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A Clarion Call for Effective Pollution Control Policies in India: Exigent for Sustainable Living

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ABSTRACT

In the era of great scientific innovations and rampant industrialization, the society though has progressed remarkably, but on account of searing environmental degradation. Environmental regression is not an unfamiliar term, but by virtue of sheer ignorance and wanton disregard of its existence, is now being explicitly exploited and has been severely vitiated by the untrammelled requirements of human. Due to the blatant abuse of our environment, the repercussions have been catastrophic and have profoundly impacted human health by unleashing several health morbidities. The Air Pollution conundrum is a global concern that accentuates the insentience of humans with its environment who is now liable to bear the brunt of the loss caused to our nature. In India, air pollution is intensifying and degenerating and is a serious health and economic issue. Unfortunately, as per the data compiled in IQAIR Air visuals, 2019 world Air quality report, India astoundingly ranks at fifth number, delineating twenty-one of the world's thirty cities with the worst pollution, belonging to India. In pursuance of the pollution predicament, this research study attempts to discuss the severity of the pollution problem and examines its perils on humans as well as on its environment.

Our government launched a nationwide clean air program, intending to reduce a significant amount of hazardous particulate matter by the end of 2024. Though the program is adulatory, its execution has been elusive due to several difficulties. Thus, the research paper in its study critically examines the National Clean Air Program (NCAP) and recommends certain solutions to bolster the efficiency of NCAP and proposes certain new ideas for implementation of effective forthcoming policies in India.

Keywords: Environment, Pollution, India, Policies, NCAP, Recommendation.

I. INTRODUCTION

Mahatma Gandhi, rightly quoted - Earth provides enough to satisfy every man's needs, but not every man's greed². In the milieu of rampant industrialisation and urbanisation, humans

¹ Author is a Student at Amity Law School, Noida, India.

² Mahatma Gandhi, quotable quote, Goodreads <https://www.goodreads.com/quotes/30431-earth-provides-enough-to-satisfy-every-man-s-needs-but-not>

have obscured themselves from their basic responsibility to protect and nurture mother nature. Earth, which is a foundation of our sustenance is existing in an abysmal state, solely due to the insentient and nonchalant activities of a man which testifies for an extremely ignorant and delirious behavior of humans towards its environment. The exploitation of resources is rife and has catapulted the destruction of our society in its several aspects.

Today, humans have not only displayed a wanton disregard of the environment and its resources, but they have also completely snubbed and have successfully abrogated the right to a healthy environment for every individual in our society. It is due to this attribute of a man, the flora and fauna are depleting at an astounding state, unbridled and irretrievable.

Natural disasters which are influenced by untrammelled man-made exploitation of resources are substantially pervading in almost all parts of the world in different segments. Increased earthquakes, accelerated landslips, and avalanches, Tsunamis, and floods along with several other catastrophes have been disastrous and have destroyed thousands of innocent lives. Besides, the ramifications of such exhaustive exercise of power against the environment has taken a toll on the existence of individuals by germinating an extremely hazardous atmosphere imbued with fatal gases and fumes, which has given birth to several diseases and viruses, extensively feeding on the lives of human as well as animals.

The reports by the recent BBC television series ‘ Blue – Print-II’ states that humans just constitute 0.01% of all living things yet they manage to cause the loss of 83% of wild animals.³ Another report by the United Nations on the state of nature and humanity exemplifies a grim reality where it is stated that – “ Destruction of nature will wipe out humanity due to the unprecedented worsening of climate”.⁴

Having said about climate change, there is an unprecedented increase in air pollution that has wreaked havoc in the lives of people residing in India. According to a survey by [Ipsos](#), air pollution was the leading environmental concern with 50 percent, followed by global warming/climate change at 43 percent.⁵ This, appalling increase in air pollution is a direct manifestation of other issues pertaining to population and inadequate infrastructure that has

³ Damian Carrington, “ *This article is more than 2 years old Humans just 0.01% of all life but have destroyed 83% of wild mammals – study* “, The Guardian,(May 21st, 2018, 20:00 IST) <https://www.theguardian.com/environment/2018/may/21/human-race-just-001-of-all-life-but-has-destroyed-over-80-of-wild-mammals-study>

⁴ Michael La Page, “*Destruction of nature is as big a threat to humanity as climate change*”, NewScientist, (6th May, 2019 <https://www.newscientist.com/article/2201697-destruction-of-nature-is-as-big-a-threat-to-humanity-as-climate-change/>)

⁵Unknown, “ *Most concerning environmental issues according to citizens across India as of March 2019*”, Statista Research Department (December 2, 2020) <https://www.statista.com/statistics/999489/india-leading-environmental-issues/>

inoculated an extremely toxic and unhealthy environment for the individuals residing in our country.

