# ILLEGAL, UNREPORTED, UNREGULATED FISHING: INTERSECTION WITH ENVIRONMENTAL CRIMES, MONEY LAUNDERING AND LEGISLATIVE MECHANISMS IN MARINE ENVIRONMENTS

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# ABSTRACT

Marine ecosystems and aquatic environments are in grave danger of underwater noise emission, a by-product of humancaused activities like shipping, seismic surveys, extraction of mineral resources beneath the ocean beds, military sonar, and underwater construction. This environmental issue negatively impacts Aquatic Fauna's ability to communicate, navigate, and hunt. Besides issues like Environmental crimes such as Illegal, unreported, unregulated fishing (IUU Fishing), extraction of crude from Oil Rigs, Naval exercises, and Transportation of cargo through merchant shipping could result in harm to their health, genetical mutations, deafness, or even death. Henceforth Illegal extraction of fish and Seafood trading will lead to money laundering through supply chains, processing facilities, and transportation. Environmental Impact Assessment (EIA) standards, Coastal Regulation Zone (CRZ) regulations, the London Convention and its Protocol, and international agreements like the Convention on Biological Diversity (CBD) and the Convention on the Conservation of Migratory Species of Wild Animals (CMS) are just a few of the environmental regulations which are linked to environmental offences associated with underwater noise emission. This doctrinal research paper is focused on the need for immediate action to combat Illegal, unreported, unregulated fishing through underwater noise pollution. Underwater Noise Emissions, crimes, and money laundering originating therefore can be monitored by assessing noise levels, developing best practices for noise reduction, enforcing current legislation, and organising public awareness campaigns through these steps we can protect marine environments and encourage a sustainable coexistence of human activity with marine ecosystems.

**Keywords-** Money-Laundering, Environmental Crimes, Environmental Impact Assessment, Coastal Regulation Zone, Convention on Biological Diversity, Conservation of Migratory Species of Wild Animals.

# Introduction

India is handling the issue of manifold obverse wars like Ecological development and economic development to achieve economic development; ecological development is getting compromised and as a result, we see the destruction of the environment and Ecology. Deforestation which also can be categorized as Illegal logging leads to desertification, the release of particulate matter, industrial emissions, transportation, and the release of ozone-depleting substances which depletes the ozone layer and also pollutes the atmosphere contributing to Air Pollution. By the year 2050 majority of cities in India will face water scarcity due to the depletion of water resources (WWF, 2020), and aquifers; making them polluted, and the dumping of untreated sewage in water leads to water contamination and pollution. Land is getting degraded due to the excessive use of chemical fertilizers for agricultural produce, deforestation and removal of the mulch cover, irregular watering of plants, and the irregular cycle of the rainfall all irregularities are in excess so soil erosion is the closest reference of land degradation as it removes the fertile cover of land which holds utmost nutrients, humidity which can be used for food production and all such issues are proving to be the ailment for the ecological development. Noise pollution is increasing day by day because of the urbanization and modernization of Indian cities hence this issue is recorded higher than it should have been recorded during day and night time, commercial residential and silent zones also meet with the same fate of recording the higher noises viz-a-viz at higher decibels during day and night time. Because of this issue people and other living beings to a lesser or greater extent suffer from auditory disorders, irritation, reduction in work efficiency, and psychological issues. Invoking the concept of noise pollution/emission as Underwater Noise Emission along with other environment-related issues being recorded raises a severe threat to marine Biodiversity.

Underwater noise emission is a grave environmental concern that influences marine life and ecosystems adversely. Underwater noise emission is occurring because of extremely influenced and diverse human activities, such as shipping, oil and gas exploration from the oil rig, military sonar, underwater internet cables, and underwater construction. Underwater noise can intervene adversely with the interaction and communication, navigation, and hunting behaviours of marine animals, such as whales, dolphins, and porpoises. It can also damage their hearing and other physiological functions, leading to injury or death. Had not been the case that oceans are peaceful and noiseless, it has the natural sound of waves, marine aquatics' voice to communicate, earthquakes, breaking up icebergs, and seismic activities occurring below ocean beds in the tectonic plates.

