



The Role of Transglobal Leadership for Forest and Land Fire Control in Riau Province

Afni Z^a, Soleh Suryadi^b, Yaya Mulyana Abdul Azis^c, Bambang Heru Purwanto^d, ^{a,b,c,d}Universitas Pasundan, Email: ^aafni131028@gmail.com,
^bsuryadisoleh@gmail.com, ^cmulyana_yaya@yahoo.com,
^dbambangherupurwanto@ymail.com

This research is based on the recurring problem occurrence of karhutla (Karhutla) in Indonesia, although there have been many leadership changes at the national and regional levels. This is caused by many factors, such as the weak aspects of the organisational and operational control of Karhutla, from the central to local government level. One factor is the leadership aspect at every level of government. The research method used is descriptive qualitative and aims to understand the problems and social conditions related to the role of transglobal leadership in controlling Karhutla in Indonesia. Data collection is through observations, interviews, and documentation. This study uses operational parameters that function as indicators of control performance. The control referred to in this study is stipulated in the Minister of Environment and Forestry Regulation Number 32 of 2016, which covers the process of organising and operating the karhutla control. Forestry forest control organisations (Dalkarhutla) include the National Government, Provincial Governments, and Regency / City Governments. Whereas Dalkarhutla's operations cover the planning, prevention, post-fire, work coordination, and preparedness status. The operational parameters of the research will refer to five characteristics of transglobal leadership, namely uncertainty resilience, team connectivity, pragmatic flexibility, perspective responsiveness, and talent orientation. The results showed that: 1. Leaders at each level of Dalkarhutla's work organisation made different efforts and approaches in overcoming the recurrent occurrence of karhutla due to the complexity of the problem, thus affecting the achievement of control work. 2. Characteristics of transglobal leadership play an important role in forestry control as the Minister of Environment and Forestry Regulation No. 32 of 2016. However, the characteristics of transglobal leadership are still unable to overcome the problems of karhutlas, especially at the provincial and district levels because they are not



shared by all leaders in the regions. For this reason, similar to the theory of Transglobal leadership from Linda Sharkey et al, it is necessary that the delegation of authority and community participation, both of which are in the fire landscape approach, are present so that karhutla control is consistent and effective at all levels of government, especially in vulnerable areas such as Riau Province.

Key words: *Leadership, Transglobal, Forest and Forest Control.*

Introduction

World population growth has put pressure on natural resources including air, water, land, and biodiversity. The development progress of a country like Indonesia cannot ignore the increasing population and the resulting needs. The economic, industrial, residential and other facilities require land clearing.

Large land clearing is one of the causes of karhutla (Karhutla) which routinely occur almost every year in Indonesia. Saharjo (2016: 5) said that Karhutla occurs because of human actions, ranging from unsustainable forest management to cultivators who normally clear land by burning.

Also said by Saharjo (2016: 6) forest fires occur due to changes in community behaviour and government policies. In general, the activities causing karhutla are the transfer of functions to other uses and the massive industrialisation of oil palm plantations on peatlands.

Karhutla that have occurred in Indonesia have a long dark history and the majority is difficult to extinguish when originating from peat areas. Based on the 2015 Karhutla indicative map, data on the area of burnt area based on interpretation of satellite imagery, reached up to 2.5 million hectares. There was an occurrence over 1.7 million hectares in the mineral area and 869 thousand hectares in peatlands. The burned area of 230 thousand hectares spread over 108 IUPHHK-HTI.

Although various regulations have been issued by many successive leaders, threats to karhutla-prone areas are still high. The impact of forest fires in peatlands includes the loss and destruction of wildlife habitats, increases greenhouse gas emissions that cause climate change, disturbances to human health, and harms to the national economy.

Karhutla in Indonesia have attracted global attention since the devastating fires of 1982/83 and 1997/1998. Significant karhutla occurred again in 2007, 2012 and 2015, causing transboundary haze pollution in the ASEAN region, thus attracting even more global attention.



In the context of this study, commitment and implementation of global agreements related to climate change cannot be separated from the dynamics of the changing focus of public administration.

Akira Iida, as Nugroho (2009: 381) described public policy in developing countries as a 'conflict' between global interests and domestic interests. The public policy itself is theoretically within the scope of public administration.

The public policy in controlling karhutlas, has been regulated in article 2 of LHK Regulation number 32 of 2016, covering business/activity/organising actions, management of human resources and infrastructure as well as preventive, suppression, post-fire handling, evacuation support and rescue, and support management of forest and/or land fire control.

Koesnadi Hardjasoemantri (1993: 7) said that decision-making in the environmental field often includes issues that are very complex and technical in nature. Therefore, a combination of external promoters and dedicated local people is needed so that the formation of groups or community organisations can be more effective (Bebbington, Merrill-Sands, & Farrington, 1994; Fisher, 2019; Melro & Oliveira, 2019; Stott, Fava, & Slawinski, 2019).

The effectiveness of this policy cannot be separated from Indonesia's important position in handling the impacts of climate change. The issue of climate change has become one importance in Indonesia's national development planning. The Government Work Plan (RKP) 2018 has included environmental insights and climate change in each work program in all Ministries and Institutions (K / L). The goal is that in every program activity in each K / L, also in the Regional Government, must understand the impact of climate change and be able to respond to it, especially in each sector. Because the Government of Indonesia has set a target of 26% reduction in carbon emissions from business as usual (BAU) or with its efforts and 41% with international assistance.

Globalisation brings changes in the dynamics of community, national and state life. Karhutla is a global environmental disaster because of its impact that can result in cross-border smoke. Therefore, various forms of public policy have been issued within the framework of forest management and control.

Public policy as stated by Solichin (2015: 100) is a response to any political action taken by the government at all levels in addressing a problem that occurs in the context or political environment.



Theoretically, the realm of public policy is within the scope of public administration, which plays a vital and strategic role for the survival of the life of the nation and state. One input that plays a major role in the process of public administration is leadership.

The need for leadership in the public sector is greater than before. One of the challenges is in handling the issue of climate change and this discussion has crossed borders and passed the level of government, sector, community and between Nations. Therefore, it takes a leadership style that can cross these limits with all its dynamics.

From the results of the study of Sharkey, et al (2012: 109) about theoretical problems regarding transactional and transformational leadership, he still explained in local type leadership. In the early development, a leadership style emerged in a form (local version) that was not able to reach global issues. Therefore, Sharkey et al initiated a more global type of leadership, also known as transglobal leadership. Transglobal leadership is leadership that influences across cultural and state boundaries, is universal and contributes greatly to the human spirit that changes human civilization.

