Airport Noise as Public Bads: Comparative Remarks on Legal Challenges in Resolving the Neighbor Conflict Between the Airport and Landowners

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AIRPORT NOISE AS PUBLIC BADS: COMPARATIVE REMARKS ON LEGAL CHALLENGES IN RESOLVING THE NEIGHBOR CONFLICT BETWEEN THE AIRPORT AND LANDOWNERS

MAGDALENA HABDAS*

ABSTRACT

Incompatible uses of land create neighbor conflicts connected with the notions of civil law immissions (non-trespassory invasions) or common law nuisance. These traditional instruments of resolving the neighbor conflict have their limitations when pollution (such as noise pollution produced by aviation) interferes with the use and enjoyment of land that affects numerous landowners. Lawmakers seek to resolve the neighbor conflict with public intervention in such circumstances. Instead of relying on the market, the state allocates entitlements, indicates how parties must behave, and prescribes the conditions under which lawmakers should conclude an agreement.

Interestingly, although the nuisance caused by airport noise has the same characteristics worldwide, no uniform solutions are applied. Existing literature regarding airport externalities concentrates on land values, land use, measuring noise, and the influence of noise on human health. Little has been written on legal solutions that seek to balance opposing sides’ interests and indemnify the aggrieved landowners. This Article aims to provide a comparative overview of how lawmakers seek to balance the interests of airports and homeowners in selected European jurisdictions, namely Germany, France, the Netherlands, and Poland. The analysis is based on Richard Posner’s positive analysis, which allows for a systematic description and explanation of

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the legal system. Understanding the regulating behavior and its effect on the regulated behavior is important when considering possible amendments and developments of the law. The Article begins with assessing the features of a neighbor conflict, analyzes potential property or liability solutions, and then focuses on the public intervention employed to resolve the conflict. A comparison of the various solutions and their underlying assumptions will allow assessing to what extent they are suitable to achieve the objective of conflict resolution and balancing of interests. This Article identifies inconsistencies in policies as compared to the applied economic and legal instruments to indicate good practices in resolving this particular neighbor conflict and provide a basis for future normative analyses.

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I. INTRODUCTION

INCOMPATIBLE USES OF land create neighbor conflicts connected with the notion of civil law immissions (non-trespassory invasions) or common law nuisance. These traditional instruments of resolving the neighbor conflict have their limitations when pollution interferes with the use and enjoyment of land that affects numerous landowners. This is because private law instruments fail to provide mechanisms effective in resolving a dispute involving many persons. Unlike in a typical neighbor conflict, there is no possibility of individually negotiating a con-
conflict resolution and agreeing on a desirable transfer of entitlements.

The above is particularly true when the neighbor conflict involves pollution in the form of aviation noise. Aviation noise currently remains an unavoidable, although to some extent a mitigable, side effect of air transportation, which has become a fundamental element of the globalized world economy.\(^1\) Planes produce onerous noise, mostly during takeoffs and landings.\(^2\) Although the airport, an infrastructure plant, is not itself the source of aviation noise, it provides indispensable services that allow planes to land and take off. Its existence is the reason why neighboring landowners experience increased levels of noise.

Thus, as a simplification, it is possible to state that airports generate public bads. However, airports do so in the process of providing socially beneficial services by enabling air transport to function and develop. Airport economic activity is simultaneously beneficial to some and detrimental to others. The challenge is to identify solutions that adequately balance two opposing groups’ interests: the augmenters, who benefit from the public service, and the depleters, who suffer from it.\(^3\) This is important not only from an economic perspective but also from a legal and social one. Achieving a balance in this neighbor conflict may prevent the public good from turning into a public bad or minimize the extent to which public bads are produced.

Achieving such balance requires public intervention in the case of a neighbor conflict involving airports and owners of surrounding land, particularly land with residential uses. Individual negotiations by the neighbors are not viable due to the number of persons involved in the conflict and the public utility of the services provided by the airport. Moreover, there is no inexpensive way to remove or substantially limit negative externalities produced by the airport.\(^4\) Therefore, instead of relying on the market, the state coerces certain behaviors by allocating entitlements, indicating how parties must behave, and prescribing the

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conditions under which they should conclude an agreement.\(^5\) Interestingly, although nuisance caused by airport noise has the same characteristics worldwide, there are no uniform solutions applied in resolving the conflict and balancing the interests of the airport and neighboring landowners.

Existing literature regarding airport externalities concentrates on land values, land use, measuring noise, and the influence of noise on human health.\(^6\) Little has been written on legal solutions employed to balance the interests of opposing sides and to indemnify the aggrieved landowners. The object of this Article is to consider how lawmakers in selected jurisdictions of continental Europe seek to resolve the neighbor conflict between the airport and the landowners in its vicinity. This Article analyzes this issue in the context of regulations on non-trespassory invasions and subsequent public intervention utilized to the extent neighbor law is insufficient in resolving the conflict. This Article begins with an analysis of the neighbor conflict and its legal and economic characteristics. It then considers how public intervention is structured and whether its application achieves the lawmaker’s goals. Following Richard Posner’s differentiation between positive and normative economic analysis of law,\(^7\) this Article provides a positive analysis to understand and explain the existent legal provisions and their effects on their efficiency. The object of the analysis is the regulating behavior of the state, which introduces public intervention, with some remarks on the resultant regulated behavior.\(^8\) An analysis of the legal mechanisms employed to balance the parties’ interests will allow us to conclude whether the lawmaker has, in fact, been successful in the difficult balancing act. This Article identifies the inconsistencies in policies compared to the applied economic and legal instruments to indicate good practices in resolving this particu-

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lar neighbor conflict and possibly create a basis for normative analysis and *de lege ferenda* suggestions.

## II. LEGAL CHARACTERISTICS OF NON-TRESPASSORY INVASIONS

By the time World War II ended, it was obvious that air transport of people and cargo would continue to develop, and a new Air Age was dawning.9 Airports became increasingly important infrastructure plants necessary for the desired growth of civil aviation.10 Simultaneously, it was apparent that due to the onerous nature of airport operations, land uses in the vicinity of airports required careful consideration.11 On the one hand, it would seem that this matter could have been effectively addressed by spatial planning, which had been developing over centuries, with arguably the world’s oldest national planning law enacted in Great Britain in 1909.12 Although spatial planning emerged to prevent nuisance and the resulting neighbor conflicts created by rapid urbanization and industrialization, unfortunately the past century has shown that land-use regulation is not sufficient to eliminate neighbor conflicts caused by negative externalities.13 Consequently, planning law, aimed at preventing the neighbor conflict, will often be unable to achieve that objective alone.

On the other hand, the resolution of a neighbor conflict traditionally takes place using neighbor law, which is a set of casuistic rules governing typical neighbor disputes connected with

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land use. Neighbor law is designed to provide solutions to individual matters on a case-by-case basis with an _ex post_ approach (i.e., when a conflict already exists). Although non-trespassory invasions (equivalent to nuisance in common law and immissions in private law) caused by noise, smoke, smell, vibrations, and the like cannot realistically be prohibited entirely, neighbor law motivates landowners to limit their activities to socially optimal levels by imposing liability, in the form of damages or an injunction, for externalities which cause excessive losses to affected persons.

Regardless of the legal system, resolving a neighbor conflict regarding non-trespassory invasions is not designed to exclude immissions and fully protect the adversely affected landowner completely. The objective is to find an arrangement that reduces immissions to an acceptable level (i.e., allows all conflicted persons to use and enjoy their land to the fullest extent, accepting necessary limitations and inconvenience connected with the corresponding right to such use of other landowners). This is particularly true when noise causes the nuisance, which usually cannot be eliminated entirely. Moreover, in the case of noise, it is not contested that resolving the problem will depend on the type of noise (constant, temporary, sudden, etc.) and the time it occurs. Nighttime noise is viewed as particularly onerous, especially when its level is high enough to interfere with sleep. In such situations, the resolution of the neighbor conflict may involve a substantial limitation on the right to produce noise at night or even require a complete termination of noisy activities during specified nighttime hours.

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In addition, one should consider that a balancing of the interests will be influenced by conditions prevalent in a given locality. Leaving aside detailed considerations, the locality is not a sufficient defense of non-trespassory invasions both in common law and private law systems.\footnote{See S. Steel, *The Locality Principle in Private Nuisance*, 76 CAMBRIDGE L.J. 145, 145–46, 149–50 (2017).} It does, however, play a role in what solutions are ultimately applied. The locality influences the assessment of whether non-trespassory invasions are of such intensity that they warrant legal protection and what legal instruments are available (i.e., whether an injunction may be awarded, only damages, or both).\footnote{See Margaret Fordham, *Nuisance by Noise—The UK Supreme Court on Interference with the Use and Enjoyment of Land: Lawrence v. Fen Tigers Ltd*, SING. J. LEGAL STUD. 397, 400–02, 406 (2014); see also Smith & Saunig, supra note 18, at 65.}

In regular neighbor conflicts caused by non-trespassory invasions, the involved parties either come to an agreement on how to use the land or seek resolution in court.\footnote{See *STEPHEN J. SPURR, ECONOMIC FOUNDATIONS OF LAW* 72 (Routledge 2d ed. 2010) (2005).} Balancing the parties’ interests by applying an injunction or damages does not usually pose serious difficulties because only the parties’ individual interests are taken into consideration.\footnote{See id.} However, when the conflict involves numerous persons who are not immediate neighbors and involves public bads generated by an economic activity with significant social utility, neighbor law struggles to provide satisfactory solutions.

