J-TEDA (Journal of Tabulation Economic Data)
Vol. 1 No. 1 November 2025, 57-70

FOOD PRICE VOLATILITY AND GENDER ROLE TRANSFORMATION: ECONOMIC PRESSURE AND HOUSEHOLD ADAPTATION IN WEST NUSA TENGGARA PROVINCE, INDONESIA

Ahmad Gautsul Anam[1]

[1]Akademi Bisnis Lombok, E-mail: ahmadgautsulanam@bisnislombok.ac.id

Abstract:

This study examines the relationship between food price volatility and gender role transformation within households in West Nusa Tenggara Province during 2024. Using a mixed-methods approach that combines statistical analysis of food price data from the Central Bureau of Statistics with qualitative document analysis of family law frameworks, this research reveals that significant fluctuations in staple food prices particularly rice (Rp14,568-Rp16,666/kg), shallots (up to Rp41,736/kg), and beef (around Rp120,000/kg) have created substantial economic pressure on low to middle-income families. The findings demonstrate that economic stress has catalyzed a shift in traditional gender roles, with women increasingly participating in productive economic activities to supplement household income. From a legal perspective, this transformation represents a legitimate form of family cooperation (ta'awun) rather than a violation of traditional breadwinner responsibilities outlined in Marriage Law No. 1/1974 and the Compilation of Islamic Law. The study concludes that food price instability serves as a structural driver of gender role adaptation, necessitating policy interventions that protect dual-income households while maintaining family resilience.

***Key words**: food price volatility, gender role transformation, household economics, family resilience*

Abstrak:

Penelitian ini mengkaji hubungan antara volatilitas harga pangan dan transformasi peran gender dalam rumah tangga di Provinsi Nusa Tenggara Barat selama tahun 2024. Menggunakan pendekatan metode campuran yang menggabungkan analisis statistik data harga pangan dari Badan Pusat Statistik dengan analisis dokumen kualitatif terhadap kerangka hukum keluarga, penelitian ini mengungkapkan bahwa fluktuasi signifikan pada harga pangan pokok khususnya beras (Rp14.568-Rp16.666/kg), bawang merah (hingga Rp41.736/kg), dan daging sapi (sekitar Rp120.000/kg) telah menciptakan tekanan ekonomi substansial pada keluarga berpenghasilan rendah hingga menengah. Temuan menunjukkan bahwa tekanan ekonomi telah mengkatalisis pergeseran peran gender tradisional, dengan perempuan semakin berpartisipasi dalam aktivitas ekonomi produktif untuk menambah pendapatan rumah tangga. Dari perspektif hukum, transformasi ini merupakan bentuk kerjasama keluarga (ta'awun) yang sah alih-alih pelanggaran tanggung jawab pencari nafkah tradisional yang diatur dalam UU Perkawinan No. 1/1974 dan Kompilasi Hukum Islam. Studi ini menyimpulkan bahwa ketidakstabilan harga pangan berfungsi sebagai pendorong struktural adaptasi peran gender, yang memerlukan intervensi kebijakan untuk melindungi rumah tangga berpenghasilan ganda sambil mempertahankan ketahanan keluarga.

Kata kunci: *volatilitas harga pangan, transformasi peran gender, ekonomi rumah tangga, ketahanan keluarga*

A. Introduction

The family unit functions not merely as a biological institution but as a complex socio-economic system responsible for meeting the fundamental needs of its members. When economic instability emerges due to fluctuations in basic commodity prices, the structure and roles within families often undergo significant transformations. This phenomenon frequently manifests in gender role shifts, where women assume additional economic responsibilities to sustain household welfare. Understanding these dynamics becomes particularly crucial in developing regions where household economies remain vulnerable to market volatilities and where traditional gender role expectations intersect with contemporary economic realities.

Indonesia, as an archipelagic nation with diverse regional economic characteristics, experiences varying degrees of food price instability across its provinces. West Nusa Tenggara (Nusa Tenggara Barat/NTB) Province represents a particularly interesting case study due to its unique socio-economic profile characterized by substantial agricultural dependence, moderate poverty rates, and strong adherence to traditional family structures informed by both national law and Islamic legal principles. The province's geographic location and economic composition make it especially susceptible to food price fluctuations, creating natural conditions for observing household adaptation mechanisms.

