

AVIATION ENVIRONMENTAL PROTECTION: TOWARD A QUIETER MOVEMENT IN (LARGER) PUBLIC INTEREST

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Abstract

Aviation noise emission constitutes a source of ultra-hazardous noise inimical to human health. Here there is a set of competing claims between development and environment to offer conundrum of choice between movement of goods and services on one side and right to health along with privacy and peace of mind on the other. Expansion of old airports and establishment of new airports are at loggerheads with ever-increasing population as airport and human habitat both require space which is but finite on the Earth.

The author hereby explores legitimacy of unabated noise emission on the part of aircraft at heavy cost of human rights for vast majority of ground(ed) people along with subhuman living beings around airport premises. In given mode of development, civilization cannot do away with aviation in its vested interest. Thus an emergent need of the hour seems to balance competing claims between affluent people willing to take a take off and subaltern people stuck beneath with technological device to minimize noise of upward advancement for blessed few. Unless and until the same may happen through longterm aviation research and development, the author works out sociolegal framework to contain aviation noise emission within tolerable decibel limits so that no further compromise with right to noiseless or less-noise life may pose threat to residuary peace of community. The same will be pleasant to flying people while they will remain at receiving end in proximity of ground reality and thereby exposed to aviation noise emission.

Introduction

Like an aircraft, aviation environmental protection discourse has had two wings emission and noise. While aviation emission is intangible in common parlance and traceable through its mediate aftermath, i.e. climate change, aviation noise is tangible enough to put public life in jeopardy with immediate effect of the same. Since introduction of Boeing 707 airplane in 1958, noise continues to chase civil aviation till date and there is no end of the same in near future. Indeed research and development has reduced 75% of aviation noise in

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terms of its intensity, as compared to initial decade,¹ noise pollution has nevertheless increased in terms of its frequency. Thus, in the wake of worldwide expansion in aviation industry, noise remains a headache of adjacent community and in turn of the state as well. Noise generated from aircraft first attacks surrounding community which passes its concern to state through political pressure put upon respective representatives of state and state thereafter passes back the buck to civil aviation industry itself. Noise of politics driven by politics of noise thereby rotates to affect peace of mind of one and all and spares none in its vicious cycle. A jurisprudential corpus of law, therefore, is required to this end.

Aviation environmental law seems an imperative of this age for a set of reasons. (i) With the passage of ever-increasing movement of goods and services throughout the world under international trade regime, civil aviation becomes sunrise industry with its expansionist mode-through extension of old airports or establishment of new airports or both and thereby set to perpetrate more noise against population adjacent to airports. In its given trend of expansion, public interest is in peril. (ii) Under common law system a piece of land, as immovable property, may also include the column of space above the surface *ad infinitum*. (iii) Under law of torts, aviation noise may at ease be considered as interference with property. (iv) Rule of contributory negligence under *volenti non fit injuria*-a Latin maxim used to excuse defendant in like cases cannot be applicable. (v) Besides population, domestic cattle and wildlife are affected by aviation noise. Adversity of aviation noise on fauna is obvious enough as compared to serenity of wilderness deviation of which may cause catastrophic change in physiological and behavioral patterns of sub-human folk. Adversity of aviation noise on flora, however, is still a matter of conjecture. In a nutshell, there is a vacuum in terms of settled law to balance between such competing and, at times, conflicting claims of interest operative within given society. The forthcoming paragraphs will strive to attain a roadmap of the same toward the trajectories abovementioned and thereby arrive at a set of propositions with special reference to India tenable under jurisprudential reasoning behind the same.

Political economy of noise efficiency

At the threshold stage, this may not be out of context to provide a clarification vis-à-vis political economy of noise efficiency. Noise sensibility and sensitivity lack universal(ized) standard all over the world. With their poles apart variation in terms of given cultural praxis, the same differs to a large extent as per their geopolitical position. Thus the community of developed states in the Occident is supersensitive to noise pollution while the same of developing and underdeveloped states in southern hemisphere is yet to be graduated to this end. Noise annoyance discourse is hereby set in this context.

In particular, in the United States of America (USA)² and the European Union (EU),³ aviation industry is set to reach its time-bound target as scientific advent helps them to understand the havoc its aftermath may play with the community.⁴ Not only have they thought of scientific research and development,

they introduce market-driven mechanism through imposition of noise taxation from passengers to spend part of the same for mitigation of aviation noise on the community. Also there is deterrent policy for aviation industry in the West. There are provisions for phase out of old-technology noisier aircrafts creating havoc public nuisance. Nighttime curfew poses another threat to political economy of aviation industry through which airports adjacent to metropolis may be closed down for take-off and landing purpose from late evening to early morning. Thus aviation industry is under pressure to minimize noise in its own interest.

