10th INTERNATIONAL SCL CONFERENCE 2023

www.sclturkey.org

ESG, Public Nuisance and Construction Projects

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A paper presented on 20 October 2023 at the 10th SCL International Conference, Istanbul.

Abstract: ESG (environmental, social and governance) is now an important issue for construction and engineering projects globally. The paper explores the commercial and legal issues, particularly in English tort law, arising from the "environmental" aspects of projects with particular reference to greenhouse gas emissions. The paper considers the potential role of the common law tort of public nuisance as providing a basis for objecting to construction and engineering projects which will produce significant greenhouse gas emissions.

Keywords: ESG, public nuisance, tort law, climate change

1. INTRODUCTION

This is an historic year for Türkiye. It is a century since the foundation of the Turkish Republic, following the disintegration of the Ottoman Empire and the War of Independence. The history of these events is taught to every Turkish schoolchild, who will learn of the deeds and vision of the founders of the Republic. Foremost amongst these people, of course, is Mustafa Kemal.

Much has been written about Atatürk, more than any other Turkish person. And much could be written of him here. I will, for brevity, refer to just one anecdote about him, which is minor in the overall scheme of his life and achievements, yet emblematic of his mode of thought, and moreover is relevant to the subject matter of this paper.

Atatürk had a large house constructed on the Yalova peninsula, which is conveniently close to Istanbul. The attractive house, constructed in wood, was completed in 1929. The site of the

[1] This paper, and the opinions expressed in it, are personal to the author. They do not represent the opinions or legal positions of Jones Day or any of the firm's clients.

house was close to a particular plane tree which had been there for some time, and is still there today.

The story goes that the people who were responsible for looking after the house wanted to chop down a branch from the plane tree, because it grew so large that it was overhanging the house, and it would hit the house when moving in the wind, causing damage.

Atatürk politely refused their request. He liked the tree and did not want to see it interfered with. He was, however, an intensely practical man. He came up with a solution to the problem of the tree branch hitting the house. His solution was this: *move the house*.

This may have seemed daunting, and potentially a crazy idea, to the people responsible for the house. However, it was achievable and indeed achieved. The house was put onto tramway rails and moved a few meters away from the tree. The tree and the house could agreeably co-exist, side-by-side.

This vignette of the Yalova Walking Mansion (as it became known) manifests a degree of thought for the environment at a time when few people paid regard to the impact of construction work on the natural world. No "tree surveys" were required in Turkey at the time for building work to proceed, nor indeed anywhere else in the world.

One hundred years later the world is a very different place, in so many ways. In 1923 the population of Turkey was around 14 million people, and the global population was around 1.8 billion people. In 2023 Türkiye's population is around 86 million and our planet's population is now 8 billion people.

We impact the world in numerous ways – through what we do (and fail to do), and from the sheer number of human beings living on our planet.

In the construction and engineering industry, the impact of our activities is substantial indeed, including in relation to greenhouse gas emissions. To give an idea of this, I will quote from a recent report prepared by international consultants Turner& Townsend:

> "According to multiple sources, roughly 40 percent of the world's cumulative annual carbon emissions are caused by the built environment.
>
> Echoing this, The World Green Building Council reports that the construction and real estate industries are responsible for 50 percent of all global material extraction, with the resulting demolition waste accounting for 35 percent of landfills. Moreover, this process can also bring about noise pollution, alter landscapes, and put biodiversity at risk. Even after buildings are constructed, they continue to impact the environment due to energy consumption from lighting, heating and cooling, and water and waste transport.
>
> The 2022 Global Status Report for Buildings and Construction published by the Global Alliance for Buildings and Construction (Global ABC), reported that the buildings and construction sector remains off track to achieve decarbonisation by 2050".[2]

One of the largest sources of carbon emissions in the construction and engineering sector comes from concrete. According to the British Institution of Civil Engineers:

> "Concrete is a major source of CO_2 in construction, accounting for 1.5% of all emissions in the UK and 8% globally.
>
> …
>
> This is largely due to the process of making of cement, which binds the concrete, and involves heating limestone and clay to very high temperatures and a chemical reaction that produces greenhouse gases. Every year we use approximately 11.7 million tonnes of cement in the UK, equivalent to the weight of more than 100 aircraft carriers".[3]

[2] Turner & Townsend, "Building a sustainable future in the Middle East" (2023, https://reports.turnerandtownsend.com/middle-east-sustainability-report-2023/).

[3] "Construction sector could more than halve emissions from concrete by 2035 - industry task force" (27 April 2022), https://www.ice.org.uk/news-insight/media-centre/press-releases-list/construction-sector-could-more-than-halve-emissions-from-concrete-by-2035.

When we go to or walk past construction sites, we know that (as with every activity) there will be emissions from energy use and other aspects. But we do not readily appreciate the overall "carbon footprint" of new building work, because the energy-intensive (and emissions producing) activities associated with cement manufacture take place elsewhere. Yet when we consider the overall resources and energy used, and resulting emissions, the picture is a startling one.

It is positive that we now recognise this, and moreover that there is impetus, both from industry and regulators, to make large changes when it comes to environmental matters.

2. THE "E" IN ESG, AND CONSTRUCTION

"ESG" – "environmental", "social" and "governance" is an inescapable acronym for people in the modern corporate world. It compels us to think and act virtuously. We must look after our environment, and act in a socially-conscious and progressive way. And we must govern our enterprises responsibly to reflect modern values. Business norms have shifted. Markets may still flourish, but they must do so within the parameters of this new paradigm.

And so much is true for actors in the world of construction and engineering. For everyone – developers, funders, contractors, tenants, consultants – the lot. This required new consciousness is most pronounced in relation to the "E" aspect of ESG. Environmental issues, particularly those related to energy consumption and greenhouse gas emissions, are in the foreground of every construction and engineering project. A development which generates substantial greenhouse gas emissions from its construction may attract adverse comment, whereas one which is carefully planned to minimise emissions may not. Likewise, if a completed physical asset (such as a building) is energy inefficient in operation it may be commercially undesirable and of less value than a "green", energy-efficient structure. Market forces play a major role in the rise of ESG, concomitantly with complementary regulatory developments.

