Research Article

Inequality Between the Potential of Fishery Resources and the Poverty Level of Fisherman Communities in Coastal Areas of Indonesia

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ABSTRACT

Indonesia, recognized as a significant maritime nation, documented a capture fisheries output of 7.7 million tonnes in the year 2023, positioning it among the foremost producers globally. Notwithstanding its substantial economic prospects, the well-being of coastal fishing communities remains suboptimal, signifying an enduring disparity between the wealth derived from marine resources and the prevailing social conditions. This research endeavors to furnish a contemporary examination of this incongruity by exploring the divergence between Indonesia's fisheries potential and the impoverishment faced by fishermen. Employing a legal-empirical framework, this investigation scrutinizes pertinent policies and integrates interviews with fishers from the Pekalongan, Juwana, and Tegal locales. The findings indicate that numerous fishing households exist in vulnerable conditions attributable to inadequate fisheries governance, resource overexploitation, and limited access to essential infrastructure and services, including education and healthcare. The activities of economically and politically hegemonic entities exacerbate the marginalization of fishers, while bureaucratic inefficiencies and corruption at both local and national strata obstruct enhancements in welfare. These inequities hinder social and economic advancement, posing a threat of ecological degradation and jeopardizing the long-term sustainability of marine resources. The research posits that the resolution of these challenges necessitates comprehensive and coordinated strategies that amalgamate economic, social, and environmental objectives within the paradigm of coastal development.

Keywords: Fisheries; Poverty, Fishermen; Coastal Areas

A. INTRODUCTION

Indonesia is recognised as a leading archipelagic state globally, with its designation officially recognised in the 1982 United Nations Convention on the Law of the Sea (UNCLOS 1982). The country boasts a coastline stretching over 81,000 kilometres and a maritime expanse of approximately 3.1 million square kilometres, encompassing a total of 17,508 islands. In accordance with UNCLOS 1982, Indonesia is endowed with sovereign rights over an Exclusive Economic Zone (EEZ), which spans approximately 2.7 million square kilometres, giving it the authority to explore, exploit, manage, and conduct research related to living and non-living marine resources (Silviana et al., 2021). This designation serves to strengthen Indonesia's maritime territory by utilising the baselines established by the islands, resulting in a substantial increase in the area under its sovereignty and jurisdiction. The increase in maritime space has resulted in considerable

benefits, particularly in terms of its rich natural resources, which include biological resources such as fisheries and non-biological marine assets. Indonesia's total maritime territory is estimated at around 5.8 million square kilometres, and it has the second longest coastline in the world, measuring 99,093 kilometres. The archipelagic composition reflected in the island data above underscores that the majority of Indonesia's national territory approximately 63% to 70% is maritime in nature (DJPKRL, 2025). Data from the Geospatial Information Agency (BIG) further confirm Indonesia's coastline length of 99,093 kilometers, making it the second longest globally and offering vast opportunities for maritime and coastal development. BIG has revised Indonesia's coastline length several times initially recorded at 81,000 km, then updated to 95,181 km, and most recently to 99,093 km. This geographical advantage culminates in a considerable availability of natural resources, notably in the form of diverse and plentiful fish stocks that function as strategic economic assets for the advancement of national development.

Data derived from the Central Bureau of Statistics (2022–2023) reveal that Indonesia's marine capture fisheries production attained 7,026,425 tons in 2022 and escalated to 7,373,516 tons in 2023, thereby signifying a growth rate of 4.94%. Such an increase implies the possibility of enhancements in the income levels and welfare of fishing communities. Nevertheless, in spite of the extensive resource potential and persistently elevated national fish consumption rates, a mere 59% of Indonesia's marine potential has been effectively harnessed. Overall, the marine and fisheries sectors remain a major national asset, considering that Indonesia's maritime area constitutes approximately 63% to 70% of its total territory (Kementerian Koordinator Bidang Kemaritiman dan Investasi, 2020). Based on the extensive marine area and existing utilization of marine resources, the following section presents detailed data on marine capture fisheries production across Indonesia's regions:

Table 1. Data on marine fisheries production and production value derived from capture fisheries across 37 regions in Indonesia

Province	2022			2023			Difference		
	Marine Capture Fisheries Production (Tons)	Marine Capture Fisheries Production Value (IDR)	Marine Capture Fisheries Production Value (USD)	Marine Capture Fisheries Production (Tons)	Marine Capture Fisheries Production Value (IDR)	Marine Capture Fisheries Production Value (USD)	Marine Capture Fisheries Production (Tons)	Marine Capture Fisheries Production Value (IDR)	Marine Capture Fisheries Production Value (USD)
Aceh	311295	IDR 8.964.650.955	USD 603.558	291676	IDR 8.399.664.408	USD 551.123	-19619	-IDR 564.986.547	-USD 52.435
Sumatera Utara	354113	IDR 11.635.339.080	USD 783.366	371603	IDR 12.210.020.271	USD 801.130	17490	IDR 574.681.191	USD 17.764
Sumatera Barat	205870	IDR 5.810.146.161	USD 391.177	231341	IDR 6.528.998.995	USD 428.384	25471	IDR 718.852.834	USD 37.207
Riau	114612	IDR 2.689.285.565	USD 181.060	112078	IDR 2.629.827.135	USD 172.550	-2534	-IDR 59.458.430	-USD 8.511
Jambi	46892	IDR 1.499.858.341	USD 100.980	47344	IDR 1.514.315.732	USD 99.358	452	IDR 14.457.391	-USD 1.622
Sumatera Selatan	81037	IDR 3.150.656.086	USD 212.123	87456	IDR 3.400.221.857	USD 223.097	6419	IDR 249.565.771	USD 10.974
Bengkulu	82494	IDR 2.946.277.135	USD 198.362	81851	IDR 2.923.312.359	USD 191.806	-643	-IDR 22.964.776	-USD 6.557
Lampung	162960	IDR 4.319.407.128	USD 290.810	182574	IDR 4.839.294.532	USD 317.518	19614	IDR 519.887.404	USD 26.708
Kepulauan Bangka Belitung	222039	IDR 8.213.433.833	USD 552.981	228583	IDR 8.455.502.618	USD 554.787	6544	IDR 242.068.785	USD 1.805
Kepulauan Riau	322110	IDR 9.907.810.636	USD 667.058	320392	IDR 9.854.966.519	USD 646.609	-1718	-IDR 52.844.117	-USD 20.449
DKI Jakarta	198195	IDR 6.394.436.992	USD 430.515	210527	IDR 6.792.308.770	USD 445.660	12332	IDR 397.871.778	USD 15.145
Jawa Barat	261554	IDR 6.183.057.691	USD 416.283	265709	IDR 6.281.280.638	USD 412.130	4155	IDR 98.222.947	-USD 4.153
Jawa Tengah	318502	IDR 4.617.167.847	USD 310.858	368053	IDR 5.335.484.479	USD 350.074	49551	IDR 718.316.632	USD 39.217
DI Yogyakarta	4899	IDR 140.263.519	USD 9.443	5476	IDR 156.783.635	USD 10.287	577	IDR 16.520.116	USD 844
Jawa Timur	586137	IDR 11.346.457.304	USD 763.917	568955	IDR 11.013.847.642	USD 722.646	-17182	-IDR 332.609.662	-USD 41.271
Banten	66722	IDR 2.279.374.745	USD 153.462	70737	IDR 2.416.536.245	USD 158.555	4015	IDR 137.161.500	USD 5.093
Bali	97980	IDR 2.039.240.825	USD 137.295	166186	IDR 3.458.800.528	USD 226.941	68206	IDR 1.419.559.703	USD 89.646
Nusa Tenggara Barat	244726	IDR 4.244.991.990	USD 285.800	251693	IDR 4.365.840.854	USD 286.454	6967	IDR 120.848.864	USD 653
Nusa Tenggara Timur	139067	IDR 3.263.936.214	USD 219.749	87276	IDR 2.048.388.885	USD 134.400	-51791	-IDR 1.215.547.329	-USD 85.349
Kalimantan Barat	147163	IDR 4.418.399.223	USD 297.475	162638	IDR 4.883.018.237	USD 320.387	15475	IDR 464.619.014	USD 22.912
Kalimantan Tengah	109286	IDR 3.512.128.543	USD 236.459	110777	IDR 3.560.044.869	USD 233.583	1491	IDR 47.916.326	-USD 2.876
Kalimantan Selatan	144587	IDR 5.678.364.470	USD 382.304	151097	IDR 5.934.031.665	USD 389.347	6510	IDR 255.667.195	USD 7.042
Kalimantan Timur	133201	IDR 4.545.017.833	USD 306.000	152572	IDR 5.205.985.397	USD 341.578	19371	IDR 660.967.564	USD 35.578
Kalimantan Utara	29710	IDR 807.578.646	USD 54.371	31899	IDR 867.080.149	USD 56.891	2189	IDR 59.501.503	USD 2.520
Sulawesi Utara	345529	IDR 9.616.478.309	USD 647.444	252335	IDR 7.022.779.721	USD 460.782	-93194	-IDR 2.593.698.588	-USD 186.661
Sulawesi Tengah	196143	IDR 5.082.515.315	USD 342.188	432800	IDR 11.214.841.357	USD 735.834	236657	IDR 6.132.326.042	USD 393.646
Sulawesi Selatan	389383	IDR 11.052.975.316	USD 744.158	457909	IDR 12.998.145.461	USD 852.841	68526	IDR 1.945.170.145	USD 108.683
Sulawesi Tenggara	264559	IDR 7.216.973.845	USD 485.893	270327	IDR 7.374.320.619	USD 483.848	5768	IDR 157.346.774	-USD 2.046
Gorontalo	130916	IDR 3.891.783.482	USD 262.020	120059	IDR 3.569.033.831	USD 234.173	-10857	-IDR 322.749.651	-USD 27.847
Sulawesi Barat	64606	IDR 1.970.920.863	USD 132.695	69708	IDR 2.126.566.441	USD 139.529	5102	IDR 155.645.578	USD 6.834
Maluku	518615	IDR 13.247.225.474	USD 891.889	513049	IDR 13.105.050.533	USD 859.855	-5566	-IDR 142.174.941	-USD 32.034
Maluku Utara	356982	IDR 7.787.193.797	USD 524.284	354650	IDR 7.736.323.624	USD 507.599	-2332	-IDR 50.870.173	-USD 16.685
Papua Barat	133422	IDR 5.483.478.470	USD 369.183	78565	IDR 3.228.923.911	USD 211.858	-54857	-IDR 2.254.554.559	-USD 157.325
Papua Barat Daya	0	IDR 0		84230	IDR 2.304.280.110	USD 151.190	84230	IDR 2.304.280.110	USD 151.190
Papua	241119	IDR 8.265.519.682	USD 556.488	150754	IDR 5.167.822.337	USD 339.074	-90365	-IDR 3.097.697.345	-USD 217.415
Papua Selatan	0	IDR 0		15776	IDR 431.584.032	USD 28.317	15776	IDR 431.584.032	USD 28.317
Papua Tengah	0	IDR 0		14861	IDR 406.552.377	USD 26.675	14861	IDR 406.552.377	USD 26.675
Papua Pegunungan	0	IDR 0		0		USD -	0	IDR 0	USD -
Indonesia	7026425	IDR 192.222.345.315	USD 12.941.651	7373516	IDR 199.761.780.775	USD 13.106.868	347091	IDR 7.539.435.460	USD 165.217

