ENVIRONMENTAL POLLUTION CONTROL IN SINGAPORE: THE INTERSECTION OF TORTS, STATUTES, REGULATIONS AND COMMUNITY NORMS

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Abstract

*Singapore is a land-scarce, densely populated, urbanized and technology-driven society. Despite her image as a clean and green environment, serious challenges remain to keep environmental pollution at bay. Both private and public laws, whether based on statutes or common law, as well as a host of regulations and community norms collectively regulate environmental pollution in Singapore. Statutory provisions targeting environmental pollution rely on criminal punishment, administrative measures and also compensatory damages awarded to victims in the event of breaches of specified statutory duties. The Environmental Pollution Control Act 1999, together with the implementing subsidiary legislation, seeks to minimise or mitigate the effects of air, water and noise pollution. Government agencies adopt preventive, monitoring and/or enforcement measures backed by a plethora of statutes, regulations, international standards relating to environmental pollution. More recently, the enforcement of environmental pollution measures have extended, with the enactment of the Transboundary Haze Pollution Act 2014, to combatting environmental pollution arising from the region. Further, the common law torts of nuisance, negligence and the rule in *Rylands v Fletcher* exist at common law to compensate the victims for the loss suffered arising from activities resulting in environmental pollution. The goals of enhancing environmental consciousness through public education and community efforts have also been emphasised in Singapore. Nevertheless, community mediation efforts have been supplemented by the establishment of Community Disputes Resolution Tribunals to deal with complaints by neighbours of smoke, smells, and littering in the vicinity of the complainants' place of residence.*

Keywords: pollution control, Singapore, torts, statutes, community norms

1. Introduction

Singapore, when she first became independent in 1965, was a typical developing country which had to deal with problems of polluted rivers, the lack of sewage disposal and flooding due to poor drainage. 50 years on, modern Singapore is an urbanised and technologically-driven society with a reputation for being a clean and green city. Without natural resources, she had to depend largely on trade, foreign investments and human capital. With a size of 700 square kilometres and a population of approximately 5.5 million people, Singapore is very densely populated. Given her high population density and resource constraints, Singapore's environmental transformation in the last 50 years has been quite remarkable.

The focus of this essay is to assess Singapore's approach towards regulating environmental pollution in Singapore. The enforcement of environmental law in Singapore is administered by a combination of criminal sanctions, administrative guidelines and civil sanctions¹ and this is no less true in the arena of environmental pollution control. The picture would not, however, be complete without highlighting some non-legal measures the Government and non-government organisations have implemented towards environmental pollution control. We will start by examining the statutory, regulatory and administrative measures to control environmental pollution in Singapore, followed by assessing common law torts, and finally, viewing public education and community efforts.

2. Statutes, regulations and environmental pollution control in Singapore

One major statute is the Environmental Pollution Control Act (EPCA)² which consolidates the laws relating to air, noise and water pollution and pollution via toxic and hazardous substances. Laws on waste management are found in another statute namely the Environmental Public Health Act (EPA).³ The governance structure is as follows: the Ministry of Environment and Water Resources and its statutory boards namely National Environment Agency (NEA) with its Pollution Control Department (PCD) which are responsible for environmental pollution and protection whilst the Public Utilities Board (PUB) takes charge of water supply, sewerage and drainage.⁴

In terms of strategies for environmental pollution control, Singapore pays close attention to prevention, monitoring, and enforcement.⁵ Prevention of environmental pollution is facilitated by proper land-use planning. Building plans for residential and industrial premises must be submitted to statutory agencies including NEA to ensure compliance with pollution control, sewerage, drainage requirements. Subsequent inspections are made by the agency before granting a Temporary Occupation Permit or a Certificate of Statutory Completion. Monitoring of air quality and the presence of air pollutants takes place regularly in Singapore to ensure they are within permitted health levels. Factories are required to conduct

¹ Foo Kim Boo (1997), 'Environmental Criminal Law in Singapore', 9 *SaLJ* 294.

² See Lye Lin-Heng (2000), 'Singapore's New Environmental Law: The Environmental Pollution Control Act, 1999', *Singapore Journal of Legal Studies*, pp. 1-32.

³ (Cap 95, 2002 Rev Ed).

