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STRIDES - A STUDENTS' JOURNAL OF SHRI RAM COLLEGE OF COMMERCE
ISSN 2581-4931 (Print)

Shri Ram College of Commerce is well known for its academic excellence and dedicated approach towards dissemination of knowledge in the academic world. The college appreciates the role of research in education and is committed to developing an inclination towards research in both faculty and students. In this pursuit, the college has taken the initiative to launch a new Journal named 'Strides - A Students' Journal of Shri Ram College of Commerce'.

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Principal's Message

To achieve and promote excellence in research and publish quality academic as well as educational resources as guided by the Mission Statement of the College, Shri Ram College of Commerce had launched a Journal, "Strides- A Students' Journal of Shri Ram College of Commerce" on the occasion of 91st Annual Day of the College held on 13th April, 2017. The Journal was released by then the Hon'ble Union Minister of Human Resource Development, Shri Prakash Javadekar. The Journal publishes the research papers and articles written by students of the College under the mentorship of Faculty Members which go through an intense review mechanism before getting published.

Through the Journal, students get an excellent platform to enhance their research calibre, display their academic perspective, and practically apply their classroom learnings to real-world situations. The present Issue includes several multi-disciplinary and contemporary topics such as "Effects of Globalization on the Indian Health Sector", "Will America Sustain the Wave of Automation?", "Recycling Hoax", "The Role of Corporate Social Responsibility towards Sustainable Education with reference to the FMCG Companies", "COVID-19 and Mental Health of Adolescents", "Cryptocurrency-The Rise of Tokens", and "Discussion of the Link Between Air Pollution and Economic Growth in Indian States".

I wholeheartedly congratulate the Editor, Strides, Dr. Rajeev Kumar and students whose research papers got published in Volume 5 Issue 1and 2 of the Journal. Simultaneously, I encourage more students to contribute their research papers for the successive Issues.

My best wishes for your future endeavours!

Prof. Simrit Kaur
Principal

Editor's Message

Shri Ram College of Commerce is well known for its academic excellence and dedicated approach towards dissemination of knowledge in the academic world. The College acknowledges and values the role of research in education and is firmly committed to develop and encourage an inclination towards research in both faculty and students. To reaffirm this ethos, the College has taken the initiative to launch a new Journal named 'Strides - A Students' Journal of Shri Ram College of Commerce' to encourage students to pursue research under the guidance of the faculty of Shri Ram College of Commerce.

It is a bi-annual Journal launched exclusively to publish academic research papers and articles by the students on contemporary topics and issues in the area of commerce, economics, management, governance, policies etc.

In order to maintain high standards of publication, COPE (Committee on Publication Ethics) has been constituted. The COPE is the apex authority which authorises over all the decisions related to publication of research papers and articles in Strides. The recommendations and decision of COPE is final and binding.

To maintain high academic standards, academic ethics and academic integrity, a rigorous process of double-blind review of research papers is followed along with screening of plagiarism of each manuscript received by the COPE for publication. The research work published in Strides is absolutely original and not published or presented in any form at any other public forum.

The foundation issue of the Journal "Strides - A Students' Journal of Shri Ram College of Commerce, Volume 1, Issue 1, 2016-17" was successfully released on 91st Annual Day of SRCC held on 13th April, 2017 by Shri Prakash Javadekar, Honb'le Union Minister of Human Resource Development, Government of India. The successive issues of 'Strides - A Students' Journal of Shri Ram College of Commerce' have been released bi-annually. However, due to the COVID19 pandemic and ensuing lockdowns the current issue has been delayed.

I congratulate all the students whose research papers are published in this issue of Strides and express my sincere thanks to their mentors and referees.

Dr. Rajeev Kumar
Editor

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STRIDES - A STUDENTS' JOURNAL OF SHRI RAM COLLEGE OF COMMERCE

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RESEARCH PAPERS

Discussion of the Link Between Air Pollution and Economic Growth in Indian States

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ABSTRACT

The paper discusses the global scenario of environmental pollution and its impact on society. It builds the link between environmental pollution and economic development by reviewing the existing academic literature. Further, we discuss the level of air pollution in India, particularly PM_{10} concentration, and its effect on the states' economic activity using panel data regression. The paper concludes that the increasing PM_{10} concentration has a negative impact on the state net domestic product, thus on the states' economic activity.