The laid-back attitude of the citizens and the inefficiencies of the Government has exacerbated the issue to the extent that despite having laws and policies, management of this uncontrolled pollution seems elusive.

This research study aims at delineating the factors that have contributed to the searing pollution problems in India and substantiates the loopholes in the existing policies and calls for the urgent development of anti-pollution-oriented policies to promote sustainable living.

II. THE POLLUTION PROBLEM IN INDIA – DATA AND STATISTICS

As per the study released by International Institute for Applied Systems (IIASA) and The Council on Energy, Environment & Water (CEEW) exudes that about 674 million Indians are likely to breathe highly polluted air of PM 2.5, even if it complies with the existing pollution control policies and regulations.⁶ Further, the study exhibits that the Indo-Gangetic plains, covering parts of states such as Punjab, Haryana, Uttar Pradesh, Bihar, and West Bengal, have the highest population exposure to significant PM2.5 concentrations.⁷ As per the study released in 2016 140 million people in India breathe air that is 10 times or more over the WHO safe limit.⁸

Ill-managed Fuel and biomass burnings, Fuel adulteration, profuse traffic congestions, reflat greenhouse gas emissions and significant amounts of Indoor pollutants are copiously intensifying the difficulties associated with the pollution in our country. Besides these structural edifices of pollution, powerhouses, industries, and vehicles are colossal contributories to the dire pollution snag in India.⁹ The Center for Science and Environment, in its report, found that India in its nascent stages of Industrialisation, power generation, motorisation and urbanization has managed to secure 5th position in the report generated by IQAIR company, which primarily works on air filtration, it is a dismal reality that the pollution will certainly increase if not quelled anytime sooner.¹⁰ Hence it is imperative to seek a path that generates an environment-friendly approach to development and industrialisation.

⁶ Unknown, "India's pollution control policies unlikely to improve air quality: Study", The Economic Times, (March 31, 2019 1:04 PM IST) <https://economictimes.indiatimes.com/news/politics-and-nation/indias-pollution-control-policies-unlikely-to-improve-air-quality-study/articleshow/68654604.cms>

⁷ Ibid.

⁸ Steven Bernard, Amy Kazmin, "Dirty air: how India became the most polluted country on earth", Financial Times, (December 11th, 2018) <https://ig.ft.com/india-pollution/>

⁹ Anil Agarwal, "When will India be able to control pollution?", DownToEarth, (April 15, 2000), <https://www.downtoearth.org.in/coverage/when-will-india-be-able-to-control-pollution--17950>

¹⁰ Ibid.

Greenhouse gas emissions by India are the third largest in the world and as gauged, coal is the main source of the same.¹¹ According to the study generated by USAID, India emits about 3 gigatonnes (Gt) CO_{2eq} of greenhouse gases each year; about two and a half tons per person, which is half the world average. The country emits 7% of global emissions.¹²

The data delineate a distressing picture of India's pollution problem and warns of a grueling future of India's health and livelihood of citizens.