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## Methodology

This research paper explores the contemporary challenges found in Illegal, Unreported, and Unregulated fishing happening in the Bay of Bengal and the Indian Ocean. Doctrinal research methodology is used to analyze laws and regulations that India has ratified and the implementation of other international treaties, and conventions to show how firmly India is committed to stopping IUU and also to prevent money laundering emerging from IUU. Legal analysis is done in the study to show how the government, law enforcement agencies, and public-private collaboration to combat money laundering by supplying aid wherever possible.

#### Case Laws

- 1) After a decade-long pursuit by Sea Shepherd, the illegal fishing vessel *F/V Thunder* was deliberately sunk by its captain during a chase. While the captain and crew faced charges in 2015, investigators later discovered and fined the mysterious owner through cooperation with Spanish authorities (Pirate Fishing Tycoon Hit with €8.2 Million Fine in Spain, 2018). Despite the penalties and a fishing ban, Sea Shepherd insists on criminal charges against the owner given the massive profits from the vessel's illegal activities.
- 2) Spain has imposed massive fines of over €11 million on individuals and companies involved in illegal fishing, notably targeting a Galician group suspected of illegally fishing for Patagonian toothfish in Antarctica ( IUU fishing: Spain announces €11 million penalties against Galicia syndicate, 2015). As part of "Operation Sparrow," the Spanish government has uncovered evidence connecting these entities to ships on an international blacklist for engaging in illegal fishing. This represents the most significant penalties ever imposed by an EU member state for such activities, demonstrating a strong commitment to combating illegal fishing. An alliance of EU non-governmental organizations has praised Spain's latest move, labelling it a significant advancement in the fight against illegal, unreported, and unregulated (IUU) fishing. They encourage other EU countries to take similar actions and enforce strict regulations. New Zealand's Foreign Minister Murray McCully also expressed his support for Spain's efforts. He highlighted the significance of global cooperation and enhanced legal frameworks in eradicating illegal fishing practices.
- 3) IUU Fishing along with the transnational maritime security challenge, is also considered to damage the marine environment and Biosphere. It costs estimated around US \$ 23 Billion annually. By partnering with various nations through "white shipping agreements" and establishing similar centres in Singapore and Madagascar, India's Indian Ocean Region Information Fusion Centre (IOR-IFC) has significantly improved Maritime Domain Awareness (MDA) in the Indian Ocean region (Singh, 2023). This cooperative approach, which combines data from multiple sources, demonstrates the effectiveness of capacity building through collaboration.

# **Interlinking Underwater Noise Emission and Marine Ecosystem**

The ecosystem and marine life are both impacted by underwater noise emissions, which are now rising as a major environmental problem. Numerous human endeavours such as shipping, oil and gas exploration, oil extraction from the oil rig, underwater construction, military sonar, and laying down internet cables are a few of the underwater environment, breaking polar ice is the issue to be blamed which also violates the Environmental Impact Assessment (EIA) norms and regulations by rebelling against the notification requirements of the Coastal Regulation Zone (CRZ), which forbids any actions that result in noise pollution in coastal regions. Basic survival skills for aquatic fauna such as communication, navigation, migration, and hunting skills of marine creatures, including porpoises, dolphins, and whales, can be disrupted by underwater noise emission. Moreover, it can harm or even kill them by impairing their hearing and other physiological processes. So all these activities are contributing to the excessive noise emission by anthropogenic means along with natural noise emission. One of the main causes of the rise in ocean noise levels worldwide is the ongoing movement of ships. In Indian water bodies, the underwater sound pressure is measured in decibels compared to (Awati, n.d.) one micro-Pascal (dB re 1 µ Pa). Due to such noise emission adverse effects on aquatic fauna happen such as constraining (Chao Peng, 2015) acoustic communication, damage to auditory sensitivity which leads to a reduction in hearing tolerance, damage to internal fibres, statocysts (organs of balance found in aquatic invertebrates), stomach and digestive areas gets adversely affected. Moreover, there is a psychological impact like a deficiency in defensive activities against predators for guarding eggs and small fish, more aggressive in defending the territory. Moreover due to a breach of the London Convention (1948, n.d.) (1972) and its Protocol (1996), which prohibit the disposal of garbage and other materials into the ocean and mandate the mitigation, containment, and eventual abolition of the pollution that results from such disposal also causes aquatic pollution along with underwater noise emissions which keeps the aquatic fauna open towards two front wars against underwater noise pollution and aquatic pollution due to dumping of wastes. The failure to comply with the conditions of the Convention on Biological Diversity (CBD) (CMS Secretariat, 2011), which requires the parties to prevent or limit the adverse impacts of human activities on the marine environment to conserve and make sustainable use of biodiversity, is another problem aquatic wildlife faces. The Convention on the Conservation of Migratory Species of Wild Animals (CMS Secretariat, n.d.) (CMS) is being violated. The purpose of the convention is to safeguard migratory aquatic species and their habitats, as well as to work together to mitigate certain obstacles to migration, like noise pollution. CMS encourages governments to do marine acoustic sensing along with habitat mapping of the aquatic species to declare those mapped areas conserved for such migratory species. The Convention on the Conservation of Migratory