With specific reference to India, this may aptly be illustrated as black letter law against noise seems nonexistent due to overwhelming apathy toward resistance against noise pollution in public life. Perhaps out of colonial modernity, noise earns acceptance as part of civilization so much so that aviation noise continues unabated despite a judicial observation of the Supreme Court, though eventual, over impact of aviation noise on wildlife.⁵ Interestingly enough, there was no concern vis-à-vis maximum limit for aviation noise until recently Delhi High Court has issued specific instruction to the Central Pollution Control Board to fix a maximum (aviation) noise level limit and that also within its given timeframe.⁶ Indeed the board was well aware of lapses on the part of aviation industry and the matter was placed on its website,⁷ concerned authorities were unconcerned over the same until an aggrieved hospital authority knocked doors of the Court and the court ordered to close down two runways of the airport to the detriment of errant aviation exercise. Immediately thereafter, the Directorate General of Civil Aviation has set things on (right) track—an intervention under compulsion which could be accomplished in course of its regular duty under given mandate. Here the Court is seemingly adhered to market-driven mechanism as the language is immediately understood by corporate aviation giants.

Judicious intervention of the Delhi High Court thereby demonstrates potential of juridical institutions in the absence of corporate (self)governance in globalized market economy. Union legislature is yet to contribute to aviation governance while executive administration is seemingly in evil nexus with aviation industry. Besides political economy of noise efficiency, there are other areas of concern, e.g. crossroads of development and environment, aviation noise and human rights etc. A brief outline of the same may set moot points of this effort in their context and thereby hyperlink the same to this end.

Dichotomy between development and environment

In globalized world of international trade under the World Trade Organization regime, worldwide superfast movement of goods and services seems insignia of and *sine qua non* for axiomatic development in the given system. Civil aviation, therefore, is a default vehicle of present paradigm of development provided that the same conforms to a(ny) sustainable mode of development a

virtual *jus cogens* in the post-Rio world. Sustainable development necessarily refers to development in tandem with environment. Development sans environment cannot help sustain either and thereby bound to suffer from kneejerk setback in time ahead.⁸ Noisy take-off of civil aviation is set to crash-land as the same suffers from head—on collision with environ. Environ, besides natural, includes habitable human environ on the Earth.⁹ Here aviation noise lacks sustainability as the same is in conflict with human environ even if concern for a subhuman environ is set aside though the same constitutes part of natural environ.

No development may sustain for long without support from its community. As aviation industry lacks support from neighbouring community all over the world, the same faces resistance in terms of its growth—be the same may in the form of extension of old airports or establishment of new airports. Gone are the days when state used to identify terrain “far from the madding crowd” to develop its airport. On the contrary, nowadays, ever—increasing aviation noise is maddening the crowd living around. With spectacular population increase (read explosion), there is no deserted land in India except desert *per se* like that of *Thar*. Thus, with its noise, aviation industry is bound to be caught in trouble wherever the same may identify terrain for development of airport. At the same time, however, in its given mode of development, no state may afford to do away with civil aviation and therefore requires airport in its own interest. Being in same race of emerging (corporate) globalization, India is left with no other option but to indulge in its expansionism through its green-field scheme or even otherwise.¹⁰ Such initiatives, however, face heavy resistance from within the (surrounding) community. In Tamil Nadu, for instance, the matter has initiated a tantrum.¹¹

What is required is balanced approach toward development to attain sustainability and the same may be attained through confidence of the community. Recent development initiatives in West Bengal and their fateful consequences constitute exemplary illustration to this end. Mitigation of aviation noise is the only way out to this end, but the same requires time. Until aviation industry attains the same, market-driven mechanism may be applied to the community as well, e.g. prior admonition at the time of land transaction, reduction of land revenue, supply of sound resistant equipments, subsidy in purchase of basic electronic apparatus, provision for medical insurance of elderly members at affordable cost, nighttime restriction until phase out of noisier aircraft etc. Inclusion of the community as stakeholder may be a prudent policy option. One member from each family of worst affected part of the community may be offered job or reduced rate of airfare as per their order of preference. Within airport premises, innovative way out may be worked out, e.g. which ways for take-off and landing will affect least number of people who may be subject to benefits abovementioned. After runways are set accordingly, worst affected part beneath the take-off and landing trajectories may be dedicated to social forestry, so far as possible, and no further land transaction may be allowed. All these are but supplementary to mitigation of aviation noise and no substitute of the same.

