



Early Detection of Social Conflict to Improve the Social Welfare of the Riau Community in 2022-2025

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ABSTRACT

This study examines the role of early detection of social conflict in improving the social welfare and human security of the Riau community during the 2022–2025 period. Riau Province faces multidimensional conflict risks related to agrarian disputes, land tenure issues, plantation expansion, environmental vulnerability, and multicultural dynamics, all of which potentially threaten regional stability and community welfare. This study employs a mixed-method approach by combining qualitative empirical analysis and bibliometric analysis. Empirical data were obtained through institutional reports, government documents, stakeholder discussions, and conflict-related materials concerning the Province of Riau, while bibliometric analysis was conducted using the Scopus database and VOSviewer software to identify publication trends, thematic developments, and keyword relationships related to social conflict and human security studies published between 2022 and 2025. The findings indicate a significant paradigm shift in conflict management studies, moving from conventional reactive approaches toward preventive and digital-based governance mechanisms. Bibliometric visualization demonstrates strong interconnections between social conflict, resilience, security, development, and digital platforms within the broader framework of human security. Empirical findings further reveal that agrarian disputes, oil palm plantation expansion, indigenous land issues, and institutional coordination remain dominant factors influencing social conflict in Riau.

INTRODUCTION

Riau Province is a strategically located in the heart of Sumatra and bordering the Malacca Strait. This Province is a region characterized by abundant natural resources and promising economic growth. The economic potential has naturally attracted an influx of immigrants from neighboring provinces, transforming Riau into a highly multicultural area (BPS Provinsi Riau, 2023). Fortunately, the indigenous Riau Malay community is recognized for its inclusivity and openness, allowing various ethnicities to co-exist. In such a dynamic and diverse demographic landscape, the social welfare of the Riau community heavily depends on maintaining local harmony, equity, and stability at the grassroots level (Nugraha et al., 2022).

Social welfare in this context extends far beyond mere economic prosperity; it is fundamentally intertwined with the theory of Human Security, which explicitly identifies community security as one of its core elements (Gómez & Gasper, 2013). For the communities in Riau, achieving true social welfare means directly ensuring their security, protecting economic livelihoods, and guaranteeing freedom from fear or structural threats. When local communities are situated in resource-rich but highly diverse environments, protecting these fundamental elements of human security becomes the core pillar of their overall well-being (Kaldor, 2007). However, this delicate balance of welfare and security within the community is currently under significant pressure due to escalating disputes.

Despite its economic promise, the strategic and resource-rich nature of Riau has made its local communities highly susceptible to social conflicts. The most prominent and destructive of these are agrarian and land tenure disputes. The struggle over land control is essentially a struggle over the means of life, as whoever controls the land ultimately controls the fundamental resources for human survival (Christodoulou, 1990). Consequently, Riau communities frequently face the brunt of agrarian conflicts, primarily driven by massive investments and the aggressive expansion of oil palm plantation businesses. Data from the Agrarian Reform Consortium reported that Riau took the first place nationally with 29 major cases, contributing to 60,339 hectares of conflicted land (Konsorsium Pembaruan Agraria [KPA], 2020).

These ongoing agrarian disputes are not merely administrative legal battles; they represent a direct and severe threat to the social welfare of the Riau community. When local communities or indigenous groups lose access to their lands due to overlapping claims with companies or the government, they directly lose their economic security and food security, which are two vital dimensions of human security. Left unaddressed, these localized disputes can easily snowball into larger horizontal conflicts (inter-community) or vertical conflicts (community versus government) (Pruitt & Kim, 2004). The frequent occurrence of such conflicts not only disrupts local conduciveness but fundamentally shatters the foundation of a prosperous and peaceful community.

Recognizing the destructive impact of these conflicts on human security, relying solely on reactive conflict resolution is no longer sufficient. It requires a robust preventive mechanism at the grassroots level, specifically an Early

Warning System (EWS), to actively monitor vulnerabilities within the region (Suwardono et al., 2019). In the context of Riau, this preventive mechanism has been institutionalized through the synergy between the National and Political Unity Agency (Kesbangpol) and the Community Early Awareness Forum (FKDM). This grassroots-level forum is designed to actively detect and prevent social conflicts by involving local communities, and it is supported by security forces such as the Police and Military (TNI) to provide early detection functions across villages and districts (Nugraha et al., 2022).

