

ANALYSIS OF PAYANG FISHERMEN'S INCOME AT THE NUSANTARA FISHERIES PORT (PPN) PALABUHANRATU

Analisis Pendapatan Nelayan Payang di Pelabuhan Perikanan Nusantara (PPN) Palabuhanratu

Muhamad Ari Hamdan*, Ine Maulina, Iskandar, Iwang Gumilar

Department of Fisheries, Faculty of Fisheries and Marine Sciences, Padjadjaran University

Bandung Sumedang Highway KM 21. Jatinangor 45365

*Corresponding author: muhamad20061@mail.unpad.ac.id

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ABSTRACT

This study aims to analyze business income, profit-sharing systems, and the income of payang fishermen at the Nusantara Fisheries Port (PPN) Palabuhanratu, Sukabumi Regency. The research employs a quantitative descriptive method involving 17 payang fishing boats as samples chosen through random sampling. Primary data were collected via structured interviews, while secondary data came from official documents of PPN Palabuhanratu. The results reveal that the average net income per trip during the off-season, moderate, and peak seasons were IDR 3,500,440, IDR 4,310,359, and IDR 4,130,308, respectively. The profit-sharing system applied is a 2:1 distribution, with two parts for the boat owner and one part for the fishermen, plus an additional 5% for the helmsman. The boat owners earn between IDR 28–61 million per month, helmsmen earn IDR 3.5–7.7 million, and crew members earn IDR 1.2–2.7 million monthly. Compared to the 2024 Sukabumi minimum wage of IDR 3,351,883, only helmsmen during the moderate and peak seasons earn above the standard, while the crew members remain below the minimum wage across all seasons. Factors affecting fishermen's income include season conditions, number of trips, catch volume, fish prices, and profit-sharing patterns. These findings indicate that the income of payang fishermen remains seasonal and unstable, especially for crew members, necessitating policy efforts to improve their welfare.

Keywords: Fishermen's Income, Payang, Profit-Sharing, Palabuhanratu, Fisheries Economics

ABSTRAK

Penelitian ini bertujuan menganalisis penerimaan usaha, sistem pembagian hasil, dan pendapatan nelayan payang di Pelabuhan Perikanan Nusantara Palabuhanratu, Kabupaten Sukabumi. Metode yang digunakan adalah deskriptif kuantitatif dengan sampel 17 unit kapal payang yang dipilih secara random sampling. Data primer diperoleh melalui wawancara terstruktur dan data sekunder dari dokumen resmi PPN Palabuhanratu. Dari hasil penelitian, rata-rata penerimaan bersih per trip pada musim paceklik, sedang, dan puncak masing-masing sebesar Rp3.500.440, Rp4.310.359, dan Rp4.130.308. Sistem bagi hasil memakai pembagian 2:1, di mana dua bagian untuk pemilik kapal dan satu bagian untuk nelayan dengan tambahan 5% untuk juru mudi. Pendapatan pemilik kapal berkisar antara Rp28–61 juta per bulan, juru

mudi Rp3,5–7,7 juta, dan ABK Rp1,2–2,7 juta per bulan. Dibandingkan dengan UMK Sukabumi 2024 sebesar Rp3.351.883, hanya juru mudi musim sedang dan puncak yang mendapatkan pendapatan di atas UMK, sedangkan ABK selalu di bawah UMK di semua musim. Faktor pendapatan nelayan dipengaruhi oleh kondisi musim, jumlah trip, hasil tangkapan, harga ikan, dan pola bagi hasil. Hal ini menunjukkan pendapatan nelayan payang masih musiman dan tidak stabil, terutama bagi ABK, sehingga diperlukan kebijakan untuk meningkatkan kesejahteraan mereka.

