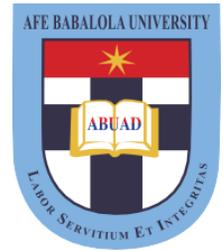




The Journal of Sustainable Development Law and Policy



ISSN: 2467-8406 (Print) 2467-8392 (Online) Journal homepage: <https://www.ajol.info/index.php/jsdlp>

Compensating Toxic Torts in Kenya: Overcoming the Causation Dilemma

Hannah Wamuyu
Collins Odote
Stephen Anyango

To cite this article: Hannah Wamuyu, Collins Odote & Stephen Anyango (2021) Compensating Toxic Torts in Kenya: Overcoming the Causation Dilemma, The Journal of Sustainable Development, Law and Policy, 12:2, 258-281, DOI: <https://dx.doi.org/10.4314/jsdlp.v12i2.5>.

To link to this article: <https://dx.doi.org/10.4314/jsdlp.v12i2.5>



Published online: 20 Nov 2021.

Full Terms & Conditions of access and use can be found at
<https://www.ajol.info/index.php/jsdlp>



Compensating Toxic Torts in Kenya: Overcoming the Causation Dilemma

Hannah Wamuyu, PhD Candidate, Center for Advanced Studies in Environmental Law and Policy. (CASELAP), University of Nairobi, Kenya Email: wamuyuhanna@gmail.com

Collins Odote, Associate Professor, Faculty of Law; Research Director, Center for Advanced Studies in Environmental Law and Policy (CASELAP), University of Nairobi, Kenya.

Stephen Anyango, Associate Professor, Faculty of Law; Center for Advanced Studies in Environmental Law and Policy (CASELAP), University of Nairobi, Kenya.

(Received 21 January 2021; final version received 29 September 2021)

Environmental degradation is at unprecedented level in the world. One of the common causes of environmental degradation is pollution which as a consequence leaves contaminants in the environment. The contaminants in the environment cause many diseases to human beings therefore compromising the ability of the environment to support a healthy life. Appropriate legal mechanisms need to be employed in order to make those responsible for pollution liable for environmental damage. Environmental liability frameworks provide an avenue through which claims are verified in order to ascertain proper claimants as well as identifying the polluters who should be made to pay for harm suffered by the victims of pollution. Toxic tort plaintiffs often face challenges when proving the link between the polluter's activities and their injuries. The inability to prove causation leads to dismissal of cases leaving the victims of pollution without compensation.

The article discusses the pollution problem in Kenya and the causation dilemma that must be tackled by the victims of toxic torts in order to be compensated for their injuries. The article argues that to strengthen compensation outcomes, causation challenges must be addressed within any existing environmental liability framework. The article recommends adoption of a realistic approach by the court when dealing with causation challenges rather than a rigid application of the common law principles which do not favor the process of proving causation for toxic torts. The article proposes an administrative compensation system to complement the adversarial court system and the imposition of strict liability doctrine for polluters responsible for environmental damage.

Keywords: Toxic Waste; Torts: Pollution; Integrated Waste Management; Kenya

1. INTRODUCTION

Toxic torts are attributable to pollution in many forms. Water, air and land pollution are the common forms of pollution that have been given attention in Kenya.¹ Water pollution is the introduction into fresh or ocean waters of chemical, physical, or biological material that degrades the quality of the water and affects the organisms living in it.² The pollutants may range from dissolved or suspended solids to discharge of persistent toxic pollutants such as pesticides, heavy metals, and non-degradable, bio accumulative and chemical compounds.³ Most water sources in the country are degraded due to unsustainable land and water use practices such as industrial pollution and human waste.⁴ The effect of this pollution has adverse impact on human health and the environment. The contaminated water continues presenting a perfect environment for diseases and also diminishes sources of water from which people can access for safe use.

Air pollution causes accumulation of substances in the atmosphere of substances that, in sufficient concentrations, endanger human health and the environment.⁵ The causes of this type of pollution are: burning of solid wastes, industrial processes and transportation which produce pollutants such as carbon monoxide, hydrocarbons, nitrogen oxides, particulates, sulphur dioxide, and photochemical oxidants.⁶ Air pollution is

¹ Government of Kenya, 'State of the Environment Report 2016-2018' (National Environment Management Authority, NEMA - Nairobi State of the Environment 2008).

² Akinwale Coker, 'Environmental Pollution: Types, Causes, Impacts and Management for the Health and Social Economic Well-Being of Nigeria' (University of Ibadan, Ibadan, 2013) 1 <<https://www.semanticscholar.org/paper/TYPES-%2C-CAUSES-%2C-IMPACTS-AND-MANAGEMENT-FOR-THE-AND-Coker/8e7ba9595bab30d7ea87715533353c53f7-452811?p2df>> accessed June 6, 2020.

³ *ibid.*

⁴ Government of Kenya 2018 (n 1) 49.

⁵ Akinwale (n 2) 15.

⁶ *ibid.*

a lead cause of respiratory diseases such as chronic obstructive pulmonary disease (COPD), lung cancer, pulmonary heart disease and bronchitis.⁷ Kenya’s air condition in most major cities and towns has been rated as some of the most polluted in the world and this has had a major effect of have a high disease incidence with respect to respiratory illnesses.⁸

The following table shows an outlook of environmental diseases suffered in Kenya with respiratory illnesses recording the highest number of disease incidence compared to other environmental diseases:⁹

Disease	Number of Disease incidences per year				
	2013	2014	2015	2016	2017
Malaria	8,808,471	9 660992	7663625	8325387	7,958213
Diseases of respiratory systems	14,823,864	17,998,237	18,264,778	19,621,737	14,482,269
Skin diseases inclusive of ulcers	3,648,361	4,556,925	4,755,915	4,409,229	3,261,935
Diarrhea diseases	2,226,107	3,013,256	3,,115,168	2,892,638	2,601,827
Pneumonia	1,282996	1509851	1508212	1616913	1,208,592
Rheumatism, joint pains	1,081,245	1,352,350	1,474,433	1,572,172	1,246,731

Source: Table 66, State of Environment Report 2016-2018(extract)¹⁰

⁷ Dason Kim, et al. “Air Pollutants and Early Origins of Respiratory Diseases, Chronic Diseases and Translational Medicine (2018) 4 (2) Chronic diseases and Translational Medicine<<https://www.sciencedirect.com/-/science/article/pii/S2095882X17301020>> accessed 3 June, 2020.

