, humans require more space to live, which requires them to degrade the ecosystem in some way. All of this has an impact on the environment, either directly or indirectly, and pollution is increasing day by day.

2. Basic concepts of Pollution

Pollution affects all living and non-living organisms on Earth, either directly or indirectly. It is harmful to human health since pollution causes several ailments such as respiratory problems, allergies, and eye discomfort. Acid rain is one of the difficulties produced by pollution in the environment. Acid rain has a negative impact on both animals and planets, since it severely shortens their lives. Environmental pollution has a negative impact on ecosystems and disrupts the natural environment.

2.1 Now we briefly explain all type of environment pollution one by one

Water pollution is caused by distributing garbage in lakes, waterways, and other bodies of water, which affects marine life and, indirectly or directly, all living beings on Earth, producing several issues.

Land pollution is another sort of pollution. It occurs as a result of human-caused degradation of the Earth's land surface. Land pollution is caused by garbage, industrial waste, agricultural pesticides, fertilizers, mining, and other types of urbanization. Land contamination cannot be eliminated, but simply reduced. Because soil on land cannot be completely changed, it must only be conserved.

Noise pollution happens when there is either an excessive quantity of noise or an unpleasant sound that creates a momentary interruption in natural equilibrium. Increased volume of television, radio, music system, electrical equipment at home, and car horns, among other things, are significant contributors of noise pollution. Noise pollution may cause hearing impairments as well as a variety of health concerns such as aggressive behavior, sleep disruption, hypertension, and so on. The fauna is also affected by noise pollution.

Light pollution is a sort of pollution as well. It is caused by overly bright, misdirected, or improper outdoor illumination. It causes a rise in energy consumption, disturbs ecosystems, and has an impact on the health and safety of humans and wildlife. It also raises the concentration of carbon monoxide and other airborne contaminants. Finally, one of the most dangerous kinds of pollution is air pollution. Because our Earth's atmosphere is surrounded by layers of gases. As a result, every change in the composition of the atmosphere affects everyone on the planet. Pure air is composed of approximately 78.09% nitrogen, 20.95% oxygen, 0.93% argon, 0.039% carbon dioxide, and trace quantities of other gases. Water vapor makes up around 1% of the total volume of air.

Air pollution occurs when toxic gases, dust, and smoke enter the atmosphere, making it harder for living organisms to exist as the air gets unclean. Air pollution has also increased as cities and industries have grown.

Air pollution causes respiratory and cardiovascular problems in humans, as well as global warming, acid rain, animal impact, ozone layer depletion, and a slew of other issues.

Pollution is extremely destructive to our environment and must be controlled. To address the problem of pollution, it is necessary to restrict the extraction of toxic compounds from the environment, which has a negative impact on our ecosystem. In other words, we should be aware of the point at which the things we use become hazardous to the environment and damage it.

The air pollution primarily results from

- Natural processes (soil erosion, volcano eruptions)
- Human activity, which includes three major sources:
- Industry pollution
- Traffic pollution (air exhaust, brake and tire wear, dust resuspension from roads, air and sea traffic)
- House heating

Rapid urbanization and population increase have resulted in a slew of health issues, including air and noise pollution. Among all pollution concerns, noise is regarded as a critical environmental issue. Motor cars are the primary causes of urban noise pollution, accounting for approximately 55% of overall noise emissions (Banerjee *et al*., 2008; Pandya *et al*., 2002; Sinha *et al*., 2003) [15, 16, 17]. The increasing vehicle population causes noise pollution and related health impacts, as well as short- and long-term psychological and physiological issues. Noise is classified as a contaminant under India's Prevention and Control of Pollution Act of 1981. (MoEF 1981 Act).