Data from the Central Bureau of Statistics (Badan Pusat Statistik/BPS) of West Nusa Tenggara Province for 2024 indicates significant fluctuations in prices of strategic commodities. Medium-quality rice (grade C4) prices ranged between Rp14,568 and Rp16,666 per kilogram, representing substantial monthly variations that directly impact household food security. Shallots, a staple ingredient in Indonesian cuisine, reached peak prices of Rp41,736 per kilogram during certain periods, representing increases of over 100% from baseline prices. Meanwhile, beef prices remained relatively stable around Rp120,000 per kilogram, though this price point itself represents a significant expenditure for low to middle-income households. These price movements illustrate the economic pressure experienced directly by families, particularly those in urban centers such as Mataram City, Bima City, and Sumbawa Regency, where household budgets allocate substantial portions to food consumption.

The socio-legal context surrounding these economic changes adds another layer of complexity to the analysis. Indonesian family law, embodied in Marriage Law No. 1 of 1974 and the Compilation of Islamic Law (Kompilasi Hukum Islam/KHI), establishes the husband as the primary breadwinner responsible for providing nafkah (maintenance) to the family. Article 34 paragraph (1) of the Marriage Law explicitly states that husbands bear the responsibility of protecting and providing for the family, while Article 80 paragraph (4) of the KHI details the husband's obligation to provide adequate maintenance according to his ability. However, when structural economic factors such as inflation and food price volatility compromise a husband's ability to fulfill this obligation, families must adapt through alternative strategies, often involving women's increased economic participation.

This intersection of economic pressure and gendered legal responsibilities creates tensions between normative expectations and practical necessities. When household income proves insufficient to maintain basic living standards due to rising food costs, women frequently enter or expand their participation in the informal economy—selling prepared foods, engaging in small-scale trading, or providing services—to bridge the gap between income and expenditure. This transformation from primarily reproductive roles (household management and care work) to combined reproductive and productive roles represents a significant shift in family dynamics that warrants systematic investigation.

From a sociological perspective, such adaptations can strengthen family solidarity through shared economic responsibility, but they may also generate role conflicts, particularly when the redistribution of economic and domestic responsibilities occurs without adequate negotiation or mutual understanding. The double burden faced by women who simultaneously manage household duties and income-generating activities raises questions about equity, well-being, and long-term family sustainability. Moreover, the informal nature of many economic activities undertaken by women in response to price pressures often leaves them without social protection, labor rights, or legal recognition of their economic contributions.

This study aims to comprehensively analyze the impact of food price volatility on gender role transformation within families in West Nusa Tenggara Province, examining both the mechanisms through which economic pressure drives household adaptation and the implications of these changes from socio-legal perspectives. Specifically, the research seeks to: (1) quantify the magnitude and patterns of food price fluctuations in NTB during 2024 and assess their impact on household economic burden; (2) examine how families respond to food price pressure through gender role adaptations, particularly regarding women's economic participation; (3) analyze these transformations through the lens of Indonesian family law and Islamic legal principles to understand the normative implications of changing gender roles; and (4) provide evidence-based recommendations for policy interventions that can protect household welfare while respecting cultural and legal frameworks.

The relationship between economic stress and gender role transformation has been extensively documented in development economics and family sociology literature, though regional variations require context-specific analysis. Ashraf et al. (2020) demonstrate that food price shocks disproportionately affect vulnerable households in developing countries, with women often serving as shock absorbers through increased labor force participation. Their analysis of cross-country data reveals that a 10% increase in food prices correlates with a 3-5% increase in women's informal sector participation in households below the poverty line. This finding resonates with the NTB context, where informal economic activities provide flexible income-generation options for women balancing household responsibilities.

The theoretical framework of household economic stress and coping strategies has evolved significantly over recent decades. Vogler (2022) advances a resource bargaining model that emphasizes how external economic shocks alter intra-household power dynamics and decision-making processes. When male breadwinners experience income reductions or face increased costs, women's economic contributions become more valued, potentially shifting bargaining positions within the household. However, this shift does not automatically translate to more equitable household relations, as traditional gender ideologies may persist even as economic roles change.

In the Indonesian context, research on gender and household economics has increasingly recognized the tension between Islamic legal principles and contemporary economic realities. Nurmila (2020) examines how Indonesian Muslim women negotiate religious interpretations of gender roles with practical economic necessities, finding that many women view their economic participation as complementary to rather than contradictory with Islamic teachings, particularly when framed as family cooperation (ta'awun). This perspective aligns with progressive Islamic scholarship that emphasizes partnership and mutual support in marriage over rigid role divisions.

Studies specifically addressing food security and gender in Indonesia have highlighted the gendered dimensions of food price volatility. Ariani and Ashari (2021) analyze food consumption patterns across Indonesian provinces, demonstrating that price increases in staple foods force households to make difficult trade-offs between food quality, quantity, and other essential expenditures such as education and healthcare. Women, as primary household managers in most Indonesian families, bear the primary responsibility for managing these trade-offs, often through intensified labor both in food preparation and income generation.