III. HEALTH, RISK, AND CHALLENGES OF AIR POLLUTION IN INDIA – THE SILENT EMERGENCY

Pollution has significantly wreaked the lives of millions to date. With the unprecedented increase in the pollution levels, there has been a notable increase in the health problems of citizens living in our country. As per the reports exuded by Greenpeace, organisation for the environment and its protection states that " every year air pollution takes millions of lives, increases our risk of strokes, lung cancer, and asthma and also profoundly impacts the economy of our country".¹³ In the common prudence of a man, inhaling the hazardous particulate matter present in the air due to pollution exposes an individual to severe coronary and respiratory diseases which also puts him in the radar of mortality. According to the study published by the Global Burden for 2010 (released in 2013) it was found that outdoor air pollution was the fifth-largest killer in India and around 620,000 early deaths occurred from air pollution-related diseases in 2010.¹⁴

According to the reports of the World Health Organisation, 13 of the 20th most polluted cities in the world are in India.¹⁵ According to the Delhi Heart and Lung Institute, around two million children, out of which half of the children from Delhi have abnormalities in their lung function.¹⁶ Over a million Indians die prematurely every year due to air pollution.¹⁷ The Global Burden of Disease Study of 2017 analyzed in a report by The Lancet indicated that 76.8% of

¹¹ JOCELYN TIMPERLEY, " *The Carbon Brief Profile: India*", CarbonBrief, (March 14, 2019, 16:57 PM IST) <https://www.carbonbrief.org/the-carbon-brief-profile-india>

¹² Green house gas emissions in India Factsheet, USAID, (September 2018) <https://www.climatelinks.org/sites/default/files/asset/document/India%20GHG%20Emissions%20Factsheet%20FINAL.pdf>

¹³ Bloomberg & AFP, " *Air pollution costs India \$150 billion a year*", MINT, (FEB 13, 2020, 12:29 AM IST) <https://www.livemint.com/news/india/air-pollution-costs-india-150-billion-a-year-11581533636013.html>

¹⁴ Helen Regan, " *21 of the world's 30 cities with the worst air pollution are in India*", CNN (Feb 25, 2020, 12:03 GMT) <https://edition.cnn.com/2020/02/25/health/most-polluted-cities-india-pakistan-intl-hnk/index.html>

¹⁵ Kirthi V. Rao, Amrit Raj, Neha Sethi, " *Emission panel for pan-India shift to Bharat Stage V fuel by 2020*", (May 12, 2014, 7:52 AM IST) <https://www.livemint.com/Home-Page/Rz6u3kb13mDuXNzezWagAI/Emission-panel-for-panIndia-shift-to-Bharat-Stage-V-fuel-by.html>

¹⁶ P.Giridhar, S.R.K Neerja, " *Air Pollution a Major Health Hazard in Future* ", Asian Journal of Pharmaceutical research and development, Volume 8 no.3, 118- 120 (2020).

¹⁷ Ibid.

Indians are exposed to higher ambient particulate matter over $40 \mu\text{g}/\text{m}^3$, which is significantly above the national limit recommended by national guidelines on ambient air pollution.¹⁸

Besides these harrowing facts of the profound impact of pollution on health, it also emanates a searing effect on the economy of our nation. According to Green peace, deaths of children and young people bring an economic cost through lost contributors to society and the economy, which is quite large.¹⁹ Other pollutants (aside from ozone and nitrogen dioxide) lead to greater health impact and rhetorically affects the economy due to increased work absences. With nations like India, typically having a large population, they endure a hefty economic burden due to the same reason.

Given the grim realities of pollution, it becomes incumbent to be wary about its dire circumstances and ensure that the laws which suppose its implementation does not stay in abeyance and are functioning meticulously to attenuate the alarming issue.

IV. THE NATIONAL CLEAN AIR PROGRAMME – FIRST INDIGENOUS STEP TOWARDS CURBING THE AIR CONUNDRUM.

In furtherance of a lethally polluted firmament, the central government became wary of the dire circumstances and initiated a comprehensive nationwide program to mitigate the overarching bad air predicament. The Ministry of Environment, Forest, and Climate launched a time-bound national-level strategy for pan India with the main aim to tackle the increased level of air pollution across the country in a comprehensive manner.²⁰ The National Clean Air Programme (NCAP) is a mid-term five year action plan with 2019 as the first year.²¹ The programme anticipates achieving 20% to 30% reductions in Particulate Matter concentrations by 2024. As per the press release Report, a city-specific action plan has been prepared which includes measures for strengthening the monitoring network, reducing vehicle/ industrial omissions, increase public awareness etc.²² Further report states that – “There will be use of the Smart Cities program to launch the NCAP in the 43 smart cities falling in the list of the 102 non-