⁴ See Lye Lin Heng (2008), 'A Fine City In A Garden – Environmental Law and Governance in Singapore', *Singapore Journal of Legal Studies*, pp. 68-117.

⁵ Lye Lin Heng (2008), 'A Fine City in a Garden – Environmental Law and Governance in Singapore', *Singapore Journal of Legal Studies*, pp. 68-117 at 78. The remaining focus, public education, will be discussed below.

source emissions tests to ensure compliance with emissions standards.⁶

The regulation and enforcement of environmental pollution standards are effected via the issuances of licenses and permits with environmental pollution related conditions, as well as notices and orders to occupiers and owners of premises to carry out works in order to comply with environmental pollution related standards and requirements. If the occupiers and owners fail to do so, they would have to pay costs, damages and expenses in connection with the execution of the works. In this way, the costs of non-compliance are internalised in line with the “polluter pays” principle.⁷ More specifically, powers are vested in the heads of various statutory agencies to control environmental pollution. The Director of Environmental Pollution Control under EPCA⁸ may, when granting a licence to certain industrial premises, impose conditions to ensure that pollution of the environment as well as hazardous substances are adequately managed and controlled. The Director-General of Environmental Public Health under the EPHA – who is responsible for the cleaning of public streets, public parks, beaches, canals and waterways and the collection and removal of refuse and filth⁹ – is authorised to remove or abate nuisances of a public nature (such as pollution by fumes, vapours, gases, heat, radiation or smells that are injurious or dangerous to health) and take actions against those responsible for the nuisance.¹⁰ Measures may include orders to carry out works necessary to prevent the recurrence of the nuisance or the stoppage of the works.¹¹

Water pollution

The water quality of both inland water bodies and coastal areas of Singapore is regularly monitored based on various parameters.¹² The discharge of wastewater into open drains, canals and rivers is regulated by the Environmental Protection and Management Act¹³ (EPMA) and the Environmental Protection and Management (Trade Effluent) Regulations.¹⁴ The statutes and regulations are administered by the Pollution Control Department of the NEA. Wastewater is required to be discharged into the public sewerage system which serves industrial estates

⁶ Lye Lin Heng (2008), ‘A Fine City in a Garden – Environmental Law and Governance in Singapore’, *Singapore Journal of Legal Studies*, pp. 68-117 at 83.

⁷ Foo Kim Boo (1997), ‘Environmental Criminal Law in Singapore’, 9 *SaLJ* 294 at 297.

⁸ Sections 6 and 7.

⁹ *Environmental Public Health Act* (Cap 95, 2002 Rev Ed), section 5.

¹⁰ *Environmental Public Health Act* (Cap 95, 2002 Rev Ed), sections 43 and 44.

¹¹ *Environmental Public Health Act* (Cap 95, 2002 Rev Ed), section 45.

¹² The parameters monitored include pH, dissolved oxygen, biochemical oxygen demand, ammonia, sulphide, metals, and other physical, chemical and bacteriological parameters. (Cap 94A, 2002 Rev Ed).

¹⁴ (G.N. No. S 160/1999, Rev Ed. 2008).

and residential premises. The PUB administers the Sewerage and Drainage Act¹⁵ and the Sewerage and Drainage (Trade Effluent) Regulations¹⁶ to regulate the sewerage system and the treatment and discharge of industrial wastewater into public sewers.

Noise pollution

Statutory and regulatory control of noise pollution extends to noise in public places, from construction sites and industrial premises, and even in airspace. For the regulation of noise levels from construction sites and industrial operations, the NEA utilise a set of permissible noise limits and durations which depend on the types of affected buildings (for example, hospitals and school with the lowest decibel limits) and the time of the day (whether weekdays or weekends). With regard to the timing, there is a rule prohibiting work on Sundays and public holidays for construction sites located within 150m away from residential premises. Nevertheless, since 1 January 2017, selected construction sites are allowed to carry out construction works on selected Sundays and public holidays provided the contractors obtain a permit from NEA before carrying out such works under specified conditions.¹⁷

Under the Miscellaneous Offences (Public Order and Nuisance) Act,¹⁸ a person who makes any noise by any instrument or other means in such a manner as to cause or be likely to cause annoyance or inconvenience to the occupier of any premises in the vicinity or to any person in any public place will be criminally liable. A person who uses any motor vehicle that does not conform to the standard for noise emission can also be convicted.¹⁹ The owner of an aircraft may be liable for (noise) nuisance unless the aircraft flying over property was at a “reasonable” height given the wind, weather and other conditions.²⁰

Air and vehicular pollution

The Advisory Committee on Ambient Air quality – which was formed by NEA to advise on a set of air quality targets for Singapore – made some recommendations towards achieving the World Health Organisation Air Quality Guidelines. These guidelines provide an “assessment of health effects of air pollution and thresholds for health-harmful pollution

¹⁵ (Cap 294, Rev Ed 2001).