Keywords: Environmental Pollution, Economic Development, PM_{10} Concentration, State Net Domestic Product

INTRODUCTION

Environmental pollution is one of the most significant problems facing humanity today, even when it is certainly not a new phenomenon.

It refers to the contamination of the physical and biological components of the earth or atmosphere system to such an extent that environmental processes are adversely affected. There are three significant primary forms of pollution: air, water, and soil pollution, whereas other recognised forms include radioactive, noise, light, and thermal pollution.

The causes of environmental pollution are industrialisation, urbanisation, population growth, mining, and exploration. Additionally, transboundary movement of pollutants, for instance, non-functional electrical and electronic equipment, contribute significantly to air, water and soil pollution. Furthermore, gaseous pollutants, toxic metals, and particulate matter (PM) into the atmosphere trigger air pollution. The release of industrial effluents, agricultural run-offs, sewage, and dumping of electronic waste contaminates water. Lastly, activities such as mining, deforestation, illegal dumping and the creation of landfills are responsible for soil pollution.

Of all the forms, air pollution is the most prominent threat to health and the environment. It develops in two contexts, indoor or household air pollution and outdoor air pollution and is a significant negative externality as it imposes an external cost to people who are external to the transaction of polluting product. The existing figures on its impact on society reinstate the claim. According to World Health Organisation (WHO) estimates, 9 out of 10 people breathe air that exceeds WHO guideline limits containing pollutants' high level. In contrast, more than 50 per cent of the people reside in areas that do not fulfil the least stringent air quality target set by WHO. Globally, it is the low and middle-income countries that have the highest exposure to contaminated air.

Outdoor air pollution is reported to cause approximately 4.2 million deaths. Combined with household air pollution, it results in around 7 million premature deaths every year. The impact is even more severe among low-income earners, children and other vulnerable groups, mainly in developing nations. The fact above depicts the daunting state of the environment and its consequences at a global level, which necessitates the focus on the impact of air pollution.

The paper therefore aims to analyse the impact of air pollution on the economic activity of India.

- AIR POLLUTION IN INDIA

The world's sixth-largest economy by nominal gross domestic product (GDP) and third-largest by purchasing power parity (PPP), India currently struggles with tackling the extent of pollution across the nation. According to the World Air Quality Report (2020) published by Swiss organisation IQAir, India is the third most polluted country globally. The report finds that 22 of the 30 most polluted cities globally are in India, with Delhi ranking as the most polluted capital city in the world. The situation is no different in the case of water pollution. It is reported that nearly 70 per cent of India's surface water is contaminated and unfit for consumption. According to a report published by World Bank, poor water quality impedes economic progress, stymies human potential, and reduces food production.

Air pollution is an important cause of premature deaths and several related diseases. The high incidence of deaths and illnesses associated with this menace and its adverse impact on the Indian economy through reduced productivity and decreased labour supply, added health expenditures, and lost welfare can impede the nation's aspiration to be a 5 trillion dollar economy by 2024. In 2020, India was reported as the third most polluted country globally with a $PM_{2.5}$ concentration, five times above World Health Organisation (WHO) exposure recommendation.

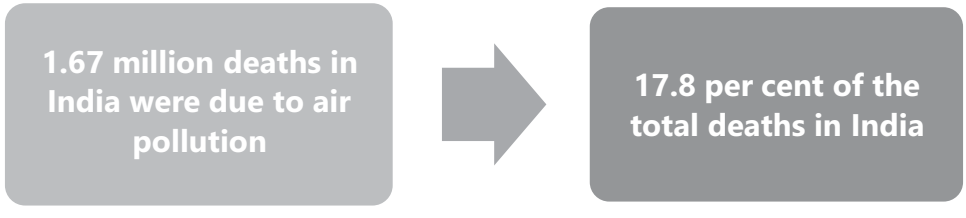
A few significant causes of air pollution in India are unchecked growth of human population, industrialisation, urbanisation and uncontrolled exploitation of nature. Air pollution is further aggravated by increasing traffic, rapid and unsustainable economic development, and burning of fossil fuels. Carbon monoxide released due to incomplete combustion of carbon-based fuels slows human reflexes. Vehicular emissions are the largest anthropogenic source of Carbon monoxide. The greenhouse gases, ozone, methane, carbon dioxide and nitrous oxides released from industries, vehicles, fossil fuels further lead to the Greenhouse effect that causes climate change.