Stakeholders are expected to identify the root causes of disputes and intervene before they escalate into violence by implementing an early detection framework. However, previous research has emphasized the importance of EWS in reducing overall social and religious conflict (Suwardono et al., 2019), mapping conflict vulnerabilities digitally in urban settings (Moehtadi, 2006), and identifying the basic roles of local institutions in Riau (Nugraha et al., 2022), there remains a significant literature gap regarding its specific evaluation. Most existing literature focuses on the structural establishment of these forums rather than systematically measuring their direct impact on community security post-pandemic. Therefore, this study aims to systematically review how the implementation of early detection mechanisms, specifically community-based frameworks, influences the social welfare and human security of the Riau community between 2022 and 2025.

LITERATURE REVIEW

Social Welfare Theory and the Human Security Paradigm

The definition of social welfare encompasses all activities of organizing and distributing social services for community groups, particularly disadvantaged groups, through formal and informal social protection schemes. Formal protection is implemented by the government via social security schemes consisting of social assistance and social insurance. Meanwhile, informal schemes involve productive economic enterprises, microcredit, or social safety nets organized by local communities and NGOs (Suharto, 2017). Fundamentally, social welfare is defined as a condition where individuals are capable of meeting all their needs, maintaining good relations with their environment, and remaining safe from various disturbances or difficulties (Adi, 2015; Fahrudin, 2014). This encompasses having adequate income, education, and health, and avoiding disruptions in occupational and daily life. Furthermore, according to Law Number 11 of 2009 concerning Social Welfare, it is the condition of meeting the material, spiritual, and social needs of citizens so they can live properly, develop themselves, and carry out their social functions.

The government plays a crucial role in providing these welfare activities through a social development paradigm. This paradigm involves three main tasks: achieving economic growth to finance development, providing community care to protect citizens from risks, and driving human development to improve workforce competence (Suharto, 2017). Esping-Andersen (1992) argues that social investment functions as a legal umbrella for policies strengthening education, job training, and health services. This approach

promotes healthy, educated, and productive communities, empowering them to understand their potential, plan for the future, negotiate cooperatively, and take responsibility for their actions (Midgley, 2020; Munawar, 2011; Zastrow, 2010).

In contemporary International Relations, this traditional view of welfare has undergone a significant transformation. It has shifted from a state-centric focus toward a human-centric approach known as Non-Traditional Security. Social welfare is no longer viewed as a mere domestic policy concern, but as a fundamental pillar of regional stability and peace. It is fundamentally intertwined with the theory of Human Security, which provides a multidimensional framework to measure well-being through seven core components:

1. Economic Security: Ensuring a basic income and livelihood for individuals, which is often threatened by unequal access to resources.
2. Food Security: Ensuring physical and economic access to basic nutrition, which is directly linked to land control in agrarian societies.
3. Health Security: Protection from diseases and access to medical services.
4. Environmental Security: Protection from the degradation of ecosystems.
5. Personal Security: Protection from physical violence from both state and non-state actors.
6. Community Security: The protection of cultural identity, group values, and the integrity of inter-ethnic relations.
7. Political Security: Respect for basic human rights and protection from political oppression.

Within the context of a multicultural society such as Riau, Community Security serves as the primary foundation for overall social welfare. Riau is a diverse region where no single ethnic group dominates in terms of population, and the indigenous Riau Malay community is known for its openness toward immigrants. However, this diversity creates vulnerabilities when group identities or indigenous rights are perceived to be threatened by external interventions, such as large-scale plantation expansions that trigger tenurial conflicts. Without community security, material welfare alone cannot ensure long-term stability in a fragmented social landscape.

This directly correlates with Human Needs Theory (Burton, 1990), which asserts that the disruption of basic human needs leads to conflict and threatens national security. A good level of social welfare can only be met by fulfilling these needs for survival. Meeting these needs prevents the distortion of attitudes and behaviors that form the root of conflicts, thereby maintaining peaceful conditions and equitable resource distribution aligned with social justice (Wahyudi, 2018). Therefore, mapping social welfare through this paradigm helps identify how potential vulnerabilities exist and how social conflicts occur in the Riau province

Concept of EWS (Early Warning System)/CEWERS (Conflict Early Warning System)

Similarities and differences in social interests are the driving factors for both conflict and integration. Therefore, conflict and integration are two dynamic elements that cannot be avoided in human social life (Utoyo, 2016). Social

integration is a process of adjusting different elements within a society to produce harmonious living patterns. Meanwhile, conflict is defined as a perception of different interests or a belief that the aspirations of conflicting parties cannot be achieved simultaneously.