Sharkey (2012: 122) explained that transglobal leaders have five main characteristics: resilience to uncertainty, team connectivity, pragmatic flexibility, perceptive responsiveness, and talent orientation.

Concerning handling and controlling karhutlas, LHK Minister Regulation No. 32 of 2016 has been issued control of karhutlas, including prevention, suppression, post-forestry handling, evacuation and rescue support, and management support. From previous studies, there is still no specific comprehensive review of the role of transglobal leadership in handling karhutla in Indonesia, The study of the extent to which the characteristics of transglobal leadership behaviour plays a role in controlling karhutla in Indonesia is expected to be a new type of study.

From the discussion above and related to the theory of public administration in general, namely the theory of global governance and the theory of organisation and management, research is needed. The focus of this research is to examine the role of transglobal leadership in controlling karhutlas.

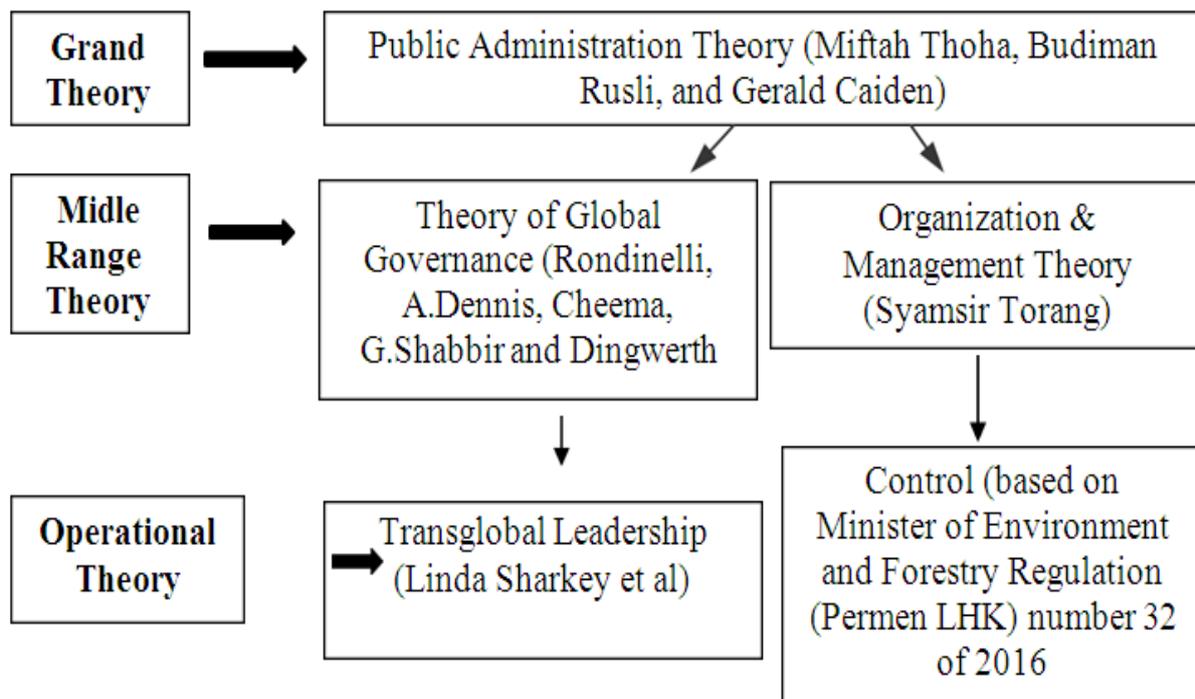
The formulation of the problem in this study was raised in the research question, to find out how the efforts of leaders at each level as well as their achievements in Dalkarhutla, and how the role of transglobal leadership for controlling karhutla is based on the Minister of Environment and Forestry Regulation No. 32 of 2016. The research is focused on Riau Province as a vulnerable area as regularly experiencing karhutla in Indonesia.

Related to the above problem, the researcher is interested in conducting deeper research and studies, especially on various efforts, achievements and role of leaders by raising the title **“Role of Transglobal Leadership for Control of Forest Fire and Land in Riau Province ”**

Theoretical Thinking Framework

Theories used in conducting this dissertation research are the Public Administration Theory from Miftah (2008), Skinner (1990) as Grand Theory. Theory of Global Governance according to (Levy & Kaplan, 2008), and Theory of Organization and Management according to (Haire, 1959). As for Operational Theory, using Transglobal Leadership Theory according to (Sharkey, Razi, Cooke, & Barge, 2012), and Control Theory according to Minister of Environment and Forestry Regulation (LHK) number 32 of 2016. It can be described as follows:

Figure 1. Theory Diagram



Research Methods

The research method used is descriptive qualitative with a case study approach in Riau Province in order to understand the social issues and conditions related to the role of transglobal leadership in controlling karhutlain in Indonesia. Researchers studies the social situation, including aspects of the place, actors and activities that are integrated. Data collection is done in natural conditions, primary data sources, and data collection techniques are more on



participant observation (Talent Orientation observation), in- depth interviews and documentation. Data analysis in this study comprised of data reduction, data display, and to test the level of credibility and validity of the data researchers used triangulation techniques.

The study uses operational parameters that function as indicators of control performance. Operational parameters will refer to the five characteristics of transglobal leadership, as (Sharkey, Razi, Cooke, & Barge, 2012) theory for controlling karhutlas, as stipulated in PermenLHK number 32 of 2016, will be the initial foundation for asking questions to informants. The five characteristics of transglobal leadership is namely uncertainty resilience, team connectivity, pragmatic flexibility, perceptive responsiveness, and talent orientation. The intended control includes the leadership of the forestry and forestry taskforce units at each level of government, including the efforts/activities/actions of organising and operating the karhutla control. Dalkarhutla includes the level of the (National) Government, Provincial Governments, and Regency / City Governments. Dalkarhutla's operations in this study include work planning, prevention, post-fire, work coordination, and preparedness status.

Research and Discussion Results

1. Efforts of Leaders in Each Level of Work Organisation and Its Achievements in Karhutla Control

The efforts and achievements of leaders to control karhutla can be seen from each level of government, namely the level of government (National), the level of the Provincial Government, and the level of the Regency Government.