Source: (BPS, 2022–2023); Basic data was obtained from the central statistics bureau and the data presented has been processed by the author.

Based on the above data, marine capture fisheries production in 2022 totalled 7,026,425 tonnes, with a corresponding production value of IDR 192,222,345,351 (USD 12,941,651.20). The following year, in 2023, the total production increased to 7,373,516 tonnes, valued at IDR 199,761,780,775 (USD 13,106,868.37). Over the course of one year, the production volume increased by 347,091 tons (4.94%), while the production value increased by IDR 7,539,435,460 (USD 165,217.16). Data for 2023 also indicates a significant increase in capture fisheries production across 37 coastal regions.

From an economic standpoint, production data reflects the operational performance and prevailing conditions within the fisheries sector. An increase in production usually indicates a potential rise in income levels for fishing communities, thereby improving living standards for coastal populations.

Demographic data shows that Indonesia's population reached 275.77 million in mid-2022, marking a 1.13% increase from 272.68 million in 2021, rising further to 278.7 million in mid-2023. In 2022, males constituted 50.48% of the total population, while females represented 49.52%. In 2023, the proportion of males increased slightly to 50.52% (140.8 million), while the proportion of females decreased slightly to 49.48% (137.9 million) (Medistiara, 2022). Meanwhile, the Ministry of Marine Affairs and Fisheries (KKP) reported that Indonesia's national fish consumption rate was 55.37 kg per capita in 2021, rising to 56.48 kg in 2022 and stabilising at this level in 2023. This denotes a 2% increase in consumption from 2021 to 2022, which was sustained in 2023. The most significant historical growth in fish consumption occurred in 2014 (8.32%), while the smallest decline was recorded in 2020 at 0.11% (Annur, 2022). According to the Ministry of Maritime Affairs and Fisheries, Indonesia has a total of 1,459,874 fishermen (Rahman, 2021). Given these challenges, considerable investment has been directed to enhance, diversify and/or develop alternative livelihoods for rural coastal households engaged in Small Scale Fisheries, including in Indonesia. Evidence of the effectiveness of these interventions, measured primarily in economic terms and with respect to reduced fishing pressure, in achieving substantial improvements in livelihoods outcomes, is mixed. While internally prepared project evaluation reports provide reflexive assessments, highlighting the most positive outcomes, the limited peer-reviewed literature for Indonesia provides a less positive picture (Stacey et al., 2021).

This inconsistency highlights a persistent structural issue: livelihood interventions alone have proven inadequate in elevating numerous coastal households from poverty. Notwithstanding Indonesia’s abundant fisheries resources and elevated levels of fish consumption, the welfare of fishermen is not consistently guaranteed. In 2021, the incidence of extreme poverty within coastal regions reached 4.19%, surpassing the national extreme poverty rate of 4%. Approximately 1.3 million individuals residing in coastal areas are included in national poverty statistics, accounting for 12.5% of the total poverty demographic (Indraswari, 2023). Official data regarding extreme poverty for the period of 2022–2025 has yet to be disseminated.

The poverty experienced by fishermen constitutes a multidimensional issue, characterized not solely by incomes falling below the minimum wage, but also by inadequate capacities, environmentally destructive resource exploitation practices, fragile supply chains, and the deterioration of marine ecosystems (Cahyagi & Gurning, 2018). Paradoxically, numerous coastal fishing communities persist in a state of impoverishment, despite their proximity to plentiful marine resources. This disparity illustrates that the potential of natural resources does not inherently translate into enhanced well-being. Factors such as ineffective resource management, restricted market access,

inadequate infrastructure, and erratic policy implementation further exacerbate the predicament (Imron, 2003).

Various studies confirm that the poverty experienced by fishers is not only caused by low income but also related to limited adaptive capacity. Livelihood diversification is a crucial strategy for poverty reduction, reducing vulnerability, and alleviating pressure on marine resources (Roscher et al., 2022). A global analysis in the study "Poverty Line Income and Fisheries Subsidies in Developing Country Fishing Communities" reveals even more alarming figures: in 30 countries, approximately 87% of fishers live below the extreme poverty line (USD 1.90/person/day). Raising them above this threshold would require approximately USD 2.2–2.6 billion annually. The study also noted that in 37–43% of the countries studied, the current amount of fisheries subsidies would be sufficient to cover the entire income gap if effectively redirected (Teh et al., 2024).

Other research on tropical coastal communities confirms that food insecurity, poverty, and the pressures of global change have triggered various livelihood diversification projects as an adaptation strategy. The study explains that coastal communities face complex and ongoing challenges, making innovation in income sources an unavoidable necessity (Diedrich et al., 2022).

In the Indonesian milieu, the imperative for income diversification is markedly pronounced. Contemporary studies emphasize the necessity of equipping fishermen with suitable tools and vessels that align with prevailing demands, advancing the aquaculture industry, and fortifying both the capacities and institutions associated with the fishing community. These initiatives are vital for enhancing resilience and guaranteeing the sustainability of livelihoods within coastal communities (Riantini et al., 2024).

Concurrently, investigations into the socioeconomic challenges faced by fishermen, as well as the disparities in welfare amidst the escalation of fisheries production, unveil significant deficiencies in scholarly discourse from a legal standpoint (Lucas et al., 2024). The study found that the unequal distribution of economic value in commodity chains, such as swimming crab and mahi-mahi, is influenced by fishermen's weak bargaining position, unfair market structures, and limited access to supporting facilities such as financing and infrastructure. As a result, despite increasing production and export volumes, fishermen's economic conditions remain vulnerable. Despite these extensive welfare efforts, persistent issues remain. Challenges in catch reporting, limited monitoring systems and the unique characteristics of small-scale fisheries continue to hinder the formulation of accurate policies (Sari et al., 2021).