Consequently, lawmakers rely on additional regulations that precisely determine how the conflict is to be resolved (i.e., whose interests prevail and at what cost).\footnote{See id.} This reliance is inextricably connected with deciding whether property or liability rules are to be employed or whether the conflict requires public intervention through a tax, subsidy, or other direct regulation.\footnote{See id. at 72–73, 76.} Property rules have less impact when parties affected by non-trespassory invasions are not immediate neighbors, are numerous, and cannot be identified \textit{ex ante}.\footnote{See Vanessa Casado Perez & Carlos Gomez Liguerre, *From Nuisance to Environmental Protection in Continental Europe*, 92 S. CAL. L. REV. 1003, 1007 (2019).} In such situations, liability rules, particularly connected with strict liability, yield better re-
sults. Nevertheless, achieving the objectives of health and environmental protection increasingly requires reliance on administrative regulations and various forms of public intervention.29

This relates to the fact that the legislatures have devised a series of administrative permits that allow certain activities to continue, despite the negative externalities. The traditional remedy for non-trespassory invasions, namely the injunction (cessation action, *actio negatoria*), is often wholly excluded and substituted by damages, with possible additional entitlements.30 For airports, these can be things like reimbursement claims for the costs for acoustic retrofitting of buildings. The above is a consequence of the fact that technological development has created activities that may be onerous to large, neighboring areas, but are nonetheless desirable from a public utility.31 The legislature thus intervenes to assist in adequately balancing the parties’ interests.

III. BALANCING OPPOSING INTERESTS THROUGH PUBLIC INTERVENTION

An adequate resolution of the neighbor conflict will be one in which the interests of all opposing parties are protected, and efficiency is achieved. The latter must be understood as embodying social justice and maximizing society’s aggregate wealth.32 These results may be difficult to achieve when traditional legal instruments protect the interests of only or mainly one party. Modifying general property and liability rules is a regulatory activity that confirms the relationship between private property and public interests. Property cannot be absolutely protected when significant public interests are at stake, which denotes that both injunction and compensation may have a limited scope.33 The regulating activity of the state is thus aimed at identifying the acceptable levels of immisions, the types of available claims, and the scope, manner, and cost of exchanging entitlements.

29 See *id.* at 1008–09.
Representatives of both neoliberal and welfare economics agree that public intervention is needed when, due to market failure, it is impossible to eliminate or minimize negative externalities.\textsuperscript{34} When it comes to non-trespassory invasions, which are simultaneously environmental concerns, as in the case of noise pollution, there are significant difficulties in devising market mechanisms that could resolve the problem and adequately protect private interests and public need for services.\textsuperscript{35} In such situations, public intervention is usually justified.\textsuperscript{36} It may utilize market-based tools, regulatory tools, or a combination of the two; however, its application must be efficient so that its benefits are higher than its costs.\textsuperscript{37} In other words, the costs of conflict resolution must be lower after introducing public intervention than they would have been or were before its implementation. If this condition is not met, public intervention is unjustified because the conflict can be solved faster and cheaper on the market by negotiating with the opposing parties and deciding who should get what rights and at what price.\textsuperscript{38}

In numerous cases, the transaction costs of reaching a market agreement are insignificant. It is sufficient for the parties to utilize rights and instruments provided by the legal system to negotiate a satisfactory outcome.\textsuperscript{39} Sometimes, the cost of public intervention is too high for it to be introduced to provide consistent conflict resolution. The lawmaker should then consider amending the law to support and facilitate resolving the conflict on the market, even if such a solution is not always efficient.\textsuperscript{40} If conflict resolution requires frequent court involvement despite the existing legal instruments available to the parties,\textsuperscript{41} public intervention may be warranted because the lawmaker prescribes

\textsuperscript{34} See Ernest Sternberg, Justifying Public Intervention Without Market Externalities: Karl Polanyi’s Theory of Planning in Capitalism, 53 PUB. A DMIN. R EV. 100, 103–04 (1993).
\textsuperscript{35} See id. at 103–04; Barak D. Richman & Christopher Boerner, A Transaction Cost Econimizing Approach to Regulation: Understanding the NIMBY Problem and Improving Regulatory Responses, 23 YALE J. ON REGUL. 29, 48 (2006).
\textsuperscript{36} E.g., Anthea Coggan, Stuart M. Whitten & Jeff Bennett, Influences of Transaction Costs in Environmental Policy, 69 ECOLOGICAL ECON. 1777, 1777 (2010).
\textsuperscript{38} See SPURR, supra note 23, at 78–79.
\textsuperscript{39} See Coase supra note 38, at 852–53; Demsetz, supra note 5, at 12–13.
\textsuperscript{40} See ANTONY W. DINES, PRINCIPLES OF LAW AND ECONOMICS 61 (3d ed. 2018); David Campbell & Matthias Klaes, What Did Ronald Coase Know About the Law of Tort?, 39 MELB. UNIV. L. REV. 793, 839 (2016).
a specified manner and price for the exchange of entitlements, eliminating market behavior which results in frequent court disputes.\textsuperscript{42}

In the case of neighbor conflicts connected with pollution that affects numerous landowners, high transition costs frequently exist and prevent parties from reaching an agreement. Resolving neighbor conflicts connected with pollution that affects numerous landowners requires developing non-standard solutions and obtaining extensive market data because land is immovable and subject to site-specific circumstances.\textsuperscript{43} In effect, concluding a non-standard contract on the market is precluded by high transaction costs.\textsuperscript{44} A proper understanding of the transaction costs is decisive in efficient implementation, continuation, and assessment of public intervention.\textsuperscript{45} If the intervention does not lower transaction costs, it is either unnecessary or improperly designed, implemented, or executed and does not achieve its goal of enhancing social welfare.\textsuperscript{46}

It is important to note that an assessment of public intervention should not be performed only from the point of view of legality but by introducing primary norms (which prevent certain types of behavior) or secondary norms (which establish legal competencies). Although such norms are necessary building blocks of the intervention, they must also be designed to create certainty on the market and civility in social relations.\textsuperscript{47} Without integration of primary and secondary norms into society through an adequate formulation within the legal framework with easily accessible information about their aim and function, the intervention will not effectively eliminate irrational and opportunistic decisions, the latter being often the reason for not resolving the conflict on the market.\textsuperscript{48}

The above comments are particularly important in resolving neighbor conflicts caused by non-trespassory invasions. The ap-

\textsuperscript{42} See Coase, supra note 38, at 853.
\textsuperscript{43} See, e.g., id. at 876–77.
\textsuperscript{44} See Coggan, Whitten & Bennett, supra note 37, at 1780.
\textsuperscript{46} See Coase, supra note 38, at 853.
plication of Coase’s Theorem to consider and design public intervention when negative externalities exist allows for an understanding that when transaction costs are negligible, the conflict will be resolved on the market, regardless of which party has the right to demand the cessation of or create immissions. The Coase Theorem also indicates that when transaction costs are high, or one is dealing with opportunistic, strategic, or misleading behavior, the assignment of rights and entitlements is of paramount importance if transaction costs are to be reduced. Additionally, a conscious decision must be made to apply property rules or liability rules to resolve the conflict. The former are not efficient when transaction costs are high but may be utilized if there is the possibility of market negotiation and the intervention only has an augmenting function. However, concerning public bads, it is justified to conclude that market negotiations are not possible due to the number of parties involved.

Consequently, public intervention is employed, and liability rules connected with compensation become of paramount importance. The intervention is a legal activity of the government if performed within constitutional constraints. Therefore, compensation is awarded to the extent property needs to be protected but with consideration of the public interest involved. This denotes that compensation may not cover all possible losses resulting from negative externalities. In the case of airport noise, the lawmaker needs to consider carefully if and to what extent affected individuals should be compensated. This follows from the rule that resolving neighbor conflicts requires balancing the interests of opposing parties rather than affording absolute protection to only one party. It also results from the fact that public bads may need to be tolerated to some extent in order not to hinder civilizational development.