As regards regulatory developments: these days statutes, international treaties and subsidiary regulations play the major role in addressing environmental matters. These instruments represent the will of the government and are the law of a country, which must be complied

with. No persuasion is required to make actors follow these environmental controls, because they are "law".

When it comes to the enforcement of environmental laws, the government of the country in question, usually through its executive arm, is purposed with holding environmental law breakers to account. Law breakers may be fined, or even imprisoned. They may be ordered to stop their damaging activities, or take steps to repair any damage done.

However, in a number of countries, including England, the United States and European nations, action may sometimes be taken by interested non-governmental actors. The criteria for legal intervention varies, but a common element is that the intervenor has a sufficient interest in the upholding and enforcement of the particular environmental law. This interest may arise from the intervenor's private property rights being interfered with by the contravention of the law (e.g. pollution affecting a parcel of land), or it may arise because the law recognises and permits the intervention of people who have a public-spirited motivation, such as the upholding of environmental laws to ensure that the environment is protected.

In this latter respect we can find any number of illustrations in recent times. I will refer to just one, which is the highly-publicised case of *Milieudefensie v Royal Dutch Shell*,[4] heard before the Hague District Court. The case was brought by a number of NGOs, i.e. non-state actors, against Shell. The case against Shell was founded under the Dutch Civil Code. The NGOs claimed that Shell was violating (and would continue to violate) the Civil Code through the greenhouse gas emissions generated by the Shell group. The NGOs' claim was upheld. The court ordered Shell to reduce its greenhouse gas emissions by 2030 to 45% of the group's 2019 greenhouse emissions. This provides a powerful example of the force of statute law and treaties in compelling parties to curb greenhouse gas emissions. It also illustrates how non-state actors such as NGOs can utilise the law and the legal system to achieve their goals, namely to bring about environmental change.

The implications of this type of litigation are profound, and potentially wide-ranging. Environmental litigation is rising like a wave. It has the potential to affect all areas of business which impact the environment in material ways. As we have seen, the construction and

[4] C/09/571932 / HA ZA 19-379, judgment of 26 May 2021.

engineering sector is one which has a significant impact on the environment, including in relation to greenhouse gas emissions. Although the construction and engineering sector has not faced any major claims at present, cases like *Milieudefensie v Royal Dutch Shell* suggest the real possibility of such litigation being brought, at least where significant greenhouse gas emissions are likely to arise from a particular project. This is not a matter of idle speculation. It is a matter of likelihood.

This poses the question: how could such a claim be made, in relation to a construction or engineering project?

To answer this question, and explore the underlying issues arising, we should seek to contextualise the matter (and a hypothetical example is given later to facilitate contextualisation). In developed countries all new building and engineering projects of any magnitude are required to go through a statutory planning approval process. Planning approval processes involve the consideration of the various aspects of a proposed development, including its environmental impact, measured against the criteria laid down or outlined in the relevant statute or regulation. As matters stand, and as a matter of generality, the greenhouse gas emissions attributable to a development do not represent a predominant factor in developments being accepted or rejected for planning purposes. Other elements tend to predominate, including size, location, aesthetics and the impact on the immediate area of a development proceeding.

This type of statutory planning review process is usually a localised one, which may pay little regard to wider environmental considerations – let alone global ones. If followed, it can result in proposed developments being "approved" on the basis that they satisfy the statutory grounds for approval, including environmental ones. But approval of a scheme certainly does *not* mean that a proposed development is immune from criticism on environmental grounds, or indeed that it is immune from environmental litigation brought by interested interveners.

What I will attempt to do in the remainder of this paper is consider the possibility of an intervener being able to invoke the common law, and in particular the tort of public nuisance,[5]

[5] The focus on the tort of public nuisance is selective, to keep this paper within reasonable bounds. It is recognised that other aspects of tort law are also potentially relevant to environmental claims, including most notably the tort of negligence.

as a basis for seeking curial intervention to stop a proposed development, or indeed a development which is in the course of construction, on the basis that the development will cause significant greenhouse gas emissions. The central issue is whether, even if a development meets all relevant statutory approvals to allow it to proceed, it can be stopped in its tracks by an interested party relying upon the common law.

Before attempting to tackle this important issue, it is salient to recognise that courts have, in recent years, addressed common law claims relating to greenhouse gas emissions. To date these claims have failed, and in one prominent case from 2021, the New Zealand Court of Appeal seemed to shut the door on common law tort claims being invoked for environmental matters:

> "In our view, the magnitude of the crisis which is climate change simply cannot be appropriately or adequately addressed by common law tort claims pursued through the courts. It is quintessentially a matter that calls for a sophisticated regulatory response at a national level supported by international co-ordination".[6]

We will return later in this paper to the important issue raised by the court, i.e. whether it is appropriate for courts to involve themselves in climate change litigation brought in reliance on common law doctrines. But now we must consider the nature of an intervener's potentially most potent weapon at common law: the tort of public nuisance.

3. PUBLIC NUISANCE

A. Introduction

A "nuisance" is a "tort" or a "wrong". The concept of a nuisance is not well defined in English law, which therefore makes nuisance a slightly nebulous and flexible legal device.[7] This flexibility may in fact make the tort of public nuisance a powerful weapon if utilised by environmental activists.

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[6] *Smith v Fonterra Co-operative Group Ltd* [2021] NZCA 552 at [16].

[7] "Fewer words in the legal vocabulary are bedevilled with so much obscurity and confusion as 'nuisance'": Fleming, *The Law of Torts* (LBC, 9th ed 1998) page 457.

Three types of nuisance are recognised by English law. First, there is "private" nuisance, which seeks to protect a person's property rights. Secondly there is "public" nuisance, which we consider below. And thirdly there is "statutory" nuisance, which is a nuisance involving conduct that violates a statutory prohibition. The focus of the remaining discussion in this paper is on the common law tort of public nuisance.