All these expenses may be borne by collective funding of aviation industry and not from public exchequer. Rationale behind the same lies in hard fact that such funding is temporary pending reduction of noise within maximum tolerable limit. Also burden lies on aviation industry as the same falls short of balancing between development and environment. The proposed arrangement will work as deterrent to lethargic initiative for reduction of aviation noise.

Noise syndrome and human rights

From corporate perspective, furore against hitherto aviation noise may sound antidevelopment hue and cry. Indeed no aircraft may fly or land without noise, noise is 75% reduced than earlier and the same is done by corporate initiative. Also, except noncooperation, the community has had no contribution to this end. At bottom, however, anti-noise notion helps facilitate pro-development discourse as the same is not against aviation itself but its noise. There lies jurisprudential reasoning to this end which substantiates argumentation for contention of its noise within airport premises—this far and no farther.

With the passage of increasing movement of goods and services under international trade regime, civil aviation becomes a sunrise industry with its expansionist mode through extension of old airports or establishment of new airports or both and thereby set to perpetrate more noise against the community adjacent to airports. Thus noise, though reduced in its intensity, has but multiplied in its frequency and thereby intrudes more in privacy and peace of mind. Besides its adverse effects on physical and mental health, in particular on the aged- so often than not covert in terms of their aftermath—there are overt hazards on property, e.g. building, electronic apparatus and delicate furniture being some of them. Earlier passive, by and large two factors contribute to active resistance: multiplicity of noise and rights consciousness of the community.

Under common law system a piece of land, as immovable property, may include “the column of space above the surface *ad infinitum*” besides a determinate portion of the earth’s surface and the ground beneath the surface”.¹² The airspace above metropolis, under the legal fiction, belongs to private landowners beneath the same. First edition of *Salmond’s* jurisprudence book was published in 1902 A.D. In the same year, even before the historic invention of Wright brothers to develop their flying machine—the primitive form of modern airplane—in 1903, an American Court understood impracticality of the given doctrine in modern world. With the passage of time, however, pendulum of *opinion juris* moves poles apart so much so that landowners are placed at the mercy of aviation industry.¹³ Even after spectacular growth of aircraft noise, the *Causby* judgment—as delivered by the Supreme Court of America- fell short of attaining optimum balance between divergent claims of interest.¹⁴ Still the judgment is celebrated as landmark one because the Court thereby identified the inbuilt fallacy of archaic common law position and got rid of the same to attain a minimum sense in its jurisprudence. Since then, however, aviation industry

continues to exploit comparative advantage out of the archaic legal position which continues to prevail till date. Meanwhile, through permutation and combination of its intensity and frequency, aviation noise becomes much more hazardous than earlier.

Table 1: Growth of Civil Aviation in India¹⁵

Aircraft departures on scheduled domestic services of Indian carriers

Year	Aircraft departure (numbers)			Percentage share	
	National carriers	Private carriers	Total	National carriers	Private carriers
1999-00	92,678	68,715	161,393	57.4	42.6
2000-01	90,923	83,012	173,935	52.3	47.7
2001-02	89,817	93,662	183,479	49.0	51.0
2002-03	96,266	107,211	203,477	47.3	52.7
2003-04	105,172	129,074	234,246	44.9	55.1
2004-05	109,996	155,893	265,889	41.4	58.6
2005-06	102,499	213,326	315,825	32.5	67.5
2006-07	104,854	315,812	420,666	24.9	75.1
2007-08	112,424	408,307	520,731	21.6	78.4
2008-09	104,631	404,936	509,567	20.5	79.5

Source: ICAO ATR Form-A furnished by scheduled Indian carriers.

Further, under the law of tort(s), aviation noise may at ease be construed as an interference with property¹⁶ which constitutes nuisance. In other words, there must be interference with the use or enjoyment of land, or some right over or in connection with it, causing damage to the plaintiff. The two main heads are injury to property and interference with personal comfort.¹⁷ The whole law on the subject really represents a balancing of conflicting interests. Some noise, some smell, some vibration, everyone must endure in any modern town, otherwise modern life there would be impossible. It is repeatedly said in nuisance cases that the rule is *sic utere tuo ut alienum non laedas*, but the maxim is not very informative. In fact, the law repeatedly recognizes that a man may use his own so as to injure another without committing a nuisance. It is only if such use is unreasonable that it becomes unlawful.¹⁸ Thus aviation industry cannot be caught under traditional interpretation of nuisance as noise was associated with take-off and landing of aircraft since its beginning and noise is substantially reduced than initial decade. Meanwhile, however, rights dimension of tort(s) jurisprudence also underwent a paradigm shift to introduce absolute liability on errant defendant concerned and thereby drag aviation authority to the court.

