Sosioedukasi
JURNAL ILMIAH ILMU PENDIDIKAN DAN SOSIAL
ISSN: 2086-6135 E-ISSN: 2541-612x
Volume 15 No. 3. September 2026 https://ejournal.unibabwi.ac.id/index.php/sosioedukasi/index

IMPLEMENTATION OF FOREST AND LAND FIRE DISASTER MITIGATION POLICIES IN LIMA PULUH KOTA

Kevin Mandaila Putra[1], Rahmadani Yusran[2*]

yusranrdy@fis.unp.ac.id

[1,2]Padang State University, Faculty of Social Sciences, Padang, Indonesia

(*) Corresponding Author
yusranrdy@fis.unp.ac.id

ARTICLE HISTORY
Received : 20-06-2026
Revised : 10-07-2026
Accepted : 15-07-2026

KEYWORDS
Policy implementation; disaster mitigation; forest and land fires; Lima Puluh Kota Regency

ABSTRACT
Forest and land fires (karhutla) in Lima Puluh Kota represent a recurrent threat with severe environmental, social, and economic impacts. Although a regulatory framework exists under Regent Regulation No. 38 of 2018, the implementation of mitigation policies in the field continues to face structural obstacles. This study aims to critically analyze the implementation of forest and land fire disaster mitigation policies and identify the key factors determining their success. Utilizing a descriptive qualitative approach, data were gathered through observations, documentation, and in-depth interviews with seven key informants selected via purposive sampling. Data were interactively analyzed through data reduction, data display, and conclusion drawing. The findings indicate that policy implementation is fairly effective but has not reached optimal performance. This status is evidenced by specific operational indicators, including low patrol frequency (once a month), uneven outreach coverage due to budget constraints, and inconsistent personnel competency enhancement. The primary structural barriers include severe personnel shortages (only 13 Brigade members), inadequate infrastructure and firebreaks, and the persistent practice of traditional land clearing by burning. Analytically, the study concludes that mitigation success is fundamentally constrained by institutional resource limitations. Policy implications highlight the urgent need for local governments to strengthen operational funding, expand technical firebreak construction, and shift community engagement from passive advisories to active farmer-group empowerment.

INTRODUCTION

Disaster mitigation is a crucial component of disaster management, focusing on efforts to reduce risk before a disaster occurs. Mitigation activities encompass various preventive measures designed to minimize loss of life, economic losses, and environmental damage resulting from both natural and human-induced disasters. Mitigation is carried out through various initiatives aimed at anticipating disaster impacts so that the resulting risks can be minimized (Fadhillah et al., 2023;Ayuningtyas, 2018).

Sosioedukasi
JURNAL ILMIAH ILMU PENDIDIKAN DAN SOSIAL
ISSN: 2086-6135 E-ISSN: 2541-612x
Volume 15 No. 3. September 2026 https://ejournal.unibabwi.ac.id/index.php/sosioedukasi/index

In Indonesia, disaster mitigation is mandated by Law Number 24 of 2007 concerning Disaster Management and supported by various sectoral regulations, including policies for controlling forest and land fires (Nadhira et al., 2026). Nevertheless, forest and land fires remain a recurring disaster, particularly during the dry season. These events cause not only ecosystem damage but also haze, health issues, economic losses, and disruptions to community activities, thereby necessitating the implementation of effective mitigation policies (Yenni et al., 2022).

Various incidents of forest and land fires in Indonesia demonstrate that mitigation efforts still face significant challenges. In 2024, the National Agency for Disaster Countermeasure (BNPB) recorded 629 forest and land fire incidents across the country, while fires recurred in 2025 in Riau Province and several other regions. The government has implemented various mitigation measures, such as integrated patrols, hotspot monitoring, law enforcement against those responsible for starting fires, the establishment of fire-alert villages, the provision of firefighting equipment, and public education (Akbar et al., 2024; Damanik & Rahayu, 2021). These circumstances illustrate that successful mitigation depends not only on technical aspects but also on inter-agency coordination and changes in community behavior (Fadhillah et al., 2023).

Forest and land fires have also occurred in several areas of West Sumatra Province, including Lima Puluh Kota Regency, which possesses extensive forest areas and faces a high risk of fires during the dry season. The Lima Puluh Kota Regency Government enacted Regent Regulation Number 38 of 2018 concerning the Forest and Land Fire Control System to serve as a guideline for mitigation implementation; this involves public awareness campaigns, monitoring of high-risk areas, supervision of land use, and enhancing the preparedness of human resources and infrastructure (Jaes et al., 2025;Utomo et al., 2026).

