



# FOREST AND LAND FIRES POLICY DEVELOPMENT IN INDONESIA

**LAKSMI DHEWANTHI**

Director General of Climate Change  
Ministry of Environment and Forestry-Republic of Indonesia

INDONESIA PAVILION COP26 GLASGOW

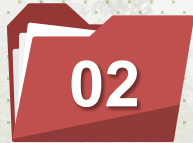
Glasgow, 11 November 2021



# Outline



**Policy**



**Program**



**Closing**



# FOREST AND LAND FIRES POLICY



“Carikan solusi yang lebih permanen untuk upaya pembakaran hutan dan lahan yang sengaja untuk motif ekonomi. Frekuensi patroli lapangan terutama di wilayah rawan kebakaran tolong mulai diperintahkan. Pemerintah daerah dan aparat teritorial seperti Babinsa dan Babinkamtibmas itu betul-betul dikerahkan dan melibatkan partisipasi masyarakat.”

## Arahan Presiden Jokowi

dalam upaya peningkatan pengendalian karhutla tahun 2020  
Kamis, 6 Februari 2020



## ARAHAN PRESIDEN REPUBLIK INDONESIA TENTANG PENGENDALIAN KEBAKARAN HUTAN DAN LAHAN Istana Negara, 22 Februari 2021

1. Prioritaskan upaya pencegahan, melalui deteksi dini, monitoring areal rawan hotspot, dan pemantauan kondisi harian di lapangan
2. Infrastruktur monitoring dan pengawasan harus sampai ke bawah. Libatkan Babinsa, Bhabinkamtibmas, kepala desa dalam penanganan karhutla. Ajak tokoh agama dan tokoh masyarakat untuk memberikan edukasi terus menerus kepada masyarakat
3. Cari solusi yang permanen agar korporasi dan masyarakat membuka lahan dengan tidak membakar
4. Penataan ekosistem gambut dalam kawasan hidrologi gambut harus terus dilanjutkan
5. Jangan biarkan api membesar, harus tanggap dan jangan terlambat sehingga api sulit dikendalikan
6. Langkah penegakan hukum dilakukan tanpa kompromi, berikan sanksi yang tegas sehingga ada efek jera



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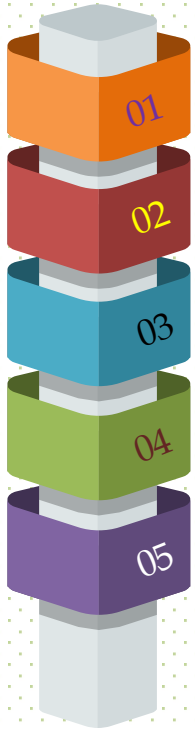
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# FOREST AND LAND FIRES MANAGEMENT

## Prevention



- **Regulations & Strengthening Coordination**
- **Early warning and early detection**
- **Integrated Fire Prevention. Patrol**
- **Campaign and capacity building**
- **Land Clearing Without Burning Practices (PLTB)**
- **Fire Care Community/Masyarakat Peduli Api incl. Paralegal**
- **Weather Modification (peat re-wetting)**