We must keep all particles/substances in the environment in balance. To raise awareness among individuals, businesses, and governments about the need of environmental protection, the environmental field has evolved into a discipline known as "Environ metrics." Hunter (1994) [18] asserted that environ metrics is a new science. Nowadays, environ metrics is regarded as an interdisciplinary subject in which statistical approaches may be used to study and interpret environmental data. The current study is an extension of a previously reported study (Garg, Maji, 2016a) on the establishment of the National Ambient Noise Monitoring Network (NANMN) across seven major cities in India for continuous noise monitoring throughout the year, and it analyses noise monitoring data acquired for the 35 sites in 2014 and the previous four years (2011-2014) to analyze and report the status of noise pollution at these sites. Water pollution is described as the presence of toxic or dangerous elements in water that might harm the water's quality or affect its living resources. One of the problems confronting the people of developing countries, notably Nigeria, is an insufficient supply of water for household and industrial use. Another aspect of this issue is the scarcity of clean, drinking water in Nigeria's riverine towns and major cities. This condition may be traced back to water contamination.

Table 1: Pollution level of south regions of India

Years	2020			2021			2022		
Selected States	a	n	w	a	n	w	a	n	w
Tamilnadu	42%	30%	28%	22%	20%	18%	27%	23%	20%
Karnatka	44%	27%	18%	24%	17%	9%	29%	19%	11%
Andhra Pradesh	46%	33%	22%	26%	23%	12%	29%	26%	14%
Kerala	30%	15%	12%	20%	8%	7%	24%	11%	10%
Telangana	42%	26%	22%	22%	16%	12%	25%	19%	13%

