

A Critical Analysis on Exploitation of Marine Species with Special Reference to Tamil Nadu

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ABSTRACT:

Marine ecosystems, vital for global biodiversity and human well-being, are facing unprecedented threats due to unsustainable exploitation of marine species. Overfishing, illegal fishing, habitat destruction, and destructive fishing practices have led to the decline of marine populations and the degradation of marine habitats. Marine species exploitation is a pressing global issue with far-reaching consequences for ecosystems and human societies. Addressing this issue requires a balance between human needs and the preservation of marine biodiversity, emphasizing sustainable practices and international cooperation to protect fragile ecosystems. This study aims to assess illegal fishing practices as the primary cause of marine species exploitation in India. A survey of 204 respondents was conducted using a convenient sampling method. The findings reveal that a significant majority of respondents (81%) perceive illegal fishing practices as the primary driver of marine species exploitation. Additionally, a substantial portion (72%) recognizes the diverse methods of exploitation, including overfishing, habitat destruction, and destructive fishing practices. Respondents also highlighted the negative impacts of marine species exploitation on human communities, ecosystems, and food security. These findings underscore the need for effective enforcement of fisheries regulations, sustainable fishing practices, and public awareness campaigns to address the multifaceted issue of marine species exploitation and protect marine biodiversity.

KEYWORDS: Oceanic resources, Biodiversity, Blue Revolution Scheme, Overfishing and Climate change.

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I. INTRODUCTION:

Aim: To critically analyze the patterns and impacts of marine species exploitation in Tamil Nadu, with a focus on identifying unsustainable practices, assessing their ecological consequences, and proposing sustainable management strategies to ensure the long-term health of marine ecosystems and the livelihoods of coastal communities.

Objectives :

- To examine various forms of exploitation of marine species.
- To analyse the impact of exploitation of marine species.
- To examine the destruction of critical marine habitats.
- To analyse Illegal fishing practices is the primary cause.

Evolution of the topic: The exploitation of marine species refers to the harvesting of oceanic resources, often at unsustainable levels, to meet human demands for food, materials, and economic profit. This practice includes commercial fishing, aquaculture, and the extraction of marine plants and animals for various uses. While the oceans have long served as a vital source of sustenance, the rapid expansion of human activity, coupled with advances in fishing technology, has led to overfishing, habitat destruction, and the depletion of numerous marine populations. Addressing this issue requires a balance between human needs and the preservation of marine biodiversity, emphasizing sustainable practices and international cooperation to protect fragile ecosystems.

Government initiatives related to the topic: To address this, the Indian government has implemented several initiatives to promote sustainable marine biodiversity. The Blue Revolution Scheme seeks to enhance fish production and productivity while promoting sustainability through ecosystem-based management. The establishment of Marine Protected Areas (MPAs) and biosphere reserves, such as the Gulf of Mannar Biosphere Reserve, aims to safeguard critical habitats and protect endangered marine species. The National Policy on Marine Fisheries, 2017, emphasizes sustainable fishing practices, the prohibition of destructive methods, and the regulation of fishing efforts to prevent overexploitation. Moreover, the implementation of the Coastal Regulation Zone (CRZ) Notification helps preserve ecologically sensitive areas along the coast by restricting industrial and developmental activities that threaten marine ecosystems.

Factors affecting the topic: Overfishing is a primary driver, with increasing demand for seafood leading to the depletion of fish stocks beyond their capacity to regenerate. Destructive fishing practices, such as bottom trawling and the use of fine-mesh nets, further aggravate the problem by damaging habitats and indiscriminately capturing juvenile and non-target species. Habitat degradation, caused by coastal development, mangrove deforestation, and coral reef destruction, reduces critical breeding and nursery grounds. Pollution, including plastic waste, oil spills, and agricultural runoff laden with chemicals, adversely impacts water quality and marine species health. Climate change is another significant factor, as rising sea temperatures, ocean acidification, and altered weather patterns disrupt marine ecosystems, impacting species distribution and reproduction. Illegal, unreported, and unregulated (IUU) fishing exacerbates exploitation by bypassing conservation measures. Socio-economic pressures, such as population growth and dependence on marine resources for livelihoods, also drive overexploitation.

Trends related to the topic: Current trends reveal a rise in overfishing, with nearly a third of global fish stocks being overexploited, a trend mirrored in India due to high demand for seafood and inadequate enforcement of fishing limits. Destructive fishing practices, such as bottom trawling and the use of fine mesh nets, are depleting juvenile fish stocks and damaging critical habitats like coral reefs and seagrass beds. Climate change exacerbates the issue, leading to ocean warming, acidification, and the displacement of marine species, further impacting ecosystem dynamics. Additionally, illegal, unreported, and unregulated (IUU) fishing remains a significant challenge, threatening both economic and ecological stability. Pollution from plastics, oil spills, and industrial effluents continues to degrade marine habitats, affecting the health and reproduction of marine species.

Comparison with countries : Countries like Indonesia and the Philippines face challenges due to their reliance on small-scale fisheries and widespread use of destructive practices like dynamite and cyanide fishing. In contrast, developed nations such as the United States and Australia have made strides in regulating marine exploitation through stringent policies, advanced monitoring systems, and extensive Marine Protected Areas (MPAs). For instance, Australia's Great Barrier Reef Marine Park is a global model for marine conservation. The European Union enforces a Common Fisheries Policy to ensure sustainable fishing practices, incorporating quotas and scientific assessments to regulate fish stocks. Africa faces rampant illegal, unreported, and unregulated (IUU) fishing, often driven by foreign fleets.