¹⁶ (G.N. No. S 170/1999, Rev Ed 2007).

¹⁷ See “NEA to Allow Quieter Selected Construction Works”, retrieved from <http://www.nea.gov.sg/corporate-functions/newsroom/advisories/nea-to-allow-selected-quieter-construction-works> [accessed 23 August 2017].

¹⁸ (Cap 184, Rev Ed 1997)

¹⁹ *Environmental Protection and Management (Vehicular Emissions) Regulations* (G.N. No. S 291/1999, Rev Ed 2008), Regulation 20.

²⁰ *Air Navigation Act* (Cap 6, 2014 Rev Ed).

levels”.²¹ Singapore continues to use the Pollutant Standards Index (PSI) as a measure of air quality. Information on the PSI with a brief description of air quality in Singapore and health advisories are made accessible to the public via the internet²² and on television.

Vehicles are subject to regular checks for exhaust emissions. Since 2014, all petrol- and diesel-driven vehicles are required to comply with specified exhaust emission standards²³ before they are allowed to be registered for use in Singapore. In addition, it is a criminal offence to use or permit the use of any vehicle on the road which emits smoke or visible vapour according to the Environmental Protection and Management (Vehicular Emissions) Regulations.²⁴ In addition, Government policies seek to control the number of cars on the road as a means to regulate vehicular pollution. These include heavier road taxes being levied depending on engine capacity and the age of the car, the need to pay for Certificates of Entitlement and additional registration fees in order to own a car, and the introduction of electronic road pricing charges.

To enable a smoke-free environment, Singapore has designated a number of prohibited smoking areas:²⁵ reservoirs, parks, void decks, shopping malls, hospitals, and any area within 5m radius of a bus stop. Even in the famous shopping belt in Orchard Road, smoking is allowed only at designated outdoor areas of 10 square metres or less.

Special mention must be made of the Transboundary Haze Pollution Act 2014 as a last resort to control haze pollution in Singapore emanating from the neighbouring Indonesian land and forest fires. The haze is due to the practice of open burning to clear land for agricultural uses in Indonesia, changes in wind direction and the conduct of certain errant companies. To deal with the problem, the statute provides for both criminal sanctions and civil liability (in the form of a statutory tort) and has extra-territorial application²⁶ premised upon the harmful effects within Singapore’s territory.²⁷ It imposes criminal liability upon the “entity” who engages in conduct or condones conduct (whether in or outside Singapore) which causes or contributes to haze pollution in Singapore *and* there is evidence

²¹ See “Ambient (outdoor) air quality and health”, September 2016, retrieved from <http://www.who.int/mediacentre/factsheets/fs313/en/> [accessed 23 August 2017].

²² See <http://www.haze.gov.sg/> [accessed 23 August 2017].

²³ Euro IV (or JPN 2005) and Euro V (or JPN 2009).

²⁴ (G.N. No. S 291/1999, Rev Ed 2008), Regulation 19.

²⁵ See *Smoking (Prohibition in Certain Places) Act* (Cap 310, Rev Ed 2002) and NEA website at <http://www.nea.gov.sg/public-health/smoking> [accessed 23 August 2017].

²⁶ Section 4 states that “This Act shall extend to and in relation to any conduct or thing outside Singapore which causes or contributes to any haze pollution in Singapore.”