Several comparative and empirical studies also present evidence of social vulnerability among Indonesian fishing communities. The study 'Comparative Social Vulnerability of Fishermen in the Coastal Provinces of Indonesia' (Prawito & Mulyasari, 2021) reveals that factors such as access to resources, educational

attainment, economic assets and dependence on weather and ecological conditions are the main determinants of vulnerability among fishermen. It emphasises that poor conditions are not necessarily linked to low fisheries potential, but rather to the socio-economic and institutional constraints faced by coastal communities.

Another relevant study, 'Poverty in Golden Fishing: A Regulatory Impact Assessment of Fishermen Poverty in Indonesia' (Sugi, 2023), illustrates the phenomenon of having abundant natural resources but a poor population. The study finds that although fisheries regions exhibit high production levels and national fish consumption continues to rise, fishermen in several regions remain in poverty. One of the key causes is ineffective policy performance, implementation barriers, and a mismatch between existing regulations and the actual needs of small-scale fishermen. Previous research employing a Regulatory Impact Assessment (RIA) approach shows that various government poverty-alleviation programs for fishermen have not produced optimal outcomes because policy strategies are not aligned with the real needs of coastal communities. As a result, programs such as the construction of boat workshops and shipyards become irrelevant and fail to improve fishermen's welfare. The study also highlights institutional factors including weak policy design, limited community participation, and low-quality regional regulatory formulation and implementation as major reasons why poverty persists despite abundant fisheries potential.

Recent legal scholarship reinforces this trend. A philosophical legal examination of Indonesia's enforcement policy against illegal fishing from 2014 to 2019 (Sulistyawan, Indarti, & Sularto, 2020) indicates that the regulatory framework embodies a constructivist paradigm, framing law as a consensual mechanism of state accountability intended to safeguard marine resources and national sovereignty. This study emphasises the normative framework of fisheries law enforcement; however, it fails to examine the intersection of these philosophical foundations with the welfare outcomes experienced by fishermen at the grassroots level. Similarly, the legal examination of Efektivitas Pemberian Kartu Nelayan (Ruby & Saraswati, 2021) empirically illustrates that the Fisherman's Card, especially via insurance protection, yields a quantifiable enhancement in the welfare of fishermen. The policy does provide real benefits, but the study mainly looks at how well it works administratively and doesn't look at the bigger picture of the differences between coastal communities with a lot of fish resources and those that are still poor.

However, these studies have not examined the root of the problem from a legal standpoint, including how fisheries regulatory frameworks, coastal governance, and legal protections for fishermen contribute to the disparity between significant resource potential and low levels of welfare. This research aims to fill that gap by analyzing the misalignment between the legal framework (das sollen) and empirical reality (das sein) that sustains such disparities. From these

three studies, it becomes apparent that fishermen's poverty has been extensively discussed from economic, social, and public policy perspectives. Nevertheless, no existing research specifically analyzes the disparity between fisheries resource potential and fishermen's poverty from a legal perspective, particularly concerning the effectiveness of regulatory frameworks, institutional arrangements, and the exercise of state authority in managing fisheries resources. This is the point at which the present research addresses the academic gap by conducting an empirical legal analysis of the inconsistencies between das sollen (the legal framework governing fisheries management) and das sein (the actual welfare conditions of fishermen in Indonesia's coastal regions). Understanding the disparity between fisheries resource potential and the persistent poverty of coastal fishing communities is essential because the issue has economic, social, and environmental implications. Such imbalance may generate economic losses for regions that rely heavily on the fisheries sector and threaten marine resource sustainability if management does not adopt a fair and sustainable approach. Given its complexity and multidimensional impacts, addressing these disparities requires coordinated and comprehensive interventions integrating legal policy, resource governance, and community empowerment.

Despite these significant contributions, none of the extant studies scrutinizes the fundamental issue from a legal perspective that integrates resource abundance, welfare inequalities, and regulatory efficacy within a cohesive analytical framework. In particular, there exists a notable deficiency in research that rigorously assesses how the regulatory frameworks governing fisheries, the mechanisms of coastal governance, and the legal safeguards afforded to small-scale fishermen either construct or exacerbate the divide between das sollen (the normative legal framework) and das sein (empirical welfare conditions). This precise academic deficiency is the focus of the current investigation, which employs an empirical-normative legal analysis to explore the inconsistencies that perpetuate such disparities. Comprehending the disjunction between the potential of fisheries resources and the persistent poverty faced by coastal fishing communities is imperative due to its significant economic, social, and environmental ramifications. Unaddressed disparities may obstruct regional development, entrench socio-economic marginalization, and jeopardize the long-term sustainability of marine ecosystems.

Motivated by this urgency, the author seeks to investigate the discord between fisheries potential and the poverty experienced by fishermen in coastal regions, as articulated in the research title: "Inequality Between the Potential of Fishery Resources and the Poverty Level of Fisherman Communities in Coastal Areas of Indonesia." This inquiry is centered on two principal research questions:

1. What are the underlying causes of the disparity between fisheries resource potential and the poverty of coastal fishing communities?
2. What solutions can be proposed to address these disparities?

B. RESEARCH METHODS

The research applied is by combining normative and empirical methods. According to Abdulkadir, normative-empirical research invests in the use of norm-based and empirical research techniques to analyze legal issues, including the material aspects of law and the implementation and process of law enforcement in society. Abdulkadir defines normative-empirical research as a study that combines norm-based research techniques with research techniques that focus on empirical experience in analyzing legal issues, both regarding the material aspects of law and the implementation and process of law enforcement in society (Muhammad, 2004). The research specification used is descriptive research, a research method that explains in detail the problem being researched and provides solutions to existing problems. The approach used in this research is a statutory approach, which examines all laws and regulations related to the legal issue (Marzuki, 2007).

The data used are primary and secondary data. Primary data is data obtained directly in the field through interviews with informants, which are fishermen located in:

1) Pekalongan – Nusantara Fisheries Port (PPN) Pekalongan, Location: WR. Supratman Street No. 1, Panjang Wetan, North Pekalongan, Pekalongan City, Central Java, Indonesia.
2) Juwana – Coastal Fisheries Port (PPP) Bajomulyo, Pati Regency, Location: Bajomulyo Village, Juwana Subdistrict, Pati Regency, Central Java, Indonesia.
3) Tegal – Pelabuhan Perikanan Pantai (PPP) Tegalsari Location: Coastal Fisheries Port (PPP) Tegalsari Location: Tegalsari Subdistrict, West Tegal, Tegal City, Central Java, Indonesia.

Meanwhile, secondary data was obtained from the Faculty of Law Library of Universitas Gadjah Mada, Yogyakarta, the Faculty of Law Library of Universitas Padjadjaran, Bandung, the Faculty of Law Library of the University of Indonesia, Depok, and the Ministry of Maritime Affairs and Fisheries Library. Secondary data is data that has been collected or is already available, so it is easy to process. This secondary data consists of primary legal materials, secondary legal materials, and tertiary legal materials. The primary legal material consists of the 1945 Constitution of the Republic of Indonesia, which is the most basic regulation. Furthermore, Law Number 45 of 2009 concerning Amendments to Law Number 31 of 2004 concerning Fisheries, Law Number 1 of 2014 concerning Amendments to Law Number 27 of 2007 concerning Management of Coastal Areas and Small Islands, Law Number 7 of 2016 concerning Protection and Empowerment of Fishermen, Fish Farmers, and Salt Farmers,Government Regulation in Lieu of Law

(Perppu) Number 2 of 2022, which was later ratified as Law Number 6 of 2023,Presidential Regulation Number 96 of 2015 concerning Amendments to Presidential Regulation Number 15 of 2010 concerning the Acceleration of Poverty Alleviation, Regulation of the Minister of Maritime Affairs and Fisheries Number 58 of 2020 concerning Capture Fisheries Business, Regulation of the Minister of Maritime Affairs and Fisheries Number 7 of 2012, Government Regulation Number 50 of 2015 concerning the Empowerment of Small Fishermen and Small Fish Farmers, Regulation of the Minister of Home Affairs Number 53 of 2020, Government programs to overcome national poverty among fishermen, such as the National Independent Community Empowerment Program (PNPM) and other fishermen's economic empowerment programs implemented by the central government and area. In addition, secondary legal materials include books, journals, other official publications, and the internet. Tertiary legal materials include the Legal Dictionary and the Great Indonesian Dictionary, which complement the research. Data collection techniques used in this study included interviews and literature review, which involved reviewing relevant journal, books, literature, and records.