A public nuisance is a matter which materially affects the reasonable comfort and convenience of life of persons, a class of persons or a community. It is a nuisance "to the public as a whole".[8] A public nuisance may be both a tort and a crime. It has been held that:

> "[t]he essence of the right that is protected by the crime and tort of public nuisance is the right not to be adversely affected by an unlawful act or omission whose effect is to endanger the life, safety, health etc. of the public".[9]

Public nuisances may arise in any number of contexts, including in relation to construction and engineering works. A classic example is where road works take place – on a public road – and they adversely affect certain members of the public because of the nature of the works themselves, or the way the road works are carried out, or the (lengthy) time for their performance, or any combination of those elements. The works themselves may not be intrinsically unlawful, but the manner in which they are carried out may be unlawful, and may constitute a tort, if they are regarded (by a court) as unreasonable for the public (or a particular section of it) to have to endure.

Broken down into its constituent elements, a public nuisance will occur where a member of the public (or a group of complainants) can prove that:

> (a) substantial and unreasonable conduct of a legal person has caused material harm to or interference with person or property; as a consequence of which

[8] *Wildtree Hotels Ltd v Harrow LBC* [2001] 2 AC 1 at 7, per Lord Hoffmann.

[9] *Claimants on the Register of Corby Group Litigation v Corby Borough Council* [2008] BLR 411 at 418 [29], per Dyson LJ.

(b) the complainant has suffered a special injury or loss to himself, beyond any injury or loss suffered by other members of the public; where

(c) the injury was the direct, necessary, natural and immediate consequence of the defendant's wrongful conduct.[10]

It will be apparent from this formulation that the tort of public nuisance is potentially broad in its operation. It is not confined or limited to certain types of conduct or activity. Therefore potentially *any* activity in the public sphere could be captured by the tort's operation, assuming all the elements of the tort are fulfilled. The tort of public nuisance may therefore apply in innumerable circumstances, and is something of a catch-all.[11] By its origins the tort was directed at anti-social behaviour of any character, and in modern times anti-social behaviour can take numerous forms, including conduct which involves damaging or polluting the environment.[12]

One further notable aspect is that the tort of public nuisance may be engaged in respect of an activity even if the type of activity has received a necessary statutory approval. This is significant in relation to construction and engineering projects, which almost inevitably require some kind of planning (or similar) permission before they are able to proceed. The fact that planning permission has been granted to allow construction work to be performed does not occlude the performance of that work from constituting a public nuisance.[13] It is only if the applicable statutory regime expressly or implicitly permits the commission of a nuisance that the statute (or regulations) will operate as a complete defence to any action in nuisance.

The potential remedies available to a person who is affected by a public nuisance are threefold. First, damages may be awarded to a person who has suffered loss or injury due to the nuisance.

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[10] *Harper v GN Haden & Sons Ltd* [1933] 1 Ch 298 at 302–304, per Lord Hanworth MR.

[11] *Smith v Fonterra Co-operative Group Ltd* [2021] NZCA 552 at [58]-[59]. Professor Fleming noted that (both public and private) nuisance "has become a catch-all for a multitude of ill-assorted sins, linking offensive smells, crowing roosters, obstructions of rights of way, defective cellar flaps, street queues, lotteries, houses of ill-fame and a host of other rag-ends of the law": Fleming, *The Law of Torts* (LBC, 9th ed 1998) page 457.

[12] See *R v Rimmington* [2006] 1 AC 459.

[13] *Coventry v Lawrence* [2014] UKSC 13; *Smith v Fonterra Co-operative Group Ltd* [2021] NZCA 552 at [54] and [74].

Secondly, a person who is affected by a public nuisance may "abate" it, which essentially means taking steps themself (as "self help") to stop the nuisance from having any further impact on them. Thirdly, and perhaps most significantly in the context of environmental claims, an injunction may be ordered to require a tortfeasor to cease the conduct which creates the nuisance.

B. Public nuisance and environmental claims

The breadth of public nuisance as a tort makes it malleable and therefore potentially applicable in a wide variety of circumstances, including where persons are aggrieved by the environmental impact of certain activities.

This can actually cut both ways, in the sense that someone who is aggrieved by the actual or potential environmental impact of human activity, and protests against it, *may themself* commit a public nuisance through their protest.[14] A recent English example comes from *Trowland v R*,[15] a criminal appeal. The relevant facts were as follows:

> "In the early hours of 17 October 2022 Mr Morgan Trowland, who is now 40 years old, and Mr Marcus Decker, who is now 34 years old, scaled the Queen Elizabeth II bridge on the M25 carriageway. They hoisted a "Just Stop Oil" banner across the bridge, and suspended themselves in hammocks. There they remained until arrested some 36 hours later. The bridge was closed for about 40 hours as a result of the protest, causing extreme disruption to many members of the public. Both men ("the protesters") were repeat protest offenders on bail at the time".[16]

The two men were convicted of creating a public nuisance, which is a statutory offence in England (in addition to being a tort). The relevant statute proscribes conduct which "obstructs the public or a section of the public in the exercise or enjoyment of a right that may be exercised

[14] The irony of this, in the context of climate change litigation, has not gone unnoticed: see Bullock, "Public Nuisance and Climate Change: The Common Law's Solutions to the Plaintiff, Defendant and Causation Problems" (2022) 85 *Modern Law Review* 1136 at 1138 fn 10.

[15] [2023] EWCA Crim 919.

[16] *Trowland v R* [2023] EWCA Crim 919 at [1].

or enjoyed by the public at large".[17] Both men were sentenced to prison for their bridge protest against what they evidently perceived to be a major environmental issue: the continuing extraction and burning of oil.