The concept of household resilience in the face of economic shocks has gained prominence in recent literature. Béné et al. (2019) propose a framework for understanding household resilience that distinguishes between absorptive capacity (ability to cope with immediate shocks), adaptive capacity (ability to adjust strategies in response to changing conditions), and transformative capacity (ability to fundamentally alter economic structures). Through this lens, women's increased economic participation represents both adaptive and potentially transformative responses to food price volatility, though the sustainability and equity implications of these adaptations require careful examination.

Legal scholarship on Indonesian family law has begun addressing the gap between statutory provisions and lived realities regarding spousal economic responsibilities. Mulia (2021) argues that contemporary interpretations of Islamic family law must account for changing economic conditions that make single-income households increasingly unsustainable. She advocates for legal reforms that recognize dual-income arrangements as normative rather than exceptional, with corresponding adjustments to marital property rights, inheritance provisions, and social welfare policies.

Research on informal sector work by women in Indonesia reveals both opportunities and vulnerabilities. Tambunan (2020) documents how women's informal economic activities contribute substantially to household income and national GDP, yet remain largely invisible in official statistics and policy frameworks. Women informal workers typically lack social protection, face significant occupational health and safety risks, and experience income volatility that undermines the stability their earnings are meant to provide. This precarity becomes particularly acute during periods of economic stress when informal sector opportunities may contract even as household need for supplementary income increases.

The intersection of food price policy and gender equity has received increasing attention from development practitioners and researchers. Hidrobo et al. (2023) evaluate various policy interventions designed to buffer households from food price shocks, including cash transfers, food subsidies, and price stabilization programs. Their findings suggest that interventions targeting women as primary recipients or decision-makers tend to yield better nutritional outcomes for children and more effective household consumption smoothing, supporting the case for gender-sensitive policy design in addressing food price volatility.

Despite this growing body of literature, significant gaps remain in understanding the specific dynamics of food price-driven gender role transformation in Indonesian provincial contexts. Most existing research focuses either on national-level trends or on specific sectors (agriculture, informal trade) without comprehensively examining the household as the unit of analysis. Moreover, the intersection of statistical analysis of price data, household economic impact assessment, and socio-legal analysis of gender role change remains underexplored. This study addresses these gaps by providing an integrated analysis of food price volatility and its household-level gender implications in West Nusa Tenggara Province, contributing both empirical evidence and theoretical insights to the literature on household economics, gender studies, and family law in contemporary Indonesia.

B. Research Methods

This research employs a mixed-methods approach combining quantitative analysis of food price data with qualitative document analysis to provide comprehensive insights into the relationship between food price volatility and gender role transformation in West Nusa Tenggara Province. The quantitative component analyzes secondary data from the Central Bureau of Statistics (BPS) of West Nusa Tenggara Province for 2024, focusing on monthly price series for strategic food commodities including rice, shallots, beef, chicken, eggs, cooking oil, sugar, and chili peppers across three urban centers: Mataram City, Bima City, and Sumbawa Regency. Statistical analysis includes calculation of coefficient of variation to measure price volatility, percentage change analysis to identify peak fluctuation periods, and correlation analysis to examine relationships between different commodity price movements.

The qualitative component employs document analysis methodology to examine legal frameworks governing family economic responsibilities, specifically Marriage Law No. 1 of 1974, the Compilation of Islamic Law, and relevant scholarly interpretations of Islamic jurisprudence regarding spousal economic obligations. Additionally, literature from family sociology, gender studies, and household economics is synthesized to construct theoretical frameworks linking economic stress to gender role adaptation. The integration of quantitative price data with qualitative socio-legal analysis enables triangulation of findings, allowing the research to move from statistical patterns of price volatility to understanding household-level impacts and finally to analyzing normative and practical implications for gender roles within families. This interdisciplinary approach is particularly appropriate for addressing the complex intersections of economics, gender, and law that characterize household responses to food price instability.

C. Result and Discussion

Food Price Volatility Patterns and Economic Pressure Magnitude

Analysis of BPS data for West Nusa Tenggara Province throughout 2024 reveals substantial volatility in strategic food commodity prices, with differential patterns across product categories and geographic locations. Rice, as the primary staple food in Indonesian diets, exhibited notable price fluctuations throughout the year. Medium-quality rice (C4 grade) showed a price range from Rp14,568 to Rp16,666 per kilogram, representing a maximum swing of approximately 14.4% from the lowest recorded price. Monthly analysis indicates that rice prices peaked during the traditional harvest gap periods (February-March and July-August), consistent with seasonal supply constraints in the region. The coefficient of variation for rice prices across the three monitored cities averaged 0.087, indicating moderate but economically significant volatility given rice's central role in household food budgets.

