

Item No. 02

**BEFORE THE NATIONAL GREEN TRIBUNAL
CENTRAL ZONE BENCH, BHOPAL
(Through Video Conferencing)
Original Application No. 68/2025(CZ)**

Nitin Saxena

Applicant (s)

Vs.

Madhya Pradesh Road Development
Corporation Limited & Ors.

Respondent(s)

Date of Hearing: **23.05.2025**

**CORAM: HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER**

For Applicant (s): Mr. Harpreet Singh Gupta, Adv. along with
 Mr. Pratipal Singh Gupta, Adv.
 Mr. Shubham Rawat, Adv.
 Ms. Nancy Chaturvedi, Adv.
 Mr. Srajan Jain, Adv.

For Respondent(s):

ORDER

1. Issue raised in this application are felling of about 700 trees for road construction, as well as the construction of a cricket stadium within the catchment area of the Bhoj Wetland near the Neelbad - Barkheda Nathu area of Bhopal. This Ramsar Site of international importance, comprising the Upper and Lower Lakes in Bhopal, holds significant ecological value and is governed by Wetland Rules, 2017, which were enacted to protect and preserve such vital ecosystems. The Government of Madhya Pradesh, through its Environment Department, issued an order in 2022 to implement these rules for the Bhoj Wetland. The construction site in question lies in proximity to the Bhoj Wetland, subjecting it to the regulations intended to safeguard this critical ecological asset.

2. It is further contended that the primary concern stems from the fact that said construction of stadium as well as the road is within the catchment area of the Bhoj Wetland. Furthermore, the stadium is being constructed without the TNCP approval, and as per the revenue records, a part of the land is reserved for a proposed lake in the area. It is the concern of the Applicant that illegal and uninterrupted construction activities within the catchment area of the Bhoj Wetland will have lasting adverse impacts on the ecology and biodiversity of the Wetland. Rule 2(g) of the Wetland (Conservation and Management) Rules, 2017 defines wetland as follows: “ “Wetland” means an area of marsh, fen, peatland or water; whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters, but does not include river channels, paddy fields, human-made water bodies/tanks specifically constructed for drinking water purposes and structure specifically constructed for aquaculture, salt production, recreation and irrigation purposes.
3. The Applicant submits that violation of environmental laws and procedures, particularly the Madhya Pradesh Vrikshon Ka Parirakshan (Nagariya Kshetra) Adhiniyam, 2001 and failure to undertake compensatory afforestation or deposit monetary contributions for the felled trees as required by law should not take place as a result of the road construction projects. Because the law under Section 6(3) of the Adhiniyam of 2001 mandates that conditions are imposed for felling of trees which may include either compensatory afforestation or where the same is not possible, then the contribution may be made within thirty days from the felling of trees.

4. Further submissions of the Learned Counsel for the applicant are that felling of such number of cutting down the trees without following due procedure and relevant provisions of Madhya Pradesh Vrikshon Ka Parirakshan (Nagariya Kshetra) Adhiniyam, 2001 causes significant environment damage. Relevant part of 3 to 6 are as follows :

“Section 3 : Restriction on felling of trees

Notwithstanding any custom, usage, contract or local-law for the time being in force, no person shall without permission under the provision of this Act fell any tree or cause any tree to be felled in any land, whether of his ownership or otherwise, situated within the urban area.

Section 4 : Appointment of Tree Officer

The State Government may appoint one or more forest officers of the rank not below that of a Gazetted Forest Officer, Commissioner, Municipal Corporation or Chief Municipal Officer as "Tree Officer" for the purposes of this Act, for each Urban Area.

Section 5 : Appointment of other officers

The State Government may, from time to time, appoint such other officers and employees of Forest Department or Local Authority as may be considered necessary who shall be subordinate to the Tree Officer.

Section 6 : Procedure for obtaining permission to fell, cut, remove or dispose of a tree

1. Any person desiring to fell or remove or otherwise dispose of, by any means, a tree, shall make an application to the concerned Tree Officer for permission in such form and containing such particulars and accompanied by such documents as may be prescribed.