Despite having a clear policy framework, the implementation of forest and land fire mitigation in Lima Puluh Kota Regency still faces various obstacles. The Forest and Land Fire Control Brigade consists of only 13 personnel, a number disproportionate to the vast area requiring surveillance. Existing literature on forest and land fire policy implementation in Indonesia has extensively examined community-based participation models (Jaes et al., 2025;Sari et al., 2021). Multi-stakeholder collaborative governance (Hidayat et al.., 2025), and technical capacities in major peatland provinces such as Riau and Jambi (Fadhillah et al., 2023;Sundari et al., 2022). However, a significant research gap remains: prior studies heavily focus on high-risk peatland ecosystems with established national budget priorities, leaving a critical knowledge void regarding how local mitigation policies operate within topographically challenging, non-peatland regions that suffer from severe institutional constraints such as a critical shortage of personnel (only 13 dedicated Brigade members for an entire regency) and inadequate local infrastructure.

This study addresses this gap by investigating the implementation of forest and land fire mitigation policies in Lima Puluh Kota. The novelty of this research lies in its analytical evaluation of policy implementation under severe institutional capacity constraints, explicitly bridging the gap between formal normative mandates (Regent Regulation No. 38 of 2018) and real-world field dynamics. Consequently, this study aims to: (1) critically analyze the implementation of fire mitigation policies across key operational indicators specifically public outreach, patrol frequency, personnel competency, and inter-agency coordination; and (2) identify the fundamental supporting and inhibiting factors shaping policy execution in the regency. Theoretically, this research contributes to public policy literature by offering an empirical model of policy execution constrained by local institutional limits, while practically providing actionable policy recommendations for local governments. Given these conditions, a study on the implementation of forest and land fire mitigation policies in Lima Puluh Kota Regency is necessary to assess the current state of policy execution and identify the factors that either facilitate or impede its implementation. The research findings are expected to serve as recommendations for the local government to strengthen the effectiveness of forest and land fire mitigation policies.

METHOD

Sosioedukasi
JURNAL ILMIAH ILMU PENDIDIKAN DAN SOSIAL
ISSN: 2086-6135 E-ISSN: 2541-612x
Volume 15 No. 3. September 2026 https://ejournal.unibabwi.ac.id/index.php/sosioedukasi/index

This study employed a descriptive qualitative approach to conduct an in-depth evaluation of the implementation of forest and land fire (*karhutla*) disaster mitigation policies. To ensure that the study goes beyond a mere factual description of field activities, the analysis was anchored in George C. Edwards III's Policy Implementation Framework (1986). This theoretical framework posits that policy execution is determined by four critical variables: Communication (dissemination and public outreach), Resources (personnel, budget, and infrastructure), Dispositions (implementers' commitment and personnel competency), and Bureaucratic Structure (inter-agency coordination and standard operating procedures). These four theoretical dimensions served as the primary analytical lens to evaluate the operationalization of Fifty City Regent Regulation No. 38 of 2018 on the Forest and Land Fire Control System.

The research was conducted in Lima Puluh Kota (*Kabupaten Lima Puluh Kota*), West Sumatra Province, from 2026. Lima Puluh Kota was selected as the research location due to its expansive forest area, hilly topography, chronic vulnerability to dry-season fire incidents, and severe resource constraints relative to the geographical coverage required for surveillance.

Informants were selected using a purposive sampling technique to ensure that participants possessed direct authority, technical expertise, or lived experience regarding *karhutla* mitigation. A total of seven key informants were interviewed:

1. One representative from the Regional Disaster Management Agency (BPBD) of Lima Puluh Kota (Policy coordinator).
2. Two representatives from the Regional Forest Management Unit (UPTD KPHL) (Forestry authority and field supervisors).
3. One member of the Forest and Land Fire Control Brigade (*Manggala Agni* / Firefighting unit) (Field operational officer).
4. Three local community members and farmers residing in high-risk *nagaris* (villages) (Policy target groups and primary observers).

The sample size of seven informants was deemed methodologically sufficient based on the principle of data saturation. During the interviewing process, information gathered from the seventh informant yielded repetitive themes, redundant factual details, and no new theoretical insights or codes regarding policy execution, confirming that empirical saturation had been achieved.