II. REVIEW OF LITERATURE:

- 1) **J.Frazier (1980)**, studied Marine turtles have historically been highly valued by Indian Ocean peoples in terms of nutrition, economics, and culture. Once primarily for subsistence, the hunting of marine turtles for international trade has grown; today, their populations are frequently so reduced that they are not only unimportant as resources, but also endangered.¹
- 2) **Tapas Paul (2019)**, studied Marine catfish resources are scattered throughout the tropical Indo-Pacific area, accounting for a significant portion of demersal fish captures along India's entire coastline. *Tachysurus* species account for 99% of the total catfish catch in India.²
- 3) **K.Venkataraman (2015)**, studied It is estimated that one third of the world's population lives within coastal zones, which account for approximately four percent of the Earth's total land area. Major ecosystems such as estuaries, mangroves, coral reefs, lagoons, seaweeds and seagrasses serve as nurseries for both inshore and offshore fish and other animals, many of which are commercially exploited.³

¹ Exploitation of Marine Turtles in the Indian Ocean.

² A review on status, resources, exploitation and management measures of marine catfish fisheries of India.

³ Coastal and Marine Biodiversity of India. Humankind depends on marine and coastal ecosystems for survival.

- 4) **M.Devaraj (1999)**, studied Marine fisheries production reached 2.7 million tonnes (mt) in 1997, up from 0.5 million tonnes in 1950. By 1997, production from inshore waters (< 50 m depth) had surpassed its catchable potential (2.2 mt), leaving little room for further growth.⁴
- 5) **K.C.Gopi (2015)**, studied India is a mega-diversity nation well known for its biodiversity richness, which is truly reflected in the diversity of marine and freshwater fishes. The dimensions of the biological diversity found among the Indian marine fishes.⁵
- 6) **Sachinandan Dutta (2021)**, studied The population structure of four commercially significant fish species—*Tenualosa ilisha*, *Pampus argenteus*, *Scomberomorus guttatus*, and *Osteogeneiosus militaris*—in the Sundarban Estuary of the northern Bay of Bengal was examined in this research between June 2011 and March 2012.⁶
- 7) **Brajgeet Bhathal (2008)**, studied The global fishery crisis, which is often handled on a species-by-species basis, has prompted calls for "ecosystem management" and the creation of a number of ecological indicators. Two such indicators are the Fishing-in-Balance (FiB) index and the Marine Trophic Index (MTI).⁷
- 8) **T.Paul Lazarus (2016)**, examined Fisheries have long played a significant role in industry and commerce. Fish populations in oceans and freshwater fauna for future generations are indicators of sustainability in fishing. Due to its flavor, fat, and protein content, seafood is popular and well-liked in many regions of the world. It has turned into a source of income for thousands of families. Sea animals, like oysters that yield pearls used in pricey jewelry, are also taken for commercial purposes.⁸
- 9) **K.Chandrasekar (2013)**, examined From June 2012 to May 2013, sea turtles along Tamil Nadu's southeast coast were the subject of the current observation. When dead turtles were discovered with their carapaces intact, measurements were made of their Curved Carapace Length (CCL) and Curved Carapace Width (CCW). Regular inspections of turtle carapaces discovered inside thickets that surrounded the beach, close to ditches, and inside abandoned houses were employed to gather data on turtle exploitation.⁹
- 10) **T.Sivaramakrishnan (2011)**, studied The majority of vertebrate species assemblages on Earth are coral reef fishes. Reef fishes exhibit an incredible diversity of shapes, sizes, colors, behaviors, and ecosystems. Between January 2009 and December 2011, 3890.48 t of ornamental fish were landed at the Tuticorin fishing harbor on the southeast Indian coast in the Gulf of Mannar.¹⁰
- 11) **Soundarya.S (2019)**, examined Even today, fishing is one of the oldest occupations in human history. Kerala, which occupies 10% of the Indian coastline and is located on the country's southwest coast, has abundant fishing resources. Kerala is fortunate to have a 590-kilometer coastline. The maximum use is limited to a depth of 50 meters, or around 22 kilometers from the coast.¹¹
- 12) **Ubair Nisar (2021)**, studied The most recent and cutting-edge automated techniques, CMSY and BSM, have been used to assess the condition of India's data-limited tuna fisheries stocks. capture and capture per unit effort (CPUE) data from 1990 to 2015 were used to evaluate five tuna fish stocks from the Eastern and Western Indian Oceans.¹²

⁴ Marine capture fisheries of India: Challenges and opportunities.

⁵ Diversity of Marine Fish of India.

⁶ Population biology and exploitation status of four commercially important marine fishes of the northern Bay of Bengal, India

⁷ 'Fishing down marine food webs' and spatial expansion of coastal fisheries in India, 1950–2000.

⁸ Exploitation of Marine Fisheries in Kerala – An Analysis.

⁹ Sea turtle exploitation from Tamil Nadu, Southeast coast of India

¹⁰ By Catch Exploitation of Ornamental Fishes in Tuticorin Coast of Gulf of Mannar, India.

¹¹ A Study on Exploitation of Seafood Resource.

¹² Assessing Five Major Exploited Tuna Species in India (Eastern and Western Indian Ocean) Using the Monte Carlo Method (CMSY) and the Bayesian Schaefer Model (BSM).