Species of Wild Animals (CMS, n.d.) specifically instructs the parties to acknowledge the need and also to take action against migratory species that are on the verge of extinction.

Legislative Mechanism to Safeguard Marine Ecosystem from Underwater Noise Emission and Other Marine Pollution

Every year June 5 is observed to celebrate the International Day for Fight against Illegal, Unreported, and Unregulated Fishing by the United Nations General Assembly (UNGA) to address the same issue. India amongst the other countries is the second largest fish producer contributing 7.56 % of the global production and contributing almost 8.5% of the country's Gross value added thus generating a source of employment for 14.5 million people, moreover to augment Blue Revolution Indian Government has approved Pradhan Mantri Matsya Sampada Yojana to enhance fish production with a growth rate of 9% and to achieve the target of 22 Million Metric tonnes by the year 2024-2025 as this scheme will provide benefit in two different components of Central Sector Scheme and Centrally sponsored scheme with an outlay of Rupees 20,000 crores. (Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairving, 2021). The northern region of the Indian Ocean is witnessing the presence of 250 Chinese ships, and other countries which are monitored by the Information Management and Analysis Centre and have recorded more than 390 incidents of IUU which poses a security threat. (THE HINDU, 2022). Environment Impact Assessment (EIA) report has various heads regarding pollution emission, functions, and control and when not able to control pollution then the head to mitigate and steps further regarding the pollution should be mentioned during the Environmental Clearance for certain projects. Even when projects are laid down over the ocean floor at that time also what kind of projects will be laid on the land and its impact will be mentioned. When any activity is done on the ocean floor then it is the use of land and if pollution is created then to mitigate that pollution steps such as tree plantation and, the use of advanced technologies, etc. should be mentioned and implemented. If any such underwater activities or projects have been started without environmental clearance then the government on receiving a complaint or by its check government can disconnect the supply of resources to continue that project/s, can ask for penalties and compensation, and can also ban the project to continue ahead.

The Coastal Regulation Zone (CRZ), 1991 prohibits underwater activities like blasting, dredging, and use of coral and beaches yet certain activities are conducted underwater moreover in CRZ notifications 2011, under CRZ-IV there is no restriction on traditional fishing and the benefit of this unrestricted fishing is taken and because of that, there is an increase in Illegal, Unreported, Unregular fishing, pollution from oil and gas exploration and drilling, mining, boat house, and shipping. CRZ, 2011 rules (Ministry of Environment, Forest and Climate Change, 2011) also mention the rapid EIA report, clearance should be allowed for 5 years and No Objection Certificate should be derived from the concerned Pollution Control Board for the clearance of the project. Control of all sources of marine pollution including the prevention of dumping in the sea is governed through the London Convention, which pushes to "prevent all kinds of marine pollution" (Offices of the Secretariat CMS 1948, n.d.) which also includes underwater noise emission. Looking after multiple threats addressed to the Marine ecosystem regarding underwater noise emission, the Conference of the Parties to the Convention on Biological Diversity took address through COP 12 Decision XII/23 held in October 2014 (CBD, 2014) mentions to mitigate the negative effects, also addresses the governments, native communities, and other interested stakeholders to take legal action at both; a national and international level. The proposals include classifying noises, carrying out additional studies, creating quieter technology, and factoring noise concerns into planning for marine management. To help nations address the problems of underwater noise, the statement asks intergovernmental organizations to work with industry sectors and international agencies to collaborate.