To manage these unavoidable dynamics, Fisher (2000) describes several methods that can be applied to deal with social friction, including conflict prevention, conflict settlement, conflict management, conflict resolution, and conflict transformation. Within the specific realm of conflict prevention, a structural protection mechanism is required to stop tensions from escalating. This mechanism is formally known as the Conflict Early Warning Early Response System (CEWERS).

According to the Forum on Early Warning and Early Response (FEWER), the CEWERS approach is a systematic collection and analysis of information from a crisis area. This approach has three primary objectives:

1. Anticipating the escalation of conflict to prevent physical violence,
2. Building a strategic response known as de-escalation, and
3. Presenting viable options to key actors for decision-making purposes.

In practice, this system operates through several foundational stages and principles:

- **Information Collection:** This stage involves identifying early indications or symptoms at the grassroots level as initial evidence of potential conflict.
- **Proportional Threat Analysis:** It is crucial to determine whether a conflict is small-scale or has the potential to expand. The principle of early warning dictates that threat analysis must be highly proportional, meaning threats should neither be exaggerated nor disguised. The analysis must clearly describe the level of the threat (small, medium, large, or critical), identify the specific target, and project the threat's trajectory.
- **Strategic Response and De-escalation:** This final stage involves implementing direct intervention actions to ensure that violent conflicts do not emerge or spread in the future.

The relationship between this early detection mechanism and social welfare is deeply rooted in Human Needs Theory, which posits that the frustration of basic human needs is the root cause of social conflict (Burton, 1990). When disputes occur, such as agrarian or land tenure conflicts, the community's basic needs for shelter and livelihood are disrupted. This disruption automatically degrades their level of welfare. Therefore, early detection serves as a vital preventive mechanism to ensure that the fulfillment of these basic needs remains guaranteed. Preventing conflict through CEWERS is essentially an active effort to maintain a condition of safety and prosperity, while simultaneously protecting the community from structural disturbances that hinder their self-development and social functions.

METHODOLOGY

This study employs a mixed-method approach by combining qualitative empirical analysis and bibliometric analysis to examine the relationship between

social conflict, human security, and social welfare in the Province of Riau. The qualitative descriptive approach was used to understand the dynamics of social conflict and the implementation of early conflict detection mechanisms within the social and institutional context of Riau society.

The research began with data collection from both primary and secondary sources. Primary data were obtained through direct interviews and institutional discussions involving stakeholders such as local government officials, security institutions, community leaders, and related agencies that play important roles in maintaining social stability and preventing conflict escalation in Riau Province. Meanwhile, secondary data were collected from official documents, government reports, institutional presentations, policy papers, academic literature, and archives related to social conflict, agrarian disputes, land tenure, plantation expansion, and conflict prevention mechanisms in Riau.

The social conditions of the community were then observed and analyzed by the researchers to identify patterns and trends that potentially lead to conflict escalation. This phase involved mapping and analyzing the relationships among several conflict indicators, including land disputes, economic inequality, social vulnerability, multicultural tensions, environmental issues, and other social problems affecting community welfare. Qualitative data analysis was conducted to interpret the relationship between conflict potential, causative factors, and the broader dimensions of human security and social welfare. Based on these findings, the researchers formulated an early detection framework for social conflict that can be utilized as a preventive mechanism to anticipate future conflict escalation. The framework also emphasizes the importance of collaboration between government institutions, security authorities, local organizations, and the community in strengthening conflict prevention and social resilience.

In addition to the empirical approach, this study also applies bibliometric analysis to obtain a comprehensive understanding of the development of studies related to social conflict and human security. The bibliometric data were collected from the Scopus database using publications published between 2022 and 2025. The search process applied the following query with the results of data search using keywords "(TITLE-ABS-KEY (social AND conflict) AND TITLE-ABS-KEY (human AND security)) AND PUBYER > (EXACTKEYOWRD, "Secuirty")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (SUBJAREA, "SOCI") OR LIMIT-TO (SUBJAREA, "ARTS"))).

The search identified a total of 66 publications indexed in the Scopus database. These publications demonstrate increasing academic interest, particularly within the fields of social sciences and arts and humanities, regarding the relationship between social conflict and human security. The distribution of publications also reflects growing scholarly attention toward non-traditional security challenges, including social instability, inequality, environmental vulnerability, and cultural tensions that potentially affect human security and community welfare. Furthermore, the selected publications provide diverse perspectives, theoretical approaches, and case studies that contribute to

a broader understanding of social conflict dynamics and their implications for human security in both regional and international contexts.