C. RESULTS AND DISCUSSION

1. The Inequality Between the Potential of Fishery Resources and the Poverty Level of Fishing Communities in Coastal Areas

The disparity between fishery resource potential and the poverty rate of fishing communities demonstrates that the relationship between fisheries and poverty is complex and cannot be understood as a simple correlation. In various literature, this relationship is often simplified, making it impossible to develop appropriate policy responses. This complexity is exacerbated by the fact that small-scale fishers are often excluded from macroeconomic development planning processes due to the nomadic nature of their work, their residence in marginal areas, and their low recognition of their contributions. Furthermore, social discrimination and power asymmetries contribute to the economic exclusion of poor fishing communities (Béné & Friend, 2011).

This situation is clearly evident in the context of Indonesia, an archipelagic nation with abundant marine resources, yet many fishers live in poverty (Handayati et al., 2025). This disparity epitomises the contradiction between the substantial potential of natural resources and the poor welfare of coastal populations. Fishers often find themselves caught in a cycle of poverty caused by low fish prices, limited access to technology and market opportunities, and inadequate infrastructure and basic services. Rather than reaping the rewards of the plentiful marine resources, they endure persistent economic strains (Handayati et al., 2025).

The multifaceted challenges encountered by fishing communities comprise economic, social, and environmental dimensions. The revenue generated by fishers is often low and

volatile due to high operational costs, fluctuating fish prices and dependence on intermediaries who impose low and unfair prices and conditions. Such circumstances undermine the capacity of fishers to allocate resources towards enhancing fishing equipment, securing educational opportunities for their offspring, and improving family well-being. Insufficient access to financial resources, technological innovations, and market avenues further constrains their ability to augment productivity, thereby perpetuating a high dependence on fishing that is arduous to mitigate (Obie, 2024).

From an ecological standpoint, the ramifications of climate change and the degradation of marine ecosystems further intensify the incongruity between the potential of fisheries and the welfare of fishers. Declining fish catches due to coral reef deterioration, pollution and mangrove deforestation have an adverse impact on the financial returns of fishers and threaten the sustainability of their livelihoods. This environmental decline diminishes fish availability and exacerbates the economic insecurity of coastal communities. This situation demonstrates that the impoverishment of fishers is not just an economic issue, but a structural one that requires a comprehensive and integrative approach (Handayati et al., 2025).

In coastal areas such as the Sangihe and Tahuna Islands, the community's dependence on the marine environment further emphasizes the significant potential of fisheries (Sarapil, Kumaseh, & Mozez, 2022). With waters covering up to 90% of the area and the majority of the population working as fishermen, fisheries are a crucial economic asset. However, this substantial potential has not been aligned with the community's level of well-being due to various inhibiting factors on the ground (Sarapil, Kumaseh, & Mozez, 2022).

To address this imbalance, cross-sectoral synchronization and coordination involving all stakeholders is required. Local governments need to provide training, implement strategies, and develop alternative livelihoods so that fishing households are less dependent on catches. Income diversification can increase their economic resilience to environmental and market pressures. Furthermore, access to credit from the public and private sectors needs to be expanded to support the sustainability of fisheries businesses (Quyen, Phuong, & Quyen, 2024).

Efforts to address inequality must also incorporate a gender perspective, as research shows that gender approaches in livelihood improvement programs remain under-recognized. Integrating gender into program planning and evaluation will provide synergistic benefits for more inclusive natural resource governance and policymaking. Increasing gender awareness capacity and developing clear strategies and indicators are necessary to ensure that the programs implemented can truly support the transformation of coastal communities' livelihoods in a sustainable manner (Stacey et al., 2019).

In response to the challenges faced, the government has implemented policies and

regulations aimed at alleviating poverty in fishing communities and ensuring their well-being. These policies are outlined in various laws and regulations. These provisions are analyzed using the collected data. Analysis is necessary to examine the relationship between norms and the implementation of regulations:

a) *Law Number 45 of 2009 concerning Amendments to Law Number 31 of 2004 concerning Fisheries. This law regulates the management of fishery resources, including pre-production, production, processing, and processing. Essentially, this law replaces the previous law, which was deemed inadequate to accommodate the evolving legal and technological needs in fishery resource management. Therefore, it is not merely a change but also an update.*

   This legislation underscores the significance of empowering small-scale and traditional fishers. Nevertheless, in practice, coastal fishers continue to encounter barriers associated with capital, technology, and access to markets. Under this statute, the government is mandated to furnish support through initiatives such as microcredit programs for the marine sector, capacity-building projects, and legal protections against exploitative practices by intermediaries. These interventions are anticipated to mitigate poverty levels among coastal fishers, who frequently find themselves ensnared in cycles of indebtedness.

   Law No. 45 of 2009 also stipulates the zoning of marine areas, including designated fishing grounds for small-scale fishers. This provision offers coastal fishers legal certainty to utilise marine resources within nearshore areas, allowing them to avoid direct competition with large commercial vessels. Such legal certainty is essential for stabilising incomes and preventing further marginalisation.

   Additionally, the law requires the development of policies to ensure the welfare of fishers, including insurance schemes, occupational safety guarantees and financial assistance during lean seasons or adverse weather conditions. This is particularly relevant since most coastal fishers live in vulnerable circumstances with irregular incomes that often cease during the west monsoon season. Implementing insurance and social protection programmes can therefore play a vital role in alleviating poverty across coastal communities.

b) *Law Number 1 of 2014 concerning Amendments to Law Number 27 of 2007 concerning Management of Coastal Areas and Small Islands. This law regulates the management of coastal areas and small islands in general, including the planning, utilization, supervision, and control of resources on which most fishermen live and depend for their livelihoods. This law emphasises the importance of ecosystem-based management and the protection of coastal environments. The condition of coastal ecosystems significantly influences fishermen's catch. The law regulates coastal ecosystems to ensure the sustainability of fishery*

resources.In the long term, this approach can contribute to income stability for coastal fishers by ensuring the sustainability of fish stocks. It also strengthens the participation of coastal communities in the Coastal Zone and Small Islands Zoning Plan. This provides an avenue for fishers to voice their needs. Consequently, fishers become more empowered.Beyond capture fisheries, this law also creates opportunities for coastal communities to develop alternative livelihoods. This diversification is crucial, as coastal fishers are highly dependent on seasonal cycles.

c) *Law Number 7 of 2016 concerning the Protection and Empowerment of Fishermen, Fish Farmers, and Salt Farmers. Several articles in Law Number 7 of 2016 have been amended by Law Number 11 of 2016.2020, concerning Job Creation. Law Number 11 of 2020 concerning Job Creation has been revoked and replaced by Government Regulation in place of Law (Perpu) Number 2 of 2022, which was later ratified as Law Number 6 of 2023. This law does not specifically regulate fishermen, but in general, it can be said that the Job Creation Law has an impact on the maritime and fisheries sector, including fishermen, because it regulates business licensing, investment facilitation, and worker protection.*

Law Number 6 of 2023 regulates the simplification of business licensing through a risk-based licensing system. For small-scale fishers, this means that legal processes such as permits to go to sea, fisheries business management, and seafood processing enterprises become more accessible and affordable. With more simplified licensing procedures, fishers can improve their access to formal markets and receive government support programs (such as fuel subsidies and environmentally friendly fishing gear assistance).