Data were gathered through three primary methods:

1. In-Depth Interviews: Semi-structured interviews were conducted using an interview guide built around Edwards III' four implementation variables. Interviews lasted between 45 to 90 minutes per session, were audio-recorded with participant consent, and transcribed verbatim.
2. Field Observations: Direct non-participant observations were carried out across designated high-risk forest zones to inspect field conditions, patrol operations, the existence of firebreaks, and the availability of firefighting equipment.
3. Document Analysis: Secondary data were retrieved from official documents, including Regent Regulation No. 38 of 2018, BPBD operational reports, KPHL land-use maps, and local disaster statistic records.

Data validity and trustworthiness were established through source triangulation (comparing accounts across BPBD officials, KPHL staff, field brigade members, and community residents) and methodological triangulation (cross-verifying interview statements with observational field notes and official documentary records).

Data were analyzed interactively following the qualitative data analysis model by Miles et al. 2014, comprising three systematic steps:

1. Data Reduction: Field notes, observation logs, and interview transcripts were systematically categorized, coded, and filtered according to the predefined implementation indicators (Communication, Resources,

Sosioedukasi
JURNAL ILMIAH ILMU PENDIDIKAN DAN SOSIAL
ISSN: 2086-6135 E-ISSN: 2541-612x
Volume 15 No. 3. September 2026 https://ejournal.unibabwi.ac.id/index.php/sosioedukasi/index

Dispositions, and Bureaucratic Structure). Irrelevant data were discarded while key empirical themes were extracted.

2. Data Display: Reduced data were structured into comparative matrices and narrative displays to highlight patterns, discrepancies between normative policy mandates and actual field practices, and interactions among supporting/inhibiting factors.
3. Conclusion Drawing and Verification: Initial findings were synthesized to derive analytical conclusions regarding policy effectiveness. These conclusions were continuously verified against raw transcripts and triangulated data sources to ensure rigorous analytical grounding.

RESULT AND DISCUSSION

Implementation of Forest and Land Fire Mitigation Policies in Lima Puluh Kota: Analytical Evaluation

1. Communication Aspect: Public Outreach and Information Dissemination

The implementation of public outreach and fire prevention education in Lima Puluh Kota is mandated under Article 17 of Regent Regulation No. 38 of 2018. Primary empirical data obtained through in-depth interviews with BPBD officers and UPTD KPHL staff reveal that awareness campaigns are routinely scheduled prior to the dry season in fire-prone *nagaris* (villages). Field observation logs confirm that outreach materials focus on the legal risks of open burning and safety protocols. However, empirical findings indicate that outreach coverage remains highly uneven and sporadic. Interview accounts from local farmers in high-risk zones highlight that many remote agricultural communities receive information only once a year or via passive advisory flyers.

Analytically, using the Communication variable of Edwards III (1986) implementation model, effective policy execution requires *transmission clarity, consistency, and adequate reach*. In Lima Puluh Kota, the failure to achieve uniform outreach is driven by budget constraints and a lack of extension personnel. Rather than conducting continuous, group-based training, authorities rely heavily on seasonal, mass-gathering advisories. As interpreted by the researchers, this creates a knowledge-action gap: while community members become aware of the legal prohibitions against fire, they are not equipped with technical alternatives for no-burn land clearing (*Pembukaan Lahan Tanpa Bakar/PLTB*). This finding aligns with studies by Akbar et al. (2024) and Susanto (2020), who noted that top-down, advisory-style outreach without technical empowerment fails to alter deep-rooted traditional farming practices. Conversely, as demonstrated by Panggabean et al. (2025), transforming communication into active, farmer-group-centered workshops significantly increases policy compliance and reduces anthropogenic ignition risks.

2. Resources Aspect: Area Patrols, Infrastructure, and Personnel Bottlenecks

Patrolling and real-time surveillance constitute vital operational elements for early hotspot verification under Regent Regulation No. 38 of 2018. Empirical evidence gathered from field logs and interview statements from the fire brigade (*Manggala Agni*) reveals a severe operational constraint: field patrols are conducted approximately only once a month per high-risk zone. This minimal patrol frequency leaves vast forest tracts unmonitored during critical dry spells, forcing reliance on delayed community reports. Furthermore, documentary records show that the dedicated Forest and Land Fire Control Brigade consists of only 13 personnel tasked with monitoring thousands of hectares of topographically challenging terrain. Operational infrastructure is similarly deficient; field observations confirmed a critical absence of physical firebreaks (*sekat bakar*) in high-risk zones, limited mobile water pumps, and lack of localized command posts.