²⁷ See S Jayakumar and Tommy Koh (2016), ‘Sovereignty, jurisdiction and International Law’, 25 June 2016, retrieved from <http://www.straitstimes.com/opinion/sovereignty-jurisdiction-and-international-law> [accessed 23 August 2017].

of haze pollution in Singapore at or about the time of that conduct by that entity. Another potential culprit is the entity who “participates in the management”²⁸ of an owner or occupier of any land situated outside Singapore which engages in conduct or condones conduct (whether in or outside Singapore) which causes or contributes to haze pollution in Singapore *and* haze pollution in Singapore occurring at or about the time of that conduct by the second entity.²⁹ In addition, the targeted entities are also subject to civil liability in the event of a breach of statutory duty which results in the victim sustaining personal injury, mental or physical incapacity, death, physical damage to property, or economic loss including a loss of profits in Singapore.³⁰ The accused or defendant can raise the defence that it took all reasonable measures to prevent such conduct by the other entity or individual, or to stop the conduct that had already commenced from continuing.

Due to the practical difficulties of proving that the accused persons or defendants have caused the haze pollution, the statute utilises three novel types of statutory presumptions to alleviate the burden of proof:

(1) The presumption of causation which is based on satellite information, wind velocity and direction and other meteorological information at or about the time of the haze pollution in Singapore that indicate that the smoke resulting from the land or forest fire is moving in the direction of Singapore – s 8(1);

(2) The presumption relating to the identification of the entity engaged in the haze-polluting conduct which flows from the above-mentioned presumption of causation – s 8(2) and s 8(3);

(3) The presumption relating to the ownership and occupation of land from the production of maps by certain approved persons which indicate the ownership and occupation by the entity – s 8(4).

The Director – General may give a preventive-measures notice³¹ to any entity that is directly or indirectly involved in any conduct which is causing or contributing to, or is likely to cause or contribute to, any haze pollution in Singapore. The preventive measures notice may specify reasonable methods to extinguish or prevent the spread of any land or forest fire, to discontinue, or not commence, any burning activities, and

²⁸ Section 3 defines the term “participates in the management” to mean (i) actual participation in the management or operational affairs of the second entity; (ii) exercising decision-making control over any business decision by the second entity to engage in the impugned conduct; or (iii) assuming or manifesting responsibility for the overall management of the second entity or for all or a substantial part of the operational functions of the second entity.

²⁹ Section 5.

³⁰ Section 6.

³¹ That is, a request in writing requiring the recipient to do or refrain from doing an act.

the submission of a plan of action to extinguish or prevent the spread of any fire on any land and to prevent its recurrence.³²

3. Common law torts and environmental pollution control in Singapore

The second category of measures to control environmental pollution – the common law torts – have been transplanted from England subject to the local conditions in Singapore.³³ In terms of *stare decisis*, the Singapore courts may choose to depart from English legal principles (including tort principles) where they cannot be rationally justified or where the socio-economic and political conditions Singapore are materially different from those of England. In one case decided in 2000, the Singapore judiciary extended the right of support for what was *naturally* on the land in an old English case³⁴ to a building sitting on adjacent land.³⁵ The departure or legal extension was justified by the realities of land intensity in modern Singapore unlike in England at the relevant time as well as the extent of damage that may be caused to artificial structures by excavations on adjacent land.

Claims in the tort of *private* nuisance between landowners are quite common in Singapore. Fumes, noise and encroaching branches are just some of the typical forms of nuisance. Singapore courts have dealt specifically with environmental pollution under the tort of nuisance: noise pollution such as in a District Court case³⁶ involving neighbours aggrieved by religious chants (and the burning of joss-sticks), and nuisances due to flooding from water dispensers.³⁷ The common law tort of nuisance protects a landowner from the activities and conditions in neighbouring lands that unreasonably interfere with the landowner's peace and enjoyment of his or her land.³⁸ To determine whether an alleged interference with the landowner's peace and enjoyment is indeed unreasonable, the courts generally have to balance the social utility of the activity on the land and the extent of interference with the plaintiff's use and enjoyment of his or her property.

Other important considerations in the tort of nuisance relate to safety measures in the conduct of activities on one's land,³⁹ the locality where the activity was conducted (for example, whether it is a residential or

³² Section 9 of the *Transboundary Haze Pollution Act* (2014).

³³ The Second Charter of Justice 1826: see *R v Willans* (1858) 3 Ky 16; and Application of English Law Act (Cap 7A, 1994 Rev ed), s 3.

³⁴ *Charles Dalton v Henry Angus & Co* (1881) 6 App Cas 740.

³⁵ *Xpress Print Pte Ltd v Monocrafts Pte Ltd* [2000] 2 SLR(R) 614.