Note: a- Air pollution, n- Noise Pollution, w-Water Pollution

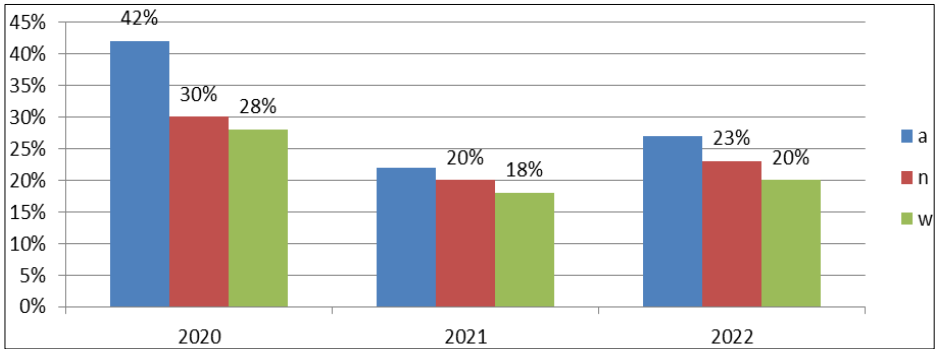

Fig 1: Tamilnadu Pollution level

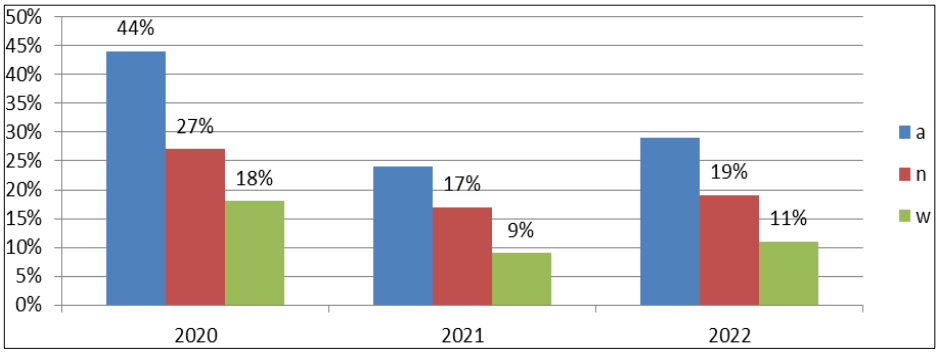

Fig 2: Karnatka Pollution level

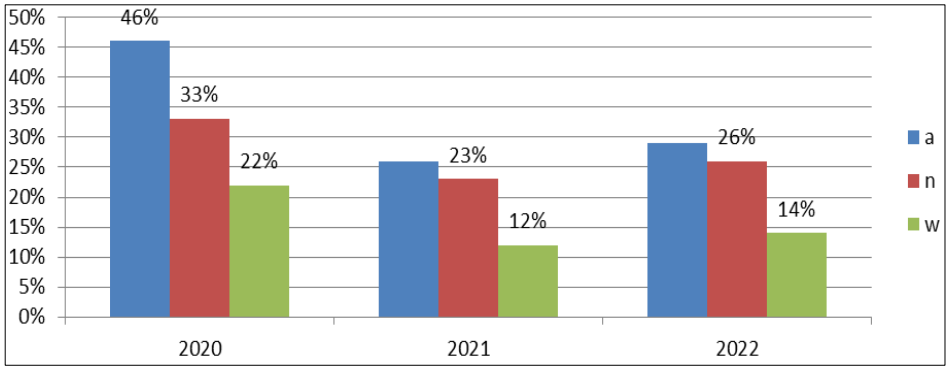

Fig 3: Andhra Pradesh Pollution level

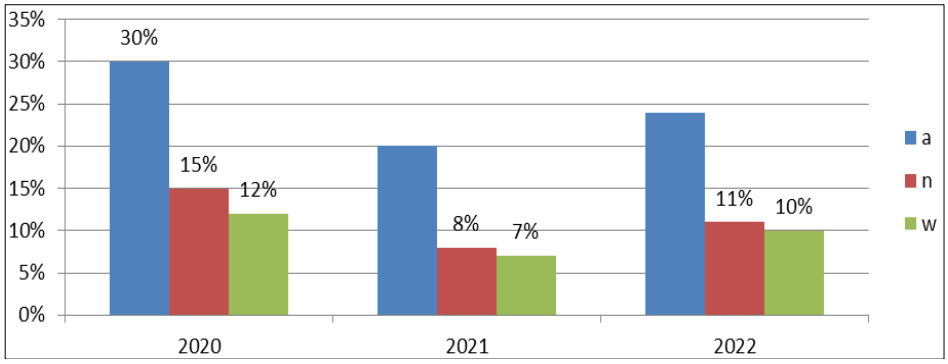

Fig 4: Kerala Pollution level

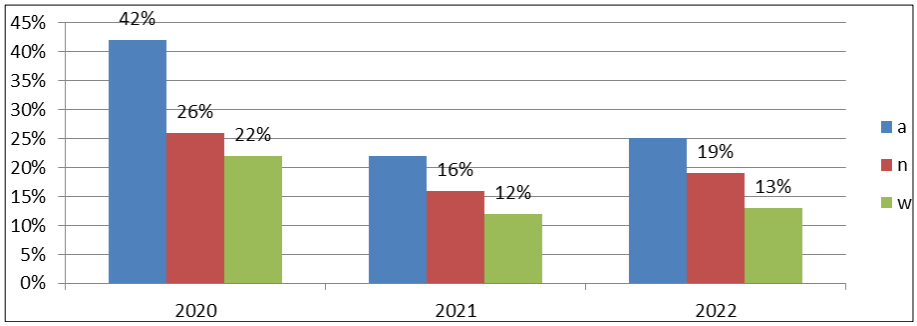

Fig 5: Telangana Pollution level

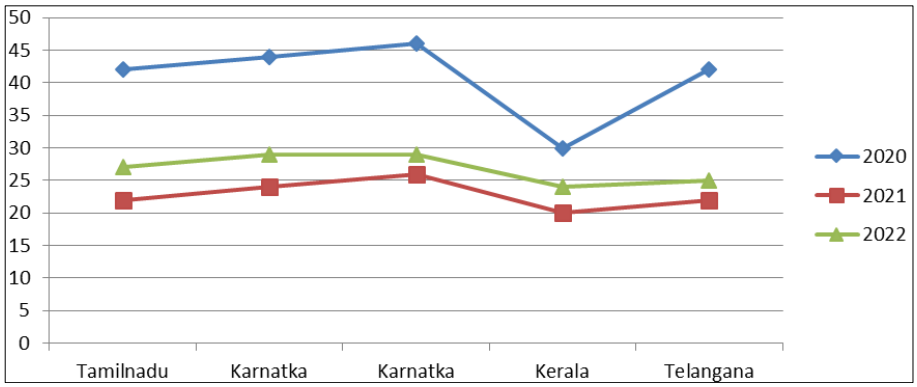

Fig 6: Air pollution level of south region of India

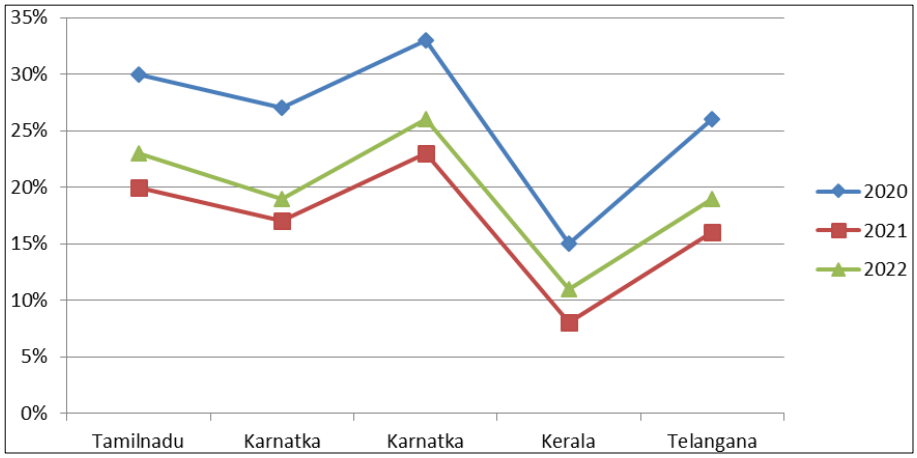

Fig 7: Noise pollution level of south region of India

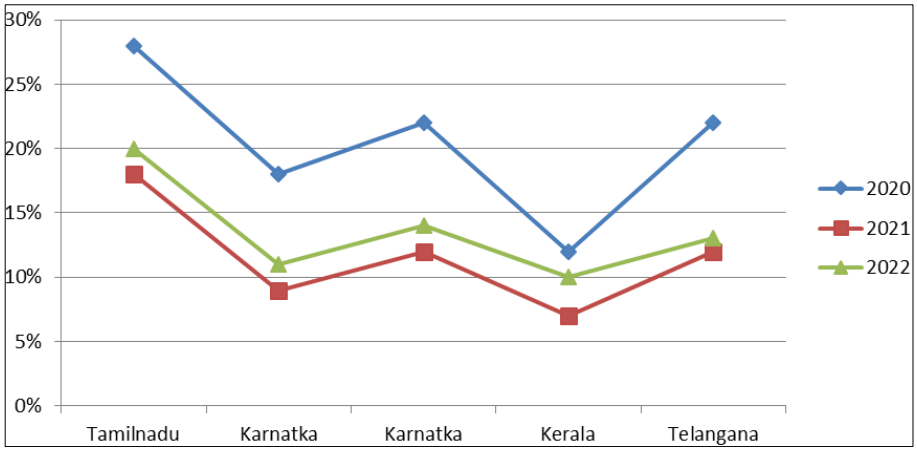

Fig 8: Water pollution level of south region of India

Pollution from the environment (air, noise, and water) has a negative impact on the health of humans, animals, and the ecosystem as a whole. Environmental pollution causes diseases that impair man's health, such as respiratory, neurological, and skin disorders. Pollution in the environment might hasten the spread of animal diseases. Plants are not

immune to the impacts of environmental contamination, since plant diseases may spread quickly via the environment. Pollution in the environment can cause acid rain and smog development.

3. Conclusion

To safeguard man and the environment from the detrimental effects of all chemicals put into the atmosphere, water, or soil, a comprehensive and trans disciplinary Concept including general aims and principles of protective action must be developed. These principles would, of course, include the role of the law in environmental protection. There is therefore a need to increase monitoring of the effects of existing pollution rules, with the goal of determining any shortcomings in existing rules and laws, as well as whether additional international conventions relating to the eradication of environmental pollution should be ratified and domesticated into any law in developing countries.

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