Bibliometric visualization using VOSviewer demonstrates strong interconnections between themes of social conflict, conflict prevention, security, resilience, and social welfare within the broader framework of human security.

The visualization also indicates that social conflict is no longer viewed solely as a security issue, but also as a multidimensional challenge that directly affects social stability, institutional resilience, and the quality of life of communities. In addition, the relationship between psychological, social, economic, and demographic dimensions reveals that conflict impacts various social groups, including adults, women, men, and children.

The novelty of this study lies in the integration of bibliometric mapping, empirical institutional analysis, and social welfare perspectives through a preventive early detection approach. Unlike many previous studies that mainly focus on reactive conflict resolution after violence occurs, this research emphasizes the importance of identifying potential conflicts at an early stage in order to reduce their negative impact on society. Furthermore, this study links the dimensions of social conflict to social welfare and human security, which remain relatively underexplored in previous studies. Therefore, this study offers a multidimensional perspective that conflict management should not only focus on maintaining security stability but also on improving community welfare, institutional responsiveness, and inclusive governance.

Previous studies can generally be classified into four major categories, namely conflict and security studies, human and social impact studies, media and perception studies, and policy and governance studies. Conflict and security studies primarily focus on the dynamics of conflict and security stability, whereas human and social impact studies emphasize the effects of conflict on individuals and communities. Media and perception studies explore the influence of public perception and media in shaping social dynamics, while policy and governance studies concentrate on the role of governments and institutional strategies in managing conflict. However, these approaches are often discussed separately and have not been comprehensively integrated. Therefore, this study attempts to bridge these perspectives through a multidimensional early detection framework that combines human security, conflict prevention, institutional coordination, and social welfare approaches within the context of Riau Province.

RESEARCH RESULT AND DISCUSSION

The publication data analyzed in this study were sourced from the Scopus database, covering an observation period from 2007 to a projected 2026. Based on the visualized data, the literature regarding the early detection of social conflict and community welfare in Riau has experienced dynamic fluctuations over the past two decades. Generally, the publication volume between 2007 and 2021 remained relatively low and unstable, averaging fewer than five documents per year. The lowest points of productivity occurred in 2009 and 2017, with only one document recorded in each year. These conditions indicate that during this period,

the discourse on social conflict mitigation within the Riau region had not yet become a primary focus in the global research landscape indexed by Scopus.

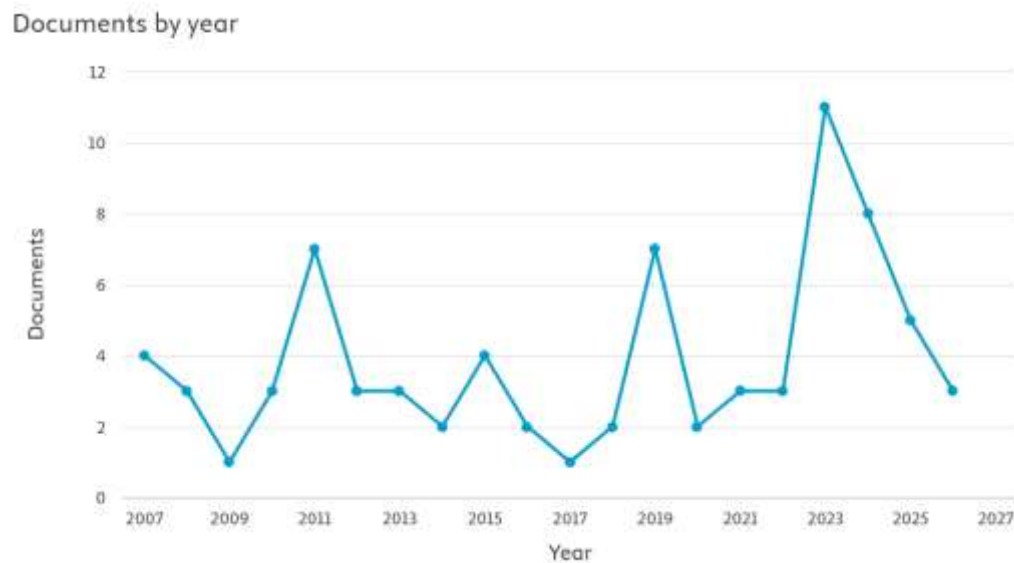


Figure 1. Publication Trends on Social Conflict and Community Welfare
Source: Scopus database, 2026.