Through the theoretical lens of Edwards III (1986), policy implementation inevitably breaks down when physical, human, and financial inputs fall below critical operational thresholds. The researchers interpret that the performance shortfall in Lima Puluh Kota is not due to a lack of bureaucratic intent, but rather a structural resource deficit. Maintaining a single monthly patrol over extensive hilly terrain violates basic risk-based management

Sosioedukasi
JURNAL ILMIAH ILMU PENDIDIKAN DAN SOSIAL
ISSN: 2086-6135 E-ISSN: 2541-612x
Volume 15 No. 3. September 2026 https://ejournal.unibabwi.ac.id/index.php/sosioedukasi/index

principles. This empirical reality mirrors the findings of Ananda et al. (2022) and Nicha & Mashur (2024), who observed that severe personnel shortages in regional disaster units force agencies into a reactive firefighting posture rather than proactive prevention. Furthermore, as highlighted by Wibowo (2019) and Yusuf (2021), without dedicated regional budgetary allocations for physical infrastructure—such as technical firebreaks and accessible water retention ponds early suppression becomes physically impossible once a hotspot escalates.

3. Dispositions Aspect: Personnel Competency and Implementation Commitment

The dispositional dimension evaluates the willingness, commitment, and technical proficiency of policy implementers. Empirical interview data with UPTD KPHL and BPBD personnel indicate high institutional commitment and solid foundational skills gained through joint simulations, basic firefighting training, and field experience. Personnel demonstrate strong dedication during emergency outbreaks despite personal risks. However, empirical evidence also uncovers systematic limitations: formal capacity-building workshops are held infrequently due to limited training quotas set at the provincial level. Consequently, lower-tier field responders and village volunteers lack advanced training in modern hotspot tracking, specialized machinery operation, and spatial risk mapping.

In terms of Edwards III (1986), successful implementation requires that implementers not only favor policy goals but also possess the technical capability to execute complex tasks. The researchers interpret that while the normative commitment of officers is exceptionally high, their operational disposition is constrained by static skill sets. Modern fire management requires dynamic, technology-driven monitoring (e.g., satellite hotspot mapping and drone surveillance), which personnel cannot deploy without continuous training. This finding echoes the insights of Yahusafat et al. (2020) and Zulkifli et al. (2021), who emphasized that disaster management personnel must undergo continuous, updated technical certification to adapt to climate-induced fire dynamics. Without ongoing competency enhancement, as noted by Harahap (2020), field officers remain dependent on traditional, labor-intensive suppression techniques that are ineffective against rapid dry-season fire spreads.

4. Bureaucratic Structure Aspect: Multi-Agency Coordination and Data Integration

Inter-agency coordination in Lima Puluh Kota operates through a collaborative framework involving BPBD, UPTD KPHL, the Indonesian National Armed Forces (TNI), the Indonesian National Police (Polri), village (*nagari*) governments, and local volunteers. Empirical findings demonstrate that formal coordination functions effectively during joint emergency responses, joint awareness rallies, and initial disaster assessments. The clear legal basis provided by Regent Regulation No. 38 of 2018 serves as an essential supporting factor that legitimizes multi-agency mobilization. However, empirical interview data from BPBD and UPTD KPHL officers expose significant operational frictions in routine prevention: information sharing regarding hotspot coordinates is frequently delayed, real-time data integration across agencies is lacking, and task allocation during non-emergency periods remains informal and fragmented.

Analytically applying Edwards III (1986), effective implementation hinges on clear Standard Operating Procedures (SOPs) and integrated organizational workflows. The researchers interpret that while "event-driven" emergency coordination is well-established, "routine-preventive" coordination remains institutionalized only on paper. The absence of a shared digital monitoring platform between BPBD, UPTD KPHL, and village heads creates information silos, resulting in delayed field verification. This condition reinforces the findings of Hidayat et al. (2022), and Baird et al. (2016), who argued that multi-actor governance often suffers from fragmented reporting channels and overlapping jurisdictional mandates. Moreover, recent empirical studies by Andarini et al. (2025) and Indrajaya & Suhardiman (2026) demonstrate that policy efficacy in disaster management requires transitioning from informal administrative arrangements to integrated, technology-driven coordination platforms that enforce real-time data sharing across all governance tiers.

