

FROM *SIMBOER TJAJAJA* TO THE REGIONAL POLICE EDICT: DOES IT MITIGATE THE RISK OF FOREST AND LAND FIRES IN SOUTH SUMATRA PROVINCE, INDONESIA?

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Abstract

Uncontrolled forest and land fires (FLFs) in Indonesia pose significant economic, health, conservation, and climate change risks. FLFs' control should be in place prior to the occurrence of an incident in order to minimize occurrences and mitigate impacts. The current research seeks to describe how regulations prohibiting forest burning have evolved over time and whether they are effective in reducing the risk of forest and land fires. The research findings indicate that current legal policies related to forest and land fires, as outlined in Regional Police Edict, are less effective in controlling such fires compared to the Simboer Tjahaya Law, which was highly institutionalized in its time. The internalization of local wisdom and local knowledge in policy formulation is crucial to ensuring that the policies can be implemented at the grassroots level. This way, the policies can become institutionalized at the grassroots level.

Keywords: Fire Control, Legal Policy, Local Knowledge.

1. BACKGROUND

Forest and land fires (FLFs) in Indonesia have been a recurring issue over the past three decades. Large-scale forest fires occurred in the early 1980s when logging concessions (HPH) were granted to private entities, especially in Kalimantan and Sumatra. The frequency and extent of forest fires increased over time, with major incidents recorded in 1987, 1991, 1994, and 1997/1998 (Dennis, 1999). Uncontrolled FLFs pose significant economic, health, conservation, and climate change challenges. The World Bank (2016) reported losses worth IDR 221 trillion to fires in 2015. The 2015 forest and land fires were the most extensive in Indonesia, with the World Bank estimating the total economic damage and losses in 2019 to be over US\$ 5.2 billion or approximately IDR 73 trillion, equivalent to 0.5% of Indonesia's gross domestic product (GDP) (World Bank, 2019).

South Sumatra is one of the provinces that experience fires almost every year, especially during the dry season. Ardiansyah et al. (2017) estimated that the forest fires in South Sumatra from

July to December 2015 affected 422,718 hectares, with 163,143 hectares on mineral soil and 260,575 hectares on peatlands. Massive forest and land fires recurred in 2019, with data from the Ministry of Environment and Forestry (MoEF) indicating that the burned land area in Indonesia in 2019 exceeded that of 2015, reaching 1,649,258 hectares, and South Sumatra being the most affected, with 336,798 hectares affected by the inferno (MoEF, 2023).

Various efforts have been made to control FLFs, including technical measures (fuel and fire management) and non-technical measures (institutional measures, law enforcement, social engineering) related to human factors as the trigger of fires. Overall, government efforts have been performed in a top-down manner and have yet to optimally involve all stakeholders, leading to ineffective fire control and recurring fires each dry season (Antika & Handoko, 2021; Purnomo et al., 2021; Sayendri, 2016).

Research on the implementation of FLF control policies indicates numerous issues in the field due to weak coordination among stakeholders. Weak coordination in policy implementation has been identified as a factor contributing to suboptimal FLF control performance (Budiningsih, 2017; Budiningsih et al., 2022; Friskarini & Kasnodihardjo, 2013; Sarah, 2021; Wardoyo et al., 2017).

The policy banning forest burning is a key step in FLF control, with Indonesia prohibiting land and forest burning. Stringent regulatory policies mainly target two different groups that frequently use fire in their activities: companies (i.e., timber and food crop plantations) and individual village residents and farmers. Weak enforcement of environmental regulations has contributed to the continuous occurrence of fires in Indonesia (Chander, 2017; Chisholm et al., 2016; Fatah & Udiansyah, 2010; Gupta et al., 2019). Additionally, existing policies related to FLFs are seen as insufficiently incorporating the local wisdom and local knowledge of communities, resulting in less effective on-the-ground implementation.

This research describes the evolution of regulations prohibiting forest burning from the past to the present and assesses their effectiveness in reducing the risk of FLFs.

2. METHODS

This research employed a qualitative investigative approach, by which data in a sensitive natural environment were collected, involving individuals and locations under study, coupled with inductive and deductive data analysis (Creswell & Poth, 2018). We utilized two approaches to examine the process of FLF control in the community. The first approach was to examine legal documents, while the second focused on the steps in the FLF enforcement process. We conducted one-on-one semi-structured interviews, in-depth interviews, focus group discussions, and field observations. The in-depth qualitative approach enabled a more sensitive investigation that encouraged more honest responses. In addition, the snowball method was applied to identify interviewees. Field research was conducted from March 2023 to May 2023.

