A Comparison of Unlawful Act Regulations In Indonesia and The Philippines Regarding Lake Ecosystem Damage Caused By Invasive Fish Release Programs

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Abstract.
Fish release programs conducted without prior ecological studies frequently lead to the introduction of invasive species that degrade lake ecosystems and destroy the livelihoods of traditional fishers, as exemplified by cases in Lake Toba (Indonesia) and Laguna de Bay (Philippines). This study aims to compare the elements of Unlawful Acts (Perbuatan Melawan Hukum / Tort) and the legal liability frameworks for ecological damage under the civil and environmental law systems of both countries. Utilizing a normative juridical research method with statutory and comparative approaches, the findings indicate that Indonesia relies on Article 1365 of the Indonesian Civil Code (KUHPerdata), which depends on a broad interpretation of societal standards of propriety. In contrast, the Philippines employs the concept of Quasi-Delict (Article 2176 of the Civil Code) using a more objective and pragmatic "ordinary reasonable person" standard. Regarding liability for environmental damage caused by local government institutions, Indonesia's judicial system restricts victims by requiring claims to be diverted to the State Administrative Court (PTUN), which is constrained by an unreasonably low maximum administrative compensation cap. Conversely, the Philippines overcomes civil bureaucratic hurdles through the Writ of Kalikasan, an extraordinary legal remedy that allows courts to issue immediate restoration orders without being hampered by complex individual compensation calculations. In conclusion, the procedural law in the Philippines is far more progressive and effective in addressing ecological disasters compared to Indonesia. Therefore, it is recommended that Indonesian judges adopt more objective standards for assessing negligence, and that the state urgently introduce a specialized legal instrument comparable to the Writ of Kalikasan to ensure direct execution of environmental restoration.

Keywords:*Unlawful Act, Tort, Invasive Species, Ecosystem Damage, Environmental Law, Writ of Kalikasan and Comparative Study.*

INTRODUCTION

Lake ecosystems serve as vital natural resources essential for environmental balance and the economic welfare of surrounding communities. To support food security and boost wild fish populations, local governments and communities frequently initiate fish stocking or restocking programs. In an ideal environmental management and legal framework, any action with the potential to alter the natural landscape must be preceded by thorough ecological assessments. The precautionary principle dictates that fish stocking activities should not cause harm to third parties, as citizens hold a fundamental right to a healthy and productive aquatic environment.

In reality, however, fish release programs are often carried out carelessly without proper oversight or feasibility studies. A prominent example is the release of fish in Lake Toba, Indonesia, largely initiated by local institutions or prominent figures. Instead of yielding economic benefits, the introduction of species later identified as invasive—such as the red devil fish—turned them into aggressive predators against native species. Traditional fishers and environmental advocates continuously report severe drops in daily catches, damaged fishing nets, and the threat of extinction facing native species like the Batak fish (Neolissochilus thienemanni). The loss of fisher livelihoods and the disruption of the food web constitute concrete damages arising from negligence in ecosystem stewardship.

This issue of ecological harm resulting from negligence becomes even more compelling when analyzed comparatively against another jurisdiction facing similar challenges. The Philippines serves as a highly relevant comparative model. As fellow Southeast Asian archipelagic nations sharing tropical climates and similar inland water landscapes, both Indonesia and Philippines rely heavily on freshwater fisheries to sustain coastal and lakeside communities. In the Philippines, the waters of Laguna de Bay experienced a severe collapse in the local economy due to the invasion of knifefish and janitor fish. The introduction of these

species—whether stemming from fish stocking programs or negligent aquaculture containment—wiped out local milkfish and tilapia populations that sustained local fishers. These shared geographical backgrounds and socio-economic harm patterns make a legal comparison between Indonesia and the Philippines highly proportional and insightful.

From a legal standpoint, the material and immaterial damages suffered by communities due to negligent releases of invasive fish can be classified as unlawful acts (torts). Initiators of such programs should be held civilly liable for compensating the resulting harm. Nevertheless, because these actions often intersect with local government authority, civil liability claims are frequently obstructed by administrative law hurdles and the burden of proving fault. Consequently, further inquiry is required into how the legal systems of Indonesia and the Philippines classify such ecosystem damage, and to what extent the elements of an unlawful act can be established against parties responsible for invasive species release programs.

Based on the background outlined above, the research questions addressed in this article are: (1) How do the elements of unlawful acts (torts) compare between Indonesia and the Philippines? and (2) How do the regulatory frameworks governing liability for unlawful acts causing lake ecosystem damage through invasive fish releases differ under the positive laws of Indonesia and the Philippines?