⁸ Chasant, M., “Air Pollution In Kenya: Causes, Effects And Solutions,” ATCMASK(Accra, 4 July, 2019) <<https://www.atcmask.com/-blogs/blog-air-pollution-in-kenya>> accessed 2 November 2020.

⁹ Government of Kenya (n 1) 141.

¹⁰ Government of Kenya (n 1) 141

Land pollution is another major type of pollution in Kenya that has contributed to disease impact. It is the degradation of the earth's land surface and may result from misuse of the soil by poor agricultural practices, mineral exploitation, industrial waste dumping, oil spills and indiscriminate disposal of urban wastes.¹¹ All these sources of pollution have been present in Kenya. Titanium mining in Kwale and petroleum mining in Turkana have resulted in waste dumps and sample pits that are never rehabilitated.¹² Urban wastes that are largely poorly managed have also contributed to land pollution.¹³ The Dandora dumpsite in Nairobi was found to have high levels of heavy metals and a prevalence of respiratory illnesses affecting the children living near the dumpsite.¹⁴ Kachok dumpsite in Kisumu City suffers high levels of pollution with a prevalence of soil pollution and groundwater pollution.¹⁵ Oil spills have also contributed to land pollution through contamination of the soil and such other ecosystems that make it impossible to safely grow crops and keep livestock.¹⁶ The residents from Thange location in Kibwezi East constituency have suffered from an oil spill detected in June 2015 which contaminated their land and water is contaminated. The residents have lost livestock and experienced crop failure.¹⁷ Most are reported to

¹¹ Akinwale (n 2)10.

¹² Government of Kenya (n 1) 62

¹³ Pierre Falle, 'Assessment of the Environment Pollution and its impact on Economic Cooperation and Integration Initiatives of the IGAD Region; National Environment Pollution Report – Kenya' (The European Union's EDF Programme Eastern, Southern Africa and the Indian Ocean February 2016) 17.

¹⁴ N.Kimani, 'Environmental Pollution and Impacts on Public Health: Implications on the Dandora Municipal Dumping Site in Nairobi (UNEP) <file:///C:/Users/Kariuki/AppData/Local/Temp/Report%20UNEP%20Dandora%20Environmental%20Pollution%20and%20Impact%20to%20Public%20Health%20(2007).pdf > accessed 7 April 2020.

¹⁵ Leah Ombis, Awareness on Environmentally Sound Solid Waste Management by Communities and Municipalities in Kenya (GEF, UNDP, Government of Kenya, October 2017) 24 <https://www.ke.undp.org/content/kenya/en/home/library/environment_energy/Sound-waste-management-bycommunities.html > accessed 1 May 2020.

¹⁶ Phillip Muasya, 'Village awaits Kshs 300 million payout for Oil Spill that killed life on its farms' The Standard (Nairobi, 5 March 2017) <<https://www.standardmedia.co.ke/kenya/article/2001231549/village-awaits300m-payout-for-oil-spill-that-killed-life-on-its-farms>> accessed 7 September, 2020.

¹⁷ Ibid.

have suffered liver toxicity, kidney dysfunction problems, abnormal blood cells, urinary tract infections and are unable to get to get medical attention.¹⁸The high disease incidence attributable to the various forms of pollution discussed calls for appropriate legal responses to ensure that those responsible for pollution compensate those who suffer harm.

Environmental protection measures become essential to safeguard mankind, flora and fauna, the soil, water resources, the atmosphere, against damaging environmental impacts from pollution.¹⁹Environmental liability measures which come in handy to ensure that those who cause harm to others are held accountable and pay compensation for environmental damage. The focus of this article is the environmental liability measures for toxic torts which facilitate compensation for injuries. Toxic torts represent cases filed by claimants who allege personal injury resulting from exposure to toxic substances in the environment.²⁰The toxic substances may either be chemical, biological or radiological contaminants which cause genetic or biochemical disruption that creates an injury that manifests itself after a period of time.²¹

Toxic torts represent a special category of cases because of the challenges the plaintiffs would have to overcome in order to prove causation of injury which is critical for determination of liability of the polluter.²² There is a long latency period that tends to subsist between exposure and illness which makes it is difficult to distinguish the causative agent of disease injury against other background risks which might as well have

¹⁸ Ibid.

¹⁹ Mark Latham et al, 'The Intersection of Tort and Environment Law: Where the Twains Should Meet and Depart' (2011)80 *Fordham Law Review* 742.

²⁰ Harvard Law Review Association, 'Causation in Environmental Law: Lessons from Toxic Torts' (2015) 8 *Harvard Law Review* 2256.

²¹ Steve Gold, 'Causation in Toxic Torts: Burdens of Proof, Standards of Persuasion, and Statistical Evidence' 96(1986) *The Yale Law Journal* 376;Richard Lindgren, 'The New Toxic Torts' *Canadian Environmental Law Association* < https://cela.ca/wp-content/uploads/2019/03/toxic_torts_-pdf> accessed 3 January 2021.

²² Albert Lin 'Beyond Tort: Compensating Victims of Environmental Toxic Injury' (2005) *Southern California Law Review*1441;Lynda Collins and Heather Kilmurray ,*The Canadian Law of Toxic Torts* (Thomson Reuters Canada Limited 2014) 1 .

caused the injury.²³ There could be existence of multiple causes of illnesses and multiple defendants which makes it difficult to identify the causative agent.²⁴ It is important to have a legal and institutional framework that is able to deal with the causation challenges in order to enable compensation for toxic torts. Due to the causation challenges, there is a question whether existing causes of action, such as under common law, constitutional or statutory bases, are capable of obtaining judicial redress for plaintiffs in toxic tort litigation.²⁵

This article examines the causation challenges that impede compensation of toxic torts and possible options that can be used to overcome the challenges. The central argument posited is that an effective compensation framework for toxic torts requires resolving the causation question as a basis for ensuring that there is redress for harm. Section one discusses the problem of pollution in Kenya and the resulting toxic torts. Section two discusses the concept of causation and its implications for environmental compensation. Section three assesses the effectiveness of the Kenyan legal framework in addressing causation challenges. Section four discusses possible reforms which can be made to the legal framework while section five makes a conclusion note.