This study focused on Ogan Komering Ilir Regency and Banyuasin Regency in the province of South Sumatra, which are high-risk areas for fires and priority locations for peat restoration in Indonesia. Peatlands vulnerable to fires in these regions have experienced significant FLF incidents for years. The selection criteria for regencies and villages included significant peatlands, recurring fires, a combination of landscape management, and accessibility.

3. RESULTS

3.1 Oendang-Oendang Simboer Tjahaja

The Simbur Cahaya Law (abbreviated as UUSC) is a law that governs the relationships among residents in the upstream area of Palembang. UUSC emerged in the second decade of the 17th century when Palembang still existed as a kingdom, specifically during the reign of Sido Ing Kenayan (1629–1636). UUSC is also known as the Law of Queen Sinuhun. Queen Sinuhun was the wife of King Sido Ing Kenayan, known for her intelligence. It is mentioned that the queen herself designed and created the "Law of Queen Sinuhun." Queen Sinuhun's influence remains strong in the Palembang region to this day, and mentioning her name is met with great respect. This indicates the lasting impact of Queen Sinuhun on the hearts of the people of South Sumatra, extending even to the Bengkulu region ("Oendang-oendang Simboer..." 1892:3; Veth 1869: 265). Therefore, the following question arises: "Why is UUSC so strictly adhered to, and what is its content?" (Farida & Hasan, 2012).

This law had been continuously applied since the time of the kingdom and sultanate, through the Dutch colonial rule, the early days of independence, the enactment of Dutch colonial regulations, and the early days of independence, until the Government Regulation Number 5 of 1979 came into effect. The Government Regulation Number 5 of 1979 marked the abolition of the customary legal system in Indonesia. Although used continuously, the law saw some changes. The first change occurred when the form of governance transitioned from a kingdom to a sultanate. This change was influenced by territorial expansion, including the inclusion of the Bangka-Belitung Islands and others. At that time, the law was known as the *Sindang Marga* Law. After the Palembang Sultanate was abolished in 1824, the Dutch colonial administration also modified the law according to their needs. The parts related to governance were removed, while those pertaining to customary law were retained. Initially, UUSC was written in the Arabic Malay script. It was first printed in its original script in 1897, and then in January 1939, it was printed in the Latin alphabet (Hanifah, 1994).

The Oendang-Oendang Simboer Tjahaja book (UUSC book) is a combination of customary law and Islamic teachings. It is believed to be a written law based on Islamic *sharia*, first applied to the people of the archipelago, especially in South Sumatra. UUSC also teaches harmony with the natural environment, the socio-cultural environment, and religious principles. Textually, the book, published by "Typ.

Industreele Mlj. Palembang, 1922," consists of 5 parts (Fig. 1)

- Part I: Customs of Bachelors, Bachelorettes, and Marriage (32 articles)
- Part II: Rules of Marga (29 articles)
- Part III: Rules of Hamlet and Farming (32 articles)
- Part IV: Rules of Kaum (19 articles)
- Part V: Customs of Punishment (64 articles)

