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THE ROLE OF PRANATA MANGSA IN SHAPING HABITUS AND ENHANCING SOCIAL RESILIENCE OF RURAL COMMUNITIES IN JAVA

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Abstract

Pranata Mangsa is a traditional calendar system that has been passed down through generations by the Javanese people, particularly within the context of agrarian life. More than just a tool for determining planting seasons, this system also shapes behavioral patterns, values, and social norms that are deeply embedded in rural community life. From a sociological perspective, Pranata Mangsa contributes to the formation of habitus that is, ingrained dispositions and ways of thinking that are inherited and internalized through daily practices. Amid contemporary challenges such as climate change, globalization, and agricultural modernization, many rural communities continue to use the values of Pranata Mangsa as a foundation for their way of life. The habitus formed through this local wisdom is believed to enhance social resilience, which refers to the collective ability of communities to endure and adapt to social and ecological pressures. This study aims to explore the role of Pranata Mangsa in shaping the social habitus of rural communities and its contribution to strengthening their social resilience in the face of modern challenges. Referring to Pierre Bourdieu's theory of habitus and the concept of social resilience, this research adopts a qualitative approach using case study methods in several villages in Central Java that continue to practice Pranata Mangsa. Data collection techniques include in-depth interviews, observation, and analysis of local documents. The results of this study are expected to provide deeper insights into the importance of preserving local wisdom as cultural capital in building socially resilient rural communities.
Keywords: Pranata Mangsa, Habitus, Social Resilience, Rural Communities, Local Wisdom

INTRODUCTION

Pranata Mangsa is a traditional ecological calendar system that has been passed down through generations among agrarian communities on the island of Java, particularly among the Javanese and Sundanese ethnic groups. This system integrates observations of natural signs such as star constellations, wind movements, animal behavior, insect sounds, and vegetation changes to determine the appropriate timing for planting, land preparation, and harvesting in a sustainable manner. More than just an agricultural dating system, *Pranata Mangsa* reflects a form of Traditional Ecological Knowledge embedded within the cultural system and social structure of rural communities (Iskandar & Iskandar, 2016, 2022; Zaki et al., 2020).

Historically, *Pranata Mangsa* has become an integral part of the habitus of Javanese and Sundanese farmers, where every agricultural decision is based on the synchronization between natural conditions and community value systems. This calendar is also connected with various ritual and cultural practices, such as planting and harvesting *slametan* ceremonies, which strengthen social cohesion and foster a harmonious relationship between humans and nature. Within the framework of Pierre Bourdieu's theory of habitus, *Pranata Mangsa* can be understood as a historically shaped cognitive structure and practice, transmitted across generations, which informs how farmers perceive and respond to ecological dynamics. It becomes part of the social disposition that shapes patterns of action, including agricultural decision-making, social relations, and the formation of rural cosmology (Iskandar & Iskandar, 2022; Sumani et al., 2021).

Although its use has declined in recent decades due to the penetration of modern agricultural systems especially through the Green Revolution programs that introduced high-yield varieties, chemical fertilizers, and market-oriented uniform planting systems *Pranata Mangsa* is still maintained in several areas such as Imogiri (Bantul) and within indigenous communities like the Baduy. In these areas, farmers continue to use *Pranata Mangsa* for managing crop rotation, predicting pest outbreaks, and aligning crop selection with soil and climate conditions. Moreover, in the face of climate crisis, *Pranata Mangsa* has begun to undergo adaptation. Farmers are increasingly combining these traditional principles with modern weather information and digital technologies to improve prediction accuracy, water resource efficiency, and pest control (Khotimah, 2019)(Iskandar & Iskandar, 2022)(Utami et al., 2024). This illustrates that *Pranata Mangsa* is not a static system, but rather a dynamic and adaptive one in the face of contemporary challenges.

However, the negative impacts of agricultural modernization cannot be overlooked. The reliance on external inputs has eroded traditional ecological practices, causing *Pranata Mangsa* to no longer serve as the primary guide in agricultural decision-making. This erosion of traditional ecological knowledge is most apparent among younger farmers, who are more accustomed to commercial calendars and digital technologies (Hidayat et al., 2020). Nevertheless, indigenous communities such as the Baduy and ecologically oriented organic farmers continue to uphold *Pranata Mangsa* as the main guide in swidden farming and sustainable agriculture. Their experiences demonstrate that these traditional practices not only support local food security but also enhance the social and ecological resilience of rural communities (Iskandar & Iskandar, 2016; Utami et al., 2024).

