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A Study on Air Pollution and Provisions Relating to IT

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Abstract: *With advancement in industrialization, natural conservation has turned into a genuine concern. The rising force, India, has been confronting with natural contamination because of fast improvement and absence of appropriate execution of ecological contamination control guidelines. Condition is specifically related with article 21 of Constitution of India which manages right to life of person. The two fundamental laws that direct air contamination in India: The Air (Prevention and Control of Pollution) Act, 1981 (Air Act) and Environment (Protection) Act, 1986 (EPA). The Air Act has been sanctioned on indistinguishable lines from the Water Act, 1974 which was declared to control water contamination. The Air Act comprises of fifty four (54) Sections partitioned into seven (7) sections. Air contamination, as per the Air Act implies the nearness of any "air toxin" in the climate. The meaning of Air toxin is wide to the point that it envelops any strong, fluid or vaporous substance incorporating clamor present in the air to such a degree, to the point that it is harmful to human, living animals, property or condition. This article is basically about basic investigation of arrangements under these two demonstrations. The main objective of this paper is to study about air laws, the role of CPCB and SPCB, the powers and function of CPCB and SPCB. The methodology is used in the research paper is empirical as well doctrinal method. To conclude, the air pollution is not the root cause to other pollution but air pollution is a serious threat in the society.*

Keywords: pollution**,** environment, air, harmful, Act

I. INTRODUCTION

Air contamination will be sullying of the indoor or open air condition by any compound, physical or organic specialist that alters the common qualities of the atmosphere.An ongoing WHO study of 1,600 urban communities crosswise over globe has uncovered that air contamination had declined, putting city-inhabitants at a higher danger of malignancy, stroke and coronary illness.(do Lago 2009)

Air contamination is a region of genuine worry in India. According to the aforementioned WHO ponder, New Delhi has the dirtiest air, with a yearly normal of 153 micrograms of little particulates (known as PM 2.5) per cubic meter. The fundamental purposes behind air contamination in India are kindling and biomass consuming, increment in vehicular emanations, (Divan and Rosencranz 2001)activity clog, adultered fuel, non-transfer of squanders, and so on.

Beginning of Indian Laws on Air Pollution

In the UN Conference on the Human Environment held in Stockholm in June, 1972 ("Stockholm Conference"), the Stockholm Declaration was announced and goals was taken for conservation of condition and avoidance and control of contamination. India was additionally involved with the Stockholm Conference and in compatibility of the endeavor taken in Stockholm, the Government of India under Article 253 of the Constitution of India established the Air (Prevention and Control of Pollution) Act, 1981 ("Air Act") for the avoidance, control and decrease of air contamination and further to execute the arrangements of the Air Act, ordered the Air (Prevention and Control of Pollution) Rules, 1981 ("Air Rules"). (Bradnee Chambers 2008)

The Air Act has been sanctioned on indistinguishable lines from the Water Act, 1974 which was declared to control water contamination. The Air Act comprises of fifty four (54) Sections partitioned into seven (7) sections. Air contamination, as per the Air Act implies the nearness of any "air toxin" in the climate. The meaning of Air toxin is

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wide to the point that it envelops any strong, fluid or vaporous substance incorporating clamor present in the air to such a degree, to the point that it is harmful to human, living animals, property or condition. (World Commission on Environment and Development 1987)

The Air Act presents the administrative capacity to the Central Pollution Control Board ("CPCB") and the State Pollution Control Board ("SPCB") to anticipate and control the air contamination.

Role of CPCB and SPCBs

The CPCB and the SPCBs have been given the job to enhance the nature of air and to forestall, control or lessen air contamination. The different capacities and forces of the CPCB and the SPCB are individually given under Section 16 and Section 17 of the Air Act. The CPCB is bound by the course of the Central Government and SPCB is bound by bearings of the CPCB and the State Government.(Leary and Pisupati 2010)

Functions and Power of CPCB :

a) Advice the Central Government on change of air quality and counteractive action, control or reduction of air contamination and to give preparing to people occupied with such projects

b) Prescribe the principles for air quality

c) Execute across the nation programs for counteractive action, control or decrease of air contamination and preparing to people occupied with such projects

d) Give heading to SPCBs, co-ordinate among SPCBs and give any specialized help, direction and resolve the debate among SPCBs (Beder 2013)

e) Collect and distribute specialized and factual information identifying with air contamination

f) Organize broad communications programs for counteractive action, control or reduction of air contamination.