2. CAUSATION AND ITS IMPLICATIONS ON POLLUTION REMEDICATION

The normative framework that guides the adjudication of claims of environmental harm is founded in the tort of negligence.²⁶ In the context of a toxic tort, one must prove duty of care, breach of standard of care and that the injury suffered by the victim of pollution is caused by the polluter; the

²³ Alan Slagel, "Medical Surveillance Damages: A Solution to the Inadequate Compensation of Toxic Tort Victim", (1988) 63 *Indiana Law Journal* 852.

²⁴ Albert Lin (n 22) 1441, 1442.

²⁵ See (n 21).

²⁶ Albert Lin (n 22) 1445

defendant.²⁷The process of establishing duty of care is generally not a problem in toxic tort cases. The nature of the parties will be considered first. The court will look into the aspect of proximity and foreseeability of harm. Where there is environmental contamination, proximity will generally be established on the basis of foreseeable physical harm.²⁸ The court will then consider if liability is limited by policy considerations which are external factors affecting the relationship of the two parties.²⁹

The court will determine the standard of care applicable and whether or not the defendant's acts fell below the standard of care. The standard of care in any situation is a question of law and establishing whether the defendant fell below the standard of care is a question of fact.³⁰The standard of care applicable is one that would have been adopted by a reasonable man confronted by the same circumstances that will be taken as the measure by which the defendant's actions will be judged.³¹ Legislation is also used to define standard of care especially for industrial operators because of the high risk of pollution involved with such kind of operations.³²

After proving duty of care and breach of the standard of care, a claimant must prove causation, thus the defendant's negligent act or omission caused the damage. Firstly, the court will determine factual causation, that is, whether for a fact the defendant's negligent act or omission caused the claimants damage. The 'but for' test was formulated in *Barnett v Chelsea and Kensington Hospital Management Committee*³³is used to prove factual causation.³⁴ One has to show on a balance of probabilities that 'but for' the defendant's wrongful conduct, the injury would not have occurred.³⁵

²⁷ Ora Fred Harris Jr., 'Toxic Tort Litigation and the Causation Element: Is There Any Hope of Recognition' (1986) 40 SW L.J. 1445.

²⁸ Lynda (n 22) 103,104.

²⁹ This is a two stage test considered in the case of *Anns v Merton London Borough Council* [1977]UKHL4.

³⁰ Chris Turner, *Unlocking Torts* (3rdEdition, Hodder Education 201) 43

³¹ *Blythe v Proprietors of the Birmingham Waterworks*[1856] 11 Ech 781.

³² Chris (n 30) 47.

³³ [1969] 1 QB 428in Turner 71.

³⁴ Chris (n 30) 70.

³⁵ Sandy Steel & David Ibbetson, 'More Grief on Uncertain Causation in Tort' [2011] 70 (2) Cambridge Law Journal 452.

The process of proving causation for toxic tort cases presents challenges that have to be dealt with in order to have a positive liability determination to enable compensation for injuries.³⁶The process involves extensive scientific inquiry which evidence must be presented in court.³⁷There is scientific uncertainty associated with many chemical substances and the manner in which the toxic substances cause the personal injuries in form of diseases is complex and is largely unknown.³⁸The notion of science uncertainty creates a possibility of multiple causes in a claim making it difficult to tell what cause led to the injury suffered.³⁹Further, the injuries are not clinically detectable at the time of exposure but years later after exposure. All these characteristics make proof of causation difficult and the court may not be able to identify the actual cause with accuracy. Consequently, a claimant may be left without compensation which is unfair and unjust. The problem is that the defendant is likely to escape liability if there is no enough evidence to show what caused the harm.⁴⁰

Further challenges are presented by the fact that different standards of proof apply in law and science when determining the element of causation. The scientific community tends to require a high degree of proof almost to the point of absolute certainty.⁴¹ In law, a claimant is entitled to recover if the evidence establishes causation by a preponderance of the evidence which is a probability just greater than fifty percent—that the conduct caused the injury.⁴²In toxic tort actions it is frequently impossible to establish with "absolute certainty" that exposure to a toxic substance caused a particular injury. It is therefore essential to tender evidence in toxic tort cases in

³⁶ Albert Lin (n 22).

³⁷ Chris (n 30) 71.

³⁸ Ora Fred Harris Jr., 'Toxic Tort Litigation and the Causation Element: Is There Any Hope of Recognition' (1986) 40 SW L.J. 912.

³⁹ W.E Peel & J.Goudkamp, Winfield & Jolowicz on Tort (Sweet & Maxwell 2014) 312, 318; Allan Kanner 'The Politics of Toxic Tort Law' (1997) 2 Widener L. Symp. J. 163, 170.

⁴⁰ Kirsty Horsey & Erika Rackley, Tort Law (5th Ed Oxford University Press, 2017) 251.

⁴¹ L Grant Foster, 'A Case Study in Toxic Tort Causation: Scientific and Legal Standards Work against Recovery for Victims' (1988) 19 Envtl L 150.