## Suppression



- **Ground suppression**



- **Joint suppression (Inter-agencies)**



- **Air Operation: Water bombing, Surveillance**

## Post Fire



- **Law Enforcement**



- **Burned area inventory**



# FOREST AND LAND FIRES NEW PARADIGM AND CYCLE

## Old Paradigm

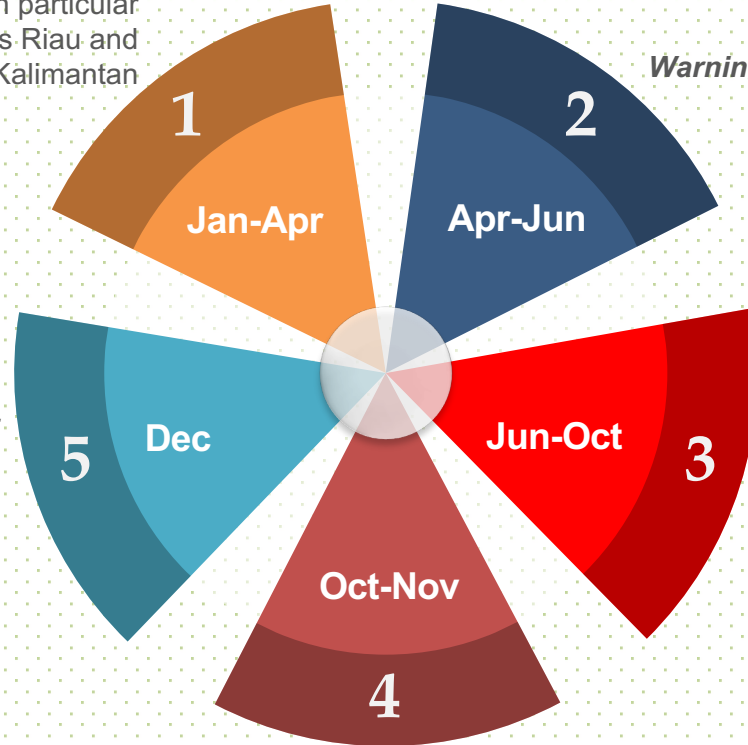
- Focus on **crisis phase**
- Budget focus on **suppression**
- HS NOAA
- Burned area based on **field report**



## New Paradigm

- ✓ **Prevention first**
- ✓ Involving **Community**
- ✓ **Improving** early warning and detection system
- ✓ Early response
- ✓ Instrument developing (burned area, **Palaralegal-Fire Care Community**)

*Pre-Crisis* phase  
Fire in particular provinces Riau and W. Kalimantan



*Warning* phase

*Crisis* phase in Sumatera, Kalimantan, Sulawesi, Jawa Bali West-East Nusa Tenggara