The impact of this regulation is the reduction of bureaucratic barriers that have long burdened small-scale fishers. This law also strengthens the integration of regulations within the marine and fisheries sector, including coastal area management. Additionally, it mandates Environmental Impact Assessments (AMDAL) and Strategic Environmental Studies (KLHS), which serve to protect fishers from ecosystem damage caused by industrial projects in coastal zones. Consequently, coastal fishers who are often affected by reclamation, marine sand mining, or port development are ensured compensation and given opportunities for participation. This is crucial for maintaining the sustainability of fishery resources, which is directly linked to the income levels of fishers.

d) *Presidential Regulation Number 96 of 2015 concerning Amendments to Presidential Regulation Number 15 of 2010 concerning the Acceleration of Poverty Alleviation. This Presidential Regulation establishes a policy and program framework for reducing poverty on a national scale, including various efforts to improve the welfare of fishermen. Presidential*

Regulation Number 96 of 2015 strengthens the government's strategy in accelerating poverty alleviation through more effective cross-sector coordination. The primary focus is to reduce the number of people living in poverty by ensuring program synergy across various sectors, including health, education, infrastructure, and economic empowerment. For coastal communities, including fishermen, this regulation holds significant importance, as they often face structural poverty caused by limited access to markets, education, and capital, as well as their high vulnerability to weather fluctuations and environmental degradation.

e) *Minister of Maritime Affairs and Fisheries Regulation Number 58 of 2020 about businesses that catch fish. This rule covers a lot of different parts of capture fisheries businesses in the Fisheries Management Area of the Republic of Indonesia. It includes things like what a fisheries business is, what fishing activities are, what permits are needed, and other rules that apply to capture fisheries businesses. This rule sets out the technical rules for managing capture fisheries. It covers things like business licenses, types of boats, fishing gear, fishing zones, and how to report catch results. The main goal is to create a sustainable and well-regulated system for managing fisheries that benefits both fishers and the state the most. Fishers can be sure that they are following the law when they are out at sea by making licensing easier to understand. This includes the Fisheries Business License (SIUP), Fishing License (SIPI), and Fish Transport Vessel License (SIKPI). This regulatory clarity is crucial to protecting small-scale fishers from criminalization practices and unfair competition with larger fishing vessels.*

f) *Regulation of the Minister of Maritime Affairs and Fisheries Number 7 of 2012. This regulation regulates policies and strategies for overcoming poverty among fishermen and various economic empowerment programs for fishermen, such measures include regulating fishing zone allocations based on vessel size and type of fishing gear, as well as ensuring access rights in which small-scale fishers are granted designated fishing areas, preventing direct competition with large industrial vessels. Furthermore, sustainability of marine resources is maintained through the implementation of a management approach based on the Maximum Sustainable Yield (MSY) principle. This ensures long-term availability of fish stocks and greater security for fishermen's incomes.*

g) *Government Regulation Number 50 of 2015 concerning the Empowerment of Small Fishermen and Small-scale Fish Farmers. Essentially, this Government Regulation regulates various aspects related to the empowerment of small-scale fishers, namely to enhance capacity, provide protection, and ensure business certainty for small-scale fishers.*

h) *Regulation of the Minister of Home Affairs Number 53 of 2020. This Regulation of the Minister of Home Affairs regulates the Regional Poverty Alleviation Coordination Team, which is tasked with coordinating and supervising the implementation of poverty alleviation programs in the regions. This process is carried out through the Regional Government Information System (SIPD) reporting mechanism, which enables the central government to assess whether assistance programs for small-scale fishers (such as fuel subsidies, fisher insurance, and vessel aid) are effectively reaching their intended beneficiaries. Furthermore, coastal local governments are required to report the outcomes of their development initiatives, including the establishment of Fish Landing Bases, Fish Auction Sites, and other coastal infrastructure. This supervisory mechanism encourages local governments to foster and organise fishing communities into cooperatives or business groups, thereby enhancing governance and efficiency within the fisheries sector.*

i) *Government programmes aim to alleviate poverty among fishermen nationwide. These programmes, including the National Independent Community Empowerment Programme (PNPM) and other economic empowerment programmes for fishermen, are implemented by the central government (namely the Ministry of Maritime Affairs and Fisheries) and local governments. The government and other stakeholders, including fishermen and coastal communities, are working together to alleviate poverty through various integrated policies and programmes.*

Despite their abundant natural resources, coastal regions often serve as economic hubs with dense populations. However, many coastal communities continue to live in poverty despite residing in areas with substantial resource potential (Gandyo, Soemarni & Prihatin, 2016). This disparity shows that having resources available does not automatically lead to better living conditions, especially when structural constraints, limited accessibility and socio-economic vulnerabilities stop communities from benefiting fully from these assets. Poverty rates among coastal communities remain extremely high. Considering the regulations outlined above, it is clear that, at the legal level, regulations regarding how natural resources, particularly fish, can be utilized sustainably and support the livelihoods of fishermen, ensuring a decent and prosperous life, appear to have been incorporated into regulations, both in the form of laws and subordinate regulations, as well as other policies that support the welfare of the community, particularly fishing communities.

Poverty within coastal fishing communities constitutes a significant obstacle to economic advancement. The fisheries, aquaculture, and salt aquaculture sectors make considerable contributions to Indonesia's economy and serve as the principal sources of livelihood for a

substantial portion of the nation's populace (Purwanti et al., 2023). The impoverishment experienced by coastal fishermen persists as a troubling phenomenon, with their aspirations remaining largely unattainable. This situation is marked by income volatility, excessive consumptive expenditures, insufficient utilization of familial labor potential, and inadequate educational attainment. Frequently, these difficulties are exacerbated by the limited capacity of human resources within fishing households. A considerable number of fishers continue to depend on inherited, traditional methodologies that are transmitted from one generation to the next, lacking significant innovation or enhancement of skills. This intergenerational pattern, in which children of fishermen often follow the same occupational trajectory as their parents, reinforces low adaptability and limits opportunities for upward mobility (Riyani, Soemarni & Herawati, 2016). Therefore, this condition, referred to as multidimensional poverty, requires an investigation into the underlying factors and the provision of appropriate solutions to address the problem. Within this extensive framework of multifaceted vulnerability, it is imperative to recognize that the profession of fishing itself constitutes a high-risk endeavor. The undertaking of traversing the marine environment subjects fishermen to considerable occupational perils (Dzulqarnain, Wisnaeni, & Diamantina, 2022). These intrinsic hazards further exacerbate their economic precarity, as each fishing expedition possesses potential threats that may disrupt or jeopardize income stability.

Considering the lives of fishermen in their efforts to meet their own needs and those of their families, they face significant risks, such as the risk of natural factors. Based on direct interviews with fishermen, it was stated that the income they receive is not commensurate with the risks/challenges they face. In addition to the risks of natural factors, as discussed above, there are also various other causal factors such as limited fisheries facilities and infrastructure, low access to capital, the dominance of middlemen in the catch distribution chain, and a lack of financial literacy. This means that many factors contribute to the uncertainty of fishermen's income.

The data obtained from interviews conducted by the author with fishermen in three coastal regions Pekalongan, Juwana, and Tegal revealed that during each fishing trip, the fishermen caught no more than 7 kilograms of fish, with an average selling price of IDR 12,000 per kilogram (Interview Findings, 8 & 15 February 2025). As a comparison, the researcher also referred to several studies conducted by previous scholars in various regions of Indonesia to examine fishermen's sources of income. According to an interview published by The Junction with a fisherman in Cirebon, Suswanto stated that during the fishing season, he could catch between 5 and 10 kilograms of fish per trip, with a selling price of IDR 15,000 per kilogram. His average monthly income reached IDR 2,500,000, which must be allocated for household expenses, diesel fuel, fishing nets, and boat

maintenance (Chandra et al., 2022). Meanwhile, the average income of fishermen at PPI Kranji, Paciran District, Lamongan Regency, in the 2020–2021 period was IDR 1,216,901.10 (Sahidu, 2024). In Muara Gading Mas Village, East Lampung, in 2022, the main fishing products were threadfin bream (ikan kurisi) and beltfish (ikan layur), with selling prices ranging from IDR 25,000 to IDR 40,000 per kilogram. The income earned per fishing trip was recorded at IDR 2,462,304 for boat owners and IDR 625,576 for fishing crew members (Istiana, Ivan's, & Utami, 2024). Furthermore, in the Tangkolak coastal area, East Karawang, in 2022, fishermen who owned their boats earned an average monthly income of IDR 17,336,607 at the highest level, while others earned between IDR 5,000,000 and IDR 15,000,000 (Fitri, Abadi, & Sulandjari, 2023). In Bunga Bali Village, East Pantar District, Alor Regency, the projected average income of fishermen in March 2023 was IDR 1,473,302 (approximately IDR 1.47 million) (Tang, Lutang, & Dollu, 2022). Based on direct interview findings and supporting evidence from previous studies, it can be concluded that there has been a decline in fishermen's income.

Therefore, based on the sample data above, it is evident that the abundance of fishery resources in Indonesia is not proportional to the income levels of fishermen. This indicates a disparity between fishery potential and fishermen's earnings, resulting in poverty within coastal fishing communities.

Discussion about fishermen at the level of reality, based on the author's observations, fishermen are divided or grouped into:

1. fisherman owner (boss),
2. fisherman (laborer/worker),
3. small fishermen,
4. Traditional fishermen,
5. port fishermen (transport fishermen), and
6. fishing companies/industry.