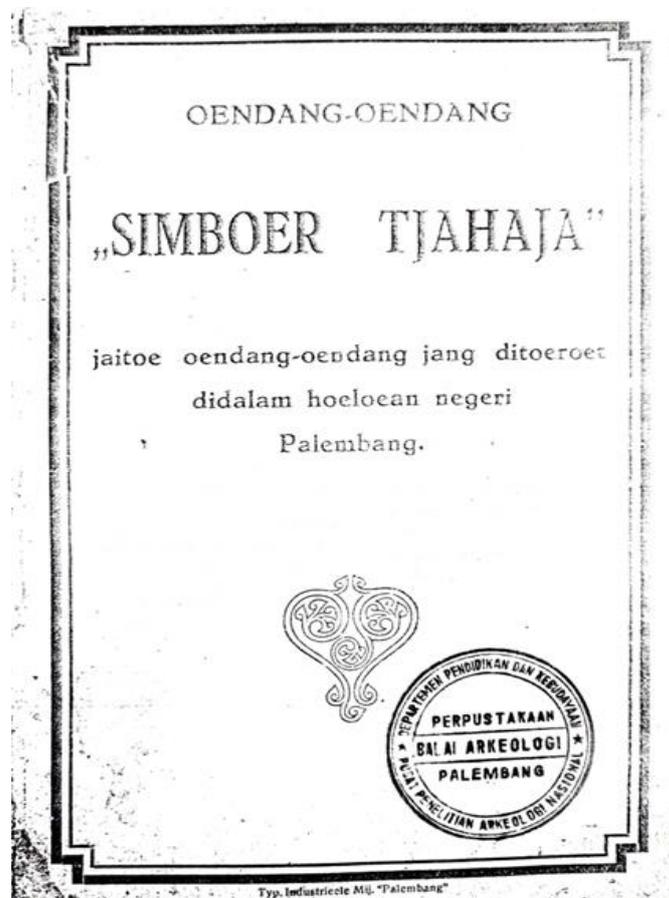


Figure 1: Cover of the UUSC Book

The institutionalization of UUSC in society used to be robust because it contains clear and detailed rules down to the village (hamlet) level. UUSC initially represented unwritten customary rules that were already in effect in society. Therefore, when UUSC was written as a positive law, there was no rejection from the community, and people complied with the law. Nasution & Taupiqurrahman (2020) state that law enforcement against a head of family who deviates or violates the custom on the burning of forests can be carried out by the indigenous community using local wisdom. Positive law enforcement is carried out when the indigenous community has not yet imposed customary criminal sanctions against the said head of family.

Article 1 Paragraph 30 of Law Number 32 of 2009 on Environmental Protection and Management states that local wisdom refers to the noble values that apply in the community's way of life to, among other things, protect and sustainably manage the environment. In this law, the principle of local wisdom in environmental management in Indonesia is introduced; in efforts to protect and manage the environment, attention must be paid to the noble values that apply to the community's way of life.

Local knowledge is unique knowledge limited to a specific culture or community, also known as folk knowledge, folk wisdom, traditional wisdom, or traditional knowledge. This knowledge is generated and transmitted by the community over time in an effort to address its own agroecological and socio-economic environments (Fernandez, 1994). Meanwhile, Geertz (1983) defines local knowledge as knowledge locally held by the local community, a cultural system that makes sense to people who share communal sensitivities.

3.2. The Regional Police Edict

In the wake of the FLF incidents in 2015, the provincial government of South Sumatra issued Regional Regulation No. 8 on the Control of Forest and Land Fires in 2016. This regulation outlines the efforts for the prevention, mitigation, handling, and supervision of FLFs. In 2017, efforts to prevent FLFs were intensified in preparation for the Asian Games 2018. For the first time that year, there was a Joint Edict from the Governor of South Sumatra, the Chief of Police, and the Commander of Military Regional Command II/Sriwijaya regarding the prohibition of forest and land burning or burning of grass. Especially in 2018, the government's efforts to prevent FLFs were extraordinary. In that year, the community took pride in hosting an international event. For the people, the event was a source of pride and served as the "face" of Indonesia, especially South Sumatra. Since then, FLF edicts have been issued every year to anticipate FLF incidents.

In 2020, edict was issued only by the regional police, while joint edict was jointly issued by the Minister of Environment and Forestry and the Indonesian National Police. Starting from 2023, FLF perpetrators are threatened by two additional articles in Government Regulation in Lieu of Law No. 2 of 2022 on Job Creation (Fig. 2). However, field studies found that this edict has been hardly effective in reducing FLF incidents. This was evident in 2023 when large-scale forest fires occurred again in the province of South Sumatra. Criminalizing fires in landscapes can hinder conservation efforts, and the addressing of the main causes of deforestation can be ineffective. Therefore, an approach based on local perspectives and practices, coupled with the implementation of alternative strategies for sustainable land management, is needed. Additionally, the necessity of partnering with local farmers and performing monitoring and evaluative interventions to support evidence-based decision-making is highlighted (Carmenta et al., 2019).