Transportation air pollution, caused by automobiles, has seen a great rise in India. The number of motorised vehicles in India has increased 29 times in the last few decades, from 1.9 million in 1971 to 55.0 million in 2001, as shown

in Figure 1. This increase was not consistent across all vehicle types: buses had a 7-fold increase; trucks saw a 9-fold increase; cars, Jeeps, and taxis saw a 10-fold increase; and two-wheelers witnessed an astounding 67-fold increase. Further, the quality of fuel and lubricating oil has also had a key role in India's transportation air pollution. Indian gasoline has high volatility and vast majority of gasoline automobiles in India are carbureted. These characteristics, together with India's high ambient temperatures, raise the potential production of ground-level ozone.

Consequentially, studies have shown that the adverse effects of air pollution on health have been growing in India. It has been observed that short-term and long-term exposure to polluted air is associated with a higher disease burden and mortality, as shown in Figure 1.

Figure 1: Deaths due to air pollution

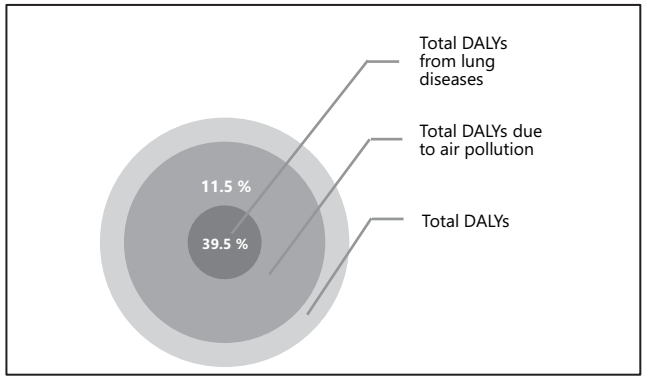


Source: The India State-Level Disease Burden Initiative as part of the Global Burden of Disease Study (2019)

Another impact of the high air pollution levels is the overwhelming increase in chronic respiratory diseases, contributing to the total disability-adjusted life-years (DALYs), as highlighted in Figure 2[1].

[1] DALY is a composite metric that combines the years of life lost due to premature death (YLLs) and the years lived with disability (YLDs).

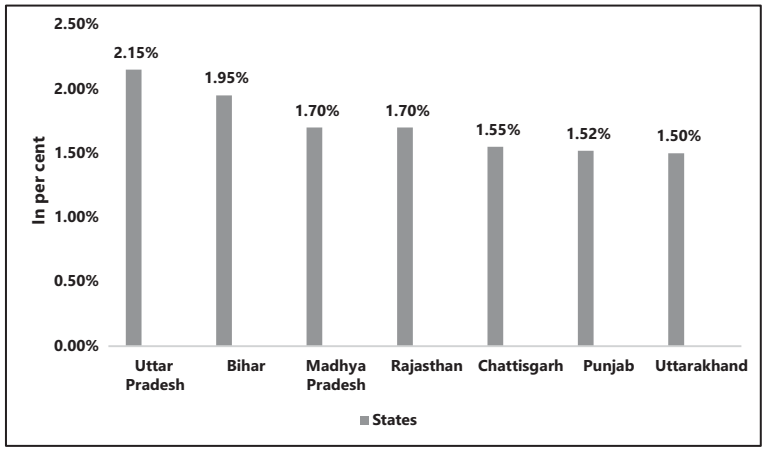
Figure 2: Chronic respiratory diseases due to air pollution



Source: The India State-Level Disease Burden Initiative as part of the Global Burden of Disease Study (2019)

The Global Burden of Disease Study (2019) estimated the economic loss of US$ 28.8 billion due to lost output from premature deaths and US$ 8.0 billion due to morbidity due to air pollution. This loss is equivalent to 1.36 per cent of India's GDP in 2019. The per capita economic loss due to air pollution in India was 26·50 dollars. Among the Indian states, the economic loss attributable to air pollution as a percentage of state GDP varied from 0·67per cent to 2·15 per cent. Figure 3 (below) illustrates the states which experienced high losses.

