



Tobacco Farmers in the Economic Vortex of Temanggung Regency, 1990–1998

Putri Pujiyati,^{1*} Mukhamad Shokheh¹

¹Universitas Negeri Semarang, Indonesia

* putripujiyati2108@student.unnes.ac.id

Received: 28-06-2026; Revised: 20-08-2026; Accepted: 23-08-2026; Published: 31-08-2026

Abstract: This article analyzes tobacco farmers within the economic context of Temanggung Regency from 1990 to 1998, focusing on the economic lives of farming households as the center of local historical study. The study addresses three key questions: the role of tobacco in household economies; how farmers coped with changes in production, quality, financing, and trade practices; and why 1998 marked a critical turning point in the emergence of farmers' economic vulnerabilities. The study employs historical methodology through the stages of heuristics, source criticism, interpretation, and historiography. Primary sources consist of oral accounts from historical actors who experienced the development of tobacco farming since the early 1990s, field documentation, and contemporary newspapers. All sources were cross-checked with regional statistics and previous research to situate individual experiences within the economic context of Temanggung Regency. The findings indicate that from the early to mid-1990s, tobacco served as a source of cash income to meet household needs, fund education, pay off debts, purchase assets, and expand businesses. These benefits simultaneously increased dependence on weather, quality, capital, buyers, and marketing channels. The year 1998 marked a turning point when rainfall during the harvest season, declining quality and prices, rising input costs, off-season debt, and weak bargaining power all occurred simultaneously. These findings indicate that tobacco creates a paradoxical relationship between high income potential and the concentration of household economic risk.

Keywords: economic crisis; local economic history; Temanggung; tobacco farmers; trade system

Abstrak: Artikel ini menganalisis petani tembakau dalam konteks ekonomi Kabupaten Temanggung pada periode 1990 hingga 1998, dengan memusatkan perhatian pada kehidupan ekonomi rumah tangga petani sebagai inti kajian sejarah lokal. Studi ini menjawab tiga pertanyaan utama: peran tembakau dalam ekonomi rumah tangga; cara petani menyikapi perubahan dalam aspek produksi, kualitas, pembiayaan, dan praktik perdagangan; serta alasan mengapa tahun 1998 menjadi titik balik krusial munculnya kerentanan ekonomi petani. Penelitian ini menggunakan metodologi sejarah yang mencakup tahapan heuristik, kritik sumber, interpretasi, dan historiografi. Sumber primer yang digunakan meliputi kesaksian lisan dari para pelaku sejarah yang mengalami perkembangan budidaya tembakau sejak awal 1990-an, dokumentasi lapangan, dan surat kabar sezaman. Seluruh sumber diverifikasi silang dengan data statistik daerah dan penelitian terdahulu untuk menempatkan pengalaman individu dalam konteks ekonomi Kabupaten Temanggung. Temuan penelitian menunjukkan bahwa pada awal hingga pertengahan tahun 1990-an, tembakau menjadi sumber pendapatan tunai untuk memenuhi kebutuhan rumah tangga, membiayai pendidikan, melunasi utang, membeli aset, dan mengembangkan usaha. Manfaat-manfaat tersebut secara bersamaan meningkatkan ketergantungan pada faktor cuaca, kualitas, modal, pembeli, dan saluran pemasaran. Tahun 1998 menjadi titik balik ketika curah hujan tinggi saat musim panen, penurunan kualitas dan harga, kenaikan biaya input, utang di luar musim tanam, serta lemahnya daya tawar terjadi

secara bersamaan. Temuan ini mengindikasikan bahwa tembakau menciptakan hubungan paradoks antara potensi pendapatan yang tinggi dan pemusatan risiko ekonomi rumah tangga.

Kata Kunci: krisis ekonomi; petani tembakau; sejarah ekonomi lokal; sistem perdagangan; Temanggung



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Introduction

Agriculture has been a key pillar in the economic history of Indonesia's rural communities. Within an agrarian economic structure, farmers serve not only as food producers but also as producers of trade commodities that connect villages to broader markets. Smallholder plantation commodities such as coffee, sugarcane, cloves, and tobacco demonstrate that the rural economy operates through the interplay of land, family labor, capital, weather, prices, and distribution networks. Therefore, rural economic history cannot be fully understood through production data alone but must also be examined through farmers' experiences in navigating market changes and policy shifts. Other studies have shown that plantation commodities can “create jobs” and drive economic change in rural communities (Annisa et al., 2019). This observation is relevant to the case of tobacco in Temanggung, as tobacco serves as a commodity that drives seasonal employment, capital circulation, and the socioeconomic relationships of communities living on the mountain slopes.

According to several historians, the tobacco plant is believed to have originated in the Americas. There are many theories and accounts, but nearly all historians agree that tobacco was brought by European traders to the Indonesian archipelago by at least the 17th century CE (Brata, 2012). Tobacco holds a special place in farmers' economic lives because it serves as a cash crop linking producer households with traders, graders, middlemen, and cigarette factories. Its high market value enables tobacco to generate substantial income during a good harvest season, but the process of achieving this income involves costs and risks—from land preparation, seedling cultivation, fertilization, harvesting, cutting, sun-drying, to marketing. Farmers have already invested capital before knowing the harvest volume, leaf quality, and the price they will receive. The final price is heavily influenced by weather, quality, the grader's assessment, buyer demand, and the farmer's position within the marketing network. Thus, for farmers, tobacco is not merely a cash crop but a source of income that simultaneously exposes households to uncertainties in both production and the market.

