

AN ANALYTICAL STUDY OF BUDGET TRENDS OF KERALA FISHERIES SCHEMES

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Abstract

This study examines the budgeted receipts and expenditures of state schemes under the Kerala Fisheries Department over a decade, analyzing their influence on the economic and social progression of the community. The study highlights the significance of fisheries in Kerala's economy, the allocation of funds across various schemes, and the challenges faced in infrastructure development and community support. The comprehensive analysis underscores the need for balanced and strategic investment to enhance the fisheries sector's sustainability and community welfare. The trend line, as per the study, suggests that over the chosen study period, budget receipts have generally increased relative to expenditures. When determining which sector is more relevant for a state, a number of economic and financial variables should be taken into account. The fishing industry is just as significant to a state's economy as any other, especially for Kerala. The budgeting decision defines a sector in terms of their commercial scope, identified opportunities, people welfare objectives, along with the prospective performance to contribute towards the gross domestic product. So, this study emphasis on the estimated income and expenditure of some significant fisheries schemes over a period of ten years

Keywords:- Kerala Fisheries, Budget Trends, Fisheries Management, Schemes Analysis, Government Funding.

Marine fisheries form the backbone of Kerala's fisheries sector, given the state's 590-kilometer coastline and vast Exclusive Economic Zone (EEZ). This sub-sector plays a vital role in employment generation, contributing significantly to Kerala's economy and providing livelihoods for nearly 1.6 million people,

directly and indirectly (fisheries.kerala.gov.in). Recognizing its importance, the state has consistently prioritized marine fisheries in its annual budgets and development plans.

Recent allocations reflect a focus on upgrading fishing harbors, modernizing vessels, and supporting deep-sea fishing to boost fish exports. For example, during

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the 13th Five-Year Plan, the umbrella scheme for marine fisheries received ₹ 99.67 crore to enhance infrastructure and resource sustainability (spb.kerala.gov.in). Additionally, conservation and sustainability measures, such as a ₹ 5 crore allocation for fish stock rehabilitation in the 2023-2024 budget, underscore Kerala's dual commitment to economic development and marine resource protection (finance.kerala.gov.in).

In the fiscal year 2023-2024, the Government of Kerala allocated ₹ 321.31 crore to the fisheries sector, with ₹ 61.1 crore specifically earmarked for marine fisheries schemes ([Times of India](#)). This allocation underscores the state's commitment to enhancing marine infrastructure and promoting sustainable fishing practices. Key initiatives include the modernization of fishing crafts and the provision of insurance coverage for fishing implements, as outlined in the Marine Fishing Implements scheme ([Kerala Fisheries Department](#)). Additionally, the Pradhan Mantri Matsya Sampada Yojana (PMMSY), a central government scheme, aims to develop Fish Farmers Producers Organizations (FFPOs) and establish Integrated Aqua Parks, further bolstering the marine fisheries sector ([PMMSY](#)). These concerted efforts reflect a strategic approach to addressing challenges such as overfishing and climate change, ensuring the long-term sustainability of marine resources and the economic well-being of coastal communities. By emphasizing marine fisheries, this study aims to analyze how budget trends align with the sector's evolving challenges and potential, particularly in addressing overfishing,

climate adaptation, and the welfare of coastal communities.

Research Questions

1. What are the key schemes under Kerala's fisheries department that significantly influence the economic and social progression of fishing communities?
2. What are the patterns and changes in budgeted receipts and expenditures of state schemes under the Kerala fisheries department over the past ten years?

Scope of the Study

This study focuses on the analysis of state-level schemes implemented by the Kerala fisheries department, with a particular emphasis on marine fisheries. The primary scope includes assessing the economic and social impacts of these schemes on fishing communities, particularly in terms of livelihood enhancement, welfare measures, and community development. Additionally, the study evaluates the financial patterns and trends in budgeted receipts and expenditures allocated to these schemes over the last ten years (e.g., 2013–2023), identifying shifts in priorities and resource distribution.

