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RIGHT TO DARKNESS: LIGHT POLLUTION AS A VIOLATION OF THE RIGHT TO LIFE UNDER ARTICLE 21 OF THE CONSTITUTION OF INDIA

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Abstract

In the contemporary urban landscape, artificial illumination has become a symbol of development and progress. However, the unchecked proliferation of artificial lighting has given rise to an often neglected environmental concern, namely light pollution. This paper examines light pollution not merely as an environmental issue, but as a constitutional concern implicating the Right to Life under Article 21 of the Constitution of India. By analysing judicial precedents, environmental principles, and comparative legal frameworks, the study argues for the recognition of a “Right to Darkness” as an intrinsic component of a dignified human existence. It further explores the ecological consequences, particularly on nocturnal wildlife, and highlights the emerging problem of aggressive commercial lighting and the growing “competition for visibility” in urban spaces. The paper concludes by advocating for legal recognition and regulatory intervention.

Introduction

“Darkness is not the absence of light; it is a natural condition essential to life.”

The increasing brightness of modern cities has led to the gradual disappearance of natural darkness. Streets, buildings, billboards, and commercial establishments compete for attention through excessive illumination. While artificial lighting is indispensable for safety and economic activity, its unregulated expansion has resulted in intrusive and harmful consequences.

Article 21 of the Constitution guarantees the Right to Life, which has been interpreted to include the right to live with dignity, health, and environmental balance¹. The intrusion of

¹ INDIA CONST.art.21

artificial light into private and ecological spaces raises an important constitutional question: Does the right to life include the right to darkness?

Concept of Light Pollution

Light pollution refers to excessive or misdirected artificial light that alters natural patterns of darkness². It manifests in several forms:

- Glare- Excessive brightness that causes visual discomfort and reduces visibility. It is particularly dangerous for drivers and pedestrians, as it interferes with clear vision at night.
- Skyglow- The brightening of the night sky over urban areas caused by scattered artificial light. It obscures stars and disrupts astronomical observations, while also affecting natural nocturnal environments.
- Light trespass- The intrusion of unwanted artificial light into private spaces, such as homes or bedrooms. This directly interferes with sleep, privacy, and personal comfort.
- Visual clutter- The excessive grouping of bright lights, commonly seen in commercial zones with billboards and advertisements. It creates confusion, distraction, and contributes to urban sensory overload.

These forms collectively demonstrate that light pollution is not merely an environmental concern but a multifaceted intrusion affecting safety, privacy, health, and ecological balance. Unlike air or water pollution, light pollution is intangible yet pervasive. It operates silently, affecting human life and ecological systems without immediate visibility.

Human Health and the Right to Sleep

The human body follows a circadian rhythm regulated by natural light and darkness. Artificial lighting, particularly blue light, disrupts this rhythm by suppressing melatonin production.

In *Ramlila Maidan Incident v. Home Secretary, Union of India*, the Supreme Court explicitly recognised the Right to Sleep as part of Article 21³. In this case, Supreme Court dealt with the forceful midnight eviction of peaceful protestors who had assembled at Ramlila Maidan in Delhi. The police action, carried out during late night hours, disrupted the sleep of thousands of individuals, leading to chaos and injury.

² INT'L DARK-SKY ASS'N, LIGHT POLLUTION BASICS (2021).

³ *Ramlila Maidan Incident v. Home Sec'y, Union of India*, (2012) 5 S.C.C. 1 (India).

While the primary issue before the Court concerned the legality of police action, the judgment took a significant constitutional turn by recognising the Right to Sleep as an integral component of the Right to Life under Article 21. The Court observed that sleep is not a mere biological necessity but a fundamental human requirement essential for maintaining physical health, mental stability, and overall dignity.

Importantly, the Court noted that deprivation of sleep, whether by direct state action or indirect disturbances, amounts to a violation of fundamental rights. It emphasised that a meaningful life under Article 21 includes the ability to rest peacefully without unwarranted interference.