Temanggung Regency is a region with a strong identity as a tobacco-growing area. Generally, according to *Oldemen's agroclimatic* map, the Temanggung region is classified as types B1, B2, and, in part, C. This means that, on average, there are only 2–3 months per year with rainfall that can reach 2,300–3,000 mm annually. Geographically, this region is situated in a mountainous area influenced by Mount Sindoro, Mount Sumbing, and Mount Prau. These ecological conditions give Temanggung tobacco characteristics that differ from those of other regions. Prasetyo et al. (2016) explain that Temanggung tobacco is cultivated at elevations of approximately 500–1,500 meters above sea level, with significant variations in slope. These agroecological characteristics influence the quality of the tobacco, particularly its aroma, color, nicotine content, and its function as shredded tobacco required in kretek cigarette blends. Other empirical evidence indicates that Temanggung tobacco is known as an aromatic tobacco with a high nicotine content, making it essential for the kretek industry as a blending component or “side dish” in the composition of tobacco.

The Temanggung community's connection to tobacco is also inextricably linked to cultural dimensions. Imron et al. (2020) assert that tobacco in Temanggung is not understood solely from an economic perspective, as tobacco cultivation is accompanied by local rituals such as nyecel, among tebal, lekas tebal, and miwiti. These findings indicate that tobacco serves as both a source of livelihood and an element of social identity. Among communities on the slopes of Mount Sumbing and Mount Sindoro, a successful tobacco harvest is often seen as a sign of a family's economic success, while a failed harvest can become a social burden because the production costs incurred are typically substantial. In such situations, farmers' decision to continue growing tobacco is not purely rational in terms of profit calculations but is also influenced by customs, generations-old experience, land suitability, and hopes for high harvest prices.

The period from 1990 to 1998 is significant as a historical span because it marked the final phase of the New Order and culminated in the 1998 economic crisis. In the early 1990s, the national economy still exhibited relatively stable growth, while the smallholder agricultural sector in regions such as Temanggung continued to rely on seasonal commodities. The official publication "Temanggung in Figures 1990", issued by the Temanggung Regency BPS, serves as early empirical evidence regarding the region's statistical structure, including conditions related to governance, demographics, agriculture, and the local economy in the early 1990s (BPS Kabupaten Temanggung, 1990). Eight years later, "Temanggung in Figures 1998" was published in the year Indonesia entered an economic crisis and a period of national political change (BPS Kabupaten Temanggung, 1998). The existence of these two publications demonstrates that an analysis of the 1990–1998 period can be constructed by comparing regional statistical data to track changes in cultivated area, production, population, and economic indicators related to the status of tobacco farmers.

The year 1998 serves as a cutoff point with both empirical and historical significance. The monetary crisis that began in 1997 struck the national economy, raised the cost of living, and affected the prices of agricultural production inputs. For tobacco farmers, these pressures were particularly severe because the success of the harvest is heavily dependent on weather conditions and leaf quality. A study on rainfall anomalies in Temanggung indicates that tobacco is a dry-season crop (*voor oogst*) that does not require rain during harvest; rainfall anomalies during the harvest period can reduce leaf quality, lower income, and even lead to crop failure (Aliyah, 2013). Several studies have noted that 1998 presented unfavorable climatic conditions for Temanggung tobacco, as rainfall and a lack of sunlight during the harvest period impacted leaf quality and selling prices (Aliyah, 2013; BPS Kabupaten Temanggung, 1998). Thus, the economic situation of tobacco farmers in 1998 was not only related to the macroeconomic crisis but also to ecological risks that were directly felt at the household level.

The challenges faced by tobacco farmers in Temanggung extend beyond production. After the harvest, farmers enter a complex marketing network. In practice, the quality and price of tobacco are determined by the relationships between farmers, middlemen, graders, tobacco merchants, and cigarette factories. Arofah & Setiawan (2022) demonstrate that the patron-client relationship between tobacco farmers and middlemen in Katekan Village, Ngadirejo Subdistrict, is linked to marketing, debt, trust, and the farmers' dependence on middlemen. The study shows that farmers' bargaining power can weaken because their needs for production capital and household consumption are often met through loans. Dewanta (2022) also highlights the existence of exploitative production relations among tobacco farmers in Temanggung, particularly when actors in the commercial chain operate through specific mechanisms to extract surplus value from farmers' tobacco yields. These two findings serve as evidence that

the tobacco economy must be understood as an arena of power relations, not merely as the buying and selling of crops.

Kinanti et al. (2026) show that on tobacco plantations in Lampung during the era of the liberal economy, farmers received loans for capital, seeds, and fertilizer, as well as guidance; however, their harvests were subsequently purchased under terms that were more favorable to the capital owners. Although the spatial and temporal contexts differ, this study helps illustrate that the history of tobacco often involves a relationship of dependency between farmers and actors who control financing and market access. This perspective is relevant to Temanggung because farmers from 1990 to 1998 also faced capital needs, quality uncertainties, and purchasing arrangements over which they did not have full control.

A number of previous studies have examined Temanggung tobacco from various perspectives. Prasetyo et al. (2016) examined tobacco productivity and quality based on soil conditions and erodibility; Imron et al. (2020) emphasized the sociocultural aspects of tobacco farmers; Dewanta (2022) discussed the relationship between exploitation and false loyalty in the world of tobacco farmers; Arofah & Setiawan (2022) analyze the patron-client relationship between farmers and middlemen; and Ritaningrum & Wijaya (2023) outline the network of conflicts involving tobacco farmers with government actors, factories, middlemen, other farmers, and laborers. Additionally, Dwiyantri (2023) provides a historical account of the development of “*srintil*” tobacco in Temanggung up to 1998. Nevertheless, studies that specifically position tobacco farmers within the economy of Temanggung Regency during the years 1990–1998 still need to be strengthened. The research gap lies in the need to view farmers as local economic actors during the late New Order era, rather than merely as objects of agricultural production or components of the current commercial system.