Rule of contributory negligence under *volenti non fit injuria*—a Latin maxim used to excuse defendant in like cases—cannot be fully applicable. It is well settled that it is no defence that plaintiff himself came to the nuisance. It would be unreasonable to expect a person to refrain from buying land merely because a nuisance already exists there. In general it may be said that the standard of care to which plaintiff is required to conform if he is not to be convicted of contributory negligence is not necessarily as high as that required of the defendant.¹⁹ Therefore it is a rule in nuisance that it is no defence to plead that the plaintiff came to the nuisance.²⁰ Indeed it is also a rule that account must be taken of the district where the alleged nuisance takes place and that if he goes to reside in a great industrial area he must put up with a good deal more inconvenience than if he lives in the country.²¹

There is criticism against anti-noise cry in similar line and length of rationale.²² This is but humbly submitted that the same is not the case in case of the people who reside there since airport authority initiated its operation or even before. These people constitute flip side of the coin.

Besides population, domestic cattle and wildlife are affected by aviation noise. In particular, adversity of aviation noise on fauna is obvious enough as compared to the serenity of wilderness deviation of which may cause catastrophic change in physiological and behavioral patterns of sub-human folk.²³ Consequently, an exodus of certain species may cause pandemonium in wildlife through breakdown of food chain. Arrival of wild animal in adjacent locality is a plausible aftermath though genesis of the same is a matter of conjecture. Resort to precautionary principles seems appropriate to this end.

Question of legitimacy rather than legality

So far the author is in consensus with his noise-savvy counterpart that there is no easy way out of this problem. Being federal in terms of system of governance, America and India, both are posited on same pedestal with similar predicament.²⁴ Aviation industry is concerned over minimization of number of people affected by incidental noise, but the same is always much more than that of its passengers. Indeed from economic perspective of cost-benefit analysis, there is valid criticism of noise regulatory mechanism as well.²⁵ From environmental perspective vis-à-vis sustainable (economic) development, however, the same offers no tenable position in larger public interest. For superfast movement of goods and services, people ought not to suffer from aviation noise syndrome. The position seems well settled that any mode of so called development, not in tandem with development of man, resembles no development at all.²⁶ Under the given philanthropic jurisprudence, even if aviation environmental law is yet to be settled to protect community from aviation noise, the impugned action or omission lacks legitimacy if not legality in true sense of the term.

Usually used interchangeably, legality and legitimacy are similar but not one and the same. In its recent judgment, Apex Court of India placed a

conjunction “and” between legality and legitimacy, which denotes that these two are not synonyms.²⁷

At rare occasions, legality may indeed be divorced of legitimacy.²⁸

A set of arguments and counter-arguments thus demonstrate a legal conundrum prevailing over aviation environmental jurisprudence. There is sound reasoning, founded on divergent worldviews, in both sides. In the absence of law to this end, question lies more in the legitimacy than the legality of aviation noise in India. In such an overpopulated sub-continental terrain, expansion of aviation is bound to get at loggerheads with second highest population of the world—no wonder that the Union of India is about to formulate its *de novo* civil aviation policy to work out thirty five new airports all over the country.

In developed hemisphere, however, aviation noise is required to pass tough test of legality as well. Thus there is provision for noise certification specifications besides settled system of checks and balance. Still aviation noise is recognized as a typical socio-technical rather than legal matter.²⁹ Indeed there are specifications in India as well. Implementation of the same is exception rather than rule. Thus lawlessness indulges in systemic subversion from within.

The International Civil Aviation Organization (ICAO)—a UN Specialized Agency and the global forum for civil aviation has established an objective to minimize adverse effect of global civil aviation on the environment and aviation noise is therefore its default concern. The ICAO initiatives are generally meant to set guiding principles which are not legally binding but indeed of persuasive value and thereby contribute to legitimacy of operation on the part of aviation industry. In its Assembly Resolutions, the ICAO emphasizes on arrest of aviation noise.³⁰ The ICAO conducts periodic reviews of night curfew restrictions. In its last review, pitfalls of night curfew restrictions are pointed out to prove the same as self-defeating enough.³¹ The ICAO has set its rationale behind imposition of noise related charges.³² Also there are time-bound agenda vis-à-vis abatement of noise set before member states so that the same may not be delayed *ad infinitum*.³³ As its member state, India is under international legal obligation to respect aviation environmental regime through strict compliance to the same. Indeed no member state is legally bound by international norms set by the ICAO—the way ‘soft law’ doctrine operates in international law—adherence to the same provides legitimacy to the states in terms of its operation.