¹⁸ Prof. Lalit Dandona, “*The impact of air pollution on deaths, disease burden, and life expectancy across the states of India: the Global Burden of Disease Study 2017*”, NCBI, (January 2019)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6358127/>

¹⁹ Bloomberg & AFP, “*Air pollution costs India \$150 billion a year*”, MINT, (FEB 13, 2020, 12:29 AM IST) <https://www.livemint.com/news/india/air-pollution-costs-india-150-billion-a-year-11581533636013.html>

²⁰ Press Information Bureau, “*Government launches National Clean Air Programme (NCAP)*”, Ministry of Environment, Forest and Climate Change. (January 10th, 2019 17:21 IST) <https://pib.gov.in/newsite/PrintRelease.aspx?relid=187400>

²¹ Ibid.

²² “*Long-Term, Time-Bound, National Level Strategy to Tackle Air Pollution-National Clean Air Programme (NCAP)*”, Ministry of Housing & Urban Affairs, (SEP 16 2020, 6:30PM) <https://pib.gov.in/PressReleasePage.aspx?PRID=1655203>

attainment cities).”²³

The national clean air programme is an idolatry initiative that certainly meets the ambient pollution conundrum in our country. Taking cognizance of the emergencies pertaining to the environment and clean air, the steps taken by the government vehemently aims to assuage the issue strategically and comprehensively. The idea to conglomerate states to work cohesively abounds a premeditated approach and the nation is positive about its successful implementation.

Although the launch is a remarkable step towards abating the difficulties, the nationwide programme is imbued with certain lacunas that create a setback in the implementation of the nationwide clean air scheme. These lacunas are categorically enlisted for the kind perusal below -:

1. Legal Mandate is lacking/ Weak in Implementation

Though the Programme is much awaited for its successful implementation it lacks a strong legal mandate, that could nudge its execution throughout the nation. The act envisages a reduction of 20% to 30% in the hazardous particulate matter by the year 2024, however, to sanction this aim, it requires the backing of robust legislation as well as execution, which seems vague at this juncture.

One of the greatest loopholes of this act is that it will not be notified under the Environment Protection Act or any other act, hence insulates it from a firm legal back up for cities and regions to implement NCAP.²⁴ Furthermore, the programme only mentions that only the Central Pollution Control Board will execute the nation-wide programme in accordance with section 162(6) of the Air (Prevention & Control of Protection) Act 1986.²⁵ Also, the ministry has failed to prioritise on designing of a Graded Response Action plan or any other notification that ensures the ‘aimed’ comprehensive action by the states and its monitorisation.

As per the roster, the 11th and 12th five-year plans had envisioned to include the National Clean Air Action Plan for all major cities and subsequently other cities. However, this programme remained in the backdrop since it lacks adequate legal mandate for its sanction and successful implementation.²⁶

²³ SUPRA.

²⁴ Anumita Roychowdhury, “ National Clean Air Programme: Good idea but weak mandate”, DownToEarth, (Friday 11 January 2019 <https://www.downtoearth.org.in/blog/air/national-clean-air-programme-good-idea-but-weak-mandate-62785>)

²⁵ Supra.

²⁶ Niraj Bhatt, “ A Critique of National Clean Air Programme “, Citizen Consumer and Civic action group (CAG), (March 7th, 2019, 14:00 pm <https://www.cag.org.in/blogs/critique-national-clean-air-programme>)

2. NCAP remains advisory

In pursuance of the argument, it debunks the role of NCAP as mere advisory and not executory. NCAP becomes passive in its nature since it lacks a strong legal backup for its effective implementation. It is important to understand that the legal backup for a plan also becomes important not only to establish a more enforceable mandate for the state and city governments, but it is paramount to ensure inter-ministerial coordination for multi-sectoral interventions and conventions that NCAP has provided for. Therefore, without an efficient legal backup, the functionalities become elusive and hence provides for a more subjugated approach and inevitably get limited to act as an advisory body.