II. METHODS

This study is a normative legal research focusing on the examination of rules, norms, and written positive legal regulations in Indonesia and the Philippines. The approaches utilized include the statute approach, conceptual approach, and comparative approach. These approaches are applied collectively to analyze and compare the civil elements of Unlawful Acts (Torts), specifically concerning ecosystem damage. The legal materials used consist of primary legal materials, including the Indonesian Civil Code (KUHPerdata), Law No. 32 of 2009 on Environmental Protection and Management (UUPPLH), the Civil Code of the Philippines, and its corresponding environmental procedural rules. In addition, this study is supported by secondary legal materials comprising legal literature, judicial precedents, and relevant scholarly journal articles examining legal liability for invasive species introductions.

Data collection was conducted through library research by identifying, inventorying, and reviewing regulatory documents and literature directly related to the research problem. Once collected, the legal materials were processed using qualitative data analysis through a descriptive-comparative method. This analytical technique systematically presents the legal frameworks of Indonesia and the Philippines in turn, comparing both systems to identify differences in establishing negligence and settling compensation, thereby drawing conclusions on which legal mechanism is more rational and effective for restoring ecological damage.

III. RESULT AND DISCUSSION

A. Comparative Analysis of the Elements of Unlawful Acts in Indonesia and the Philippines

1. Regulation and Elements of Unlawful Acts in Indonesia

In Indonesia, the concept of an Unlawful Act (Perbuatan Melawan Hukum / PMH) originates from the Civil Law tradition inherited from Dutch colonial rule, primarily governed under Book III of the Indonesian Civil Code (KUHPerdata / Burgerlijk Wetboek). The primary statutory basis for PMH claims is Article 1365 of the Civil Code, which states: *"Every unlawful act that causes damage to another person obligates the person who through their fault caused the damage to compensate for it."*

Based on the formulation of this article and its development through landmark jurisprudence (notably the Hoge Raad Arrest of January 31, 1919), the cumulative elements required to establish a PMH claim in Indonesia are:

a. **Existence of an (Unlawful) Act:** The act encompasses both active conduct and passive omissions (negligence). The term "unlawful" is interpreted broadly (materially), meaning the act violates not only written statutes but also subjective rights of others, legal duties of the tortfeasor, morality, or societal standards of propriety, care, and reasonableness.

b. **Existence of Fault (*Schuld*):** The tortfeasor must be proven to have acted with fault, which may take the form of intent (*dolus*) or negligence/carelessness (*culpa*). Indonesian civil law fundamentally relies on fault-based liability (*liability based on fault*).

c. **Existence of Damage or Loss (*Schade*):** Real damage must be suffered by the victim as a consequence of the act. This includes material damages (reduction in asset value or expenses incurred) and immaterial damages (pain, suffering, distress, or loss of enjoyment of life).

d. **Existence of Causal Link (*Causaal Verband*):** A logical cause-and-effect relationship must exist between the unlawful act and the harm suffered. Indonesian law generally applies the adequate causation theory (*adequate theorie*), where the act, according to ordinary human experience, could reasonably be foreseen to produce such harm.

2. Regulation and Elements of Quasi-Delicts in the Philippines

The legal system of the Philippines is unique as a mixed jurisdiction blending Spanish Civil Law traditions with American Common Law influences. In Philippine law, the equivalent concept to an unlawful act in civil law is known as a Quasi-Delict or Culpa Aquiliana. The primary provision governing Quasi-Delicts is found in the Civil Code of the Philippines (Republic Act No. 386), specifically Article 2176, which provides: *"Whoever by act or omission causes damage to another, there being fault or negligence, is obliged to pay for the damage done. Such fault or negligence, if there is no pre-existing contractual relation between the parties, is called a quasi-delict..."* Based on Article 2176 and Philippine Supreme Court jurisprudence heavily influenced by Common Law tort doctrines, the essential elements of a Quasi-Delict are:

a. **Act or Omission:** There must be an affirmative action or a failure to act when a legal duty to act exists.

b. **Fault or Negligence:** Assessment of negligence in the Philippines relies heavily on the standard of care test. The Philippine Supreme Court employs the standard of a fictive *"bonus paterfamilias"* (a good father of a family) or an *"ordinary reasonable person"*. If the actor fails to observe the degree of care expected of an ordinary prudent person under similar circumstances, negligence is established.

c. **Damage or Injury:** Actual and proven damages must be suffered by the plaintiff.

d. **Proximate Cause:** Reflecting direct Common Law influence, causation in the Philippines is evaluated using the doctrine of proximate cause—defined as that cause which, in natural and continuous sequence, unbroken by any efficient intervening cause, produces the injury, and without which the result would not have occurred.

e. **No Pre-existing Contractual Relation:** Unlike pure Civil Law jurisdictions, Article 2176 explicitly separates quasi-delicts from breach of contract (*culpa contractual*). A quasi-delict action generally requires the absence of a pre-existing contract between the parties concerning the harmful incident, though modern jurisprudence allows partial exceptions if the breach of contract itself constitutes an independent tortious act.