⁴² *ibid* 151.

terms of probability and not medical certainty.⁴³ Adopting a scientific standard of absolute certainty in establishing cause of injury by the courts leads to a plaintiff's case being dismissed for the inability to prove causation. This is evident in a number of Kenyan cases which have been faced with causation challenges.⁴⁴ Collins and Kilmurray note that courts may be more inclined to assess evidence based on the scientific standard of proof a standard which is approximately 100% which may result in an adverse decision on liability and hence deny the victims compensation if it is not very clear that a pollutant in question caused the injury.⁴⁵

Lin notes that most victims may not be aware that they are exposed to a toxic substance and are injured. Therefore, victims must overcome gaps of knowledge regarding causation, risk and harm to obtain compensation for their injuries.⁴⁶ The tendency of having a long latency period between exposure and illness undermines the process of collecting evidence. Other factors could cause the same kind of injury so one may not know the appropriate time and location to collect evidence. With passage of time the defendant may not be financially stable to settle a claim and then statute of limitation may also form a barrier to the plaintiff's suit.⁴⁷ There is also the problem of high litigation cost which could make the plaintiffs abandon their claims resulting in systemic under compensation of toxic tort victims and under deterrence of polluters.⁴⁸

To deal with the challenge of causation, courts have ruled that the defendant's wrong need not have been the sole cause of the claimant's condition. It has been acknowledged that diseases often have multiple causes, therefore, the court will consider material contribution made by the defendant to the claimant's injury.⁴⁹

⁴³ *ibid.*

⁴⁴ *Eldoret Steel Mills Limited v Jane RodaAdhinga*[2012]eKLR; *Afro Spin Ltd v Peter Wagumo* [2005] eKLR

⁴⁵ Lynda(n 28) 127.

⁴⁶ Albert(n 22) 1445.

⁴⁷ *Ibid* 1446;Palmer J, 'The Inapplicability of Traditional Tort Analysis to Environmental Risks: The Example of Toxic Waste Pollution Victim Compensation' (1983) 35 *Stanford Law Review* 855.

⁴⁸ Albert Lin(n 22) 1441.

⁴⁹ W.E Peel (n 39) 319

In *Fairchild v Glenhaven Funeral Services Limited* the claimant worked for several employers each of whom exposed him to asbestos and hence suffered mesothelioma but it was not possible to identify the place of employment from which he had contracted the disease. It was found that even a single strand of asbestos could cause the disease hence it was difficult to identify the source of the fibre that had caused the tumour. The claimant was entitled to succeed because the employer was deemed to have materially contributed to the injury in question.⁵⁰ The material contribution test is akin to substantial factor test applicable in the US jurisdiction which is viewed as an alternative to 'but for' causation test in a situation where it would be unfair to leave the injured party without a remedy for the reason that an actor could point at another to prevent any proof of causation.⁵¹

Besides factual causation, the court must also establish legal causation or proximate causation. The court will determine whether the damage is sufficiently proximate in law to hold the defendants liable to compensate the victim.⁵² The plaintiff must show that the defendant's breach of duty was so closely connected or proximate to the plaintiff's injury that a court should invoke liability.⁵³ The main question in the determination of the defendant scope of liability is whether the harm in which he sued for was a foreseeable consequence of his negligent act.⁵⁴ This means that liability would still be excluded despite the defendant causing the injury where it is found that the damage was too remote or was not a foreseeable consequence of the defendant's act.⁵⁵ What is foreseeable is judged according to what a reasonable man would have done in the circumstances therefore, there would be liability for unreasonable, unjustifiable, negligent and illegal acts that lead to harm.⁵⁶

⁵⁰ [2002] UKHL 22.

⁵¹ Harvard Law Review Association (n 20) 2260.

⁵² Chris(n 30)71.

⁵³ W.E Peel & J.Goudkamp, Winfield & Jolowicz on Tort (Sweet & Maxwell, 19th Ed 2014) 186.

⁵⁴ Ibid 184

⁵⁵ Chris(n 30) 71

⁵⁶ Overseas Tankship (UK) Ltd v The Miller Steamship Co. [1967] AC 617; [1967] 2 All ER 709; Lynda(n 28)375-379.

Establishing legal causation presents further challenges for toxic torts. The court may determine that at the time of the exposure the state of knowledge of the particular toxic hazard was so limited that the harm the plaintiff has suffered was not 'foreseeable' hence the defendant would not be expected to know of how to control the risk and protect the potential victims.⁵⁷The ultimate injury often arrives far from the defendant's industrial plant and almost always long after any exposure which erodes the plaintiff's chances of recovery. This means that a strict interpretation of this requirement would deny toxic tort claimants compensation.

3. ENVIRONMENTAL LIABILITY FRAMEWORK FOR TOXIC TORTS

In Kenya, there are different liability approaches that can be used by victims of pollution to seek compensation for toxic torts. The victims may file suit under common law torts, statutory law or the constitution. Most toxic torts filed in court are in the nature of occupational claims but increasingly toxic torts associated with industrial operations are being filed in court. The common law of trespass, strict liability, nuisance and negligence are applicable in remedying harm in toxic torts.⁵⁸ The tort of negligence has principally been used to dispense corrective justice with the application of fault based mechanism.⁵⁹As enumerated in the discussions this presents immense challenges when proving liability due to the difficulty in proving causation. The plaintiffs bear the burden of proof on a balance of probabilities and therefore have to surmount the challenges for proving causation. Claimants are more likely

⁵⁷ Jo Goodie 'Toxic Tort and the Articulation of Environmental Risk'(2008) 12 Law Text Culture 73.

⁵⁸ Charles H Sarlo, 'A Comparative Analysis: The Affirmative Defense of an Innocent Landowner versus the Prima Facie Case of a Toxic Tort Plaintiff: Can CERCLA's Innocent Landowner Provision Be Used as a Defense in a Toxic Tort Suit' (1999) 16 Pace Envtl L Rev 246; Richard Lindgren (n 21) 1.

⁵⁹ Mark Latham, Victor Schwartz, and Christopher Appel. 'The Intersection of Tort and Environment Law: Where the Twains Should Meet and Depart' (2011) 80 Fordham Law Review 737,746.

than not to lose on compensation due to the inability to prove causation.