49 See Spurr, supra note 23, at 76.
50 See Demsetz, supra note 5, at 11–12; Dnes, supra note 41, at 70–71.
51 See EJAN MACKAAY, LAW AND ECONOMICS FOR CIVIL LAW SYSTEMS 228 (2013); see also Perez & Liguerre, supra note 27, at 1004, 1006–09.
52 Dnes, supra note 41, at 74–76.
54 See Loewen, supra note 48, at 1001–03.
IV. THE FRENCH APPROACH TO THE NEIGHBOR CONFLICT INVOLVING AIRPORTS

Balancing the interest of the airport and neighboring landowners is not a new dilemma, and discussions concerning the best way to tackle the problem were already present in the mid-twentieth century. In France, nuisance created by airport noise became the subject matter of court disputes as early as the 1960s. Interestingly, these court disputes focused not on airports but on airlines, whose planes are direct noise producers. Firstly, in a judgment from January 27, 1964, the French Tribunal des Conflits (a tribunal that resolves competency disputes among public bodies, including courts) determined that conflicts concerning claims connected with aviation noise were to be tried by common courts because claims are directed against airlines, which are legal persons, and the matter was a private law dispute. The tribunal also noted that common courts do not have the competence to adjudicate on any technical or operational matters, such as flight paths or restrictions on takeoffs and landings, because these issues are within the exclusive competence of public administration bodies. Claims against airlines were being brought not only by landowners but also by municipalities. In the case of Cne de Villeneuve-Le-Roi/Air France, it was confirmed that a municipality has the legal capacity to bring a case concerning aviation noise because expert opinions showed that plane takeoffs and landings created noise that ex-

56 See, e.g., id.
58 See id. (“Les actions engagées par les riverains d’un aéroport contre une compagnie de transports aériens, tendant à obtenir la réparation du préjudice du fait du bruit produit par ses avions à réaction dans le voisinage de cet aéroport, relèvent de la compétence des juridictions de l’ordre judiciaire dès lors qu’elles sont dirigées contre une personne morale de droit privé.” [Actions brought by residents living near an airport against an air transport company, seeking compensation for the damage caused by the noise produced by its jet planes in the vicinity of this airport, fall within the jurisdiction of the courts of the judicial order when they are directed against a legal person governed by private law.]).
59 See C. TRANS. ART. L. 6361-5 (Fr.).
ceeded standards for urban areas, thus causing significant acoustic disturbance in municipal administration buildings and schools.61

In a judgment from May 8, 1968, the French Supreme Court (Cour de Cassation) confirmed that persons living near airports might claim airline compensation for the inconvenience and other losses caused by aviation noise.62 This position was derived from Articles 17, 18, and 36 of the French Civil Aviation Code of 195563 (which were renumbered as Articles L. 131-1, L. 131-2, and L. 141-2, respectively, in the 1967 revision to the French Civil Aviation Code),64 which expressed the general right of aircraft to fly over French territory, with a simultaneous obligation not to interfere with the exercise of rights by landowners and absolute liability of the aircraft operator for any damage caused to persons or objects on land.65 The Court held that even if aircraft observed administrative rules on the performance of flights, airlines were still liable for damage caused by aviation noise, including loss of property value.66 However, the Court imposed an important limitation on this holding that allowed damages only for noise exceeding levels normally encountered in a given location.67 Consequently, plaintiffs who had purchased or developed land after the airport had already begun operations and who could and should have adopted adequate construction plans and materials to limit noise exposure would either not receive any or only limited compensation.68 Another problem was establishing what share of damages was to be paid by each airline using the airport. However, in the case at hand, the Court avoided answering that question by stating that Air France aircraft operated most flights at the considered airport.69

Airports were considered exempt from liability because their location, construction, and operation were obtained through administrative procedures and permits, which took into account

64 Mankiewicz, supra note 55, at 238.
65 Id. at 238–39.
66 Id. at 241.
67 Id.
68 Id. at 241–42.
69 Id. at 242–43.
the interests of various parties. A legally established airport, functioning within the granted permits, therefore, could not be held liable for its operation. As René H. Mankiewicz rightly pointed out, the decision in such matters is too complex to be left to an ad casum resolution by judges, particularly because there is a lot of room for discretion regarding what the plaintiffs should and should not have foreseen or taken into account as normal in a given location. Rather, national legislatures should establish who should be liable and who should ultimately pay the price for public bads: airline customers (higher plane ticket prices if airlines were liable) or the public at large (through government taxes if airports were to be liable).

The French legislature ultimately adopted a solution involving land-use restrictions in areas close to airports. In 1971, the French Ministry of Transport issued guidelines on recommended land-use restrictions in areas subjected to aviation noise. In 1973, these guidelines became binding, and in that same year, the Paris Orly and Roissy airports implemented a trial program of collecting fees for passenger flights. The proceeds were to be utilized for acoustic retrofitting of buildings subject to excessive noise. The next step was the introduction in the French Town Planning Code of noise exposure maps (plans...
The purpose of these maps is to regulate land use in the vicinity of airports with a timeline of fifteen to twenty years. A PEB indicates the boundaries of four noise zones: zones A and B are high noise zones, zone C is a moderate noise zone, and zone D is optional (except for airports subject to Article 1609 of the French General Tax Code (GTC)). As of 2017, approximately 250 airports established PEBs. Article L. 112-10 of the French Town Planning Code indicates building restrictions in the particular zones.

77 Code de l’urbanisme [C. urb.] [Town Planning Code] art. L. 112-6 (Fr.).
79 C. urb. art. L. 112-7 (Fr.).
80 Id.; Code général des impôts [C. Gen. Imp.] [Tax Code] art. 1609 (Fr.). Article 1609 of the GTC applies to (i) airports for which the annual number of movements of aircraft with a maximum takeoff mass of twenty tons or more has exceeded twenty thousand in any one of the five preceding calendar years, or (ii) airports for which the annual number of movements of aircraft with a maximum takeoff mass greater than or equal to two tons has exceeded fifty thousand during any of the preceding five calendar years if the noise exposure or noise annoyance plans for such an airport overlaps with that of an airport having the characteristics defined in (i).
81 Abdulhay & Malkawi, supra note 76, at 180.
82 C. urb. art. L. 112-10 (Fr.). In the areas defined by the noise exposure plan, the extension of urbanization and the creation or extension of public facilities are prohibited when they lead to new populations’ immediate or long-term exposure to noise pollution. Buildings for residential use are prohibited in these areas except for (a) those which are necessary for or connected with the aeronautical activity; (b) where official accommodation is necessary for industrial or commercial activities permitted in the zone and constructions directly linked or necessary for agricultural activity in zones B and C and in the already urbanized sectors in zone A; and (c) in zone C, individual buildings not grouped together, located in areas already urbanized and served by public facilities as long as they only lead to a slight increase in the reception capacity of inhabitants exposed to nuisances and reconstruction operations made necessary by a demolition operation in zone A or B, provided that they do not lead to an increase in the population exposed to nuisances, that the sound insulation standards set by the administrative authority are respected, and that the cost of insulation is the sole responsibility of the manufacturer. Renovation, rehabilitation, improvement, measured extension, or reconstruction of existing buildings may be permitted when they do not lead to an increase in the capacity to accommodate residents exposed to nuisances. In zones A and B, public or collective facilities are only allowed when they are necessary for aeronautical activity or essential for existing populations. In zone D, constructions are authorized but are subject to the acoustic insulation measures provided in Article L. 112-12. In zone C, noise exposure plans may delimit sectors where, to allow the urban renewal of existing districts or villages, rehabilitation and urban redevelopment operations may be authorized, provided that they do not lead to an increase in the population subject to noise pollution. The operation’s framework provided in Article 166(I) of Law No. 2014-366 of March 24, 2014, allows for increased access to housing and renovated town planning under
Compensation entitlements of landowners did not accompany the introduction of PEBs. Consequently, landowners continued to bring actions against airlines for damages caused by aviation noise. However, since January 1, 2016, it has been possible to claim compensation for land-use restrictions pursuant to Article L. 105-1 of the French Town Planning Code, which stipulates:

The easements instituted by the application of this code in the matter of roads, hygiene and aesthetics or for other objects and concerning, in particular, the use of the land, the height of the constructions, the proportion of built and non-built surfaces on each property, the ban on building in certain zones and along certain roads, the distribution of buildings between various zones [do not create a right to compensation].

However, compensation is due if the result of these restrictions is an infringement of acquired rights or a modification of the previous condition of the premises causing direct, material and certain damage. This compensation, in the absence of an amicable agreement, is fixed by the administrative court, which takes into account the added value given to the buildings by the realization of the approved local urban plan or the document in lieu thereof.84

Finally, an additional element of the intervention was introduced by Act No. 92-1444 of December 31, 1992, and later in the French Environmental Protection Code of 1983 (EPC).85 The lawmakers introduced another institution, the sound disturbance plans (plans de gênes sonores (PGS)), which delineate zones where landowners can obtain financial assistance in acoustic re-

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84 C. URB. ART. L. 105-1 (Fr.) (emphasis added).
86 See generally JOURNAL OFFICIEL DE LA REPUBLIQUE FRANCAISE [J.O.] [OFFICIAL GAZETTE OF FRANCE], Oct. 16, 2007 (relating to Book V of the regulatory part of the French Environmental Code and modifying certain other provisions of this code).
troofitting of their homes. This is connected with a special tax on noise pollution collected from airports that meet the criteria specified in Article 1609(1) of the GTC. The collected tax is then utilized to finance the reimbursement of building sound-proofing costs. This solution is based on the Pigouvian concept of taxing the entities producing negative externalities. Its practical applicability depends on relatively easy and inexpensive access to the necessary information and the existence of a governmental entity that can operate at a sufficiently low cost without consuming the benefits of collecting the tax and attempting to control pollution. In the case of the tax on noise, these conditions can be met, and taxation can be utilized as one of the mechanisms of internalizing the negative externality.