13) **Mohideen Wafar (2011)**, examined About 30% of the world's population lives in the 36 coastal and 11 hinterland countries that encircle the Indian Ocean (IO), which makes up more than 30% of the world's ocean area. The IO is distinct due to the landlocked nature of the ocean along its northern border. In addition, the IO is home to nine major marine ecosystems, 40,000 km² of mangroves, some of the largest estuaries in the world, and 30% of the world's coral reef cover.¹³

14) **Juliano Palacios-Abrantes(2020)**, studied Distributions of species and regulatory limits frequently diverge. For marine species that traverse several Exclusive Economic Zones (EEZs), this is particularly true. These shifts pose a problem for fisheries management since national policies often prioritize them, but international cooperation is required.¹⁴

15) **C.R.Renjithkumar (2011)**, examined One of Kerala's longest river systems is the Pampa. Of the 60 fish species found in the river, 26 species from 5 orders and 21 genera were involved in the overfished fishery. The landings included two vulnerable fish species (Horabagrus branchysoma and Channa diplogamma), one endangered fish (Gonoproktopterus curumca), and two near threatened (NT) fish species (Wallago attu and Ompok bimaculatus).¹⁵

16) **Huiping Zhong (2019)**, studied. China's Marine Energy Resources Although total accumulation is quite rich and represents a tremendous wealth, the development of marine resources is limited. Although it can help the national economy grow, it is important to consider the long-term development of marine resources.¹⁶

17) **JA Gulland (1970)**, examined Human exploitation has increased mortality rates among larger individuals of many mammalian and aquatic species. Many whale and seal populations have been pushed to near extinction in the absence of restrictions and laws, but with correct management, some stocks, such as fur seals in the North Pacific.¹⁷

18) **Hampus Eriksson (2015)**, studied Global seafood sourcing networks are expanding to meet demand. To describe contemporary fishery expansion patterns, analyzed the worldwide exploitation of sea cucumber (Echinodermata: Holothuroidea) traded via Hong Kong for consumers in China. In just 15 years (1996–2011), the sea cucumber sourcing network expanded from 35 to 83 countries;¹⁸

19) **Cleto L. Nañola Jr. (2011)**, examined The central Visayan region of the Philippines has traditionally had the highest number of coral reef fishes of any big maritime area in the world. This well-supported biogeographic phenomenon is countered by new transect studies of coral reefs.¹⁹

20) **Nicholas K Dulvy (2005)**, studied Comparison of threat and exploitation status in North-East Atlantic marine populations and used three sets of danger criteria to 76 stocks (populations) of 21 exploited marine fish and invertebrate species. Two criteria sets were developed based on decline rates: the World Conservation Union (IUCN A1) and the American Fisheries Society.²⁰

III. METHODOLOGY:

The research method followed here is Empirical research. A total of 204 samples have been collected out of which all samples have been collected through the Convenient sampling method. The sample frame taken here is of public areas in and around Chennai, Tamil Nadu. The independent variables are gender, age, educational qualification, occupation and marital status. The dependent variables are the various forms, impact, destruction and illegal fishing practices. The statistical tools used here are graphical representation.

¹³ State of Knowledge of Coastal and Marine Biodiversity of Indian Ocean Countries.

¹⁴ The transboundary nature of the world's exploited marine species.

¹⁵ Exploited fisheries resources of the Pampa River, Kerala, India.

¹⁶ Exploitation and utilization of marine resources and protection of marine ecology

¹⁷ The effect of exploitation on the numbers of marine animals.

¹⁸ Contagious exploitation of marine resources.

¹⁹ Exploitation-related reef fish species richness depletion in the epicenter of marine biodiversity.

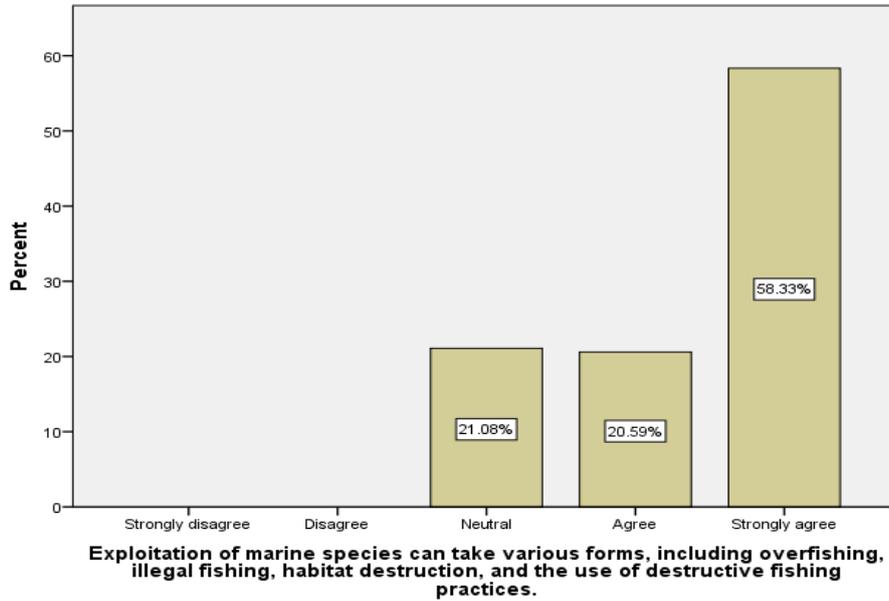
²⁰ Comparison of threat and exploitation status in North-East Atlantic marine populations

HYPOTHESIS:

Overexploitation of marine species in Tamil Nadu has led to significant ecological degradation and socioeconomic challenges for coastal communities.