Figure 3: Economic loss attributable to air pollution as a percentage of state GDP



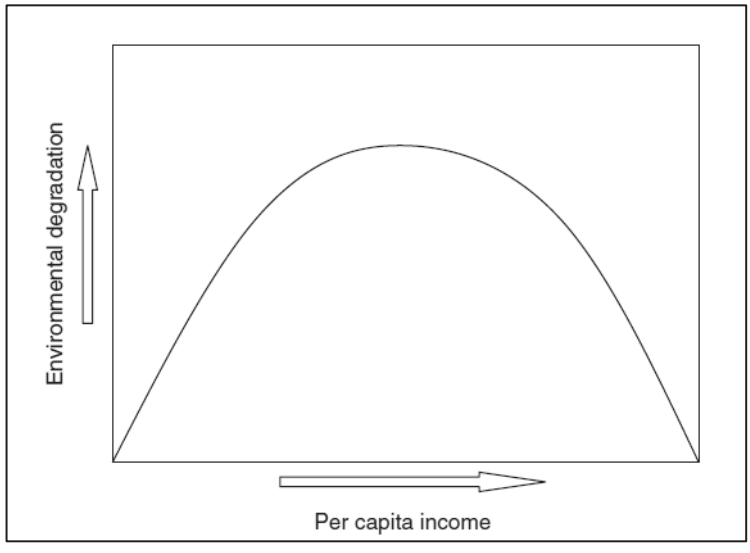
Source: The India State-Level Disease Burden Initiative as part of the Global Burden of Disease Study (2019)

LITERATURE REVIEW

In today's highly globalised world with countries integrating various dimensions, economic growth is often accompanied by its harmful effects. One of the most conspicuous of these effects is environmental degradation. It is often discussed that there exists a two-way relationship between economic growth and environmental pollution. While focusing on economic growth leads to higher levels of pollution in the environment, pollution and pollution reduction measures adversely impact economic growth and development. This section aims to review the existing academic literature in understanding the link between the two.

Over the years, it has been a widespread belief that rich nations pollute the most. Grossman & Krueger (1995) contradicted this widely held notion by introducing the concept of Environmental Kuznets Curve (EKC) in their study on the potential impacts of North Atlantic Free Trade Agreements, popularly known as NAFTA. It is an inverted U-shaped curve that hypothesises the relationship between various indicators of environmental degradation and per capita income.

Figure 4: The Environmental Kuznets Curve



Source: MacDermott et al. (2011)

As depicted in figure 4 above, the pollution levels increase with the increase in per capita income and declines after crossing a threshold of income. The low-income countries with low levels of industrialisation and consumption rely heavily on agriculture and have relatively more minor environmental degradation. As the development begins and industries dot the economy, the emission of pollutants increases. However, as the process continues and wealthy nations become service-oriented, more resources are used to adopt cleaner technologies, leading to a fall in pollution levels.

Over the years, several pollution measures have been employed to demonstrate the inverted U-shape of the Environmental Kuznets's Curve. Sulphur dioxide emissions, toxic wastes, and water pollution appear to rise and then decline with per capita GDP. However, the researchers do not observe this pattern in all pollution measures (MacDermott et al., 2011).

Shafik (1994) also claimed that urban waste and carbon emissions also fail to show an inverted U-shaped relation with per capita income. Plausible reasons might be that the turning point has not reached yet or maybe that the threshold has already been crossed. Therefore, the universal validity of the Environmental Kuznets Curve is dubious. The relationship might hold for some countries or some pollutants whilst failing for others.

Environmental pollution and economic development affect each other in three ways.