Currently, the following major French airports have a PGS: Bâle-Mulhouse, Beauvais-Tillé, Bordeaux-Mérignac, Lyon-Saint-Exupéry, Marseille-Provence, Nantes-Atlantique, Nice-Côte d’Azur, Paris-Charles-de-Gaulle, Paris-Orly, Paris-Le Bourget, and Toulouse-Blagnac. As a consequence, under Article R. 571-85 of the EPC, residents in the vicinity of airports indicated in Article 1609(1) of the GTC may receive financial assistance from the operators of these airports when they experience actual discomfort confirmed by the sound annoyance plan established under Articles R. 571-66 to R. 571-69 of the EPC. Aid is granted under the conditions specified in Articles R. 571-85-1 to R. 571-87-1 of the EPC to soundproof residential premises (other than hotels), educational establishments, and premises...

87 Abdhulhay & Malkawi, supra note 76, at 181.
88 See id. at 188.
89 See id. at 188–89.
90 MACKAY, supra note 51, at 205–06.
91 DNES, supra note 41, at 64; see also McDonald & McMillen, supra note 13, at 446.
92 “The French Civil Aviation Authority has created a fiscal one-stop office called Guichet Fiscal Unique” which combines the administration and collection of its four aeronautical taxes: the Civil Aviation Tax, Solidarity Tax on Aircraft Tickets, Airport Tax, and Tax on Air Transport Noise Pollution. Aeronautical Taxes, MINISTRY OF ECOLOGICAL AND SOLIDARITY TRANSITION (May 25, 2021), https://www.ecologie.gouv.fr/en/aeronautical-taxes#scroll-nav__1 [https://perma.cc/9UPV-95DS].
94 CODE DE L’ENVIRONNEMENT [G. ENV.] [ENVIRONMENTAL CODE] art. R. 571-85 (Fr.).
of a health or social nature. Obtaining financial aid for soundproofing is subject to a specified procedure that ensures that soundproofing is planned and executed according to technical requirements and within the scope eligible for compensation. In addition, ceilings on reimbursed costs apply. The French Conseil Général de l’Environnement et du Développement Durable [General Council for the Environment and Sustainable Development] observed in a 2017 report that reimbursements do not cover the entire costs of soundproofing; however, it is unclear whether this is due to the high costs of retrofitting or the existent disrepair of buildings.

Finally, as a result of introducing a formalized system of protection from aviation noise, compensation claims against airlines are currently no longer pursued. This is probably due to the courts’ significant discretion in awarding damages based on an assessment of whether the plaintiffs encountered conditions unforeseeable and extraordinary in a given locality and whether they behaved in a manner that mitigated their loss. Instead, disputes now concentrate on ascertaining whether a given immovable is located within a PGS, has been constructed in accordance with PEB requirements, or other matters connected with receiving financial reimbursement for soundproofing of buildings. This denotes that disputes have shifted from typical neighbor conflicts tried by common courts to administrative courts, which hear disputes involving the observance of administrative requirements connected with airport operations. The resolution of the neighbor conflict relies on the state’s involvement, which implements the public intervention through its public authorities. Additionally, in 2009 French lawmakers introduced a ban on the construction of new airports by stipulating that construction is limited to cases of relocating traffic for environmental reasons.

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95 Id.
97 Id.
99 See, e.g., Conseil d’État, Apr. 11, 2019, N° 411903.
100 LOI n° 2009-967 du 3 août 2009 de programmation relative à la mise en œuvre du Grenelle de l’environnement art. 12 (Fr.).
number of airports per capita in Europe consisting of 475 sites, including about 170 commercial airports, with 45 commercial airports being home to significant traffic.\textsuperscript{101}

V. MANAGING THE NEIGHBOR CONFLICT DURING THE DEVELOPMENT OF SCHIPHOL AIRPORT

Like the French, the Dutch solution of the neighbor conflict created by airport operations relies heavily on land-use regulation, particularly considering the Netherlands has been hailed as the proverbial “plan[ner]’s paradise.”\textsuperscript{102} For this Article, it is useful to examine the development of Schiphol Airport and the implemented public intervention aimed at mitigating the neighbor conflict. The Schiphol Airport changed over time, and four distinct stages of its growth are identifiable: initial operations (1916–1945); growth within limits (1945–1967); rapid development, airport expansion, and relocation plans (1967–1985); and mainport function (post-1985).\textsuperscript{103} These stages document the growing tensions between economic development, job creation, and international connectivity on the one hand and environmental protection, congestion, and livability on the other hand.\textsuperscript{104} Conscious and long-term decisions about the airport’s future development had to be made to manage the above interests. In particular, the airport ultimately abandoned an option to relocate the airport to an alternative site (one of the considered sites was an artificial island on the North Sea)\textsuperscript{105} at the onset of the twenty-first century.\textsuperscript{106} Simultaneously with the

\textsuperscript{101} Laurent Grosclaude, *Les contraintes environnementales liées au développement des plateformes aéroportuaires* [Environmental Constraints Linked to the Development of Airport Platforms], *Revue européenne de droit de l’environnement* 109, 110 (2019) (Fr.).


\textsuperscript{104} Id. at 262.


airport’s growth, towns near the airport also expanded, bringing residential uses closer to the airport.\footnote{107}

In the 1980s, the Dutch government decided that Schiphol required substantial expansion to become a mainport hub, which subsequently initiated spatial planning procedures to establish the future land-use regulations in the airport’s vicinity.\footnote{108} In 1996, critical spatial planning modifications regarding infrastructure and land use in the Schiphol area came into force. They included the construction of a fifth runway, additional roads, nature areas, bike paths, and the designation of noise and safety zones.\footnote{109} One of the aims was to substantially limit residential uses in the highest noise zones.\footnote{110} Land-use restrictions were specified in the Schiphol Airport Planning Decree (Luchthavenindelingbesluit Schiphol (LIB)).\footnote{111} Buildings in the highest noise level areas may be voluntarily sold by the owner and then demolished.\footnote{112} In areas with lower noise levels, construction of residential buildings, schools, and hospitals were prohibited; however, commercial uses were allowed.\footnote{113} Many local residents and regional administrators viewed the restrictions as too rigid, and local authorities advocated their liberalization and demanded more flexibility and consideration of local conditions.\footnote{114} Another measure employed was the introduction of restrictive land-use policies for companies, as only ones with airport relations were allowed to locate in business parks next to the airport.\footnote{115} According to the Spatial Planning Act of 2006

\begin{footnotes}
\footnotetext[107]{Fred Hobma & Willem Wijting, Land-Use Planning and the Right to Compensation in the Netherlands, 6 Wash. Univ. Glob. Stud. L. Rev. 1, 22 (2007).}
\footnotetext[108]{Id. at 21.}
\footnotetext[109]{Id. at 22.}
\footnotetext[110]{See Paul Stephen Dempsey, Local Airport Regulation: The Constitutional Tension Between Police Power, Preemption & Takings, 11 Penn State Envtl. L. Rev. 1, 3 (2002).}
\footnotetext[112]{Id. at 28.}
\footnotetext[113]{Id. at 29.}
\footnotetext[115]{van Wijk, Brattinga & Bontje, supra note 103, at 266–67.}
\end{footnotes}
(SPA), such robust spatial planning changes required considering compensation payments.\textsuperscript{116}

According to Article 6.1.1 of the SPA, compensation may be granted to a person who suffers or will suffer damage due to introducing planning instruments enumerated in Article 6.1.2 of the SPA.\textsuperscript{117} Compensable damage may take the form of a loss of income or a reduction in the value of immovable property but does not include loss that should reasonably remain at the applicant’s expense or that has been sufficiently reimbursed through other means.\textsuperscript{118} Planning instruments that may trigger compensation at the applicant’s request include introducing a land-use provision, an amendment of a previous land-use provision, a deferral of granting permission to construct or demolish, or the grant of environmental permissions to conduct an activity.\textsuperscript{119} The persons who may claim compensation need not be landowners subject to new land-use provisions but can also be persons whose land value is negatively affected by the change of land use in the vicinity.\textsuperscript{120} Both capital and income losses may be compensated, the former due to reduced light, obstructed view, the onset of odors, increased noise, and the like.\textsuperscript{121}

It must also be emphasized that the above compensation has not been designed as the full compensation. According to Article 6.1.1 of the SPA, damage falling within the normal social risk remains at the applicant’s expense.\textsuperscript{122} Moreover, the legislature has introduced deductible thresholds because the applicant will not be reimbursed for the first 2% of lost income, calculated with reference to the level of income immediately before the occurrence of the damage, nor for the first 2% of the loss of capital value of an immovable property, calculated with reference to the value immediately before the occurrence of the damage.\textsuperscript{123} Furthermore, concerning the damage eligible for compensation, the responsible public authority will consider the

\textsuperscript{116} See Wet op de Ruimtelijke Ordening [Spatial Planning Act] art. 6.8.1 (Neth.).