• *Recovery* phase



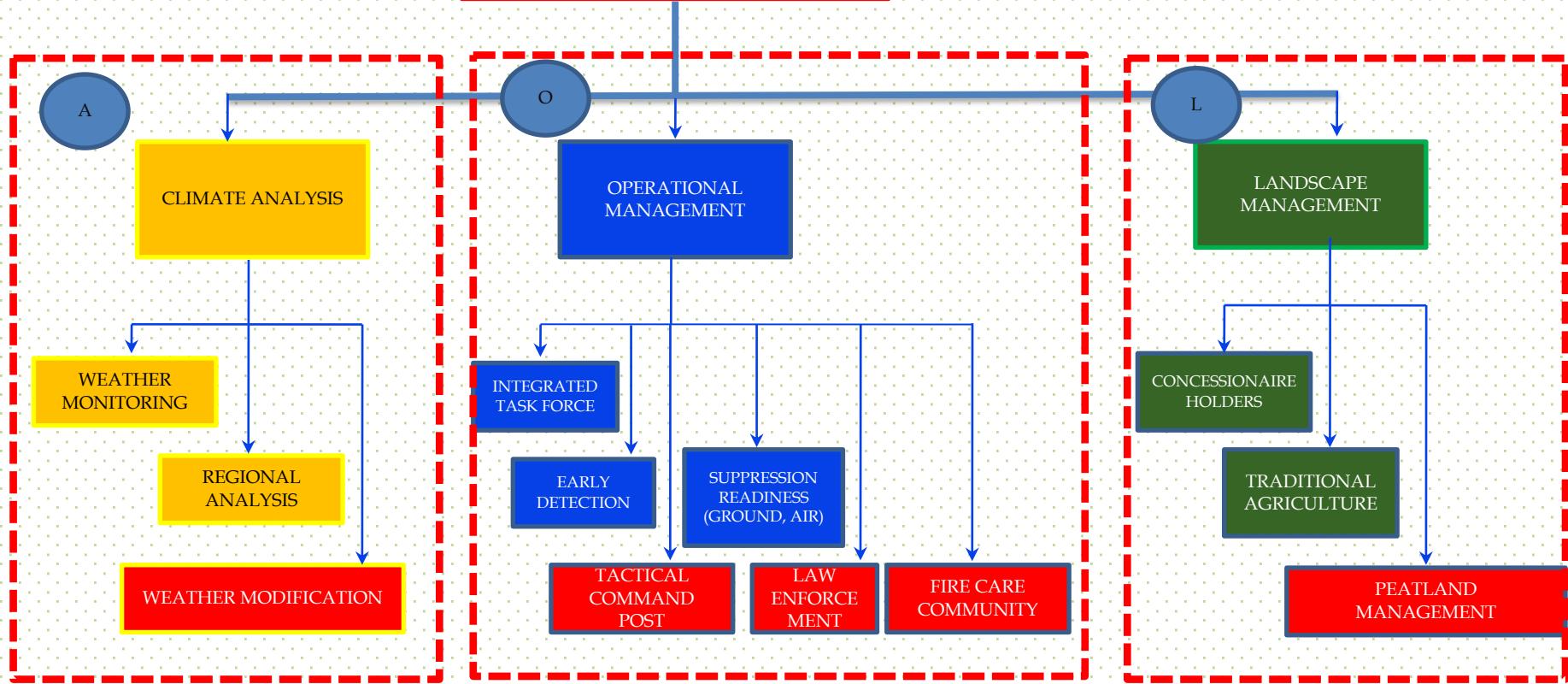
MANGALA AGNI

United Nations Environment Programme



# FOREST AND LAND FIRES PERMANENT SOLUTION

## PERMANENT SOLUTION FOR FIRE MANAGEMENT



# FOREST AND LAND FIRES REGULATIONS



MANGGALA AGNI

## Forest - Land Fire and Haze

Law no. 26 of 2014 :

- Ratification of ASEAN Agreement on Transboundary Haze Pollution

President Instruction No. 3/2020 :

- Forest and Land Fire Control

Minister of EF Regulation no. 32/2016 :

- Forest and Land Fire Control

## Land Use and Peatland Management

Government Regulation No. 57/2016:

Change of Government Regulation No. 71/2014 on Peatland Ecosystem Management and Protection

President Instruction No. 1/2021 :

Peatland Restoration Agency (now Peatland & Mangrove Restoration Agency)

President Instruction No. 8/2018 :

Delay and Evaluation of Permits and Elevated Productivity of Oil Palm Plantations

Minister of EF Regulation No. P. 77/2015:

Guidelines on Handling Burnt Area in Production Forest

Minister of EF Regulation no. 14/2017 :

Procedure for Inventory and Arrangement of Peatland Ecosystem Function

Minister of EF Regulation No. P. 15/2017:

Guidelines on water surface level measurement in peatland ecosystem management.

Minister of EF Regulation No. P. 16/2017:

Technical Procedure for Peatland Ecosystem Function Recovery

## Forestry and Plantation Compliance

Minister of Manpower Regulation No. 193/2016: Indonesian National Competency Standards regarding to Forest and Land Fire Control

Minister of EF Regulation No. 47/2017:

the Indonesian National Qualification Framework and Competency Certification regarding to Forest and Land Fire Control

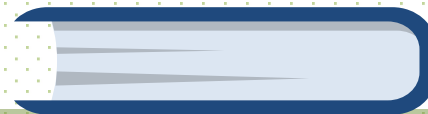
Minister of Agriculture No.5/2018:

Land Clearing Without Burning



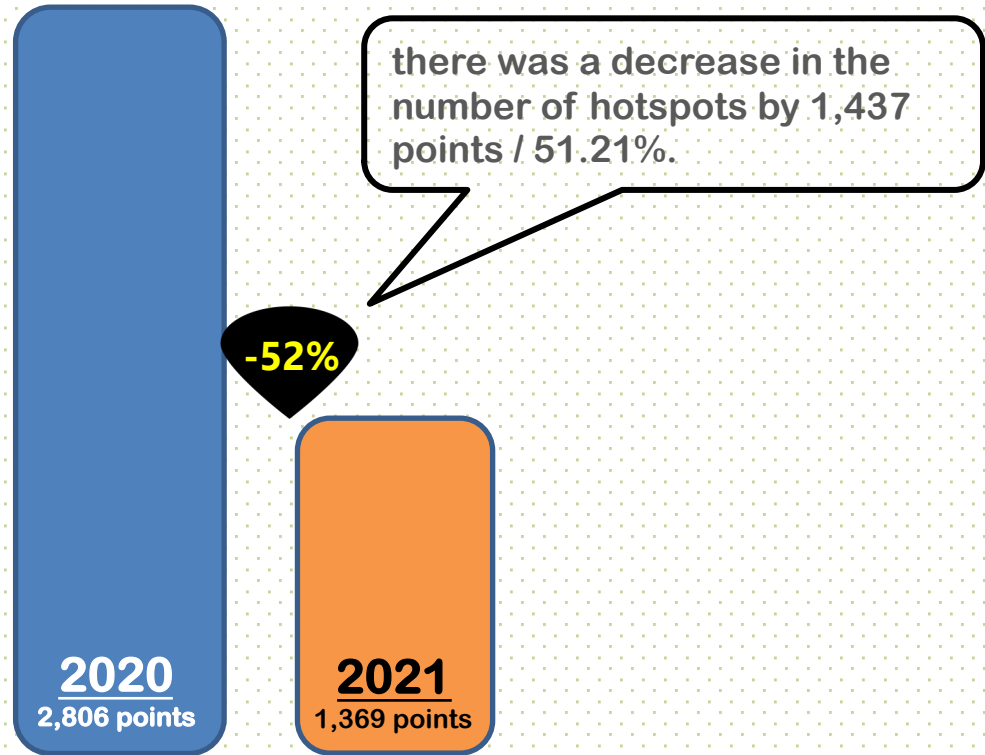
## Provincial/ Regencies

Governors/Regencies Regulation





# NUMBER OF HOTSPOT IN 2020 - 2021



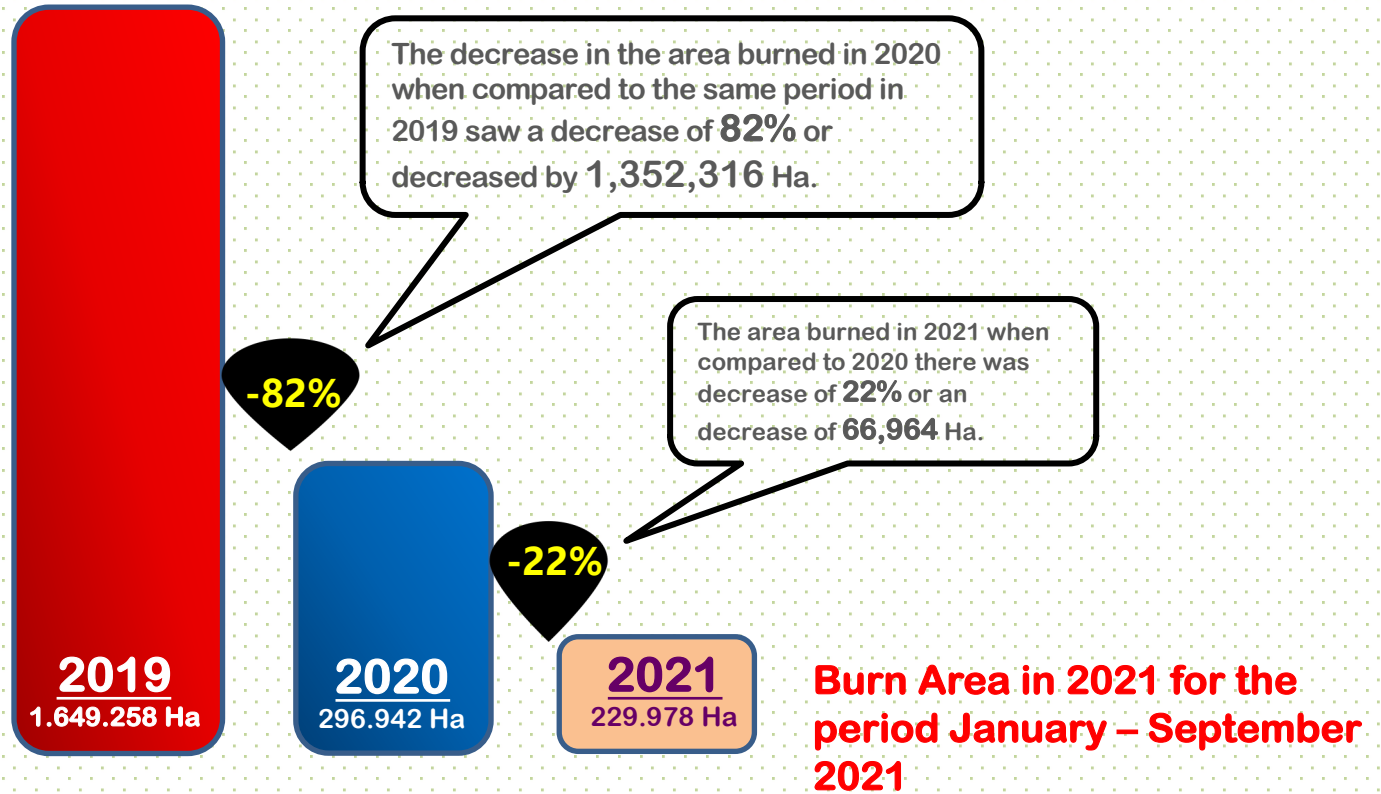
Based on the Terra/Aqua Satellite (LAPAN) Conf. Level 80%