The theoretical perspective used in this study is “peasant economics” as proposed by Frank Ellis (1993). This perspective views farming households as economic units that link production decisions to consumption needs, the availability of family labor, access to capital, and expectations of income. In this study, this perspective is used to analyze the decisions of farmers in Temanggung regarding the allocation of land, labor, and capital to tobacco cultivation, while also explaining how dependence on a single commodity can amplify risks when production, quality, prices, and market access face pressures. To analyze adaptation strategies as risks increase, this study also draws on Ellis’s (2000) concept of livelihood diversification, particularly in examining reductions in planted area, input savings, and the use of companion crops as efforts to spread risk and maintain household income.

Based on this discussion, this article addresses three interrelated questions: how the role of tobacco shaped the economic lives of farming households in Temanggung Regency from 1990 to 1998; how farmers coped with changes in production, quality, financing, and marketing; and why 1998 marked a critical turning point in the emergence of farmers’ economic vulnerability. Based on these research questions, this study aims to explain the role of tobacco in the economic lives of farming households, analyze how farmers coped with changes in production, quality, financing, and marketing systems, and explain why 1998 became a critical turning point in the emergence of farmers’ economic vulnerability. These research questions and objectives are designed to explain the historical shift from commodity-based income opportunities to economic pressures involving crop failures, declining quality, debt, and weak bargaining power. Thus, farmers are positioned as the primary actors who make decisions, bear risks, negotiate with buyer networks, and devise strategies to survive the economic changes at the end of the New Order era.

The urgency of this research stems from the need to reconstruct the local economic history of Temanggung through the experiences of tobacco farmers during the 1990–1998 period,

which bridged the stability of the late New Order era and the Reform era crisis. This study is also necessary to explain how regional statistics, climate change, production costs, crop quality, and trade practices interact to shape farmers' economic lives. At the same time, this research expands the historiography of peasant agriculture, which has traditionally focused more on colonial plantations, the cigarette industry, or contemporary tobacco policies. By positioning farmers as local economic actors, this article demonstrates that the dynamics of Temanggung's economy are determined not only by production figures but also by households' ability to cope with price uncertainty, weather changes, debt relationships, and tobacco trade networks.

Research Method

This study employs a historical method with a focus on local economic history to reconstruct the changing position of tobacco farmers in Temanggung Regency from 1990 to 1998. The reconstruction was carried out in four stages: heuristics, source criticism, interpretation, and historiography (Kuntowijoyo, 2013). This approach was chosen because economic changes among farmers cannot be adequately understood as a momentary state but rather as a process shaped by the interplay of production, income, capital, weather, and trade systems.

The heuristic phase focused on tracing primary and secondary sources related to the lives of tobacco farmers at the end of the New Order era. Primary sources include oral accounts from historical actors who had been involved in tobacco cultivation and trade since before or in the early 1990s, as well as contemporary newspapers, particularly *Suara Merdeka* dated July 31, 1997, and *Suara Merdeka* dated November 19, 1998. These sources are supplemented by Temanggung in Figures for 1990 and 1998. The publication Temanggung in Figures 2001 was used to obtain retrospective data on the prices of basic necessities from 1996 to 2000, rainfall from 1998 to 2000, and trends in business units, the labor force, and industrial production value. These data were used to contextualize changes in tobacco revenue within the framework of purchasing power and the economic structure of Temanggung Regency (BPS Kabupaten Temanggung, 1998, 1990, 2001).

External criticism was conducted by examining the origin, timing, identity, and proximity of each source to the events under study. Internal criticism was conducted by comparing oral accounts among different actors, distinguishing household experiences from general conditions, and testing their consistency with newspapers, regional statistics, and previous research. Differences in figures or experiences are understood as variations that may arise due to differences in region, tobacco variety, land area, sources of capital, access to factories, and buyer networks. The BPS does not present the net income of tobacco-farming households separately. Therefore, income is not stated as a single district-level average figure but is analyzed through sales revenue, changes in the prices of basic necessities, and a simple exchange rate for tobacco yields. These calculations serve as an indicator of gross purchasing power before production costs are deducted.

The analysis is conducted chronologically and thematically. Chronologically, changes are traced from the period when tobacco provided relatively good income in the early to mid-1990s, through production disruptions in 1997, to the full-blown crisis in 1998. Thematically, the evidence is grouped based on tobacco's role in household economies, changes in production, quality, financing, and trade practices, as well as forms of vulnerability in 1998. The results of this interpretation are then organized into an analytical historiography that positions farmers as active economic actors, yet operating within constraints shaped by weather, capital, debt, and market structures.

Research Findings

The Role of Tobacco in the Economic Lives of Farming Households in Temanggung Regency from 1990 to 1998

Tobacco cultivation in Temanggung relies on the direct involvement of farmers and their family labor. Seedlings are planted manually in plots that have been prepared into planting rows. Each seedling is planted one by one, taking into account spacing, soil moisture, and initial growth conditions. This work pattern indicates that tobacco not only generates income at harvest time but also regulates the use of labor, time, and the division of labor within farming households.

From the early to mid-1990s, tobacco played a vital role as a source of cash income. Food crops and secondary crops were still used to meet specific needs, but tobacco was seen as having greater potential to generate cash in a single growing season. These earnings were used to cover daily expenses, fund children's education, pay off debts, and set aside capital for the next production cycle. As Mariyono explained, “Back then— —it was enough to cover daily needs, since prices were still low and hadn't gone up yet” (Interview with Mariyono, July 9, 2026).