\textsuperscript{117} Id. art. 6.1.1, 2; see also Hobma & Wijting, supra note 107, at 8.

\textsuperscript{118} See id. at 5, 10.

\textsuperscript{119} See id. at 8–9.

\textsuperscript{120} Id. at 9.

\textsuperscript{121} See Fred Hobma, \textit{The Netherlands, in Takings International: A Comparative Perspective on Land Use Regulations and Compensation Rights} 343, 349 (Am. Bar Ass’n 2010).

\textsuperscript{122} Wet op de Ruimtelijke Ordening [Spatial Planning Act] art. 6.1.1 (Neth.).

\textsuperscript{123} Id. art. 6.2.2; Hobma, supra note 121, at 356.
foreseeability of the cause of the damage and the applicant’s ability to prevent or limit the damage.124

Due to intensive intervention through planning law and the connected environmental permissions allowing the Schiphol Airport to function, “the minister of Transport, Public Works and Water Management, the provincial council of the province of North-Holland, the board of the water authority of Groot-Haarlemmermeer and some nineteen municipal councils” created “a ‘one-stop-shop’ for [compensation] claims resulting from administrative acts [connected with] the expansion of Schiphol Airport.”125 As a result, a new public entity called the Damages Authority for Schiphol Airport (Schadeschap Luchthaven Schiphol) was set up to process claims and facilitate conflict resolution by providing one easily identifiable entity competent in all compensation matters connected with the development of the Schiphol Airport, regardless of which particular public body issued an administrative act that triggered liability.126 The Damages Authority operated from 1998 to June 2020, by which time all the eligible claims had been handled.127 Airlines paid a fee to finance the Damage Authority’s functioning indirectly, which were to be at least partially reimbursed to the airlines to the extent the procedures were found to have been handled inefficiently and in an untimely manner by the Damages Authority.128

In accordance with the SPA provisions mentioned above, compensation was subject to the foreseeability test because reimbursement for legal acts of the government is exceptional and occurs only to the extent specified by the legislature.129 Additionally, as has already been stated, only capital loss or loss of income is compensated, so no separate compensation for immaterial losses, like the inconvenience and reduced enjoyment of land caused by increased noise and changes in the surroundings, may be awarded. Dutch law accepts the principle of risk acceptance, which denotes that no or only limited compensation is due if the aggrieved party accepted the risk of their action or inaction that resulted in not being able to avoid or

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124 Spatial Planning Act art. 6.3 (Neth.); Hobma, supra note 121, at 357–58.
125 Habdas, Konowalczuk & Sluysmans, supra note 53, at 17.
126 Id. at 17–18.
127 Id. at 18.
128 Id. at 20–21.
minimize risk. In particular, active risk acceptance relates to making investment decisions without considering reasonable challenges or threats to which these investments may be subjected in the foreseeable future. In the case of planning and environmental administrative acts, parties are expected to consider possible future changes signaled by the preparation and publication of policies, draft plans, public consultations, and the like. In almost 20% of the available case law, the Damages Authority for Schiphol Airport found that affected parties actively accepted risk because public consultation of land-use plans or the demarcation of noise zones and contours provided foreseeability of noise pollution and a change in permissible land development.

Apart from land-use restrictions, the Dutch government implemented a sound insulation program for sensitive buildings such as homes and schools. A GIS levy paid by the airlines financed the program, which consisted of three phases: “GIS1 commenced in 1984, GIS2 commenced in 1997, and GIS3 commenced in 2006 and was completed in 2012.” The total costs for carrying out the three phases amount[ed] to approximately €577 million. Upon the completion of the last stage, the major insulation project, which had begun in 1984, was completed. Consequently, the GIS levy was no longer charged in July 2015.

Like the French solutions, the Dutch recovered the costs of acoustic renovation of buildings from the airlines. The Dutch solution also relied heavily on the state’s involvement to implement the intervention. Yet, unlike in France, the Dutch decided to create a dedicated public body to deal with the entirety of claims connected with the development of their main airport. This reflects the institutional maturity of public administration as well as the level of state involvement in implementing and sustaining the intervention. Despite noted inefficiencies of the

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130 Wet op de Ruimtelijke Ordening [Spatial Planning Act] art. 6.3.b (Neth.); see also Hobma, supra note 121, at 357.
131 Homba & Wijting, supra note 107, at 19.
132 Habdas, Koniovalczuk & Sluysmans, supra note 53, at 21.
133 MINISTERIE VAN INFRASTRUCTUUR EN MILIEU & MINISTERIE VAN ECONOMISCHE ZAKEN [MINISTRY OF INFRASTRUCTURE AND THE ENVIRONMENT & MINISTRY OF ECONOMIC AFFAIRS], supra note 114, at 24.
134 Id.
135 Id.
136 Id.
137 Id.
special authority, it is reasonable to conclude that the intervention achieved its objective and created the needed certainty on the market and civility in social relations.

VI. THE GERMAN APPROACH TO PROTECTION FROM AVIATION NOISE

In Germany, the debate on the best way to resolve the neighbor conflict between the airport and owners of neighboring land began in the late 1960s when work on the Act for Protection from Aircraft Noise commenced and ultimately resulted in passing the law on March 30, 1971 (PAN 1971). The Act was amended in 2007 (PAN 2007) and remains in force today. Proponents of PAN 1971 recognized that a balance between the environment, human health considerations, the national economy, and the interests of airports had to be achieved. Both the Ministry of Finance and Ministry of Transport noted that robust protection of households exposed to aviation noise could imply the necessity to provide similar protection to households subjected to noise from other forms of transport (e.g., roads and railroads), which could lead to grave financial burdens for the government.

Consequently, the initial plan to relocate residents in the vicinity of airports was abandoned because it would be connected with high costs of expropriation, buy-outs, or similar types of compensation. Simultaneously, the German legislature decided that the liable party would not be the government, but the airport operators, which would likely be unable to meet such high financial requirements in practice. Furthermore, a direct intrusion into residential areas near airports was deemed costly and highly onerous for the residents. Therefore, PAN 1971 was based on protection from noise rather than on the reloca-

138 Gesetz zum Schutz gegen Fluglärm [FlüLärmG] [Act for Protection Against Aircraft Noise], Mar. 30, 1971, BUNDESGESETZBLATT, Teil I [BGBl I] at 282 (Ger.).
141 Id. at 369, 371.
142 Id. at 370.
143 See id. at 379.
144 Id. at 363, 370, 370 n.41.
tion and freeze of land development. Apart from establishing special areas around airports, additional protective measures have been introduced in Germany, namely aircraft operational measures for noise reduction, noise-related takeoff and landing charges, aircraft noise measuring, and public participation in procedures connected with noise mitigation.

In Germany, public intervention in neighbor conflict consists of establishing noise protection areas around civil and military airports. Section 1 of PAN 2007 provides that this is done to protect the general public and the neighborhood from dangers, considerable disadvantages, and considerable nuisance caused by aircraft noise. The noise protection area always contains two daytime protection zones and one nighttime protection zone. Section 2(2) of PAN 2007 specifies the noise values for each zone. The values differ depending on whether they apply to a newly constructed (as well as substantially altered) or an existing airport and whether they apply to a civil or military airport. Lower noise contours means that noise protection areas are more extensive. Higher noise contours apply to existing airports as opposed to newly-constructed airports. Similarly, higher noise contours apply to military airports as opposed to civil airports.

Under PAN 2007, establishing noise protection areas is connected with introducing land-use restrictions and technical requirements for buildings, the latter ensuring their proper soundproofing. Land-use restrictions introduce a ban on new construction of three categories of buildings: (1) hospitals, senior/care homes, and similar buildings; (2) schools, kindergartens, and similar buildings; and (3) residential apartment buildings. Hospitals, senior/care homes, and similar build-

145 Id. at 370.


147 See Law on Protection Against Aircraft Noise, Oct. 31, 2007, BGBI. I at 2550, § 4 (Ger.).

148 Id. § 1.

149 Id. § 2(2).

150 Id.

151 See id.

152 See id.

153 See id.

154 See id. §§ 5–7.

155 See id. § 5.
ings may not be constructed in any of the noise protection zones. Schools, kindergartens, and similar buildings may not be constructed in the daytime protection zones but are allowed in the nighttime protection zones. Buildings from the third category, residential apartment buildings, may not be constructed in the first daytime protection zone or in the nighttime protection zone, with a few exceptions, most notably the exception provided in Section 5(3)(5) of PAN 2007. According to that provision, residential buildings in already developed areas of a town or village may also be erected in the zones mentioned above when they continue the existent urban pattern.

