

From Rice Fields to Industry: The Social Impact of Agricultural Land Conversion on the Socio-Economic Lives of Farmers

Amruddin

Universitas Muhammadiyah Makassar, Indonesia

Article history:

Received: 2025-07-02

Revised: 2025-07-20

Accepted: 2025-08-10

Published : 2025-08-27

✉ Corresponding Author:

Name author: Amruddin

E-mail: amruddin@unismuh.ac.id

Abstract

This study examines the socio-economic impacts of agricultural land conversion into industrial areas in rural Indonesia using qualitative methods based on literature. This transformation drives a process of de-agrarianization that alters income sources, work structures, and social identities in rural communities. Land conversion triggers diversification of livelihood strategies, increases land prices, and shifts in asset ownership, but compensation that is not managed productively has the potential to undermine economic independence. The impact on food security and sovereignty is significant, as reduced harvested areas reduce local production and increase dependence on external supplies. The shift in values from a subsistence ethos to an industrial logic triggers cultural lag, erodes social cohesion, and changes gender roles and domestic work patterns. The presence of migrant workers and the demand for industrial skills create new social stratifications that widen inequalities. Institutional factors such as transparency in compensation and strengthening village institutions determine whether this change leads to upward mobility or structural poverty. This study emphasizes the need for mitigation strategies that combine structural and cultural dimensions, including land protection, skills development, and strengthening social capital, to ensure rural industrialization is inclusive and does not deepen inequality. These findings are expected to inform equitable and sustainable village development policies.

Keywords: Land conversion; Socio-economic impact; Farmers

1. Introduction

The transformation of land use from agriculture to industry is an increasingly common phenomenon in rural Indonesia. This change is driven by development policies that position industrialization as the primary driver of national economic growth. Within a political economy framework, land conversion reflects a shift in orientation from locally resource-based food production to the production of goods and services with higher added value. While providing investment opportunities and job creation, this process has significant structural consequences. These changes not only impact the village's economic



Creative Commons Attribution-ShareAlike 4.0 International License:

<https://creativecommons.org/licenses/by-sa/4.0/>

structure but also alter the social and cultural fabric of its communities (Purwanti, 2020). This situation provides a starting point for understanding the broad impact of land conversion on the socio-economic lives of farmers.

Changes in the rural economic structure, initially based on the agricultural sector, have altered labor relations and resource distribution patterns. In modernization theory, industrialization is often viewed as a sign of progress, but a critical perspective sees it as a threat to the sustainability of agrarian actors. Land conversion is usually accompanied by a change in labor status from independent farmers to industrial laborers or informal workers. This shift alters the level of economic independence of rural communities, which previously had control over the production process. Dependence on the formal labor market weakens the community's bargaining position. This change connects us to another issue: the decline in local food production capacity (Sari & Yuliani, 2021).

Local food security becomes a crucial issue when the area of productive agricultural land decreases significantly. According to the FAO, adequate land availability is a crucial pillar in ensuring the availability, access, and affordability of food for the community. Reduction in rice paddies means a decrease in rice production or other key commodities, thus threatening regional food self-sufficiency (Rozci & Roidah, 2023). Consequently, the region must rely on external supplies, which are vulnerable to price fluctuations and distribution disruptions. This situation demonstrates that the impact of land conversion goes beyond the loss of farmers' jobs and also affects the food security of the wider community. This opens up the opportunity to examine the more complex social impacts of industrial influx.

The entry of the industrial sector brought a transformation of values, norms, and lifestyles into rural areas. Lifestyle modernization and the penetration of urban culture altered patterns of social interaction that were previously close and based on mutual cooperation (Rahmawati et al., 2024). Flexible, seasonal agricultural work rhythms were replaced by rigid industrial work hours that demanded high productivity. This change gradually shifted society's orientation from communal solidarity to individualism. From the perspective of social disorganization theory, such abrupt changes have the potential to weaken social cohesion. This shift in values also gave rise to new dynamics in social stratification in villages.

New social stratification is formed when industry attracts labor from outside the region. The presence of immigrants with varying economic capital and skills often creates social polarization. Local communities that are able to adapt can capitalize on industrial opportunities, while those without



adequate skills tend to be marginalized (Suharyanto et al., 2021). This phenomenon aligns with the concept of a dual economy, where modern and traditional sectors coexist but are separated in terms of access to resources. This difference further widens the welfare gap in rural communities. This situation brings us to the issue of the economic welfare of former farmers after land conversion.