2. On receipt of the application, the Tree Officer shall acknowledge the application and may by order after

inspecting the tree and holding such enquiry, as he may deem necessary, either grant permission in whole or in part or refuse permission for reasons to be recorded in writing, within 30 days from the date of receipt of the application :

Provided that no permission shall be granted to any person from the same area on more than two occasions during the same year :

Provided further that no permission shall be refused if the tree-

- i. is dead, diseased or wind fallen; or*
- ii. constitutes a danger to life and property; or*
- iii. is substantially damaged or destroyed by fire, lighting, rain or other natural causes; or*
- iv. constitutes an obstruction to traffic or if necessary for maintenance of power/telephone lines etc.*

3. *The law under Section 6(3) of the Adhiniyam of 2001 mandates that if any conditions are imposed for felling of trees which may include either compensatory afforestation or where the same is not possible, then the contribution may be made within thirty days from the felling of trees.*

4. *Right to life and liberty under Article 21 of the Indian Constitution includes right to have a clean environment. Further the **Constitutional (forty-second Amendment) Act, 1976** incorporated two significant articles viz. **Article 48-A and 51A (g)** thereby making the Indian Constitution the first in the world conferring constitutional status to the environment protection. **Article 48-A:** The State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country. **Article 51A(g):** It is a duty of every citizen to protect and preserve the environment.*

5. *The permission granted under sub-section (2) may be subject to the condition that the applicant shall plant another tree or trees of the same or other suitable species*

on the same site or premises, and where this is not possible make such contribution as may be prescribed, within thirty days from the date the tree is felled or within such extended period as the Tree Officer may allow.

6. If the Tree Officer fails to communicate the decision within the period specified under sub-section (2) the permission applied for shall be deemed to have been granted.

5. In **M.C. Mehta v. Kamal Nath, (2000) 6 SCC 213** the Hon'ble Supreme Court in paragraph 8 held that Articles 48A and 51A(g) must be interpreted in light of Article 21:

*"8. These two articles have to be considered in the light of Article 21 of the Constitution which provides that no person shall be deprived of his life and liberty except in accordance with the procedure established by law. **Any disturbance of the basic environment elements, namely air, water and soil, which are necessary for "life", would be hazardous to "life" within the meaning of Article 21 of the Constitution.**"*

In the recent decision of the Hon'ble Supreme Court in **MK Ranjitsinh & Ors. v. Union of India, 2024 INSC 280**, it has been observed that the right to clean environment and right to be free from adverse effects of climate change are part of Article 21 of the Indian Constitution and are two sides of the same coin. In this regard, the Hon'ble Court observed as follows:

*"24. Despite a plethora of decisions on the right to a clean environment, **some decisions which recognise climate change as a serious threat, and national policies which seek to combat climate change, it is yet to be articulated that the people have a right against the adverse effects of climate change. This is perhaps because this right and the right to a clean environment are two sides of the same coin.** As the havoc caused by climate change increases year by year, it becomes necessary to articulate this as a distinct right. It is recognised by Articles 14 and 21."*

6. ***“35....It is imperative for states like India, to uphold their obligations under international law, including their responsibilities to mitigate greenhouse gas emissions, adapt to climate impacts, and protect the fundamental rights of all Individuals to live in a healthy and sustainable environment.”***

6. Hon'ble the Supreme Court of India in the order dated 30.01.2024 in the case *M.C. Mehta v. Union of India & Ors. (In Re: Taj Trapezium Zone)*, WP(C) No. 13381/1984, is observed as follows :-

“We have perused the application very carefully. Even as of today, it is not the case of the applicant/State that any land has been made available for compensatory afforestation. Unless the applicant comes out with a material that a land has been allotted in the close proximity of the existing trees, we cannot go into to the question, at this stage, whether compensatory afforestation will be sufficient and whether translocation is also required to be done in respect of some of the trees. In fact, in the Report No.2/2024 submitted by the Central Empowered Committee (CEC), a direction has been issued to the Divisional Forest Officer of Agra to examine whether it is possible to translocate some of the trees. In any case, compensatory afforestation has to be in the close proximity of the place where the existing trees are situated. There is one more important aspect of the matter. Someone will have to do the exercise for ascertaining whether felling of so many trees is really required”