Kata Kunci: Bagi Hasil, Ekonomi Perikanan, Palabuhanratu, Payang, Pendapatan Nelayan

INTRODUCTION

Capture fisheries constitute one of the important subsectors in the development of Indonesian fisheries, particularly in providing employment opportunities, fulfilling community protein needs, and contributing to the coastal economy. Traditional fishers are the most dominant group in capture fisheries activities; however, they are also the most socioeconomically vulnerable group (Kusnadi, 2006). This vulnerability is mainly reflected in fluctuations in catch yields, dependence on seasons, and income instability.

The payang fishing gear is one type of fishing gear widely used by fishers in the southern region of West Java, including at the Palabuhanratu Archipelagic Fishing Port (PPN Palabuhanratu). Payang has characteristics as an active fishing gear operated by several people on a single vessel, with an operational system that relies on team coordination and experience in interpreting sea conditions. The main catch of payang generally consists of small pelagic fish such as Indian mackerel, frigate tuna, and scad, so its productivity is highly dependent on fishing seasons and fish migration (Fauzan *et al.*, 2024).

Fishers' income is an important indicator in assessing the welfare of fishing households. The magnitude of income received is influenced by catch yields, fish prices, the number of fishing trips, operational costs, and the profit-sharing system applied between vessel owners, skippers, and crew members (ABK). Disproportionate profit-sharing systems often lead to income inequality, where vessel owners receive a larger share than labor fishers, thereby widening welfare disparities (Dharma *et al.*, 2023; Febriansyah, 2017).

PPN Palabuhanratu is one of the important centers of fisheries activities in Sukabumi Regency. Payang activities at this port are quite intensive and involve a large workforce. Nevertheless, the income of payang fishers remains highly fluctuating and vulnerable to seasonal conditions. During the lean season, catch volumes decrease significantly, resulting in low income. Conversely, during the peak season, income increases but remains uneven due to the distribution system of catches influenced by capital ownership.

Studies related to the income of payang fishers have been conducted in several regions such as Majene (Fitriah, 2021), Paciran (Firmansyah, 2015), and Probolinggo (Rachman *et al.*, 2013); however, specific research analyzing the income of payang fishers at PPN Palabuhanratu, particularly using a profit-sharing approach and income calculations based on fishing seasons, is still limited. This emphasizes the importance of this study in providing an overview of the income structure of payang fishers in the area.

METHODS

The research was conducted at the Palabuhanratu Archipelagic Fishing Port (PPN Palabuhanratu), Sukabumi Regency, in July 2024. The method used was descriptive quantitative to describe the income of payang fishers based on actual field conditions. The research population consisted of 30 payang fishing vessels actively operating. Sample determination used the Slovin formula with an error tolerance of 20%, resulting in 17 vessels as samples. From each vessel, three respondents were interviewed, consisting of the vessel

owner, the skipper, and one crew member, so that the total number of respondents was 51 people. Primary data were obtained through structured interviews using questionnaires, observation of fishing activities, and recording of costs and catch yields. Secondary data were sourced from the UPT PPN Palabuhanratu.

Data were analyzed descriptively and quantitatively. Business revenue was calculated based on catch yields multiplied by fish prices per trip. Net income was obtained from the difference between revenue and total fishing costs. The profit-sharing system was calculated using a 2:1 provision, namely two shares for the vessel owner and one share for the fishers, with an additional 5% of the owner's share allocated to the skipper. Income per trip was then converted into monthly income based on the average number of trips in each fishing season. Fishers' income was subsequently compared with the Sukabumi Regency Minimum Wage (UMK) to assess welfare levels.

RESULTS

Business Revenue

The business revenue of payang fishers was obtained from fish sales per trip in each fishing season. Table 1 presents the average revenue per trip and per month based on fishing seasons.