The economic well-being of farmers after losing their land does not always improve, even if they receive financial compensation. Funds from land sales are often quickly depleted due to poor financial management and minimal productive investment. As a result, most former farmers are forced to work in the informal sector with low incomes. Findings by Bebbington (1999) indicate that the loss of productive assets such as land can increase household economic vulnerability. Without skills training or access to capital, communities struggle to capitalize on new economic opportunities offered by the industrial sector. These barriers to adaptation are often rooted in social and cultural factors (Rochadi et al., 2022).

The phenomenon of cultural lag, or delay in cultural adaptation, is clearly visible in societies transitioning from an agrarian to an industrial system. Work habits, mindsets, and technical skills developed over years in the agricultural sector do not immediately align with industrial needs. This unpreparedness leaves most local workers only able to access marginal jobs (Azadi et al., 2018). Meanwhile, more promising jobs tend to be filled by trained workers from outside. This slow adaptation process poses a risk of long-term economic exclusion for local communities. This demonstrates that the impacts of land conversion encompass both structural and cultural dimensions.

Thus, the conversion of agricultural land into industrial areas is not simply a technical development issue (Bahrudin & Trilaksana, 2024). This phenomenon is a complex issue that impacts the economic, social, cultural, and food dimensions of rural communities. This change creates significant challenges in ensuring the sustainability of life and the well-being of affected communities. Critical studies are needed to assess the extent to which industrialization in rural areas can be inclusive. Without careful planning and adequate protection policies, the risk of marginalization for farmers will increase. Therefore, it is crucial to position local communities as the primary subjects in this transformation process, not simply objects of development.

2. Method

This study uses a qualitative method with a literature review approach to analyze the social impacts of agricultural land conversion into industrial areas on the socio-economic lives of farmers. This approach was chosen because the focus of the research is to understand the phenomenon in depth through a review of relevant scientific sources, rather than through direct

field data collection. The literature review allows researchers to identify patterns, relationships, and research gaps from various previous findings, thus constructing a comprehensive analytical framework.

The data sources used include academic books, indexed scientific journal articles, research reports, government policies, and publications from international institutions related to land conversion, rural industrialization, food security, social change, and farmer welfare. Literature selection criteria included topic relevance, publication quality (published in reputable journals or by official institutions), and publication dates within the last 10 years to ensure data relevance. However, classic literature that has made significant contributions to theory or analytical frameworks was also included.

The literature collection process was conducted through searches of scientific databases such as Google Scholar, Scopus, ScienceDirect, and Garuda, using keywords such as land conversion, rural industrialization, food security, socio-economic impacts on farmers, and changes in village economic structure. After the literature was collected, the next step was to select it based on its relevance to the research objectives. The selected literature was then analyzed using content analysis techniques to identify key themes.

Data analysis was conducted in three stages: data reduction, data presentation, and conclusion drawing. Data reduction involved selecting relevant information, eliminating irrelevant data, and grouping findings into thematic categories such as economic impact, social impact, cultural impact, and implications for food security. Data presentation was conducted in the form of a structured narrative description, connecting findings from various literatures to form a holistic understanding.

To maintain the validity and credibility of the study results, this research applies source triangulation techniques, which compare information from various literature sources to ensure consistency of findings. Furthermore, the researcher also refers to the principle of critical appraisal to assess the methodological quality of each source used. The final results of this literature review are expected to not only describe the factual conditions but also provide a critical analysis of the structural impacts resulting from the conversion of agricultural land into industrial areas.

Using this method, the research can provide a comprehensive picture of how land conversion impacts social, economic, cultural, and food dimensions in rural communities. This study is also expected to identify policy gaps and offer evidence-based recommendations that can serve as a reference in formulating equitable rural development strategies.