7. *The another Writ Petition (Civil) No. 182/1996 M.C. Mehta v. Kamal Nath & Ors. MANU/SC/0416/2000 Hon'ble the Supreme Court of India held as follows :-*

"i. The planet Earth which is inhabited by human beings and other living creatures, including animals and birds, has been so created as to cater to the basic needs of all the living creatures. Living creatures do not necessarily mean the human beings, the animals, the birds, the fish, the worms, the serpents, the hydras, but also the plants of different varieties, the creepers, the grass and the vast forests. They survive on fresh air, fresh water and the sacred soil. They constitute the essential elements for survival of "life" on this planet. The living creatures, including human beings, lived peacefully all along. But when the human beings started acting inhumanly, the era of distress began which in its wake brought new problems for survival.

ii. The industrial revolution brought an awakening among the men inhabiting this Earth, that the Nature, with all its resources was not unlimited and forever renewable. The uncontrolled industrial development generating tonnes of industrial waste disturbed the ecological balance by polluting the air and water which in turn, had a devastating effect on the wildlife and, therefore, the early efforts to protect the environment related to the protection of wildlife. But then the two world wars, the first world war (1914-1918) and the second world war (1939 to 1945) during which atomic bombs were exploded resulting in the loss of thousands of lives and burning down of vast expanses of

forests, made the man realise that if the environmental disturbances were not controlled, his own survival on this planet would become impossible. The United Nations, therefore, held a Conference on human environment at Stockholm in 1972. In the wake of the resolutions adopted at that Conference, different countries at different stages enacted laws to protect the deteriorating conditions of environment. Here in India, the Legislature enacted three Acts, namely, The Water (Prevention & Control of Pollution) Act, 1974; the Air (Prevention & Control of Pollution) Act, 1981 and The Environment (Protection) Act, 1986. It also enacted the Water (Prevention & Control of Pollution) Cess Act, 1977. Under these Acts, Rules have been framed to give effect to the provisions thereof. They are : The Water (Prevention and Control of Pollution) Rules, 1975; The Water (Prevention & Control of Pollution) Cess Rules, 1978; The Air (Prevention and Control of Pollution) Rules, 1982; The Air (Prevention & Control of Pollution) (Union Territories) Rules, 1983; The Environment (Protection) Rules, 1986; The Hazardous Wastes (Management and Handling) Rules, 1989; The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996 and hosts of other Rules and Notifications.

- iii. In the matter of enforcement of rights under Article 21 of the Constitution, this Court, besides enforcing the provisions of the Acts referred to above, has also given effect to Fundamental Rights under Articles 14 and 21 of the Constitution and has held that if those rights are

violated by disturbing the environment, it can award damages not only for the restoration of the ecological balance, but also for the victims who have suffered due to that disturbance. In order to protect the "life", in order to protect "environment" and in order to protect "air, water and soil" from pollution, this Court, through its various judgments has given effect to the rights available, to the citizens and persons alike, under Article 21 of the Constitution. The judgment for removal of hazardous and obnoxious industries from the residential areas, the directions for closure of certain hazardous industries, the directions for closure of slaughterhouse and its relocation, the various directions issued for the protection of the Ridge area in Delhi, the directions for setting up effluent treatment plants to the Industries located in Delhi, the directions to Tanneries etc., are all judgments which seek to protect environment.

- iv. The recognition of the vice of pollution and its impact on future resources was realised during the early part of 1970. The United Nations Economic Commission for Europe, during a panel discussion in 1971, concluded that the total environmental expenditure required for improvement of the environment was overestimated but could be reduced by increased environmental awareness and control. In 1972, the Organisation for Economic Cooperation and Development adopted the "POLLUTER PAYS PRINCIPLE" as a recommendable method for pollution cost allocation. This principle was also discussed during the 1972 Paris Summit. In 1974, the European Community recommended the application of the principle by its member*

States so that the costs associated with environmental protection against pollution may be allocated according to uniform principles throughout the Community. In 1989, the Organisation for Economic Cooperation and Development reaffirmed its use and extended its application to include costs of accidental pollution. In 1987, the principle was acknowledged as a binding principle of law as it was incorporated in European Community Law through the enactment of the Single European Act, 1987. Article 130 Rule 2 of the 1992 Maastricht Treaty provides that Community Environment Policy "shall be based on the principle that the polluter should pay.