The first aspect in the relationship between the two is the role of economic development in environmental degradation. It can play out in two ways: first, the development of infrastructure using the existing resource base and second, the increased use of pollution-intensive resources, and an outcome of increased disposable incomes (Ali & Puppim de Oliveira, 2018). Infrastructure development, in particular, has remained to be one of the direct determinants of pollution in absolute terms. Even though infrastructure structure leads to positive social development, roads and transport infrastructure construction are also considered channels for other forms of pollution-intensive infrastructure development.

Muyibi et al. (2007), in their paper, have discussed the impact of economic development on water pollution in Malaysia using econometric analysis

tools. Development in terms of industrialisation, urbanisation and population growth accounts for various changes in the yearly level of pollution in rivers in Malaysia. For instance, GDP per capita accounted for 81% variances in rivers' pollution episode over the period under consideration. Population, accounted for 74% of total pollution in rivers, and industrial production accounted for 78%.

Davis (2012) hypothesised that economic activity significantly impacts exposure to air pollution and, ultimately, human health. Using county-level employment statistics in California (1980–2000), along with significant regulatory periods and other controlling factors, to estimate local concentrations of the coefficient of haze, carbon monoxide, and nitrogen dioxide using a mixed regression model approach, Davis found that the relationship between employment measures and air pollution was statistically significant, suggesting that air quality improves during economic downturns. Additionally, major air quality regulations significantly reduced air pollution levels over the study period.

The second way is the direct impact of environmental pollution on economic development by hindering the process itself. The report published by OECD, 'The economic consequences of air pollution policy highlights', focuses on projected economic consequences of outdoor air pollution for the period 2015-2060. It assesses the market costs of air pollution, which includes labour productivity, health expenditures, and changes in crop yields. It also discusses the non-market health impacts of outdoor air pollution, i.e. increased mortality and morbidity. Rising emissions of air pollutants are projected to increase the concentration of particulate matter and ground-level ozone. The report finds that countries of South and East Asia, especially China and India, witness a high average population-weighted concentration of these pollutants. The most dangerous consequence of this is the rising number of premature deaths. The projections reveal that the number of premature deaths will increase to 6-9 million annually in 2016, in line with the latest Global Burden of Disease estimates. This implies more hospital admissions, additional health expenditures, and a high number of lost working days.

Consequently, the market costs of air pollution are projected to lead to global annual economic costs of 1% of global gross domestic product (GDP) by

2060. On the other hand, the non-markets costs are projected using estimates of the individual willingness-to-pay to reduce the risk of premature death and the annual global welfare costs associated with pain and suffering from illness. These numbers are projected to be around USD 18-25 trillion and USD 2.2 trillion in 2060, respectively. It is evident from the above estimates that pollution can have a severe negative impact on the global economy.

The third way in which environmental pollution and economic development interact with each other is through abatement policies. Environmental damage is the opportunity cost for initial development, which later subsides through self-correcting mechanisms. Stringent environmental regulations have led to better outcomes lately. Rich nations are more environmentally conscious while poor are more environment-friendly (Martinez-Alier, 2003).

It is contested that expenditure incurred on pollution abatement has a low cost-benefit ratio. A detailed study on the impact of pollution abatement costs on plant-level productivity in the U.S. shows unpleasant results. It was found that an increase in abatement costs has led to a decline in productivity in various sectors (Gray & Shadbegian, 2003).

Resources to be spent on infrastructure investment and R&D are now being diverted towards environment conservation. However, public benefits in the long term tend to surpass the private costs incurred. The productivity of workers is enhanced, and new cost-effective technologies emerge. Inclination towards cleaner and greener environments helps in building sustainable economies. Studies show that pollution tax helps achieve the dual objectives of reducing pollution while spurring economic growth (Fisher & Van Marrevijk, 1998). Therefore, the impact of environmental regulations varies across different governance structures and economic systems.

RESEARCH METHODOLOGY

Description of data

This section aims to analyse the relationship between the level of air pollution in India and its impact on the state net domestic product. This study compiles

a panel dataset from larger datasets provided by the Government of India[2]. The dataset includes twenty-two states of India for the period 2013-2019[3]. Table 1 describes data on the dependent, independent and controlled variables.