Based on the interview, it is evident that tobacco income in the early 1990s served as a mainstay for daily household consumption. Mr. Mariyono also recalled that tobacco prices were around Rp20,000 per kilogram and could rise to about Rp27,000 per kilogram, depending on the type and quality of the tobacco. The amount of income was determined not only by the quantity of leaves produced but also by the difference in quality between “kuningan” and “srintil” tobacco. This experience demonstrates that farmers understood the relationship between quality, production area, and price levels. Nevertheless, what was considered a sufficient income still depended on favorable weather conditions and the farmers' ability to produce tobacco of a quality acceptable to buyers.

Table 1. Annual Tobacco Production in Temanggung Regency, 1990–1998

Year	Production Output (Tons)
1990	1,062.20
1991	7,643.00
1992	8,548.00
1993	10,371.49
1994	10,067.50
1995	8,239.20
1996	8,666.10
1997	10,144.83
1998	2,842.45

Source: Temanggung Regency BPS, 1998

The table above shows tobacco production from 1990 to 1998, revealing a fluctuating pattern. Production at the beginning of the period was very low in 1990, at 1,062.20 metric tons, then increased rapidly and peaked in 1993 at 10,371.49 metric tons; that year also saw the highest selling price for tobacco compared to other years. This situation indicates that 1993 was a highly profitable year for tobacco farmers in Temanggung Regency, as both crop yields and selling prices were relatively high. After that peak, production remained relatively stable in the range of 8,000–10,000 metric tons until 1997; however, in 1998, there was a sharp decline to 2,842.45 metric tons. The variation in production levels across these years indicates that factors other than land area also influence crop yields, so considering land area alone is insufficient to explain production dynamics.

In a successful season, tobacco income can cover a family's needs for several months; in some households, it can even sustain expenses until the next season. Surplus income is used to pay off debts incurred before the harvest, cover school expenses, and maintain a cash reserve. Thus, a good tobacco season has broader implications than mere agricultural profit.

The 2001 BPS report did not directly record the net income of tobacco farmers, but the retail price series indicates the consumption costs borne by households. Between 1996 and 1998, the price of IR 64 rice rose from an average of Rp915.42 to Rp2,121.46 per kilogram, while cooking oil rose from Rp1,591.88 to Rp4,399.13 per kilogram (BPS Kabupaten Temanggung, 2001, Table 8.4.1).

Table 2. Changes in Average Retail Prices of Basic Necessities in Temanggung City, 1996 and 1998

Commodity	1996 (Rp/kg)	1998 (Rp/kg)	Increase (%)
IR 64 Rice	915.42	2,121.46	131.7
Salted fish	3,027.92	5,854.17	93.3
Cooking oil	1,591.88	4,399.13	176.3
Granulated sugar	1,516.67	2,711.04	78.7

Source: BPS Kabupaten Temanggung, 2001

This comparison shows that a nominal increase in the price of tobacco cannot be directly interpreted as an improvement in welfare. Using the price of rice as a simple measure of purchasing power, one kilogram of tobacco costing Rp20,000–Rp27,000 in the mid-1990s was equivalent to approximately 21.8–29.5 kilograms of rice based on the 1996 average price. In 1998, tobacco prices of around Rp20,000–Rp25,000 were equivalent to only about 9.4–11.8 kilograms of rice. Low-quality tobacco priced at around Rp10,000 per kilogram was equivalent to only about 4.7 kilograms of rice. This comparison represents a gross exchange rate and does not account for the costs of land, fertilizer, pesticides, labor, cutting, and drying.



Figure 1. The Tobacco Processing Process for Sale in 1994

Source: Author's Family Photo Album

Relatively good income from 1994 to 1996 also opened up opportunities to build assets. Once basic needs were met, part of the proceeds was used to purchase vehicles, repair household items, rent land, or increase capital for the tobacco leaf trade. During this period, tobacco served as a means of economic mobility because the proceeds from a single growing season could be converted into longer-lasting assets. This is supported by the following statement from Mr. Adhi Suwadi: “Yes, in fact, the work from one growing season could last for a year or even longer. I planted it on four plots of land. From 1994 to 1996, things were still

stable—enough to cover daily needs, and there was even money left over for vehicles” (Interview with Adhi Suwadi, July 8, 2026).

Income stability in the mid-1990s spurred the expansion of tobacco cultivation. Farmers who had initially planted on a limited number of plots began using more land, including converting nearly all their rice fields during the dry season. This choice was driven by the belief that tobacco offered more certain and higher income opportunities compared to several alternative crops whose prices fluctuated easily.

Other statistical evidence highlights the extent to which this commodity is intertwined with local economic activity. These findings reveal that tobacco plays a dual role in farmers’ households. On the one hand, tobacco provides cash income for consumption, education, debt repayment, vehicle purchases, and land expansion. On the other hand, this success encourages households to allocate more and more land, labor, and capital to a single commodity. Within Ellis’s (1993) framework of peasant economics, household production decisions are always linked to consumption needs, the availability of family labor, access to capital, and income expectations. Consequently, tobacco serves as both the focal point of household economic management and a source of concentrated risk when the majority of resources are tied up in a single harvest season.

The significant role of tobacco in meeting family needs aligns with the research by Agustina et al. (2021) , which shows that tobacco farming makes a significant contribution to the income of farming households in Katekan Village, Temanggung Regency. The findings of this study add a historical dimension: from the early to mid-1990s, tobacco income not only sustained daily consumption. These earnings were also used to fund schooling, pay off debts, purchase vehicles, rent land, and provide new capital. A successful harvest was therefore understood as an overall economic success for the family. The broader the role of tobacco income within the household, the greater the impact when harvests or prices declined.