The geographic scope is limited to Kerala, a state where fisheries contribute significantly to the economy and livelihoods of coastal populations. The temporal scope covers a decade, allowing for the observation of long-term trends, policy shifts, and responses to emerging challenges such as climate change, overfishing, and sustainability concerns. The study also integrates central

government contributions (e.g., PMMSY) where relevant, to understand their interaction with state schemes.

This research is intended to provide insights for policymakers, researchers, and stakeholders by identifying gaps, evaluating effectiveness, and suggesting improvements to enhance the socio-economic and ecological outcomes of fisheries management in Kerala.

Significance of the Study

This study holds significant value for policymakers, researchers, and stakeholders in Kerala's fisheries sector. By analyzing the schemes that influence the economic and social progression of fishing communities, it provides insights into how state-led initiatives can enhance the livelihoods of coastal populations. The research sheds light on the alignment of budget allocations with the needs of fishing communities, highlighting gaps in resource distribution and suggesting improvements to ensure equitable benefits.

Additionally, by examining the budget trends of Kerala's fisheries department over the past decade, this study offers a comprehensive understanding of financial priorities and policy shifts. It also underscores the importance of sustainable practices, particularly in marine fisheries, where ecological challenges such as overfishing and climate change pose significant threats. The findings can guide future budgetary decisions to ensure the sector's growth aligns with environmental conservation and socio-economic equity. Furthermore, this study provides a critical framework for replicating successful schemes in other coastal states, thereby

contributing to national-level fisheries development strategies.

Review of Literature

The economic significance of marine fisheries in Kerala has been widely acknowledged in academic and policy research. Studies consistently highlight the sector's critical role in providing livelihoods, contributing to food security, and sustaining the state's socio-economic structure. Kurien (1995) emphasizes the unique cultural and economic dependency of Kerala's coastal communities on marine fisheries, underscoring the necessity of state intervention through targeted schemes and subsidies. In his work, the findings point to the cyclical nature of marine resources and the need for fiscal policies that address seasonal vulnerabilities.

A study by the State Planning Board of Kerala (2018) shows that investments in marine infrastructure, such as fishing harbors and landing centers, significantly improve both fish handling efficiency and export potential (State Planning Board, Kerala). Additionally, authors like Ramachandran et al. (2021) examine the effectiveness of specific schemes like the MatsyaKeralam project, highlighting its success in increasing inland and marine fish production while promoting responsible fishing practices.

Scholars have also analyzed the intersection of sustainability and financial planning in marine fisheries. Padmaja and Ajith Kumar (2020) explore how budget trends reflect Kerala's increasing emphasis on climate resilience in fisheries, as evidenced by conservation-focused initiatives, such as the Fish Stock

Rehabilitation Fund. Similarly, Jacob et al. (2019) argue that greater allocations for deep-sea fishing and vessel modernization are not only essential for boosting fish exports but also necessary to reduce the pressure on overexploited near shore waters.

Central government initiatives like the Pradhan Mantri Matsya Sampada Yojana (PMMSY) have also been widely studied for their role in complementing Kerala's fisheries schemes. Das et al. (2022) point out that the convergence of state and central budgets has enabled large-scale projects like artificial reef deployment and the establishment of Fish Farmers Producers Organizations (FFPOs), both of which are critical to ensuring economic viability and ecological balance in marine fisheries (Das et al., 2022).

Rajeev and Philip (2017) examined the budgeting patterns for marine fisheries in Kerala, highlighting the state's increasing allocation toward infrastructure development and welfare schemes. Their work emphasizes the importance of long-term financial planning in sustaining coastal economies. Similarly, Singh and Mathew (2019) analyzed the effectiveness of these policies over a ten-year period, finding that while state investments have improved livelihoods, challenges such as the equitable distribution of resources persist.