The analysis of annual trends reveals a significant paradigm shift as the research enters its focal period from 2022 to 2025. A sharp surge in productivity began in 2022 with 3 documents, subsequently reaching its peak in 2023 with a total of 11 documents. This drastic increase of over 260% signifies a collective urgency among researchers to explore early detection systems as a vital instrument for improving social welfare in Riau. Although the data for 2024 through 2026 shows a visual decline, this is likely attributable to the "indexing lag" within the Scopus system, where many recently published articles or those currently under review have not yet been fully recorded. Overall, the highest concentration of publications is centered within the 2022-2025 period, validating that this topic is currently in its "golden age" and represents a highly relevant research trend addressing the contemporary social development needs of Riau Province.

Social, Economic, and Security Dimensions

The keyword network visualization reveals a complex interconnection between various social, economic, and security dimensions within the global literature. Based on the VOSviewer mapping, several primary clusters represent the core focus of the research. The yellow cluster, dominated by the keywords "development," "power," and "platform," indicates that development issues and power structures serve as the fundamental basis for discussing regional stability. This suggests that the early detection of conflict in Riau is inseparable from the context of regional development and how policy platforms are managed to minimize friction between social actors.

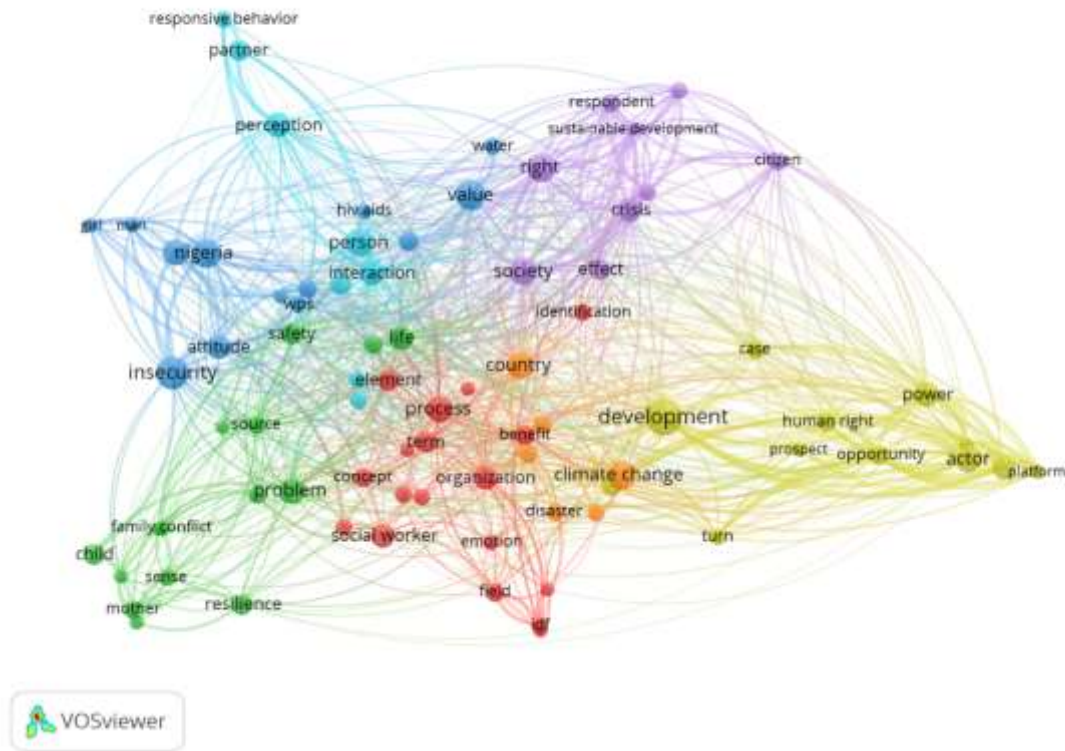


Figure 2. Network Visualization of Social Conflict to Improve the Social Welfare
Source: Processed by the author using VOSviewer

On the other hand, the green cluster highlights micro and fundamental aspects of society through keywords such as "family conflict," "mother," "child," and "resilience." The presence of this cluster reinforces the notion that social conflicts are often rooted in the smallest units of society; therefore, efforts to enhance social welfare must target the strengthening of family resilience. The relationship between the green and blue clusters (which include the terms "insecurity," "perception," and "safety") illustrates that citizens' perceptions of safety and feelings of insecurity serve as key indicators in an early detection system. If the sense of insecurity at the grassroots level increases, it acts as an early signal of a degradation in social welfare.