Conclusion

From these paragraphs abovementioned, the utilitarian worldview seems implicit in domestic aviation governance and the same is explicit in the ICAO literature³⁴ that, while abatement of aviation noise is imperative as greater number of people suffer from the same, lesser number of people may suffer for greater interest of civil aviation which is instrumental for economic development of the country. The ICAO Assembly thereby endorsed concept of balanced

approach to Aircraft Noise Management in 2004³⁵ and reaffirmed the same in 2007.³⁶ Without entering into nitty-gritty of the same e.g., four principal elements, namely reduction at source (quieter aircraft), land-use planning and management, noise abatement operational procedures and operating restrictions—this is humbly submitted that the same falls short of being either conscionable or prudent as bull's eye of such mission ought to be minimization of suffering from noise rather than minimization of number (of people) from the same. This seems more relevant in Indian context as none may be left out in jeopardy.³⁷

What seems required is a humanitarian worldview which will take due care of all and not most people of the community. As a global forum, and operating in an age of human rights, the ICAO may review its position as rights jurisprudence offers individual rights in its essence. There is no defence against the same with excuse of *salus populi suprema lex*—the Latin maxim which upholds public interest over individual interest—as community living beneath take-off and landing trajectories is invariably larger than those flying above and thereby always represents larger public interest. In India, however, urgent need of this hour is compliance with the ICAO norms before such finer issues may be dealt with. Indeed this will facilitate farther growth of civil aviation as well.

Endnotes

1. Aircraft coming off the production line today are about 75% quieter than they were 40 years ago and the aircraft manufacturers are working to reduce this even more. ... These developments are reflected in ICAO Certification Standards and ICAO's continuing promotion of the implementation of noise reduction technologies.

ICAO Environmental Report 2007, Part 2, Aircraft Noise—Defining the Problem, p. 20. Available at:
http://www.icao.int/env/pubs/env_report_07.pdf accessed on September 25, 2010.

2. The challenge: Aircraft noise continues to be regarded as the most significant hindrance to increasing the capacity of the National Airspace System, largely because of nuisance noise near major metropolitan airports. Although the Federal Aviation Administration has invested more than \$5 billion in airport noise reduction programs since 1980, the problem persists.

The goal: Develop aircraft technology and airspace system operations to shrink the nuisance noise footprint around each airport until it is about one-third of its current size by 2015, about one-sixth its size by 2020, and contained within the airport property boundaries by 2025.

Green Aviation: A Better Way to Treat the Planet, NASAfacts, Noise, p. 2. Available at:

http://www.aeronautics.nasa.gov/pdf/green_aviation_fact_sheet_web.pdf accessed on September 26, 2010.

3. By 2020, the European Union wants to cut aviation noise 10 dB. from 2000 levels, and it has established a mid-term goal of a 5-dB. improvement by 2010. The just-completed €112 million (\$153-million) Silencer research program-funded equally by government and industry and involving 51 partners-highlights both the progress made and what remains to be accomplished. Robert Wall, EU Silencer Noise-reduction Program Wraps up, Aviation Week and Space Technology. Available at:
http://www.aviationweek.com/aw/generic/story_channel.jsp?channel=defense&id=news/slnc07097.xml&headline=EU%20Silencer%20Noise-Reduction%20Program%20Wraps%20Up accessed on September 26, 2010.
4. Most people exposed to chronic noise, for instance from major airports, seem to tolerate it. Yet, questionnaire studies suggest that high levels of annoyance do not decline over time. Another possibility is that adaptation to noise is only achieved with a cost to health.
 Stephen A. Stansfeld and Mark P. Matheson, Noise Pollution: Non-auditory Effects on Health, *British Medical Bulletin*, vol. 68, 2003, p. 254. Available at:
http://www.sierrafoot.org/mather/scas_etc/nonauditory_effects_oxford_journal_243.pdf accessed on September 26, 2010.
5. Nowadays, the problem of low-flying military aircraft has added a new dimension to community annoyance, as the nation seeks to improve its “nap-of-the-earth” warfare capabilities. In addition, the issue of aircraft operations over national parks, wilderness areas, and other areas previously unaffected by aircraft noise has claimed national attention over recent years.
 In re: Noise Pollution- Implementation of the laws for restricting use of loudspeakers and high volume producing sound systems, with *Forum, Prevention of Environment and Sound Pollution v. Union of India and Another*, (AIR 2005 SC 3136), paragraph 45.
6. *Vide* Express News Service, IGI noise pollution case, Delhi, posted June 4, 2010. Available at: <http://www.indianexpress.com/news/court-wants-noise-level-near-igi-cut-immedia/629230/> accessed on September 26, 2010.
7. For details, refer to Central Pollution Control Board Annual Report 2004-2005, Table 5.21. Also available at:
http://www.cpcb.nic.in/noise_pollution/Ambient%20Noise%20LevelinVicinityofIGIAirportNewDelhi-2004.pdf accessed on September 26, 2010.