- v. "POLLUTER PAYS PRINCIPLE has also been applied by this Court in various decisions. In Indian Council for Enviro Legal Action v. Union of India MANU/SC/1112/1996 : [1996]2SCR503 , it was held that once the activity carried on was hazardous or inherently dangerous, the person carrying on that activity was liable to make good the loss caused to any other person by that activity. This principle was also followed in Vellore Citizens Welfare Forum.*
- vi. Union of India and Ors. MANU/SC/0686/1996 : AIR1996SC2715 which has also been discussed in the present case in the main judgment. It was for this reason that the Motel was directed to pay compensation by way of cost for the restitution of the environment ecology of the area. But it is the further direction why pollution fine, in addition, be not imposed which is the subject matter of the present discussion.*
- vii. Chapter VII of the Water (Prevention and Control of Pollution) Act, 1974 contains the provisions*

dealing with penalties and procedure. This Chapter consists of Sections 41 to 50. Sub-section (2) and (3) of Section 41 provide for the punishment and imposition of fine. They are quoted below:-

41.(2) Whoever fails to comply with any order issued under Clause (e) of Sub-section (1) of Section 32 or any direction issued by a Court under Sub-section (2) of Section 33 or any direction issued under Section 33A, shall in respect of each failure and on conviction, be punishable with imprisonment for a term which shall not be less than one year and six months but which may extend to six years and fine, and in case the failure continues, with an additional fine which may extend to five thousand rupees for every day during which such failure continues after the conviction for the first such failure.

(3) If the failure referred to in Sub-section (2) continues beyond a period of one year after the date of conviction, the offender shall, on conviction, be punishable with imprisonment for a term which shall not be less than two years but which may extend to seven years and with fine.

viii. Similarly, Section 42 provides that a person shall be liable to be punished with imprisonment for a term which may extend to three months or with fine which may extend to ten thousand rupees or with both. Sub-section (2) of Section 42 also contemplates imprisonment for a term which may extend to three months or with fine which may extend to ten thousand rupees or with both.

Section 43 contemplates penalty for contravention of the provisions of Section 24. Section 44 contemplates penalty for contravention of Section 25 or Section 26. They also contemplate imposition of fine. Section 45 provides that if a person who has been convicted of any offence under Section 24 or Section 25 or Section 26 is again found guilty of an offence involving a contravention of the same provision, he shall, on the second and on every subsequent conviction, be punishable with imprisonment for a term which shall not be less than two years but which may extend to seven years and with fine. Section 45A provides that whoever contravenes any of the provisions of this Act or fails to comply with any order or direction given under this Act, for which no penalty has been elsewhere provided in this Act, shall be punishable with imprisonment which may extend to three months or with fine which may extend to ten thousand rupees or with both and in the case of continuing contravention or failure, he may be punished with an additional fine. Section 47 contemplates offences by Companies while Section 48 contemplates offences by Government Departments.

- ix. Section 15 of the Environment (Protection) Act, 1986 provides for penalty for contravention of the provisions of the Act and the Rules, Orders and directions made thereunder. Sub-section (1) of Section 15 speaks of imprisonment for a term which may extend to five years or with fine which may extend to one lakh rupees, or with both, and in case the failure or contravention continues, with additional fine which may extend to five thousand rupees for every day during which such failure or contravention continues after the conviction for the*

first such failure or contravention. Section 16 of the Act contemplates offences by the Companies while Section 17 contemplates offences by Government Departments.