Furthermore, the red and orange clusters located at the center of the network integrate the roles of "social worker," "organization," and "process" with global issues such as "climate change" and "disaster." This indicates an emerging trend in the literature where social conflicts are currently also triggered by external factors like climate change and disasters, which are highly relevant to Riau's geographical characteristics. Overall, this network analysis confirms that to improve the social welfare of the Riau community during the 2022-2025 period, early detection strategies must adopt a multidimensional approach that integrates economic development strengthening, family resilience, and conflict management that is responsive to environmental issues and perceptual security.

Empirical Context of Social Conflict in Riau

The empirical findings further strengthen the bibliometric analysis by demonstrating that social conflict in Riau is closely related to agrarian disputes, land tenure issues, plantation expansion, multicultural dynamics, and environmental vulnerability. Several institutional reports and regional presentations reveal that the province continues to experience multidimensional conflict risks that directly affect community welfare and regional stability.

Data from the National Land Agency (BPN) of Riau Province indicate that one of the major sources of conflict originates from changes in land status and forest area designation. Several areas previously categorized as non-forest land were later reclassified as forest areas, resulting in legal uncertainty and overlapping land ownership claims. This condition has generated disputes involving local communities, customary societies, corporations, and government institutions.

The empirical data also show that agrarian and plantation-related conflicts remain dominant in Riau. The rapid expansion of oil palm plantations in Pelalawan Regency has significantly increased land use pressure and social vulnerability. Institutional data presented by the Riau Regional Police demonstrated that oil palm plantation areas in Pelalawan expanded from approximately 393,324 hectares in 2020/2021 to around 453,330 hectares in 2021/2022, reflecting an increase of approximately 60,006 hectares within a relatively short period. This expansion has contributed to recurring disputes over land ownership, environmental degradation, and competition for economic resources.

Furthermore, the role of indigenous communities remains highly significant within the conflict landscape of Riau. Reports from indigenous community organizations highlight that customary land rights, cultural identity, and traditional resource management systems continue to face structural pressures due to industrial expansion and land conversion. Indigenous groups often experience marginalization and legal uncertainty regarding land ownership and natural resource control.

Institutional coordination also represents an important aspect of conflict prevention in Riau. The Regional National Unity and Political Agency (Kesbangpol) has established an integrated social conflict management framework involving preventive measures, conflict mitigation, and post-conflict recovery mechanisms. The formation of the Integrated Social Conflict Management Team through the Governor's Decree demonstrates the regional government's commitment to strengthening early warning systems and institutional responsiveness.

The findings from conflict resolution and mediation studies additionally reveal that social conflict management in Indonesia increasingly emphasizes collaborative and non-violent approaches. Mediation, institutional dialogue, and community participation are viewed as strategic mechanisms for reducing escalation and maintaining social stability, particularly in conflicts related to land tenure and territorial boundaries.

Overall, these empirical findings align with the bibliometric analysis presented in this study. The integration of empirical evidence and bibliometric mapping confirms that social conflict prevention in Riau requires multidimensional governance involving digital early warning systems, institutional coordination, community resilience, environmental awareness, and inclusive social welfare policies.

From Conventional Issues to Platform Digitalization

The analysis of the overlay visualization map reveals a clear paradigm shift in social conflict literature, moving from conventional approaches toward the adoption of digital technology. In the purple and dark blue clusters (representing the 2014–2016 period), research was dominated by conventional issues focusing on "interaction," "process," and "responsive behavior." This indicates that in the past, conflict detection was primarily viewed as a reactive and manual process of human interaction, where management relied heavily on field behavior observations without the support of integrated data infrastructure.

Transitioning into the green and yellow periods (2022–2025), the term "platform" emerges as one of the brightest and most prominent nodes. The appearance of this keyword signifies that the discourse on early conflict detection in the current era no longer relies solely on traditional sociological approaches but has begun to utilize digital platforms as early warning systems. The digitalization of these platforms is viewed as a significant "opportunity" to integrate data from various sectors—ranging from welfare data provided by "social workers" to the monitoring of "climate change" impacts—to generate more accurate and timely conflict predictions in regions such as Riau.