The BPS price series makes it clear that the issue facing farmers’ income toward the end of the period was not only a decline in selling prices but also a weakening of purchasing power. Farmers’ dependence on tobacco also has strong social and cultural roots. Imron et al. (2020) explain that tobacco in Temanggung is intertwined with generational experiences, community identity, and local practices associated with the cultivation process. Historical findings indicate the intergenerational transmission of knowledge and livelihood choices.

These conditions explain why profits during a good season drive land expansion and clearing activities. Households view tobacco not merely as a cash crop, but as the foundation for improving their standard of living and building assets. However, land expansion increases production costs and labor requirements before the quality and price of the crop are known. When yields are good, concentrating resources on tobacco appears to be a profitable decision. When the season turns bad, that same concentration becomes a fast track for losses to spread across all household needs.

Thus, the role of tobacco shapes household economics through the interplay of income, investment, and dependency. The greater the benefits reaped during a good season, the greater the tendency for families to expand their farmland and tie up capital in this commodity. This decision is rational in the context of cash income opportunities that are difficult to replace with other crops. However, this decision also narrows risk diversification because consumption and capital for the following season depend on the same source. Tobacco during 1990–1998 must therefore be understood as both a source of well-being and the foundation of farmers’ household economic vulnerability.

Farmers Face Changes in Production, Quality, Financing, and Marketing Systems

Farmers cope with changes in production by relying on cultivation knowledge gained through experience across growing seasons. Seed selection, the use of fertilizers and pesticides, planting times, pest control, harvesting, cutting, and sun-drying are understood as a series of interdependent steps. Success does not depend solely on the amount of inputs, but on the precision of the treatments and their suitability to seasonal conditions. As Mariyono explained, “I started by planting tobacco on just two plots; the results were good as long as I understood the process, knew the right pesticides, and the weather cooperated” (Interview with Mariyono, July 9, 2026).

Based on the interview findings, it is evident that farmers’ ability to understand cultivation techniques forms the foundation for maintaining production yields. Knowledge regarding plant pesticides and the timing of treatments is gained through experience gained from planting season to season. However, this knowledge cannot entirely eliminate risks, as farmers remain dependent on weather conditions. Favorable weather allows cultivation skills to yield a good harvest, whereas abnormal weather can thwart the efforts that have been made. Thus, farmers’ strategies during the production stage are a form of adaptation, not a guarantee of freedom from risk. This was also expressed in an interview with Mr. Adhi Suwadi, who stated: “In 1998, it rained constantly, so the yield was poor. When farmers grow tobacco, it has to dry for a day; if it gets rained on, the quality or standard declines. That’s what we call ‘geblindeng’ tobacco” (Interview with Adhi Suwadi, July 8, 2026).

According to the interview with Mr. Adhi Suwadi, leaves that have been picked and shredded require sunlight to dry properly, maintaining the color, aroma, and condition acceptable to the market. If exposed to rain, the drying process is disrupted, and the tobacco turns into “geblindeng” or low-quality tobacco. This decline in quality then lowers the price grade, even though farmers still receive a harvest. Therefore, changes in weather link technical production issues to a reduction in household income.

These changes in production and quality indicate that weather is an economic factor, not merely a technical factor in cultivation. Prasetyo et al. (2016) confirm that agroecological conditions influence the productivity and quality of Temanggung tobacco. Mamat et al. (2006) also identify quality as one of the key elements in the sustainability of tobacco farming. In addition to production risks, farmers must secure capital before the planting season begins. Expenses are incurred for land preparation, seedlings, fertilizer, pesticides, labor, harvesting, cutting, sun-drying, and transportation. All these costs must be covered before any revenue is generated, so the sustainability of the business depends heavily on the reserves available from the previous season.

Aliyah (2013), which shows that rainfall anomalies can reduce the income of tobacco farmers in Temanggung. As supporting contemporary evidence, the July 31, 1997, edition of *Suara Merdeka* reported crop damage of about 80 percent across an area of approximately 17,000 hectares. This report indicates that production pressures had already emerged before the peak of the 1998 crisis. The damage in 1997 not only reduced yields but also depleted savings that were intended to serve as capital for the following season. A comparison of rainfall data also indicates that the pressures of 1998 had a strong ecological basis. The accumulation of 303 mm of rain from July to September 1998, accompanied by 23 days of rain, far exceeded conditions in the two subsequent years. These figures explain why drying became more difficult and why leaves that were still harvestable did not always retain their economic value.

Some households build capital independently by setting aside part of their crop yield before tobacco harvest or saving a portion of their harvest income. Family income and production capital are not strictly separated; money from sales is used for daily needs while

also being reinvested to ensure planting can continue the following year. Self-financing provides greater flexibility in choosing buyers and determining the timing of sales. However, this system is vulnerable when a previous harvest fails or household needs increase. A decline in savings immediately reduces the ability to purchase inputs, hire labor, and maintain the area under cultivation. Households without sufficient reserves rely on loans from landowners or middlemen. This capital allows farming activities to continue, but repayment is made through deductions from sales proceeds. Financing relationships established at the start of the season thus also shape marketing relationships after the harvest. This is also evident in the marketing access described by Mariyono: “If I have a crop, I sell it directly to the factory; right at the start of planting, I applied for a KTA with the Gudang Garam factory in Bulu, Parakan” (Interview with Mariyono, July 9, 2026). Wadiyono also stated, “I still go directly to the factory in Kediri; since I already have that KTA, I choose to sell directly to the factory. The price is also higher than what the middlemen offer—even if it’s just five thousand or six thousand more, it’s still worth it” (Interview with Wadiyono, July 10, 2026).