Interlinking Money Laundering and Illegal, Unreported, Unregulated Fishing through Underwater Noise Emission

Due to the gravity of the noise pollution that lasts long enough, it may cause temporary hearing loss. Marine animals suffering from both temporary and permanent hearing loss have decreased social connections, capacity for reproduction, feeding efficiency, and predator detection abilities. (SINAY MARITIME DATA SOLUTION, 2022). Dolphins and whales getting stuck on the ocean shores, often as a result of naval sonar activity, are one example of underwater noise pollution. As a result, these tendencies may cause vascular damage to these mammals' brains, lungs, and other organs. On Tasmania's west coast, 450 pilot whales became stranded in September 2020 due to ruthless fishing, underwater pollution and seismic blasting as veterinarians also believed that there were no signs of any injury to them. (Rafqa Touma, 2023). In Australia's history, this was the highest number of whales to become stuck. 108 of the whales were saved by rescuers, and the other creatures were put to death. Due to underwater noise emission, there's an impact on the natural living of the aquatic fauna. Because of this, there is an increment in illegal fishing, document forgery, money laundering, and drug trafficking which is an economic crime and environmental crime.

The proceeds of crime may penetrate the fishing industry's supply chain at various points in time. Offenders have the option to spend unlawful funds on new infrastructure during the preparation stage, such as transportation, fish processing facilities, or fishing gear. (Julian Dixon, 2021). Cash payments to crew members or the sale of fish at ports are two further ways that illicit money might be laundered. Criminals frequently establish shell corporations to cover up their illicit operations. It frequently involves an ambiguous corporate structure in which the beneficial or genuine owner is not the legal owner. Moreover, too extraction of the resources done by the criminals can surface when there is an audit of the

actual data furnished by the company and data shown on the government portal and when both data match elsewhere the money laundering can never surface.

The IUU Fishing index represents India at 4<sup>th</sup> rank out of 153 countries in the year 2023 which shows that position of India is worst in case of prevalence-the areas that show the suspected place of IUU fishing, response means measures taken by the government to combat IUU Fishing, and vulnerability i.e. those elements that show the risk factor of IUU Fishing near in managing coastal areas, flag states where the ship is registered and that country/state have particular authority over that ship, port, and general responsibilities. (Poseidon Aquatic Resource Management Ltd., 2023). India's score in the year 2021 was 2.36 which shows a worsening performance in the year 2023 along with southeast Asian countries.

Crimes happening in this sector happening in this sector usually don't originate from the fishing but from the shipping vessels and agencies related to fishing by forging bills, fishing licenses, and tax evasion to cover the means of the crime committed. Vessel owners don't report the fishing they have done as they are using unregistered ships and the profits that they generate are money laundered from IUU. To combat money laundering, the utilization of Anti Money Laundering policies by cooperation between countries should be adopted and can be involved through Satellite technology improvements and data from organizations such as Global Fishing Watch provide opportunities for increased cooperation among banks, law enforcement, and the fishing industry. (Andrew Arlotto, 2022). Banks can use satellite images and ecosystem mapping to locate boats engaged in unlawful fishing. They can use data analysis to trace the boats' ultimate owners and work with law enforcement to stop funding these operations and punish the responsible parties, which will ultimately help the fight against illegal fishing.

India having vast coastal areas is exposed to IUU and money laundering happening from it, hence needs to establish and strengthen its relations with other countries having sea trade, also vessels using the Indian Ocean for trade should be kept under check through White Shipping Agreements or similar agreements as nearly 90% of trade is passed through maritime route. In the Arabian Sea, oceanfront regions like *Gujarat, Maharashtra*, and *Goa*; In the Bay of Bengal, oceanfront regions like *Odisha, Andhra Pradesh and Tamil Nadu* are a few of the coastal areas where IUU can happen and can extend to other areas also.