g) Establish or perceive laboratory(ies) to play out the different capacities made reference to under Section 16 of the Air Act

Functions and Power of SPCB

a) Plan far reaching program for the counteractive action, control or decrease of air contamination

b) Advice the State Government on any issue concerning the counteractive action, control or decrease of air contamination (Alam 2013)

c) Prescribe the models for emanation of air toxins into the climate in interview with CPCB

d) Collaborate with CPCB in giving preparing to people occupied with the avoidance, control or decrease of air contamination and furthermore to arrange mass training programs.

e) Collect and disperse data in regards to air contamination

f) Inspect air contamination control zones, any control hardware, modern plat or assembling process and survey the quality and further to give request or course

g) Establish or perceive laboratory(ies) to play out the different capacities made reference to under Section 17 of the Air Act

h) To give bearings in composing for (a) stoppage or control of power, water or some other administrations; or (b) the conclusion, denial or direction of any industry, task or process.(Kurukulasuriya and Robinson 2006)

Power of State Governments ,The State Governments has the ability to proclaim any territory as air contamination control zone after conference with the SPCB. The State Government, after discussion with the SPCB, can deny utilization of any fuel, other than affirmed fuel in any zone on the off chance that it feels that the utilization of the fuel will contaminate the atmosphere. Further, with the end goal to counteract air contamination, the State Governments have the ability to preclude the utilization of any appliance. In the event that the State Government is of the view that consuming of any substance (other than a fuel) may cause or liable to cause air contamination, it can forbid consuming of such material by notice through authority gazette. The State Government additionally has the ability to teach the expert accountable for the Motor Vehicles Act, 1939 to cling to the norms for emanation of air poisons from cars which are stipulated by the SBCB.(Kuokkanen et al. 2016).**The main aim of the paper is to study about air pollution and laws on air pollution.**

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OBJECTIVE:

The paper aims to study about laws on air pollution, study about the role of CPCB and SPCB and to study about powers and function of CPCB and SPCB.

II. REVIEW OF LITERATURE

Air pollution in urban areas arises from multiplesources, which may vary with location and developmental activities. Anthropogenic activities as rampant industrial-ization, exploitation and overconsumption of natural resources, ever growing population size are major contributors of air pollution. (Sankar 2007)

Air pollutant means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.(Schwela 2006)

The term "clean air" means air which is clean, unpolluted and neither harmful for humans nor harmful to the surroundings where we live. To maintain this, various countries in the world have their own laws.(Divan and Rosencranz 2001)

Air pollution means many things to people. To the motorist and the pilot it means reduction of visibility. To the public health worker it is a source of chronic and acute effects on health of people which lead to increased death rates.(*Air Quality, 2013* 2013)

Pollution laws have become very important for industries. The industries creating pollution has to work under the permissible limit given in these laws. Disobedience of these pollution laws can lead to closer of industry and criminal prosecution for management.(Arnott, Barry, and Reeder 2012)

Local bodies legislation laws relating to Municipal Corporations, Municipalities and Panchayats is a typical example. Amidst various other responsibilities, it makes a feeble attempt at maintaining a clean environment by imposing duties and conferring powers on the local bodies. But these provisions remain ineffective instruments of pollution control.(Faiz, Weaver, and Walsh 1996)

In the United Nations Conference on the Human Environment held in Stockholm in June, 1972 in which India participated, decisions were taken to take appropriate steps for the preservation of the natural resources of the earth which, among other things, include the preservation of the quality of air and control of air pollution.(Goel 2009)

The-Board advises the Central Government on matters concerning the improvement of air quality and also coordinates activities, provides technical assistance and guidance to State Boards and lays down standards for the quality of air.(Colls and Tiwary 2017)

They are expected to inspect air pollution control areas at intervals or whenever necessary. They are empowered to provide standards for emissions to be laid down for different industrial plants with regard to quantity and composition of emission of air pollutants into the atmosphere.(Divan and Rosencranz 2001)