From these two interviews, it is evident that holding a KTA provides more direct access to the factory and opens up opportunities to secure higher prices. A difference of a few thousand rupiah per kilogram is considered significant because the volume of tobacco sold can be quite large. Direct access also reduces dependence on local middlemen, although farmers still face quality assessments by buyers. Not all farmers can use this channel because it requires membership, networks, transportation, and the ability to transport their produce. These differences in access mean that farmers’ positions within the trade system are not entirely equal.

Direct access to factories through a Membership Card offers the opportunity to secure higher prices. The price difference between sales at the village level and at the warehouse can reach approximately Rp5,000–Rp10,000 per kilogram. In large volumes, this difference has a significant impact on household net income. Not all farmers can benefit from the direct sales channel. Membership, transportation costs, the ability to transport goods, and relationships with warehouses are requirements that limit access. Farmers without these resources turn to middlemen because selling through them is easier and their produce can be converted to cash immediately, even though the prices they receive tend to be lower.

In terms of financing, the use of savings from harvest proceeds and loans from middlemen results in different levels of self-reliance. Own capital provides greater flexibility in choosing the timing and channels of sales, but its availability is highly dependent on the success of previous harvests. Conversely, loans from middlemen provide funds when farmers lack capital, but create obligations that are deducted from the harvest proceeds. Arofah and Setiawan (2022) explain the patron-client relationship between farmers and middlemen through the interplay of marketing, debt, trust, and household needs. A reconstruction of the sources shows that this relationship is ambivalent because it helps ensure the sustainability of production while simultaneously limiting farmers’ freedom after the harvest.

The difference between direct sales to factories and sales through middlemen highlights inequalities in market access. Ownership of a KTA (credit card), factory networks, transportation, quality information, and the ability to wait for payment are resources not possessed by all farmers. Dewanta (2022) views the tobacco production relationship in Temanggung as one that can lead to exploitation because farmers do not fully control quality assessment and purchasing. Al-hafidz et al. (2023) also emphasize the importance of distribution patterns in determining farmers’ positions in Bulu Subdistrict. The research findings support both of these perspectives because price differentials and capital constraints cause some farmers to accept less profitable sales channels.

The tobacco trade system demonstrates that the nominal price is not the sole determinant of farmers' income. The ability to sell directly, transportation costs, payment deductions, quality assessments, and debt relationships determine the actual amount that returns to the household. Farmers with a KTA can obtain higher prices but must still meet buyer standards. Farmers who sell through middlemen enjoy easier marketing access but must accept price differentials and potential debt deductions. Thus, marketing strategies always involve a trade-off between ease of access, freedom of choice, and the amount of income received.

Farmers' responses—such as reducing planted area, cutting back on leaf purchases, conserving fertilizer, and using companion plants—can be interpreted as a form of livelihood adaptation. Ellis (2000) explains that rural households use diversification to spread risk and maintain sources of income. Sofianto (2013) demonstrates that tobacco farmers can adapt by changing their scale of operations, cultivation techniques, and input management without having to abandon tobacco entirely. The results of this study show that farmers opt for gradual adaptation because their skills, land, and market networks have been established around tobacco. However, the ability to adapt remains determined by capital, assets, knowledge, and access to buyers.

The Turning Point in the Emergence of Farmers' Economic Vulnerability in 1998

The year 1998 marked a critical turning point because several pressures occurred in close succession. Rainfall during the dry season reduced crop quality, while the costs of fertilizer and pesticides rose; meanwhile, tobacco prices were not always sufficient to cover the capital already spent. For households that relied on loans, the drop in yields immediately turned into a debt that had to be carried over to the next growing season. As Mariyono explained, “In 1997, prices were still normal—for example, if the price was twenty-five thousand, it was twenty-five thousand. But in 1998, it was a different story; tobacco prices fell not because of an economic crisis but because of the weather—there was a lot of rain. The buyers also set the terms—for example, they might want to buy a small amount but end up taking a large quantity” (Interview with Mariyono, July 9, 2026).

Based on the interview, Mr. Mariyono distinguished the impact of the monetary crisis from issues related to weather and purchase volume. In his experience, prices in 1997 were still relatively stable, whereas the decline in 1998 was primarily due to heavy rains that damaged the crop. Furthermore, the buyer's decision regarding the volume of purchases—whether large or small—also influences the price received by farmers. When the crop is available in large quantities but purchases are limited, farmers' bargaining power weakens. This testimony indicates that the vulnerability in 1998 stemmed from the convergence of natural disturbances and market uncertainty, not from a single cause.

Climate data from the Central Statistics Agency (BPS) corroborates the account of the drying-out disruption. From July to September 1998—a period that overlapped with tobacco harvesting and drying—accumulated rainfall reached 303 mm over 23 rainy days. This amount was significantly higher than during the same period in 1999 and 2000 (BPS Kabupaten Temanggung, 2001).

Table 3. Rainfall in July–September in Temanggung Regency, 1998–2000

Year	July (mm)	August (mm)	September (mm)	Total (mm)	Rainy days*
1998	185	56	62	303	23
1999	35	27	28	90	5
2000	32	3	17	52	9

Source: BPS Kabupaten Temanggung, 2001

Cumulative rainfall from July to September 1998 was more than three times that of 1999 and nearly six times that of 2000. Rainfall on 23 days during that period limited opportunities for sun-drying, increased the likelihood that the tobacco would not dry completely, and heightened the risk of a decline in quality and price.