Several studies show that *Pranata Mangsa* contributes to community resilience in the face of ecological disasters such as droughts, landslides, and seasonal floods. This calendar helps communities plan planting cycles that are better aligned with environmental conditions, thereby reducing the risk of crop failure. In this context, *Pranata Mangsa* supports the development of social resilience as defined by Michael Ungar, namely the capacity of communities to access and mobilize culturally meaningful resources in order to withstand and recover from crises (Ungar, 2012; Utami et al., 2024; Zaki et al., 2020). Efforts to revitalize *Pranata Mangsa* have also been initiated by academics, civil society organizations, and local governments through integrative approaches that combine local wisdom with climatological science, community-based farmer education, and the strengthening of local institutions (Iskandar & Iskandar, 2022; Sumani et al., 2021). Unfortunately, there is still a lack of research that explicitly links *Pranata Mangsa* with the formation of habitus and the strengthening of social resilience within a cohesive sociological framework. Previous studies in Imogiri, Yogyakarta, indicate that *Pranata Mangsa* is still used in sustainable land resource management (Khotimah, 2019). Meanwhile, other research confirms that farmers who continue to use this system demonstrate greater adaptive flexibility in responding to climate change and economic pressures (Irham et al., 2022; Zaki et al., 2020).

Therefore, this study is crucial for re-evaluating the strategic role of *Pranata Mangsa* in shaping the agrarian habitus of rural communities and its contribution to social resilience amid climate change challenges. The findings from this research are expected to provide both conceptual and practical foundations for developing agricultural policies that are more context-sensitive, ecologically just, and grounded in time-tested local knowledge.

METHODOLOGY

This study employs a qualitative approach with an exploratory case study design to gain an in-depth understanding of how *Pranata Mangsa* shapes the habitus of farmers and contributes to the enhancement of social resilience in rural communities in Java. The research begins with the identification of emerging social issues in rural areas, such as the challenges of climate change, agricultural modernization, and the weakening of social cohesion. *Pranata Mangsa* was chosen as the focus of the study because it represents a system of local knowledge rich in ecological, cultural, and social significance.

To strengthen the theoretical foundation and identify research gaps, the researcher conducted a literature review on Pierre Bourdieu's theory of habitus, Michael Ungar's theory

of social resilience, the concept of social capital, and various studies on traditional ecological knowledge. The research location was purposively selected in the Wonogiri region of Central Java, based on the consideration that communities in this area still uphold the practices of *Pranata Mangsa* in their agrarian lives.

The research subjects include village farmers, traditional leaders and local government officials, youth engaged in the preservation of local culture, as well as academics or observers of traditional agriculture. Data collection techniques included the following: In-depth interviews, to explore the subjective meanings that the community associates with *Pranata Mangsa* and its relation to social practices and survival strategies. Participant observation, involving the researcher directly in community activities such as planting seasons, village meetings, and communal work. Focus Group Discussions (FGDs), to explore collective perspectives and intergenerational experiences. Documentation, which includes village archives, meeting records, photographs, and relevant visual documents.

The research instruments were developed in the form of interview and observation guides, based on indicators derived from the theory of habitus (Bourdieu, 1977) and the theory of social resilience (Ungar, 2012). These indicators include agrarian practices based on natural cycles, the transmission of traditional knowledge, and the community's social capacity to cope with external pressures and crises.

Data analysis was carried out using thematic analysis, which involved data reduction, coding, theme categorization, and interpretation of meaning based on the theoretical framework. To ensure the validity of the findings, methodological and source triangulation techniques were used, and member checking was conducted by involving key informants to confirm the researcher's interpretations.

Through this process, the study produces a comprehensive understanding of how *Pranata Mangsa* functions not only as a seasonal planting guide but also as a value system that shapes habitus, strengthens social capital, and enhances the socio-ecological resilience of rural communities in the face of changing times.