Table 1. Summary statistic of the variables

Variable	Type	Source	Mean	Standard Deviation	Minimum	Maximum
State Net Domestic product (SNDP) (in Rs Lakhs)	Dependent variable	Handbook of Statistics on Indian States (RBI)	4.78e+07	3.69e + 07	1.98e+06	1.91e+08
PM_{10} Concentration (in µg/m3)[4]	Independent Variable	National Ambient Air Quality Monitoring Programme (NAMP) Data Year Wise (Central Pollution Control Board)	121.0739	47.48193	43	278
Fertility Rate	Control Variable	Sample Registration System Statistical Report(Office Of The Registrar General & Census Commissioner)	2.072251	0.5067045	1.446667	3.4
Consumer Price Index	Control variable	Handbook of Statistics on Indian States (RBI)	4.695498	1.287844	.5	7.42
Invested Capital (in Rs Lakhs)	Control Variable	Handbook of Statistics on Indian States (RBI)	1.80e +07	1.96e+07	6.16e+04	1.09e+08

Source: Authors' Estimates

[2] *Panel data, also known as longitudinal data, contains observations about different cross-sections across time. Regression models based on such data are called panel data regression model*

[3] The missing data in the compiled dataset has been projected using appropriate statistical software.

[4] The data for PM_{10} concentration is available at district level which has been converted into aggregate PM_{10} concentration for states.

The expected sign of the variables is depicted in Table 2 below.

Table 2. Expected sign of the variables

Variable	Expected Sign	Reasoning
PM_{10} Concentration (in µg/m3)[5]	Negative (-)	With an increase in PM_{10} concentration, the level of air pollution increases.
Fertility Rate	Negative (-)	The population-level increases with the increase in fertility rate, which depresses economic growth.
Consumer Price Index	Negative (-)	An increase in inflation levels will lower the real net domestic product.
Invested Capital (in Rs Lakhs)	Positive (+)	An increase in the level of invested capital boosts the overall productivity in the economy

Source: Authors' Estimates

Estimation

Our panel data regression model takes the following form:

$$y_{it} = a + bx_{it} + e_{it}$$

where, y is the dependent variable, x is the independent variable, a and b are coefficients, i and t are indices for individuals and time, respectively. e_{it} is the random error term and it holds immense importance in our analysis. Assumptions about the error term determine whether fixed effects or random effects will be considered/of consequence.

The econometric analysis uses Hausman test to choose between the above mentioned two estimation techniques for analysing the panel data, the chi-squared statistic for 3 degrees of freedom has been estimated as 4.12 with a p-value of 0.2493. Therefore, following the test, the null hypothesis, stated as FEM and REM not differing substantially, is not rejected at a 5 per cent level of significance. Thus, we choose the random effect model (REM) for our panel

[5] The data for PM_{10} concentration is available at district level which has been converted into aggregate PM_{10} concentration for states.

data regression analysis. As per the results of the Hausman test, REM will be used.

The Hausman test and Random Effects Model (REM) estimates are provided in Table 3 and 4, respectively.

Table 3: Estimates of Hausman test

H0: difference in coefficients not systematic	
Chi-squared (3 df)	4.12
Probability> Chi-squared	0.2493

Source: Authors' Estimates

Table 4: Estimates of random effects model

Dependent Variable = SNDP	**Random Effects Model**			
Independent Variable	Coefficient	Standard Error	t-statistic	p-value (p > | t |)
PM_{10} Concentration	-63483.24	35316.14	-1.80	0.072**
Consumer Price Index	-1188494	514046.4	-2.31	0.021**
Fertility Rate	-1.60e+07	4376619	-3.65	0.000*
Invested Capital	0.9917546	0.1190215	8.33	0.000*
R^2	0.5093 (within)			
	0.4420 (between)			
	0.4459 (overall)			
Note: '*' signifies a 5 per cent level of significance; '**' signifies a 10 per cent level of significance				

Source: Authors' Estimates

ANALYSIS

Table 4 depicts above the findings. Column 1 of the table shows the variables used in the analysis, while the second column shows the estimates calculated.