3. Comparative Analysis of Unlawful Act Elements in Indonesia and the Philippines

The comparative elements of unlawful acts between Indonesia and the Philippines are systematically outlined in the following table:

Table 1: Comparison of Unlawful Act Elements in Indonesia and the Philippines

Comparative Aspect	Indonesia (Article 1365 Civil Code)	Philippines (Article 2176 Civil Code)	Comparative Analysis
Legal System Roots	Pure *Civil Law* tradition (influenced by Dutch *Burgerlijk Wetboek*).	Mixed legal system combining Spanish *Civil Law* and American *Common Law*.	Both maintain codified civil codes, but the Philippines incorporates Common Law methods, particularly in evaluating negligence and causation.

Comparative Aspect	Indonesia (Article 1365 Civil Code)	Philippines (Article 2176 Civil Code)	Comparative Analysis
Primary Liability Principle	Fault-based liability (*Liability based on fault* / *Schuld*).	Fault-based liability (*Fault or Negligence*).	Both jurisdictions require fault or negligence as a general prerequisite before special/strict liability regimes apply.
Standard for Unlawfulness / Negligence	Relies on societal standards of propriety, care, and reasonableness (1919 Hoge Raad material interpretation).	Relies on the objective *"ordinary reasonable person"* or *"bonus paterfamilias"* test.	Indonesia's standard remains broader ("societal propriety"), whereas the Philippines applies a more pragmatic test comparing conduct against a reasonable person in identical circumstances.
Contractual Concurrence	Statute does not explicitly forbid combining PMH claims even if a contractual relationship exists.	Article 2176 explicitly requires no pre-existing contractual relationship (*no pre-existing contractual relation*).	The Philippines maintains a clearer boundary between contract law (*culpa contractual*) and tort law (*culpa aquiliana*) compared to Indonesia.
Causation Doctrine	Adequate causation theory (*Adequate theorie* / *Causaal verband*).	Proximate Cause (*Proximate Cause*).	Indonesia focuses on reasonable foreseeability of damages. The Philippines focuses on whether an efficient intervening cause broken the chain of events.

The comparison above reveals that although both Indonesian and Philippine positive laws originate from civil codes requiring fault-based compensation, their judicial approaches to dissecting these elements differ. Understanding these foundational structures of PMH and Quasi-Delict provides an essential framework for analyzing government liability (Onrechtmatige Overheidsdaad) in environmental management.

B. Comparative Analysis of Regulatory Frameworks on Liability for Unlawful Acts Causing Lake Ecosystem Damage via Invasive Fish Releases in Indonesia and the Philippines

Releasing invasive fish into open waters, even when framed as food security or restocking programs, represents a major ecological intervention that alters natural balances. When such interventions lead to concrete losses like declining endemic fish stocks and ruined local fisher livelihoods—as seen in Lake Toba and Laguna de Bay—liability extends beyond pure civil law between private individuals into environmental law regimes. While both countries treat such acts as serious violations, their enforcement mechanisms and remedy avenues differ significantly.

Under Indonesian positive law, liability for lake ecosystem damage is framed as an Unlawful Act in Environmental Management under the *lex specialis* Law No. 32 of 2009 on Environmental Protection and Management (UUPPLH). Complications arise when local government bodies or officials initiate the program. In such cases, the claim reclassifies as an Unlawful Act by Government Officials (*Onrechtmatige Overheidsdaad* / OOD). Pursuant to Supreme Court Regulation (Perma) No. 2 of 2019, jurisdiction over government PMH claims transferred from District Courts (Pengadilan Negeri) to State Administrative Courts (PTUN).

A major issue with this jurisdictional shift lies in financial recovery for affected fishers. If the PTUN

finds local officials liable for failing to conduct ecological studies, it can order the program halted. However, regarding monetary compensation, administrative regulations severely limit victims. Under Government Regulation No. 43 of 1991, administrative court compensation is capped at a maximum of Rp5,000,000 (five million IDR) per lawsuit. This cap is not calculated per affected individual, but represents the total maximum award per administrative judgment—an amount entirely insufficient for widespread community harm. Consequently, victims must pursue a burdensome dual path: litigating official fault at the PTUN, while filing a separate civil class action in District Court solely to seek full environmental damages without administrative limits.