3. Unambitious in setting reduction targets.

The NCAP lacks in setting reduction targets and ostensibly derails from its motive to ameliorate pollution levels. According to the latest Greenpeace Report – *“the top non-attainment cities will remain above the prescribed national safe limits of ambient air quality after a 20-30% reduction in air pollution in the next 5 years.”*²⁷ The report also states that there are 241 non-attainment cities in India.²⁸ This report insinuates that NCAP has left out 139 cities. This points out to a worrying issue that while the programme focuses on the 102 attainment cities the middle classes in India residing from the non-attainment cities will continue to acquire more and more vehicles and thus this will exacerbate the pollution problems in that city as well as in other cities, where air pollution is going to increase in an unhealthy manner, incessantly, during the NCAP term.

4. Entails data related implementation hurdles

NCAP exudes data-related implementation problems as well. This certainly includes poor data capture due to substandard monitoring stations, lack of appropriate methodology to leverage real-time data for reporting trends, and a dearth of data cleaning methods to fill in the gaps in the monitoring system.²⁹

5. The urban-rural disparity in terms of air quality

Reports have shown incidences which exhibits inefficiency in monitorisation of air quality in several remote areas. There is relatively sparse knowledge of the urban-rural disparity in terms of air quality. It denotes that, only a small section of the society is being monitored for air

²⁷ Ibid.

²⁸ Ibid.

²⁹ Avikal Somvanshi, Anumita Roy chowdhury, Vivek Chattopadhyay, Swati Sambhyal, AT THE CROSSROADS: TOWARDS THIRD GENERATION ACTION FOR CLEAN AIR, Centre for Science and Environment, P. 1-4 (2019)

pollution, whereas the remaining regions are left undiscovered, hence contributing to the upsurge in the air pollution predicament. Moreover, the section which is being examined for the same purpose is being monitored by a single agency, which unleashes a colossal burden on the department thereby obstructing in its accountable exercise of responsibilities/duties.³⁰

6. Lacks robust fiscal and funding strategy

The total amount that provides financial assistance to pollution control boards as well as NCAP, as allocated by the government in its budget 2020-21 was reckoned to be around 445 crores (INR). However, as per the reports only 9 out of 42 cities have been able to make their plans who have earmarked the budgetary allocation for the same purpose³¹.

To mitigate this issue, the appropriate budget allocation can be made for low-cost, real-time air quality monitoring stations across India.³²

7. Fails to provide any remedial application of data by center and state governments

As per various studies, it has been observed that NCAP is over-reliant on the need for producing more and better-quality data locally but fails to prescribe any remedial application of the data by central or state governments. It is always desirable to generate data on air quality and its effect on health from an academic perspective, not from the perspective of the need for rapid action on abating air pollution.³³

8. No new change in the policy and revolves around same concepts

Presently NCAP has undertaken in its purview all the existing programmes for combating air pollution and climate change. Several observational studies state that the programme itself revolves around the same concepts and guidelines as of the preceding air pollution control regulations and has also incorporated a definite timeline and action points in a similar manner.

³⁴

Thus, it becomes incumbent on the ministry that the structure and execution of this program is

³⁰ APARNA ROY, TANUSHREE CHANDRA, ADITI RATHO, “ *Finding Solutions to Air Pollution in India: The Role of Policy, Finance, and Communities*”, OBSERVER RESEARCH FOUNDATION, (SEP 29 2020), https://www.orfonline.org/research/finding-solutions-to-air-pollution-in-india-the-role-of-policy-finance-and-communities-74311/#_edn7

³¹ Ibid.

³² Badri Chatterjee, “ *India’s 1st low-cost air monitoring study to be conducted across 15 MMR spots in November, says Maharashtra pollution control body* “, HindustanTimes (JUL 24, 2020 01:35 AM IST), <https://www.hindustantimes.com/mumbai-news/india-s-1st-low-cost-air-monitoring-study-to-be-conducted-across-15-mmr-spots-in-november-says-maharashtra-pollution-control-body/story-RWAccErSE5UmRykbPpRUK.html>

³³ Niraj Bhatt, “ *A Critique of National Clean Air Programme* “, Citizen Consumer and Civic action group (CAG), (March 7th, 2019, 14:00 pm) <https://www.cag.org.in/blogs/critique-national-clean-air-programme>

³⁴ Ibid

based on dynamism that ensures rapid improvements based on feedback received from all stakeholders and continues to evolve and expand based on new scientific data and international experiences.