In the random effect model thereafter, all the coefficients for the control variables in table 4 are statistically significant, and the signs align with our expectations. The coefficient of the independent variable under consideration, PM_{10} concentration, is statistically significant at a 10 per cent level of significance. The sign of the coefficient of PM_{10} concentration is negative, implying a strong negative impact of air pollution on the dependent variable, state net domestic product (SNDP). The overall R-square of the model is 0.5093, signifying that approximately 51 per cent of the variation in our dependent variable, SNDP, is explained by variations in the independent variable, PM_{10} concentration.

To summarise, the PM_{10} concentration, a major air pollutant, has a strong negative impact on the state net domestic product (SNDP), which signifies the level of economic activity in the various States.

CONCLUSION

The World Development Report (1992) on the theme of 'Development and the Environment', explicitly acknowledged that economic growth and environment are intricately linked and cannot be considered as exogenous to each other.

Environmental pollution has been around for ages now and continues to disrupt economic progress at a global level. The three aspects in which economic growth and environmental pollution influence each other have been discussed.

The most prominent form of pollution observed globally and within India is air pollution. Various studies prove that long-term and short-term exposure to contaminated air leads to reduced productivity, decreases labour supply and, adds to health expenditures. Building on this argument, we have further elaborated on the air pollution scenario in India and the initiatives being undertaken to check the ongoing degradation of the environment.

We have performed a panel data analysis using the data for state net domestic product (SNDP), PM_{10} concentration, invested capital, fertility rate, and the consumer price index spanning 22 states for 2013-2019. The estimates show a strong negative relationship between PM_{10} concentration

and SNDP when controlled for other variables. It implies that air pollution negatively influences the level of output produced across the states in India.

There is a direct linkage between rising pollution levels in Indian cities and expanding urbanisation. Several notable initiatives and policies have come into force in recent years to fight this menace.

The step to launch the National Clean Air Programme, 2019, is laudable. The programme aims to reduce the particulate matter concentrations to 20%-30% by 2024, keeping 2017 as the base year. The scrapping policy of vehicles announced in February 2021 will help combat the problem of air pollution and provide impetus to growth.

Another significant initiative was the launch of Decarbonizing Transport in Emerging Economies project in India by Niti Aayog, jointly with the International Transport Forum of OECD. The project will help India to turn its climate ambitions into reality. As estimated, CO2 emissions are likely to increase to 6% annually in India by 2030. The Decarbonisation project will help remove the legacy of obstacles that lie in the pathway of zero-emission targets and create a cleaner, healthier and more affordable future for everyone through improved design planning systems and more investment in clean energy infrastructure.

While these policies exist, certain loopholes need to be addressed. For example, The National Clean Air Program suffers from severe challenges. In a study conducted by Council on Energy, Environment and Water (CEEW) and Urban Emissions, there is no legal framework for reviewing and updating plans and a lack of clear delineation of responsibilities. A second drawback is the city planning approach that limits the scope. Roughly 30 per cent of air pollution is by sources outside the city. The system, therefore, should be inclined towards regional coordination among cities and states. Most of the pollution control measures focus on transport emissions. The International Energy Agency predicts that India's future emissions will mostly come from transport infrastructure, industry and buildings and points out the opportunity to grow green. However, there are substantial local differences in the contribution of each polluting source which the planners fail to capture. Further, only 25 per cent of the city plans have access to data on the local emission sources, which points towards the limitation of missing data. India is

yet to address the problem of data gaps which is essential to meet the legal requirement of air quality trend reporting and compliance.

Lastly, the low budgetary allocation limits the planning abilities at local levels. In 2019-20, the central government approved an initial budget of Rs 300 crore, which is too little against the financial requirement across states. For example, the city of Dimapur in Nagaland needs an allocation of Rs 90 crore for its plan.