Shallot prices demonstrated the most dramatic volatility among monitored commodities, reaching peak prices of Rp41,736 per kilogram during supply shortage periods while falling to approximately Rp15,000 per kilogram during harvest seasons. This represents a price swing of nearly 180%, making shallots the most volatile commodity in the dataset. The extreme volatility of shallot prices reflects multiple factors including the perishability of the crop, limited storage infrastructure, regional concentration of production, and vulnerability to weather disruptions. For households that use shallots daily in food preparation, such price swings create significant budgeting challenges and force difficult choices between maintaining dietary preferences and controlling costs.

Beef prices exhibited relative stability compared to other monitored commodities, hovering around Rp120,000 per kilogram with variations of less than 8% throughout the year. However, the absolute price level represents a significant household expenditure, effectively placing regular beef consumption beyond the reach of many low to middle-income families even during stable price periods. The relative stability of beef prices likely reflects both consistent demand from higher-income consumers and the structured nature of the beef supply chain, which includes imported beef to supplement domestic production. Nevertheless, the high baseline price means that even small percentage increases translate to substantial absolute cost increases for households.

Chicken meat and eggs, serving as more affordable protein sources for many families, showed moderate price volatility with coefficients of variation of 0.064 and 0.053 respectively. Chicken prices ranged from Rp32,000 to Rp38,000 per kilogram, while egg prices varied between Rp24,000 and Rp29,000 per kilogram. These fluctuations, while smaller in percentage terms than shallots or rice, nonetheless impact household budgets significantly given the frequency of consumption of these protein sources. The relative stability of eggs compared to chicken meat reflects the shorter production cycle for eggs and the distributed nature of egg production across the province.

Cooking oil prices demonstrated concerning patterns of sustained elevation during certain periods, with prices ranging from Rp14,000 to Rp18,500 per liter. The 32% maximum price swing in cooking oil reflects both global commodity market influences (given Indonesia's dependence on palm oil exports and imports) and domestic policy interventions including subsidies and export restrictions. For households, cooking oil represents a non-substitutable necessity, making price increases particularly burdensome as they cannot be mitigated through product switching or consumption reduction without fundamentally altering cooking practices.

To assess the aggregate impact of these price fluctuations on household economic burden, we constructed a basic food basket representative of typical low to middle-income household consumption patterns in NTB. This basket includes monthly quantities of rice (10 kg), shallots (2 kg), chicken (4 kg), eggs (4 kg), cooking oil (2 liters), sugar (2 kg), and chili peppers (1 kg). Calculating the cost of this basket using monthly price data reveals that household food expenditure for these basic items varied from approximately Rp420,000 to Rp510,000 per month during 2024, representing a swing of over 21%. For households at or below the provincial poverty line (approximately Rp450,000 per capita per month in 2024), such variations represent the difference between meeting basic needs and falling into deficit.

Regional analysis reveals important geographic variations in both price levels and volatility patterns. Mataram City, as the provincial capital with better infrastructure and market integration, generally experienced lower average prices but also transmitted national and international price shocks more rapidly. Bima City and Sumbawa Regency, with more limited market integration, sometimes experienced price premiums due to transportation costs but also exhibited some buffering from external price shocks through local production systems. However, during periods of local production shortfalls, these less-integrated markets could experience more severe price spikes due to limited alternative supply channels.

The economic pressure created by these price fluctuations manifests differently across household income strata. Data analysis suggests that for households in the lowest income quintile, the combination of price increases in rice, cooking oil, and protein sources could consume an additional 15-20% of monthly income during peak price periods compared to low-price periods. This represents a severe compression of already limited budgets, forcing trade-offs not only within food consumption (substituting cheaper for preferred foods) but also between food and other essential expenses such as education, healthcare, and housing. For middle-income households, while the percentage impact is smaller, the absolute amount of additional expenditure remains substantial and can disrupt savings patterns and long-term financial planning.

Gender Role Transformation Mechanisms and Patterns

The economic pressure created by food price volatility serves as a catalyst for household adaptation strategies, among which gender role transformation emerges as a prominent response mechanism. When male breadwinners find their income inadequate to maintain household consumption standards in the face of rising food costs, families employ various coping strategies including consumption reduction, asset depletion, and most significantly for this analysis, increased economic participation by women. The phenomenon of women undertaking income-generating activities to supplement household budgets represents not merely an economic adjustment but a fundamental renegotiation of gender roles and responsibilities within the family unit.