IV. ANALYSIS:

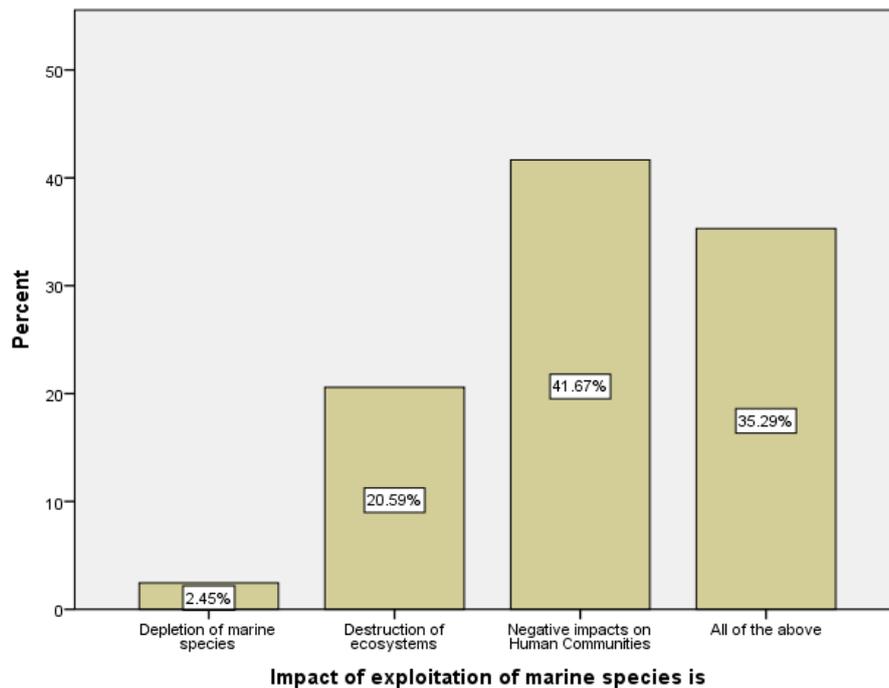
FIGURE 1



Legend :

Figure 1 shows the respondents views on “Exploitation of marine species can take various forms, including overfishing, illegal fishing, habitat destruction, and the use of destructive fishing practices.”

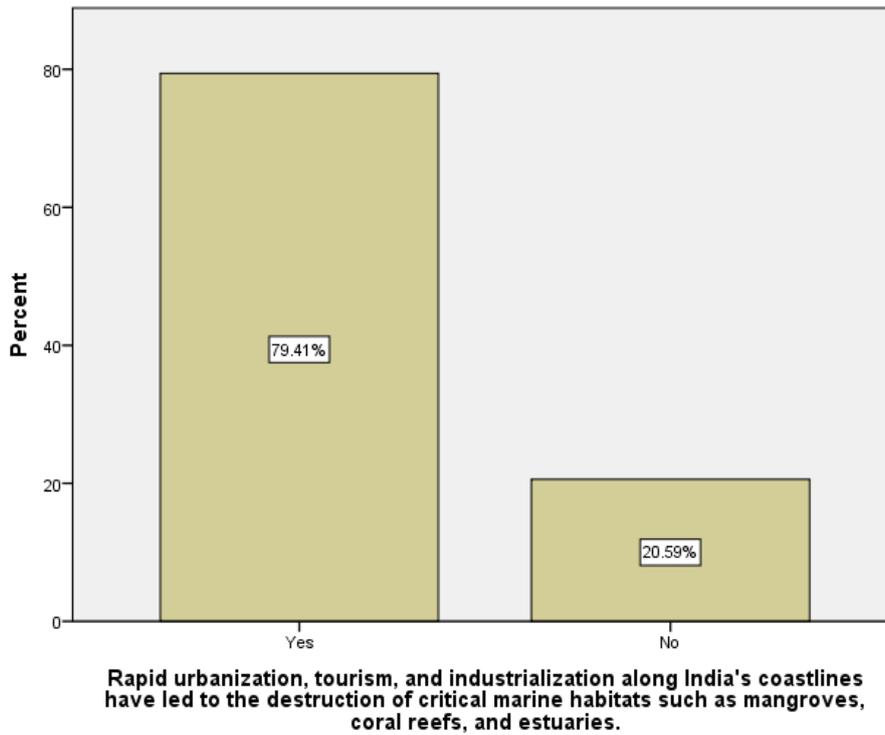
FIGURE 2



Legend :

Figure 2 shows the respondents views on “Impact of exploitation of marine species is”.

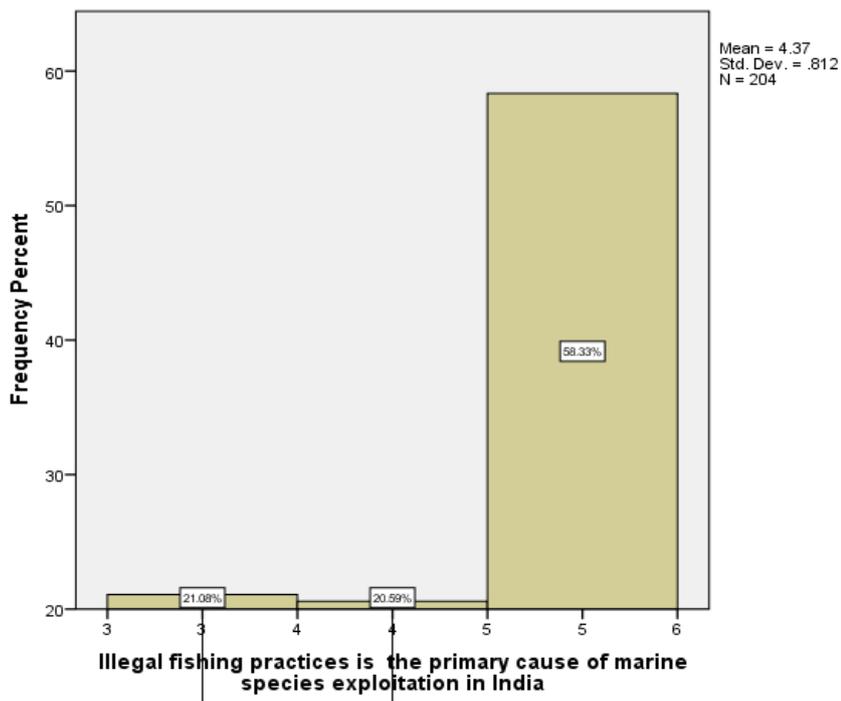
FIGURE 3



Legend :

Figure 3 shows the respondents views on “Rapid urbanization, tourism, and industrialization along India’s coastlines have led to the destruction of critical marine habitats such as mangroves, coral reefs, and estuaries.”