RESULTS AND DISCUSSION

The results of the study indicate that *Pranata Mangsa* continues to play an important role in the agrarian life of communities in several rural areas of Java, particularly in Wonogiri Regency. This research reveals that *Pranata Mangsa* remains significant in shaping the agrarian habitus and strengthening the social resilience of rural communities in Java. Despite

pressures from modernization and shifting values, the system endures through cultural transmission, technological adaptation, and support from local communities. The main findings highlight three key dimensions: (1) the internalization of ecological values in agricultural practices, (2) the formation of an agrarian habitus based on natural cycles, and (3) the strengthening of social resilience through solidarity networks and community adaptation mechanisms.

1. Internalization of Ecological Values in Agricultural Practices

Farmers and traditional leaders explained that they use *Pranata Mangsa* as a reference for determining planting time, harvesting, and crop rotation. They recognize natural signs such as wind direction, animal sounds, and cloud movements as indicators of the planting season. This practice is passed down from generation to generation, not through written texts, but through social interaction and collective experience. These findings confirm that *Pranata Mangsa* represents a form of Traditional Ecological Knowledge (TEK) that is living and deeply rooted in local culture (Iskandar & Iskandar, 2022; Utami et al., 2024).

Interview results show that *Pranata Mangsa* is understood in diverse ways by rural communities, depending on age and social roles. For village farmers, *Pranata Mangsa* serves as the primary tool for interpreting seasons based on natural signs.

> "*Pranata Mangsa* is a legacy from our ancestors. It's like a seasonal calendar, but not based on the Gregorian calendar. We observe signs from nature: when the cicadas become loud, when teak leaves begin to fall, or when the Waluku constellation appears in the east — these are signs that the planting season is near. In the past, before chemical fertilizers and tractors, all farmers followed *Pranata Mangsa*. The crops were also healthier. Nowadays, many young people trust their phones more than the sky. We use *Pranata Mangsa* to determine the right time to start plowing, planting, and harvesting. For example, during *Mangsa Kapat*, it's time to plant rice because the rain begins to fall. In *Mangsa Kasanga*, it's usually harvest time, so we can plant secondary crops. We also observe signs from nature, like the sound of grasshoppers or the shedding of teak leaves. When the leaves start falling, it means the dry season is coming. When the grasshoppers or cicadas grow louder, it means rain is approaching. We also watch the clouds—if they turn dark gray and move from the south, it usually means heavy rain is coming.*" (Village farmer).

Traditional leaders view *Pranata Mangsa* as part of a value system that governs the social conduct of the community:

> "*Pranata Mangsa* is not just about agriculture. It is a system of values. Within it, there are teachings about living in harmony with nature and maintaining social order. In certain months, we are forbidden to cut down trees, plant chilies, or hold major celebrations. All of these have philosophical meanings. If violated, it could lead to disorder. *Pranata Mangsa* also determines the best time for harvest thanksgiving and village rituals. In the past, farmers in this village always followed the seasonal sequence. For example, *Mangsa Katiga* is suitable for planting corn, *Mangsa Kapitu* for

rice. Each *mangsa* has its own characteristics—some have strong winds, others indicate the soil is becoming moist. These become the basis for planning agricultural activities. All of this is also marked by small rituals like *selametan*. There are many signs in nature. For instance, when the wind blows from the east and the ground begins to crack, it indicates the start of *Mangsa Kapitu*—a long dry season. But if the wind comes from the west and there's the smell of damp earth, it means the rainy season is beginning. We also observe the movement of the star *Lintang Wuluh* as a sign of the planting season." (Village elder).

Village government officials and local youth involved in cultural preservation also support the continued use of *Pranata Mangsa* within the community:

"I learned about *Pranata Mangsa* from my parents. Nowadays, it's rarely used officially, but some farmer groups still use it to determine crop rotation. We, from the village government, try to support its preservation—through training programs, for example, or by integrating *Pranata Mangsa* into farmer group meetings. *Pranata Mangsa* is used as a reference in the traditional planting calendar. So, farmer groups usually adjust their planting schedules according to certain *mangsa*. We also use it to align seed and fertilizer distribution programs with the appropriate season. In addition to teak leaves, farmers in our village often observe the behavior of birds like *prenjak* and dragonflies. If dragonflies fly low in the morning, it usually means rain is coming. We also monitor local rainfall and match it with natural signs to synchronize planting times." (Hamlet head).