# BURNED AREA WITHIN 2019, 2020, AND 2021



# Early Detection System



NOAA, Terra/Aqua, SNPP, Landsat, Himawari

MOEF

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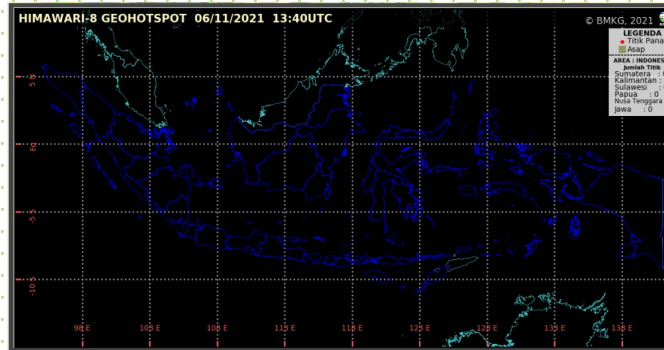
LAPAN

<http://modis-catalog.lapan.go.id/monitoring/index#>



Image of smoke and haze Distribution in Indonesian

(November 6, 2021 at 16.00)



Himawari-8 Geohotspot – Indonesia

(November 6, 2021)



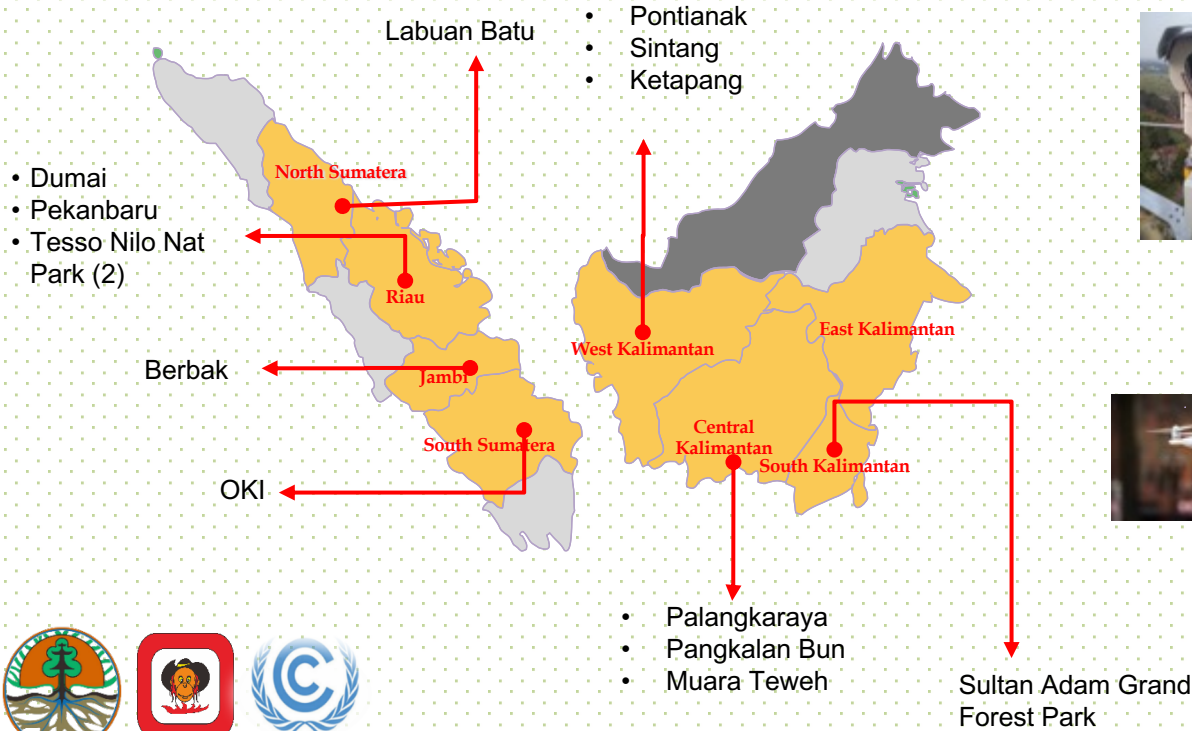
United Nations Public Service Awards  
Department of Economic and Social Affairs