- x. Chapter VI of the Air (Prevention and Control of Pollution) Act, 1981 contains the provisions for penalties and procedure. This Chapter consists of Sections 37 to 46. Section 37 provides penalties for failure to comply with the provisions of Section 21 or Section 22 or with the directions issued under Section 31A. It provides that the person shall be punishable with imprisonment for a term which shall not be less than one year and six months but which may extend to six years and with fine, and in case the failure continues, with an additional fine which may extend to five thousand rupees for every day. Sub-section (2) of this Section provides that if the failure continues beyond the period of one year after the date of conviction, the offender shall be punishable with imprisonment for a term which shall not be less than two years but which may extend to seven years and with fine. Section 38 also provides penalties for certain acts and it provides that for such acts as are referred to in that Section, a person shall be punishable with imprisonment for a term which may extend to three months or with fine which may extend to ten thousand rupees or with both. Section 39 contemplates penalty for contravention of certain provisions of the Act and it provides for imprisonment for a term which may extend to three months or with fine which may extend to ten thousand rupees or with both, and in the case of continuing contravention, with an additional fine which may extend to five thousand rupees for every day during which such*

contravention continues after conviction for the first such contravention. Section 40 speaks of offences by companies while Section 41 speaks of offences by Government Departments.

- xi. Pollution is a civil wrong. By its very nature, it is a Tort committed against the community as a whole. A person, therefore, who is guilty of causing pollution has to pay damages (compensation) for restoration of the environment and ecology. He has also to pay damages to those who have suffered loss on account of the act of the offender. The powers of this Court under Article 32 are not restricted and it can award damages in a PIL or a Writ Petition as has been held in a series of decisions. In addition to damages aforesaid, the person guilty of causing pollution can also be held liable to pay exemplary damages so that it may act as a deterrent for others not to cause pollution in any manner.”*

8. The right to healthy environment and right to be free from adverse climate change has been discussed by Hon’ble Supreme Court of India in W.P. No. 838/2019 titled M.K Ranjitsinh & Ors. Vs. Union of India & Ors. 2024 INSC 280 as follows :-

- i. “India’s efforts to combat climate change are manifold. Parliament has enacted the Wild Life (Protection) Act 1972, the Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act 1986, the National Green Tribunal Act 2010, amongst others. In 2022, the Energy Conservation Act 2001 was amended to empower the Central Government to provide for a carbon credit trading scheme. The Electricity (Promoting Renewable Energy Through*

Green Energy Open Access) Rules 2022 were made in exercise of the powers under the Electricity Act 2003 to ensure access to and incentivise green energy. The executive wing of the government has implemented a host of projects over the years including the National Solar Mission (discussed in greater detail in the subsequent segment), the National Mission for Enhanced Energy Efficiency, the National Mission for a Green India, and the National Mission on Strategic Knowledge for Climate Change, amongst others. Despite governmental policy and rules and regulations recognising the adverse effects of climate change and seeking to combat it, there is no single or umbrella legislation in India which relates to climate change and the attendant concerns. However, this does not mean that the people of India do not have a right against the adverse effects of climate change.

- ii. Article 48A of the Constitution provides that the State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country. Clause (g) of Article 51A stipulates that it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures. Although these are not justiciable provisions of the Constitution, they are indications that the Constitution recognises the importance of the natural world. The importance of the environment, as indicated by these provisions, becomes a right in other parts of the Constitution. Article 21 recognises the right to life and personal liberty while Article 14 indicates that all persons shall have equality before law and the equal*

protection of laws. These articles are important sources of the right to a clean environment and the right against the adverse effects of climate change.

- iii. *In M.C. Mehta v. Kamal Nath, this Court held that Articles 48A and 51A(g) must be interpreted in light of Article 21:*

“8. These two articles have to be considered in the light of Article 21 of the constitution which provides that no person shall be deprived of his life and liberty except in accordance with the procedure established by law. Any disturbance of the basic environment elements, namely air, water and soil, which are necessary for “life”, would be hazardous to “life” within the meaning of Article 21 of the Constitution.”