Therefore, even though awareness about the causes and consequences of pollution is paramount to dealing with the menace, the inaction towards the matter makes the scenario even more grievous. Without a proper balance between human needs and nature's healing power, mindless and unprecedented development could always bring more calamities

APPENDIX

Table A: Estimates of fixed effects model

Dependent Variable = SNDP	**Fixed Effects Model**			
Independent Variable	Coefficient	Standard Error	t-statistic	p-value (p > | t |)
PM_{10} Concentration	-72362.74	37187.31	-1.95	0.054**
Consumer Price Index	-1150970	523734.8	-2.20	0.030**
Fertility Rate	-1.83e+07	4711510	-3.88	0.000*
Invested Capital	0.9452718	0.1297902	7.28	0.000*
R^2	0.5108 (within)			
	0.4161 (between)			
	0.4218 (overall)			
Note: '*' signifies a 5 per cent level of significance; '**' signifies a 10 per cent level of significance				

Source: Authors' Estimates

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STRIDES - A STUDENTS' JOURNAL OF SHRI RAM COLLEGE OF COMMERCE
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HISTORY OF THE JOURNAL

The idea to launch this Journal was discussed in December 2016 by the former Officiating Principal, **Dr. R. P. Rustagi** with **Dr. Santosh Kumari,** the Editor of the Journal. Since the idea appealed to **Dr. Santosh Kumari**, she took the initiative to contribute to SRCC by creating this new academic research Journal and took the responsibility for its Creation, Registration, License and ISSN (International Standard Serial Number) etc. along with *Editorship*. Therefore, **Dr. Santosh Kumari, Assistant Professor in the Department of Commerce, Shri Ram College of Commerce** was appointed as the Editor of the Journal vide. Office Order – SRCC/AD-158/2017 dated March 14, 2017. She meticulously worked hard in creating the concept and developing the structure of the Journal. She introduced the concept of COPE (Committee On Publication Ethics) to maintain the high academic standards of publication.

On behalf of SRCC, **Dr. Santosh Kumari** made every effort in seeking License from Deputy Commissioner of Police (Licensing), Delhi to register the Journal at "The Registrar of Newspapers for India, Ministry of Information and Broadcasting, Government of India". The paper work for seeking license started under the former Officiating Principal, **Dr. R.P. Rustagi** on March 27, 2017. The foundation Issue of the Journal "**Strides – A Students' Journal of Shri Ram College of Commerce, Volume 1, Issue 1, 2016-17**" was successfully released on the 91st Annual Day of SRCC held on April 13, 2017 by **Shri Prakash Javadekar, Honb'le Union Minister of Human Resource Development, Government of India**. The title of the Journal got verified and approved by the Registrar of Newspapers for India, Ministry of Information and Broadcasting, Government of India on April 21, 2017. On September 1, 2017, **Prof. Simrit Kaur** joined SRCC as Principal and signed each and every legal document required for further processing and supported **Dr. Santosh Kumari**.

On December 18, 2017, the College got the license "**License No. - DCP / LIC No. F. 2 (S / 37) Press / 2017"** to publish 'Strides – A Students' Journal of Shri Ram College of Commerce'. Due to change of Printing Press, the License got updated on March 09, 2018. On April 26, 2018, the SRCC Staff Council unanimously appointed **Dr. Santosh Kumari as the 'Editor of Strides**' for the next two academic years.

On April 27, 2018 (The Foundation Day of the College), **Dr. Santosh Kumari** submitted the application for the registration of the Journal. On May 04, 2018, the SRCC received the '**Certificate of Registration**' for **"*Strides – A Students' Journal of Shri Ram College of Commerce*"** and got the **Registration No. DELENG/2018/75093** dated May 04, 2018. ***On behalf of Shri Ram College of Commerce, it was a moment of pride for Dr. Santosh Kumari to receive the 'Certificate of Registration' on May 04, 2018 at the Office of Registrar of Newspapers for India, Ministry of Information and Broadcasting, Government of India (website - www.rni.nic.in).***

On May 07, 2018, **Dr. Santosh Kumari** submitted the application for seeking ISSN (International Standard Serial Number) at "ISSN National Centre – India, National Science Library, NISCAIR (National Institute of Science Communication and Information Resources). Weblink - http://nsl.niscair.res.in/ISSNPROCESS/issn.jsp". Finally, the College received the International Standard Serial Number "**ISSN 2581-4931 (Print)**" **on June 01, 2018.**

We are proud that this journal is an add-on to the enriched catalogue of SRCC's publications and academic literature.

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RELEASE OF FOUNDATION ISSUE OF STRIDES

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