A. Efforts to Control Karhutla

A.1. Efforts of leaders at the National Government level

A.1.1. Policy and corrective action of Forest and Karhutla Control

Post 2015 the central government (national) immediately implemented a policy and made various corrective actions in efforts to control karhutla, including:

- Presidential Instruction number 11 of 2015 concerning the Improvement of Karhutla Control.
- Regulation of the Minister of Environment and Forestry number 32/2016 concerning control of Karhutlas. Through this Ministerial Regulation, a new paradigm shift occurs from blackouts to the control system.
- Corrective action on Peat Ecosystem Governance through peat governance arrangements based on PP 71/2014 jo PP 57/2017.
- Early treatment through the status of Karhutla's emergency and preparedness
- Environmental Law Enforcement

- The handling of karhutla begins with the strategy of preventing and implementing three instruments of law enforcement, namely the application of administrative sanctions, criminal law enforcement, and civil law enforcement. Can be seen as follows:

Figure 2. Enforcement of Environmental Law

No	Type of Sanction	Amount of Sanctions				Total
		2015	2016	2017	2018	
Administrative Sanctions		27	130	9	5	171
1	Hold Freeze	16	-	-	-	16
2	Revocation of Permission	3	-	-	-	3
3	Government coercion	8	15	9	5	37
4	Written Strike	-	115	-	-	115
Criminal Law Enforcement (LHK)		1	3	1	6	11
1	P21	-	1	1	1	3
2	Investigation	1	2	-	-	3
3	Pulbaket	-	-	-	5	5
Criminal Law Enforcement (Police / Prosecutors)		32	26	9	4	71
1	Trial	-	3	2	1	6
2	P.21	8	1	-	-	9
3	P.19	-	5	-	-	5
4	Investigation	16	17	7	3	43
5	SP3	8	-	-	-	8
Civil Law Enforcement						11
1	Incracht					3
2	Decision PN/PT					7
3	Lawsuit Making					1

Data source: DG of Gakkum KLHK

- The government conducts a Palm moratorium
- MoU with TNI and Polri
- KLHK cooperates with MUI until the issuance of a fatwa forbids the burning of forests and land deliberately, which causes disasters.



A.1.2. Strengthening Institutional and Human Resources (HR) Dalkarhutla

For the effectiveness and efficiency in controlling karhutla, KLHK as the government leading sector for karhutla's control reinforces internal forestry sector institutions under the Director-General of Climate Change Control.

A.1.3. Strengthening Karhutla's Control

Post-2015 karhutla conservation, strengthening of all aspects are carried out, so that karhutla control can run more effectively and efficiently. Based on article 65 PermenLHK 32/2016, karhutla's control activities at least consist of: Planning, Prevention, Prevention, Prevention of post-fire handling, Coordination of work, and Status of preparedness.

A.2. Efforts of leaders at the Provincial Government level

The Provincial Government is part of the Dalkarhutla referring to the 32/2016 LHK Ministerial Regulation. This organisation is ad hoc, which is called the Provincial Task Force for Handling Karhutlas.

The other efforts were made by the Governor by issuing a policy of permanent procedure for controlling forestry in Riau Province, through Governor Regulation number 61 of 2015. This policy included issuing a circular to the Regent / Mayor regarding the anticipation and early vigilance of potential karhutla, conducting socialisation, coordinating meetings, asking the Regent / Mayor to activate Karhutla command post.

A.3. Efforts of leaders at the District Government level

In this study, there are two Karhutla-prone districts in Riau Province, which are the object of research, namely Karhutla control in Pelalawan Regency and Siak Regency.

A.3.1 Pelalawan Regency

- a. The Regent immediately sets the status of the emergency alert for the disaster in the vulnerable period.
- b. Establishing a Karhutla's Control Command Post and holding a coordination meeting with relevant agencies.
- c. Make an MoU and a joint commitment between the Regional Government, and Forkopimda with Plantation / Forestry Companies in the effort to prevent and combat karhutla.



- d. Dividing the Operations Area for Prevention and Management of Karhutla in each District and Village in the form of Sector / Rayonization of Operations.
- e. Outreach, patrol and carry out blackout operations with joint teams.
- f. Etc. refers to various policies and the availability of assistance (budget and HR) issued by the central government (through Ministries / Institutions) and the Provincial Government.

A.3.2 Siak Regency

- a. Formed six (6) clusters and 7 posts under the Regional Disaster Management Agency (BPBD) of Siak Regency to maximize blackout efforts.
- b. Establishing the Karhutla Emergency Operations Task Force at the Regency, Sub-District and Village level.
- c. Establishing Siak Regent Regulation number 37 of 2014 concerning Karhutla Control.
- d. Budgeting for Karhutla Prevention through the Operational Fund of the Village / Village Sub-Task Force is budgeted at the Village / Village ADD.
- e. Forming a compliance audit team for the Karhutla Siak District, to carry out an audit of facilities and infrastructure as well as the company's readiness in handling karhutla.
- f. Making reservoirs/water reservoirs in karhutla-prone areas far from water sources.
- g. Closing the canal so that the peat stays wet
- h. Making 14 receiveoar spread in 5 Sub-districts (Siak, Tualang, Koto Gasib, Kandis, and Mempura Districts)
- i. Inspecting Damkar equipment at companies in the Regency. Siak related to fire poison retribution
- j. Conduct an MoU between the District government and the company in the context of early prevention and management of karhutlain the District
- k. Collaboration with vertical agencies in the form of GPS assistance for 14 police chiefs to monitor hotspots.
- l. Etc. refers to various policies and the availability of assistance (budget and HR) issued by the central government (through Ministries / Institutions) and the Provincial Government.

B. Achievements in Karhutla Control

Various efforts undertaken both at the Central, Provincial and District Government Task Force levels show various achievements at different scales.

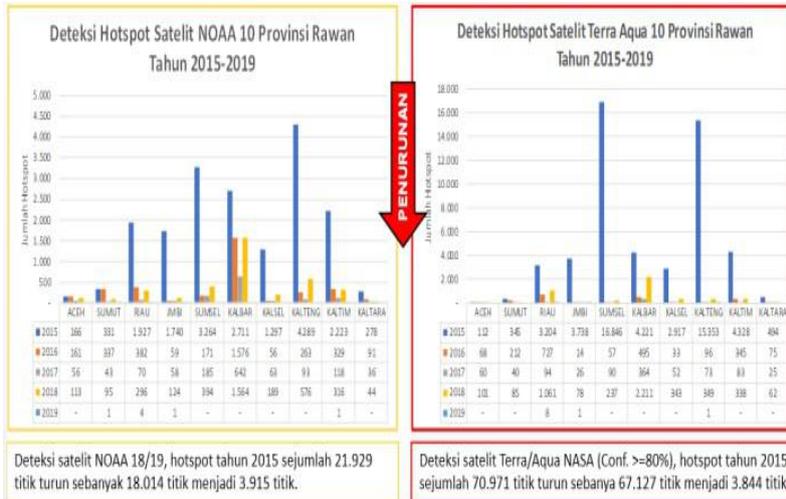
B.1 Forestry and Forest Control Achievement in Indonesia (National)