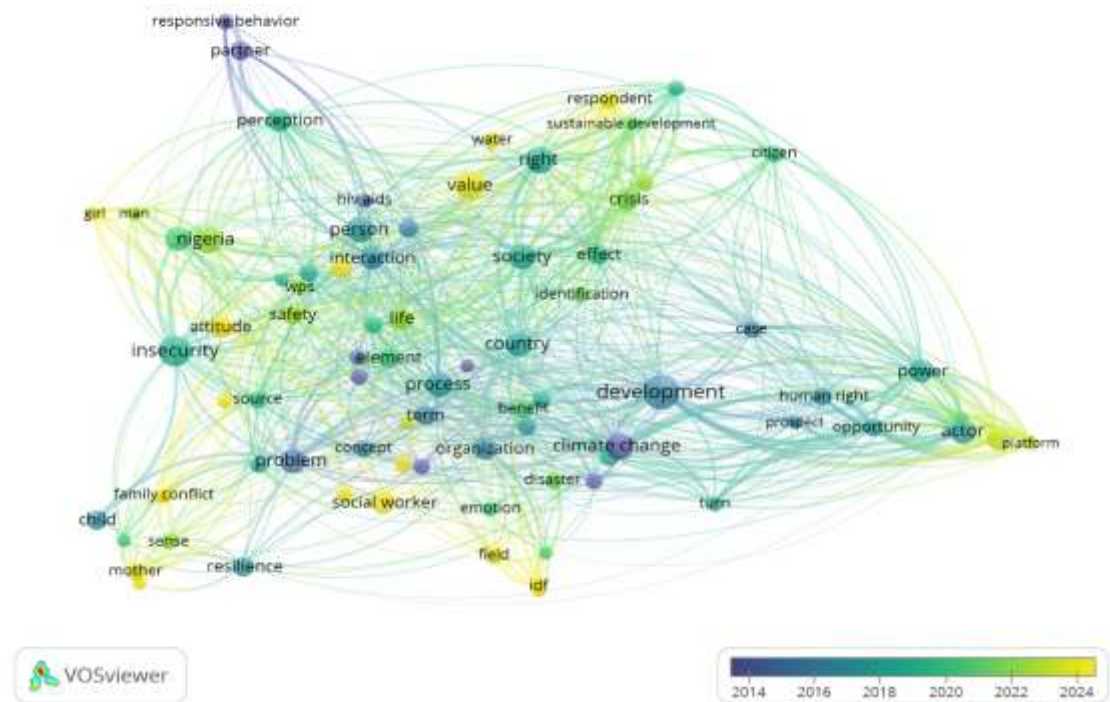


Figure 3. Overlay Visualization of Social Conflict to Improve the Social Welfare.
 Source: Processed by the author using VOSviewer.

Furthermore, this transformation indicates that efforts to enhance community welfare are no longer conducted in a partial manner. With the existence of a "platform" as a center of integration, various "actors" can collaborate more efficiently in mitigating risks. The shift from individual "behavior" issues in the past toward the development of platform systems in the present reinforces that the future of community welfare in Riau during the 2022–2025 period will heavily depend on how effectively this digitalization is implemented to detect potential social friction automatically and inclusively.

Thematic Distribution and Dominance of Social Conflict Clusters

Table 1 presents the detailed distribution of items categorized into seven distinct clusters based on the VOSviewer analysis. A total of 76 keyword items represent the various dimensions of research concerning the early detection of social conflict and community welfare. Cluster 1 (Red) and Cluster 2 (Green) emerge as the largest groups, each containing 16 items and contributing an identical percentage of 21.05%. These are followed by Cluster 3 (Blue) and Cluster 4 (Yellow), which contribute 12 items each (15.79%). Meanwhile, Clusters 5 through 7 contain fewer items, with Cluster 7 (Orange) being the smallest group, encompassing only 5 items (6.58%) of the total data.

Table 1. Items by cluster of Social Conflict to Improve the Social Welfare

Cluster	Most Items Relate	Colors	%	Total
Cluster 1	Benefit, civilization, collaborator, concept, cooperation, death, element, emotion, field, identification, organization, process, social policy, social worker, term, training	Red	21.05	16
Cluster 2	Child, experience, family, family conflict, grandmother, life, mother, participant, problem, quality, resilience, safety, sense, source, young person	Green	21.05	16
Cluster 3	Armed conflict, attitude, gender, girl, hiv aids, insecurity, institution, man, value, water, woman, wps	Blue	15.79	12
Cluster 4	Actor, case, civil society, development, human right, metaverse, opportunity, place, platform, power, prospect, turn	Yellow	15.79	12
Cluster 5	Citizen, crisis, effect, freedom, respondent, right, society, sustainable development	Purple	10.53	8
Cluster 6	Global environmental change, interaction, older adult, partner, perception, person, responsive behavior	Light Blue	9.21	7
Cluster 7	Climate change, country, disaster, terrorism, violent conflict	Orange	6.58	5
Total			100%	76

Source: Processed by the author using VOSviewer.