³⁶ *Cheang Peng Yew & Another v Lin Chong Lin* [2012] SGDC 86.

³⁷ *Ho See Jui v Liquid Advertising Pte Ltd* [2011] SGHC 108.

³⁸ Gary Chan Kok Yew (2016), 'Interference with Land', in Gary Chan Kok Yew and Lee Pey Woan, *The Law of Torts in Singapore*, Academy Publishing, Second Edition.

³⁹ *Tesa Tape Asia Pacific Pte Ltd v Wing Seng Logistics Pte Ltd* [2006] 3 SLR (R) 116.

industrial area) insofar as the victim has suffered personal sensible discomfort from the alleged interferences,⁴⁰ whether the acts of the defendant were malicious in nature,⁴¹ and whether it was practicable for the defendant to take measures to minimise the interferences such as noise levels.⁴²

In comparison, in order to establish the tort of *public* nuisance, the activity or condition on the land in question must be sufficiently widespread, that is, it must affect at least a cross-section of a class of the public.⁴³ It must also interfere with a public right (such as the right to the use of public premises) *and* the victim has suffered damage greater than that suffered by the general public.⁴⁴ As a matter of procedure, the victim has to seek the formal consent of the Attorney-General.⁴⁵ In practice, claims in public nuisance are rare in Singapore.

Returning to *private* nuisance actions, the interferences tend to be of a persistent nature and prolonged, though a one-off event resulting from a dangerous activity or condition on the land can at times amount to nuisance. In one local case,⁴⁶ the installation of water chillers on the defendant's premises resulted in flooding of the plaintiff's premises causing property damage. This was sufficient to constitute nuisance though the flooding was a one-off event.

Land use planning permissions can affect the claim under the common law tort of nuisance. As a general rule, an activity on the land that contravenes the statutory land use planning parameters would likely not be reasonable. For example, where the planning permission stipulates terms concerning permitted noise levels, the landowner would be advised to adhere to them. That said, statutory considerations are not conclusive in determining the outcomes in the tort of private nuisance, since the authorities responsible for land use planning are typically more concerned with public interests not the private rights of landowners.⁴⁷

The victim, if he can establish the elements of the common law tort, is entitled to the default remedy of a prohibitory injunction to restrain the plaintiff from continuing with the nuisance activities. Alternatively, the court may make an order requiring the plaintiff to rectify the state of affairs resulting from the nuisance activities (mandatory injunction). Injunctions are normally allowed only where damages would be an inadequate remedy

⁴⁰ *St Helen's Smelting Co v Tipping* (1865) 11 HLC 642.

⁴¹ *Hollywood Silver Fox Farm, Ltd v Emmett* [1936] 2 KB 468.

⁴² *Andreae v Selfridge & Co, Ltd* [1938] Ch 1.

⁴³ *Attorney-General v PYA Quarries Ltd* [1957] 2 QB 169.

⁴⁴ *Tate & Lyle Industries Ltd v Greater London Council* [1983] 2 AC 509.

⁴⁵ Via a relator action under Order 15 r 11 of the Rules of Court (Cap 322, R 5, 2014 Rev Ed).

⁴⁶ *Hygeian Medical Supplies Pte Ltd v TriStar Rotary Screen Engraving Works Pte Ltd* [1993] 2 SLR(R) 411.

⁴⁷ *Lawrence v Fen Tigers Ltd* [2014] 2 WLR 433.

for the plaintiff. Considerations of public interest versus individual rights of landowners are paramount here. The courts may, in the interest of balancing the sometimes countervailing considerations, grant only a partial injunction, for example, by ordering the defendant to reduce the frequency of the alleged nuisance activities.⁴⁸

In addition, the victim is entitled to obtain compensation for foreseeable damages to property or diminution of property value as well as for personal sensible discomfort from the fumes or noise or other interferences as the case may be. Damages for personal injury in the tort of nuisance is, as a general rule, not recoverable. In addition, the courts may exercise discretion in awarding equitable damages in lieu of an injunction.⁴⁹ If the planning agency authorises the activities, this may be a good reason to refuse an injunction and instead award damages.