Air Pollutants-They are the substances which pollute the air. Some of the common pollutants are dust, soot, ash, carbon monoxide, excess of carbon dioxide, sulphur dioxide, oxides of nitrogen, hydrocarbons, chlorofluorocarbons(CFC), lead compounds, asbestos dust, cement dust, pollens and radioactive rays.(Kumar, Kumar, and Joshi 2014)

Whoever contravenes any of the provision of the Act or any order or direction issued is punishable with imprisonment for a term which may extend to three months or with a fine of Rs. 10,000 or with both, and in case of continuing offence with an additional fine which may extend to Rs 5,000 for every day during which such contravention continues after conviction for the first contravention.(Beder 2013)

As per provisions in Sec. 21 (1) & (2), no person can establish or operate any industrial plant without the previous consent of State Pollution Control Board. Every application for consent shall be made in Form-I and shall be accompanied by prescribed fee.(Royston 2016)

Section 22 prohibits the discharge or emission of any air pollutant by any person operating any industrial plant in any air pollution control area in excess of the prescribed standards. (Thakur 1997; Xi and Kun 2017))

Contravention of the section is punishable under section 37. The. standards are. laid down by the State Board under section 17(1) (g).(Xi and Kun 2017)

The 9th International Conference on Environmental Pollution and Remediation (ICEPR'19) aims to become the leading annual conference in fields related to environmental pollution and remediation.(Royston 2016)

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The most common source of air pollution is the household products, which include: pesticides, pollen, cigarette smoke and many more. Air pollution is very hazardous for human health and can lead to breathing problems. Radon 22 which is an indoor pollutant can cause lung cancer.(Van Calster and Reins 2017)

The Air (Prevention and Control of Pollution) Act, 1981 is a central Act of Parliament, which provides for the prevention and control of air pollution and maintaining the good quality of air. It has also provided for the establishment of the Central and State Boards for the Prevention and Control of Air Pollution under sections 3 and 4.(Committee on Science for EPA's Future et al. 2012)

The best way to protect air quality is to reduce the emission of pollutants by changing to cleaner fuels and processes. Pollutants not eliminated in this way must be collected or trapped by appropriate air-cleaning devices as they are generated and before they can escape into the atmosphere.(Parto, Herbert-Copley, and International Development Research Centre (Canada) 2007)

One of the Important factor contributing air pollution in India is rapid growth of population. The problem of population growth has become a global phenomenon. India is no exception to the problem of urbanization. The average rate of growth of population in India in the last three decades is about 2 percent per annum.(Committee on Environmental Research 1993)

Air pollution involves spate of pollutants which creates a lot of chronic and acute diseases in human being so we have to put the foreign particles within the constraint of standard limit.(Davies 2013)

III. METHODOLOGY

This paper used both primary and secondary information which are collected from the general public through the simple random sampling method. The research paper is done in both doctrinal and non-doctrinal method. The questions related to the was also taken into account. The survey was limited to 1315 samples because of the time constraint. The primary sources of information are taken from the books and statutes and the secondary sources of information are taken from the articles of the journals, working papers, thesis and presentation papers. The dependent variable Are you of the view that air pollution is the root cause of all other pollution and Do you feel that age old vehicles are causing a serious threat to the quality of air?. The independent variable is educational qualification.The analysis of the survey is done by using chi-square and frequency test.

HYPOTHESIS:

Null hypothesis:

There is a significance in the study on air pollution and provisions relating to it.

Alternate hypothesis:

There is no significance in the study on air pollution and provisions relating to it.The alternate hypothesis is proved in this research paper.

IV. ANALYSIS AND DISCUSSION

ANOVA

50.Are you of the view that air pollution is the root cause of all other pollution?	**Between Groups**	**27.132**	**6**	**4.522**	**8.548**	**.000**
	Within Groups	**608.879**	**1151**	**.529**		
	Total	**636.010**	**1157**			
51. Do you feel that age old vehicles are causing a serious	**Between Groups**	**7.947**	**6**	**1.324**	**2.023**	**.060**
	Within Groups	**753.473**	**1151**	**.655**		

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threat to the quality of air?	Total	761.420	1157		

Percentage analysis

2.Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	612	52.8	52.8	52.8
	Female	530	45.8	45.8	98.6
	Prefer not to say	16	1.4	1.4	100.0
	Total	1158	100.0	100.0	

from the above table it is understood that male of frequency 612 and female of frequency 530 and prefer not to say are of frequency 16 among the total 1158. Male are of 52.8 percent, female are of 45.8 percent, prefer not to say are of 1.4 among 100.valid percent of male is 52.8 and female is 45.8 and prefer not to say is 1.4 among total of 100. the cumulative percent of male is 52.8 and female is 98.6 and prefer not to say is 100.