B.1.1 National Hotspot Reduction

The indicator can be seen from the decrease in hotspots from year to year, and the reduction in the area of burning land, especially peat areas. The decrease in the number of hotspots in 2018

compared to 2015 reached 82.14% (NOAA Satellite) or 94.58% (Terra Aqua Satellite). As the following data:

Figure 3. Hotspot Comparison



Data sampai dengan 31 Desember 2018; sumber : sipongi.menlhk.go.id

Source: DG of PPI KLHK

There has been a reduced number of days of karhutla emergency response status. Even during 2016-2018, Indonesia did not experience Emergency status due to Karhutla. This can be seen as follows:

Figure 4. Number of Days in the Emergency Response Status of Karhutla

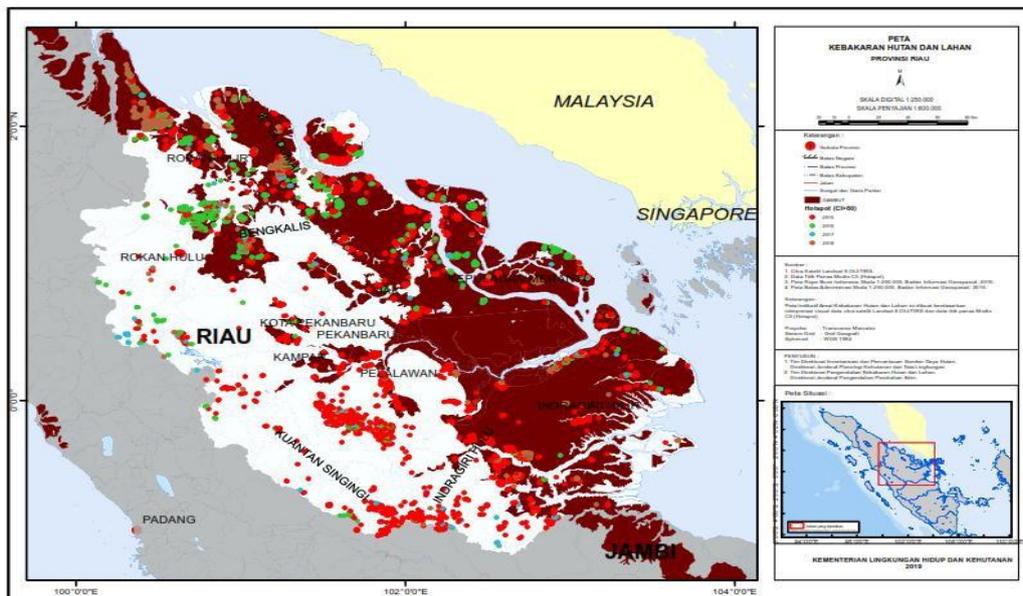
Category	Number of days			
	2015	2016	2017	2018
Emergency Preparedness	889	991	1.097	1.534
Emergency	78	0	0	0
Emergency response	151	0	0	0
Emergency Transition to recovery	18	0	0	0
Total	1.136	991	1.097	1.534

Source: DG of PPI KLHK

B.1.2 Maintaining Hydrological Unity of Peat

After PP corrective action number 71/2014 through PP 57/2016 concerning the protection and management of peat ecosystems, Indonesia is now able to manage peat ecosystems towards becoming sustainable. One of the indicators is the decline from 2015 in the area of peat burning in Indonesia in 2016, 2017 and 2018. It shows that the policies and corrective actions carried out by the government have produced results, although the total number of burns appears to be inconsistent in some areas. The decrease in the amount of peat burnt in Indonesia, especially in Riau Province compared to the 2015 karhutla can be seen in the overlay of maps and data as follows:

Figure 5. Comparison of Karhutla in Map and Data Overlay



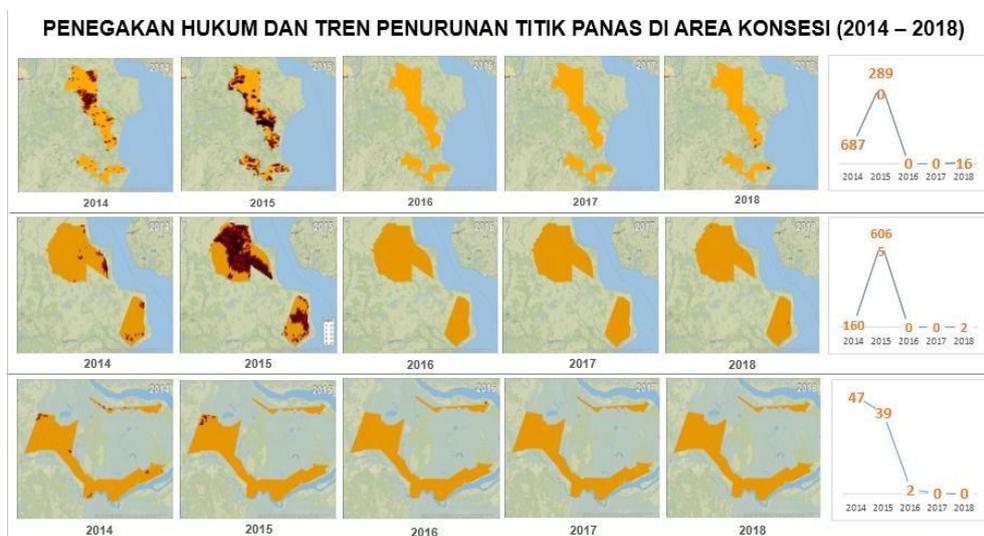
Ket: G= Peat M= Mineral	Burned Area (ha)							
	2015		2016		2017		2018	
	G	M	G	M	G	M	G	M
Riau	98.124	85.684	58.416	26.804	5.663	1.203	33.867	3.354
Total National	2.611.411		438.363		165.484		510.564	

Source: DG of Forest Planning, KLHK

B.1.3 The level of corporate compliance increases

Corporations through the Business Work Plan (RKU) have begun to improve water quality and the restoration of peat ecosystems that fall into the working areas. The companies began to invest in the prevention of karhutlas. The business community also began to show mutual awareness about the importance of overcoming karhutla early on by improving the quality of human resources. One example of corporate obedience is shown in the following figure, which is taken based on year- to-year comparisons of burnt areas with concession areas that continue to show a declining trend.