Conversely, the Philippines features a far more progressive mechanism that sidesteps cumbersome judicial bureaucracy. Under civil law, introducing invasive species causing harm fulfills the elements of negligence or Quasi-Delict under Article 2176 of the Civil Code, while violating the Philippine Fisheries Code of 1998. Recognizing that civil litigation against the state would take years, the Supreme Court of the Philippines enacted the landmark Rules of Procedure for Environmental Cases in 2010, introducing the *Writ of Kalikasan*. This extraordinary legal remedy allows citizens to file claims when environmental damage threatens life, health, or property across two or more cities or provinces.

Through the *Writ of Kalikasan*, fishers in Laguna de Bay affected by knifefish invasions need not calculate individual losses or confront administrative compensation caps. Philippine courts can immediately issue an Environmental Protection Order (EPO) compelling government bodies to take immediate restorative action, such as deploying emergency funds to eradicate invasive species and rehabilitate lake ecosystems. The state is legally mandated to restore environmental harm first, enabling local economies to recover quickly.

Comparing both liability mechanisms, the Philippine framework proves significantly more progressive, responsive, and suitable for ecological disasters. Indonesia remains constrained by jurisdictional fragmentation between civil and administrative courts, compounded by an outdated administrative compensation cap. When invasive species releases occur, current Indonesian procedure offers little more than nominal victories without timely restoration. Indonesian environmental law urgently requires procedural mechanisms akin to the Writ of Kalikasan to allow judges to combine administrative fault determinations with immediate restoration orders.

IV. CONCLUSION

Conclusion

Comparing unlawful act (PMH) elements between Indonesia and the Philippines highlights differences rooted in their respective legal traditions. Indonesia, as a Civil Law jurisdiction, relies on Article 1365 of the Civil Code, where unlawfulness depends heavily on judicial interpretations of societal propriety standards alongside the adequate causation theory. In contrast, the Philippines utilizes a mixed system regulating Quasi-Delicts under Article 2176 of its Civil Code, influenced by Common Law doctrines. Philippine courts apply an objective "ordinary reasonable person" standard for negligence, utilize proximate cause doctrines, and explicitly require the absence of contractual relations. While both mandate fault, the Philippines provides a more objective, situational test for negligence compared to Indonesia's broader standards.

Regarding liability for lake ecosystem damage caused by invasive fish releases, Philippine law demonstrates greater responsiveness and effectiveness. In Indonesia, claims against government initiators are channeled to State Administrative Courts (PTUN) as government unlawful acts (OOD). However, recovery is hampered by jurisdictional split and an unrealistic administrative compensation limit (capped at five million IDR), forcing victims into dual litigation in District Courts for complete relief. Conversely, the Philippines bypasses civil and administrative delays through the Writ of Kalikasan, allowing courts to issue Environmental Protection Orders forcing immediate ecosystem restoration without being tied down by complex individual compensation calculations.

Recommendations

To improve fault evaluation in tort cases, Indonesian law enforcement and judges should adopt more concrete standards of proof rather than relying solely on abstract societal propriety tests. Courts could incorporate pragmatic reasonable person tests (ordinary reasonable person) to assess objectively whether program initiators acted negligently under given circumstances. Objective negligence standards would assist victims and environmental groups in building solid court cases, thereby increasing legal certainty.

To resolve environmental recovery delays, the Supreme Court and lawmakers should revise outdated administrative compensation limits in state administrative disputes. Furthermore, Indonesia should adopt an extraordinary procedural remedy similar to the Writ of Kalikasan. Granting administrative and environmental judges authority to issue enforceable restoration mandates alongside official fault determinations would ensure swift ecological rehabilitation and spare affected communities lengthy civil litigation.

V. ACKNOWLEDGMENTS

The authors express their gratitude to Shinta Pangesti, S.H., M.Kn., lecturer for the Unlawful Acts (Torts) course, for her guidance and academic feedback throughout the preparation of this paper. We also thank the faculty and university library staff for providing access to legal and environmental literature. Additionally, we express our appreciation to environmental advocacy groups and local fishing communities whose discussions on the ecological impacts of invasive species in Lake Toba significantly contributed to refining our comparative legal analysis.