- iv. *In **Virender Gaur v. State of Haryana**, this Court recognised the right to a clean environment in the following terms*

“7. ... The State, in particular has duty in that behalf and to shed its extravagant unbridled sovereign power and to forge in its policy to maintain ecological balance and hygienic environment. Article 21 protects right to life as a fundamental right. Enjoyment of life and its attainment including their right to life with human dignity encompasses within its ambit, the protection and preservation of environment, ecological balance free from pollution of air and water, sanitation without which life

cannot be enjoyed. Any contra acts or actions would cause environmental pollution. Environmental, ecological, air, water, pollution, etc. should be regarded as amounting to violation of Article 21. Therefore, hygienic environment is an integral facet of right to healthy life and it would be impossible to live with human dignity without a humane and healthy environment. Environmental protection, therefore, has now become a matter of grave concern for human existence. Promoting environmental protection implies maintenance of the environment as a whole comprising the man-made and the natural environment. Therefore, there is a constitutional imperative on the State Government and the municipalities, not only to ensure and safeguard proper environment but also an imperative duty to take adequate measures to promote, protect and improve both the man-made and the natural environment.”

- v. *In **Karnataka Industrial Areas Development Board v. C. Kenchappa**, this Court took note of the adverse effects of rising sea levels and rising global temperatures. In **Bombay Dyeing & Mfg. Co. Ltd. (3) v. Bombay Environmental Action Group** this Court recognised that climate change posed a “major threat” to the environment.*
- vi. *Despite a plethora of decisions on the right to a clean environment, some decisions which recognise climate change as a serious threat, and national policies which seek to combat climate change, it is yet to be articulated that the people*

have a right against the adverse effects of climate change. This is perhaps because this right and the right to a clean environment are two sides of the same coin. As the havoc caused by climate change increases year by year, it becomes necessary to articulate this as a distinct right. It is recognised by Articles 14 and 21.

- vii. Without a clean environment which is stable and unimpacted by the vagaries of climate change, the right to life is not fully realised. The right to health (which is a part of the right to life under Article 21) is impacted due to factors such as air pollution, shifts in vector-borne diseases, rising temperatures, droughts, shortages in food supplies due to crop failure, storms, and flooding. The inability of underserved communities to adapt to climate change or cope with its effects violates the right to life as well as the right to equality. This is better understood with the help of an example. If climate change and environmental degradation lead to acute food and water shortages in a particular area, poorer communities will suffer more than richer ones. The right to equality would undoubtedly be impacted in each of these instances.*

“Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender

equality, empowerment of women and intergenerational equity.”

- viii. This acknowledgement of human rights in the context of climate change is underscored in the preamble of the Paris Agreement, which recognizes the interconnection between climate change and various human rights, including the right to health, indigenous rights, gender equality, and the right to development:*
- ix. India faces a number of pressing near-term challenges that directly impact the right to a healthy environment, particularly for vulnerable and indigenous communities including forest dwellers. The lack of reliable electricity supply for many citizens not only hinders economic development but also disproportionately affects communities, including women and low-income households, further perpetuating inequalities. Therefore, the right to a healthy environment encapsulates the principle that every individual has the entitlement to live in an environment that is clean, safe, and conducive to their well-being. By recognizing the right to a healthy environment and the right to be free from the adverse effects of climate change, states are compelled to prioritize environmental protection and sustainable development, thereby addressing the root causes of climate change and safeguarding the well-being of present and future generations. It is imperative for states like India, to uphold their obligations under international law, including their responsibilities to mitigate greenhouse gas emissions, adapt to climate impacts, and protect the fundamental rights of all individuals to live in a healthy and sustainable environment.*

9. The Land Surface Temperature Variations : Case Study Bhopal, Madhya Pradesh by School of Planning and Architecture, New Delhi (Ms. Pallavi Tiwari) conference proceeding of 5th International Conference of Countermeasures to Urban Heat Island concluded the findings as follows :-

“Conclusion -

The results of the study indicate that greens along the road and at local level are very crucial in reducing the land surface temperatures. The dense built-up areas in the old Bhopal lack green spaces both as parks as well as roadside plantation and thus experience higher land surface temperatures. The crop lands within the boundary also show higher temperatures, thus tree plantation in the boundaries of crop lands is suggested to lower the temperatures in the peri urban areas of the city. The difference in the temperatures in last five years are maximum in the hinterlands because of the extensive construction in the sprawling city and the increasing distance of the development from the water bodies. Water bodies can be planned in specific locations to maintain the microclimate of the city. Local level strategies specific to the land cover and land use of the local areas (wards) should be made to bring down the land surface temperatures and the subsequent urban heat island intensities in wards.”