9. Slackened controls for the thermal power plants

It has been seen that the NCAP document has overlooked the opportunity to tighten the regulations for coal-based power plants and even goes a step further on its mistake by setting up a deadline to phase out old-coal based power plants. To curb air pollution there needs to be a stringent timeline for a pollution source that contributes over 60% of the particulate matter pollution in India.³⁵ Unless old coal power plants are phased out and stringent controls are implemented for new ones, there can be no serious reduction in air pollution in India.³⁶

V. CONCLUSION

RECOMMENDATIONS – CATALYSING SOLUTIONS TO BOLSTER NCAP AND FUTURE POLLUTION CONTROL POLICIES.

Despite setbacks, the NCAP is indeed a remarkable effort in providing a better outlook for pollution control in India. The policy incorporates a comprehensive approach that is laud worthy since it is the first step towards accentuating a national focus on the searing pollution problem in India. It becomes incumbent upon the administration to ensure its implementation in a manner that is prescribed to avert its sustenance as merely a paper tiger document. It is exigent on the concerned ministry to overturn the complexities and lacunas it entails to ensure an effective plunge in the soaring pollution predicament.

To facilitate its efficacious execution, there are numerous ways by which the programme can be supplemented with actions that can be constructive at catalysing an efficient NCAP. Some of these measures are enlisted herewith, as follows:-

- a) The programme must ensure fulfillment of its targets and must reorganise its functions to engender clarity and must recognise all sources of pollution.³⁷

³⁵ Ibid.

³⁶ APARNA ROY, TANUSHREE CHANDRA, ADITI RATHO, "Finding Solutions to Air Pollution in India: The Role of Policy, Finance, and Communities", OBSERVER RESEARCH FOUNDATION, (SEP 29 2020) <https://www.orfonline.org/research/finding-solutions-to-air-pollution-in-india-the-role-of-policy-finance-and-communities-74311/>

³⁷ Sanjana Manaktala and Abhinav Verma, "The Updated National Clean Air Programme Is Effectively Blind", The Wire, (Sep 06, 2018) <https://thewire.in/environment/the-updated-national-clean-air-programme-is-effectively-blind>

- b) Besides, the government should induce an effective financial architecture that can mobilise private finance for clean air solutions in India.³⁸
- c) Cutting-edge innovations and technology solutions should be introduced and encouraged to address the air pollution conundrum.
- d) The Government should encourage investments that are made through Corporate social responsibility.
- e) Encourage businesses that can make a significant impact in improving air quality by aligning their practices and supply chains with clean air agenda³⁹.
- f) Disseminate awareness in a widespread manner and percolate ideas and methods to manage and quell excessive indoor pollution.⁴⁰

THE FUTURE POLICIES

The National clean air programme resonates with the difficulties pertaining to the pollution predicament and protrudes a positive outlook of initiatives, as manifested by the government of India. The NCAP is anticipated to be a breath of fresh air and the panacea to the blurred and painful conundrum of citizens and therefore, it should look upon to its role and must not get supplanted as another docile document.

In respect of future policies, the government of India must focus on according to great primacy to the concept of environmental engineering and sustainability. Environmental engineering is a branch of study that is concerned with protecting people from the effects of environmental hazards such as pollution and is focused on improving the overall quality of the environment.⁴¹ It refers to a structural approach where engineers deal with environmental menace in a calculative manner to dissipate its detrimental ramifications. Amalgamated with the concept of sustainability, semantically implies usage of environmental resources in such a manner that meets the need in the present and is profusely available for the future generations to use, the

³⁸Anumita Roychowdhury, “National Clean Air Programme: Good idea but weak mandate”, DownToEarth, (Friday 11 January 2019) <https://www.downtoearth.org.in/blog/air/national-clean-air-programme-good-idea-but-weak-mandate-62785>

³⁹APARNA ROY, TANUSHREE CHANDRA, ADITI RATHO, “Finding Solutions to Air Pollution in India: The Role of Policy, Finance, and Communities”, OBSERVER RESEARCH FOUNDATION, (SEP 29 2020) <https://www.orfonline.org/research/finding-solutions-to-air-pollution-in-india-the-role-of-policy-finance-and-communities-74311/>