8. In essence, sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations.

Report of the World Commission on Environment and Development: Our Common Future (Brundtland Report), paragraph 15. Available at: <http://www.un-documents.net/ocf-02.htm#I> accessed on September 27, 2010.

9. *Vide* Declaration of the United Nations Conference on the Human Environment, 1972, paragraph 2. Available at: http://www.unep.org/Law/PDF/Stockholm_Declaration.pdf accessed on September 27, 2010.
10. In civil aviation, a financing plan for airport infrastructure has been developed, which envisages a total investment of Rs. 40,000 crore in the sector by 2012. In addition to upgrading and modernizing Delhi and Mumbai airports and setting up greenfield airports at Bangalore and Hyderabad through private developers, other greenfield airports have also been identified for development by private entities.

Dr. Manmohan Singh while inaugurating conference on infrastructure, October 7, 2006. Available at: <http://pmindia.nic.in/speech/content4print.asp?id=414> accessed on September 27, 2010.

11. The land marked out for greenfield airport are close to Chennai-Bangalore National Highway. According to the present procedure, if there is a need for a new airport, the State government has to acquire all the required land and give it to the Airports Authority of India (which is entrusted with the project).

Officials here made it clear land acquisition of populated areas was already a contested issue. R.K. Radhakrishnan, Sriperumbudur airport project shelved, *The Hindu*, online edition, Chennai, posted on February 27, 2010.

Available at: <http://www.thehindu.com/news/cities/Chennai/article114323.ece> accessed on September 27, 2010.

12. P.J. Fitzgerald (ed.), *Salmund on Jurisprudence*, 12th ed. (1966), Indian economy reprint, Universal Law Publishing Co. Pvt. Ltd., Delhi, 2002, p. 416.
13. In sustaining a defense of trespass to an action for assault based upon an unneighborly squabble across a garden fence, the Supreme Court of Iowa once noted:

It is one of the oldest rules of property known to the law that the title of the owner of the soil extends, not only downward to the center of the earth, but upward *usque ad coelum*, although it is, perhaps, doubtful whether owners as quarrelsome as the parties in this case will ever enjoy the usufruct of their property in the latter direction.

With the invention of the airplane and the development of modern air transportation, the prerogatives embodied in common-law concepts of real property ownership have received legislative and judicial qualifications intended to accommodate the competing needs of air travel. In recent years, owners of land adjacent to airports have suffered increasing harassment from airplane noise disturbances. Their inability to achieve any judicial relief short of compensation based on the constitutional protection of private property suggests a need for re-evaluation of the shrinking rights of property owners in the evolving air age. (Anonymous) note, *Airplane Noise, Property Rights and the Constitution*, *Columbia Law Review*, vol. 65, no. 28, December 1965, p. 1428. Available at: <http://www.jstor.org/pss/1120437> accessed on September 28, 2010.

14. Held that a servitude has been imposed upon the land for which respondents are entitled to compensation under the Fifth Amendment.
 - (a) The common law doctrine that ownership of land extends to the periphery of the universe has no place in the modern world.
 - (b) The air above the minimum safe altitude of flight prescribed by the Civil Aeronautics Authority is a public highway and part of the public domain, as declared by Congress in the Air Commerce Act of 1926, as amended by the Civil Aeronautics Act of 1938.
 - (c) Flights below that altitude are not within the navigable air space which Congress placed within the public domain, even though they are within the path of glide approved by the Civil Aeronautics Authority.