Figure 6. Example of Declining Hotspot in Concession Area



Data source: DG of Gakkum KLHK

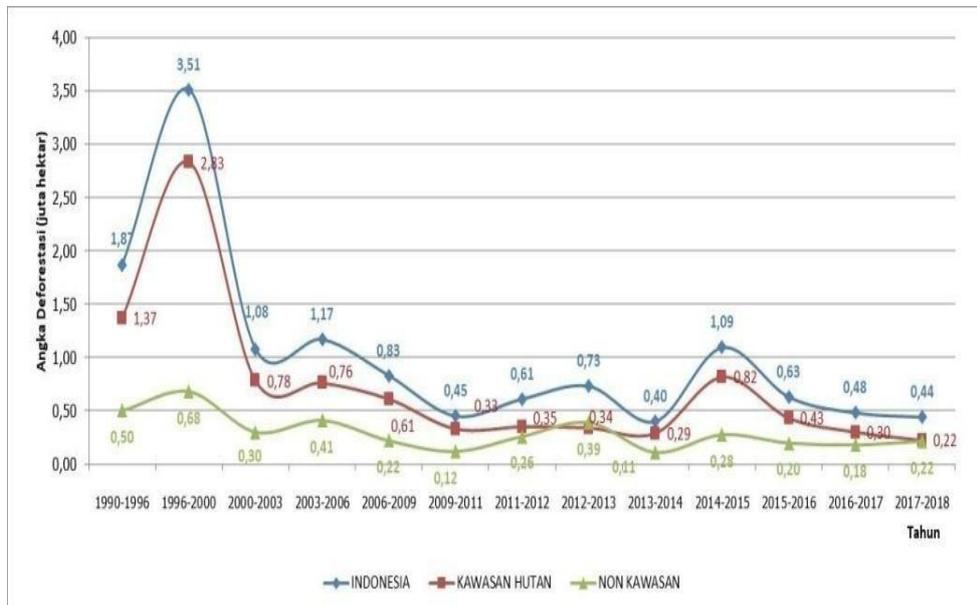
B.1.4 Become an international reference

Karhutlas control by managing peatlands through policy correction action has made Indonesia a reference for other countries that have extensive peat. Indonesia now has an International Tropical Peatland Center (ITPC). With this, Indonesia has become a reference for information and knowledge centres for various countries in peat governance.

B.1.5 Deforestation Rates Decrease Nationally

Along with the establishment of the Karhutla control system after the 2015 event, 2017 and 2018 deforestation rates in Indonesia was controlled. Seen from the following picture:

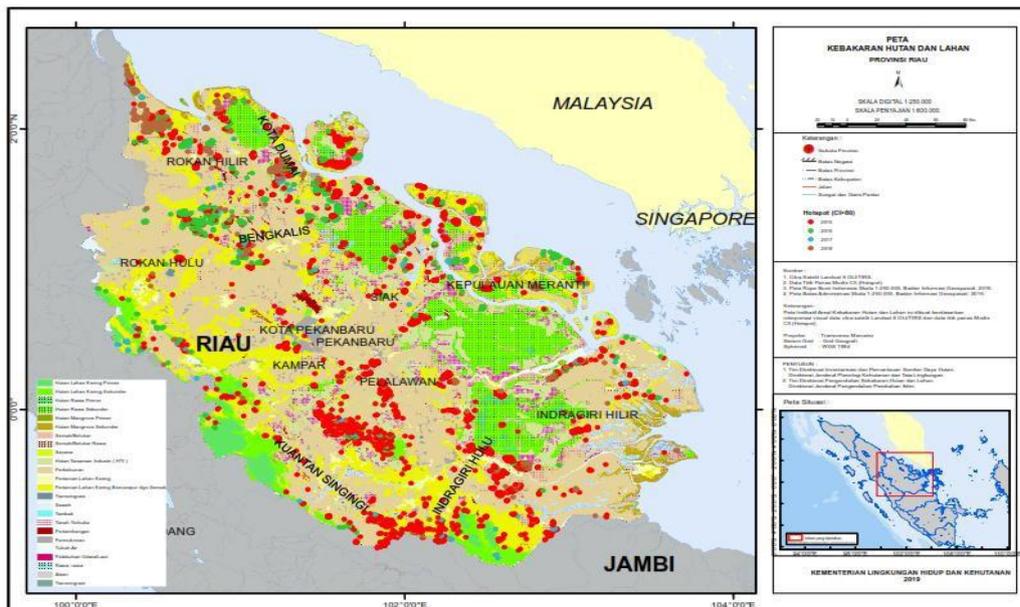
Figure 7. Deforestation Rates Decrease in Indonesia



Source: DG of Forest Planning, KLHK

The decline in deforestation rates is inseparable from the increasingly controlled karhutla in Indonesia. This can be seen through the map overlay on the number of hotspots based on the land cover as follows:

Figure 8. Map Overlay and Hotspot Drop Data Based on Land Closure



Jumlah titik api (Hotspot) Provinsi Riau					
No	Kelas Penutupan Lahan Kelas Hutan	Tahun			
		2015	2016	2017	2018
1	Hutan Primer	4	3	2	
2	Hutan Sekunder	72	21	13	14
3	Hutan Mangrove Primer	0	0		
4	Hutan Mangrove Sekunder	0	0		
5	Hutan Rawa Primer	12			1
6	Hutan Rawa Sekunder	149	32	2	46
7	Hutan Tanaman	110	7	1	10
	Sub Total	347	63	18	71
	Kelas Non Hutan				
8	Semak Belukar	64	9	2	7
9	Perkebunan	584	181	16	136
10	Pemukiman	2	3		
11	Tanah Terbuka	1024	238	17	165
12	Savana				
13	Tubuh Air	3	1		2
14	Belukar Rawa	602	361	42	471
15	Pertanian Lahan Kering	16			2
16	Pertanian Lahan Kering Campur	433	99	24	207
17	Sawah	14	3	2	1
18	Tambak				
19	Bandara				
20	Transmigrasi				
21	Tambang	19			
22	Rawa	4	4		
	Sub Total	2765	899	103	991
	Total	3112	962	121	1062

Source: DG of Forest Planning, KLHK

B.1.6 Enforcement of Environmental Law

Law enforcement is carried out through administrative, civil and criminal sanctions. Enforcement of environmental law can be seen as follows:

Figure 9. Enforcement of Environmental Law



Data source: DG of Gakkum KLHK

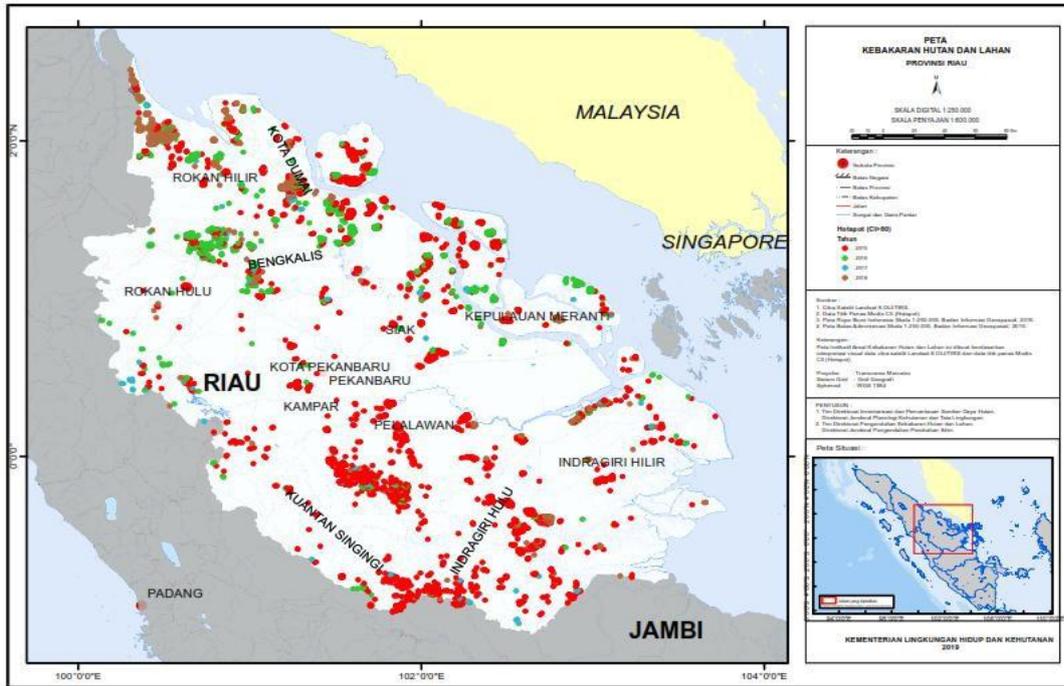
B.1.7 Implementation of Indonesia's commitment in the Climate Change agenda

In 2017, Indonesia succeeded in reducing emissions by 709 million tons of CO₂-equivalent or 24.7% of the emission reduction target of 29% in 2030 or in the position of 38.1% of BAU in 2017.

B.2 Provincial Karhutlas Control Achievements

A decrease in hotspots occurred after the control system approach was carried out, although the decrease was not consistent every year because there were still various problems in the field. Specifically for Riau Province, the decrease in hotspots compared to 2015 karhutlas, can be seen in the map overlay as follows:

Figure 10. Overlay of a Hotspot Map in Riau Province



Source: DG of Forest Planning, KLHK

Meanwhile, from the Regional Disaster Management Agency (BPBD) of Riau Province, hotspot data and area of burning land are presented as follows:

Table 1: Riau Province Hotspot Data

Years	Hotspot	Burned Area (ha)	
		Peat	Mineral
2014	11.272	-	-
2015	3.400	98.124	85.684
2016	1.397	58.416	26.804
2017	399	5.663	1.203
2018	1.512	33.867	3.354

Source: BPBD Riau



B.3 Achievements of Karhutla Control at the District level

When compared with the 2015 Karhutla incident, the existence of a control system, there has been a decrease in the number of hotspots and burns in Pelalawan and Siak Districts. However, this decline has not been consistent, although attributed to the work of the provincial and national task forces.

Transglobal leadership to control karhutla based on the Minister of Environment and Forestry Regulation No. 32 of 2016.

Transglobal Leadership for the Dalkarhutla Organization

The leadership of President Joko Widodo as the highest Dalkarhutla organisation command line holder and the Minister of LHK as the Chairperson of the National Control Task Force based on Permen LHK 32/2016 became the main key in the entire process of implementing karhutla control at the central government level to the district/city level. All the characteristics of transglobal leadership based on the theory of Linda Sharkey et al (2012) are seen in leadership at the Karhutla Task Force at the National level.

The results of the study show that the leadership style of the provincial and district level task forces at the Karhutla level is greatly influenced by the leadership style of the central government organisation (national). The characteristics of transglobal leadership in regional leaders only emerge when there is a change in leadership style at the national level. The intervention carried out by the President and the LHK Minister gave a significant role in building new characteristics in the regional leaders. This is also inseparable from the high level of public participation shown through the use of mass media and social media.

Forestry control still relies heavily on instructions, direction, and technical instructions from top-level government leaders in the Dalkarhutla organisation, so that some of the characteristics of transglobal leadership do not emerge from leaders in the regions. This also affects the performance of the control organisation in the field. It can be seen from the inconsistency of hotspot decrease in 2018, the number of which is greater than the previous year's hotspots. From the research findings, it is known that there was a shift in the location of the hotspot from the one previously originated from the concession area, shifted to community land (the responsibility of the Regional Government). Leaders at the district level still complained about the limits of authority that influenced them to overcome karhutla in their working areas.

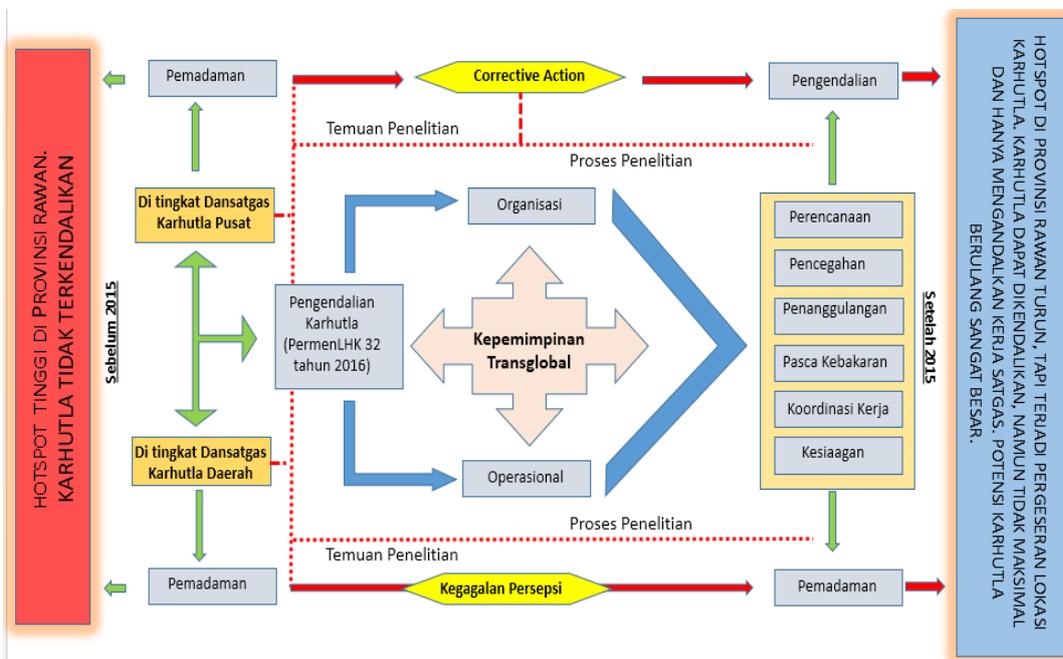
Transglobal Leadership for Dalkarhutla Operations