3. Result and Discussion

1. Transformation of Rural Economic Structure and Changes in Livelihood Patterns

The transformation of the rural economic structure due to the conversion of agricultural land to industrial areas essentially drives a process of "de-agrarianization": the agricultural sector's contribution to local GRDP, employment, and social identity declines, while manufacturing and service industries grow as primary sources of income. This change is not linear, but rather gradual and layered: some households exit agriculture entirely, while others remain part-time farmers while entering the non-agricultural labor market. Land conversion raises land prices and encourages sale and purchase transactions or compensation, which impacts the village's asset ownership structure. In the short term, liquidity injections from compensation can boost consumption, but in the medium term, without productive reinvestment, economic independence is weakened. Village functions are repositioned into peri-urban spaces with daily commuting connections to factories, shipyards, and warehousing, thus intensifying rural-urban relations (Huda, 2022).

The dual economy framework by Lewis; Harris–Todaro helps explain this shift: surplus labor from the traditional sector (low-productivity agriculture) flows into the “modern sector” with higher productivity and wages, or at least with higher wage expectations. However, job-hopping decisions are often based on expected wages and opportunities for formal employment, so not all migrants or commuters actually enter the formal sector; many end up in informal jobs around industrial areas (Fahriza & Amrifo, 2020). Modernization theory adds a dimension of social differentiation: the adoption of “modern” values, norms, and skills (financial literacy, work discipline, certification) becomes key capital for accessing industrial and service opportunities. Thus, transformation is not simply a shift in sector, but rather a selection process that produces “integrated” and “marginalized” groups.

The change in status of farmers from independent producers to industrial laborers or informal workers has direct implications for household economic independence (Zahra & Rudiarto, 2023). As producers, households have relative control over the cycle of production, consumption, and food reserves; as laborers, income becomes dependent on the stability of work hours, overtime, and minimum

wage dynamics. Expenditure structures also shift: portions of food that were previously partially self-sufficient shift to market purchases, increasing vulnerability to price fluctuations. Traditional safety nets (grain stocks, collective-based mutual aid relationships) are potentially depleted when social time is consumed by shift work. When shocks occur (layoffs, illness, contract terminations), households that have relinquished land no longer have a strong fallback position. Economic independence, therefore, is not only about income levels, but also about the level of control, diversification of sources, and resilience to risks (Tambe, 2022).

In the labor market, skill mismatch is a crucial issue that differentiates those who adapt from those who are marginalized. Younger generations, who are relatively more educated and mobile, tend to enter formal industries more quickly; older generations are often pushed into informal work (street vendors, micro-logistics services, parking, industrial security). Gender dimensions are also changing: women's increasing participation in factory work is driving the reorganization of care work at home and the renegotiation of domestic roles. Daily commuting is common, but transportation costs and travel time erode effective wages. For low-asset households, engaging in informal services around industrial areas (fast food stalls, small boarding houses, motorcycle taxis) is a strategy, but incomes are volatile and social protection is minimal (Li, H et al., 2022).

Livelihood strategies then diversified. Some households converted land compensation into capital for MSMEs (stalls, rental houses, workshops) or became supporting suppliers (subcontractors) for the industrial ecosystem—building backward and forward linkages. Others maintained intensive farming on remaining land through high-value commodities or contract farming, so that non-farm and agricultural incomes supported each other. Circular migration strategies also existed: working seasonally in factories when demand was high, returning to work the land when it was quiet. A more diverse livelihood portfolio generally increased resilience but required managerial capabilities, access to credit, and market networks.

The outcomes of transformation are highly differentiated. Successfully adapting groups generally possess a strong combination of assets: education/certification, access to job information and social networks in factories, proximity to industrial areas, adequate and managed land compensation, and policy support (training, MSME incubation, and ease of licensing). Conversely, marginalized groups are typically characterized by limited or exhausted land holdings, undocumented skills, advanced age, high care costs, limited access to formal credit, and weak bargaining power in land acquisition processes (Liu et al., 2025). Institutional factors such as compensation transparency, clarity of land status, and sustainability of post-conversion programs are often key differentiators between upward mobility and a new poverty trap.

The spatial-institutional dimension reinforces these dynamics. Peri-urbanization triggers land speculation, spatial fragmentation, and rapid land-use change; if governance is weak, negative externalities (congestion, pollution, flooding) actually erode economic benefits (Saputro, 2020). On the other hand, policies linking industrial areas to local skills development, procurement schemes from village MSMEs, and supporting infrastructure (transportation, water, sanitation, and wholesale markets) can foster an inclusive “factory economy.” Compensation schemes that are not one-time payments, but rather based on land plot shares, long-term leases, or village endowment funds, can maintain income flows and mitigate the risk of capital depletion. Community institutions (cooperatives, village-owned enterprises) serve as collective vehicles for negotiating added value and managing shared assets.