On the other side of public nuisance, the more common instance of it arising is in cases involving pollution of some kind, perhaps as a result of an oil spill,[18] an explosion in an industrial facility,[19] or contamination from toxic waste.[20] In all of these cases, people who are in the vicinity of the particular problem, e.g. the oil spill, will be directly and tangibly impacted by the matter. In most cases, therefore, those people will be able to point to some harm that they have suffered - over and above the rest of the public - and use that as a basis for claiming damages resulting from a public nuisance. They may also be able to bring a claim in private nuisance, should their property have been damaged by the act or event in question. The existence of identifiable harm crystallises an affected person's legal rights in tort.

4. PUBLIC NUISANCE AND CONSTRUCTION PROJECTS – THE "E" FACTOR

A. Introduction

Let us now come to the central element of this paper, which in one sense involves us engaging in a thought experiment. In what might be called the "classic" cases of public nuisance, as mentioned above, the victim of the nuisance acquires legal rights against another because he or she has been tangibly impacted by the nuisance in question.

What, however, might the position be where a person is not immediately or tangibly impacted by a matter, yet they are sufficiently aggrieved by the matter that they claim to have a right to obtain legal intervention, relying on the tort of public nuisance? To try to facilitate our understanding of how the common law may address such an issue, we will take a (hopefully

[17] Police, Crime, Sentencing and Courts Act 2022 (UK) section 78(1)(b)(ii).

[18] See, eg, *Jalla v Shell International Trading and Shipping Company Ltd* [2023] EWHC 424 (TCC), which concerned an oil spill off the coast of Nigeria caused by an FPSO.

[19] See, eg, *Shell UK Ltd v Total UK Ltd* [2010] EWCA Civ 180, which concerned a number of very large explosions and fires that occurred at the Buncefield Oil Storage Terminal in Hertfordshire, England, in December 2005.

[20] See, eg, *Re Corby Group Litigation* [2009] EWHC 1944 (TCC), which concerned hazardous waste material.

plausible) hypothetical factual scenario – to make the legal problem more concrete, and less abstract.

B. Our hypothetical factual scenario

Let us suppose the following:

- A developer owns a large area of land on the outskirts of Norwich, England, which is an old industrial site. The industrial activity on the site ceased 20 years ago, when the various businesses located there became economically unviable due to globalisation. The site is currently derelict and constitutes an eyesore.

- The developer now wishes to construct a large factory on the site. The factory will manufacture cars. Some of the cars will be electric or hybrid, others will have petrol or diesel engines.

- The proposed development involves demolishing the old industrial buildings on the site and constructing a new factory. The construction of the factory will use a considerable amount of concrete, especially for the foundations and factory floor. The existing buildings on the site are unsuitable for use in a factory, which means that building from scratch is the only viable way of proceeding.

- The new factory has received planning approval from the local council. In the council's planning assessment, it determined that the factory will not have an overall damaging impact on the local environment, and indeed its construction will lead to the cleaning up of the old industrial site, plus it will inject jobs and revenue into the area. The council regards the new factory as a "good thing".

That basic scenario may seem straightforward and indeed commonplace. But let us now add in some more ingredients to bring a touch of legal spice. Let us also suppose that:

- In the city of Norwich, where the development is to take place, there is a group of young people who have strong (indeed passionate) feelings about the environment, and the

future of the planet. The group, which styles itself as "Norwich Youth for the Environment" (or "NYE"), consists of around 50 earnest people, aged between 14 and 23.

- NYE is strongly opposed to the development of a new car factory. Not only are its members "anti-car" (on environmental grounds), but they believe that the demolition of the old industrial area, and the construction of the new factory, will lead to harmful emissions of dust, noise and also moreover greenhouse gases.

- In relation to greenhouse gases, NYE highlights that between 4-8% of total global CO_2 emissions come from concrete. The factory floor for the Norwich car plant will have an area of around 5,000m^2, meaning that the total amount of concrete used for the floor will be 5,000m^3, assuming the floor is 1m thick. NYE calculates that the CO_2 emissions from the concrete factory floor alone will be 410 kg/m^3, and therefore approximately 2,000,000 kg for the whole area. There will also be substantial CO_2 emissions attributable to the construction of the other elements of the factory, however NYE has not attempted any calculation of those emissions. It says that the CO_2 emissions from the concrete alone are significant enough to warrant it taking action.

- In this regard, NYE commences court proceedings against the developer, seeking a permanent injunction to stop the development from going ahead. NYE contends that the CO_2 emissions attributable to the concrete to be used in constructing the development will be very large – some 2,000,000 kg – and constitute a public nuisance by contributing to global climate change.

The legal question, therefore, is whether NYE is likely to be awarded an injunction to stop the development from proceeding. Self-evidently, the obtaining of an injunction is an existential matter for the proposed new development.

To answer the question of whether an injunction may issue to prevent a public nuisance, it is necessary to consider the individual elements of a claim based on public nuisance.

C. First element: substantial and unreasonable activity

The first element of the tort of public nuisance is that there is some kind of activity, substantial and unreasonable in nature, which has the potential to interfere with the health, safety or wellbeing of particular members of the public or cause damage to their property. There is no doubt that construction work can constitute such a kind of activity. It has a huge capacity for causing misery to people through noise, vibration, dust or fumes, or through the general inconvenience to people in the vicinity of the works.

In our hypothetical example, however, the position is a little different. The complaint of NYE is not that the construction works themselves will cause unreasonable disturbance, but rather that the carbon emissions attributable to the development as a whole will contribute to harm or injury to people, not only in Norwich, or indeed England, but to the whole world – through global warming.

This produces a novel conceptual issue. The tort of public nuisance has never been defined by sharp boundaries, or indeed any boundaries at all. But can the types of activity which constitute a public nuisance include the generation of greenhouse gas emissions? Given the unbounded nature of public nuisance as a tort, there is no conceptual reason why greenhouse gas emissions may not constitute a public nuisance, provided the other elements of the tort are also satisfied.

There is, though, the question of the locus of the nuisance. NYE's principal complaint relates to the use of a large amount of concrete, to which some 2,000,000kg of greenhouse gas emissions are attributable. These emissions will not occur at the site of the project, in Norwich. They will arise elsewhere – where the cement for the concrete is manufactured.