⁴⁰“Combating Indoor Air Pollution: Cleaner Cooking Fuel For 300 Million In India By 202”, (April 24, 2018 11:06 AM) <https://swachhindia.ndtv.com/combating-indoor-air-pollution-cleaner-cooking-fuel-300-million-india-2021-19100/>

⁴¹ Jim Lucas, “What Is Environmental Engineering?”, LiveScience, (October 22, 2014) <https://www.livescience.com/48390-environmental-engineering.html>

concept of environmental- sustainable engineering will be extremely advantageous for the durability of our society.

The policies concerning the reduction of air pollution in India should vividly focus on the concept of environmental and sustainable engineering and must include a short-sighted as well as a long-sighted attainable goal. Policy should never be circumscribed to certain specifications and must be unbounded to cover issues that are far-sighted and provides long-term benefits to its citizens and the nation as a whole.

It is paramount for the Government of any nation to ensure that their environmental policy is backed up by laws and legislations and administrative rules. This ensures its effective implementation meticulously, thereby, nudging the country towards its desired goal. Furthermore, allocation of money and other sorts of financial aids must be done structurally, prioritising the functionalities of departments concerned with the particular issue in attention and must focus on providing timely incentives for the citizens to bolster their work efficiency and interests.

Another method by which implementation and execution of policies becomes feasible is by streamlining various goals into different policies. Usually, most of the targets are clubbed in one programme or policy that may at times are found in abeyance or are quiescent, thereby defeating the efforts put in by the government and rebounds again on the radar of the status quo. Like china, in dealing with its pollution issue, formulated a few distinct short terms and long-term policies to deal with the environmental problem and also introduced administrative policies in this regard, thus successful to have significantly reduced its pollution conundrum in the contemporary scenario⁴². China also frequently resorts to short term administrative measures that are most cost-effective and incentivises the execution to supplement the implementation processes⁴³. India can also use the same breakout as it is feasible and would not administer too much burden on a single department and would at the same time be easier to get monitored and regulated.

Lastly, the government should encourage participation of the private sector in this regard and manifest policies which accentuates lucrative businesses, projects, and career in this field. Catalysing private sectors would not only supplement the government with its resource allocation but would also invite neoteric approaches in dealing with environmental difficulties.

⁴² Jason K. Levy, "Air Pollution Control Policies in China: A Retrospective and Prospects", NCBI <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5201360/>

⁴³ Yulia Yamineva, "Cleaning the air, protecting the climate: Policy, legal and institutional nexus to reduce black carbon emissions in China", Volume 95, ScienceDirect, (2019) <https://www.sciencedirect.com/science/article/pii/S1462901118309468>

Encouraging private participation would also boon employment, in turn enhancing the economy of our nation.

STRENGTHENING THE ROLE OF INDIVIDUALS

Individuals play a colossal role in reducing the reffated pollution levels. From life choices to individual consciousness, a lot can be done by people to ensure a healthy living. It is not only the responsibility of the government but puts the citizens in an even-handed position, which embarks a greater duty on them to be aware of environment-friendly activities and be wary of their rights and duties in furtherance of their environment. ⁴⁴

Practicing healthy environmental actions and cognizance for immediate environmental concerns contributes immensely towards germinating a sustainable environment. It must be understood that walking away from personal responsibilities, by standing a menacing development, adopting a rapacious approach towards the environment, and having a nonchalant, carefree attitude promotes environmental regression and eventually invites several morbidities.

Thus, it becomes incumbent upon the citizens as well as the government to work in a cohesive manner and avoid oblivious responses towards the environment. The responsibility of the government is to promote a healthy environment and for this, the role of citizens is bigger in this regard. A conscious attitude is required on the part of citizens, so that the concept of sustainability is put forth in exercise, in the real world.

⁴⁴ PRASANNA.S, DHIVYA., “*THE ROLE OF AN INDIVIDUAL IN THE PROTECTION OF ENVIRONMENT*”, Volume 120,No.5 *International Journal of Pure and Applied Mathematics*, 2115-2133 (2018)