

The Role of Women in the Local Fisheries and Livestock Industry

Ummul wafia^{1*}, Feliks Afrid Guampe², Albetris³

^{1,2,3}Department of Master Economics, Universitas Tadulako, Palu, Indonesia

*Corresponding Author

Jl. Soekarno Hatta Km. 9, Tondo, Kec. Mantikulore, Kota Palu, Sulawesi Tengah, 94118, Indonesia.

e-mail: ummulwafia@gmail.com

Received: April 28, 2026; **Revised:** May 09, 2026; **Accepted:** May 19, 2026

Abstract: The fisheries and livestock sector plays a strategic role in supporting food security and local economic development, particularly in rural and coastal areas. In these sectors, women make significant contributions to various stages of production, processing, and marketing; However, their role is often under-recognized and under-supported. The study aims to analyze the role of women in the local fisheries and livestock industries, focusing on their economic contributions, the determinants of participation, and the challenges they face. This study uses a systematic literature review (SLR) approach, synthesizing findings from scientific publications indexed on Google Scholar. The analysis follows structured stages, including identification, screening, feasibility assessment, and thematic synthesis of relevant studies. The results show that women play an important role in post-harvest processing, small-scale livestock management, and household financial management, which contribute significantly to household income and economic resilience. Nonetheless, their participation is limited by limited access to capital, training, technology, and decision-making power, as well as sociocultural norms and dual responsibilities within households. The study concludes that strengthening women's access to resources and integrating gender-responsive policies are essential to increase productivity and sustainability in these sectors. Further, future research should adopt an integrated quantitative approach to more comprehensively measure women's economic contribution across fisheries and livestock systems.

Keywords: economic contribution, fisheries industry, livestock sector, women's role.

How to Cite: Wafia, U., Guampe, F. A., & Albetris. (2026). The role of women in the local fisheries and livestock industry. *Tadulako Balia Journal of Disaster Risk Reduction and Sustainable Development*, 1(1), 01-07

Copyright 2026 © The Author(s)

The work is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International \(CC BY-SA 4.0\)](https://creativecommons.org/licenses/by-sa/4.0/)



INTRODUCTION

The development of the fisheries and livestock sector is a strategic part of supporting global and national food security. Globally, the fisheries sector accounts for more than 17% of the world's animal protein needs, while the livestock subsector contributes significantly to the supply of meat, dairy, and other derivative products. In Indonesia, the fisheries and livestock sectors are the backbone of the natural resource-based economy, especially in coastal and rural areas. The contribution of these two sectors to the national Gross Domestic Product (GDP) has shown a positive trend in recent years, as demand for food and exports of marine products and livestock commodities have increased. In the national context, the capture and aquaculture sector and the smallholder livestock subsector absorb millions of workers, both directly and indirectly. National

statistical data shows that most of the business actors in this sector are on a micro and small scale, with family-based production patterns. This household-based business model opens up a wide space for family members, including women, in various stages of production, processing, and product marketing.

Socio-economically, women in coastal and rural areas have a role that is not only limited to the domestic sphere, but also active in productive economic activities. In the local fisheries industry, women are involved in the processing of catches, drying fish, packaging, and distributing products to traditional markets. Similarly, in the livestock sector, women play a role in small-scale livestock maintenance, milk processing, feed production, and financial management of livestock household businesses. While women's contributions in both sectors are significant, recognition of their roles and contributions is often not proportionately reflected in development policies, access to capital, training, and decision-making. This phenomenon shows a gap between women's actual contributions and their structural position in the local economic system, thus raising the need for more in-depth and quantitatively measurable studies. (Elias et al., 2024)

At the local level, women's roles in the fisheries and livestock industries are often informal and not systematically documented. Activities carried out by women, such as processing fishery products and raising domestic livestock, are often considered an extension of domestic duties. As a result, the resulting economic contribution is not always recorded in official statistics or in the comprehensive calculation of family income. The main problems faced by women in this sector include limited access to capital, technology, managerial training, and marketing networks. In addition, social and cultural norms in some regions still place women in subordinate positions in business decision-making. (Anggraini et al., 2018)

This condition has an impact on women's low bargaining power in local industrial structures and limited opportunities to increase business scale. Another challenge faced is the double burden that women must bear, namely carrying out domestic roles as well as productive roles. The imbalance in the division of household labor causes women to have limited time and energy to develop their businesses optimally. In the long term, this situation has the potential to hinder the productivity and growth of local fisheries and livestock businesses. In addition, the lack of quantitative data that specifically measures women's contribution to household income and business sustainability is an obstacle in the formulation of evidence-based policies. Without strong empirical data, empowerment program interventions are often not on target or less effective in improving the welfare of women entrepreneurs in the fisheries and livestock sectors.