Tobacco prices under these constrained conditions ranged from approximately Rp20,000 to Rp25,000 per kilogram. In some transactions, the agreed-upon amount was not fully received due to quality adjustments, deductions, or the settlement of prior obligations. The gap between the quoted price and net receipts increases income uncertainty. Rising input costs have led to reduced fertilizer use. Needs that under normal conditions could reach about one quintal have been cut in half just to ensure planting can proceed. These cost-saving measures help sustain production in the short term but may reduce crop growth and the quality of the next harvest.

The losses do not end when the harvest is complete. Yields insufficient to recoup capital cause debts to landowners or middlemen to be carried over to the next season. Cross-seasonal obligations reduce households' ability to secure new capital and reinforce their dependence on the same network of buyers. Economic pressures also affect the ability to retain productive assets. In some agricultural communities, households are forced to sell their rice fields to meet needs or settle debts, while in other areas, land sales do not occur. This difference indicates that the impact of the crisis depends on each household's capital reserves, land area, debt burden, and market access.

The sale of rice fields marks a shift in losses from seasonal income issues to changes in asset structure. Households that lose land not only see their income sources reduced in a given year but also lose part of their production base for the following period. Therefore, the impact of 1998 cannot be measured solely by the number of damaged crops or price declines.

Direct support capable of compensating for losses or restoring capital was not felt equally across all households. Recovery relied more heavily on family savings, asset sales, loans, reduced inputs, and scaling back business operations. Households without reserves faced greater pressure to sell their produce immediately and accept whatever purchase terms were available. The 1998 crisis was thus inter-seasonal in nature. A decline in quality reduced income; low income hindered debt repayment; and debt reduced capital and the ability to choose buyers in the following season. This chain of events explains why the disruption caused by a single crop failure can persist for a longer period in the economic lives of households.

Differences in conditions between villages—between areas that were able to retain their land and those that sold off rice fields—indicate that the crisis did not have a uniform impact. Farmers with their own capital, larger plots of land, access to processing facilities, or asset reserves had greater resilience. Conversely, farmers who relied on loans and middlemen faced pressure to sell their produce and pay their obligations more quickly. The sale of rice fields indicates that losses have shifted from income streams to the structure of household asset ownership.

The limited availability of direct aid means that economic recovery relies on households' internal resources. Savings, assets, reduced inputs, loans, and scaling back farm size are the primary tools for coping with losses. Households with reserves can postpone detrimental decisions, while those without reserves must immediately seek cash. This situation reinforces dependence on landowners or middlemen and reduces farmers' ability to wait for better prices.

The year 1998 marked a turning point, as it exposed the limitations of the tobacco economic system—limitations that had previously been masked by profits during good harvest seasons. Farmers bear production costs and weather risks, while quality, purchase volumes, and final prices are heavily influenced by buyer networks. Declining yields are then directly linked to debt, reduced inputs, asset sales, and diminished capital for the following growing season.

The interrelationship among these factors meant that the crisis did not end with the harvest but spilled over into household livelihoods and the next production season. Consequently, farmers' vulnerability stems from the convergence of dependence on tobacco, weak economic buffers, and inequalities in the distribution of capital and market power.

Conclusion

Tobacco farmers caught in the economic vortex of Temanggung Regency from 1990 to 1998 demonstrate that tobacco shapes household economic life through a wide range of functions. Tobacco income was used to meet daily needs, finance children's education, pay off debts, purchase vehicles, and expand or lease land. Success in the early to mid-1990s encouraged households to allocate increasingly more land, labor, and capital to tobacco. Thus, this commodity became both a source of livelihood and the center of family economic decision-making. Farmers coped with changes in production, quality, financing, and marketing through various strategies. Some reinvested their harvest as their own capital; some obtained loans from collectors; some sold directly to factories through KTA; and some relied on middlemen. As pressures increased, farmers reduced fertilization, limited the area under cultivation, cut back on leaf purchases, or combined tobacco with other crops. These strategies demonstrate adaptability, but they also reveal that access to capital and markets is not evenly distributed.

The year 1998 marked a turning point as risks that had previously occurred separately now unfolded simultaneously. Rainfall during the harvest season reduced crop quality; prices and farm income weakened; input costs rose; and debt carried over into the following season. Data from the Central Statistics Agency (BPS) show that the price of IR 64 rice rose from an average of Rp915.42 per kilogram in 1996 to Rp2,121.46 in 1998, while cooking oil prices rose from Rp1,591.88 to Rp4,399.13. At the same time, rainfall from July to September 1998 reached 303 mm over 23 rainy days. The combination of declining income, rising living costs, and disruptions to the drying process explains why purchasing power and the ability to secure new capital came under severe pressure. The impact varied across regions and households: some were still able to maintain their assets, while others were forced to sell their rice fields. The main finding of this study is the existence of a "flagship commodity paradox." Tobacco offers high income potential, but these benefits come with a concentration of risk, as farmers bear the costs and risks of production failure, while quality, purchase volume, and final prices are not entirely within their control. The economic history of Temanggung tobacco farmers from 1990 to 1998 is therefore not merely a history of the ups and downs of production, but a history of households striving to sustain their livelihoods amid an unequal relationship between weather, capital, and the market.

References

- Agustina, T. P. G., Santoso, S. I., & Mukson. (2021). Kontribusi usahatani tembakau terhadap pendapatan rumah tangga petani di Desa Katekan Kecamatan Ngadirejo Kabupaten Temanggung. *Jurnal Ekonomi Pertanian dan Agribisnis*, 5(3), 819-827. <https://doi.org/10.21776/ub.jepa.2021.005.03.19>.
- Al-hafidz, Z., Waridin, W., & Suciati, I. (2023). Analysis of the tobacco farmers' distribution pattern: Study case in Bulu District, Temanggung. *Jurnal AGRISEP: Kajian Masalah Sosial Ekonomi Pertanian dan Agribisnis*, 22(2), 489-504. <https://doi.org/10.31186/jagrisep.22.02.489-504>.
- Aliyah, N. (2013). *Dampak Penyimpangan Curah Hujan Terhadap Pendapatan Petani Tembakau di Kabupaten Temanggung*. Skripsi Universitas Indonesia.