In *Eldoret Steel Mills Limited v Jane Roda*,⁶⁰ the deceased allegedly died of inhalation of harmful fumes that originated from a boiler that he operated. The employer of the deceased was blamed for negligence for failing to ensure that the deceased was working in a safe environment. The lower court awarded the claimant compensation but on appeal it was contended that cause of death had not been proved.⁶¹ In reevaluating the evidence the higher court relied on the findings of the scientific evidence provided by the medical doctor who conducted the post mortem.⁶² The court ruled that there was no evidence found by the doctor that indicated cause of death and hence the death could be attributable to different factors including inhalation of toxic substances as alleged.⁶³ The holding of the lower court was impeached on the basis that there no evidence such as ‘toxic fumes’ that were found in the body. The compensation that had been awarded to the victim’s family was thus set aside.

Similarly in *Afro Spin Limited v Peter Wagumo*⁶⁴ the plaintiff was awarded claimed that the defendant was negligent for failing to provide a safe working environment after suffering an occupational chest ailment which the trial court agreed and was awarded compensation.. The defendant challenged the decision in the High Court which ruled that there had to be professional evidence to show that the dust the claimant had been exposed to was beyond acceptable limits for it to cause injury.⁶⁵ Therefore, the court could not rule out other factors could have caused the ailment. Further, the court pointed out that the evidence of an occupational health specialist would have explained the cause of the ailment. The compensation awarded to the claimant was set aside.

In the two cases, the court seemed to rely on an absolute standard of proof on the scientific evidence presented when

⁶⁰ [2012] eKLR.

⁶¹ Ibid,2.

⁶² ibid, 3.

⁶³ ibid.

⁶⁴ [2005]eKLR.

⁶⁵ Ibid, 3.

proving factual causation. A question arises as to whether justice is served to such victims by absolutely relying on the scientific evidence thus applying 100% standard of proof to determine causation. The court should have delved deeper by applying legal principles to answer the question whether a substance materially contributed to the injury. Failure to apply in full, the said legal principles often result in ineffective liability determination leading to non-compensation of victims of pollution.

However, the problem of proving causation for occupational related claims is addressed through statute, the Workers Injuries Benefits Act (WIBA).⁶⁶ There is a presumption of causation that works in favor of the employee once he proves to be an employee and supports his claim for injury and therefore the burden is upon the employer to disprove causation.⁶⁷ An administrative compensation system is in place that ensures that claimants are compensated when they fulfill all conditions in the Act with respect to supporting their claims for compensation. One of the limitations of the system is that it does not apply to non-occupational cases hence the claimants are to deal with the causation challenges.

Besides common law torts, there are a number of statutory causes of action applicable to toxic torts. While it is beyond the scope of this paper to analyse all statutory causes of action, the paper discusses the liability framework under the environmental statute, Environmental Management and Coordination Act⁶⁸(EMCA) and the Workers Injuries Benefits Act.⁶⁹ Under EMCA, redress for environmental harm can be sought upon breach of the right to a clean and healthy environment.⁷⁰ The court is guided by the principles of sustainable development in determining breach of the right to a clean and healthy development which principles are: the principles of intergenerational and intra-generational equity; the polluter-pays principle and the pre-cautionary principle.⁷¹

⁶⁶ Act No.13 of 2007.

⁶⁷ WIBA, s 39.

⁶⁸ Act No.8 of 1999.

⁶⁹ See (n 67).

⁷⁰ EMCA, s 3(1).

⁷¹ section 3(3) EMCA; the other principles are: the principle of public participation; the application of the cultural and social principles traditionally

The environmental rights are repeated in the Constitution of Kenya (CoK) in article 42, that one has a right to a clean and healthy environment and the rights can be enforced through article 70 of the Constitution. Litigants have often preferred filing constitutional petitions to enforce their environmental rights. One of the major cases that is toxic torts in nature filed under the right to a clean and healthy environment is the case of Kevin Musyoka and others v Attorney General and others⁷² which emanated from the lead poisoning environmental incidence at Owino Uhuru slums in Mombasa County that affected about 3000 residents. The petitioners suffered a number of ailments that are attributed to lead poisoning such as skin ailments, kidney diseases and had to relate the lead poisoning to the injury diseases they had suffered. Just like under common law tort, one must prove causation of injury, thus demonstrate link between breach of right to the injury suffered. The courts resort to common law rules of proving causation which means that plaintiffs have to surmount a number of challenges in order to get an affirmative liability determination. The entrenchment of environmental rights in the CoK was meant to enhance the enjoyment of the right, thus ease process enforcement of the right.

Okpar explains the difficulties of litigants having to deal with the burden of presenting expert opinion in relation to environmental cases which requires immense resources that the litigants rarely have.⁷³ There is lack of clarity in defining the environmental right and its breach is difficult. Enforcement mechanisms need to be laid down in order to fully benefit from the right and argues that the full realization of the right must be driven by the clear wording of the declaration of the right and an enabling statute that provides redress and penalties without making it easy for the polluter to operate with impunity.⁷⁴ Muigua notes that there has been no clear definition

applied by any community in Kenya for the management of the environment or natural resources in so far as the same are relevant and are not repugnant to justice and morality or inconsistent with any written law and the principle of international co-operation in the management of environmental resources shared by two or more states.

⁷² Kevin Musyoka and others v Attorney General and others [2020] e KLR.

⁷³ Okpara, C. I. 'Right to clean and healthy environment: The Panacea to the Niger Delta Struggle' (2012). *Journal of Politics and Law*, 5(1) 5.

⁷⁴ *Ibid*, 7.

or scope that has been provided for the right in the CoK when he wonders “What is the measure for a clean and healthy environment?”⁷⁵ Inevitably, the courts revert to common law approach of proving causation of injury to make a case for compensation of injuries.