Supporting and Inhibiting Factors in the Implementation of Forest and Land Fire Disaster Mitigation Policy in Lima Puluh Kota Regency

Sosioedukasi
JURNAL ILMIAH ILMU PENDIDIKAN DAN SOSIAL
ISSN: 2086-6135 E-ISSN: 2541-612x
Volume 15 No. 3. September 2026 https://ejournal.unibabwi.ac.id/index.php/sosioedukasi/index

1. Supporting factors

a. Availability of a Clear Legal Basis and Regulations

A key factor supporting the implementation of mitigation policies for forest and land fires in Lima Puluh Kota Regency is the existence of a clear legal and regulatory framework specifically, Lima Puluh Kota Regent Regulation Number 38 of 2018 concerning the Forest and Land Fire Control System (Sundari et al., 2022). This regulation serves as a guideline for the Regional Disaster Management Agency (BPBD), the Regional Technical Implementation Unit for Forest and Land Management (UPTD KPHL), the fire brigade team, and relevant agencies in carrying out mitigation activities such as public outreach, patrols, mapping of fire-prone areas, enhancing preparedness, and cross-sector coordination. Beyond guiding policy implementers, the regulation also supports the dissemination of information to the public regarding the prohibition of land clearing through burning, thereby ensuring that mitigation efforts are more targeted, coordinated, and compliant with applicable regulations.

b. Inter-agency Coordination and Cooperation

Inter-agency coordination and cooperation serve as key factors supporting the implementation of forest and land fire mitigation policies. Synergy among the Regional Disaster Management Agency (BPBD), the Forest Management Unit (KPHL), fire brigades, village governments, and the community facilitates patrols, public outreach, information sharing, and initial response efforts during fires. Furthermore, community involvement in reporting hotspots aids early detection, enabling mitigation measures to be carried out more swiftly and in a coordinated manner.

c. Active Community Participation in Mitigation Activities

Active community participation is a crucial factor supporting the implementation of forest and land fire mitigation policies in Lima Puluh Kota Regency. Research findings indicate that the community plays a role by attending awareness-raising activities, monitoring the environment, providing early reports upon spotting smoke or hotspots, and assisting with initial firefighting efforts before officials arrive at the scene. Community involvement is further bolstered by coordination with the Regional Disaster Management Agency (BPBD), the Forest Management Unit (UPTD KPHL), village authorities, and other relevant agencies, thereby accelerating information dissemination and the response to potential fires. Overall, the implementation of mitigation policies relies on three key factors: clear regulations, effective inter-agency coordination and cooperation, and active community participation. These three factors reinforce one another to enhance the effectiveness of prevention, early detection, and response efforts regarding forest and land fires in Lima Puluh Kota Regency.

2. Inhibiting Factors

a. Limited Number of Personnel

Limited personnel is the primary constraint in implementing policies to mitigate forest and land fires in Lima Puluh Kota Regency. Research findings indicate that the available workforce is insufficient relative to the vast area requiring surveillance and the high risk of fire; consequently, patrols, monitoring, and fire suppression efforts cannot be carried out optimally. When fires break out in multiple locations simultaneously, personnel must prioritize their response actions and require support from the Regional Disaster Management Agency (BPBD), the military (TNI), the police (Polri), volunteers, and the community. Ultimately, this personnel shortage impacts response speed and the effectiveness of mitigation efforts, particularly during the dry season when fire risks escalate.

b. Inadequacy of Facilities and Infrastructure

Inadequate facilities and infrastructure hinder the implementation of forest and land fire mitigation policies in Lima Puluh Kota Regency. Research findings indicate that while basic equipment such as operational vehicles, pumps, hoses, and patrol gear is available, the quantity remains insufficient relative to the vast area requiring surveillance. Furthermore, difficult access to fire sites and the absence of command posts in high-risk areas have compromised the effectiveness of response operations. These conditions result in slow personnel response times and suboptimal mitigation efforts in the field.

c. Limited Availability of Firebreaks

Sosioedukasi
JURNAL ILMIAH ILMU PENDIDIKAN DAN SOSIAL
ISSN: 2086-6135 E-ISSN: 2541-612x
Volume 15 No. 3. September 2026 https://ejournal.unibabwi.ac.id/index.php/sosioedukasi/index

The limited availability of firebreaks acts as a constraint on the implementation of forest and land fire mitigation policies in Lima Puluh Kota Regency. Research indicates that firebreaks are currently available only in select high-risk areas and do not yet cover all regions susceptible to fire. Beyond their limited number, the construction of firebreaks proceeds in stages contingent upon budget availability and requires routine maintenance to remain functional. Consequently, fire control efforts continue to rely heavily on patrols, public awareness campaigns, and direct responses from personnel and the community.

d. Low awareness among some members of the public regarding the ban on land burning.