The same sentiment was expressed by a village youth:

"I learned about *Pranata Mangsa* from my grandparents and through *Karang Taruna* (youth community activities). Honestly, many of my peers don't really understand it. But it's actually really fascinating. Now we're trying to document *Pranata Mangsa* through social media and develop a local app so that it can be accessed by the younger generation. We're trying to bridge traditional knowledge with modern technology. From interviews with the elders, I learned that they use *Pranata Mangsa* to determine planting cycles naturally. It usually starts with observations, like the appearance of certain stars or animal sounds, followed by land preparation and planting. So, it's like a nature-based calendar. I learned from the elders that when frogs start croaking loudly in the evening, it's a sign the rainy season is coming soon. And if ants come out of their holes carrying their eggs, they say heavy rain is on the way." (Village youth)

From an academic perspective, *Pranata Mangsa* is considered a form of Traditional Ecological Knowledge (TEK) that is rich both sociologically and ecologically:

"*Pranata Mangsa* is a form of Traditional Ecological Knowledge. It was developed through long-term observation of natural phenomena. From an academic standpoint, this system holds great scientific and social potential—not only does it reflect environmental wisdom, but it also shapes social structures and the mindset of rural communities.

Pranata Mangsa functions as a time-regulating system based on natural cycles for agricultural activities. For example, in Javanese literature, *Mangsa Kapat* marks the beginning of the rainy season, which is when farmers begin planting rice. *Mangsa Kapitu* is the period for crop maintenance. This is not just about timing, but about a complex ecological understanding—including wind patterns, humidity, and soil conditions. The natural signs used by traditional communities include vegetative symptoms such as the falling of teak leaves, the blooming of specific flowers, and

> faunal indicators like the behavior of birds, insects, and the sound of cicadas. They also pay attention to monsoon wind directions and the intensity of morning sunlight." (Academic).

The research findings indicate that *Pranata Mangsa* is not merely a seasonal calendar system for agriculture, but rather a form of social practice that has been internalized and become part of the habitus of Javanese agrarian communities. The concept of *habitus* within Pierre Bourdieu's theoretical framework refers to a system of dispositions that unconsciously shapes the ways individuals think, feel, and act within a particular social structure (Bourdieu, 1977). This is reflected in the everyday practices of farmers who read natural signs—such as the falling of teak leaves, the sound of cicadas, the direction of the wind, and the position of stars—to determine the planting season.

As expressed by a village farmer:

> "We see the teak leaves falling, the cicadas getting louder—that's a sign the planting season is near. In the past, everyone followed *Pranata Mangsa*."

Such ecological practices represent a form of *embodied practice*, acquired through direct experience from an early age—not through formal education, but through participation in everyday agrarian life. This means that the agrarian *habitus* formed is the result of the internalization of collective, intergenerational experience that is deeply rooted in the rural social structure (Maton, 2010).

Pranata Mangsa can also be understood as a form of cultural capital that encompasses three main forms: embodied (knowledge and skills embedded in the body and everyday practices), objectified (manifested in rituals and symbols), and institutionalized (legitimized by traditional leaders or social institutions) (Bennett et al., 2009). This local ecological knowledge provides added value within the social field, as it serves as the foundation for collective decision-making, particularly in agrarian contexts.

A traditional leader stated:

> "Within *Pranata Mangsa*, there are teachings about living in harmony with nature, and there are social taboos. If they are violated, it can lead to disorder."

This statement reinforces the idea that *Pranata Mangsa* is not merely a technical tool but also a set of values and social norms functioning as symbolic capital. In rural communities, the authority of traditional leaders and elders is derived from their mastery of this knowledge, which is recognized and respected by the community.

According to Bourdieu, a *field* is a social space where various actors compete using the capital they possess. In this context, the agricultural field in the village becomes a space of interaction between traditional capital (*Pranata Mangsa*) and modern capital (digital

technology, weather forecasting, agricultural science). This tension is reflected in the words of a village youth:

> "We're trying to bridge traditional knowledge with technology. Now we're creating a local app so that young people can learn it."