The World Bank (2021) reinforced the importance of sustainable fisheries management as a core component of Kerala's blue economy strategy, advocating for a balance between economic growth and ecological conservation. Vijayan and Dhanuraj (2020) contributed to this discourse by identifying

fiscal trends that align with community welfare initiatives, including modernizing fishing harbors and promoting deep-sea fishing ventures. Furthermore, the United Nations Food and Agriculture Organization (FAO, 2021) underscored the role of innovative strategies, such as artificial reefs and habitat restoration, in advancing sustainability while supporting fishing communities. Collectively, these studies provide a nuanced understanding of how budget trends impact the socio-economic and environmental landscape of Kerala's marine fisheries sector.

In conclusion, the literature reflects a growing alignment between budgetary priorities and sustainable development goals in Kerala's marine fisheries. However, Bavinck et al. (2023) mentioned that persistent challenges such as inadequate budget execution, lack of comprehensive data on marine fish stocks, and the marginalization of artisanal fishers demand further policy refinement. By analyzing these trends, future studies can provide actionable insights into how budget allocations can better address the evolving needs of the sector.

Methodology

The study involves a comprehensive analysis of budget receipts and expenditures data from the Kerala Fisheries Department over the period 2013-2023. Data were sourced from annual plan documents, budget reports, and other relevant government publications. Quantitative methods were used to identify trends, fluctuations, and patterns in the budget allocations and expenditures. Key focus areas include fisheries resource conservation, marine

fisheries, inland fisheries, supporting facilities, fishery harbors, and social security and livelihood support schemes.

State Schemes–Kerala Fisheries Department

The State Plan (2023–24) allocates the entire budget to six types of programs. Kerala government provides all funding for the State plan schemes, which account for 80 per cent of the total plan outlay of 321.31 crore. The central government or the state government would contribute the remaining funds. The government proposed to spend 257.11 crores of the 321.31 crores appropriately for 2023–2024; however, this amount is susceptible to change based on the state of the economy.

Fisheries Resource Conservation Scheme

The scheme's foremost objectives are fish resource management and conservation, which are bolstered by related surveys, studies, and inquiries into fisheries infrastructure. To guarantee the expected benefits of fisheries conservation, a number of panchayat-based fisheries production and management initiatives are carried out in Kerala. The program is expected to cost close to 6 per cent of the entire expenditure.

Marine Fisheries Schemes

According to the most current scenario, marine fisheries schemes take the largest share of funds. Development of fish landing facilities, fleet modernization, harbor upkeep, motorization of traditional fishing vessels, and other coastal area development packages have been the

key objectives of the programs. There are programs that offer fuel subsidies, production bonuses, health care assistance, and integrated community development to assist marine fishermen. In addition to this, the national government is funding three more programs under the Pradhan Mantri Matsya Sambada Yojana and the Blue Revolution. According to recent data, the government is making an effort to upgrade the fishing fleet.

Inland Fisheries

Schemes that expedite the development of aquaculture, inland production, reservoir fisheries, the building of institutional infrastructure to support and extend aquaculture services, creative production enhancement initiatives, and the cleansing of water resources fall under this category. By providing 75 per cent of the funding assistance, the National Fisheries Development Board (NFDB) has significantly aided Kerala's inland fisheries. The concerned state and federal government bodies to successfully carry out the suggested programs include the Fisheries Innovation Council, NABARD, Matsyabhavans, and National Fisheries Development Board.

Supporting Facilities

To integrate underprivileged people into society at large, more village-based programs focused on assist fishing are being developed. This is one area where the government has focused more on improving livelihood aid through providing loan subsidies, seafood processing infrastructure, auto loans for online commerce, and the development of coastal social infrastructure. Kerala

Aqua Ventures International Limited (KAVIL), National Fish Seed Farms and Nurseries, Kerala Coastal Development Corporation, NABARD, MATSYAFED, and Agency for Developmental Aqua Culture Kerala have all been involved in the implementation of these programs.