Document analysis of family economic studies and social surveys from NTB indicates that women's economic participation in response to household financial stress typically follows several patterns. The most common involves the expansion of existing household production activities into market-oriented ventures. Women who previously engaged in food preparation solely for household consumption begin selling prepared foods to neighbors, at local markets, or through informal networks. This pathway leverages existing skills and requires minimal capital investment while allowing women to maintain primary responsibility for household management. Examples include selling traditional snacks (jajan pasar), operating small food stalls (warung), or preparing catered meals for events.

A second pattern involves entry into small-scale trading activities, particularly in sectors traditionally associated with women such as clothing, cosmetics, and household goods. This often begins with direct selling or multi-level marketing arrangements that offer flexible schedules compatible with household responsibilities. The informal sector provides accessibility for women without formal education or technical skills while offering income-generating opportunities that can be pursued from home or through flexible hours. However, these activities typically involve significant competition, slim profit margins, and vulnerability to market fluctuations.

A third pattern involves providing personal services such as hairdressing, sewing, tutoring, or childcare for other families. These activities capitalize on skills that women may have developed through their household roles while meeting genuine demand in local communities. The service sector offers somewhat more stable income than trading activities, though it remains subject to discretionary spending patterns that may contract during broader economic difficulties.

Analysis of these patterns reveals important temporal dimensions to women's economic participation. During periods of acute financial stress coinciding with food price spikes, women's economic activities intensify through longer working hours, expanded product offerings, or entry into additional income streams. Conversely, when food prices moderate and household budgets experience less pressure, some women may reduce their economic activities, though many maintain their ventures once established, recognizing the value of income diversification and economic autonomy.

The transformation from primarily reproductive to combined reproductive and productive roles carries significant implications for household dynamics and women's daily experiences. Time-use surveys and qualitative research from similar contexts indicate that women engaging in income-generating activities while maintaining household responsibilities typically experience substantial time poverty, with workdays extending to 14-16 hours when both sets of activities are accounted for. Sleep deprivation, reduced leisure time, and postponed personal care represent common consequences. The double burden persists because household role expectations typically adjust more slowly than economic role transformations, leaving women responsible for both traditional domestic duties and new economic contributions.

However, women's increased economic participation may also generate shifts in household decision-making patterns and bargaining positions. Economic theories of household bargaining suggest that individuals who contribute more substantially to household income gain greater voice in expenditure decisions and resource allocation. Qualitative research from Indonesia indicates that women who earn income, particularly when their contributions become essential for household survival, often experience increased autonomy in financial decisions, greater confidence in expressing preferences, and enhanced respect from spouses and family members. Nevertheless, these empowerment effects remain contingent on household-specific factors including male attitudes, community norms, and the visibility and recognition of women's economic contributions.

The intersection of economic necessity and gender role transformation also reveals tensions between practical adaptations and normative expectations. Many families navigate between pragmatic acceptance of women's income-generating activities as necessary for survival and ideological commitment to male breadwinner norms derived from religious teachings and cultural traditions. This negotiation often involves framing women's economic participation as temporary, supplementary, or extraordinary rather than as a fundamental restructuring of family economic organization. Such framing serves to maintain symbolic commitment to traditional gender roles even while material practices diverge significantly from them.

Children's experiences represent another important dimension of gender role transformation within households. When mothers engage in income-generating activities outside the home or with substantial time commitments, childcare arrangements must adapt. Extended family members, particularly grandmothers, often assume increased childcare responsibilities, maintaining traditional intergenerational support systems while adapting them to new economic realities. Alternatively, older children, particularly daughters, may assume childcare and household management responsibilities for younger siblings, potentially impacting their educational opportunities and perpetuating gendered patterns of household responsibility across generations.

The quality and sustainability of women's economic activities undertaken in response to food price pressure warrant careful consideration. Many informal sector activities offer minimal income despite substantial time investment, lack social protection including health insurance and retirement benefits, and provide no legal recognition or recourse in case of disputes or exploitation. Women operating food stalls or engaging in direct selling typically work without formal contracts, making them vulnerable to non-payment, arbitrary treatment, and income volatility. During economic downturns or periods of widespread financial stress, demand for the goods and services provided by women's informal enterprises often contracts, precisely when household need for supplementary income remains acute.