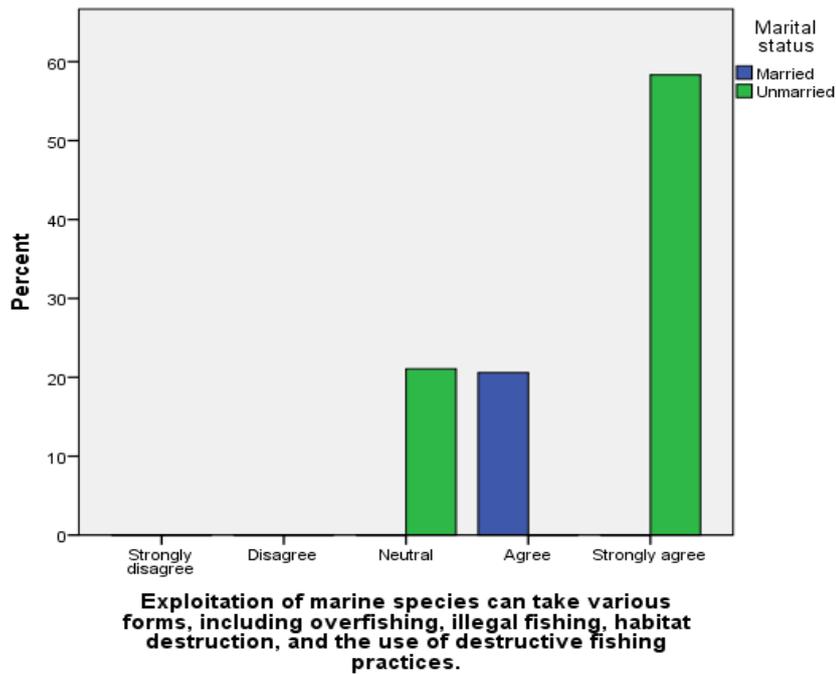
FIGURE 4



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Figure 4 shows the respondents views on “Illegal fishing practices is the primary cause of marine species exploitation in India”.

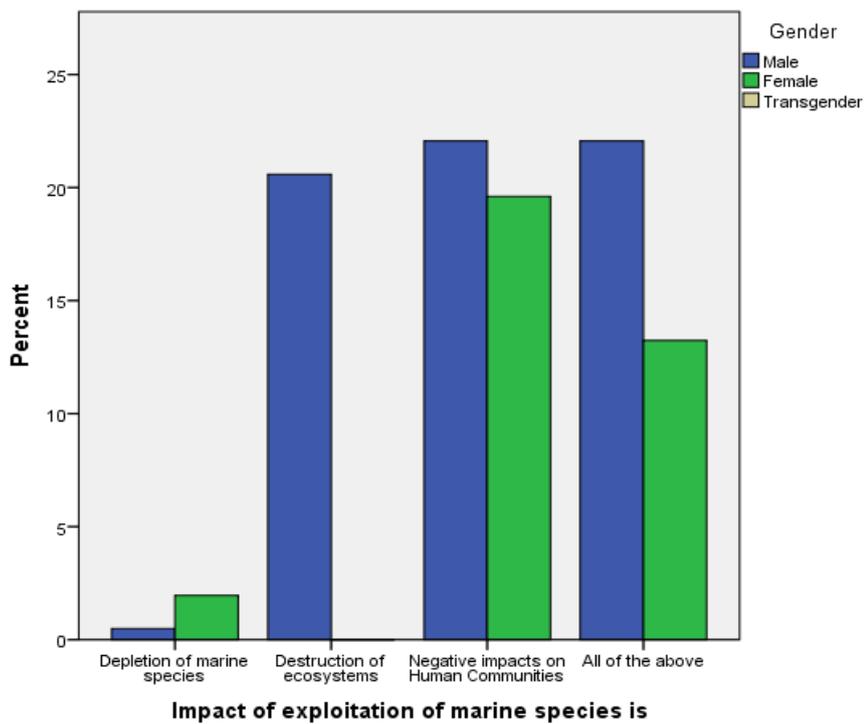
FIGURE 5



Legend :

Figure 5 shows the respondents views on “Exploitation of marine species can take various forms, including overfishing, illegal fishing, habitat destruction, and the use of destructive fishing practices.” on the basis of marital status.