For mapping through literature studies, the "sustainable livelihoods" framework can be used to assess five capital types (human, social, financial, physical, and natural) before and after conversion (Setyaningrum & Nugroho, 2022). Commonly used indicators include: the share of household non-agricultural income, the proportion of formal versus informal workers, the level of land loss/shrinkage, the daily commuter ratio, household food security (portion of food expenditure), household debt, female labor participation, and the existence of local business networks. Comparative literature across regions (e.g., labor-intensive versus resource-based industrial areas; villages near versus far from the region's gateway) helps identify common patterns and contextual variations. The synthesis typically reveals three trajectories: upward mobility (formal integration/entrepreneurship), lateral mobility (remaining informal with fluctuations), and downward mobility (being trapped in a pre-career without buffer assets).

By linking the dual economy and modernization, this analysis emphasizes that land conversion does not simply "move" labor, but rather "reconfigures" the structure of opportunities. The economic independence of post-conversion households depends on the quality of the transition: whether lost capital (land, production autonomy) is replaced by new capital (skills, networks, access to finance) of equal or greater value. Therefore, in addition to assessing the macroeconomic impact on growth, studies need to consider the distribution of benefits/losses, the quality of jobs created, and institutional capacity to ensure that structural transformation is truly inclusive, reducing, rather than deepening, rural inequality.

2. The Impact of Land Conversion on Food Security and Local Food Sovereignty

The conversion of agricultural land into industrial areas, residential areas, or infrastructure is a major factor threatening food security and local food sovereignty. According to the FAO's food security framework, food security is supported by four pillars: food availability, access and affordability,

utilization, and stability. Meanwhile, the concept of food sovereignty emphasizes community rights and control over food systems, including land tenure, seed management, determination of cultivated commodities, and trade systems that favor local needs. When productive agricultural land decreases, both of these concepts are threatened: production capacity decreases and community control over food systems weakens.

The reduction in productive rice fields and gardens directly reduces total regional food production because harvested area is a key factor in calculating annual production capacity, which is also influenced by yield per hectare and the cropping index. Land loss is often accompanied by fragmentation of remaining land, decreased soil quality due to pollution or changes in water management, and reduced planting frequency due to disruptions to irrigation systems. This combination of factors makes it difficult to offset production declines through intensification alone. As a result, local food availability declines, self-sufficiency ratios weaken, and dependence on external supplies increases (Wibisono & Widowaty, 2023).

In terms of access and affordability, reduced local supply lengthens the distribution chain and increases logistics costs, leading to higher food prices in local markets. Low-income groups are most affected because their share of food expenditure increases, reducing purchasing power for other needs. On the utilization side, reduced supplies of fresh local food can trigger a shift in consumption toward processed or ultra-processed products that are more readily available but low in micronutrients, potentially exacerbating health problems such as anemia, stunting, and non-communicable diseases. Food stability is also compromised because dependence on external supplies makes regions vulnerable to global price fluctuations, distribution disruptions, and export restrictions from supplier regions.

From a food sovereignty perspective, land conversion shifts control from farmers and communities to non-agricultural actors, such as developers and industrial corporations. Farmers' tenure rights are weakened, land becomes increasingly difficult to access, and local practices and knowledge are marginalized. In some cases, remaining land is being pushed to produce export or high-value commodities for global markets, but is irrelevant to the local community's basic food needs. This situation erodes the ability of communities to determine what food is produced, how it is managed, and how the results are distributed.

Literature studies across various regions show a consistent pattern: agricultural land conversion in peri-urban areas and industrial corridors is followed by labor migration to non-agricultural sectors, declining food production capacity, changes in regional status from food barns to importers, and rising local food prices (Putri et al., 2024). In the long term, these conditions pose serious risks to economic and social stability. Import dependence increases exposure to international price fluctuations, while

degradation of agricultural ecosystems exacerbates vulnerability to climate change and hydrometeorological disasters. On the social side, the weakening of local food institutions such as village granaries and cooperatives reduces communities' ability to cope with crises.