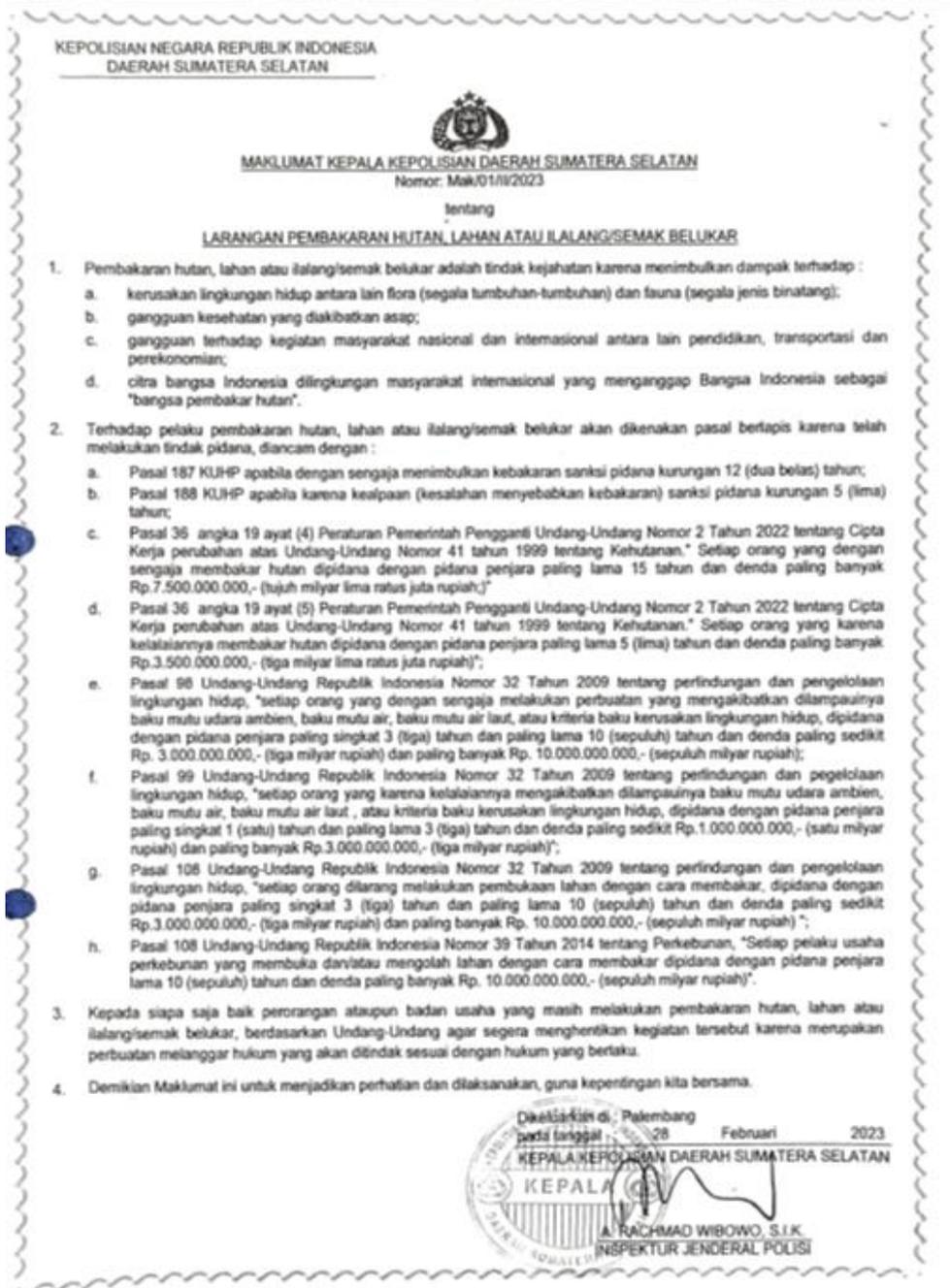


Figure 2: South Sumatra Region of the Indonesian National Police Edict 2023

The content of the Regional Police Edict (Maklumat Polda) remains consistent from year to year, containing threats of punishment from various laws related to FLFs in Indonesia.