In Kevin Musyoka case, epidemiology evidence was used to show link of disease to lead poisoning that was traced to the lead smelting factory that was set up within Owino Uhuru slums.⁷⁶ A team of scientists tested the residents of Owino Uhuru slums for blood lead levels and compared them with the blood lead levels of Bangladesh slum a nearby slum that was located away from the lead smelting factory.⁷⁷ Blood lead levels were found to be higher and were attributed to the factory in the area and the fact that lead levels were also found in the environment.⁷⁸ Further, a representative sample of population, 50 people were tested blood lead levels out of which high levels of 420mg/ml, 234 mg/ml were recorded. All samples were found to have levels that were higher than the acceptable blood lead levels of 10mg/ml for adults and 5 mg/ml for children.⁷⁹

The respondents to the petition contested that causation had not been proved because the area was an industrial zone with other factories in the area and the petitioners had not traced lead pollution to the one company they had sued.⁸⁰ The environmental agency appearing as a respondent argued that the petitioners were obligated to prove that the pollutant which caused the harm was discharged by a known polluter. The environmental agency contested that there was no pre-incident report to show pollution levels in the environment and therefore lead pollution could have been attributed to a

⁷⁵ Kariuki Muigua, ‘Reconceptualising the Right to a Clean and Healthy Environment in Kenya’ 2014 <<https://kmco.co.ke/wp-content/uploads/2018/08/RIGHT-TO-CLEAN-AND-HEALTHY-ENVIRONMENT-IN-KENYA.docx-20th-November-2017.pdf>> accessed January 20, 2020.5.

⁷⁶ Kevin (n 72) 23.

⁷⁷ *ibid* 23-25.

⁷⁸ Nancy Etiang, Wences Arvelo, Tura Galgalo, Samwel Amwayi, and Zeinab Gura; Jackson Kioko; Gamaliel Omondi; Shem Patta; Sara A. Lowther; Mary Jean Brown, ‘Environmental Assessment and Blood Lead Levels of Children in Owino Uhuru and Bangladesh Settlements in Kenya’ (2018) *Journal of Health and Pollution* June; 4,5.

⁷⁹ Kevin (n 72) 25.

⁸⁰ *ibid* 59.

number of factories in the area.⁸¹The court rejected their argument by pointing out the role of state in eliminating processes and activities that are harmful to the environment and therefore, it was the duty of the agency to measure lead levels in the environment.⁸²Hence, the victims of pollution could not be burdened with the responsibility of providing pre-incident reports showing lead levels in the environment. The state could not escape its responsibilities to protect the environment by hiding under the veil of causation complexities.

Nonetheless, the environmental agency has contested the judgement in the Court of Appeal with one of the grounds of appeal being that the claimants were not able to prove causation. This demonstrates that victims of pollution who undertake the constitutional approach for toxic tort claims must surmount the causation challenge in order to get an affirmative liability determination.

All the causation challenges associated with toxic torts if not addressed within a given legal framework can lead to systemic under compensation or no compensation for victims of pollution which would not help to deter polluters from engaging in hazardous activities.⁸³The following section discusses options which if utilized can be critical in mitigating the impact brought about by causation challenges.

4. OPTIONS FOR ADDRESSING THE CAUSATION DILEMMA

There are various options that can be adopted to overcome the causation challenges associated with toxic torts. These entail both administrative and court interventions which have worked well in Kenya and other jurisdictions.

⁸¹ *ibid* 58.

⁸² Constitution of Kenya, art 69 (1) (g).

⁸³ *Albert* (n 22) 1442.

a. Action by the Court

The courts can lead from the front in overcoming the causation challenges. The courts in other commonwealth jurisdictions when faced with complexities of determining causation have adopted a pragmatic and dynamic approach when evaluating the evidence.⁸⁴Causation is regarded as a logical and common sense inquiry rather than a scientific mechanistic calculation that shows the precise contribution of the defendant's negligence that led to the injury.⁸⁵ This opens up to a number of options that have been used by courts to determine causation which allows corrective justice for the claimant.

One of the options used in the case of *Snell v Farrell*,⁸⁶is to infer causation based on the evidence that is available. The question before court was the cause of blindness suffered by the plaintiff which could not be determined with certainty.⁸⁷The negligence by the doctor and the plaintiff's underlying conditions were independent and equally probable causes of the blindness.⁸⁸The court inferred causation based on little affirmative evidence since the plaintiff was able to prove an increase of illness complained of without any evidence to the contrary. The court explained that injustices would occur where a case is dismissed because of using a rigid application of the 'but for' test which is akin to insisting on proof of causation with near 100% scientific precision.⁸⁹Similarly the court in *Clements v Clements* held that where there was evidence that breach of duty led to injury the court could infer causation that the defendant's negligence probably caused the loss.⁹⁰

The courts in the UK have also used similar approaches in addressing causation challenges. In *Fairchild v Glenhaven*

⁸⁴ Lynda (n 28) 131.

⁸⁵ *Clements (Litigation guardian of) v Clements* 2012 Carswell BC1863 in Lynda (n 28) 125.

⁸⁶ [1990] 2 S.C.R 311 (S.C.C) at 326 S.C.R in Lynda, (n 28) 131.

⁸⁷ Erik S Knutsen, 'Ambiguous Cause-In-Fact and Structured Causation: A Multi-Jurisdictional Approach' (2003) 38 *Texas Int'l LJ* 255

⁸⁸ *Ibid.*

⁸⁹ Lynda (n 28) 131.

⁹⁰ *Clements(Litigation guardian of) v Clements* 2012 Carswell BC1863 para 10 in Lynda n 28) 131.

Funeral Services Limited⁹¹ it was scientifically impossible to prove the source of asbestos which had caused the illness.⁹²The breach of duty by the employers was regarded to have materially increased the risk of contracting the disease and it was sufficient to satisfy the causal requirements for liability.⁹³The practice of adopting the pragmatic approach in solving causation challenges would greatly help in solving similar toxic tort cases in Kenya.

The court in Kenya was confronted by causation challenges in the Owino Uhuru case⁹⁴ and the court adopted a pragmatic approach by refusing to adopt the environmental agency's argument that to prove causation the claimants had to trace the pollution to the lead smelting factory that had been cited as one of the respondents. The court pointed out the duty of the government provided in the constitution to guarantee the enjoyment of the citizens' right to a clean and healthy environment by eliminating processes and activities that were of danger to the environment,⁹⁵ which they had failed to do in the case. The causation burden was placed on the state to show lead contamination levels in the environment.