The characteristics of transglobal leadership play a major role in the operation of karhutla control, which includes planning, prevention, mitigation, post-fire, work coordination, and preparedness. Overall, the results of the study were dominated by leadership at the national level rather than leadership at the Provincial and Regency / City levels.

The leadership of the national task force level, through corrective action, is able to change the blackout paradigm to the control system. The Regional Task Force still uses the blackout paradigm. The failure of leaders in the regions in formulating good policies is caused by the failure of perception when deciphering the source of the problem and solving the problem.

When there is a failure of perception at the organisational and operational level, both by leaders to the lowest levels of society, the challenges of karhutla control become even more severe. Because the failure of perception will lead to failure to change the paradigm of karhutla, handling from extinction to control so that karhutla control is not optimal. Overall it can be seen as follows:

Figure 11. Transglobal Leadership for Dalkarhutla Operations



Source: Processed Research Results



Research Implications

Based on the results and research findings, several implications emerge in the theory of transglobal leadership Linda Sharkey et al. to support the success of controlling Karhutla in Indonesia, particularly in Riau Province. Because the issue of karhutla has a very broad scope, both in the scope of government work and operational control, the delegation of authority and community participation is an important aspect amidst the challenges and pressures of the globalisation era. Both must be in the pattern of a fire landscape approach.

The characteristics of leadership with the fire landscape approach will understand the needs of other stakeholders and will look for solutions to join improvement by regulating the relationship patterns of all related components, including both natural and human factors.

Through the characteristics of authority delegation carried out by the leader, the control of the forest and land management has a system of supervision in the form of rewards and punishment for regional governments that cannot protect the area from karhutla. While community participation can be maximized, it is expected that a comprehensive self-mobilisation will be formed, namely active community participation to change the community's system and culture to no longer burn forests and land.

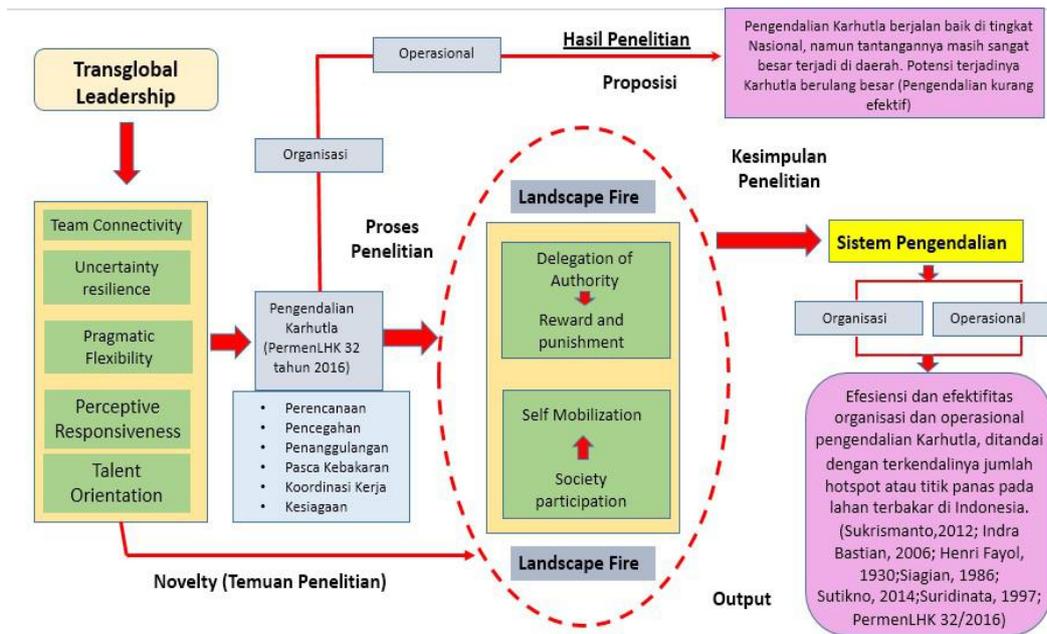
The fire landscape contains interactions between places (place) and time (space). The place here is interpreted as an environmental character (environmental character) because each karhutla location must have different characteristics. This characteristic is called the atmosphere that must be understood as a total phenomenon created by the activities of a person or group of people in that place.

Because the issue of karhutla has broad aspects and scope, both in government work and operational control, the delegation of authority and community participation in the fire landscape approach have become important aspects amidst the challenges and pressures of the globalization era. The addition of these two factors is also expected to improve the characteristics of transglobal leadership to reach the level of local government within the scope of local work to fit in with the global concept.

Managing fire landscapes is indeed very complex because leaders must be able to understand the complexity of the problem, be able to read the situation and find solutions to various problems in the landscape itself. Understanding in perceiving problems must not be wrong. In the event of failure of perception, it will be very difficult to find concrete solutions from the Karhutla control system. Failure of perception at the beginning, especially done by policymakers, will have fatal consequences in the preparation of karhutla control works.