The edict includes layered sanctions for intentional and unintentional acts of burning forests and land based on eight different laws:

1. Article 187 of the Criminal Code (KUHP): a sentence of imprisonment of 12 years for intentional acts
2. Article 188 of the Criminal Code (KUHP): a sentence of imprisonment of 5 years for unintentional acts
3. Article 36 Paragraph 19 (4) of Government Regulation in Lieu of Law No. 2 of 2022: a sentence of imprisonment of 15 years and a maximum fine of IDR 7.5 billion for intentional acts
4. Article 36 Paragraph 19 (4) of Government Regulation in Lieu of Law No. 2 of 2022: a sentence of imprisonment of 5 years and a maximum fine of IDR 3.5 billion for negligence
5. Article 98 of Law No. 32 of 2009: a sentence of imprisonment of a minimum of 3 years and a maximum of 10 years, with a minimum fine of IDR 3 billion
6. Article 99 of Law No. 32 of 2009: a sentence of imprisonment of a minimum of 1 year and a maximum of 3 years, with a minimum fine of IDR 1 billion
7. Article 108 of Law No. 32 of 2009: a sentence of imprisonment of a minimum of 3 years and a maximum of 10 years, with a minimum fine of IDR 3 billion and a maximum fine of IDR 10 billion
8. Article 108 of Law No. 39 of 2014: a sentence of imprisonment of 10 years and a fine of IDR 10 billion

Information dissemination efforts by various parties, including the government, the police, and the military, have been suboptimal and mainly occur at the beginning of the dry season. Based on interviews with the community, the existence of such edict is seen as more of a scare tactic and is not effective in reducing FLF incidents.

"Information dissemination is usually done toward the start of the dry season, around March. No information is disseminated during the wet months, and those legal leaflets are just for intimidation." (PD - 63 years old, villager)

Currently, FLF prevention relies solely on dissemination of information to the community about the burning ban without any substitute solution. According to Budiningsih (2017), prevention efforts should focus on ensuring that fires are not ignited, or that small fires can be extinguished before they spread uncontrollably. Thus, the existence of FLF control institutions at the field level becomes crucial. These institutions play a role in preventing fires from starting or in early response to small fires. Presidential Instruction Number 11 of 2015 on the Enhancement of Forest and Land Fire Control instructs leaders of institutions and regional leaders to enhance FLF control through FLF prevention, FLF extinguishment, and post-FLF handling. It also instructs cooperation and coordination in implementing FLF control, enhancing community and stakeholder participation in FLF control activities.

3.3. The Local Wisdom of the South Sumatra Community in Land Clearing

Marfai (2013) argues that local wisdom can be described as the embodiment of values, perceptions, attitudes, behaviors, and responses demonstrated by a particular community when engaging with the natural world and the environment. It consists of shared knowledge, understanding, and intelligence that significantly influence the ability to face life's challenges and make appropriate decisions. Local wisdom plays a crucial role in preserving the natural environment and ensuring the long-term sustainability of community resources, meeting the needs of successive generations without endangering those resources (Theresia, 2014).

Based on the content of UUSC, it is evident that people in the past were already very careful in considering the activities of opening fields by burning to avoid causing losses or natural disasters. The methods, rules, and sanctions were already outlined in UUSC. UUSC already regulates procedures, sanctions, and behaviors related to land clearing, emphasizing the need for caution to prevent fires in other areas (Fig. 3). In Chapter III, Article 20, it is stated:

“Djika orang membakar ladang lantas orang lain poenja tandoeran seperti doerian kelapa soeroe atau lain-lain moetoeng sebab orang jang bakar ladang koerang djaga maka itoe orang kena denda dari anem ringgit sampai doea belas ringgit dan kena ganti tandoeran yang meotoeng dengan harga jang patoet. Dan denda dibahagi doea sebahagi poelang pada jang poenja tandoeran dan sebahagi pada proatin-proatin” (local language)

”If someone burns land and other people's plants such as durian trees, coconut trees, etc., also if the burning is due to the negligence of the person who burns the land, then that person will be fined a minimum of 6 ringgits, a maximum of 12 ringgits, and a compensation for the burned plants at the appropriate price, and the fine is divided in half, partly for those who own the plants and partly for the village head.” (English translation)

In the province of South Sumatra, the local culture of burning land with controlled burning, known as "*mandok*," has long been practiced by the community before the enforcement of the prohibition of using fire in land preparation (land clearing). UUSC regulates how the community should burn the land to prevent the fire from spreading to adjacent gardens, that is, by providing "*kekas*", which literally means firebreak. Article 21 of UUSC states:

“Dan djika orang toenoe ladang dekat orang lain poenja keboen serta kekasnja sudah terbuat atas kepatoetat orang jang poenja keboen makan keboen itoe lantas hangus joega tiada (e) ada yang diganti oleh orang jang toenoe ladang” (local language)

“If someone burns land near another person's land and the firebreaks were well-established with the approval of that person, then if the land is also affected and burned, the person who initiated the burning does not need to compensate for the damage.” (English translation)

بند لادغ دئوئوگه باتغ هاري باتغ
 کايو بئ دوييکن سبله دارة تياد
 بوله دوييکنپ ددالم باتغ هاري
 سيات ائوون ايت کنا دندا
 در ساتو سئمي انه رشگت*

Fatsal 20.

Djika orang membakar ladang
 lantas orang lain poenja tandoeran
 seperti doerian kelapa soeroe atau
 lain-lain moetoeng sebab orang
 jang bakar ladang koerang djaga
 maka orang itoe kena denda dari
 anem (d) sampai doea belas ring-
 git dan kena ganti tandoeran
 jang moetoeng dengan harga jang
 patoet dan denda dibahagi doea,
 sebahagi poelang pada jang poe-
 nja tandoeran dan sebahagi pada
 peroatin-peroatin.

Fatsal 21.

Dan djika orang toenoe ladang
 dekat orang lain poenja keboen
 serta-kekasnja soedah terboeat
 atas kepatoetan orang jang poe-
 nja keboen maka keboen itoe
 lantas hangoes djoega tiada (e)
 ada jang diganti oleh orang jang
 toenoe ladang.

Fatsal 22.

Dari kerbau malam hendak di
 kendangi dan siang boleh dilepas-
 kan (a) akan tetapi orang jang

(d) A. voegt bij; ringgit.
 (e) In A. ontbr. ada.
 (a) In A. ontbr. akan kerbaunja.

فصل ۲۰
 جيڪ اوزغ ميمباڪر لادغ لنتس
 اوزغ لائين ئون تئدورن سئوئي
 درين کلاف سوزو اتو لائين*
 موع سب اوزغ بئ باڪر لادغ
 کوزغ جاگ مک اوزغ ايت کنا
 دندا داري انه (d) سئمي دوا
 سئس رشگت دان کنا گنتي
 تئدور بئ موع دغن هري بئ
 تئست دان دندا ديهائي دوا
 سبئائي نولغ ئد بئ ئوپ تئدورن
 دان سبئائي ئد ترواتن*۳

فصل ۲۱

دان جيڪ اوزغ تونو لادغ دکت
 اوزغ لائين ئوپ کين سرة ککسب
 سرة ترواة اتس کئوتون اوزغ بئ
 ئوپ کين مک کين ايت لنتس
 هئس جيک تياد (e) اد بئ دگنتي
 اوئه اوزغ بئ تونو لادغ*

فصل ۲۲

در کوبو مالم هندق دکندي
 دان سب بوله دئسکن (a) اکن
 تئدئي اوزغ بئ ئوپ کوبو نغغغ
 رشگت A. voegt bij. (d)
 In A. ontbr. (e)
 اکن In A. ontbr. (a) کوبو

Figure 3: UUSC Article 20 and Article 21

Until now, rural communities (villagers) still recognize the term "mandok" (clearing land by burning) with the use of "kekas" (firebreaks). Basically, the culture of burning land is deeply rooted in the community, making it very difficult to enforce a "zero-burning" prohibition in land preparation. It is the hope of the community that burning as a customary practice that has been passed down through generations may still be preserved. Therefore, it is a matter of accommodating the community's habits into contemporary law. Based on interviews, it is suggested that modern law should incorporate the existing local values in the community.

"Customary law is the community's repeated and inherited habit. We already have customary legal rules, both written and unwritten, related to land clearing. So, how can these laws now be applied in line with modern law?" (AR - 48 years old, villager)

Currently, communities still engage in burning in very small quantities and, discreetly, waiting for no authorities, as there is no better alternative technology than fire (Waluyo et al., 2020). In fact, this practice is prohibited under Law Number 32 of 2009 on Environmental Protection and Management. However, implementation in the field is very difficult due to conflicting policies that strictly prohibit burning. If one is caught burning, strict legal sanctions will be imposed. Article 69 Paragraph 1 (h) states that any person is prohibited from clearing land by burning, while Article 9 Paragraph 2 states that the provision referred to in Paragraph 1 (h) takes into account, with due regard, the local wisdom in his/her region.