3.Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 18	54	4.7	4.7	4.7
	18 to 25	488	42.1	42.1	46.8
	25 to 30	332	28.7	28.7	75.5
	30 to 40	211	18.2	18.2	93.7
	40 to 50	52	4.5	4.5	98.2
	50 to 60	17	1.5	1.5	99.7
	Above 70	4	.3	.3	100.0
	Total	1158	100.0	100.0	

From the above table it is understood that the frequency of below 18 years of age is 54, 18 to 25 is 488, 25 to 30 is 332, 30 to 40 is 211, 40 to 50 is 52, 50 to 60 is 17 and above 70 is 4 and the total is 1158. The percent value of people below 18 years of age is4.7, 18 to 25 is42.1, 25 to 30 is 28.7,30 to 40 is 18.2, 40 to 50 is4.5, 50 to 60 is 1.5 and above 70 is .3 and the total is 100. The valid percent of people below 18 years of age is4.7, 18 to 25 is42.1, 25 to 30 is 28.7,30 to 40 is 18.2, 40 to 50 is4.5, 50 to 60 is 1.5 and above 70 is .3 and the total is 100. The cumulative percent of below 18 years of age is 4.7 , 18 to 25 is 46.8 , 25 to 30 is 75.5,30 to 40 is 93.7, 40 to 50 is 98.2 , 50 to 60 is 99.7 and above 70 is 100.

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4. Educational Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10 th Class pass	75	6.5	6.5	6.5
	plus two level	348	30.1	30.1	36.5
	Graduate	530	45.8	45.8	82.3
	Post graduate	138	11.9	11.9	94.2
	Ph.D/Mphil	67	5.8	5.8	100.0
	Total	1158	100.0	100.0	

From the above table it is clear that the frequency of 10th class pass people is 75, plus two level is 348, graduate is 530, post graduate is 138, ph.D/Mphil is 67, and the total is 1158. the percent of 10th class pass people is6.5 , plus two level is30.1 , graduate is 45.8 , post graduate is 11.9 , ph.D/Mphil is 5.8 and the total is 100. the valid percent of 10th class pass people is6.5 , plus two level is30.1 , graduate is 45.8 , post graduate is 11.9 , ph.D/Mphil is 5.8 and the total is 100. The cumulative percent of 10th class pass people is 6.5 , plus two level is 36.5 , graduate is 82.3 , post graduate is 94.2 , ph.D/Mphil is 100 and the total is 100.

50.Are you of the view that air pollution is the root cause of all other pollution?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	343	29.6	29.6	29.6
	No	520	44.9	44.9	74.5
	May be	295	25.5	25.5	100.0
	Total	1158	100.0	100.0	

From the above table it is understood that out of 1158 people, for the question “Are you of the view that air pollution is the root cause of all other pollution ?” 343 (29.6%) people answered yes ,520 (44.9%) people answered no and 295 (25.5%) answered maybe to the asked question.

51. Do you feel that age old vehicles are causing a serious threat to the quality of air?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	213	18.4	18.4	18.4
	STRONGLY AGREE	430	37.1	37.1	55.5
	Disagree	469	40.5	40.5	96.0

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	Strongly disagree	46	4.0	4.0	100.0
	Total	1158	100.0	100.0	

This above table says that ,for the question "Do you feel that age old vehicles are causing a serious threat to the quality of air?" Out of 1158 people taken survey,213 (18.4%) people answered agree ,430 (37.1%) answered strongly agree, 469 (40.5%) answered disagree and 46 (4.0%) answered strongly disagree .