Fishery Harbours

Kerala has twelve landing centers and fourteen fishing harbors where boats dock and unload their catch. Workers confront uncertainty due to a decrease in fish capture and a weak infrastructure. Fishing harbours play a vital role in supporting coastal communities and contributing to the economy. They provide essential infrastructure for fish landing, processing, and distribution, ensuring efficient handling of catch. Additionally, harbours enhance safety for fishermen, facilitate seafood export, and foster cultural traditions. Maintaining and upgrading

these harbours is crucial for livelihoods, food security, and economic growth. The state and Central governments have planned, carried out, and overseen the construction of harbors and other related projects in order to promote the country’s economic development. Hence, ten of the twenty-five initiatives are primarily managed by the central government.

Social Security and Livelihood Support

The government has a moral obligation to protect people who depend on marine resources and who have lost loved ones or their property as a result of accidents that occur near the coast or in the sea. The development of coastal areas and the welfare of the fishing population are the main focuses of this head. The main strengthening criteria of the fishing community are improved education, the development of rural

Table 1
Budget Receipts and Expenditures (2013-2023)

State Schemes(Kerala Fisheries Department)		
Year	Total budget Receipts of Fisheries department (In Crores)	Total expenditures of fisheries department (In crores)
2013-14	193.35	157.04
2014-15	232.52	164.29
2015-16	293.12	272.84
2016-17	268.79	267.96
2017-18	320.08	364.26
2018-19	389.43	298.6
2019-20	280.15	211.18
2020-21	235.68	241.98
2021-22	233.62	287.44
2022-23	267.33	302.21

Source: Fisheries Guide 2023

infrastructure, greater accessibility to basic amenities, and protection against marine disasters. The government of the state has been pushing the people to improve their quality of life by providing both monetary and non-monetary support. The

government could significantly reduce community marginalization by concentrating on accelerating the development of basic infrastructure.

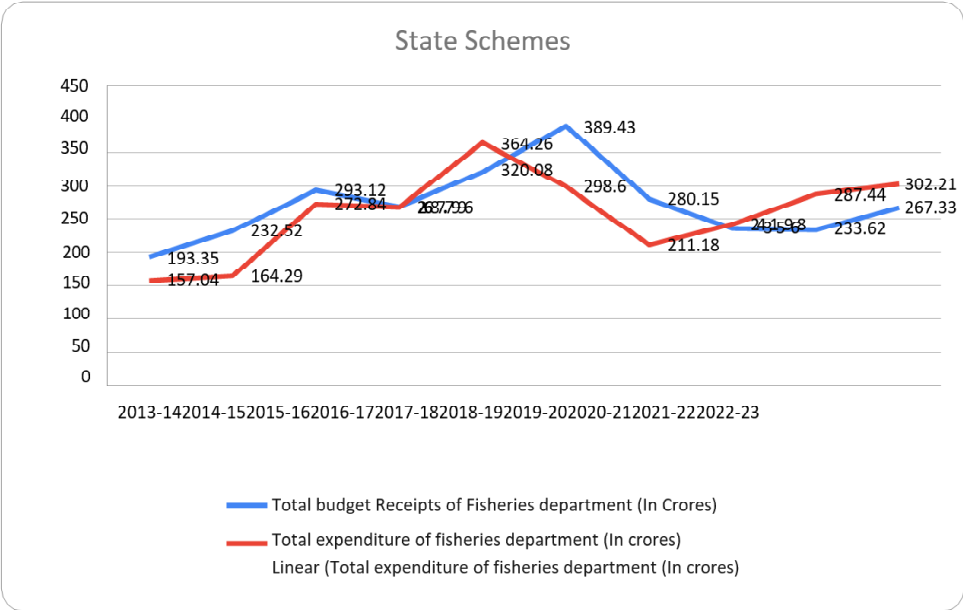
Table 2 categorizes schemes into distinct heads, reflecting the Kerala

Table 2
Schematic Details–Budget Estimate of Expenditure (2023-2024)