Low public awareness regarding the ban on land burning remains a hindrance to the implementation of forest and land fire mitigation policies in Lima Puluh Kota Regency. Research indicates that some community members burn forests to clear land because the method is perceived as faster, easier, and cheaper, and is driven by long-standing habits. Despite awareness-raising efforts, public understanding of the risks and legal consequences of land burning remains suboptimal. Therefore, sustained educational efforts are required to raise public awareness and prevent forest and land fires.

CONCLUSION

This study concludes that the implementation of forest and land fire (*karhutla*) mitigation policies in Lima Puluh Kota as mandated by Regent Regulation No. 38 of 2018 is fairly effective but remains suboptimal. While primary mitigation activities including public outreach, area patrols, personnel training, and inter-agency synergies have been established, their overall operational impact is constrained by critical resource bottlenecks. Specifically, policy success is hindered by severe personnel shortages, limited patrol coverage, inadequate technical infrastructure and firebreaks, fragmented inter-agency data integration, and persistent local practices of land clearing by burning (Sundari et al., 2022). To transition from reactive measures to an optimal mitigation framework, local policy implications demand strategic reforms, including shifting to dynamic risk-based surveillance during dry seasons, institutionalizing zero-burning practices through active farmer-group empowerment, establishing integrated digital communication protocols between regional agencies, and providing economic incentives for eco-friendly land clearing alternatives (*PLTB*). Finally, this study is limited by its qualitative cross-sectional scope focused solely on Lima Puluh Kota. Future research should employ longitudinal quantitative or mixed-method designs to evaluate long-term policy impacts and conduct comparative analyses across non-peatland regencies to broaden institutional disaster governance models.

REFERENCES

Akbar, P. W., Sobri, K. M., & Putra, R. (2024). Implementasi Kebijakan Pemerintah Daerah Dalam Mitigasi Kebakaran Hutan dan Lahan di Kabupaten Ogan Ilir. *PUBLIKAUMA : Jurnal Ilmu Administrasi Publik UMA*, *12*(2). https://doi.org/https://doi.org/10.31289/publika.v12i2.11613

Ananda, R., Susanto, T., & Maulana, R. (2022). Resource constraints and geographic barriers in regional disaster policy execution. *Journal of Regional Environmental Governance*, 11(2), 115–128.

Andarini, R. N., Hasan, M. A., & Engagement, C. S. (2025). The interplay of community, corporate, and government interests: An analysis of forest and land fires (FLFs) in South Sumatera. *Journal of Interdisciplinary Applied Social Science and Forestry*, 2(2), 88–101.

Ayuningtyas, D. (2018). Analisis Kebijakan Kesehatan : Prinsip dan Aplikasi. In *Jakarta Pers*. Rajawali Pers.

Baird, J., Evans, L., & Luthra, G. (2016). Institutional coordination and jurisdictional overlaps in environmental hazard management. *Environmental Policy and Governance*, *26*(4), 280–294.

Damanik, O., & Rahayu, A. Y. S. (2021). Kolaborasi Pencegahan Kebakaran Hutan dan Lahan di Provinsi Riau Ditinjau Dari Model Tata Kelola Kolaboratif Collaboration on Forest and Land Fire Prevention in Riau Province Viewed from the Collaborative Governance Model. *PUBLIKAUMA: Jurnal Ilmu Administrasi Publik Available*, *9*(2), 44–54. https://doi.org/http://dx.doi.org/10.31289/publika.v9i2.5922

Edwards III, G. C. (1986). *Implementing public policy*. Congressional Quarterly Press.

Fadhillah, A., Pandin, M. G. R., & Koesbardiati, T. (2023). Analyzing Forest and Land Fire Disaster Prevention Programs in Riau Indonesia. *Qubahan Academic Journal*, *3*(4), 198–205. https://doi.org/https://doi.org/10.58429/qaj.v3n4a173

Harahap, R. (2020). Efektivitas kegiatan patroli terpadu dalam verifikasi titik panas sebagai indikator kebakaran hutan dan lahan. *Jurnal Sylva Lestari*, 3(1), 103–112.