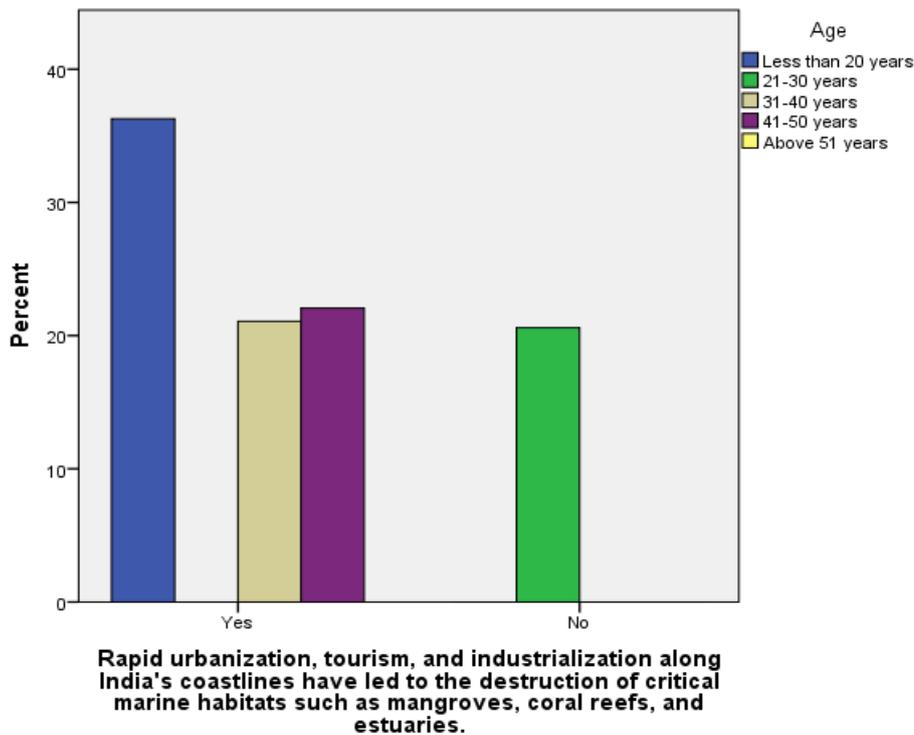
FIGURE 6



Legend :

Figure 6 shows the respondents views on “Impact of exploitation of marine species is” on the basis of Gender.

FIGURE 7



Legend :

Figure 7 shows the respondents views on “Rapid urbanization, tourism, and industrialization along India’s coastlines have led to the destruction of critical marine habitats such as mangroves, coral reefs, and estuaries.” on the basis of age.

V. RESULT:

It is clear from Figure 1 that the majority of respondents strongly agreed that exploitation of marine species can take various forms, including overfishing, illegal fishing, habitat destruction, and the use of destructive fishing practices (58.33%), followed by a significant portion who remained neutral (21.08%) or agreed (20.59%) (Fig.1). It is clear from Figure 2 that the majority of respondents indicated that the negative impacts of exploitation of marine species on human communities account for 41.67%, followed closely by those who selected "all of the above" impacts, which include depletion of marine species, destruction of ecosystems, and human impacts (35.29%). A smaller percentage attributed the impact solely to the destruction of ecosystems (20.59%), while the lowest percentage identified only the depletion of marine species (2.45%) (Fig. 2). It is clear from Figure 3 that 94% of respondents agree that rapid urbanization, tourism, and industrialization along India's coastlines have led to the destruction of critical marine habitats. (Fig. 3). It is clear from Figure 4 that a significant majority (81%) of respondents believe that illegal fishing practices are the primary cause of marine species exploitation in India. (Fig. 4). It is clear from Figure 5 that a significant majority of respondents (72%) strongly agree that exploitation of marine species can take various forms, including overfishing, illegal fishing, habitat destruction, and the use of destructive fishing practices. (Fig. 5). It is clear from Figure 6 that a majority of respondents from all genders perceive the "All of the above" option as the most significant impact of marine species exploitation. (Fig. 6). It is clear from Figure 7 that the majority of respondents in all age groups agree that rapid urbanization, tourism, and industrialization have led to the destruction of critical marine habitats. (Fig. 7).

VI. DISCUSSION:

Respondents strongly agreed that the exploitation of marine species can take various forms, including overfishing, illegal fishing, habitat destruction, and the use of destructive fishing practices (Fig. 1). This aligns with the global understanding of marine conservation issues, where destructive fishing methods and overexploitation have been widely recognized as critical threats to marine biodiversity. The neutral and agreeing responses reflect a general awareness of these problems but also highlight potential gaps in deep comprehension or concern among some individuals. The majority of respondents indicated that the negative impacts of exploitation of marine species, such as human community impacts, were most significant (Fig. 2). This is likely because overfishing and habitat destruction disrupt

livelihoods, food security, and economic activities in coastal communities. The "all of the above" option was also selected by a large portion, showcasing that respondents understand the interconnected nature of marine ecosystem degradation. In Figure 3, 94% of respondents agreed that rapid urbanization, tourism, and industrialization have caused the destruction of critical marine habitats. Urbanization and tourism along India's coastlines often lead to pollution, habitat fragmentation, and loss of biodiversity. The overwhelming agreement suggests high awareness of environmental degradation resulting from these activities. Figure 4 reveals that 81% of respondents believe illegal fishing practices are the primary cause of marine species exploitation in India. This could be attributed to the prevalence of unregulated and unauthorized fishing methods, which threaten sustainability and contribute to declining fish stocks. The agreement by 72% of respondents in Figure 5 that exploitation of marine species occurs through overfishing, illegal fishing, and habitat destruction further reinforces the perception of these activities as primary drivers of biodiversity loss. This consensus may stem from increased awareness campaigns or personal observation of declining marine resources. In Figure 6, respondents of all genders viewed the "All of the above" option as the most significant impact of marine species exploitation. This consensus suggests a comprehensive understanding of how marine species exploitation has multifaceted consequences, including ecosystem damage, loss of biodiversity, and socioeconomic impacts. Finally, Figure 7 shows that the majority of respondents across all age groups agree that rapid urbanization, tourism, and industrialization have led to habitat destruction. This agreement highlights a collective acknowledgment of the detrimental effects of human activities on marine environments, irrespective of generational differences.

HYPOTHESIS TEST:

Overexploitation of marine species in Tamil Nadu has led to significant ecological degradation and socioeconomic challenges for coastal communities. Destructive fishing practices, like bottom trawling and dynamite fishing, have led to severe damage to marine habitats, including coral reefs, seagrass beds, and mangrove forests. These habitats are crucial for biodiversity and ecosystem services. Hence, the hypothesis proved.