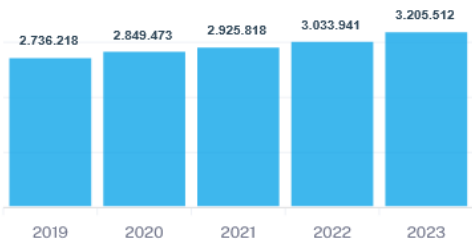
A fisherman owner (boss) is a person or individual who carries out a fishing business, with the right or authority over the ship/boat and/or fishing gear used to catch fish. A fisherman (laborer or worker) is someone who provides his labor or works to catch fish, which generally constitutes/forms a unit with others by receiving wages based on the profit sharing of the sale of the fish caught. Traditional fishermen are individuals whose work is fishing using boats and simple (traditional) fishing gear. With the limitations of boats and fishing gear, the reach of their fishing area is also limited, usually only 6 nautical miles from the coastline. These traditional fishermen are usually hereditary fishermen who fish to meet their living needs. Small fishermen are basically derived from traditional fishermen, only with the modernization/motorization program of boats and fishing gear, they no longer solely rely on traditional boats or conventional fishing gear, but also use diesel or motors, so that the reach of the fishing area is somewhat wider or far. Carrier fishermen (transport fishermen) are fishermen who do not directly catch fish and do not own their fishing gear (Halim et al., 2020). Therefore, carrier fishermen or transport

fishermen only provide capital, usually from the boss. They purchase fish at sea and then resell them on land, acting as intermediaries. Meanwhile, the term 'fishing company' or 'fishing industry' refers to the economic sector encompassing activities such as processing, preserving, storing, distributing and marketing fish and fishery products.

Furthermore, regarding the discussion on fishermen, particularly small-scale and traditional fishermen, their standard of living is also greatly influenced by their work system. Generally, their working hours are relatively short, usually just one day (*one day of fishing*). These conditions or habits result in suboptimal catches, resulting in low production levels and suboptimal incomes, resulting in low levels of welfare. Work system, *one day fishing* is due, among other things, to the vessels and equipment they use, as well as the culture of working only one day a week. Consequently, government policies, such as programs to increase vessel size and change fishing patterns from one day to multiple days, appear to be challenging to implement. These conditions pose obstacles to data collection and guidance provided by the central/regional government.

To find out more about the standard of living of fishermen living in coastal areas, below is the Statistical Data from the Ministry of Maritime Affairs and Fisheries (KKP), related to the number of fishermen, as follows:

Figure 1. Number of Fishermen

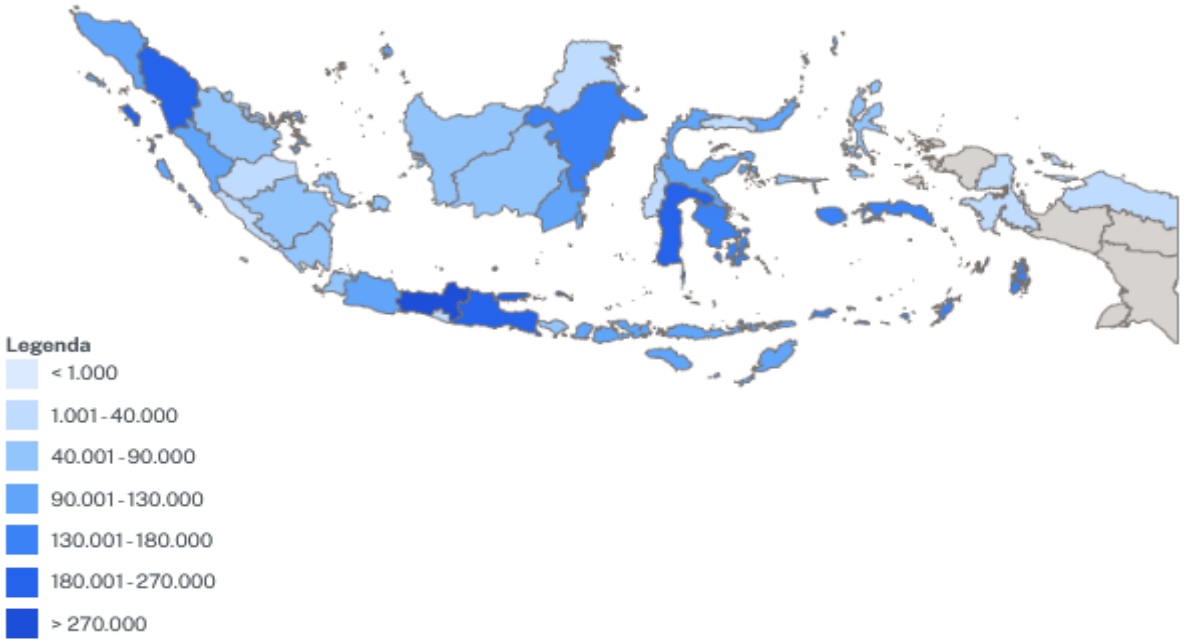


(Source: Kementerian Kelautan dan Perikanan Republik Indonesia, 2024)

Based on KKP statistical data, the number of marine fishermen in the capture fisheries sub-sector in 2021 was 2,925,818, in 2022: 3,033,941, and in 2023: 3,205,512. The large number of fishermen indicates the high dependence of coastal communities on marine resources, and based on these statistical data also shows a tendency for the number of fishermen to increase from year to year, meaning that the number of fishing communities who are increasingly dependent on marine resources to meet their living needs is increasing.

Next, the distribution data for fishermen can be seen below:

Figure 2. Distribution of Fishermen



(Source: Kementerian Kelautan dan Perikanan Republik Indonesia, 2024)

Figure 3.Top10 Fishermen

(Source: Kementerian Kelautan dan Perikanan Republik Indonesia, 2024)

Based on the number of fishermen as stated above, most of them, more or less 95.6 percent, are small fishermen (*small-scale fishery*) or traditional fishermen who operate around coastal areas. According to Law Number 31 of 2004 concerning Fisheries in conjunction with Law Number 45 of 2009, Small-scale fishermen are people whose livelihood is fishing to meet their daily needs, using fishing vessels with a maximum size of 5 Gross Tons (GT) (Prasetya, 2024).

Of the 95.6 percent categorized as small-scale fishers or traditional fishermen operating around coastal areas, as many as 80 percent of households are small-scale fishermen who do not

have boats or have boats without motors (Asiati & Nawawi, 2016). Yet, to support their work activities, fishermen require a fleet of vessels for maritime transportation. Ironically, according to the latest Ministry of Maritime Affairs and Fisheries data, capture fisheries production in the first semester of 2024 exceeded the target by 111.33%, or 3.34 million tons (BPRL, 2024). This means that the natural resources found in Indonesia's seas are highly potential and can be utilized through skills and expertise (education and training) and, of course, the use of technologically advanced vessels. The resulting capture fisheries production exceeds targets, certainly not achieved by small-scale or traditional fishermen.

Fishing vessels are divided into two categories based on technology: traditional and modern. Traditional fishing vessels utilize traditional equipment. They do not utilize technology and do not rely on modern equipment. Using relatively simple equipment is safer for the environment. They are not equipped with engines (boats without motors) and are relatively small (<5 GT) and use nets or fishing gear (Halim et al., 2020). This type of vessel is commonly used by traditional fishermen in various coastal areas of Indonesia. According to data from the Directorate General of Capture Fisheries, Ministry of Maritime Affairs and Fisheries, the number of fishing vessels in Indonesia has reached 570,000, the majority of which are non-motorized vessels, with a daily catch of only 10–20 kg. Meanwhile, in Indonesia's Exclusive Economic Zone (EEZ), there are 4,230 vessels, or less than 1% of the total fleet (Fithriah, 2023). The fleet size is the sum of three types of vessels: non-motorized boats, outboard motorboats, and motorized boats. Data from the Directorate General of Capture Fisheries at the Ministry of Maritime Affairs and Fisheries (2009) shows that 90% of Indonesian fishermen are small-scale fishermen with vessels under 30 GT deadweight who fish for subsistence purposes. The remainder are fishing companies with commercial or commercial purposes using vessels over 30 GT (Arsandi, Afriyanto, & Kumalasari, 2022).

The gap that occurs, namely between capture fisheries production in the first semester of 2024 exceeding the target (reaching 111.33% or 3.34 million tons) with the poverty level of fishermen in coastal areas, is very relevant when seen from the vessels used, which can be classified as traditional vessels with simple equipment, meaning that the vessel cannot reach further waters (limited distance) will automatically get little results, while technological vessels can reach distant waters, even to the Exclusive Economic Zone (EEZ), this shows that the need for fishing vessels is a major problem faced by traditional fishermen, of course not just vessels but technological vessels.

Furthermore, the author's observations indicate that not every fisherman can afford to have a fishing vessel to carry out their fishing activities at sea. This is because fishermen generally live in poverty and economic uncertainty due to the hardships they and their families face.