This principle has broader implications beyond the facts of the case. Continuous exposure to artificial lighting especially intrusive illumination during night hours can similarly deprive individuals of restful sleep. Therefore, excessive and unregulated lighting may be viewed as an indirect but real infringement of the Right to Sleep, thereby falling within the ambit of Article 21.

Similarly, In *Re: Noise Pollution (2005)*, the Court emphasised that disturbances affecting sleep violate fundamental rights⁴. This case dealt with the implementation of the Laws for Restricting Use of Loudspeakers and High Volume Producing Sound Systems, the Supreme Court addressed the growing problem of noise pollution and its adverse effects on public health and well-being. The Court acknowledged that noise, though intangible, can cause serious harm by disturbing sleep, increasing stress levels, and affecting overall quality of life. It categorically held that the Right to Life under Article 21 includes the right to a peaceful and comfortable environment, free from excessive noise.

A key aspect of the judgment was the Court's recognition that sleep disturbance constitutes a direct violation of fundamental rights. It observed that even if an activity is otherwise lawful, it becomes unconstitutional when it infringes upon the rights of others to rest and tranquillity. The Court further imposed restrictions on the use of loudspeakers during night hours, recognising the importance of maintaining silence during designated periods for the protection of public health.

⁴ In *Re: Noise Pollution—Implementation of the Laws for Restricting Use of Loudspeakers & High Volume Producing Sound Sys.*, (2005) 5 S.C.C. 733 (India).

Although the case specifically dealt with noise pollution, its reasoning is equally applicable to light pollution. Just as excessive noise disrupts mental peace and sleep, intrusive artificial lighting particularly from commercial establishments, streetlights, and advertisements can disturb the natural sleep cycle and invade private spaces.

Although these cases deal with noise, the reasoning extends logically to light pollution, as both interfere with rest and mental peace. The principles laid down in the above cases indicate that any environmental disturbance whether in the form of sound or light which interferes with sleep and mental peace, must be viewed as constitutionally impermissible. A powerful observation was made by Justice V.R. Krishna Iyer is that “Life is not mere existence; it is a right to live with dignity and peace.”

Environmental and Animal Impact

The effects of light pollution extend far beyond human inconvenience. It severely disrupts ecological systems. Birds: Migratory birds rely on natural light cues. Artificial lights disorient them, leading to fatal collisions.

- Sea turtles: Hatchlings move towards artificial lights instead of the ocean.
- Insects: Artificial lighting attracts and kills large numbers of insects, disrupting food chains.
- Nocturnal animals: Hunting, mating, and feeding behaviours are altered.

This directly conflicts with the principle laid down in *Animal Welfare Board of India v. A. Nagaraja (2014)*, where the Supreme Court recognised that animals also have a right to live with dignity and without unnecessary suffering.⁵

The Court observed; “Animals have honour and dignity which cannot be arbitrarily deprived.” Thus, environmental degradation caused by light pollution is not limited to human rights it also implicates animal rights jurisprudence in India.

Light Pollution as Environmental Pollution under Article 21

The Supreme Court has consistently expanded Article 21 to include environmental protection. In **Subhash Kumar v. State of Bihar**, the petitioner approached the Supreme Court under Article 32, alleging that the discharge of slurry and industrial waste from coal washeries into

⁵ Animal Welfare Bd. of India v. A. Nagaraja, (2014) 7 S.C.C. 547 (India).

the Bokaro River had polluted the water, making it unfit for consumption and use. The petition was framed as a Public Interest Litigation, seeking to prevent further environmental degradation. While the Court ultimately dismissed the petition on the ground that it was not a genuine public interest action, it made a landmark observation that has had a lasting impact on Indian environmental jurisprudence. The Court held that, Right to life includes the right to enjoy pollution-free water and air for full enjoyment of life⁶.

This statement marked a crucial expansion of Article 21, explicitly recognising environmental quality as a fundamental right. The Court acknowledged that environmental degradation directly affects human life and dignity.