Based on this description, this study aims to quantitatively analyze the role of women in the local fisheries and livestock industry, especially in relation to its contribution to household income, business productivity, and economic sustainability. This study also aims to identify factors that affect the level of women's participation and contribution in both sectors. Theoretically, this research is expected to enrich the treasures of science in the fields of development economics, gender studies, and fisheries and livestock economics. With a systematic quantitative approach, the results of this study can provide stronger empirical evidence regarding the strategic position of women in local economic structures. Practically, this research is expected to be the basis for local governments, non-governmental organizations, and other stakeholders in formulating more targeted empowerment policies and programs. The quantitative data generated can be used to develop strategies to improve women's access to capital, training, technology, and markets.

Thus, this research not only seeks to fill academic gaps, but also makes a real contribution to strengthening the role of women in inclusive and sustainable local economic development.

Through a measurable scientific approach, it is hoped that policies and practices will be created that are more equitable and responsive to the needs of women in the fisheries and livestock sectors.

METHOD

This study uses a systematic literature review (SLR) approach as the main method to analyze the role of women in the local fisheries and livestock industry. This approach was chosen because it is able to provide a comprehensive synthesis of previously published empirical findings, resulting in a more structured conceptual and analytical understanding of the contributions, determinants, and challenges faced by women in both sectors. Systematic literature review is a research method based on literature review that is carried out in a planned, systematic, and transparent manner. This method allows researchers to objectively identify, evaluate, and integrate the results of previous research to minimize selection and interpretation bias. With this approach, the research not only summarizes the literature, but also conducts a critical analysis of the quality and relevance of each source. The selection of the SLR method is based on the need to obtain a comprehensive picture of the position of women in the multidimensional economic structure of fisheries and livestock. Given the complexity of gender issues in the productive sector, a systematic approach is essential to ensure that all relevant scientific evidence can be gathered and analysed consistently. (Danny Simatele et al., 2016)

This research is categorized as qualitative-descriptive research based on secondary data. The main focus of the research is not on the collection of field data, but on an in-depth analysis of existing scientific publications. Thus, the validity of the findings is highly dependent on the quality of the literature sources used. The research design follows the general stages of systematic literature review, namely literature identification, initial screening, eligibility, and final inclusion of relevant articles. These stages are carried out sequentially and documented to ensure the transparency of the selection process. The source of data for this research is scientific articles indexed on Google Scholar as well as reputable national and international journals. The selection of sources is carried out by considering the credibility of the publisher, the reputation of the journal, and the relevance of the substance to the research topic. The literature search was conducted using a combination of keywords in Indonesian and English, including "the role of women in fisheries", "women in fisheries industry", "the role of women in livestock", "women in livestock sector", "gender and rural economy", and "women economic contribution in fisheries and livestock". The use of this keyword variation aims to expand the scope of the search and avoid terminology limitations.

The inclusion criteria for articles in this study include several main requirements. First, the article must be a scientific publication that has gone through a peer review process. Second, articles were published within the last ten to fifteen years to ensure the relevance and novelty of the data. Third, the article focuses on the role of women in the fisheries, livestock, or rural economy sectors. Fourth, the article uses an empirical approach, both quantitative, qualitative, and mixed. In contrast, the exclusion criteria include non-academic articles such as popular opinions, reports without a peer review process, as well as publications that do not directly address the role of women in the productive sector. Articles that only address general aspects of gender without any connection to the fisheries or livestock sector are also not included in the analysis. The literature identification stage begins with an initial search based on predetermined keywords. The search results are then compiled and recorded in the initial list of references for further filtering. At the screening stage, the researcher reads the title and abstract of each article

to assess its suitability with the focus of the research. Articles that are considered relevant are then read thoroughly to ensure that the substance is really related to the variables and issues being studied.