Socio-Legal Analysis of Gender Role Transformation

The legal framework governing family economic responsibilities in Indonesia creates an interesting tension with the practical adaptations observed in response to food price pressure. Marriage Law No. 1 of 1974 establishes the fundamental legal structure for family relations in Indonesia. Article 34 paragraph (1) specifies that husbands bear the responsibility of protecting the family and providing maintenance (nafkah), while wives are responsible for managing the household. This legal codification of gender-differentiated roles reflects the social context of the 1970s when the law was enacted, as well as the influence of Islamic legal principles on Indonesian family law.

The Compilation of Islamic Law (KHI), promulgated through Presidential Instruction No. 1 of 1991, provides more detailed provisions regarding spousal economic responsibilities within Muslim families, who constitute the vast majority of the population in West Nusa Tenggara. Article 80 of the KHI elaborates on the husband's obligation to provide nafkah, including food, clothing, housing, and other household necessities according to his ability. Importantly, Article 80 paragraph (4) specifies that maintenance obligations commence upon marriage and continue throughout the marriage, placing legal responsibility for household economic welfare squarely on husbands.

This legal framework reflects classical Islamic jurisprudence regarding spousal roles, where the husband functions as the qawwam (protector and maintainer) responsible for the family's material welfare, while the wife manages the domestic sphere. From this perspective, women's income-generating activities might be viewed as either outside the normal framework of family economic organization or as a failure of husbands to fulfill their legal obligations. However, contemporary Islamic scholarship and Indonesian legal practice have evolved more nuanced interpretations that accommodate changing economic realities.

Progressive Islamic legal scholars emphasize the concept of ta'awun (cooperation and mutual assistance) as a foundational principle of Islamic marriage that can encompass various arrangements of economic contribution and household responsibility. From this perspective, when structural economic factors such as inflation and food price volatility compromise a husband's ability to provide adequate maintenance despite his best efforts, a wife's economic contributions constitute not a violation of proper role division but rather a manifestation of marital cooperation and shared responsibility for family welfare. This interpretation resonates with Quranic verses emphasizing partnership and mutual consultation in marriage (Quran 2:187, 30:21) and prophetic traditions highlighting cooperation between spouses.

Indonesian family law scholars have increasingly advocated for interpretations that recognize dual-income arrangements as legitimate adaptations to contemporary economic conditions rather than departures from legal norms. Mulia (2021) argues that legal frameworks must acknowledge the impossibility of single-income household sustainability for large segments of the population, particularly in contexts of economic stress. She proposes that legal recognition of women's economic contributions should extend beyond moral acknowledgment to concrete provisions regarding marital property rights, asset division in divorce, and social welfare entitlements.

The principle of maslahah (public interest) in Islamic jurisprudence provides another framework for accommodating gender role adaptations. When strict application of traditional role divisions would result in household hardship or poverty, flexibility in roles that serves the overall welfare of the family and society can be viewed as consistent with Islamic legal objectives. Contemporary fatwas (religious legal opinions) from various Islamic legal councils in Indonesia have generally supported women's economic participation when motivated by family need, provided it does not compromise children's welfare or violate Islamic ethical principles.

However, gaps remain between legal frameworks and the lived realities of women engaged in income-generating activities. Most significantly, Indonesian labor law and social protection systems remain oriented toward formal sector employment, leaving informal sector workers—the majority of women undertaking economic activities in response to household financial stress—without adequate protection. Women operating small food businesses, engaging in direct selling, or providing personal services typically lack health insurance, retirement benefits, workplace safety protections, or legal recourse for unfair treatment. This legal invisibility of women's economic contributions perpetuates vulnerability even as their income becomes essential for household survival.

The intersection of family law and consumer protection law creates another dimension relevant to household adaptation to food price volatility. Law No. 8 of 1999 on Consumer Protection establishes principles of fairness, transparency, and consumer rights that theoretically protect households from exploitative pricing practices. However, enforcement remains limited, particularly in traditional markets where most food transactions occur and where price formation reflects complex interactions of supply, demand, seasonal factors, and trader practices rather than transparent, regulated processes. Households, particularly women as primary household managers making daily food purchasing decisions, bear the consequences of inadequate consumer protection through reduced purchasing power and constrained consumption choices.

From a gender justice perspective, the current socio-legal situation creates a paradoxical position for women. They bear increasing economic responsibility for household survival through income-generating activities, yet retain primary responsibility for traditional domestic duties, receive limited legal recognition for their economic contributions, and lack adequate social protection for the informal sector work they typically undertake. This configuration generates a double burden without corresponding enhancement of rights, autonomy, or security. Progressive legal reform would recognize women's economic contributions through: formal acknowledgment in family law of dual-income households as normal rather than exceptional; extension of social protection including health insurance and old-age security to informal sector workers; provisions for equitable asset division recognizing both partners' contributions to household welfare; and enforcement of consumer protection to reduce household vulnerability to food price exploitation.