In the context of light pollution, this principle becomes highly relevant. If the Constitution guarantees a right to pollution-free air and water, it logically extends to protection from other forms of pollution that impair quality of life. Excessive artificial lighting, which disrupts sleep, affects mental health, and degrades the environment, can therefore be argued to fall within the same constitutional framework. India

The case of *M.C. Mehta v. Union of India* arose from the leakage of oleum gas from a unit of Shriram Foods and Fertilizers in Delhi, which caused widespread panic and harm. The incident highlighted the dangers posed by hazardous industries operating in densely populated areas.

The Supreme Court, in this case, evolved the principle of absolute liability, holding that enterprises engaged in hazardous activities are strictly liable for any harm caused, regardless of negligence⁷. More importantly, the Court emphasised that the protection of life and health is of paramount importance under Article 21. The judgment reinforced the idea that the State has a duty to ensure that industrial and developmental activities do not compromise public health and safety.

This case establishes that modern risks arising from technological and industrial development must be regulated in light of fundamental rights. Just as industrial emissions and chemical leaks were recognised as threats to life, the unchecked spread of artificial lighting though less

⁶ Subhash Kumar v. State of Bihar, A.I.R. 1991 S.C. 420 (India).

⁷ M.C. Mehta v. Union of India, A.I.R. 1987 S.C. 1086 (India).

dramatic also represents a modern environmental hazard. Thus, light pollution can be viewed as a by-product of development that must be controlled to safeguard constitutional rights.

In *Virender Gaur v. State of Haryana* issued concerns the conversion of land originally reserved for a public park into a commercial complex. The petitioner challenged this action on the ground that it would deprive residents of a clean and healthy environment.

The Supreme Court strongly upheld the importance of environmental protection, stating that: Environmental, ecological, air, water, pollution etc. should be regarded as amounting to violation of Article 21. The Court emphasised that the right to life includes the right to a hygienic environment and that maintaining ecological balance is essential for human survival.⁸ This case is particularly useful in extending your argument because it recognises that environmental harm need not be catastrophic to be unconstitutional. Even gradual degradation—such as loss of green spaces or ecological imbalance—can violate fundamental rights. Light pollution operates in a similar manner. It does not cause immediate visible destruction but gradually alters natural conditions, disrupts ecosystems, and diminishes quality of life. Therefore, it fits within the broader understanding of environmental harm recognised in this judgment.

These cases establish that environmental degradation violates Article 21.

Light pollution, though less discussed, falls within the same category as it:

- Disturbs ecological balance
- Affects human health
- Reduces quality of life

Thus, it must be recognised as a form of environmental pollution.

Light Trespass and Right to Privacy

Light trespass occurs when artificial light enters private property without consent. This directly interferes with personal autonomy. In *K.S. Puttaswamy v. Union of India (2017)*, the Supreme Court recognised the Right to Privacy as a fundamental right under Article 21. a nine-judge bench of the Supreme Court unanimously held that the Right to Privacy is a fundamental right

⁸ *Virender Gaur v. State of Haryana*, (1995) 2 S.C.C. 577 (India).

under Article 21⁹. The case, though primarily concerned with data protection and Aadhaar, laid down expansive principles regarding personal autonomy, dignity, and the sanctity of private life. The Court observed that privacy includes; the right to be let alone, the right to personal space, protection from unwanted intrusion.

Justice Chandrachud, in his opinion, emphasised that privacy is intrinsic to human dignity and liberty. This judgment has direct relevance to light pollution, particularly in the context of light trespass. When artificial light from streetlights, billboards, or neighbouring properties enters an individual's home especially bedrooms it constitutes an unwanted intrusion into private space. Therefore, the absence of darkness within one's private space can be argued as a violation of the right to privacy.

Unwanted artificial light entering bedrooms, homes, and private spaces can be viewed as:

- Intrusion into personal space
- Violation of privacy
- Disturbance of mental peace

Thus, the right to darkness within one's home is closely connected to the right to privacy.