Thus, land conversion is not only a matter of reduced harvested area, but also a strategic issue that touches on the economic, ecological, social, and political dimensions of food production. Its impacts include decreased production, weakened access to and affordability of food, decreased consumption quality, and increased vulnerability to external shocks. In this context, maintaining a balance between non-agricultural development and food land protection is key to maintaining food security and sovereignty at the local level.

3. Socio-Cultural Change and the Risk of Marginalization of Local Communities

The entry of industry into villages has driven a shift in value orientation from an ethos of subsistence and togetherness to a logic of production, targets, and efficiency. This phenomenon aligns with the concept of *Gemeinschaft–Gesellschaft*, which explains the shift from kinship-based relationships to impersonal, contractual relationships. The discipline of factory time has transformed social rhythms, such as the planting calendar, communal rituals, and social gatherings (*arisan*), which previously served as a bond of social cohesion. New status symbols such as gadgets, vehicles, and home styles have emerged as markers of social mobility. However, changes in material values have occurred more rapidly than adjustments to norms, giving rise to dissonance and potential conflict between generations, as well as between newcomers and established residents. This indicates that industrialization is not only fundamentally changing the village economy but also its socio-cultural structure.

Social disorganization theory helps explain the weakening of informal social control in villages experiencing high levels of labor migration and mobility (Asmirah & Iskandar, 2023). Population heterogeneity and diminished trust among residents weaken the role of customary institutions, farmer groups, and community assemblies as normative regulators. Mutual cooperation practices shift toward wage transactions, while social sanctions against deviant behavior lose their effectiveness. Bonding social capital is not quickly replaced by the bridging social capital needed to forge relationships with industry and government actors. This weakened collective capacity diminishes residents' ability to advocate for local interests in negotiations with outsiders. Ultimately, communities become more vulnerable to industrial penetration without adequate protection mechanisms.

Ogburn's concept of cultural lag explains that changes in material cultural elements such as machines, technology, and work systems occur faster than the values, norms, and laws that govern them.

In industrial villages, residents are faced with shift work systems, digital recruitment procedures, and occupational safety standards that are not yet fully understood or accepted (Muzzaki et al., 2023). Gender norms related to the division of domestic labor lag behind the new reality that demands women's participation in factories, creating a double burden. Village representation systems are also unable to fully accommodate industrial mechanisms such as due diligence or grievance mechanisms. This lag in adaptation creates social friction, ranging from absences from communal rituals due to working hours to misunderstandings regarding employment contracts. If not bridged, this cultural lag can foster structural distrust of the new institutions that come with industrialization.

Industrialization also creates new social stratification based on access to skills, certification, and recruitment networks. Immigrants with higher human capital tend to occupy core positions, while locals are concentrated in peripheral or informal jobs. Digital platform-based recruitment mechanisms, certification requirements, and the use of technical language create barriers for those without industry experience or qualifications. Furthermore, the commodification of land through buying and selling or land acquisition forces households to lose their agrarian livelihoods, leading to proletarianization. The combination of loss of productive assets and limited access to employment places some residents in a vulnerability trap that is difficult to overcome. Without targeted intervention, this stratification structure has the potential to reinforce inequalities between groups within the village.

From Bourdieu's perspective, this inequality is not only about technical skills, but also differences in habitus and cultural capital. Families with exposure to vocational education or urban work experience are better able to navigate industry rules, from interview etiquette to work ethic. Younger generations in rural areas aspire to higher social mobility, but limited conversion factors make these aspirations vulnerable to frustration or job migration, which sever community ties. Low financial and digital literacy encourages risky, credit-based consumption, creating a cycle of debt. Older generations experience alienation when technical language and bureaucracy replace patterns of interaction based on verbal communication and trust. This difference in adaptability further widens the social distance between generations and between social groups in the village.

Women's participation in the industrial workforce increases household income, but also increases the burden of domestic work if not balanced by support services. Limited childcare facilities, safe transportation, and adaptive working hours reduce women's involvement in village decision-making. Changing dietary patterns, pollution, and night work hours increase health risks, impacting productivity. Widening parenting intervals have the potential to reduce the transmission of local values to the next generation. If these dimensions of social reproduction are ignored, industrialization can actually

exacerbate gender-based inequalities and lead to broader marginalization. In the long term, this can erode the sustainability of village social cohesion.