Does this make a difference in the public nuisance calculus? Again, the common law places no requirement that the source of the nuisance be proximate to where it makes an impact. A cloud of noxious gas could be released in one part of the country, but if it floats to and affects people in another part of the country it will still constitute a public nuisance. So the lack of proximity between the source of the greenhouse gas emissions and those who complain of them is not a stumbling block.

Accordingly, there is nothing in the common law concerning public nuisance which operates as a conceptual barrier to greenhouse gas emissions attributable to a construction or engineering project constituting a matter which may give rise to a public nuisance. Carbon emissions could constitute a public nuisance just as noise, dust and vibration may.

But there is then a difficulty as to how, from a qualitative perspective, one assesses whether the emissions attributable to a project are "substantial and unreasonable". Every construction and engineering project will cause greenhouse gas emissions to some degree, just as every construction or engineering project will generate noise, and usually dust and vibrations too. Nevertheless, the fact that a person is responsible for producing *some* greenhouse gases does not make that person's conduct unlawful or even unreasonable.

All of us generate CO_2 when we breathe. We live and work in buildings that are responsible (directly or indirectly) for greenhouse gas emissions. Most vehicles on the road use combustion engines, which generate greenhouse gases. The law of public nuisance is not engaged in relation to any of these activities, and it can scarcely be suggested that we act "unreasonably" by breathing, or living in a heated house, or working in an air conditioned office building.[21]

There are no bright lines for "reasonableness" and "unreasonableness" in the law of public nuisance. Whether a potentially harmful or inconvenient matter is so great in its magnitude that the law will restrain it is always a question of fact and degree.

Thus, on the one hand we can say with reasonable confidence that the everyday activities of individuals or businesses which contribute to greenhouse gas emissions are unlikely to be characterised as "unreasonable" in nature, and therefore tortious.

Yet we can equally surmise that the greater the greenhouse gas emissions attributable to any activity, including a construction project, the greater the risk that those emissions (and therefore the project) may be characterised as potentially harmful and therefore "unreasonable" for tort purposes.

[21] *Smith v Fonterra Co-operative Group Ltd* [2021] NZCA 552 at [22]: "it could not seriously be suggested that all activity in New Zealand that produces greenhouse gas emissions is tortious, and thus unlawful, and must stop. It would be nothing short of absurd for a court to find that the common law proscribes most economic activity, and many of the activities that form an integral part of every individual's daily life".

In public nuisance, the emphasis is not on the nature of the conduct giving rise to the alleged disturbance. What matters is the *effect* or *impact* of that conduct.[22] As we will see, below, in relation to the third element of the tort (causation), the characterisation of the impact of greenhouse gas emissions may vary, depending upon whether one considers the absolute magnitude of the emissions in question, or whether one considers if those emissions will have a material impact on global warming.

It is easy, in this regard, to postulate the argument of a claimant group such as NYE: maybe the emissions from this one project will not have an identifiable impact on global warming, but the emissions are very large (2,000,000kg) and are therefore substantial and unreasonable.

As we shall see, in nuisance claims the legal causative threshold is relatively low, in that it is sufficient for a claimant to show that the nuisance of which it claims was one *of many* nuisances which had a collective effect or impact. This suggests that a claimant could succeed in a nuisance claim even if it is unable to demonstrate the actual impact of the particular nuisance of which it complains.

Also relevant in this calculus of "reasonableness" is whether the person who engages in the relevant activity could have lessened or avoided the impact of the activity by adopting different methods.[23] This may be a significant matter in the context of any public nuisance claim predicated on activities giving rise to significant greenhouse gas emissions. There may be ways in which the emissions from certain activities (like construction) can be reduced. Taking concrete as a major cause of carbon emissions, it may be possible to reduce emissions by using what is marketed as "green cement". One manufacturer of "green cement" claims that "Carbon emissions from "green cement" are 99% lower than Portland cement.[24] Other possibilities could be reducing the impact of any unavoidable emissions through a "net zero" approach, e.g. planting trees to offset the carbon emissions from a project. If, furthermore, the statutory planning process through which a development has been subjected took into account

[22] *Smith v Fonterra Co-operative Group Ltd* [2021] NZCA 552 at [72]: "What matters is that the act or omission causes common injury. To put it another way, the focus as a matter of principle is not on the legal character of the act or omission complained of but rather its adverse effect".

[23] Fleming, *The Law of Torts* (LBC, 9th ed 1998) page 464.

[24] https://greencement.com/.

greenhouse gas emissions attributable to the development, that too may be a factor which indicates that the development is "reasonable" because it has been scrutinised from a global environmental perspective.

In all nuisance cases, as a matter of persuasion it is beneficial for a defendant to be able to demonstrate that it has turned its mind to the potential negative impacts of its activities, and has taken reasonable steps to try to reduce or even eliminate their impact. For legal purposes, and indeed as a matter of good business, wise developers will seek to address, in their planning and execution of a project, environmental matters arising from the development.

It is difficult to come to any firm conclusion regarding the first element of the tort of public nuisance, and whether it is made out in our hypothetical example. The magnitude of the greenhouse gas emissions attributable to the project, and how they are viewed by a judge, is something which is not easy to predict.

But if we are able to reach a *tentative* conclusion in relation to this element, perhaps we may say that it is *arguable* that 2,000,000kg of greenhouse gas emissions are unreasonable in the circumstance. By any measure the quantity of gas emissions is significant – it cannot be dismissed as *de minimis*. At the very least, perhaps we can say that there is a *risk* that the size of the greenhouse gas emissions from the concrete will permit a court to form the view that there may be a public nuisance, provided the other two elements of the tort are satisfied.