Advertisements, Commercial Lighting and Urban Competition

A modern dimension of light pollution arises from commercial advertising and urban competition such as LED billboards, digital hoardings, commercial facade, lighting event based illuminations etc. Businesses compete to attract attention through brighter and more aggressive lighting. This creates:

- Visual clutter
- Continuous exposure to high-intensity light
- Disturbance in residential zones

This phenomenon reflects what urban theorists describe as the "attention economy," where visibility equals economic value. However, this raises a legal concern: Can commercial interests override the fundamental right to health and peaceful living? The answer, under constitutional principles, must be no.

⁹ K.S. Puttaswamy v. Union of India, (2017) 10 S.C.C. 1 (India).

Comparative Legal Perspectives

The growing recognition of light pollution as an environmental and public health concern is reflected in the legal frameworks of several jurisdictions. Although approaches differ, a common thread is the acknowledgment that excessive artificial lighting must be regulated in the interest of human well-being and ecological balance.

United Kingdom

In the UK, light pollution is recognised as a statutory nuisance under the Clean Neighbourhoods and Environment Act, 2005¹⁰ by amending the Environmental Protection Act, 1990. Artificial light emitted from premises, if deemed prejudicial to health or a nuisance, can attract legal action by local authorities. Local councils are empowered to investigate complaints relating to intrusive lighting, particularly from commercial establishments, sports facilities, and security lighting. They may issue abatement notices, requiring the responsible party to reduce or modify the lighting. Non-compliance can result in penalties.

Importantly, the UK framework reflects a rights-based approach at the community level, where individual complaints are taken seriously and resolved through administrative enforcement. However, certain exemptions exist, such as for airports, transport infrastructure, and defence establishments, indicating a balancing of public interest and individual rights.

United States

Courts in the U.S. have treated light trespass under nuisance law. Municipal regulations limit commercial lighting, especially near residential areas. In the United States, regulation of light pollution primarily operates through state and municipal laws, often framed under zoning regulations and nuisance doctrines. Courts have recognised light trespass as a form of private nuisance, thereby allowing affected individuals to seek remedies.

Several states and cities have adopted “Dark Sky” ordinances, which impose restrictions on outdoor lighting. These include shielding requirements to prevent upward light spill, limits on brightness and colour temperature, time restrictions on commercial lighting etc. For example, states like Arizona and municipalities near astronomical observatories have implemented strict lighting controls to preserve night skies. The U.S. approach is notable for its decentralised regulatory model, where local governance plays a key role. It also reflects a strong interplay between property rights and environmental concerns, allowing individuals to challenge

¹⁰ Clean Neighbourhoods and Environment Act 2005, c. 16, § 102 (U.K.).

intrusive lighting legally.

France

France has adopted strict regulations requiring shops and offices to turn off lights during night hours to conserve energy and reduce pollution. France has adopted one of the more structured and nationally coordinated approaches to light pollution. Under its environmental regulations, strict rules govern the use of artificial lighting in commercial and public spaces. Shops, offices, and commercial buildings are required to switch off lights during late-night hours (generally between 1 a.m. and 6 a.m.), except in specific circumstances. Outdoor lighting must be designed to minimise energy consumption and environmental impact. France's regulatory framework is particularly significant because it recognises light pollution not only as a nuisance but also as an issue of energy conservation, climate responsibility, biodiversity protection. This integrated approach reflects a broader environmental consciousness, linking artificial lighting with sustainable development goals.

Australia

Australia has implemented national guidelines to protect wildlife from artificial lighting, especially in coastal regions. Australia has taken a more ecologically focused approach, particularly in regions sensitive to wildlife. National and regional guidelines regulate artificial lighting to minimise its impact on nocturnal species. For instance, coastal lighting regulations aim to protect sea turtles by reducing disorientation caused by artificial lights. Similarly, lighting near wildlife habitats is subject to environmental assessments. Australian policies emphasise directional lighting to reduce spill, use of low-intensity and wildlife-friendly lighting, environmental impact assessments before installation.

This approach highlights the recognition that light pollution is not merely a human inconvenience but a serious ecological concern affecting biodiversity. These jurisdictions reflect a growing global recognition that darkness is an environmental resource worth protecting.