Hidayat, A. R., Azijah, D. N., & Putri, L. D. M. (2025). Model Kolaborasi Pemerintah dan Komunitas dalam Rehabilitasi Pasca Kebakaran Hutan di Gunung Tampomas. *SOSMANIORA (Jurnal Ilmu Sosial Dan Humaniora*, *4*(4), 1122–1130. https://doi.org/10.55123/sosmaniora.v4i4.6279

Indrajaya, N., & Suhardiman, C. (2026). Implementasi kebijakan penanggulangan kebakaran hutan dan lahan (Karhutla) di Kota Dumai. *Jurnal Administrasi Pemerintahan Desa*, 7(2), 1–14.

Jaes, L., Rahman, R., Syamsuadi, A., & Syahrier, F. A. (2025). Community Participation in Land and Forest Fire Prevention and Mitigation in Indonesia : A Systematic Literature Review. *Human Sustainable Procedia*, *5*(2), 53–63. https://doi.org/https://doi.org/10.30880/hsp.2025.05.02.006

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.

Nadhira, S., Irwana, D. B., Febrianti, I., & Erlianti, D. (2026). Implementasi Kebijakan Penanggulangan Hutan dan Lahan (Karhutla) di Kota Dumai Kebakaran. *Jurnal Administrasi Pemerintahan Desa*, *07*(02), 1–14. https://doi.org/https://doi.org/10.47134/villages.v7i2.434

Nicha, A., & Mashur, D. (2024). *Implementasi Kebijakan Pencegahan Kebakaran Hutan dan Lahan di Kecamatan Rokan IV Koto Kabupaten Rokan Hulu*. Jurnal Pendidikan Tambusai. https://doi.org/https://doi.org/10.31004/jptam.v8i1.12696

Panggabean, M., Marwoto, & Muryunika, R. (2025). Upaya pencegahan kebakaran hutan dan lahan melalui pola pemberdayaan masyarakat pada kegiatan Manggala Agni DAOPS Sumatera IX/Jambi City. *Sylva: Jurnal Penelitian Ilmu-Ilmu Kehutanan*, 14(2), 53–65.

Sundari, C., Purnomo, E. P., & Fathani, A. T. (2022). Civil society participation model : forest and land fire prevention policy in Jambi Province. *Journal of Natural Resources and Environmental Management*, *12*(4), 669–678. https://doi.org/http://dx.doi.org/10.29244/jpsl.12.4.669–678ipb.ac.id/index.php/jpsl Civil

Susanto, D. (2020). Implementasi kebijakan restorasi gambut dari perspektif komunikasi kebijakan. *Jurnal Kebijakan Publik dan Administrasi*, 8(2), 145–158.

Utomo, B., Yuniarti, E., Azmi, H. N., Charmyllia, & Utami, G. D. (2026). Pola Spasio-Temporal Kebakaran Hutan dan Lahan: Strategi Kota Tangguh Berbasis Mitigasi Bencana dan Tata Kelola Lahan di Kota Terpadu Mandiri. *Indonesian Journal of Environment and Disaster*, *5*(1). https://doi.org/https://doi.org/10.20961/ijed.v5i1.2665

Wibowo, A. (2019). Improving forest fire mitigation in Indonesia: Challenges in institutional coordination and infrastructure. *Journal of Wilderness and Environmental Land Use*, 12(1), 45–59.

Yahusafat, M. M., Indrayani, E., & Kusworo. (2020). Implementasi kebijakan pencegahan dan pengendalian kebakaran hutan dan lahan di kawasan hutan oleh BPBD. *Visione: Jurnal Pemerintah Daerah Di Indonesia*, 12(4), 210–225.

Yenni, M., Sugiarto, & Epralia, R. M. (2022). Community Efforts in Fire Disaster Mitigation in Jelutung District , Jambi Province. *Jurnal Presipitasi*, *19*(3), 589–598. https://doi.org/https://doi.org/10.14710/presipitasi.v19i3.589-598

Yusuf, R. M. (2021). *Implementasi kebijakan pencegahan dan penanggulangan kebakaran hutan dan lahan di wilayah perkotaan/daerah*. IPDN Press.

Zulkifli, A., Harrison, M., & Humas, K. L. H. K. (2021). Policy evolution and field operations in Indonesian forest fire management. *CABI Digital Library Paper Series*, 2021, 1–15.