- Annisa, R., Hadi, M. S., & Hafiz, A. (2019). Perubahan sosial ekonomi masyarakat petani kopi di Desa Jurit Baru Kecamatan Pringgasela Kabupaten Lombok Timur tahun 1999-2015. *Fajar Historia: Jurnal Ilmu Sejarah dan Pendidikan*, 3(2), 66-72. <https://doi.org/10.29408/fhs.v3i2.1899>.
- Arofah, S. N., & Setiawan, A. H. (2022). Analisis determinan penawaran tembakau (Studi kasus: Fenomena patron-klien antara petani tembakau dan tengkulak di Desa Katekan, Kecamatan Ngadirejo, Temanggung). *BISECER (Business Economic Entrepreneurship)*, 5(1), 19-28. <https://doi.org/10.61689/bisecer.v5i1.291>.
- Billings, E. R. (2019). *History of Tobacco: Sejarah Tembakau dan Penyebarannya*. Yogyakarta: Indoliterasi
- BPS Kabupaten Temanggung. (1998). *Temanggung dalam angka tahun 1998*. Badan Pusat Statistik Kabupaten Temanggung.
- BPS Kabupaten Temanggung. (1990). *Temanggung dalam angka 1990*. Badan Pusat Statistik Kabupaten Temanggung.
- BPS Kabupaten Temanggung. (2001). *Temanggung dalam angka 2001*. Badan Pusat Statistik Kabupaten Temanggung.
- Brata, W. (2012). *Tembakau atau Mati: Kesaksian, Kegelisahan, dan Harapan Seorang Perani Tembakau*. Indonesia Berdikari.
- Dewanta, A. B. (2022). Kesetiaan palsu: Eksploitasi petani tembakau di Temanggung. *Lembaran Antropologi*, 1(2), 121-139. <https://doi.org/10.22146/la.4274>.
- Dwiyanti, L. (2023). *Perkembangan perkebunan tembakau srintil di Temanggung (1974-1998)*. Skripsi. Universitas Negeri Jakarta.
- Ellis, F. (1993). *Peasant economics: Farm households and agrarian development*. Cambridge University Press.
- Ellis, F. (2000). *Rural livelihoods and diversity in developing countries*. Oxford University Press.
- Imron, A., Komaruddin, M. N. N., Darmawan, E. S., & Illahi, N. A. K. (2020). Socio cultural study of Temanggung tobacco farmers in the global trans era. *Indonesian Journal of Social and Environmental Issues*, 1(2), 73-78. <https://doi.org/10.47540/ijsei.v1i2.8>.
- Kinanti, A. D., Wilis, R., & Darini, R. (2026). Capitalist practices in Lampung tobacco plantations during the liberal economy period. *Fajar Historia: Jurnal Ilmu Sejarah dan Pendidikan*, 10(1), 366-378. <https://doi.org/10.29408/fhs.v10i1.34149>.
- Kuntowijoyo. (2013). *Pengantar ilmu sejarah*. Tiara Wacana.
- Mamat, H. S., Sitorus, S. R. P., Hardjomidjojo, H., & Seta, A. K. (2006). Analisis mutu, produktivitas, keberlanjutan dan arahan pengembangan usahatani tembakau di Kabupaten Temanggung, Jawa Tengah. *Jurnal Penelitian Tanaman Industri (Littri)*, 12(4), 146-153.
- Prasetyo, A., Djajadi, D., & Sudarto, S. (2016). Kajian produktivitas dan mutu tembakau Temanggung berdasarkan nilai indeks erodibilitas dan kepadatan tanah. *Jurnal Tanah dan Sumberdaya Lahan*, 3(2), 389-399. <https://jtsl.ub.ac.id/index.php/jtsl/article/view/153>.
- Ritaningrum, & Wijaya, A. (2023). Analisis jejaring konflik petani tembakau Kabupaten

- Temanggung. ENTITA: *Jurnal Pendidikan Ilmu Pengetahuan Sosial dan Ilmu-Ilmu Sosial*, 5(2), 235-252. <https://doi.org/10.19105/ejpis.v5i2.10575>.
- Scott, J. C. (1976). *The moral economy of the peasant: Rebellion and subsistence in Southeast Asia*. Yale University Press.
- Sofianto, A. (2013). Inovasi usahatani tembakau di Kecamatan Kledung, Kabupaten Temanggung. *Jurnal Litbang Provinsi Jawa Tengah*, 11(1), 75-86. <https://ejournal.jatengprov.go.id/index.php/jurnaljateng/article/view/294>.
- Suara Merdeka. (1997, 31 Juli). Kerusakan tembakau 80%. hlm. IV.
- Suara Merdeka. (1998, 19 November). Petani tembakau rugi Rp176 miliar lebih. hlm. V.
- Thamrin, H., Trihusodo, P., & Soediran. (2008). *Geger doorstoot: Perjuangan rakyat Temanggung 1945–1950*. Dewan Harian Cabang Badan Pembudayaan Keuangan 45 Kabupaten Temanggung.
- Wawancara dengan Adhi Suwadi, Petani di Kabupaten Temanggung pada tanggal 8 Juli 2026.
- Wawancara dengan Mariyono, Petani di Kabupaten Temanggung pada tanggal 9 Juli 2026.
- Wawancara dengan Wadiyono, Petani di Kabupaten Temanggung pada tanggal 10 Juli 2026.