The number of poor fishermen in the whole land water reached 14.58 million souls, or around 90% of the 16.2 million fishermen throughout Indonesia are still below the poverty line (Goso & Anwar, 2017). These fishermen are classified as having a fishing capacity of no more than 30 gross tons. Most traditional small-scale fishermen live in 3,216 coastal villages.

Other data indicates that the number of poor fishermen in Indonesia accounts for 25% of the total national poverty rate. Of the 4 million coastal families living in 8,090 villages, 32% live on less than Rp 400,000 per month (Listyawati, 2021). The poverty of the fishermen can be seen from the inadequate conditions of their housing.

The vast potential of Indonesia's fisheries resources has not yet translated into a significant improvement in the welfare of fishing communities. This gap emerges because the utilization of marine space still faces various governance challenges, including the weakness of an integrated maritime security system. Consequently, conventional fishing practices lack sufficient legal safeguards, resulting in disproportionate access to aquatic resources between extensive commercial enterprises and smaller-scale fishermen. The vulnerabilities within maritime contexts, illegal resource exploitation, and the presence of overlapping institutional jurisdictions further intensify this disparity and perpetuate the ongoing poverty faced by coastal populations. Thus, the implementation of regulatory reforms and the fortification of maritime security frameworks are critically necessary to guarantee that the exploitation of fishery resources is fair and capable of yielding tangible economic advantages for local fishermen (Aryani, 2021).

The state has a legal obligation to ensure security, order, and protection for all activities within its maritime territory. This obligation is not only relevant to threats such as maritime terrorism, but also to traditional fishing activities that depend on safety and legal certainty in marine areas. Weak maritime oversight has the potential to cause losses for communities that rely on the sea, including small-scale fishers. This condition reinforces the argument that the disparity between the potential of fisheries resources and the welfare of fishing communities can occur when the state does not optimally carry out its functions in managing and protecting marine areas (Putra & Setyawanta, 2020)

The vulnerability of outermost islands due to weak state surveillance makes maritime areas prone to illegal activities, including illegal fishing. Yet the state is obligated, under UNCLOS 1982, to supervise and protect its marine resources. This weakness in maritime oversight affects not only security but also exacerbates inequality in the utilization of fisheries resources, as small-scale fishers become the most disadvantaged when access to and safety in marine areas are not guaranteed. This condition demonstrates that the vast potential of fisheries resources does not automatically improve the welfare of fishers if the state's management functions are not carried out effectively (Kusuma & Kurnia, 2022).

2. Solutions to the Problem of Inequality Between Fishery Resource Potential and the Poverty Level of Fishermen in Coastal Areas

In addressing the challenge of the imbalance between fishery resource potential and the poverty level of fishing communities in coastal areas, the author agrees with Yanto Yulianto, which was then formulated in detail by the relevant agency, namely the Ministry of National Development/Bappenas. Furthermore, it is important to understand that the survival of fishing communities is highly dependent on the utilization of available natural resources. Through sustainable efforts, it can be ensured that fishing communities can not only overcome economic challenges but also maintain environmental sustainability. In this context, the implementation of concrete steps is crucial to achieving the shared goal of creating a balance between fishery resource utilization and the welfare of fishing communities. One important aspect that requires attention is the sustainable management of fishery resources. Fishery resource management aims to maintain the sustainability of ecosystems and fish stocks by controlling fishing effort. As part of this effort, the Ministry of National Development Planning (Ministry of National Development Planning/Bappenas) and the Ministry of Marine Affairs and Fisheries (MMAF) have formulated strategies for implementing sustainable fisheries management, namely:

1. *Policy Direction Setting: Utilizing Fisheries Management Areas (FMAs) as the spatial basis for the management of marine and fishery resources* (ICCTF, 2019).
2. *Measured Fishing Concept: Evaluating the status of fish populations within each Fish Management Area (FMA) to establish regulations pertaining to catch quotas, vessel capacity, and the utilization of specific fishing apparatus (ICCTF, 2019).*
3. *National Medium-Term Development Plan (RPJMN) 2020–2024: Incorporating sustainable fisheries management into the Economic Resilience Development Strategy via the National Priority Program focused on Maritime and Marine Resource Stewardship (ICCTF, 2021).*
4. *Support for SDG 14: Dedication to the realization of the Sustainable Development Goals, with particular emphasis on SDG 14 which addresses Life Below Water (ICCTF, 2021).*

Beyond the technical aspects of fisheries resource management, empowering fishing communities also requires attention. This empowerment can begin with the simplest approach, namely, outreach. This can then be further enhanced with mentoring and skills training, including education. This is directly related, for example, to operating technologically advanced vessels. However, it doesn't stop there. Operating or "owning" a fishery, even if initially done as a group, requires access to capital. This is where strengthening the institutions of fishing groups and improving their social welfare

becomes crucial. Recent studies also indicate that adaptive certification schemes when aligned with local capacities can widen fishers' room to maneuver in managing their assets, deepen their involvement in collective governance, and improve the role of certification in promoting both social and ecological sustainability (Wiranthi, Toonen, & Oosterveer, 2024).

Below, it will be explained in more detail, as follows:

1. Long-term goals include increasing access to education. This is necessary to improve the quality of human resources in the future. One way to achieve this is by helping fishermen's children obtain a better education.
2. Medium term, namely by providing more technical assistance, such as providing gradual and rotating training to fishermen regarding the use of modern fishing gear, including repairs in the event of damage, and fishing technology to increase productivity.
3. Short-term measures include the government assisting in the form of modern fishing gear and more suitable vessels, facilitating access to business financing for fishermen through financial institutions, and involving fishermen's families in training on fisheries processing.

Empowering fishing communities means encouraging their active participation in decision-making regarding fisheries resource management through the formation of fishing groups, cooperatives, or joint management institutions. Community empowerment involves encouraging and motivating communities to identify and develop their potential and to have the courage to take steps to improve their quality of life. One way to achieve this is through education aimed at increasing individual awareness and capabilities (Putri, 2021).

Fishermen's empowerment can be carried out through three main strategies. First, a persuasive approach through guidance activities aimed at improving fishermen's understanding and awareness of the information provided. Second, education through training programs designed to enhance their skills in fish processing as well as in group management, including administration, financial management, and program implementation. Third, the provision of facilitative business assistance, whether direct or indirect, is instrumental in bolstering fishing activities and enhancing fish-processing operations. These empowerment strategies are anticipated to augment the capacities of fishermen in the stewardship of marine resources, thereby fostering their welfare, facilitating coastal community development, and contributing to food security (Badriyah et al., 2021).

Numerous scholarly investigations have demonstrated that the empowerment of coastal communities can be realized through the management of natural resources, which includes transforming these resources into conservation-oriented tourism destinations. Management involving business partnerships or Village-Owned Enterprises (BUMDes) has been proven to increase village income and welfare (Turisno et al., 2021). One example is the use of reclaimed

land for mangrove cultivation, port construction, and tourism development. This utilization not only supports environmental conservation but also opens up new economic opportunities for coastal communities (Dewi, 2019). With proper management, reclamation can even be transformed into a sustainable tourism area that maintains environmental sustainability while strengthening the local economy (Turisno & Dewi, 2021).

Moreover, fisheries management frameworks such as quotas and zoning are imperative for the empowerment of coastal communities. Such policies are essential for preventing overexploitation, maintaining fish populations, encouraging the adoption of environmentally sustainable fishing practices and improving catch reporting systems (Suherman et al., 2025). However, establishing maritime zones can also affect the livelihoods of fishers, especially those involved in small-scale operations. These fishers often face challenges due to environmental degradation, competition for marine space and limited access to fishing areas (Fabinyi et al., 2022).

The sustainable paradigm delineated above necessitates a holistic framework that encompasses economic, social, cultural, environmental, educational, legal, and institutional dimensions. Programs aimed at empowering fishermen should extend beyond the provision of fishing equipment to include enhancements in market access, educational opportunities for the children of fishermen, the fortification of cooperatives, and the management of marine ecosystems. Policies aimed at diminishing inequality are also crucial, without compromising fisheries sustainability; for instance, through social assistance for economically disadvantaged fishermen, sustainable fisheries training, a more equitable tax structure, green financing strategies, and environmentally considerate coastal planning (Uzar & Eyuboglu, 2025). The restricted access to administrative knowledge and the complexities of population-documentation processes continue to impede numerous coastal households from securing vital public services at both local and national strata (Alfons, Soplanit, & Bakarbessy, 2024). These obstacles signify that empowerment initiatives in isolation are inadequate when communities are bereft of the administrative literacy necessary to navigate formal channels for acquiring governmental support. Such structural impediments curtail their eligibility for social protection programs, diminish their engagement in development initiatives, and undermine their negotiating capacity within institutional frameworks. This trend intimates that the enhancement of welfare in coastal regions demands not solely economic interventions, but also the dismantling of bureaucratic barriers that inhibit fishermen from reaping the full benefits of state policies.