To prevent such money laundering the assessment committee will decide the particular month in which the audit can be done and the audit of the data like warehouse, products, IT returns and other tax documents will be verified and need to be matched with data filled to the government. So Environmental audits should be done by environmental institutes for a longer period than in the natural course of the audit to analyze the environment getting misused or degraded.

## Suggestions & Conclusions

- Algorithms can be useful in detecting financial transactions and money laundering, such algorithms can be
  examined as they are running on various websites to connect customers. Hence excess or unusual financial
  transactions or the surfing of such website pages can lead to the flow of illicit funds and a point source of the
  environmental crime of illegal, unregulated, uncontrolled fishing.
- There should be a Memorandum of Understanding between financial companies and the government to assist in disclosing the flow of money laundering. Companies are working for the financial benefits and the government for the revenue but the crux of certain doctrines as the precautionary principle, polluter pays principle, and public trust doctrine should be considered before drafting the policy to achieve economic and ecological development.
- The effects of such illicit, unreported, unregulated fishing and seabed mining on the environment are unknown, especially concerning fine sediment disruption and the entry of toxins into food webs. Depending upon the nature of the business, which is very certain government should characterize customers' needs, and businesses, and suggest maintaining books of account as per the mutual needs of customers and the government.
- The scope of Corporate social responsibility should be increased on the companies and along with a monetary approach focus on the ethical use of the state's resources should be made and an audit report should be made public after assessment by the government. These joint efforts can put a check on noise emissions, environmental crimes, and money laundering and all at once can be curbed gradually.
- Focus on achieving SDG 12, SDG 13, SDG 14, and SDG 15 which are responsible consumption and production, climate change, life below water, and life above land can be focused on and achieved if certain issues are separately or jointly focused on bringing the solution as the world is facing issues like deforestation, various pollutions, water crisis by the year 2050, contemporary issues money laundering from environmental offences.
- The push for enforcing laws more strictly, working with collaboration between businesses and the government, and combining financial and environmental audits can curb the issue of Environmental crimes and money laundering gradually. Any person once who made the list of suspected presence in the IUU should be banned from giving access to such domains and the government should make a database consisting of information of such people who were engaged in IUU and henceforth any institutions engaged in IUU can also be traced down.

• Patrolling at suspected places and where the government reported the IUU should be increased; lack of patrolling may increase the security threat.

Environmental degradation, particularly the increasing noise pollution in the oceans, is a major obstacle to protecting marine ecosystems and implementing international sustainability goals. This noise pollution is primarily caused by various underwater activities, such as shipping, oil and gas exploration, military sonar, and construction projects. These activities harm marine life and disrupt their ecosystems. Additionally, illegal, unreported, and unregulated (IUU) fishing contributes to these issues, further complicating the conservation and management efforts. International agreements like the CBD and CMS, and national laws like the CRZ guidelines, are not being enforced effectively. This is exacerbated by the link between money laundering and environmental crimes, as profits from illegal fishing are often laundered through various channels.

To tackle complex issues related to illegal fishing, a comprehensive approach is required. This involves enhanced collaboration among governments, banks, law enforcement, and environmental organizations. Initial steps to address these problems include: 1. Implementing anti-money laundering (AML) regulations to prevent the financing of illegal activities. 2. Using satellite technology and data analysis provided by organizations such as Global Fishing Watch to monitor fishing activities. 3. Promoting corporate social responsibility (CSR) initiatives to encourage ethical practices in the fishing industry. Prioritizing United Nations Sustainable Development Goals (SDGs) 12 (responsible consumption and production), 13 (climate action), 14 (life below water), and 15 (life on land) can establish a framework for collaborative action on environmental conservation. To ensure accountability for environmental violations and money laundering, it is essential to enforce laws rigorously, increase patrols in areas vulnerable to illegal, unreported, and unregulated (IUU) fishing, and make audit reports accessible to the public.

To preserve marine ecosystems for both present and future generations, a multifaceted approach is needed. This approach should address the detrimental impacts of illicit fishing, noise pollution in underwater environments, and other criminal activities connected to these issues. By incorporating efforts related to economic growth, environmental safeguards, and effective regulation, a comprehensive strategy can be developed to safeguard marine ecosystems.

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