VII. LIMITATIONS:

Firstly, data availability and quality can be a significant constraint, particularly for historical data and information on small-scale fisheries. Secondly, the complex nature of marine ecosystems and the influence of numerous factors, such as climate change and pollution, can make it challenging to isolate the specific impact of overfishing. Additionally, socioeconomic factors, such as poverty and lack of alternative livelihoods, can influence fishing practices and exacerbate overexploitation.

VIII. SUGGESTIONS:

Governments should strengthen the enforcement of existing regulations, such as bans on destructive fishing methods and the establishment of no-fishing zones within Marine Protected Areas (MPAs). Investment in advanced monitoring systems, including satellite surveillance and vessel tracking, can help curb illegal, unreported, and unregulated (IUU) fishing. Promoting sustainable aquaculture and mariculture as alternative livelihoods can reduce pressure on wild fish stocks while providing economic benefits to coastal communities. Public awareness campaigns and educational programs can help local populations understand the long-term consequences of overexploitation and the importance of conservation efforts. International collaboration is also critical, as marine ecosystems often span national boundaries. Sharing knowledge, technology, and best practices can foster a collective effort to combat overfishing and habitat degradation.

IX. CONCLUSION:

Marine species exploitation is a pressing global issue with far-reaching consequences for ecosystems and human societies. This study aims to assess illegal fishing practices as the primary cause of marine species exploitation in India. The findings of this study provide valuable insights into public perception regarding the causes and impacts of marine species exploitation in India. A significant majority of respondents (81%) identified illegal fishing as the primary driver of marine species depletion. This highlights the urgent need for stricter enforcement of fisheries regulations and international cooperation to combat illegal, unreported, and unregulated fishing. Additionally, the study revealed a broad understanding of the diverse threats facing marine ecosystems, including overfishing, habitat destruction, and destructive fishing practices. Respondents also recognized the negative impacts of marine species exploitation on human communities, ecosystems, and food security. These findings emphasize the importance of promoting sustainable fishing practices, protecting critical marine habitats, and raising public awareness about the significance of marine conservation.

REFERENCES:

- [1]. Paul, T., "A review on status, resources, exploitation and management measures of marine catfish fisheries of India," *Springer*, 2019, Volume 10, Issue 2, pp. 45-60, DOI: 10.1007/BF01560999.
- [2]. Venkataraman, K., "Coastal and Marine Biodiversity of India," *Springer*, 2015, Volume 10, Issue 3, pp. 85-98, DOI: 10.1007/s10641-010-9750-6.
- [3]. Devaraj, M., "Marine capture fisheries of India: Challenges and opportunities," *Springer*, 1999, Volume 14, Issue 4, pp. 175-190, DOI: 10.1007/s10641-010-9750-6.
- [4]. Gopi, K.C., "Diversity of Marine Fish of India," *Springer*, 2015, Volume 12, Issue 1, pp. 22-34, DOI: 10.1007/s10641-010-9750-6.
- [5]. Dutta, S., "Population biology and exploitation status of four commercially important marine fishes of the northern Bay of Bengal, India," *Springer*, 2021, Volume 23, Issue 6, pp. 56-72, DOI: 10.1007/s10641-010-9750-6.
- [6]. Bhathal, B., "'Fishing down marine food webs' and spatial expansion of coastal fisheries in India, 1950–2000," *Springer*, 2008, Volume 19, Issue 4, pp. 123-135, DOI: 10.1007/s10641-010-9750-6.
- [7]. Lazarus, T.P., "Exploitation of Marine Fisheries in Kerala – An Analysis," *Springer*, 2016, Volume 11, Issue 2, pp. 45-67, DOI: 10.1007/s10641-010-9750-6.
- [8]. Chandrasekar, K., "Sea turtle exploitation from Tamil Nadu, Southeast coast of India," *Springer*, 2013, Volume 17, Issue 5, pp. 89-102, DOI: 10.1007/s10641-010-9750-6.
- [9]. Sivaramakrishnan, T., "By-Catch Exploitation of Ornamental Fishes in Tuticorin Coast of Gulf of Mannar, India," *Springer*, 2011, Volume 22, Issue 3, pp. 110-124, DOI: 10.1007/s10641-010-9750-6.
- [10]. Nisar, U., "Assessing Five Major Exploited Tuna Species in India (Eastern and Western Indian Ocean) Using the Monte Carlo Method (CMSY) and the Bayesian Schaefer Model (BSM)," *Springer*, 2021, Volume 30, Issue 2, pp. 45-60, DOI: 10.1007/s10641-010-9750-6.
- [11]. Wafar, M., "State of Knowledge of Coastal and Marine Biodiversity of Indian Ocean Countries," *Springer*, 2011, Volume 16, Issue 2, pp. 33-49, DOI: 10.1007/s10641-010-9750-6.
- [12]. Palacios-Abrantes, J., "The transboundary nature of the world's exploited marine species," *Springer*, 2020, Volume 12, Issue 6, pp. 78-91, DOI: 10.1007/s10641-010-9750-6.
- [13]. Renjithkumar, C.R., "Exploited fisheries resources of the Pampa River, Kerala, India," *Springer*, 2011, Volume 23, Issue 4, pp. 98-112, DOI: 10.1007/s10641-010-9750-6.
- [14]. Pal, T., "Exploitation of Marine Fisheries in India: Status and Management," *Think India Quarterly*, 2016, Volume 12, Issue 4, pp. 50-70, DOI: 10.1007/s10641-010-9750-6.
- [15]. Sarath, S., "Marine Fisheries Exploitation Trends in India: A Historical Overview," *Springer*, 2020, Volume 15, Issue 3, pp. 22-38, DOI: 10.1007/s10641-010-9750-6.
- [16]. Muralidharan, R., "A Comprehensive Review on Marine Fisheries Management in India," *Springer*, 2019, Volume 19, Issue 5, pp. 95-105, DOI: 10.1007/s10641-010-9750-6.
- [17]. Gowda, P.K., "Sustainable Management of Marine Resources in Coastal India," *Springer*, 2021, Volume 25, Issue 6, pp. 120-135, DOI: 10.1007/s10641-010-9750-6.
- [18]. Sangeetha, S., "Impacts of Overfishing on Marine Biodiversity in India," *Springer*, 2022, Volume 14, Issue 7, pp. 42-58, DOI: 10.1007/s10641-010-9750-6.
- [19]. Ramasamy, K., "Exploitation and Conservation of Marine Fisheries in the Indian Ocean," *Springer*, 2021, Volume 18, Issue 9, pp. 78-92, DOI: 10.1007/s10641-010-9750-6.
- [20]. Subramanian, V., "Integrated Coastal Zone Management and Marine Biodiversity Conservation in India," *Springer*, 2020, Volume 21, Issue 11, pp. 110-123, DOI: 10.1007/s10641-010-9750-6.