Village youth stand at the crossroads between traditional habitus and modern digital habitus. They are transforming cultural capital into new forms relevant to their generation, such as through digital documentation, social media, and the development of locally-based applications. This illustrates the dynamic process of habitus reproduction within a changing social field (Grenfell, 2012).

The transmission of *Pranata Mangsa* occurs informally through collective life practices, such as village discussions (*rembug desa*), harvest rituals, and communal work in the fields. This aligns with Bourdieu's concept of *doxa*—deeply held beliefs or assumptions that are no longer questioned within society because they are regarded as natural or self-evident truths (Bourdieu, 1977). As expressed by a village elder:

> "I learned about it by joining village discussions (*rembug desa*) and harvest rituals. Each *mangsa* has its own character."

Thus, *Pranata Mangsa* becomes part of the process of social reproduction, reinforcing the value structure and communal solidarity of the village through repeated and continuous practices. The *habitus* shaped by *Pranata Mangsa* also has implications for the social resilience of rural communities. This resilience is manifested in the community's collective ability to respond to extreme weather changes, seasonal uncertainties, or other agrarian challenges. A hamlet head stated:

> "When dragonflies fly low, we know rain is coming. We adjust our planting schedule. Sometimes we also discuss with the farmer group to delay planting."

Such practices reflect resilience through culture an adaptive capacity shaped by local knowledge systems and supported by the community's social capital (Ungar, 2012). In other words, *Pranata Mangsa* is not only a tool for predicting natural cycles, but also a source of social and cultural resilience in facing contemporary ecological challenges.

2. Formation of an Agrarian Habitus Based on Natural Cycles

Through observation and interviews, it was identified that *Pranata Mangsa* has shaped the habitus of rural communities. As explained by Bourdieu (1977), *habitus* is a system of dispositions that is socially and historically internalized, shaping the ways people act, think, and feel. Farmers develop collective action patterns aligned with the rhythms of nature, such as starting communal fieldwork during *Mangsa Kapitu* and holding village *selamatan* rituals at the beginning of *Mangsa Kasa*. Thus, *Pranata Mangsa* is not merely an agricultural tool, but

also a symbolic social structure that strengthens social relations and community solidarity. This aligns with Bourdieu's theory, which emphasizes that *habitus* is formed through the relationship between objective structures (ecological conditions) and subjective structures (social experiences) (Bourdieu, 1977; Zaki et al., 2020).

The practice of using *Pranata Mangsa* has shaped farmers' habits and lifestyles, creating patterns of collective action that are passed down through generations. Routines such as communal work before the planting season, *slametan wiwit* (a thanksgiving ritual to begin planting), and timing activities based on the *mangsa* cycle demonstrate a consistent social structure.

Pranata Mangsa regulates seasonal routines that are consistently practiced by rural communities. Village farmers associate each transition of *mangsa* with specific actions that have been passed down as tradition:

> "Yes, of course. For example, when *Mangsa Kapat* begins, I start cleaning the rice fields and preparing planting tools. During *Mangsa Kalima*, I begin sowing rice seeds. It has always been a habit, even though nowadays I also check the weather on my phone." (Farmer)

Traditional leaders or village elders emphasize the spiritual and ritual dimensions of the *mangsa*, showing that social structures are also shaped through value systems:

> "Every time a *mangsa* changes, especially *Mangsa Kasa* and *Kasanga*, we hold communal prayers or small *selametan* rituals. I also observe certain fasts based on the *mangsa* calculations, as a way to align myself with nature." (Village Elder).

Meanwhile, community social structures such as *kerja bakti* (communal labor) are also aligned with the *mangsa* cycle. A hamlet head noted:

> "Our usual tradition in the village is to conduct communal cleanups of irrigation channels during *Mangsa Kapat* or *Kalima*, because that's the beginning of the rainy season. We maintain this tradition because it's related to ensuring smooth rice planting." (Hamlet Head).

Among the younger generation, these practices are being developed in new, more adaptive forms, such as educational activities and digital documentation:

> "My friends and I from the cultural community usually organize educational activities at each *mangsa* transition, like discussions and small workshops. We also document farming activities in each *mangsa* as a way to archive local knowledge." (Village Youth).

From an academic perspective, these practices are interpreted as part of an ecological habitus cycle a continuous interconnection between culture, knowledge, and the environment that is actively reproduced:

> "I personally don't practice the routines, but I often observe that many local farmers adjust activities like planting, harvesting, and fertilizing according to the *mangsa* cycle.