Need for Legal Recognition in India

India currently lacks a dedicated framework for regulating light pollution. Existing laws are indirect and insufficient. Despite the growing awareness of environmental rights under Article 21, light pollution remains largely unaddressed within the Indian legal framework. Unlike air, water, and noise pollution, which have been recognised and regulated through statutory and

judicial mechanisms, artificial lighting continues to exist in a legal grey area. This absence of explicit recognition creates a significant gap in the protection of fundamental rights.

At present, the issue is dealt with only indirectly through general provisions relating to public nuisance, municipal regulations, and environmental protection laws. However, these frameworks are neither designed nor sufficient to address the unique nature of light pollution. Its effects are gradual, often invisible, and easily normalised in urban life, making it difficult to challenge without a clear legal basis.

One of the primary reasons for recognising a “Right to Darkness” is the increasing intrusion of artificial lighting into private and residential spaces. The phenomenon of light trespass where illumination from streetlights, commercial establishments, or digital billboards enters homes directly interferes with sleep, privacy, and mental well-being. In the absence of specific legal standards, individuals are left with limited remedies, often requiring them to rely on broad and uncertain nuisance claims.

Further, the rapid growth of urban infrastructure and commercial advertising has intensified the problem. Cities today are characterised by a constant competition for visibility, where businesses deploy high-intensity lighting to attract attention. This has led to excessive illumination in public and semi-private spaces, often without consideration for its impact on residents or the environment. Without regulatory intervention, such practices are likely to expand unchecked, prioritising economic interests over fundamental rights.

From an environmental perspective, the lack of regulation also poses serious risks to biodiversity. As discussed earlier, artificial lighting disrupts ecosystems, particularly affecting nocturnal species. In a country like India, which is rich in biodiversity and ecological diversity, the absence of legal safeguards against such disruption is particularly concerning. Recognising light pollution as an environmental issue would align with the constitutional commitment to protect and improve the environment. Moreover, the evolution of Article 21 demonstrates that fundamental rights are not static but must adapt to emerging challenges. The judiciary has consistently expanded its scope to include rights such as clean air, water, sleep, and privacy. In this context, acknowledging the importance of natural darkness is a logical extension of existing principles rather than a radical departure.

Another important aspect is the preventive dimension of law. Unlike other forms of pollution that may require extensive remediation, light pollution can often be controlled through simple and cost-effective measures, such as proper shielding, regulated intensity, and time-based restrictions. The absence of legal standards means that these preventive measures are not uniformly implemented. In addition, recognising the right to darkness would bring India in line with emerging global standards. As seen in jurisdictions like the United Kingdom, France, and Australia, legal systems are increasingly acknowledging the need to regulate artificial lighting. India, with its rapidly urbanising population, stands at a critical juncture where early intervention can prevent long-term consequences. Finally, legal recognition would also play an important role in shaping public awareness and administrative responsibility. Once acknowledged as a matter of rights, light pollution would no longer be dismissed as a minor inconvenience but treated as a legitimate concern requiring policy attention and enforcement.

Suggested Measures

In light of the above, the following steps are necessary:

- Enactment of specific legislation addressing light pollution
- Framing of standards for permissible lighting levels
- Zoning regulations distinguishing residential, commercial, and ecological areas
- Restrictions on commercial and advertising lighting during night hours
- Incorporation of light pollution assessment in environmental impact studies

In a constitutional framework that places human dignity at its core, the ability to experience natural darkness must be recognised not as a luxury, but as a fundamental necessity. There is a need for specific legislation on light pollution, zoning laws for lighting, restrictions on commercial lighting, protection for residential and ecological zones, judicial recognition of the Right to Darkness would be a significant step forward.

Conclusion

The concept of the Right to Life under Article 21 has evolved to include various dimensions essential for human dignity. In the modern age, where artificial lighting increasingly dominates natural cycles, the absence of darkness has become a serious concern. Light pollution is not merely an inconvenience it is a violation of health, privacy, environmental balance, and ecological harmony. Recognising the “Right to Darkness” is therefore not an expansion of rights, but a necessary adaptation of constitutional principles to contemporary realities.