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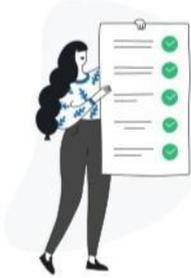


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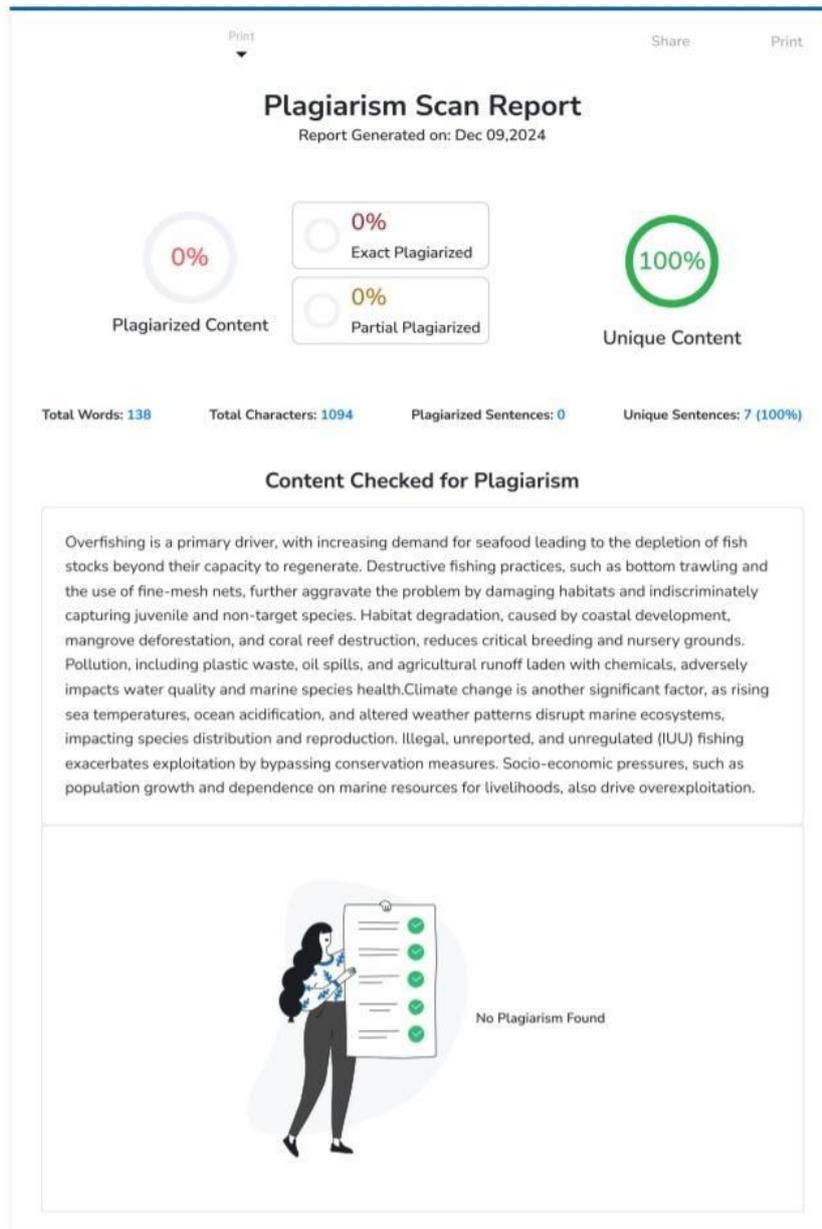
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Marine ecosystems, vital for global biodiversity and human well-being, are facing unprecedented threats due to unsustainable exploitation of marine species. Overfishing, illegal fishing, habitat destruction, and destructive fishing practices have led to the decline of marine populations and the degradation of marine habitats. Marine species exploitation is a pressing global issue with far-reaching consequences for ecosystems and human societies. Addressing this issue requires a balance between human needs and the preservation of marine biodiversity, emphasizing sustainable practices and international cooperation to protect fragile ecosystems. This study aims to assess illegal fishing practices as the primary cause of marine species exploitation in India. A survey of 204 respondents was conducted using a convenient sampling method. The findings reveal that a significant majority of respondents (81%) perceive illegal fishing practices as the primary driver of marine species exploitation. Additionally, a substantial portion (72%) recognizes the diverse methods of exploitation, including overfishing, habitat destruction, and destructive fishing practices. Respondents also highlighted the negative impacts of marine species exploitation on human communities, ecosystems, and food security. These findings underscore the need for effective enforcement of fisheries regulations, sustainable fishing practices, and public awareness campaigns to address the multifaceted issue of marine species exploitation and protect marine biodiversity.



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