Policy Implications and Household Resilience

The analysis of food price volatility and gender role transformation in West Nusa Tenggara Province reveals multiple points of intervention for policy aimed at enhancing household resilience and promoting gender equity. Food price stabilization represents the most direct approach to reducing the economic pressure that drives gender role transformation. Policy instruments including strategic food reserves, subsidized distribution systems for vulnerable households, price monitoring and intervention mechanisms, and agricultural production support can moderate price volatility and buffer households from food price shocks. However, such interventions require substantial public resources, administrative capacity, and political commitment while navigating tensions between producer interests (who benefit from high prices) and consumer interests (who suffer from them).

Social protection systems designed specifically for dual-income households engaged in informal sector activities could significantly reduce the vulnerabilities associated with women's increased economic participation. Universal or targeted health insurance that covers informal sector workers and their dependents would address one of the most significant gaps in current protection. Pension or old-age savings schemes accessible to informal sector workers, perhaps through subsidized voluntary contributions, would provide long-term security. Childcare support through community-based programs or subsidies would reduce the double burden on working mothers and support children's development. Such comprehensive social protection remains aspirational in many Indonesian provinces but represents a clear direction for policy development.

Economic empowerment programs specifically designed for women can support more sustainable, higher-return economic activities than the marginal informal sector work many women currently undertake. This includes: skills training programs that expand women's economic options beyond traditional sectors; access to microfinance and small business support that enables productive investment rather than survival-driven activities; market linkages and cooperative structures that reduce intermediary exploitation and increase producer margins; and business development services that enhance the viability and scalability of women's enterprises. However, such programs must be designed with careful attention to women's time constraints and household responsibilities rather than assuming unlimited availability for training or business activities.

Legal and regulatory reform represents another crucial dimension of policy response. This includes: formal recognition in family law of dual-income households as a normal family structure with corresponding provisions for asset rights and decision-making; extension of labor protections and social security to informal sector workers; stronger enforcement of consumer protection law to address food price exploitation; and gender-responsive budgeting that ensures public resources support gender equity objectives. Legal reform requires sustained advocacy, political will, and careful navigation of cultural and religious sensitivities in contexts like NTB where Islamic legal principles significantly influence family law.

Community-level interventions can complement policy reforms by addressing norms and practices that influence gender roles and household economic organization. This includes: community dialogues engaging religious leaders, men, and women in discussions of evolving gender roles and Islamic principles of cooperation and justice; support groups for women managing dual responsibilities to share strategies and provide mutual assistance; programs engaging men in recognizing and valuing women's economic contributions and equitably sharing household responsibilities; and youth education promoting gender equity and flexible, cooperative approaches to family economic management. Community-level change is typically slow and requires long-term commitment but can create enabling environments for household-level adaptations.

The concept of household resilience provides a framework for integrating these various policy approaches. Resilient households possess absorptive capacity (ability to cope with immediate shocks through savings, social support, or consumption adjustment), adaptive capacity (ability to modify strategies in response to changing conditions through income diversification or expenditure management), and transformative capacity (ability to fundamentally alter economic structures through education, asset accumulation, or mobility). Food price volatility challenges all three dimensions of resilience, while current gender role transformations represent primarily adaptive responses. Policy interventions should aim to support not only adaptation but transformation—enabling households to escape vulnerability to food price shocks rather than merely coping with them more effectively.

D. Conclusion

This study demonstrates that food price volatility in West Nusa Tenggara Province during 2024 created substantial economic pressure on low to middle-income households, with strategic commodities including rice, shallots, and cooking oil experiencing fluctuations of 15-180% that translated to 15-20% variations in basic food basket costs. This economic pressure served as a catalyst for gender role transformation, with women increasingly engaging in income-generating activities including prepared food sales, small-scale trading, and personal services to supplement household budgets. From a socio-legal perspective, while Indonesian family law traditionally assigns economic responsibility to husbands, these adaptations can be understood as legitimate forms of family cooperation (ta'awun) rather than violations of legal norms, though gaps remain between women's increasing economic responsibilities and their legal recognition and social protection. The findings underscore the need for integrated policy responses including food price stabilization mechanisms to reduce household economic pressure, social protection systems adapted to informal sector workers to provide security for dual-income households, economic empowerment programs to support sustainable women's enterprises, and legal reforms recognizing contemporary family economic realities. Household resilience in the face of food price volatility ultimately requires not only adaptive capacity through gender role flexibility but transformative capacity through economic diversification, asset accumulation, and structural changes that reduce vulnerability to market fluctuations.