For this reason, integrated control is needed that involves the central government, regional government, private sector and the community, to control fire and forest fires based on the landscape. The level of cooperation starts from working together to develop concepts or policies that can be implemented together. Overall it can be seen as follows:

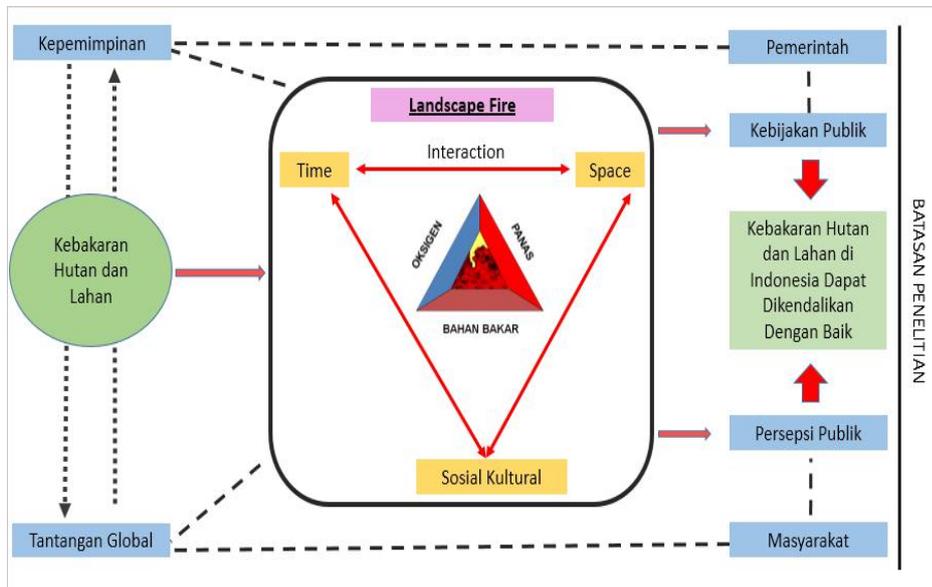
Figure 12. Implications of Theoretical Research for Karhutla Control



Source: Processed Research Results

The fire landscape will connect all stakeholders and together they must manage the impact of policies in interrelated actions and strengthen each other. Leaders who are able to overcome challenges at the landscape level will be able to bring together all the stakeholders, both vertically and horizontally, to jointly overcome the forestry and land in order to achieve the Sustainable Development Goals (SDG). This can be described as follows:

Figure 13. Terminology of Fire Landscape Approaches for Karhutla Control



Source: Processed Research Results

Closing Conclusions

Based on the formulation of the problem, the results of the research and discussion described above, the following conclusions can be concluded:

- a. Leaders at each level of Dalkarhutla's work organisation make different efforts and approaches in overcoming the common occurrence of karhutla due to the complexity of the problem, thus affecting the achievements of controlling karhutla in Indonesia, particularly in Riau Province. At the level of the National Task Force, transglobal leadership characteristics prove to be the right style of leadership to control the recurrent karhutlas. From the characteristics of transglobal leadership shown by President Joko Widodo and LHK Minister Siti Nurbaya, various policies and corrective actions for forest forestry control influenced operational control down to the site level. However, because not all Regional Heads or Chiefs of the Karhutla Task Force in the regions have transglobal leadership characteristics, the achievements of forest and land use control the decreasing hotspots but are still seen to be running inconsistently because there has actually been a shift in burned areas from the original on the concession area which is the responsibility of the Ministry and on community land which is the responsibility of the regional government. This shows that leadership in the regions is still not ready to face the global challenges with the lack of control of karhutla at the local level.
- b. Characteristics of transglobal leadership consisting of uncertainty, team connectivity, pragmatic flexibility, perspective responsiveness, and talent orientation, play an important

role in controlling karhutla land. The Minister of Environment and Forestry Regulation No. 32 of 2016, stipulates aspects of government organisation and work operations to include planning, prevention, mitigation, post-fire, work coordination, and preparedness status. However, the characteristics of transglobal leadership are still unable to overcome the problem of karhutla in the regions because all leaders in the regions do not share them. Therefore, the researcher added the factor of delegating authority and community participation. Delegation of authority will bind the local government to obtain rights and carry out the obligation to protect the regions that are their responsibility from the recurrent karhutlas. Along with that, the control of karhutla will have a system of supervision in the form of reward and punishment for Regional Governments that cannot protect the area from karhutla. Community participation that has begun to be initiated by the National Karhutla Task Force for Dalkarhutla operations when it is also able to be maximized by leaders in the Regional Task Force, is expected to form comprehensive self-mobilisation that is active community participation to change the wrong system and culture, oversee the course of policies the government, and start using the right values in managing the forests and land around them without burning them. This is all so the karhutla incidents no longer continues.

Suggestions

Based on research findings that have been revealed previously, the following suggestions are made:

- a. To control future Karhutla threats, leadership with transglobal characteristics at all levels of government is needed, so that in the future, karhutla control efforts are more focused on prevention, not just countermeasures when karhutla have already occurred and are widespread. Transglobal leadership at every level of government is expected to give rise to stronger public policies and create a more systematic early warning system for karhutla by involving relevant parties, especially the business community and active community involvement so that the forestry threats can be anticipated early on.
- b. With the complexity of the forestry challenges in Indonesia, particularly in Riau Province, the control cannot be obtained individually, but all parties must work together so that they can contribute to the national and regional agenda. Conceptualisation in handling karhutla must be handled with a conceptual approach or landscape fire system, which is initiated by leaders in the national task force. Because such complex problems, especially in the dramatic changes in the environmental ecosystem in Indonesia the impact of land-use change, climate change agenda, socio-economic situation and politics, the concept of fire landscape becomes very important to be the main analysis for leaders when implementing policies. Referring to the fire triangle theory, the fire elements must be eliminated so the fire can be extinguished. Synergy in the fire triangle and the fire landscape concept can reduce the number of conflicts and can avoid prone provinces from repeated fires.



- c. Anytime during a Forestry and Land Fire, the Regional Government needs to be given flexibility or delegation of authority in the operational context of Forestry Fire control. That way the leaders in the area must be able to identify various local potentials and community participation in karhutla control. This is because the leaders in the area are the ones who understand the characteristics and needs of their people.
- d. To solve global problems such as karhutlas, it is recommended that leaders not only rely on the command line but also leadership expertise with a transglobal leadership style that can coordinate all aspects and interests to achieve goals optimally.
- e. It is recommended that both central and regional leaders have the same political will to create a more sustainable environment and forestry. This is so when dealing with problems such as recurrent karhutlas, leaders can improve the quality of their leadership to a higher level, prioritising the interests of the people over the interests of groups.
- f. The findings in this study are expected to recommend leaders in the regions, especially in areas prone to karhutlas, to further improve the quality of their leadership in line with the dynamics of change that occur in society.
- g. The findings in this study are also expected to be evaluation material for the implementation of karhutla control at the national level to the regions, so that in the weaknesses of karhutla control, especially in the organisational and operational aspects of work, can be overcome together.
- h. It is recommended to further researchers who are interested in researching topics on leadership, to continue to develop research on transglobal leadership as it is useful to overcome global problems that are always growing in society. Especially continuing research related to transglobal leadership with landscape terminology.



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