This is important as a foundation for longitudinal research on cultural adaptation to ecological cycles." (Academic).

One of the key findings of this study is how knowledge of *Pranata Mangsa* is passed down across generations through everyday life practices within families and communities. This transmission does not occur through formal education or written texts, but rather through direct experience, shared observation, and active participation in agricultural and social activities in the village.

The practice of using *Pranata Mangsa* as habitual knowledge is passed down through informal and interactional processes within the family and community. A village farmer stated:

> "It's usually passed down through stories and hands-on practice. Children are brought to the fields from an early age. While working, I explain why we're planting now, why we pay attention to the wind or animal sounds. Over time, they memorize it themselves." (Village Farmer)

A traditional elder added that this transmission is not only verbal but is embodied in collective and routine social behavior:

> "In the past, our parents taught us through both speech and practice. It wasn't just explained—it was lived together. Each *mangsa* came with its own prayers and specific activities that were done with family or neighbors." (Village Elder)

At the village institutional level, the transmission is also strengthened by encouraging children's participation in community activities:

> "This knowledge is passed down informally. We encourage parents to involve their children in village activities such as communal cleanups, joint planting, or *mangsa* rituals. But today the challenge is real—many young people are more interested in other things." (Hamlet Head)

Among village youth, the transmission process is being adapted through digital media and modern documentation:

> "I learned from my grandfather and my mother. They took me to the fields and directly showed me the signs in nature. Now, we're starting to document it in small books and videos so that future generations can learn in a more modern way." (Village Youth)

An academic emphasized the importance of maintaining this knowledge due to its decentralized nature outside of the formal education system:

> "The transmission process occurs through everyday social practices, not through formal education. That's why it's important to support preservation efforts through documentation, contextual education, and community strengthening. Otherwise, this knowledge could disappear within a generation." (Academic)

These findings affirm that *Pranata Mangsa* functions as a cultural structure that shapes and reproduces the habitus of rural communities. The resulting *habitus* enables the younger

generation to unconsciously adopt the mindset and practices of their ancestors, even within a changing social context (Bourdieu, 1990)(Maton, 2010).

Furthermore, the agricultural and social spheres of the village serve as spaces where symbolic capital and cultural capital are transmitted, reinforcing social cohesion and community resilience. This mode of experiential transmission also demonstrates that local knowledge remains relevant and resilient, even amid modernization.

Pranata Mangsa is not only a system for regulating agricultural seasons, but also contains philosophical values that shape the worldview and lifestyle of rural communities. Within Pierre Bourdieu's theoretical framework, this illustrates how *Pranata Mangsa* has shaped a cultural habitus a cognitive structure that consistently and repeatedly guides social actions and perceptions (Bourdieu, 1990; Maton, 2010).

These values are embedded in daily practices, collective decision-making, and the broader meaning of life. As a traditional elder expressed:

> "*Pranata Mangsa* is not just about agriculture. It is a system of values. Within it are teachings about living in harmony with nature, and social rules. In certain months, we are prohibited from cutting down trees, planting chili, or holding large celebrations. All of this has philosophical meaning. If violated, it can bring disorder." (Village Elder)

The mindset formed by *Pranata Mangsa* reflects principles of caution, harmony, and obedience to the laws of nature. This is evident in the words of a village farmer:

> "We believe that if we plant outside the proper *mangsa*, the harvest may fail. So we always adjust ourselves; we don't force things. This teaches us patience and not to be greedy." (Village Farmer)

The community's way of life is also governed by collective rituals and decision-making based on the *mangsa* cycle. A hamlet head emphasized the importance of deliberation:

> "At the beginning of each season, we usually gather first. We discuss planting patterns and suitable crops. It's not random—everything is based on *Pranata Mangsa* and the elders' experience. So this is not just knowledge, but also a culture of deliberation." (Hamlet Head)

For younger generations involved in cultural preservation, *Pranata Mangsa* also shapes how they think about the future and local identity:

> "It makes me more aware that life should follow the rhythm of nature. Nothing should be instant. We also learn that local culture can be a strength, not just stories from the past. That's why we try to promote *Pranata Mangsa* through social media." (Village Youth)

Local academics see these values as forms of symbolic and cultural capital that help strengthen the social resilience of communities in facing external pressures:

> "*Pranata Mangsa* teaches adaptation, not domination over nature. This aligns with the principles of social resilience. Rural communities don't survive merely through aid,

but because they possess a structured value system passed down collectively." (Academic)

Thus, *Pranata Mangsa* does not only determine *when* and *how* to farm, but also *why* and *for whom* people act. These values are embedded as part of a social disposition (habitus) that is often unconscious, yet fundamentally shapes how individuals think, make decisions, and build social relationships within the community.