The eligibility stage is carried out by evaluating the methodological quality of the article, including the clarity of the research objectives, the suitability of the method, and the consistency between the findings and conclusions. Articles that meet the methodological standards are then included in the final analysis stage. Data from articles that passed the selection were extracted into a literature matrix. This matrix contains information about the author's name and year of publication, the location of the research, the research method used, the main variables analyzed, the main findings, and the implications of policies or scientific contributions. The data extraction process is carried out systematically to ensure that all important information is well documented. The literature matrix functions as an analytical tool in identifying patterns, differences, and similarities in findings between studies. Furthermore, a thematic synthesis of the research findings was carried out. This synthesis groups the results of the research into several main categories, such as women's economic contribution to household income, determinants of women's participation, structural and sociocultural barriers, and the impact of women's involvement on business sustainability. Through the process of thematic categorization, this study was able to develop a conceptual framework that describes the relationship between variables in a more systematic manner. This analysis also helps identify general trends as well as differences in context between research regions. In addition to thematic synthesis, this study conducted gap analysis. This analysis aims to identify aspects that have not been widely studied, such as the integration of the fisheries and livestock sectors in a single gender analysis framework, as well as the limitations of quantitative approaches in measuring women's economic contribution comprehensively. To maintain the validity and reliability of the data, this study applies the principles of transparency and traceability of references. All articles used are listed in full in the bibliography, allowing for re-verification by other researchers.

Source triangulation is also carried out by comparing research results from different regions and methodological approaches. This comparison aims to obtain more comprehensive conclusions and reduce the possibility of bias due to differences in local context. The systematic literature review method used in this study has relevance to previous studies in the field of gender and rural development. Previous studies have shown that SLR is effective in summarizing scattered empirical evidence as well as producing an integrated conceptual synthesis. Based on the results of the literature review, this study compiled a synthesis framework that maps the role of women in aspects of production, processing, marketing, and business management. In addition, determinant factors such as education, access to capital, training, and social norms that affect women's participation rates were also identified. The conceptual framework resulting from this literature review is the theoretical basis for further research that is quantitative and empirical. Thus, this research does not only stop at the synthesis stage, but also opens up opportunities for the development of more applicable research models. The expected output of this method is a comprehensive mapping of the position and contribution of women in the fisheries and livestock industry, as well as the identification of research gaps that are still open for further study. In addition, the results of the research are expected to be able to provide policy recommendations based on scientific synthesis, especially in the formulation of more effective and inclusive women's empowerment strategies in the local fisheries and livestock sectors. With a systematic literature review approach that is structured and based on credible scientific sources, this research is expected to be able to produce a strong theoretical and empirical foundation in

understanding the dynamics of the role of women in the fisheries and livestock sector comprehensively and based on scientific evidence.

RESULTS AND DISCUSSION

Based on the results of systematic literature search and selection, a number of scientific articles were obtained that were relevant to the theme of the role of women in the local fisheries and livestock industry. These articles include quantitative, qualitative, and mixed-methods research conducted in various rural and coastal areas. A synthesis of research results shows that women have a real contribution in the production value chain, although these contributions are often not formally documented. Literature findings show that in the fisheries sector, women are more dominant in the post-harvest stage, such as processing, drying, smoking, packaging, and local-scale marketing. These activities directly contribute to increasing product added value and the stability of fishermen's household income. In several quantitative studies, women's income contribution from the fishery product processing sector was reported to be able to contribute a significant proportion to the total family income. In the livestock sector, women are generally involved in raising small livestock, processing derivative products such as milk and eggs, and managing household business finances. The literature shows that women's involvement in business financial management has a positive effect on the efficiency of expenditure and the sustainability of small-scale livestock businesses. (Gul et al., 2024)

The results of the synthesis also show that women's participation in the two sectors plays an important role in maintaining household economic resilience, especially when there are fluctuations in commodity prices or a decrease in production output. Women are often adaptive actors who diversify products or income management strategies to minimize economic risks. In terms of economic contribution, a number of quantitative studies analyzed in this literature review show a positive relationship between the level of women's involvement and the increase in household income. The higher the participation of women in productive activities, the greater the contribution to the economic stability of the family. However, the literature also reveals that women's roles still tend to be informal and lack formal recognition in business structures. Many women's productive activities are not recorded in the business administration system, so their contribution is less visible in official statistics. (Leonardi, n.d.)

The determinants of women's participation that most often appear in the literature include education level, business experience, access to training, and availability of capital. Women who have access to technical and managerial training tend to show higher productivity and business innovation. Access to capital is also an important factor in increasing the scale of women's businesses. The literature shows that limited access to formal credit makes women more dependent on domestic domestic capital or informal loans, which often limits business expansion. Social and cultural norms were also identified as factors influencing women's participation rates. In some areas, patriarchal social structures limit women's involvement in business decision-making, so their role is more at the operational than strategic stage.