Apart from introducing land-use restrictions, the German legislature also implemented technical requirements designed to ensure adequate acoustic insulation of buildings. All new buildings erected in the noise protection area, including buildings that may be erected as an exception to the prohibition discussed above, must fulfill sound insulation requirements. Subsequent legislation specified detailed rules. Buildings already erected when the noise protection area was established may be voluntarily retrofitted acoustically if the owner decides to undertake such renovation.

Because the legislature intervenes to resolve the neighbor conflict, a decision on how the parties are to financially equalize the imposed transfer of entitlements has to be made. The lawmaker enforces rules regarding the payments between the airport and the aggrieved landowner. The payments take the form of compensation payments and reimbursement of costs.

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156 Id.
157 Id.
158 Id.
159 Id.
161 See Law on Protection Against Aircraft Noise, Oct. 31, 2007, BGB L I at 2550, §§ 5–7 (Ger.).
162 E.g., Flugplatz-Schallschutzmaßnahmenverordnung [2. FlugLSV] [Airfield Noise Protection Ordinance], Sept. 8, 2009, BGB L I at 2992 (Ger.).
163 See Habdas, Konowalczuk, & Sluysmans, supra note 53, at 7–8.
164 See id.
165 E.g., Airfield Noise Protection Ordinance, § 5 (Ger.); Fluglarm-Außenvorhabensentschädigungs-Verordnung [3. FlugLSV] [Aircraft Noise, Outdoor Living Area Compensation Ordinance], Aug. 20, 2013, BGB L I at 3292, § 2 (Ger.).
The intervention excludes the application of private law provisions on non-trespassory invasions due to an explicit provision in § 14 of the BImSchG, which applies to airports through § 11 of the LuftVG. Therefore, landowners must tolerate immissions within the scope permitted by public law because the airport’s activity is not illegal if its operations are conducted according to the relevant permits.

The German legislature has introduced three heads of compensation for the public intervention that takes the form of noise protection areas. Firstly, compensation is due for a reduction in land value caused by land-use restrictions that apply to the land of a given applicant. Loss of value can occur under the restrictions applied to undeveloped land only and is calculated as the difference in land value with no applicable land-use restrictions and the land value subject to land-use restrictions. Values are determined according to data as of the date the competent public authority issues its decision. Compensation also includes costs connected with preparing the site that has lost its utility for future construction (e.g., costs of an architectural plan and preparing the ground for construction).

Secondly, compensation includes costs spent on acoustic retrofitting of existing buildings or meeting higher acoustic stand-
dards for newly-constructed buildings. Acoustic insulation costs are reimbursed only for buildings located in the first daytime protection zone. In addition, reimbursement of acoustic insulation costs will apply to buildings located in the nighttime protection zone, but only for rooms used mainly for nighttime sleep. According to Section 5(4) of PAN 2007, the reimbursement is subject to a maximum of €150 per square meter of the residential space requiring insulation.

Thirdly, the German legislation has included compensation for immaterial damage, namely the inconvenience and decreased enjoyment of outside recreational areas due to noise. However, this element of compensation is accessible only to a limited number of persons because several conditions must be met to be eligible for its award. Firstly, the compensation only applies to noise protection areas established for new or significantly altered airports. German law assumes that persons who decide to continue living or move near an existing airport accept the risk of increased noise levels and future intensification of airport operations. Secondly, the compensation may only be claimed for residential buildings in the first daytime protection zone. Consequently, this compensation element does not apply to buildings near existing airports or those in the second daytime or nighttime protection zone. In addition, a building or apartment must have outside residential areas that cannot be used in comfort due to aviation noise. Outside recreational areas include balconies, gardens, terraces, and the like that supplement the residential function of a building. Compensation is awarded according to specified flat rates.

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175 Law on Protection Against Aircraft Noise, Oct. 31, 2007, BGBl. I at 2550, § 9 (Ger.).
176 Id. § 9(1).
177 Id. § 9(2).
178 Flugplatz-Schallschutzmaßnahmenverordnung [2. FlugLSV] [Airfield Noise Protection Ordinance], Sept. 8, 2009, BGBl. I at 2992, § 5(4) (Ger.).
179 Law on Protection Against Aircraft Noise, Oct. 31, 2007, BGBl. I at 2550, § 9(5) (Ger.).
180 Id.
181 Id.
182 See, e.g., id.
183 Id.
184 See Fluglarm-Außenwohnbereichsentschädigungs-Verordnung [3. FlugLSV] [Aircraft Noise, Outdoor Living Area Compensation Ordinance], Aug. 20, 2013, BGBl. I at 3292, § 2 (Ger.).
185 Id. § 3.
186 Id. § 5(1)–(4).
For example, for a single-family home in the first daytime protection zone within contour volume 1 (more than 65 dB for civilian airports or 68 dB for military airports), the flat rate is €5,000. However, pursuant to § 6 of the Fluglärm-Außenwohnbereichsentschädigungs-Verordnung (Third Ordinance), the amount of compensation for a single-family house, a two-family house, or an apartment building may equal to 2% of the market value of a property in contour volume 1 or 1.48% of the market value of a property in contour volume 2, provided that the claimant proves that the compensation determined according to this calculation exceeds the compensation under § 5 of the Third Ordinance. Finally, according to § 8(1) of the Third Ordinance, a higher or lower compensation may be set in deviation from §§ 5–7 of the same if a significantly different amount of compensation is appropriate due to special circumstances of the individual case.

Like in the French and Dutch interventions, the German intervention is performed with significant involvement of the state, which regulates, organizes, and implements the intervention. The involvement is less intense than the Dutch public intervention regarding Schiphol Airport, as Germany has not established a separate authority to deal exclusively with airport nuisance claims. However, the involvement is more specific than in the French solution because the legislature has specifically created provisions for protection from airport noise in a dedicated act and subordinate legislation rather than incorporating it in general acts concerning spatial planning or environmental protection law.

VII. POLISH RESTRICTED USE AREAS AS AN INSTRUMENT OF MITIGATING NEGATIVE EXTERNALITIES

Unlike in Germany, the Netherlands, and France, the discussion in Poland about protection from airport noise emerged around 2010. Before that time, the issue was of marginal interest due to slow economic development and a relatively small number of airports and airport operations. Only after the shift to a
democratic system and a market economy in 1989–1990, and particularly after access to the European Union (EU) on May 1, 2004, did the aviation industry in Poland begin to develop rapidly. For example, the national airport in Warsaw (Warsaw Chopin Airport) had connections with forty-three cities upon Poland’s accession to the EU; four years later, that number had jumped to eighty. In 2003, Warsaw Chopin Airport served 5.2 million passengers; in 2008, it served 9.5 million passengers. In addition, regional airports (particularly Kraków Airport (KRK), Katowice Airport (KTW), Poznań Airport (POZ), and Gdańsk Lech Wałęsa Airport (GDN)) experienced intensive growth. For this reason, the problem of airport noise began to gain attention as a matter that required resolving.

Leaving aside the historical development of legislation concerning special zones around plants creating immissions connected to environmental pollution, the current law for the protection of the environment, the Environmental Protection Law (EPL), contains provisions regarding establishing restricted use areas (RUAs). If the ecological review, the environmental impact assessment of the project, or the post-implementation analysis shows that, despite the use of available technical, technological, and organizational solutions, environmental quality standards outside the premises of the plant or other facility cannot be met, a restricted use area is created. This provision applies to airports, sewage treatment plants, waste landfill sites, composting plants, highways, electrical supply lines and stations, and radio communication, radio navigation, or radio location installations. The establishment of an RUA in effect denotes that not observing environmental protection standards outside the enumerated types of facilities is legal within the boundaries


192 Kaliński, supra note 190, at 585.

193 Id.

194 See id. at 585–89.

195 Ustawa z dnia 27 kwietnia 2001 r. – Prawo ochrony środowiska [Act of 27 April 2001 – Environmental Protection Law] (Dz. U. z 2020 r. poz. 1219, 1378, 1565, 2127 i 2338) (Pol.).

196 Id. art. 135.

197 Id.
of an RUA. It is a form of public intervention because its effect is to implement new rules of resolving the neighbor conflict.

The purpose of creating an RUA is to prescribe current and future uses of land that reduce potential negative effects to human health caused by the activity of the neighboring enterprise and allow for the development of sustainable land uses in the vicinity of airports or other enterprises expressly enumerated by the legislature in Article 135(1) of the EPL. Therefore, when establishing a RUA for an airport (in the form of a resolution taken by the highest tier of local government), the legislature requires identifying the following: (1) restrictions on designating land for particular uses, (2) technical requirements for buildings, and (3) the permissible use of land. The above constitute the three main elements of the intervention. The last two elements are addressed to landowners; however, the first element is directed to municipalities, which must reflect restrictions on land use specified in an RUA in their local development plans.