10. Another Case Study from Bhopal City on Carbon Sequestration Potential of Trees Planted Along Roadsides narrated that “India is the seventh-largest country in the world. The country is one of the 17 mega bio-diverse countries (Mittermeier and Mittermeier, 2005) occupying just 2.5% of the world's geographical area but supporting 16% of the world's human population and 17% of the livestock population (Mukerji, 2003). Per capita availability of

forest and productivity are among the lowest when compared to the world's average, and the immense biotic pressure on the country's forests, making biodiversity conservation a very challenging task (Maan and Chaudhry, 2019). Forest and tree cover in the country is less than one-fourth of the geographical area of the country, which is far behind the national target that strives to have one-third of the total geographical area under forest and tree cover.” Due to urbanization, the condition in the cities as per the environment point of view is at the risk and alarming. However, the roadside plantations/tree avenues in the urban cities play a role not only for improving climatic conditions but significantly contributing to increase area under vegetation in the country. Trees growing along the roadside, either planted or grown naturally, are performing the ecological function not only to reduce the pollution load but also sequester carbon and help mitigate climate change (Da Silva et al., 2010; Singh and Singh, 2015). Additionally, the trees in the urban environment are contributing toward many benefits, e.g. social benefits (recreational opportunities, improving physical/mental health); aesthetic benefits (landscape variations through different colors/textures/forms and densities of plants); climatic benefits (cooling, wind control, air pollution reduction, atmospheric carbon storage, impact on climate) and economic benefits (increased property values, tourism, providing fruits and small timber). In accordance with the 74th amendment of the Indian Constitution in 1992, the municipal and urban development authorities are responsible for creating and

maintaining parks and other recreational spaces in city areas (Granville, 2009). But, the Urban Local Bodies (ULB) in India have little mandate to combat climate change (Sami, 2017; 2018; Khosla and Bhardwaj, 2018), the climate change rarely features in the development plans of these bodies as per study undertaken by Khosla and Bhardwaj (2018). An effort has been made in the present article to quantify one of the benefits from the trees for mitigating climate change consequences, i.e. the amount of carbon and atmospheric carbon dioxide equivalent stored in the trees planted on roadside in the campus of Indian Institute of Forest Management (IIFM) Bhopal, Madhya Pradesh, India. Nationwide implementation of Green India Mission (GIM) of Government of India as a part of National action plan tackling climate change since last one decade, is supposed to increase above and belowground biomass in 10 million ha of forests (including urban forest ecosystems) resulting in increased carbon sequestration of 43 million tons of CO₂ equivalent annually by the end of the year 2020 (Ravindranath and Murthy, 2010). The present study is an attempt to analyze carbon sequestration potential of the trees planted along roadsides and suggest the potential species for high biomass and high efficiency of carbon fixation in urban areas.

11. On the Above Ground Biomass (AGB), Carbon Stock and CO₂ per ha. study reveals as follows :-

“It is observed that Leucaena leucocephala, Schleicheria oleosa, Dalbergia paniculata, Acacia catechu and Ficus religiosa are the top five plant species which are responsible for maximum carbon storage along the

roadsides (Table - 3). *Dendrocalmus strictus* is also a very useful species (a solid bamboo) as it is found to sequester CO₂ equivalent as 26.92 Mg C ha. – 1, which is higher than other tree species. Due to its fast growth, it has the potential to store carbon more efficiently which makes it a viable option for mitigating climate change (Kaushik et al., 2015). *D. strictus* is also a better option, compared to a few other tropical and temperate plantation species as far as the magnitude of carbon storage in a given time was concerned (Singh et al., 2006). Therefore, institute management has laid more emphasis on a bamboo plantation along roadsides of the campus during the last five years. *Leucaena leucocephala* (Subabul) is a very fast - growing tree species coming naturally in the institute. The species produces large number of pods and seeds in the months of January/February, which requires minimum amount of moisture and quality soil for the regeneration and survival. The major disadvantage of this species includes its suppressing nature of seedlings of other species to thrive. Hence, due precautions have to be taken for further proliferation of this species along roadsides in the campus. However, the health of *Samanea saman* trees are a matter of concern as dead, dying, and diseased trees are visible on roadsides. A detailed examination by a team of foresters, pathologists and entomologists are required for underlining the causes of its poor survival. Actually, this species requires deep loamy soil and high rainfall, whereas available soil is too shallow and rocky to support healthy trees of this particular species. This seems to be the most probable reason for the failure of this particular species and future plantation of this species should be avoided on the campus.”