Table 1. Net Income of Payang Fishing Business at PPN Palabuhanratu

Fishing Season	Average Revenue per Trip (Rp)	Total Cost Per Trip (Rp)	Net Income Per Trip (Rp)	Average Trips Per Month	Net Income Per Month (Rp)
Lean	4.741.532	1.241.092	3.500.440	13	45.505.722
Moderate	5.551.451	1.241.092	4.310.359	16	68.965.749
Peak	5.371.400	1.241.092	4.130.308	24	99.127.384

Profit Sharing System

The profit-sharing system for payang boats at the Palabuhanratu PPN uses a three-part division: two for the boat owner and one for the fisherman, with an additional 5% share for the helmsman from the owner's share. Thus, the profit-sharing ratio can be formulated as follows:

- Owner's Income after profit sharing = $\frac{2}{3} \pi - (5\% \times \pi \frac{2}{3})$
- Helmsman's Income = $\frac{1}{12} \times \frac{1}{3} \pi + (5\% \times \pi \frac{2}{3})$
- ABK Income (1 person) = $\frac{1}{12} \times \frac{1}{3} \pi$

Payang Fishermen's Income

Fishermen's income is the portion each party receives after the profit sharing is completed. Income is calculated per trip and converted into monthly income.

Table 2. Average Monthly Income Based on the Profit Sharing System for Payang Fishermen at the Palabuhanratu Fishing Port

Season	Trips per Month	Owner (Rp)	Helmsman (Rp)	ABK (Rp)
Lean	13	28.061.862	3.539.334	1.264.048
Moderate	16	42.528.879	5.364.003	1.915.715
Peak	24	61.128.554	7.709.908	2.753.538

Factors affecting Income

Fishermen's income is influenced by the fishing season, number of trips, fluctuations in fish prices, and profit-sharing schemes that limit the crew's share of their income. Peak seasons increase trip frequency and catch volume, while lean seasons lead to decreased revenue for all fisher categories.

Table 3. Factors Affecting the Income of Payang Fishermen at the Palabuhanratu Fishing Port

No.	Factors	Description of Impact on Income
1	Fishing Season	The peak season increases fish availability, weather conditions are more stable, resulting in increased catch volume and income. During the lean season, catches are low and income decreases.
2	Number of Fishing Trips	The more trips undertaken in a month, the greater the chance of achieving a catch and income. However, this is also influenced by the ability to finance operational costs.
3	Catch Volume	The catch volume per trip directly determines total business revenue. High productivity significantly impacts fishermen's income.
4	Fish Price at the Fisherman Level	Fluctuations in the price of tuna, mackerel, and scad affect revenue. High prices during certain seasons can increase fishermen's income.
5	Profit-Sharing System	A 2:1 split (owner: fisherman) and an additional 5% for the helmsman affect the proportion of income received by each party. Crew fishermen receive the smallest share, impacting their welfare.

DISCUSSION

Income from Payang Fishing Business

The results of the study indicate that the business revenue of payang fishers at PPN Palabuhanratu is strongly influenced by fishing season conditions. During the lean season, catch yields and fishing frequency decline, resulting in an average revenue per trip of only IDR 3,500,440. In contrast, during the moderate and peak seasons, fish availability is higher, leading to increased revenues of IDR 4,310,359 and IDR 4,130,308 per trip, respectively. This pattern is consistent with the findings of Kukuh *et al.* (2018), who stated that peak fishing seasons generally occur when water conditions are stable and schools of small pelagic fish are located close to fishing grounds.

Differences in revenue among seasons indicate that payang fishing operations are highly vulnerable to coastal environmental dynamics. This high dependence on seasonal conditions is also explained by Suman *et al.* (2017), who noted that small-scale fisheries are generally seasonal in nature, making fluctuations in catch yields the main factor influencing fishers' economic stability. Thus, the business revenue obtained by payang fishers reflects the general characteristics of traditional fisheries that are not yet able to operate optimally throughout the year.

Payang Profit-Sharing System at PPN Palabuhanratu

The profit-sharing system applied by payang fishers at Palabuhanratu consists of two shares for the vessel owner and one share for all fishers, with an additional 5% of the owner's share allocated to the skipper. This distribution pattern reflects a labor relationship structure that places the vessel owner as the dominant party because they bear all operational costs and equipment damage risks. This finding is consistent with studies by Kusnadi (2006) and Laila (2010), which state that capital owners in traditional fisheries generally receive a larger proportion of the catch to compensate for the magnitude of capital investment and business risks.