Nonetheless, even where the court is able to deal with causation challenges the court still has to manage other challenges that hamper compensation efforts. The courts are inundated with a backlog of cases and along time is taken to conclude the cases.⁹⁶ The loss of time tends to distort extent of a toxic tort injury which is not static. The case of Owino Uhuru took four years to be completed and to date the victims have not been compensated. The fatalities continue as disease injuries continue to manifest in different ways.⁹⁷ Litigation is viewed as expensive and cumbersome for purposes of remediation of such injury to the human life and

⁹¹ [2002] UKHL 22; See also *Sienkiewicz v Greif (UK) Limited* [2011] UKSC 10.

⁹² *Lynda* (n 28) 133.

⁹³ *W.E Peel & J Goudkamp* (n 39) 172,173.

⁹⁴ e[2020]KLR.

⁹⁵ CoK, art 69.

⁹⁶ Leo Kemboi, 'The Case Backlog Problem in Kenya's Judiciary and Solutions' (Institute of Economic Affairs, April 2021) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3841487> accessed 29 August 2021.

⁹⁷ Interview with Phyllis Omido, Executive Director, Center for Justice, Governance Environmental Action, 5 May, 2021.

environment.⁹⁸Therefore most indigent persons would not be able to sustain a case in court; as a result potential claims would not be compensated.⁹⁹It is highly likely that most cases do not even get to court because of the cost of litigation and therefore an opportunity for compensation is lost. An ideal compensation mechanism is that which provides several alternatives for compensation besides the liability system.¹⁰⁰Such alternatives like the administrative interventions can always be considered for compensation of toxic torts.

b. Administrative Interventions

Courts are associated with rigorous adversarial processes which the claimants must deal with when proving their cases. Scholars have proposed an administrative system which can be used to determine liability and compensation without going to the courts.¹⁰¹Such administrative mechanisms set up under legislative measures employ expert decision makers who can consider scientific information which can help in solving causation challenges.¹⁰²The judges are without such expertise and therefore would not understand most of the scientific information regarding causation presented in court. The administrative mechanism is able to distribute compensation more fairly among a class of victims as scientific methods are employed to identify victims.¹⁰³With courts, only those who are identified through court processes are considered for compensation. In the *Owino Uhuru* case, only nine victims were identified having appeared as petitioners yet about 3,000

⁹⁸ Joanne Blennerhassett, 'Mass Environmental Harm: Massive Challenges and Novel Potential Solutions' *Environmental Liability, Law Practice & Policy* (2016) 24 (5) 155; David E Bronston, 'Compensating Victims of Hazardous Substances Pollution in the United States and Japan: A Comparative Analysis' (1983) 7 *Fordham Int'l LJ* 505.

⁹⁹ Justice Angote, 'Environment and Land Court, Kenya' (Interview May 4, 2021)

¹⁰⁰ Andri Wibisana, 'A Paralysed Environmental law: Critical Comments on Compensation for Environmental Damage in Indonesia' (Bepress), >http://works.bepress.com/andri_wibisana/</> accessed 20 March 2016, 62.

¹⁰¹ Albert Lin (n 22); Palmer J (n 46); Robert L. Rabin, 'Some Thoughts on the Efficacy of a Mass Toxics Administrative Compensation Scheme' [1993] 52 *Maryland Law Review* 951

¹⁰² Albert Lin (n 22) 1465.

¹⁰³ Albert (n 22) 1465

residents were stated to have been exposed to lead pollution.¹⁰⁴ An application was made in court that a call would be made out through the media calling for victims to identify themselves which is highly doubtful that the proposal made could work. The administrative system is viewed as efficient where a standardized schedule of damages is used as a guide for compensation without going through adversarial proceedings which characterize the court system.¹⁰⁵ Such a compensation system is applied for occupational cases under WIBA in Kenya.

Further administrative intervention can be made to deal with the challenge associated with the latent nature of toxic tort injury which makes it difficult to define scope of injury. A risk based compensation system pegged on individual estimated exposure would bring in victims of pollution who are normally left because of lacking recognizable injuries.¹⁰⁶ Air modeling and other scientific methods would be applied to estimate exposure in different environments.¹⁰⁷ Such a system of compensation can be supported by an information database that informs on toxicology profiles for toxic substances.¹⁰⁸ The database can give information on toxicity and adverse health effects for toxic substances. The Environmental Protection Agency (EPA) in the United States of America maintains such an information database which is run by the Agency for Toxic Substances and Disease Registry established by the Comprehensive Environmental Response Compensation Liability Act.¹⁰⁹ This would help demonstrate injuries that victims of exposure are likely to suffer which helps advance case for claimants.

Palmer explains that an administrative compensation system tends to modify common law tort rules to allow for recover where victims would receive compensation a fund set under the system upon a prima facie showing of the cause of action by showing exposure and possibility of specific

¹⁰⁴ See (n 98).

¹⁰⁵ Albert (n 22) 1465.

¹⁰⁶ *ibid* 1487; Palmer J (46) 612.

¹⁰⁷ Albert (n22) 1489.

¹⁰⁸ *ibid* 1491.

¹⁰⁹ *ibid*.

injury.¹¹⁰This would ease the burden of proving causation that has to be borne by the claimant in the court process. Such administrative compensation systems were applied in Japan through statute law in Compensation Act for Environmental Pollution Related Health Injury.¹¹¹ Victims were identified and classified by a team made up of medical officers, environmental health and legal experts according to designated areas determined according to the levels of contamination.¹¹²A similar scheme is in place for occupational cases in Kenya. An employee is entitled to compensation where an employee contracts a disease in the course of employment.¹¹³There is a presumption for cause of injury that is inferred for the benefit of employee if he contracts a designated disease that appears in the second schedule of WIBA for work in which he was employed that is also described in the schedule. The employee only needs to adhere to the provisions of the statute to qualify for the compensation.¹¹⁴

The employee is required to subject himself to a medical practitioner designated by the director of Occupational Safety and Health Services. The process of proving causation is regulated by statute which in effect lessens the burden on the claimant. Such a framework should be put in place for other environmental toxic injuries that are not occupational in nature. Such a compensation system can be set up under EMCA; which has a tribunal in place whose capacity can be enhanced by employing a team of experts who can help determine claims for toxic torts. This would provide more options for compensation for toxic tort victims besides the court system.