Head of schemes	Number of Schemes	Total Outlay
Fisheries Resources Conservation	2	15 Crore
Marine Fisheries	20	34.1 Crore
Inland Fisheries	14	82.11Crore
Supporting facilities	16	62.5 Crore
Fishery Harbors	25	12.9 Crore
Social Security and Livelihood Support	15	50.5 Crore
Total		257.11 Crore

Source: AnnualPlanVolumeI2023-24(kerala.fisheries.gov.in)

Figure1
Budget receipts and expenditures of fisheries Schemes



Fisheries Department's strategic focus areas. This segmentation allows for targeted initiatives to address specific needs within each category, such as conservation efforts, marine fisheries development, inland fisheries promotion, infrastructure support, harbors improvement, and social security or livelihood support for fishing communities.

Analysis and Discussion

Trends in Budget Receipts and Expenditures

An analysis of Kerala Fisheries Department's budget data from 2013-2023 reveals a fluctuating trend in both receipts and expenditures. In between 2013-2018, there was a significant increase in budget receipts, peaking at ₹389.43 crores in 2018-19. This rise indicates enhanced state focus on fisheries development, likely influenced by the government's efforts to modernize the sector and implement welfare schemes. However, post-2018, receipts decreased, with 2021-22 recording one of the lowest figures at ₹233.62 crores, possibly due to shifting state priorities or external economic factors like the pandemic.

Similarly, expenditures showed fluctuations, with a peak of ₹364.26 crores in 2017-18. This period corresponds to intensified investment in infrastructure and fisheries-related welfare schemes. The expenditures, however, fell to ₹211.18 crores in 2019-20, reflecting possible delays in project implementation or reallocation of resources. Despite fluctuations, recent years (2020-23) show gradual stabilization, indicating a more adaptive financial management strategy by the department.

Allocation Priorities in 2023-24

The 2023-24 budget allocations, totaling ₹321.31 crores, illustrate Kerala's strategic emphasis on specific fisheries sub-sectors. Inland fisheries received the highest outlay of ₹82.11 crores, reflecting a growing focus on aquaculture and inland fishery resource development. Conversely, marine fisheries were allocated ₹34.1 crores, with priority given to fleet modernization, harbor development, and welfare schemes for fisher folk. Social security and livelihood support schemes received ₹50.5 crores, underscoring the government's commitment to improving the living standards of coastal communities.

Emerging Patterns and Observations

1. Increased Investment in Inland Fisheries:

Over the years, inland fisheries have seen a consistent increase in budget allocations, likely due to the state's strategy to diversify fish production and reduce pressure on marine resources.

2. Marine Fisheries Modernization:

The focus on modernizing fishing vessels, providing fuel subsidies, and improving harbors highlights the government's dual objectives of increasing export potential and promoting sustainability.

3. Fluctuations in Receipts and Expenditures:

The inconsistent financial trends suggest a need for better long-term planning and allocation efficiency to maximize the impact of fisheries schemes.

4. Focus on Community Welfare:

Allocations for social security and livelihood schemes reflect a shift toward improving the socio-economic resilience

of fishing communities amidst challenges like climate change and declining fish stocks.

Strategic Implications

The analysis underscores the Kerala Fisheries Department's evolving priorities and adaptive budgeting strategies. However, the decreasing trend in budget receipts post-2018 raises concerns about resource sustainability. Increased allocations for inland fisheries and social welfare schemes suggest a shift toward holistic and inclusive fisheries management. Still, targeted efforts are needed to ensure that marine fisheries, a critical component of Kerala's economy, receive sufficient financial support to address challenges like overfishing and resource depletion.

Future budgets must strike a balance between ecological sustainability, technological advancements, and community welfare to secure the long-term growth of Kerala's fisheries sector.

Conclusion

The data provides insights in to the financial management and implementation of state schemes by the Kerala Fisheries Department from 2013-14 to 2022-23. It underscores the department's efforts to leverage allocated funds effectively to support fisheries development, infrastructure enhancement, and livelihood improvements in the state. Analysing these trends helps in understanding the financial health of the department and its impact on the fisheries sector's growth and sustainability initiatives.

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