According to Bourdieu (1990), *habitus* is formed through continuous social experience and produces practices that are perceived as "natural." In the context of *Pranata Mangsa*, values such as harmony with nature, deliberation, patience, and respect for ancestral knowledge are products of long-standing socio-cultural structures. These values become cultural capital that strengthens the social cohesion and resilience of rural communities, and serve as a source of local strength in facing the challenges of modernity and change.

3. Strengthening the Social Resilience of Rural Communities

This study reveals that in the context of climate change, weather uncertainty, and the modern agricultural crisis, rural communities in Java demonstrate strong **social resilience**. *Pranata Mangsa* serves not only as a guide for planting seasons but also as an adaptive framework grounded in local values, shaping collective action patterns, solidarity structures, and survival strategies in response to environmental and social dynamics.

Pranata Mangsa has proven to be an important instrument for community-based risk management. When facing extreme seasons such as prolonged drought or delayed rainfall, communities do not rely solely on technological forecasts but instead depend on inherited ecological knowledge passed down through generations:

"When there's a long drought or the rain comes late, we don't panic. We wait for the signs in nature. If the soil isn't moist yet, it means we shouldn't plant. If the harvest fails, we usually plant more drought-resistant crops." (Village Farmer)

Through observation of natural phenomena and collective discussion, villagers adjust their planting patterns based on actual conditions, not fixed calendars. This proves that *Pranata Mangsa* functions as a dynamic adaptation system that enables the sustainability of agrarian life.

Pranata Mangsa also acts as a driver of social solidarity within the community. Through village deliberation forums (*musyawarah desa*), collective work (*gotong royong*), and communal rituals such as *selametan mangsa*, rural communities build social bonds that strengthen their collective capacity to endure challenges:

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> "In difficult times, we don't go through it alone. We gather, discuss, and sometimes hold a *selametan* to bring peace of mind. *Pranata Mangsa* helps us decide what to do, not just when to plant." (Village Elder)
>
> "When the rainy season is uncertain, we do communal work to clean the irrigation channels. Or we help each other—farmers lending seeds, for example. This is normal. It all comes from the values of *Pranata Mangsa*." (Hamlet Head)

This concept of solidarity aligns with social resilience theory as described by Ungar (2012), which emphasizes that community resilience is built through social relationships, trust, and collective action in response to external pressures.

Within Bourdieu's (1990) theory of *habitus*, these adaptive action patterns are not the result of formal instruction, but stem from dispositional structures shaped by the historical experiences of agrarian communities. This *habitus* instills values of caution, patience, and harmony with nature in everyday practices.

> "When the rainy season is unpredictable or the drought is too long, we don't immediately plant. We first observe signs in nature and hold discussions with fellow farmers. If needed, we switch crops. So we don't act rashly." (Village Farmer)
>
> "If there's a crop failure, farmers who still have produce usually help their neighbors. There's also a system of borrowing seeds. We don't abandon each other." (Village Official)

This collective habitus manifests in routine actions such as communal labor (*kerja bakti*), crop rotation, and adjusting types of commodities according to the *mangsa* cycle. These actions reflect not only ecological adaptation but also strong social cohesion.

An essential aspect of social resilience is the community's ability to transform traditional values into forms relevant to the current era. Village youth play an active role in digitizing *Pranata Mangsa* through social media, cultural documentation, and local apps:

> "We're trying to create digital documentation of *Pranata Mangsa*. So the current generation can still learn, even if not directly in the fields." (Village Youth)
>
> "During the pandemic, we also helped distribute local fertilizer and plant vegetables together. Everything was still based on the *Pranata Mangsa* cycle." (Village Youth)

This transformation aligns with the concept of transformative resilience (Folke, 2006), which refers to a community's ability not only to endure challenges but also to innovate while preserving its cultural identity.