Mr. Justice Douglas, United States v. Causby, 328 U.S. 256 (1946). Available at: <http://supreme.justia.com/us/328/256/case.html> accessed on September 28, 2010.
 - (d) Flights of aircraft over private land which are so low and frequent as to be a direct and immediate interference with the enjoyment and use of the land are as much an appropriation of the use of the land as a more conventional entry upon it.
15. Available at: <http://www.thehindubusinessline.com/2010/03/16/stories/2010031651590900.htm> accessed on September 28, 2010.

16. The rule that the standard (of comfortable living) is determined by the locality where the nuisance is created is limited to those cases where the nuisance complained of is productive of sensible personal discomfort. ... The border-line between these two classes has not been clearly drawn: noise and smoke may not only interfere with personal comfort but also make the premises uninhabitable for the purpose of the business carried on there and so cause "sensible injury to the value of the property".
R.F.V. Heuston (ed.), *Salmond on the Law of Torts*, 13th ed., Sweet & Maxwell Ltd., London, 1961, p. 189-190.
17. T. Ellis Lewis (ed.), *Winfield on Tort: A Textbook of the Law of Tort*, 6th ed., Sweet & Maxwell Ltd., London, 1954, p. 541.
18. *Supra*, n. 17, p. 541-542.
19. *Supra*, n. 16, p. 192-193.
20. *Supra*, n. 17, p. 581.
21. *Ibid.*
22. There is no easy way out of this problem. However, it is clear that those who have property or reside in an area impacted by aircraft noise have done so voluntarily, since the airport has been in existence much longer. It is also difficult to claim that they did not know that flight movements will increase, as we all know that growth in civil aviation is a reflection of economic growth and we should have anticipated it.
Sanat Kaul, *Airport noise*, *Financial Express*, online edition, posted on June 17, 2010. Available at:
<http://www.financialexpress.com/news/airport-noise/634683/0>
accessed on September 28, 2010.
22. *Vide* a Noise Pollution Clearinghouse Factsheet vis-à-vis Noise Effects on Wildlife, NPC Library archive. Available at:
<http://www.nonoise.org/library/fctsheet/wildlife.htm> accessed on September 28, 2010.
23. Landowners have occasionally sought injunctive or monetary relief from aircraft operators and airports, and a few municipalities have attempted to cope with the problems of low flight and excessive noise by ordinance. Formidable difficulties, arising from theoretical and practical aspects of tort law and from the impact of a comprehensive scheme of federal regulation of aviation, have impeded the development of truly effective remedies.
(Anonymous) note, *Airplane Noise: Problem in Tort and Federalism*, *Harvard Law Review*, vol. 74, no. 8, June 1961, p. 1581. Available at:
<http://www.jstor.org/pss/1338373> accessed on September 29, 2010.

25. From a political point of view, airplane noise regulations may be doing what they are intended to do; that is, the magnitude of transfers from air-lines and air travelers to homeowners is apparently a better indicator of noise regulation's political attractiveness than its efficiency effects. But the political climate may be changing, as evidenced by the current debate over regulatory reform that clearly recognizes that the costs of many social regulations exceed their benefits. Airplane noise regulation should be added to the list.

Steven A. Morrison et al, *Fundamental Flaws of Social Regulation: The Case of Airplane Noise*, *Journal of Law and Economics*, vol. 42, no. 2, October 1999, p. 740-741. Available at:

<http://www.jstor.org/pss/725703> accessed on September 29, 2010.

26. Our first concern is to redefine the whole purpose of development. This should not be to develop things but to develop man. Human beings have basic needs: food, shelter, clothing, health, education. Any process of growth that does not lead to their fulfilment - or, even worse, disrupts them - is a travesty of the idea of development.

The Cocoyoc Declaration, as adopted in the UNEP/UNCTAD Symposium on "Patterns in Resource Use, Environment and Development Strategies", Cocoyoc, Mexico, October 8-12, 1974. Available at:

http://www.mauricestrong.net/20100414153/cocoyoc/cocoyoc/cocoyo_cdeclaration.html accessed on September 29, 2010.

27. *Vide State of Bihar v. Upendra Narayan Singh and Ors.*, (2009) 5 SCC 65, paragraph 34.

28. But if on the one hand the myth of legality could provide the basis for the subversion of the old liberal and democratic order, the notion of legitimacy on the other hand was itself deeply affected by the positivist approach and the positivist method. ... The "principle of legitimacy" means to Kelsen that the "validity (of a given system of norms) is determined only by the order to which they belong", and that "they remain valid as long as they have not been invalidated in the way in which the legal order itself determines". When, as in the case with a successful revolution, "the total legal order, of which that norm is an integral part, has lost its efficacy", this only indicates that a new legitimacy has set in, in so far as "the actual behaviour of the individuals is [now] interpreted as legal or illegal ... according to this new order".