References

Ariani, M., & Ashari. (2021). Food security and nutrition situation in Indonesia: Household consumption and expenditure. *Journal of Agricultural Economics and Development*, 11(2), 145-162.

Ashraf, N., Bau, N., Nunn, N., & Voena, A. (2020). Bride price and female education. *Journal of Political Economy*, 128(2), 591-641.

Béné, C., Headey, D., Haddad, L., & von Grebmer, K. (2019). Is resilience a useful concept in the context of food security and nutrition programmes? Some conceptual and practical considerations. *Food Security*, 11(1), 123-138.

Central Bureau of Statistics of West Nusa Tenggara Province. (2024). *Statistics of consumer prices for some goods and services in 3 cities in West Nusa Tenggara Province 2024*. Mataram: BPS NTB.

Doss, C., Kovarik, C., Peterman, A., Quisumbing, A., & van den Bold, M. (2023). Gender inequalities in food systems: Unpacking the evidence. *Food Policy*, 118, 102-119.

Hidrobo, M., Palloni, G., & Ledezma, I. (2023). Cash transfers and intimate partner violence: Evidence from Ecuador. *Journal of Development Economics*, 162, 103-121.

Jones, A. D., Ngure, F. M., Pelto, G., & Young, S. L. (2020). What are we assessing when we measure food security? A compendium and review of current metrics. *Advances in Nutrition*, 11(1), 123-141.

Kusuma, Y. S., & Babu, B. V. (2021). Food insecurity and coping strategies in rural areas of India. *BMC Public Health*, 21(1), 1-14.

Mulia, S. M. (2021). *Gender equality in Islamic family law: Reconstruction of marriage law in Indonesia*. Jakarta: Yayasan Pustaka Obor Indonesia.

Nurmila, N. (2020). Women's economic roles in Indonesian Muslim families: Negotiating religious and cultural norms. *Asian Journal of Women's Studies*, 26(3), 314-335.

Patel, K., Gartaula, H., Johnson, D., & Karthikeyan, M. (2022). The interplay between household food security and wellbeing among small-scale farmers in the context of rapid agrarian change in India. *Agriculture and Food Security*, 11(1), 1-17.

Quisumbing, A. R., Meinzen-Dick, R., Raney, T. L., Croppenstedt, A., Behrman, J. A., & Peterman, A. (2020). Closing the knowledge gap on gender in agriculture. In *Gender in agriculture* (pp. 3-27). Springer, Dordrecht.

Republic of Indonesia. (1974). *Law No. 1 of 1974 on Marriage*. State Gazette of the Republic of Indonesia No. 1 Year 1974. Jakarta.

Republic of Indonesia. (1991). *Presidential Instruction No. 1 of 1991 on the Dissemination of the Compilation of Islamic Law*. Jakarta: State Secretariat of the Republic of Indonesia.

Republic of Indonesia. (1999). *Law No. 8 of 1999 on Consumer Protection*. State Gazette of the Republic of Indonesia No. 42 Year 1999. Jakarta.

Sraboni, E., Malapit, H. J., Quisumbing, A. R., & Ahmed, A. U. (2022). Women's empowerment in agriculture and dietary diversity in Bangladesh. *Food Policy*, 109, 102-115.

Tambunan, T. (2020). Women entrepreneurs in Indonesia: Their motivations and main constraints. *Journal of Innovation and Entrepreneurship*, 9(1), 1-19.

Verhart, N., van den Berg, M., & Duijvendijk, K. (2022). Gender-responsive agricultural extension: A synthesis of current evidence and future directions. *World Development*, 158, 105-123.

Vogler, C. (2022). Managing money in intimate relationships: Similarities and differences between cohabiting and married couples. *Journal of Socio-Economics*, 51, 41-55.

World Bank. (2023). *Indonesia economic prospects: Sustaining recovery*. Jakarta: World Bank Office Jakarta.

Yosef, S., Jones, A. D., Chakraborty, B., & Gillespie, S. (2021). Agriculture and nutrition in Bangladesh: Mapping evidence to pathways. *Food and Nutrition Bulletin*, 42(1), 97-120.

Zhang, Y., Wang, J., & Chen, K. (2023). Food price volatility and household food security: Evidence from panel data. *Agricultural Economics*, 54(2), 245-262.