In addition, the double burden borne by women has proven to be a significant obstacle in business development. The literature shows that women who have high domestic responsibilities tend to have limited time to attend training or expand their marketing networks. The results of the study also indicate that women's empowerment through joint business groups or cooperatives has a positive impact on increasing production capacity and market access. The collective institutional model is considered to be able to strengthen women's bargaining positions in local industrial structures. From a business sustainability perspective, the literature shows that

women's involvement in business management contributes to product diversification and production stability. Women tend to develop derivative products to increase added value and reduce the risk of dependence on one commodity. However, the results of the literature review also confirm the limitations of previous research. Most studies still separate the analysis between the fisheries and livestock sectors, so they do not provide an integrative picture of the role of women in multi-sectoral household economies.

In addition, quantitative approaches that comprehensively measure the amount of women's economic contribution in both sectors simultaneously are still relatively limited. This shows that there is a need for further research that is able to develop multivariate analysis models to test the relationships between variables more systematically. In general, the results of this literature review-based research confirm that women are key actors in the sustainability of the local fisheries and livestock industry. Their contribution is not only economic, but also strategic in maintaining social stability and household resilience. These findings also show that increasing women's access to capital, training, technology, and market networks has the potential to have a significant impact on local business growth. Therefore, gender-responsive policy interventions are an important factor in supporting the development of an inclusive fisheries and livestock sector.

The results of this synthesis show that the integration of gender perspectives in the formulation of local economic development policies is not only an issue of social justice, but also a strategy to increase productivity and sustainability of the sector. Thus, this literature review produced a comprehensive mapping of women's participation patterns, determinant factors, structural barriers, and the impact of women's involvement on business income and sustainability. Overall, this study confirms that strengthening the role of women in the local fisheries and livestock industry requires an integrated data-based and policy-based approach, so that women's contributions can be systematically optimized. The results of this study serve as a conceptual and empirical basis for further quantitative research, especially in examining statistically the relationship between women's participation variables, determinant factors, and business sustainability indicators at the local level.

CONCLUSIONS

Based on the background, systematic literature review method, and the results of previous research synthesis, it can be concluded that women have a strategic and significant role in the local fisheries and livestock industry, especially in the aspects of production, processing, business management, and marketing, which contribute directly to increasing household income and economic resilience; However, these contributions still face various structural obstacles such as limited access to capital, training, technology, decision-making, and domestic double burdens that hinder the optimization of their roles. This study answers the research objectives by providing a comprehensive mapping of participation patterns, determinants, and barriers faced by women, as well as identifying research gaps in the form of limited integrative quantitative approaches across fisheries and livestock sectors. Therefore, it is recommended that further research based on empirical quantitative be used to statistically measure the amount of women's economic contribution and test the influence of determinant factors on business sustainability, in order to support the formulation of more gender-responsive and evidence-based development policies.

REFERENCES

- Anggraini, Y. (2018). Peran perempuan masyarakat pesisir dalam meningkatkan the role of women in coastal communities improve family income of fishermen in the village of Bayah sub district of Bayah Lebak regency. *Jurnal Kebijakan Pembangunan*, 13(1), 97-106.
- Vincent, K. (2022). A review of gender in agricultural and pastoral livelihoods based on selected countries in west and east Africa. *Frontiers in Sustainable Food Systems*, 6, 908018.
- Elias, M., Zarembo, H., Tavenner, K., Ragasa, C., Paez Valencia, A. M., Choudhury, A., & de Haan, N. (2024). Towards gender equality in forestry, livestock, fisheries and aquaculture. *Global Food Security*, 41. <https://doi.org/10.1016/j.gfs.2024.100761>
- Gul, S., Mir, S. A., Qayoom, H., & Shafiq, U. (2024). The Role of Women in Small-Scale Fisheries: A Comprehensive Review. *International Journal on Emerging Technologies*, 15(2), 26–28.
- Leonardi, A. (2025). Sistematis Literature Review Pemanfaatan Teknologi Informasi dan Komunikasi oleh Perempuan Nelayan dalam Perikanan Skala Mikro. *Global Komunika: Jurnal Ilmu Sosial dan Ilmu Politik*, 8(3).