With special regard to environmental pollution, a separate tort known as the rule in *Rylands v Fletcher*⁵⁰ arose from a case decided in 19th century England. The tort protects a person from foreseeable damage arising from an escape of things accumulated on the defendant's land. The use of the land must be a non-natural use variously defined as non-routine use, extraordinary or special use, or a use that brings with it increased danger to others. In *Rylands*, the defendant's construction of a reservoir with underground shafts led to the increase in water pressure, causing the water to escape through the shafts and damaged the plaintiff's mine. The rule of *Rylands v Fletcher* has recently been subsumed under the tort of nuisance as both cases under *Rylands* and nuisance essentially involve an escape of things from the land.⁵¹ *Rylands* may be applied to the escape of dangerous things such as toxic chemicals or combustible materials thereby causing environmental pollution. Another tort – trespass to land – may also be relevant where the defendant has brought unwanted items (such as rubbish) or left them on the plaintiff's land causing environmental damage.⁵²

For the tort of negligence, as the name suggests, proof of the negligent (that is, unreasonable or careless) conduct of the defendant is essential. In this sense, the threshold of proof is higher than for the common law tort of nuisance and the rule in *Rylands v Fletcher* which are based on strict liability. The tort of negligence has expanded greatly since the 20th century

⁴⁸ *Kennaway v Thompson* [1981] QB 88; *Cheang Peng Yew v Lim Chong Lin* [2012] SGDC 86.

⁴⁹ *Shelfer v City of London Electric Lighting Co* [1895] 1 Ch 287. Equitable damages are normally awarded if the injury to the plaintiff's legal rights was small; the injury was one capable of being estimated in monetary terms; the injury was one that could be adequately compensated by a small monetary payment; and the case was one in which it could be oppressive to the defendant to grant the injunction.

⁵⁰ (1866) LR 1 Exch 265.

⁵¹ *Tesa Tape Asia Pacific Pte Ltd v Wing Seng Logistics Pte Ltd* [2000] 3 SLR (R) 116.

⁵² *Konskier v B Goodman, Ltd* [29128] 1 KB 421.

covering many forms of damage to person, property, and financial losses. A notable negligence case on land pollution arose in *Animal Concerns Research & Education Society v Tan Boon Kwee*.⁵³ The contractor company, which was engaged by the plaintiff owner to construct a shelter for animals, used contaminated materials as landfill to level the site which ultimately resulted in environmental pollution. The defendant, a clerk of works and director of the contractor company, was ordered to pay compensation for the financial losses suffered by Animal Concerns Research & Education Society due to the defendant's negligent supervision of the site.

4. Public education, community norms and environmental pollution control in Singapore

In addition to criminal and civil liability, statutory and regulatory measures on environmental pollution, Singapore has employed softer measures such as public education campaigns and community efforts to help minimise environmental pollution. Below are two illustrations relating to littering problems and disputing neighbours.

Following the amendments to the Environmental Public Health Act in 1992,⁵⁴ persons caught littering may be required to perform corrective work orders namely unpaid work to clean up premises in the public glare. The corrective work orders can arguably serve as a form of deterrence as well as to facilitate public education. Despite this measure, Singapore continues to be plagued by littering problems. The Council of Public Hygiene was officially established in 2011 with the aim of promoting good hygiene practices and to improve personal and public hygiene standards in Singapore. More specifically, it seeks to make Singapore litter-free, spruce up its public toilets and encourage Singaporeans to return their trays at the hawker centres. Singapore has a high number of cleaners relative to her population⁵⁵ thereby earning the euphemistic accolade of being a "cleaned city". The theme of the recent Keep Singapore Clean Movement was to encourage Singapore to move from being a "cleaned city to a truly clean city".⁵⁶ In addition, in line with public educative goal, the Government school students are now given specific instructions by the principals and teachers to keep their class rooms clean.

⁵³ [2011] 2 SLR 146.

⁵⁴ Foo Kim Boo (1993), 'Control of Pollution in Singapore', 5 *SALJ* 81.

⁵⁵ The Chairman of the Council of Public Hygiene stated in an interview: "Taipei, with a few million people, has 5,000 cleaners. Singapore, we have five million people and 70,000 cleaners... It's quite ridiculous": see Rachel Chang (2015), 'Liak Teng Lit: 5 million people, 70,000 cleaners...that's ridiculous!', *The Straits Times*, 16 February 2015, retrieved from <http://www.straitstimes.com/singapore/environment/liak-teng-lit-5-million-people-70000-cleanersthats-ridiculous> [accessed 22 August 2017].