Alexander P. d'Entreves, *Legality and Legitimacy*, *The Review of Metaphysics*, vol. 16, no. 4, June 1963, p. 697-698. Available at: <http://www.jstor.org/pss/20123969> accessed on September 29, 2010.

29. It is suggested that the establishment of the permissible level of aircraft noise, including any method of determination of such level, would be essentially a social and technical matter, rather than a legal one.

Gerald F. Fitzgerald, *Aircraft Noise in the Vicinity of Aerodromes and Sonic Boom*, *The University of Toronto Law Journal*, vol. 21, no. 2, Spring 1971, p. 234. Available at: <http://www.jstor.org/pss/825084> accessed on September 29, 2010.

30. Appendix C—Policies and programmes based on a “balanced approach” to aircraft noise management.

Appendix D—Phase-out of subsonic jet aircraft which exceed the noise levels in Volume I of Annex 16.

Appendix E—Local noise-related operating restrictions at airports.

Assembly Resolutions in Force (as of 8 October 2004), Doc 9848, International Civil Aviation Council. Available at:

http://www.icao.int/icaonet/dcs/9848/9848_en.pdf accessed on September 29, 2010.

31. 6.4 Night curfew will affect the airline operations if the Asian and African countries also impose similar kind of restrictions on public demand.

6.5 Night curfew issues need to be addressed keeping in view the growth of aviation sector and state-of-art of aircraft design.

6.6 Specific runways/airports could possibly be utilized for night operations to minimise the community noise problem. Duration of night curfew could possibly be reduced by airports having such night curfews.

Review of Night Curfew Restrictions, Working Paper, Executive Committee, (ICAO) Assembly—37th Session, presented by India, dated 21/9/10, paragraphs 6.4-6.6, p. 4. Available at:

http://www.icao.int/icao/en/assembly/a37/wp/wp270_en.pdf accessed on September 29, 2010.

32. The Council recognizes that although reductions are being achieved in aircraft noise at source, many airports will need to continue the application of noise alleviation or prevention measures. The Council considers that the costs incurred in implementing such measures may, at the discretion of States, be attributed to airports and recovered from the users and that States have the flexibility to decide on the method of cost recovery and charging to be used in light of local circumstances.

ICAO’s Policies on charges for Airports and Air Navigation Services, Doc 9082, 8th ed., International Civil Aviation Organization, 2009, paragraph 38, p. 13. Available at:

http://www.icao.int/icaonet/dcs/9082/9082_8ed_en.pdf accessed on September 29, 2010.

33. CAEP (Committee on Aviation Environmental Protection) continued to study options to limit or reduce the number of people exposed to significant aircraft noise, focussing on technical and operational options. The noise technical working group prepared a report on current state-of-the-art aeroplane noise technology. It contains a review and analysis of certification noise levels for subsonic jet and heavy propeller-driven aeroplanes. An independent expert panel established medium (2018) and long-term (2028) goals for reducing noise through new aircraft and engine technologies.

Annual Report of the Council (ICAO), 2009, Doc 9921, International Civil Aviation Council, 2010, p. 48. Available at:

http://www.icao.int/icaonet/dcs/9921/9921_en.pdf accessed on September 29, 2010.

34. In 2004, ICAO adopted three major environmental goals, to:
- a. Limit or reduce the number of people affected by significant aircraft noise Environmental Brach, Air Transport Bureau, International Civil Aviation Organization. Available at:
<http://www.icao.int/icao/en/env2010/Index.html> accessed on September 29, 2010.

35. *Supra*, n. 30.

36. *Vide* (ICAO) Assembly resolution in Force (as of 28 September 2007), Appendix-C.

Available at:

http://www.icao.int/icao/en/Env2010/A36_Res22_Prov.pdf accessed on September 29, 2010.

37. The ambition of the greatest man of our generation has been to wipe every tear from every eye. That may be beyond us but, as long as there are tears and suffering, so long our work will not be over.

Jawaharlal Nehru, *Tryst with Destiny*, speech delivered at midnight of 14-15 August, 1947. Available at:

<http://www.hindustantimes.com/news/specials/parliament/tryst%20with%20destiny.pdf> accessed on September 29, 2010.