Restrictions implemented in special zones are thus formulated as particular prohibitions regarding land use, but they may also include requirements to take activities regarding the land or buildings or obtain a permit to use the land for a given purpose. The most commonly encountered prohibitions or restrictions introduced in RUAs are prohibitions on developing land, altering the terrain, changing the use of land to specified uses, cultivating specified crops, collecting specified fruits of the land, erecting specified types of buildings, changing the use

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199 See id.
200 See Act of 27 April 2001 – Environmental Protection Law, art. 135(3a) (Pol).
201 Id. art. 73(1), (2).
203 See Katarzyna Czajkowska-Matosiuk, Ograniczenie korzystania z nieruchomości w związku z wymogami ochrony środowiska [Restrictions on the Use of Real Estate in Connection with Environmental Protection Requirements], 1 Prawo i Środowisko 60, 62–63 (2015) (Pol.); cf. Marek Gorski, Marcin Pchalek, Wojciech Radecki, Jan Jerzmanski, Magdalena Bar, Sergiusz Urban & Jerzy Jendroska, Prawo
of existing buildings to other specified uses, and extending or modifying buildings of specified uses.\footnote{Habdas, supra note 53, at 31; see Karolina Barbara Wojciechowska, Lotniczy obszar ograniczonego użytkowania [Airport Restricted Use Areas] 118 (2019) (Pol.).} All of the prohibitions or requirements must be justified by the conclusions resulting from the environmental impact assessment, the post-completion analysis, or the ecological review.\footnote{Habdas, supra note 53, at 31; see Karolina Barbara Wojciechowska, Lotniczy obszar ograniczonego użytkowania [Airport Restricted Use Areas] 118 (2019) (Pol.).}

In the case of airports, RUAs are created because of increased noise levels regarding the so-called sensitive buildings (i.e., hospitals, senior/care homes, or facilities connected with the permanent or temporary presence of children or youth) or residential buildings.\footnote{See, e.g., Rozporządzenie Ministra Środowiska z dnia 14 czerwca 2007 r. w sprawie dopuszczalnych poziomów hałasu w środowisku [Regulation of the Minister of the Environment of June 14, 2007 on Permissible Noise Levels in the Environment] (Dz. U. z 2014 r. poz. 112) § 1 (Pol.).} Consequently, airport RUAs do not contain land-use restrictions on any other types of buildings (i.e., office, commercial, industrial). Airport RUAs are established in the form of a resolution taken by the highest tier of local government; however, the legislature does not specify whether the RUA should be subdivided into zones (like in Germany) and what land-use restrictions should be introduced.\footnote{See Jakub Bryła, Resolutions Introducing Restricted Use Areas Around Airports as Special Local Legislative Acts, Based on the Example of Restrictions on Residential Development, 114 World Real Est. J. 33, 39–42 (2020) (discussing the procedure for adopting a RUA).} This introduces flexibility in the provisions of RUAs. Simultaneously, it introduces confusion as to why different land-use restrictions apply to properties subjected to the same level and type of noise only because they are located next to different airports.

In practice, although there are thirty-five airports qualified as onerous in Poland, only eleven of them have an RUA. The RUAs differ when it comes to subdivisions into zones (e.g., WAW into three zones, KRK into three zones, KTW into one zone, PZN into two zones, and GDN into two zones) and the type of land-use restrictions that the highest tier of local government introduced.\footnote{Id. at 43, 47–48.} In general, in the existing RUAs, a prohibition on the construction of new, sensitive buildings is introduced in the whole RUA regardless of subdivision into zones.\footnote{See id. at 42.} Differences


concern residential buildings because some RUAs contain a prohibition on new residential construction in the zone closest to the airport (e.g., zone A for KRK and zone Z1 for WAW). In contrast, others allow such construction in the whole RUA as long as buildings meet technical requirements of adequate sound insulation (e.g., GDN and PZN). Other differences may occur, e.g., in zone A RUA for KRK, there is a prohibition on converting existing buildings to residential uses, whereas in Z1 RUA for WAW, this prohibition applies to conversion for residential uses as well as sensitive uses. In zone Z2 RUA for WAW, only conversion to sensitive uses is forbidden. In the RUA for KTW, the highest tier of local government has not delineated any zones, and new residential construction, as well as conversion to residential uses, is allowed when it accompanies a non-residential use. On the whole, a prohibition on new residential construction, particularly concerning civil airports, is exceptional, and there are no bans on expanding, rebuilding, or adding stories to existing residential buildings.

The second element of the intervention, addressed to landowners, relates to technical requirements connected with the sound insulation of buildings. All RUAs contain a similarly worded requirement that buildings meet technical criteria specified in the relevant construction law provisions for areas with increased noise levels. The obligation to observe these requirements relates only to newly-constructed buildings. "This follows from the fact that the law does not have retroactive effects . . . ." There is no legal obligation to retrofit existing buildings acoustically.

In light of the above, the Polish legislature has decided to compensate owners in the vicinity of airports whose land is located within the created RUA for the loss caused by the introduced restrictions (i.e., prohibitions and requirements).

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210 See id. at 47.
211 See id. at 44–45, 48, 52.
212 See id. at 44–45.
213 See id. at 45.
214 See id. at 49–49.
215 See Habdas, supra note 53, at 54.
216 See id. at 32–33, 48, 54.
217 Id. at 50.
218 Id.
Liability for this compensation is on the airports. The relevant provisions of Article 129(1) and (2) of the EPL regulate the cause and extent of compensable loss and apply to RUAs and other special zones created under Article 130 of the EPL (various nature protection areas) or Article 136a of the EPL (industrial zones). The application of Article 129 of the EPL implies there is a restriction that impacts the designation or use of a given piece of real estate. No compensatory claims arise from the mere fact of creating an RUA, that noise levels are or potentially may be exceeded (RUAs for airports are designated based on a prognosis of equivalent noise), or that land use within an RUA is less comfortable due to airport noise. The legislature is not obliged to compensate for all effects of introducing a special zone, which is a legal intervention of the government. Even if the mere fact of implementing an RUA may cause loss of value due to its negative perception by potential buyers, compensating the effects of legal activity of public authorities may be limited in scope and subject to modified principles when compared to general rules of liability for loss under Polish law.

Apart from compensation provided in Article 129(2) of the EPL, owners within RUAs are also entitled to the reimbursement of costs (i.e., money spent) resulting from fulfilling technical requirements concerning buildings introduced in an RUA. Liability for these claims falls on airports, whose activi-

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220 See Act of 27 April 2001 – Environmental Protection Law, art. 136(2) (Pol.).
221 Article 129 opens Section IX of the EPL, which is entitled: “Restrictions on the Use of Land Connected with the Protection of the Environment.” Id. Section IX. “If in connection with restricting the manner of the use of land, its use or the use of its part in a manner consistent with past use or past designation has become impossible or materially limited, the owner may demand that the land or its part be bought.” Id. art. 129(1). “In connection with restricting the manner of the use of land, its owner may demand compensation for the suffered loss; the loss also includes the decrease of the value of land.” Id. art. 129(2).
222 Id. art. 130.
223 Id. art. 136a.
224 See Bukowski, Czech, Karpus & Rakoczy, supra note 202, at 210.
227 Act of 27 April 2001 – Environmental Protection Law, art. 136(3) (Pol.).
ties are the reason for establishing an RUA.\footnote{228 See \textit{id.} art. 136(2).} This compensation applies to newly-constructed buildings to the extent that the landowner bears increased costs of construction resulting from the mandatory technical requirements of increased sound insulation.\footnote{229 \textit{Id.} art. 129(2).} In addition, owners of existing, residential, or sensitive buildings located within the RUA, regardless of the zone, may be reimbursed for the costs of acoustic retrofitting of the building even though undertaking the renovation is voluntary.\footnote{230 \textit{Id.} art. 136(3).}

Disputes regarding compensation connected with RUAs are to be heard by civil courts.\footnote{231 \textit{Id.} art. 136(1).} Interestingly, the Polish courts’ interpretation of the EPL provisions has completely changed the meaning of the law in force.

The Supreme Court presented a very extensive interpretation of the meaning of art. 129 [§] 2 [of the EPL] and was followed by a rather indiscriminate acceptance of this view in academic writings. Article 129 [§] 2 [of the EPL] was found to introduce liability for all losses caused by the mere introduction of an RUA, regardless of whether it contained restrictions that impacted the . . . use of land.\footnote{232 \textit{Habdas, supra} note 53, at 37–38.}

“[T]he Supreme Court held . . . that despite the lack of any restrictions concerning the use . . . of the claimant’s residential house (there were no restrictions in the RUA concerning continuing the use of residential real estate) all premises of liability prescribed in art. 129 [of the EPL] had been met.”\footnote{233 \textit{Id.} at 38.} “The Supreme Court argued that even though the RUA did not introduce any restrictions which concerned the . . . use of the claimants’ land for residential purposes, it did impact the claimants’ right of ownership which led to a loss of value.”\footnote{234 \textit{Id.} at 40.}

According to this reasoning, the introduction of an RUA confirms the loss of comfort and convenience because it is established for areas in which environmental protection standards are not observed. Since increased noise levels have been “legalized” within an RUA, the right of ownership has been restricted because landowners cannot utilize nuisance claims and demand that the noise is decreased to meet environmental protection
standards. The court has identified the loss of comfort and convenience, as well as the restriction of the right of ownership (through the exclusion of the nuisance claim) with restrictions in the use of land which, in the case of RUA, may only consist of particular restrictions on . . . land use or technical requirements concerning buildings.