D. Second element: special injury or loss

The second element of the tort of public nuisance is that the claimants have suffered a special injury or loss to themselves. As Lord Hoffmann summarised the position:

> "the plaintiff has to prove that he suffered particular damage greater than that suffered by members of the public in general. This rule offers considerable scope for dispute on the facts and some of the decisions on injurious affection reflect different judicial views on what amounts to particular damage".[25]

[25] *Wildtree Hotels Ltd v Harrow LBC* [2001] 2 AC 1 at 7 [2].

At first blush this may seem like an insurmountable obstacle for NYE. The Norwich industrial project, if allowed to proceed, will cause an increase in greenhouse gas emissions. Those emissions, together with other greenhouse gases, will add to global warming. Global warming is something that affects all members of the population, not just particular groups. How can the members of NYE say that they will be differently affected than anyone else in Norwich, or indeed England, or indeed the world? Potentially this element may be impossible to satisfy.

But there may be an alternative analysis here, depending upon how NYE present their case. It concerns the ages of the members of NYE. We must recall that the 50 or so members of NYE are all "youth" – aged between 14 and 23. If the average lifespan of an English person is around 80 years, the members of NYE can each expect to be alive for another 60 years or so – hopefully longer. One thing that NYE can therefore say, which older people cannot, is that they will have to live with the consequences of global warming during their lifetimes. By contrast, people who are, say, 60, 70 or 80 years of age will not face the same environmental consequences.

In this way, NYE as a group of litigants may be able to say – and perhaps with some persuasion to a sympathetic judge - that they as a group of people stand to suffer greater impact from carbon emissions, including from the Norwich industrial project, than other groups in English society. These youth will inherit the earth.

Whether such an argument would ultimately prevail is unclear. The tort of public nuisance is ill-defined, including as to when a person will, for the purposes of the tort, be seen as more greatly affected by a matter than another member of the public. It is a "grey area". And the consequence of this may be that we can conclude, as with the first element of the tort, that there is a *risk* of a court or tribunal holding that the members of NYE are a specially affected group.

E. Third element: causation of harm or injury- "special damage"

The third element for a public nuisance action is that the claimant has suffered or will suffer harm or injury as a direct, necessary, natural and immediate consequence of the defendant's wrongful act. In this context, "direct" is to be understood as referring to "particular" or "special" injury or damage, over and above other members of the public, where that "special

damage" is caused or contributed to by the activity said to give rise to the nuisance.[26] In our hypothetical factual scenario the analysis of this third element becomes a little complicated, and it is therefore convenient to break down the analysis into its two sub-elements, i.e. (a) special damage; and (b) causation.

I. Special damage

In more common types of claim based on public nuisance the existence of "special damage" will be apparent. For example, if there is a fire or explosion on a particular site which immediately affects people in the surrounding area, e.g. because they are injured by the fire or explosion or even killed, the event will possess the kind of directness to satisfy the causative requirements of the tort. The people in the vicinity will be particularly affected by the event, separately from other members of the local community or of the wider society.

By contrast, in cases where a construction or engineering project will produce large greenhouse gas emissions, many of which will be emitted remotely from the site (e.g. in manufacturing the cement for the project), that kind of "special damage" is not obviously present. Additionally, the impact of the emissions will not purely be local to persons in the vicinity of the project. The impact is a global one – it affects all humans on the planet, as global warming takes place. Does this present a stumbling block to any public nuisance claim by NYE?

As suggested regarding the second element of the tort, the NYE claimants are at least *arguably* in a different position from other members of the public. They are "the youth" of Norwich, or at least a segment of them. They stand to be impacted by global warming in years to come, whereas older people will be less affected, or for those people near the ends of their lives not at all. They may plausibly contend that their position is different from others, therefore they will suffer "special damage" if the Norwich industrial development goes ahead.

But there is also a formidable argument against this. The argument against it is that *everyone* on the planet is affected by global warming from greenhouse emissions, so no-one (including

[26] *Smith v Fonterra Co-operative Group Ltd* [2021] NZCA 552 at [77]. See also Bullock, "Public Nuisance and Climate Change: The Common Law's Solutions to the Plaintiff, Defendant and Causation Problems" (2022) 85 *Modern Law Review* 1136 at 1138-1139.

the "youth") can claim to suffer "special damage".[27] On its face that argument is manifestly correct, given the global nature of "global warming". The "youth" of Norwich are affected by global warming in the same way as the "youth" of London, or Newcastle, or Manchester, or Sydney, or Los Angeles or even Istanbul. How can NYE claim to be specially affected by greenhouse gas emissions compared with anyone else?

The resolution of this "special damage" conundrum is by no means straightforward, and one of the main reasons for this is that the common law is not prescriptive or formulaic as to how one identifies "special damage". It is conceivable that a court, faced with the issue, could decide the matter either way. Thus, even if there is not an obviously correct answer to the question of whether NYE has suffered (or will suffer) "special damage", there is an appreciable *risk* of a legal adjudicator concluding that special damage is present.

II. Causation

Now we must turn to another difficulty issue: causation.[28] Can the NYE claimants demonstrate in some way that, if this project proceeds – and the calculated greenhouse gas emissions occur – they are likely to be harmed or impacted by *those* emissions?

The project in our working example is a large one, and the carbon emissions are certainly of a serious magnitude – some 2,000,000kg of CO_2 will be produced for this particular project.

Contextually, however, global emissions were 36.8 Gt of CO_2 in the year 2022.[29] The project in Norwich will produce some 2,000 tonnes of CO_2, which is but a tiny fraction of overall global emissions. On this basis, it may be objected that there is no *additional* material harm or damage resulting from this project beyond that which would occur if the Norwich industrial project failed to proceed. In other words, it is impossible for NYE to claim that *this project* will cause them to suffer "special damage" through the Earth's air temperature rising. Global

[27] See *Smith v Fonterra Co-operative Group Ltd* [2021] NZCA 552 at [82].

[28] Perhaps the most difficult issue of all: see Bullock, "Public Nuisance and Climate Change: The Common Law's Solutions to the Plaintiff, Defendant and Causation Problems" (2022) 85 *Modern Law Review* 1136.