12. Learned Counsel for the applicant has relied in media reporting dated 06.05.2025 “Patrika” and submitted that in 1990 greenery in the city was 66% and it was reduced to 18% in the year 2011

and further reduced to 16% in the year 2016 and 9% in the year 2018 and now it is approximately 4%.

13. A substantial issue of environmental has been raised. Issue notice to the respondents. Returnable within four weeks.
14. Applicant is directed to take necessary steps for service to the respondents by both ways and also on available email.
15. Respondents are directed to submit their reply within six weeks through E-filing portal, preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.

16. We deem it just and proper to call a report on the matter in issue, in present application, from a Joint Committee consisting of:

- (i) One Representative from the Ministry of Environment Forest and Climate Change, integrated office at Bhopal (M.P.)
- (ii) One Representative from the Central Pollution Control Board, Bhopal. (M.P.)
- (iii) One representative from the Addl. Chief Conservator of Forest, State of MP, Bhopal(M.P.)
- (iv) One representative from the State Pollution Control Board, Bhopal(M.P.)

The State PCB will be the nodal agency for coordination and logistic support.

17. We further direct the Committee to ensure as follows :

- i. Compliance of the Madhya Pradesh Vrikshon Ka Parirakshan (Nagariya Kshetra) Adhiniyam, 2001.
- ii. The Principal Chief Conservator of Forest is directed to constitute a High Level Centrally Empowered Committee, (CEC) to examine the permission and justification of cutting of trees where the permission is sought for more than 25 trees within the State of Madhya Pradesh.

- iii. The Principal Chief Conservator of Forest and the DFO range are directed to ensure the Geo tagging of all trees to be made mandatory so that accurate records of their location, type and number can be maintained. Geo tag data should be published and be made available and reported to the O/o Chief Conservator of Forest.
- iv. There should be tree census within the State city wise and district wise to be monitored by the Principal Chief Conservator of Forest or official nominated by the PCCF.
- v. Centrally Empowered Committee before granting the permission may also consider the alternate to the plan of cutting the trees which could necessitated felling of fewer number of trees or if option is available or not.
- vi. Centrally Empowered Committee will also ensure the compensatory afforestation to compensate for the trees that have been cut down and to ensure their survival upto five years with records and progress city wise, district wise.
- vii. The PCCF, State of MP must have to ensure that there shall not be any cutting of trees without sanction from the competent authority and necessary directions be issued at the district headquarter and in case of any cutting of trees without due permission of competent authority necessary action must be initiated promptly and immediately.
- viii. The Centrally Empowered Committee may also ensure the compensatory afforestation and forestation @ 10 times to 100 times to the ratio of availability of the land in the same area within a time frame.
- ix. It will take a minimum of 70 years to 100 years to again re-generate or re-create the green cover created by cutting of 700 trees and thus the destruction of so many trees adversely affect the environment and life of several human beings. Accordingly, the compensation of compensatory

afforestation should be in ratio to that period and ratio to the oxygen generated by the plant during the life time of the trees.

18. Applicant is directed to supply the required documents and copy of the application to the committee and the respondents within a week and after compliance of service, the Applicant has to submit an affidavit that notices and copy of the application have been served upon the committee and respondents.
19. The report in the matter be filed by the Committee by email at ngtczbbho-mp@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

List it on **23rd July, 2025.**

Sheo Kumar Singh, JM

Dr. Afroz Ahmad, EM

23rd May, 2025
O.A. No. 68/2025(CZ)
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