The same structural challenge is further reflected in recent empirical findings demonstrating the growing importance of digital inclusion for coastal welfare. A study employing a two-stage procedure (2SPS) shows that

Internet adoption significantly enhances small-scale fishermen's subjective well-being particularly happiness and life satisfaction. While also identifying distinct socio-economic factors that shape the likelihood of becoming Internet users. Education, fishing experience, and off-farm work were found to strengthen well being, whereas access to credit and certain fishing equipment had the opposite effect. These findings highlight that administrative literacy and digital connectivity are critical gateways to public services, information access and socio-economic opportunities. Accordingly, policies that coordinate the expansion of telecommunication infrastructure and strengthen regional internet strategies are instrumental in reducing institutional exclusion and supporting long-term coastal development (Putri et al., 2024).

In light of these multidimensional constraints and the necessity of an integrated empowerment framework, targeted governmental interventions are essential for addressing structural poverty in coastal regions.

'Blue Justice', a concept introduced by Moeniega Isaacs in 2018 at the 3rd World Small-Scale Fisheries Congress organised by the TBTI in Thailand, refers to a socially just perspective on small-scale fisheries. It critiques the marginalisation of small-scale fishers resulting from ocean privatisation, elite-driven tourism and conservation initiatives promoted under the Blue Economy and rights-based fisheries. The term emphasises the importance of fairly recognising, equitably treating, and meaningfully involving small-scale fishers in the use, management, and access to marine and coastal resources. It emphasises that these communities must be actively involved in, and have the ability to influence, policy decisions and activities that shape their coastal environments and the sustainability of marine ecosystems. The Blue Justice framework emphasises several key elements: guaranteeing access to fisheries resources; promoting gender equality and food security; protecting aquatic ecosystems; ensuring sustainable marine resource management; improving fishers' economic and social well-being; supporting positive cultural impacts; and fostering inclusive governance (Wisnaeni et al., 2025).

The importance of Blue Justice is particularly evident when considered in the context of poverty in small-scale fishing communities. Many coastal households experience structural poverty, not only due to limited productivity, but also because they have increasingly limited access to marine resources due to privatisation, restrictive conservation policies and development projects that favour capital-intensive actors. This exclusion undermines their livelihood security and reduces their ability to benefit from the ocean economy. Blue Justice provides a framework for addressing these root causes of poverty by advocating equitable access, recognition of rights, and participatory policy-making. It emphasises that fair governance and inclusive management of marine resources are essential for improving the welfare

of small-scale fishers and advancing sustainable coastal development (Wisnaeni et al., 2025).

In 2021, the government strived to reduce extreme poverty in 35 key districts across 7 provinces, 24 of which are located in coastal areas. The government is paying close attention to efforts to address poverty in coastal areas. According to information from the Ministry of Finance, the 2021 cross-ministerial budget for various productivity improvement and empowerment programs in coastal areas reached more than 76 trillion rupiah. Programs such as basic food aid and direct village cash assistance were also expanded to 35 districts/cities in 7 priority provinces, including 24 coastal districts. Coordinating Minister for Economic Affairs Airlangga Hartarto articulated that endeavors to diminish extreme poverty in coastal regions are inextricably linked to broader efforts encompassing fundamental infrastructure development, cash-for-labor programs, capital support, and financing for micro, small, and medium enterprises (MSMEs), as well as productive initiatives related to job creation (Komdigi, 2021). Within this expansive policy framework, contemporary empirical investigations highlight that access to financial resources, particularly formal credit, is instrumental in facilitating fishers' implementation of adaptation strategies. Fishers who possess dependable credit channels exhibit a markedly enhanced ability to address the financial demands associated with adaptive measures, whereas those who lack such fiscal assistance are more inclined to abandon essential modifications, thus exacerbating their susceptibility to both environmental and economic pressures (Rahman, Toiba, & Huang, 2021). Concurrently, the fortification of institutional governance is imperative, especially concerning the oversight of fisheries infrastructure across various administrative tiers. Provincial authorities are charged with the responsibility of determining the sites and supervising the operations of provincial fishing ports, while regencies and municipalities are relegated to the management of Fish Auction Sites (TPI). This delineation of jurisdiction emphasizes the necessity of maintaining and enhancing fisheries port facilities, encompassing both core operational frameworks and ancillary support systems, to guarantee that fisheries activities function efficiently and sustainably (Nurhadi, Diamantina, & Indarja, 2024).

In addition to this administrative directive, the function of TPI is intrinsically linked to the economic well-being of fishermen. In practical terms, TPIs operate as formalized market institutions where fishers and purchasers partake in transparent price negotiations within a regulated auction environment. Ideally, this framework serves to safeguard fishers against price manipulation by intermediaries and ensures that transactions accurately reflect equitable market value. Furthermore, TPIs are structured to bolster fishers' financial resilience through obligatory savings mechanisms associated with each sale, providing a form of managed capital accumulation that can underpin future operational

endeavors. These institutional functions indicate that TPIs should operate not merely as transactional hubs but as protective economic instruments capable of reducing fishermen's exposure to exploitative market dynamics (Aji, Wisnaeni & Herawati, 2016). The government is committed to improving the welfare of fishermen by improving their operations and maintaining the quality of their catch. To maintain the quality of their catch, the government is providing cold storage facilities and an ice factory. According to the Minister of Maritime Affairs and Fisheries, a 600-ton cold storage facility and a 100-ton ice factory have been established in the Brondong and Paciran areas (Kemenko PMK, 2024).

The government has assisted poor fishermen, including Non-Cash Food Assistance (BPNT) provided in non cash form or the form of necessities, usually rice and eggs worth Rp600,000.00 per month. In addition, there is the Family Hope Program (PKH) to break the chain of poverty. Poor fishermen who meet the requirements are (1) pregnant women with a maximum of two pregnancies; (2) having a toddler in one family with a maximum of two children; and (3) having a maximum of one elementary school-aged child in one family. Not all poor fishermen receive this assistance because they do not meet the requirements.

Beyond these social assistance programs, the government also implements a broader set of structural protection measures designed to enhance the socio-economic resilience of fishermen. These measures include the provision of fisheries and salt-farming infrastructure, assurance of business certainty, risk-mitigation schemes for fishing, aquaculture, and salt production, as well as efforts to eliminate high-cost economic practices. The government further regulates the importation of fisheries and salt commodities, strengthens safety and security standards, and provides legal facilitation and assistance for fishermen (Sagala, Soemarmi, & Diamantina, 2017).

These initiatives illustrate that fisher protection does not rely solely on direct assistance but also on institutional improvements and governance reforms that underpin coastal economic activities.

Based on various empirical conditions and government policies discussed in the previous sections, it can be understood that the issue of disparity between the potential of fisheries resources and the poverty level of coastal communities cannot be analyzed solely from a practical or policy-oriented perspective. This problem fundamentally stems from the lack of harmony between resource management, economic access, social structure, and the legal institutions that govern the lives of coastal communities.

D. CONCLUSION

The disparity between the potential of fishery resources in Indonesia's coastal areas and the sources of income of traditional fishermen is quite significant. The majority of small-scale or traditional fishermen living in Indonesia's coastal

areas suffer from substandard or poor livelihoods, despite abundant fish resources. This condition is not solely attributable to the potential availability of fishery resources, but is influenced by a variety of underlying factors. Therefore, efforts to improve the welfare of fishermen require economic interventions such as subsidies or equipment assistance. Furthermore, a comprehensive strategy is needed, which includes improving marketing systems, strengthening fishermen's cooperatives, implementing sustainable social protection policies, and enhancing access to education.

At the legal level, regulations related to fisheries resource potential, coastal area management, including empowerment, and poverty alleviation strategies for fishermen appear to be adequate, but their implementation has not yet achieved the desired results. The government has also attempted to take strategic steps to address this imbalance, but this goal appears to have failed. Based on the research conducted, the author concludes that the appropriate solution to achieve a balance between fisheries resource utilization and community welfare is to empower fishing communities using a holistic and sustainable approach. The government, relevant institutions, and fishing communities themselves need to work together to create effective and targeted programs.

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