⁵⁶ See Public Hygiene Council website at <http://www.publichygienecouncil.sg/about/about-keep-singapore-clean-movement>

Since its launch in 2013, NEA's Community Volunteer Programme has sought to encourage the community to take ownership of the environment and help tackle the littering problem. The NEA may appoint a Singapore citizen or permanent resident above 18 years old as an auxiliary officer⁵⁷ who is conferred with the same enforcement powers as an officer or employee of the agency⁵⁸ vis-à-vis non-compliant environmental offenders. Previously, only members of Non-Governmental Organisations (NGOs) and public officers could be appointed and vested with such enforcement powers.⁵⁹ The Community Volunteers may be involved in advocacy, outreach and educational activities for issues such as smoking in prohibited places, littering, spitting and urinating in public areas.⁶⁰ The Community Volunteers receive training prior to being appointed as auxiliary officers.

Experience has shown that relying on public education and the soft approach to regulate environmental pollution has its drawbacks. Previously, neighbours feuding over the noise, smells and litter on their premises were encouraged to seek assistance to resolve the disputes through the community mediation centres. However, the community mediators were helpless should certain parties persistently refuse to mediate or to attend the mediation sessions. The mediators were not empowered to issue orders. Tougher enforcement measures were therefore called for to deal with these recalcitrant anti-social persons.

The Community Disputes Resolution Act 2015⁶¹ has created a new statutory tort of interference with a person's enjoyment or use of his place of residence within a 100-meter radius. Following the enactment, Community Disputes Resolution Tribunals (CDRTs) were established in October 2015 to resolve such neighbourly disputes. A substantial majority of the disputes between neighbours relate to noise (nearly 70%) and littering (about 25%)⁶² and are therefore concerned with environmental pollution control in residential premises. The CDRTs have more power than the community mediators to make orders that are enforceable as between the feuding neighbours. Further, there are two advantages of

⁵⁷ *National Environment Agency Act* (Cap. 195, Rev Ed. 2003), section 16A.

⁵⁸ *National Environment Agency Act* (Cap. 195, Rev Ed. 2003), section 42A(3).

⁵⁹ See "Community Volunteer Programme" at <http://www.nea.gov.sg/events-programmes/programmes> [accessed 22 August 2017].

⁶⁰ Loke Kok Fai (2016), 'Volunteers to get anti-littering enforcement powers', 1 March 2016, retrieved from <http://www.channelnewsasia.com/news/singapore/volunteers-to-get-anti-littering-enforcement-powers-8120262> [accessed 22 August 2017].

⁶¹ No 7 of 2015.

⁶² Seow Bei Yi (2016), 'Feuding Neighbours', 24 September 2016, *The Straits Times*, retrieved from <https://www.mccy.gov.sg/~media/MCCY-corp/Topics/Community/Files/24092016-Feuding-neighbours-ST-pB1.ashx> [accessed 22 August 2017]

the statutory tort over the common law tort of nuisance discussed above. First, unlike the common law tort, the victim need *not* be an *owner* of the residence under the statutory tort. Secondly, the court may order an apology by the offending party under the statutory tort in addition to the more typical remedies of injunctions and damages.⁶³

5. Conclusion

We can see from the above that Singapore has utilised a hybrid of non-binding soft guidelines coupled with specific legal enforcement measures. Criminal laws and punishments, administrative measures through licensing and permits by agencies, civil claims by private parties based on common law and statutory torts regulate environmental pollution in Singapore. More public education campaigns to raise environmental consciousness have been undertaken recently though their impact on environmental pollution control remains to be seen. When public education or community mediation efforts were found to be adequate to resolve the problem, the Parliament has stepped in on occasions to fill the gaps with tougher enforcement measures. Overall, the approach to controlling environment pollution in Singapore has been multi-pronged, multi-layered and adaptive to societal circumstances. ●

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⁶³ Community Disputes Resolution Act 2015, section 5. However, whilst the common law tort of nuisance is a strict liability tort, the mental element for the statutory tort is intentional, reckless or negligent conduct that results in unreasonable interference with the neighbour's enjoyment or use of the place of residence: section 4(1).