REFERENCES

[1] Ambion, B. C. (1969). Civil law (part III) - Torts and damages. ***Philippine Law Journal***, 44, 100–114.

[2] Cevitra, M., & Djajaputra, G. (2023). Perbuatan melawan hukum (Onrechtmatige Daad) menurut Pasal 1365 Kitab Undang-Undang Hukum Perdata dan perkembangannya. Unes Law Review, 6(1), 2722–2731.

[3] Effendi, H. (2003). Telaah kualitas air bagi pengelolaan sumber daya dan lingkungan perairan. Kanisius.

[4] Harahap, M. Y. (2017). Hukum acara perdata tentang gugatan, persidangan, penyitaan, pembuktian, dan putusan pengadilan. Sinar Grafika.

[5] Hidayati, H., Hanie, M. Z., Ginting, K. H. K., Fadhila, F., & Syawal, F. A. (2025). Analisis status mutu air di Danau Toba menggunakan metode STORET: Studi kasus keramba jaring apung di Desa Tongging. ***Jurnal Surya Teknika,*** 12(1), 95–99. https://doi.org/10.37859/jst.v12i1.9592

[6] Jenny, J. P., Anneville, O., Arnaud, F., Baulaz, Y., Bouffard, D., Domaizon, I., Bocaniov, S. A., Chèvre, N., Dittrich, M., Dorioz, J. M., Dunlop, E. S., Dur, G., Guillard, J., Guinaldo, T., Jacquet, S., Jamoneau, A., Jawed, Z., Jeppesen, E., Krantzberg, G., . . . Weyhenmeyer, G. A. (2020). Scientists' warning to humanity: Rapid degradation of the world's large lakes. ***Journal Great Lakes Research***, 46(4), 686–702.

[7] Kevin, D., & Castro, M. (2019). Tracing evolution of the Philippine concept of extra-contractual responsibility in the context of state immunity from suit: Is a new approach necessary? Estudios De Deusto, 68, 163–201.

[8] Menteri Lingkungan Hidup akan bentuk tim audit lingkungan identifikasi pihak yang bertanggung jawab atas kerusakan ekosistem Danau Toba. (2026, 30 Oktober). Antara News. https://sumut.antaranews.com/berita/675403/menteri-lingkungan-hidup-akan-bentuk-tim-audit-lingkungan-identifikasi-pihak-yang-bertanggung-jawab-atas-kerusakan-ekosistem-danau-toba

[9] Muhaimin, D. (2020). Metode penelitian hukum. Mataram University Press.

[10] Nadjib, M. (2016). Problematika prinsip manajemen kolaboratif dalam kerangka penyelamatan Danau Rawapening. ***Jurnal Masyarakat Dan Budaya***, 18(3), 487–502.

[11] Nontji, A. (2016). Danau-danau alami Nusantara. Puslit Limnologi LIPI.

[12] Priastomo, Y., Sitorus, E., Widodo, D., Marzuki, I., Ghazali, M., Onasis, A., Chaerul, M., Sari, M., Tangio, J. S., & Mastutie, F. (2021). Ekologi lingkungan. Yayasan Kita Menulis.

[13] Prihanto, D. A. (2026, 27 Agustus). KLH bongkar penyebab pencemaran danau. Liputan6. https://www.liputan6.com/regional/read/8278809/klh-bongkar-penyebab-pencemaran-danau

[14] Respicio & Co. (2024). Quasi-delicts. Respicio & Co. Law Firm. https://www.respicio.ph/bar/2025/civil-law/quasi-delicts

[15] Salam, S. (2018). Perkembangan doktrin perbuatan melawan hukum penguasa. Nurani Hukum, 1(1), 33. https://doi.org/10.51825/nhk.v1i1.4818

[16] Sari, I. (2020). Perbuatan melawan hukum (PMH) dalam hukum pidana dan hukum perdata. ***Jurnal Ilmiah Hukum Dirgantara***, 11(1), 53–70. https://doi.org/10.35968/jh.v11i1.651

[17] Silalahi, J. B. I. (2025). Perbandingan struktural dan doktrinal perbuatan melawan hukum di Indonesia dan Filipina: Kajian komparatif hukum perdata berdasarkan Pasal 1365 Kitab Undang-Undang Hukum Perdata dan Article 2176 Philippine Civil Code. ***Jurnal Ilmu Hukum, Humaniora dan Politik***, 6(2).

[18] Zebua, J. K. (2025). A comparative legal study on the regulation of torts in Indonesia and Singapore. ***Journal Research of Social Science, Economics and Management***, 5(5).