Nonetheless, the proffered administrative compensation is not without challenges. From Japan administrative compensation system, a claimant had an onerous burden to prove a certain degree of causation which required degree of

¹¹⁰ Palmer J (n 46) 618.

¹¹¹ Law No. 111 of 1973 in Shiro Kawashima, 'A Survey of Environmental Law and Policy in Japan' (1994) 20 (2) North Carolina Journal of International Law & Commercial Regulation 258.

¹¹² Ibid 258.

¹¹³ Section 38(1) WIBA.

¹¹⁴ Section 38 (3) WIBA.

expertise and resources for collection of evidence.¹¹⁵ There were delays in administering the claims and the compensation proved inadequate because it only covered medical costs. The fund was also underfinanced as it relied on payments from various industries.¹¹⁶ The higher standards of liability imposed on the industries raised concerns and such stringent rules for industries may stifle investment.¹¹⁷ The environmental agencies would most likely be given the mandate of running such a system and yet they perennially suffer from inadequacy of financial resources to run their programs.

However, there is need to mitigate the challenges associated with common law tort system by adopting administrative system can help bolster compensation for victims of pollution and keep in check polluters.

c. The Imposition of Strict Liability

The doctrine of strict liability has been invoked to mitigate toxic tort challenges by fixing liability on the polluter in a number of jurisdictions. The Laws of Peoples Republic of China (PRC) have regulated tort liability arising from environmental pollution by imposing strict liability and having a rebuttable presumption of causation.¹¹⁸ Environmental pollution liability through the Environmental Protection Law is regarded as a special tort liability where “the polluter is required to bear tort liability for damage arising from environmental pollution being the damage to the person, property and the ecology.”¹¹⁹ An environmental pollution tort is recognised as a special tort due to the special nature of damage which is indirect, latent, progressive and severe in nature); besides the inequality in status between the polluter and victim;

¹¹⁵ David E Bronston, 'Compensating Victims of Hazardous Substances Pollution in the United States and Japan: A Comparative Analysis' (1983) 7 *Fordham Int'l LJ* 501,511

¹¹⁶ *ibid* 510.

¹¹⁷ *ibid* 511.

¹¹⁸ Heng Li, 'Legislation and Adjudication of Tort Liability in Environmental Pollution: An Empirical Study Based on Health-Related Cases in China' (2016) 46 *Hong Kong L.J.* 961, 968,965.

¹¹⁹ Environmental Protection Law of the Peoples Republic of China (PRC), Order No.22 of 1989, article 64.

and the aspect of causation being complex and ambiguous.¹²⁰ Therefore the aspects of fault or illegality are excluded under the laws regulating environmental pollution in PRC¹²¹ to enable compensation where there is harm.

Further, the Tort Liability Law of China eases the legal burden of proving causation by placing the burden of on the defendant to prove that there is no causation between the pollutant and the damage.¹²² A plaintiff must at least adduce evidence of correlation between the pollutants and the damage. The polluter can be relieved of the burden of proving causation if the defendant adduces evidence that the discharge could not cause the damage; or the discharged pollutant did not reach the place of damage; the damage occurred before the discharge or any other factor that would negate causation.¹²³ The burden of proof shifts to the plaintiff otherwise the court is likely to rule that there was no causation.¹²⁴ This demonstrates the use of legislation in providing guidance in liability where environmental pollution cases are involved.

Similar provisions for the doctrine of strict liability and a rebuttable presumption of causation can be adopted in our legal framework for toxic torts. This would increase chances of compensation for those who suffer from toxic torts. Potential operators would be more inclined to control pollution to avoid compensation responsibilities which would arise in cases of environmental harm.

However, the application of strict liability is not without limitations. Strict liability is normally invoked for 'abnormally dangerous activities and therefore to determine which substances would qualify to be categorised as such is a difficult task.¹²⁵ The many dangers associated with chemicals are largely unknown and some become dangerous when combined with

¹²⁰ Heng Li (n 118) 968. quoting PJ Strand, "The Inapplicability of Traditional Tort Analysis to Environmental Risks: The Example of Toxic Waste Pollution Victim Compensation" (1983) 35(3) *Stanford Law Review* 575-619.

¹²¹ Tort Law PRC, Decree No.21 of 2009, article 65.

¹²² Tort Law PRC, Art 66.

¹²³ Interpretation of the Supreme People's Court of Several Issues on the Application of Law in the Trial of Disputes over Liability for Environmental Torts, Art 6,7.

¹²⁴ Heng Li, (n 118)970

¹²⁵ Albert Lin (n 22)1445.

other substances.¹²⁶ The latency nature of harm associated with exposure to chemical substances would complicate the task of classifying activities linked to exposure of chemical substances as abnormally dangerous. United Nations Environment Programme (UNEP) notes that strict liability as a standard for liability for environmental harm cases requires a framework of legal certainty without which such a standard of liability would attract a floodgate for monetary claims which would be a financial burden to the investors or the enterprises;¹²⁷ which in effect could stifle investment or economic progress.

5. CONCLUSION

A working environmental liability framework promotes compensation for victims of pollution. It will also promote other tort law objectives of deterrence and corrective justice. It is useful to address causation challenges for toxic torts within any legal framework for redress of harm. This is a priority task for Kenya as a developing nation that is up scaling industrial activities for economic growth. The environment is bound to be negatively affected and therefore, it is important to address causation challenges for efficient liability determination which is critical for achieving compensation objectives. An administrative compensation system will go a long way in complementing the adversarial court system by imposing strict liability for polluters responsible for environmental damage.

¹²⁶ David Prince, *Compensation for Victims of Hazardous Substance Exposure* (1985) *William Mitchell Law Review* 677.

¹²⁷ UNEP, *Environmental Liability and Compensation Regimes: A Review* (Department of Environmental Policy Implementation December 2003) 5