The risk of long-term marginalization accumulates through a chain of interconnected vulnerabilities, ranging from land loss, unstable employment, debt, deteriorating health, and low investment in education (Wibowo et al., 2025). Material injustices such as low income and assets combine with symbolic injustices such as a lack of recognition of cultural rights and identity. This situation can create a sense of alienation as residents become spectators of economic growth in their own land. If intermediary institutions such as village governments and customary institutions are ineffective, this inequality will become embedded in the local political-economic structure. Without counterbalancing mechanisms, this process can lead to permanent social exclusion. Thus, marginalization is not simply a temporary risk, but a potentially difficult-to-remediate structural condition.

Facing this complexity, mitigation strategies need to simultaneously address both structural and cultural dimensions. Strengthening bridging social capital can be achieved through participatory forums involving residents, companies, and the government, with accessible grievance mechanisms. Local skills training, certification, and internship programs need to be strengthened to ensure residents are competitive in the industrial labor market. Land rights protection and livelihood recovery programs after land acquisition are crucial for preventing economic vulnerability. Providing social reproduction support services and accelerating digital and financial literacy will strengthen communities' adaptive capacity. With this combination of policies, industrialization can be directed towards an inclusive rural transformation process and minimize the risk of long-term marginalization.

Conclusion

The transformation of the rural economic structure due to the conversion of agricultural land to industrial areas has driven a de-agrarianization process that has altered the primary income sources, work structures, and social identities of rural communities. This shift occurs gradually, with a diversification of livelihood strategies, with some households leaving agriculture entirely, others continuing to farm while working in non-agricultural sectors, and others entering informal businesses around industrial areas. Land conversion raises land prices, triggers changes in asset ownership, and provides compensation that, if not managed productively, can undermine economic independence. The impact on food security and sovereignty is significant, as reduced harvested areas reduce production, reduce local food availability, and increase dependence on external supplies. This change also shifts value orientations from a subsistence ethos to an industrial logic, triggering cultural dissonance and

cultural lag, weakening social cohesion, and altering gender relations and the domestic division of labor. New social stratification is formed based on skills, network access, and cultural capital, with low-asset groups vulnerable to structural marginalization. Institutional factors such as transparency of compensation, post-conversion programs, and strengthening village institutions determine whether this transformation results in upward mobility or a new poverty trap. The risks of long-term marginalization accumulate through land loss, precarious employment, debt, and deteriorating health, which can lead to permanent social exclusion. In this context, protecting food plots, enhancing skills, and strengthening connective social capital are key mitigation measures. Strategies that combine structural and cultural dimensions are needed so that industrialization does not simply shift labor but creates truly inclusive opportunities. Non-agricultural development must go hand in hand with the protection of agricultural resources to maintain local food security and sovereignty. Without appropriate interventions, land conversion risks deepening rural inequality and vulnerability.

References

- Asmirah, M. S., & Iskandar, M. S. *Mobilitas Sosial Ekonomi Perempuan (Studi Sosiologi Kependudukan Tentang Agen Perubahan): Women's Socioeconomic Mobility (Population Sociology Study of Change Agents)*. SAH MEDIA.
- Azadi, H., Keramati, P., Taheri, F., Rafiaani, P., Teklemariam, D., Gebrehiwot, K., ... & Witlox, F. (2018). Agricultural land conversion: Reviewing drought impacts and coping strategies. *International Journal of Disaster Risk Reduction*, 31, 184-195.
- Bahrudin, W., & Trilaksana, A. (2024). ALIH FUNGSI LAHAN PERTANIAN MENJADI KAWASAN INDUSTRI DI KECAMATAN DEKET KABUPATEN LAMONGAN TAHUN 2011-2020. *Avatara: Jurnal Pendidikan Sejarah*, 15(1).
- Fahriza, S., & Amrifo, V. (2020). Transformasi Kehidupan Sosial Ekonomi Masyarakat Nelayan Menjadi Masyarakat Petani Nenas di Desa Penyengat Kecamatan Sungai Apit Kabupaten Siak Provinsi Riau. *Jurnal Sosial Ekonomi Pesisir*, 1(4), 1-11.
- Huda, S. N. (2022). Perubahan Struktur Sosial Ekonomi Masyarakat Perdesaan. *JCIC: Jurnal CIC Lembaga Riset Dan Konsultan Sosial*, 4(2), 79-84.
- Li, H., Yuan, Y., Zhang, X., Li, Z., Wang, Y., & Hu, X. (2022). Evolution and transformation mechanism of the spatial structure of rural settlements from the perspective of long-term economic and social change: A case study of the Sunan region, China. *Journal of Rural Studies*, 93, 234-243.
- Liu, J., Fang, Y., Qiao, J., Rosenberg, M. W., Wang, R., Liu, X., & Yu, S. (2025). Rural transformation and the future of China's "granary": A perspective on livelihood trajectories. *Journal of Rural Studies*, 114, 103524.