The mechanism of providing an additional 5% to the skipper is also commonly found in small-scale fisheries, as recognition of their role in determining navigation direction, fishing locations, and operational safety. A similar model was reported by Firmansyah (2015) in a study of payang fisheries in Lamongan. Thus, the profit-sharing system in Palabuhanratu remains in line with the general pattern of traditional Indonesian fisheries, although it still leaves inequality in distribution between vessel owners and crew members.

Income of Payang Fishers

Income among fishers in different positions shows a fairly sharp disparity. Vessel owners earn the highest income, ranging from IDR 28–61 million per month, which is far greater than that of skippers (IDR 3.5–7.7 million) and crew members (IDR 1.2–2.7 million). This disparity is consistent with the characteristics of capital-oriented fisheries, where fishing gear owners receive the largest profits because they bear investment and operational costs.

When compared with the Sukabumi Regency Minimum Wage (UMK) for 2024 (IDR 3,351,883), only skippers during the moderate and peak seasons are able to exceed the minimum income standard. Most crew members remain below the UMK, indicating that their welfare level is relatively low. This finding is in line with the results of Nikijuluw (2002) in Mutmainnah (2020), which state that crew members in many regions remain in low-income groups due to limited profit-sharing proportions and restricted productive assets.

This condition confirms that the profit-sharing system has not yet been fully able to improve the welfare of labor fishers. In addition, the equal distribution of shares among crew members further reduces individual income as the number of crew increases.

Factors Affecting Income

Several main factors influencing the income of payang fishers at PPN Palabuhanratu include:

1. Fishing Season

Seasonality is the most dominant factor affecting catch volume. During the lean season, high wave conditions and fish migration away from the coastline significantly reduce productivity. This finding is consistent with Dahuri (2003), who emphasized that small pelagic fish resources exhibit seasonal migration patterns closely related to changes in local oceanographic conditions.

2. Number of Fishing Trips

Income increases as the number of trips rises; however, this depends on the fishers' capital capacity to cover operational costs. According to Rahmadani *et al.* (2022), fishing frequency is a key indicator of productivity levels in small-scale fisheries.

3. Fish Prices

Fluctuating fish prices in response to market demand directly affect the magnitude of business revenue. During peak seasons, prices tend to be more stable due to high supply, but this is not always advantageous if oversupply leads to price declines.

4. Profit-Sharing System

The 2:1 scheme positions vessel owners as the largest income recipients. As explained by Gufon (2018), profit-sharing systems in traditional fisheries often reinforce income inequality because they do not adequately consider the workload and risks borne by crew members.

Overall, the income of payang fishers is strongly influenced by natural dynamics, cost structures, and labor relations within the profit-sharing system. The combination of these factors causes fishers' income to be fluctuating and not yet reflective of stable welfare for most workers in this sector.

CONCLUSION

This study shows that the business revenue of payang fishing at PPN Palabuhanratu is strongly influenced by fishing seasons. The highest average revenue per trip occurs during the moderate and peak seasons, while the lean season shows the lowest revenue values. The applied profit-sharing system, namely a 2:1 distribution between vessel owners and fishers with an additional 5% for skippers, results in a much lower proportion of income received by workers (skippers and crew members) compared to vessel owners.

The monthly income of vessel owners is far above the Sukabumi Regency Minimum Wage for 2024, whereas skippers' income only exceeds the UMK during the moderate and peak seasons. Meanwhile, crew members' income consistently remains below the UMK in all seasons. This indicates that the welfare level of crew members is still low and highly dependent on fishing season conditions.

The main factors influencing fishers' income include fishing seasons, number of trips, fish price fluctuations, and profit-sharing mechanisms. Overall, the study results confirm that payang fishers' income is unstable, shows disparities among actors within a single fishing unit, and still requires special attention in policies aimed at improving fishers' welfare.

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