Chi square

4. Educational Qualification * 50.Are you of the view that air pollution is the root cause of all other pollution?

Crosstab

			50.Are you of the view that air pollution is the root cause of all other pollution?			
			Yes	No	May be	Total
4. Educational Qualification	10 th Class pass	Count	21	38	16	75
		% within 4. Educational Qualification	28.0%	50.7%	21.3%	100.0%
	plus two level	Count	36	136	176	348
		% within 4. Educational Qualification	10.3%	39.1%	50.6%	100.0%
	Graduate	Count	180	267	83	530
		% within 4. Educational Qualification	34.0%	50.4%	15.7%	100.0%
	Post graduate	Count	54	70	14	138
		% within 4. Educational Qualification	39.1%	50.7%	10.1%	100.0%
	Ph.D/Mphil	Count	52	9	6	67
		% within 4. Educational Qualification	77.6%	13.4%	9.0%	100.0%
Total		Count	343	520	295	1158
		% within 4. Educational Qualification	29.6%	44.9%	25.5%	100.0%

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From this table it is understood that people with the educational qualification of 10 th class pass ,out of 1158 people ,21(28.0%) -YES ; 38 (50.7%) - NO ; 16(21.3%) - MAYBE , people with the educational qualification of plus two level 36 (10.3%) - YES ; 136 (39.1%) - NO ; 176 (50.6%) - MAYBE , people with the educational qualification of graduate 180 (34.0%) - YES ; 267 (50.4%) - NO ; 83 (15.7%) - MAYBE , people with the educational qualification of post graduate 54 (39.1%) - YES ; 70 (50.7%) - NO ;14(10.1%) - MAYBE and people with the educational qualification of Ph.D 52 (77.6%) - YES ; 9 (13.4%) - NO ; 6 (9.0%) - MAYBE for the asked question. Therefore most of the people answered no to the question that air pollution is the root cause of all other pollution.

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	**252.455[a]**	**8**	**.000**
Likelihood Ratio	**246.140**	**8**	**.000**
Linear-by-Linear Association	**132.651**	**1**	**.000**
N of Valid Cases	**1158**		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 17.07.

From the above table,it is identified that the Pearson chi-square value is 0.000.Therefore the null hypothesis is rejected and the **alternate hypothesis** is proved.

V. SUGGESTIONS AND CONCLUSION

The idea of maintainable improvement concocted testing the idea of fast advancement. For instance, on the off chance that anybody cuts a tree then he/she needs to plant at least two trees. The thought of maintainable improvement ascended with the possibility of conservation of condition. The advancement ought to be done so that it will keep going for quite a while and the future age won't get into issues. Be that as it may, the circumstance is opposite on account of India. The pace of improvement is quick. Be that as it may, it is neglecting to keep up clean air. There are acts, case laws, administrative bodies etc yet at the same time the circumstance of air is deteriorating and more terrible. Bunches of individuals are kicking the bucket because of respiratory maladies and lung disease. Particularly in the city, where there is huge populace and where individuals from various country parts of India come to look for offices, are very contaminated. The future of individuals in India may go beneath then it is today. There are enactments like The Environment Protection Act 1986 and The Air Prevention and Control Act 1981 which have specified about preventive measures, administrative board, discipline and remuneration and the point of reference set up in the Bhopal Disaster Case and MC Meheta V Union of India, air contamination hasn't been decreased however has expanded which has been demonstrated via air contamination looked by capital city Delhi as of late. It has just been three many years of these above laws which have appeared however there is no enhancement found noticeable all around and condition overall. Starting here, unmistakably either there is issue in law itself or in the piece of usage. What's more, the issue is in the two laws and usage. Laws overwhelmingly offer watchfulness to make arrangements, explore and research to the sheets. It particularly does not address issues like evacuation of old vehicles, manor of trees side by the street, dust administration, stoppage of consuming wastages and so on. In this way, the authorities are quiet and detached. They don't lead any examination, make arrangement and explore to the issues. On the off chance that the laws were clear in regards to the separate issues then they would have been constrained to make a move against such exercises. Thus, if the authorities had made intended to set up modern zone a long way from human habitation, world legacy locales and urban areas at that point there won't be issue. Because of absence of plan, at first the business dirties the

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earth, last the case is recorded and the court convey decision to move the enterprises for the situation like MC Meheta V Union of India. Here appears issue in the execution part. Therefore in this research paper it is found that air pollution is not the root cause to other pollution but air pollution is a serious threat in the society.

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