- Muzzaki, A. D., Fatoni, A., & Faristiana, A. R. (2023). Perubahan Sosial Kultural Masyarakat Pedesaan (Suatu Tinjauan Teoritik-Empirik). *Dewantara: Jurnal Pendidikan Sosial Humaniora*, 2(3), 01-17.
- Purwanti, T. (2020). Petani, Lahan dan Pembangunan: Dampak Alih Fungsi Lahan terhadap Kehidupan Ekonomi Petani. *Umbara*, 3(2), 95-104.
- Putri, I. D., Martanto, R., & Junarto, R. (2024). Pengaruh Alih Fungsi Lahan Terhadap Ketahanan Pangan, Lingkungan, dan Keberlanjutan Pertanian di Kabupaten Sleman. *Widya Bhumi*, 4(2), 192-211.
- Rahmawati, A., Alwin, A., & Adiputra, A. (2024). The Impact of Farmers' Socio-Economic Conditions Due to the Conversion of Agricultural Land in Setia Mulya Village, Bekasi Regency, Indonesia. *Jambura Geo Education Journal*, 5(2), 104-114.
- Rochadi, A. S., Rohmah, I. Y. A., Yulyanti, A. D., & Hakim, D. H. (2022). Agricultural Land Conversion, Poverty and Adaptation Failure of Peasants in Industrial Transition in Rice Center Areas-Indonesia. *International Journal of Social, Political and Economic Research*, 9(1), 67-79.
- Rozci, F., & Roidah, I. S. (2023). Analisis Faktor Alih Fungsi Lahan Pertanian ke Non Pertanian di Jawa Timur. *Jurnal Ilmiah Sosio Agribis*, 23(1), 35-42.
- Saputro, A. (2020). Urban Crisis Produk Kegagalan Urbanisasi di Indonesia. *Sosiologi Reflektif*, 15(1), 173-194.
- Sari, R. W. S., & Yuliani, E. (2021). Identifikasi dampak alih fungsi lahan pertanian ke non pertanian untuk perumahan. *Jurnal Kajian Ruang*, 1(2).
- Setyaningrum, A., & Nugroho, A. S. (2022). Strategi penghidupan berkelanjutan pada komunitas pengolah ikan di masa pandemi covid 19 (Studi Kasus Di Kalurahan Poncosari, Kepanewon Srandakan, Bantul). *Jurnal Sosial Ekonomi Kelautan dan Perikanan*, 17(1), 115-123.
- Suharyanto, A., Hartono, B., Irwansyah, I., Tuwu, D., & Umanailo, M. C. B. (2021). Marginalization socio farm laborers due to conversion of agriculture land. *Cogent Social Sciences*, 7(1), 1999563.
- Tambe, S. (2022). Structural Transformation and Rural Livelihoods. In *Teaching and Learning Rural Livelihoods: A Guide for Educators, Students, and Practitioners* (pp. 15-27). Cham: Springer International Publishing.
- Wibisono, G., & Widowaty, Y. (2023). Urgensi perlindungan lahan pertanian pangan terhadap alih fungsi lahan di Daerah Istimewa Yogyakarta. *Krtha Bhayangkara*, 17(1), 93-106.
- Wibowo, A., Winarno, J., & Permatasari, P. (2025). Pemberdayaan Nelayan Tradisional dalam Menghadapi Perubahan Sosial di Kabupaten Pacitan. *Jurnal Penyuluhan*, 21(01), 102-116.
- Zahra, A., & Rudiarto, I. (2023). Transformasi Perdesaan: Kajian Fisik, Sosial Ekonomi, dan Laju Transformasi di Wilayah Peri Urban Surakarta. *Journal of Regional and Rural Development Planning (Jurnal Perencanaan Pembangunan Wilayah Dan Perdesaan)*, 7(1), 15-28