The dominance of Cluster 1 and Cluster 2, which together account for more than 42% of the data, indicates that research on social welfare in Riau is fundamentally rooted in two main pillars: social organizational management and grassroots resilience. Cluster 1 reflects the administrative and policy intervention side through keywords such as "social policy," "organization," and "social worker." This emphasizes that the early detection of conflict requires a strong organizational structure and trained professional social workers. In parallel, Cluster 2 focuses on the micro-aspect, where the family unit ("family," "mother," "child") is viewed as both a vital object and subject in maintaining social stability.

Interestingly, Cluster 4 (15.79%), while not the largest in quantity, contains strategic and contemporary keywords such as "platform," "metaverse," and "opportunity." The presence of these modern terms amidst conventional issues signals a significant shift toward digital transformation in future conflict mitigation. On the other hand, Cluster 7, which focuses on "climate change" and "violent conflict," represents an "emerging threat" variable that is beginning to enter the research radar, despite having the smallest quantity (6.58%). Overall, this data suggests that strategies to improve the social welfare of the Riau community

for the 2022-2025 period must balance the role of field-based social workers (Cluster 1) with the utilization of technological platforms (Cluster 4) to address multidimensional crises, including environmental changes (Cluster 7).

CONCLUSION AND RECOMMENDATIONS

This study is limited to publications indexed in the Scopus database and empirical materials related to the Province of Riau. The bibliometric analysis focuses primarily on social sciences and arts and humanities publications published between 2022 and 2025. In addition, the empirical findings are based on institutional reports, policy documents, and qualitative observations rather than large-scale quantitative field surveys. Therefore, future studies are encouraged to integrate quantitative social indicators and broader comparative regional analysis to strengthen the implementation of conflict early warning systems and human security approaches.

This study demonstrates that the early detection of social conflict plays an important role in strengthening social welfare and human security in the Province of Riau during the 2022–2025 period. The findings reveal that social conflict in Riau is closely associated with agrarian disputes, land tenure issues, plantation expansion, multicultural dynamics, environmental vulnerability, and institutional challenges that potentially threaten social stability and community welfare. Through the integration of qualitative empirical analysis and bibliometric analysis, this study confirms that conflict prevention has become an increasingly important issue within contemporary human security studies.

The bibliometric analysis indicates a significant paradigm shift from conventional reactive conflict management toward preventive and digital-based governance approaches. The VOSviewer visualization demonstrates strong interconnections between social conflict, resilience, development, security, institutional coordination, and digital platforms. These findings suggest that conflict prevention is no longer viewed solely as a security issue, but also as a multidimensional challenge directly affecting community welfare, social cohesion, and regional resilience.

The empirical findings further strengthen this analysis by showing that land disputes, plantation expansion, indigenous land conflicts, and overlapping governance structures remain dominant drivers of social tension in Riau. In response to these conditions, institutional coordination through Early Warning Systems (EWS), Conflict Early Warning and Response Systems (CEWERS), Kesbangpol, FKDM, and community participation represents an important preventive mechanism for reducing conflict escalation and strengthening social stability.

Ultimately, this study concludes that the integration of early conflict detection mechanisms, institutional collaboration, and digital governance approaches is essential for fostering a peaceful, resilient, and inclusive society in Riau. Therefore, future policies should prioritize strengthening preventive conflict management systems, community resilience, environmental awareness, and digital-based monitoring platforms to support sustainable social welfare and long-term human security.

ADVANCED RESEARCH

This advanced research confirms that the integration of early conflict detection systems, institutional collaboration, and digital-based governance significantly contributes to strengthening social welfare and human security in Riau Province. The study highlights that preventive conflict management through Early Warning Systems (EWS), community participation, and institutional coordination can reduce social tensions caused by agrarian disputes, plantation expansion, and governance challenges, while simultaneously fostering social resilience, regional stability, and sustainable development.

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