[29] https://www.iea.org/reports/co2-emissions-in-2022.

warming will occur due to the vastly overwhelming size of other greenhouse gas emissions. In a global context, the emissions from the Norwich project will be *de minimis*.

This invites consideration of the test of causation which applies in relation to public nuisance claims. In this regard, a claimant in the tort of public nuisance is not required to demonstrate that "but for" the particular activity (in this case, the construction of the new factory in Norwich), the claimant would not be harmed or affected by the activity.

The test for causation purposes is of a lesser character, in that a claimant need only demonstrate that the activity is one of a number of causes – a "nuisance due to many".[30] At first blush, this may suggest that NYE has some possibility of establishing the third element of its public nuisance claim.

However, there is one recent common law case which supports an opposing analysis. The case is *Smith v Fonterra*, in which the New Zealand Court of Appeal dismissed a greenhouse gas claim similar to the one made by NYE in our example. One of the grounds for dismissing the claim, in relation to the aspect of causation, was that the "many" parties contributing to the nuisance must be finite and ascertainable.[31] In the same breath, the New Zealand Court of Appeal reasoned that in a case such as *Smith v Fonterra*, which concerned greenhouse emissions and global warming, the court would not grant an injunction "knowing it would do nothing to stop or even abate the nuisance".[32]

This reasoning may be criticised on two grounds.

First, the New Zealand Court of Appeal cited no authority for the proposition that the "many" parties causing or contributing to a public nuisance need to be finite and ascertainable. Indeed, there is no such authority.[33] In none of the cases referred to by the court concerning public nuisance was it ever suggested that a plaintiff, as a necessary part of its case, must be able to

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[30] *Smith v Fonterra Co-operative Group Ltd* [2021] NZCA 552 at [90]. See also Bullock, "Public Nuisance and Climate Change: The Common Law's Solutions to the Plaintiff, Defendant and Causation Problems" (2022) 85 *Modern Law Review* 1136 at 1155-1167.

[31] *Smith v Fonterra Co-operative Group Ltd* [2021] NZCA 552 at [93].

[32] *Smith v Fonterra Co-operative Group Ltd* [2021] NZCA 552 at [93].

[33] See also Bullock, "Public Nuisance and Climate Change: The Common Law's Solutions to the Plaintiff, Defendant and Causation Problems" (2022) 85 *Modern Law Review* 1136 at 1166-1167.

identify all of the other parties causing or contributing to the nuisance, let alone that they be made parties to the particular proceedings. Indeed, in many cases concerning nuisance (whether public or private), particularly where an owner is seeking to stop a group of environmental activists from disrupting activity on a site through protesting or other action, the injunction will be sought (and granted) against "persons unknown".[34]

Secondly, it is misplaced to suggest that it would be futile to grant an injunction "knowing it would do nothing to stop or even abate the nuisance". The "nuisance" is the activity which gives rise to the harm, injury or inconvenience. In our example the putative nuisance is the construction of the new factory in Norwich, which gives rise to large greenhouse gas emissions. Any injunction would be ordered to stop *those* emissions from arising. However, the fact that an injunction will not prevent *other* greenhouse gas emissions from occurring, or indeed stop global warming, is irrelevant in this nuisance calculus.

Leaving those criticisms aside, it is fair to say that, at present, there are issues of causation which remain unclear as a matter of common law in relation to public nuisance claims concerning greenhouse gas emissions. Claimant groups (such as NYE) may be unable to identify actual harm or injury to themselves so as to substantiate a damages claim, yet the possibility of future harm, at least in a small contributory way, may be sufficient for the purposes of a court granting an injunction to such groups. This, in turn, raises questions of magnitude: how great must emissions be before a court will lend its intervention, to stop those emissions from occurring? How are courts to decide these matters, and whether to grant or refuse an injunction?

A further issue, which will now consider, is whether courts are, as a matter of jurisdiction and/or as a matter of practicality, able to address the large issues of policy arising in environmental claims concerning greenhouse gas emissions.

F. Public Policy

[34] See, for example, *Esso Petroleum Company Ltd v Breen* [2023] EWHC 2013 (KB), which concerned an oil pipeline under construction between Southampton and London. Esso sought, and was granted, injunctions against Mr Breen (the first defendant) and the second defendants who were "THE PERSONS UNKNOWN WHO ARE DESCRIBED IN ANNEX 1 TO THE CLAIM FORM DATED 10 AUGUST 2022".

There is a deep tension in roles and scrutiny when it comes to environmental claims concerning construction and engineering projects.

On the one hand, substantial projects require regulatory approval before they are able to proceed. Any planning approval process will consider the nature of the intended development and the impact of the development on the surrounding area. Modern planning approval processes usually entail consideration of matters relevant to global warming such as energy use and perhaps also greenhouse gas emissions. This begs the question: if a development, such as our hypothetical industrial development in Norwich, is granted permission to proceed, and the development proceeds in accordance with the parameters of the granted approval, what role - if any - should a court have in scrutinising and potentially intervening in the development on environmental grounds, given that the development has already been scrutinised and received statutory approval?

This tension arises because, as we have seen, the granting of a statutory approval for a development does not preclude the construction of the development, or aspects of it, amounting to a common law nuisance (whether a public nuisance, a private nuisance, or both). The existence of a statutory approval for a development therefore does not constitute a defence to a common law claim in nuisance concerning the development, unless the relevant statute itself expressly or impliedly authorises the nuisance (which it rarely does). However, should the courts intervene in such cases, or at least those involving allegations of public nuisance arising from the greenhouse gas emissions attributable to a project? [35]

There are two competing thoughts which may be expressed in answer to this question.

The first focusses on the capacity of the courts to intervene in the first place. As the New Zealand Court of Appeal held in *Smith v Fonterra*:

> "Courts do not have the expertise to address the social, economic and distributional implications of different regulatory design choices. The court process does not provide all affected stakeholders with an opportunity to be heard, and have their

[35] For an illuminating article on this topic taking an international perspective, see Lord Carnwath, "Judges and the Common Laws of the Environment—At Home and Abroad" (2014) 26 *Journal of Environmental Law* 177.