Such an interpretation is very extensive and difficult to justify.\(^{235}\)

The Polish Supreme Court’s “imprecise identification of the cause of compensable loss” creates conditions for speculative behavior of landowners.\(^{236}\) These activities are “supported, intentionally or unintentionally, by lawyers and valuers, all of whom have considerable possibilities of linking various losses with the imprecisely defined cause.”\(^{237}\)

In addition, the courts have held “that money necessary for acoustic retrofitting of existent buildings may be awarded even before it has been spent, because the very obligation to perform acoustic improvements constitutes a loss.”\(^{238}\) The courts have neglected to understand that “in relation to existing buildings, there is no legal obligation to retrofit, no sanctions for not retrofitting, and no time limit within which the retrofitting is to be performed.”\(^{239}\)

The extensive interpretation currently employed essentially equates land use restrictions to inconvenience caused by noise and thus causes loss of value to be confused with loss of convenience. This leads to the expansion of compensation obligations beyond the scope expressly prescribed in art. 129 [of the EPL]. . . The vast discrepancy between the provisions in force and their actual application leads to a complete disregard for the cause and effect relationship between introduced land use restrictions and their effect on land values. The *ratio legis* of the analyzed provisions designed to solve the conflict between airports and neighbouring landowners has not been properly considered in legal practice and thus the legal as well as the economic purpose of the intervention, remains overlooked, if not completely lost.\(^{240}\)

\(^{235}\) *Id.* at 41.
\(^{236}\) *Id.*
\(^{237}\) *Id.*
\(^{238}\) *Id.* at 51.
\(^{239}\) *Id.*
\(^{240}\) *Id.* at 53–54.
Instead of being reduced after the public intervention, transaction costs have increased because conflicts are not being resolved on the market according to the rules mandated by public intervention. Airports refuse to pay compensation not expressly envisaged by the legislature, and landowners are motivated to pursue their claims in courts knowing that the courts will award them compensation for immaterial losses not designed for compensation (loss of convenience) as well as for unrealized losses, in the case of acoustic improvements that have not been carried out.\footnote{See id. at 32–37.}

VIII. CONCLUSION

A positive analysis of the regulating behavior regarding how the neighbor conflict between the airport and landowners is resolved in selected European jurisdictions reveals that lawmakers have devised differing regulations. However, there are important similarities between them. Classical neighbor law instruments derived from the doctrine of non-trespassory invasions have been insufficient to resolve the conflict, and all jurisdictions utilized a public intervention.\footnote{The inadequacy of general civil law instruments, whether in tort or property, to balance the interests of opposing parties in a conflict involving airport externalities and the need to rely on dedicated public law instruments was noted as early as the 1950s. See generally R. H. Mankiewicz, Some Aspects of Civil Law Regarding Nuisance and Damage Caused by Aircraft, 25 J. Air L. & Com. 44 (1958).} The applied legal solutions are consistent with findings of a law and economics approach, which helps to understand when an imposed transfer of rights at a set price is required and when a Pigouvian tax may be employed to help achieve the objective of adequately balancing the opposing interests.

Due to a large number of persons involved in the conflict and the public utility of the service provided, injunctive relief is unattainable and undesirable. Liability rules are preferred to property rules, and the former are utilized in zones delineated around airports based on noise contours. The contours help identify the conflict area and the persons involved in the conflict as clear boundaries are set, and other landowners are excluded from the dispute. Simultaneously, it is possible to predict the costs connected with the introduced liability rules. Predicting costs helps to achieve certainty in the market and promotes social civility. Airports’ immissions are also controlled to protect the environment and human health. This is done through a se-
ries of administrative measures resulting in permits that allow airports to function and oblige them to employ all available measures that mitigate noise.

In all analyzed jurisdictions, the public intervention focuses on two pillars: introducing land-use restrictions in zones with high noise levels and ensuring reimbursement of costs spent on proper acoustic insulation of buildings. Unsurprisingly, further details of the interventions vary as different land-use restrictions are introduced, and different procedures and levels of financial aid for sound insulation of buildings are employed. The relevant provisions are also differently situated within each legal system. In France, Germany, and the Netherlands, the land-use restrictions are defined uniformly and not designed independently by local authorities.243 Poland took a completely different approach, setting land-use restrictions for each airport by local governments. On the one hand, this gives a lot of flexibility and the possibility to take local conditions into account, which was an argument raised by local authorities in the Netherlands who objected to stringent and uniform land-use restrictions in the Schiphol area. On the other hand, it may cause unsubstantiated differences in land-use restrictions for properties exposed to the same noise levels but located near different airports. It may also facilitate a lax approach of local authorities to land-use restrictions in the sense that very few are introduced, and thus, airport liability is significantly decreased.

In all analyzed jurisdictions, the legislature introduces compensation for loss caused by the introduced land restrictions. Only in Germany an additional head of compensation is introduced and allowed to compensate for the inconvenience caused by aviation noise in the use of outside residential areas. In France and the Netherlands, the doctrine of social risk acceptance limits compensation for land-use restrictions, so not all cases of land-use restrictions will lead to partial or full compensation. In contrast, in Germany and Poland, land-use restrictions are to be compensated in full and reflect the difference in land value subject to land-use restrictions compared to the value of that land without such restrictions.

243 There may be exceptions to this, such as the Berlin Brandenburg Airport, which follows requirements from an administrative decision allowing its construction and not FlüLärmg (Act for Protection Against Aircraft Noise), on the protection from aviation noise. Nevertheless, many of the solutions adopted in the administrative permission copy are similar to those of the Act.
Sound insulation of buildings in all jurisdictions is reimbursed if proper technical works have been performed; however, France and Germany have ceiling values of compensation levels and differentiate the amount of financial aid depending on where a property is located within the zone. Poland has the most generous provisions in this context, as all necessary sound insulation costs are to be reimbursed regardless of where within the zone a property is located.

Although Polish public intervention is consistent with models employed in the analyzed countries, and in some respects, it contains a more generous compensation of landowners, the Polish courts have completely misunderstood the provisions in force. The extensive interpretation currently employed essentially equates restrictions in land use to inconvenience caused by noise and thus, causes loss of value to be confused with loss of convenience. This leads to expanding compensation obligations beyond the scope expressly prescribed in Article 129 of the EPL, instead of promoting market certainty and social civility, stimulates speculative and careless behavior and neglects social risk.

If one is to accept the prevailing practice in Poland, a paradox occurs. The scope of the compensable loss is so great that there is no economic and financial possibility for airports to function. Yet, it was the airports’ operations that the legislature wanted to maintain by introducing the discussed EPL provisions. The correct application of the current EPL provisions ensures the compensation of direct and verifiable consequences of restrictions in land use that the legislature introduces within RUAs. The current practice may suggest that the courts are attempting to award damages for non-economic loss (pain and suffering) as opposed to economic loss, which would explain the vague and theoretical identification of the occurrence (i.e., the constriction of the right of ownership) that triggers liability for loss. In this context, the solution applied by the German legislature is noteworthy because it compensates for the element of inconvenience, albeit in a limited and controlled manner. This compensation applies to residential properties in the vicinity of only new or significantly enlarged airports, and its amount is a lump sum predetermined by the legislature.

Public intervention regarding the airport–landowners neighbor conflict works best when the state is involved in its practical implementation through public body authorities and administrative procedures. The Polish example illustrates that implementing the resolution of this challenging and emotionally
charged neighbor conflict without active oversight of public administration does not achieve the legislature’s objective. It is also essential to devise rules on compensation so that eligibility and scope are unambiguous. In this respect, the German solution provides the most certainty, as there is little room for discretion in deductions made for accepting active risk. It is also safe to conclude that regulations dedicated to the neighbor conflict involving airports, as opposed to the conflict involving emissions from other types of plants, allow the legislature to devise solutions that target the particular nature of aviation noise. It is also undeniable that land-use regulation, sound insulation of buildings, and compensation schemes do not fully protect the interests of either of the opposing sides. Homeowners in the vicinity of airports have not been awarded extensive protection, as compensation payments are subject to many limitations. Consequently, aggrieved landowners must also focus on measures the airport should take to mitigate noise.

Although it is unrealistic to assume that residential and other developments will eventually be relocated away from airports and not exposed to airport noise, understanding the existent public intervention does provide ground for normative analysis. Without understanding the state of current law, it would be unwise to propose new solutions. In particular, the Polish example illustrates that an overly concise regulation of a challenging and emotionally conditioned conflict does not realize the ultimate objective of sustainable development. A transparent and well-balanced reconciliation of interests by the legislature is necessary to prevent NIMBY (Not In My Backyard) and BANANA (Build Absolutely Nothing Anywhere Near Anything) attitudes towards the location and operation of various plants and facilities providing public utility services.