In the explanation of Article 69 Paragraph 2, the local wisdom referred to in this provision is the practice of burning land with a maximum land area of 2 hectares per household for planting locally adapted crop varieties, surrounded by a firebreak to prevent the spread of fire to surrounding areas.

4. DISCUSSION

The local wisdom passed down by ancestors from hundreds of years ago guides for the constant coexistence of humans and their surrounding nature. The relationship, known as an ecocentric paradigm, indicates no discrimination against humans, animals, plants, and all other living beings. All human behavior should be in harmony with nature. Everyone should protect each other, not destroy each other. Evidence supporting this ecocentric paradigm is found in the UUSC book, which was applicable in South Sumatra during the Palembang Kingdom era. This book is believed to combine Islamic teachings with customary law with a profound concern for nature. Although it was created centuries ago, UUSC can still be applied with some adaptation to current conditions.

Rules for farming and the prohibition of using fire in land management are specifically outlined in this legal code. Institutionally, UUSC regulates in detail who is responsible for what in relation to land and forest fires. In Chapter 3 regarding "*atoeran doesoan dan berladang*" (village and farming rules), legal institutions are expounded down to the lowest level, showing a clear distribution of authority. Local communities have developed their techniques and rituals for land clearing and fire management, which have proven effective in reducing fire incidents (Elbaar, 2020; Witasari, 2022).

UUSC is a combination of customary rules that were already in place in South Sumatran society. However, there were some differences between one place and another. When this law was applied in the territory of the Sultanate of Palembang, it was clearly written who had the authority to enforce it. The enforcement of this law extended down to the village level, regulating all components, thus avoiding confusion and bewilderment among community members at that time. Local wisdom plays a crucial role in modern land and forest fire laws, aiding in prevention and control by incorporating traditional knowledge and practices (Berkat

& A., 2020; Helmi et al., 2020; Syaufina & Tambunan, 2013).

In contrast to UUSC, which has internalized existing customary rules, the Regional Police Edict contains legal threats for intentional and unintentional land-burning actions. It is only posted in the homes of village heads and public places. Therefore, the existence of this directive is less effective in reducing FLF incidents. In 2023, large-scale forest and land fires occurred again in Indonesia, with South Sumatra being the most affected. The reported burned forest area in Indonesia until October was 994,313.14 hectares, and South Sumatra accounted for 109,460.67 hectares of burned forest (MoEF, 2023). Acemoglu (2017) explains that laws conflicting with existing social norms can lead to more legal violations because individuals are less likely to cooperate with law enforcement.

Coordination in controlling FLFs has so far involved government agencies without the inclusion of other actors, such as the community, especially traditional leaders and companies. Coordination is defined as working together harmoniously, indicated by ongoing government movements from the province to the village in preventing and tackling fires. It is therefore important that local governments should have a grand design for FLF prevention (Budiningsih, 2017). Nurhidayah & Djalante (2017) add that there is a need for stronger regulations, better coordination, and increased funding and resources for fire suppression and rehabilitation efforts.

Challenges in integrating local wisdom into legal frameworks include the lack of strict rules and regulations to support community-based forest management. To address this issue, appropriate policies and legal protection are needed to recognize and support locally wise forest management. Overall, local wisdom serves as a valuable resource for sustainable forest and land fire management, and its integration into modern law can contribute to better conservation practices and utilization.

5. CONCLUSION

The awareness to uplift and rediscover local knowledge is necessary to balance the socio-economic progress of communities, accompanied by various environmental issues. In South Sumatra, the local culture of burning land for land preparation, known as "*mandok*", has evolved since ancient times. People of this region also use a firebreak called "*kekas*" to prevent the fire from spreading uncontrollably. If the fire causes harm to others, legal sanctions applicable at that time are imposed. Internalizing local wisdom and local knowledge in the formulation of legal policies is crucial so that these policies can be implemented at the grassroots level. This way, the policies can be institutionalized at the grassroots level.

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Declaration of Interest Statement

The authors declare that there is no conflict of interest.

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