> views taken into account. Climate change provides a striking example of a polycentric issue that is not amenable to judicial resolution".[36]

The second, competing approach is that the very role of the common law is to uphold the rights of individuals against each other and against the state. In the United States of America, where issues concerning the role of government are most rigorously discussed, it has been recognised *by the courts themselves* that legislators are often better placed (as a matter of practicality) to regulate environmental matters, particular in complicated scenarios such as those relating to greenhouse gas emissions.[37] However, unless the role of the courts is clearly and entirely displaced by legislation, under the common law it is the right of every citizen who is relevantly affected by a public nuisance to take their grievance to court, and to have it adjudicated upon by the court. Cases involving greenhouse emissions are complicated – perhaps more so than any other case – but complexity provides no justification from keeping a worthy claimant from vindicating its legal rights in the court room.

G. Drawing the threads together

It is always hazardous to speculate as to future developments, especially in fast-developing areas of law where any one of a multitude of outcomes may occur. That said, it is evident that certain fact patterns – if not trends – are emerging on our legal landscape, at least in the common law world.

First, environmental claims are on the rise, including claims concerning greenhouse gas emissions. A relatively large proportion of greenhouse gas emissions are attributable to

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[36] *Smith v Fonterra Co-operative Group Ltd* [2021] NZCA 552 at [26].

[37] See *American Electric Power Co. v. Connecticut*, 564 U.S. 410 (2011), per Ginsburg J "Judges may not commission scientific studies or convene groups of experts for advice, or issue rules under notice-and-comment procedures inviting input by any interested person, or seek the counsel of regulators in the States where the defendants are located. Rather, judges are confined by a record comprising the evidence the parties present… Notwithstanding these disabilities, the plaintiffs propose that individual federal judges determine, in the first instance, what amount of carbon-dioxide emissions is "unreasonable," …and then decide what level of reduction is "practical, feasible and economically viable"". However, one should not conclude from this that the US courts shun environmental cases. In fact, the US is the most active place on the planet for environmental claims, and in this regard the tort of public nuisance is a substantial weapon of environmental class action litigation. It has been observed in this regard, within the US legal environment, that "Environmental harm is a quintessential public nuisance": Matthew F. Pawa & Benjamin A. Krass, "Global Warming as a Public Nuisance: *Connecticut v. American Electric Power*", 16 *Fordham Environmental Law Review* 407 at 440 (2005).

construction and engineering activities. We should therefore anticipate that the construction and engineering sector will itself face environmental claims related to greenhouse gas emissions.

Secondly, interested persons (such as NGOs) who bring greenhouse gas claims will be creative with how they formulate their claims. If the simple intention of an interested person is to stop a project from proceeding, the legal means by which this is achieved is of no great concern. What matters is stopping the particular project from proceeding. Certainly treaties, statutes and regulatory instruments may establish binding environmental standards which may be relied upon as a basis for seeking legal intervention. But we should also recognise that the common law may proffer additional grounds for legal intervention.

Thirdly, of the potential common law grounds that could be invoked, the tort of public nuisance stands out as a real contender as regards construction and engineering projects to which substantial greenhouse gas emissions are attributable. As was seen above, in our hypothetical example, it may be *possible* for certain groups of people, particularly young environmental activists, to obtain standing and invoke the tort as a basis for seeking injunctive relief to stop a project from proceeding. Although there has not been a case thus far where public nuisance has been relied upon to such an end, the conceptual possibility of such a claim being made is a real one. Given this, and the legal zeitgeist of the mid-2020s, with heightened environmental consciousness, we can at least say that there is a *real possibility* of the tort of public nuisance being used as a legal weapon in the environmentalist's arsenal.

The effectiveness of public nuisance as a legal weapon will always be fact and context dependent, and in this regard important factors in any case will include the volume of likely greenhouse gas emissions attributable to a project, the attempts (if any) made by the developer of the project to minimise greenhouse gas emissions, the ability of the claimant (or claimant group) to single itself out as members of the public who are likely to suffer "special damage" should the project proceed, and also where the sympathies lie of the judge hearing the case.

Returning to our hypothetical scenario: would NYE be likely to obtain an injunction to stop the Norwich industrial development from proceeding, on the basis that the development would constitute a public nuisance? On the postulated facts it is actually difficult to say either way.

But perhaps that is really the point, i.e. that NYE may have an arguable case. Because it is an arguable case it may proceed to trial, as opposed to being dismissed without a trial. Because of this, the Norwich developer (and any other developer in a similar position) faces a legal risk of its project being permanently halted on the basis that the project, if implemented, will constitute a public nuisance. The existence of this new type of legal risk is a matter which developers may increasingly have to be alive to, and address in their project planning and execution.

5. CONCLUDING THOUGHTS

Although the possibility of environmental litigation may be seen as a threat to promoters of construction and engineering projects, the more dynamic actors in the industry are likely to be less concerned. "Being green" is great, not only from an environmental perspective, but also from an economic one. Businesses that fail to address environmental concerns will fall behind, and face extinction. Those that embrace "green building" will prosper. So this may well be a field of commerce where market forces, regulations and indeed tort law have the same direction of travel.

Let me conclude with some thoughts from a remarkable gentleman who lives here in Istanbul, whose public concern for the environment stretches back several decades. I am referring to His All Holiness the Ecumenical Patriarch of Constantinople – Bartholomew I, also known as the "Green Patriarch". He has said and written much on the environment – probably more than any other spiritual leader in history. May I use just one quote from His All Holiness, which pithily sums up the challenge that faces all of us, including in the construction and engineering world, and which also alludes to the opportunity within our grasp:

> "We cannot expect to leave no trace on the environment. However, we must choose either to make it reflect greed and ugliness, or to use it in such a way that its beauty shows God's handiwork through ours."[38]

[38] www.archons.org.

References

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