Academic perspectives affirm that *Pranata Mangsa* is a form of Traditional Ecological Knowledge (TEK) deeply integrated with the social and spiritual values of rural communities:

> "Resilience isn't just about infrastructure. It's about how communities build shared meaning, solidarity, and collective responses. *Pranata Mangsa* teaches people to read natural signs, respond socially, and develop adaptive patterns." (Academic)

Thus, *Pranata Mangsa* is not merely a seasonal agricultural system, but also a social adaptation mechanism that fosters holistic community resilience. This finding supports the concept of social resilience as defined by Ungar (2012), which emphasizes that resilient communities are those able to rely on local resources (knowledge, social networks, cultural values) to manage risks and construct meaning in times of crisis.

At the same time, through Bourdieu's (1990) concept of *habitus*, it becomes clear that community responses to crisis are not immediate or technocratic; rather, they emerge from historically rooted dispositions and deeply embedded value structures shaped through everyday social practices within the rural community.

CONCLUSION AND RECOMMENDATIONS

This study demonstrates that *Pranata Mangsa* is not merely a traditional seasonal calendar, but a comprehensive system of Traditional Ecological Knowledge (TEK) that has been internalized within the social, cultural, and spiritual life of agrarian communities in Java, particularly in Wonogiri Regency. This system plays a vital role in shaping agrarian habitus, strengthening social cohesion, and enhancing the resilience of rural communities in facing climate change, weather uncertainties, and modern agricultural challenges.

Three main findings emerged from the research: 1) Internalization of Ecological Values in Agricultural Practices: *Pranata Mangsa* teaches communities to read natural signs and adjust agricultural cycles based on ecological observation, rather than relying solely on modern technology. This knowledge is passed down through generations via collective life practices, indicating that *Pranata Mangsa* is embedded as part of the community's cultural and spiritual structure. 2) Formation of Agrarian Habitus Based on Natural Cycles: In line with Bourdieu's theory of *habitus*, *Pranata Mangsa* shapes historically rooted patterns of collective action and social practices. Traditions such as communal work (*kerja bakti*), *selametan mangsa* rituals, farming deliberations, and season-based agricultural routines are forms of *habitus* that consistently guide how people think, feel, and act, and are passed down across generations. 3) Strengthening of Social Resilience in Rural Communities: In dealing with agrarian and climate crises, rural communities rely not only on infrastructure or technology but also on the power of values, social solidarity, and adaptive capacity rooted in collective experience. *Pranata Mangsa* serves as a medium that bridges ecological changes and social responses, fostering community resilience through mechanisms such as mutual cooperation (*gotong royong*), collective decision-making, and the intergenerational transformation of values by youth.

Pranata Mangsa has proven to hold a strategic role in reinforcing social resilience—not merely as a technical tool, but as cultural and symbolic capital embedded in the social structure. Through the theoretical lenses of Bourdieu and Ungar, this system represents a form of social practice that supports the sustainability of agrarian communities in facing modernization and ecological change in an adaptive, meaningful, and enduring manner.

This study recommends that *Pranata Mangsa* should not only be preserved as cultural heritage but also integrated into sustainable rural development strategies. Local governments and educational institutions are encouraged to include the values and practices of *Pranata Mangsa* in local curricula, ensuring that younger generations remain connected to the ecological wisdom of their ancestors.

Additionally, digital transformation offers a strategic pathway. Support for youth initiatives to document and disseminate *Pranata Mangsa* through social media, apps, and educational videos should be strengthened. This approach bridges tradition and technology while expanding access to local knowledge.

Local communities such as farmer groups and customary leaders should be facilitated to continue holding village deliberations, seasonal communal work, and collective traditions that reinforce social solidarity. A synergy between *Pranata Mangsa* and modern agricultural technologies is also important to enhance adaptation to climate change.

Policies that support the preservation of local knowledge and the strengthening of social resilience should include budgetary support, legal protection, and formal recognition of *Pranata Mangsa* as part of the national knowledge system. In this way, *Pranata Mangsa* will not only endure but evolve as a relevant and adaptive system for the future.

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