Land and Forest Fire Management  
<http://sipongi.menlhk.go.id/>

# Early Detection System (cont.)

## Thermal Camera & Drone

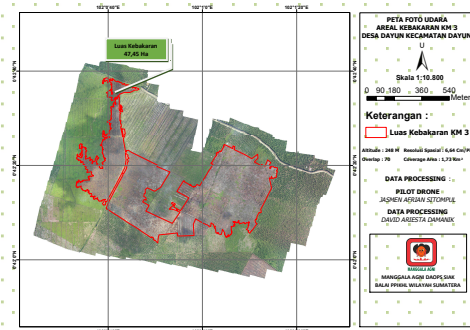


Daops Pku,  
Riau/22.04.2020  
Alt 21m, Dist. 19.87 km



Vis IMG

IR IMG



BA estimation  
Daops Siak, Riau



# Manggala Agni Fire Brigades Resources

NORTH SUMATERA	
Daops Manggala Agni	Pers
1. Sibolangit	60
2. Pematang Siantar	60
3. Labuhan Batu	60

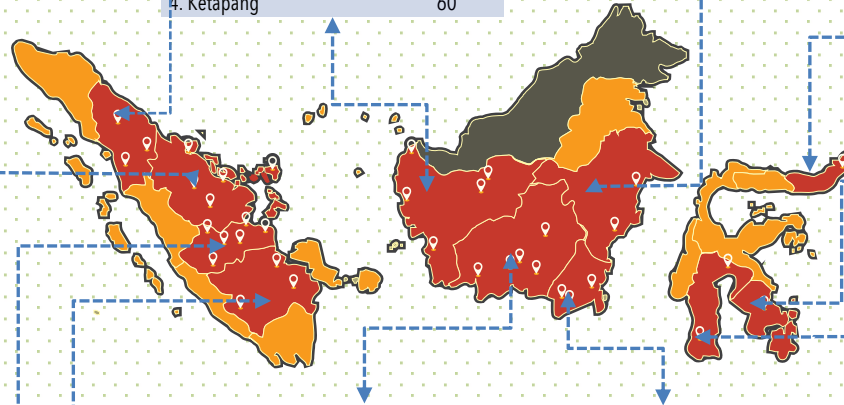
RIAU	
Daops Manggala Agni	Pers
1. Dumai	60
2. Pekanbaru	30
3. Rengat	60
4. Siak	60
5. Batam	30

JAMBI	
Daops Manggala Agni	Pers
1. Jambi	60
2. Muara Bulian	30
3. Bukit Tempurung	45
4. Sarolangun	60
5. Muara Tebo	60

SOUTH SUMATERA	
Daops Manggala Agni	Pers
1. Banyuasin	60
2. Musi Banyuasin	60
3. Ogan Komering Ilir	60
4. Lahat	60

WEST KALIMANTAN	
Daops Manggala Agni	Pers
1. Pontianak	60
2. Singkawang	60
3. Sintang	90
4. Ketapang	60

EAST KALIMANTAN	
Daops Manggala Agni	Pers
1. Passer	60
2. Sangkima	45



NORTH SULAWESI	
Daops Manggala Agni	Pers
1. Bitung	30

SE SULAWESI	
Daops Manggala Agni	Pers
1. Tinanggea	30

SOUTH SULAWESI	
Daops Manggala Agni	Pers
1. Gowa	60
2. Malili	60

CENTRAL KALIMANTAN	
Daops Manggala Agni	Pers
1. Palangka Raya	75
2. Kapuas	45
3. Muara Teweh	60
4. Pangkalan Bun	45

SOUTH KALIMANTAN	
Daops Manggala Agni	Pers
1. Banjar	60
2. Tanah Bumbu	60
3. Tanah Laut	60



**11.119**  
Community  
Volunteers



**34** Main  
Base



**37** Secondary  
Base

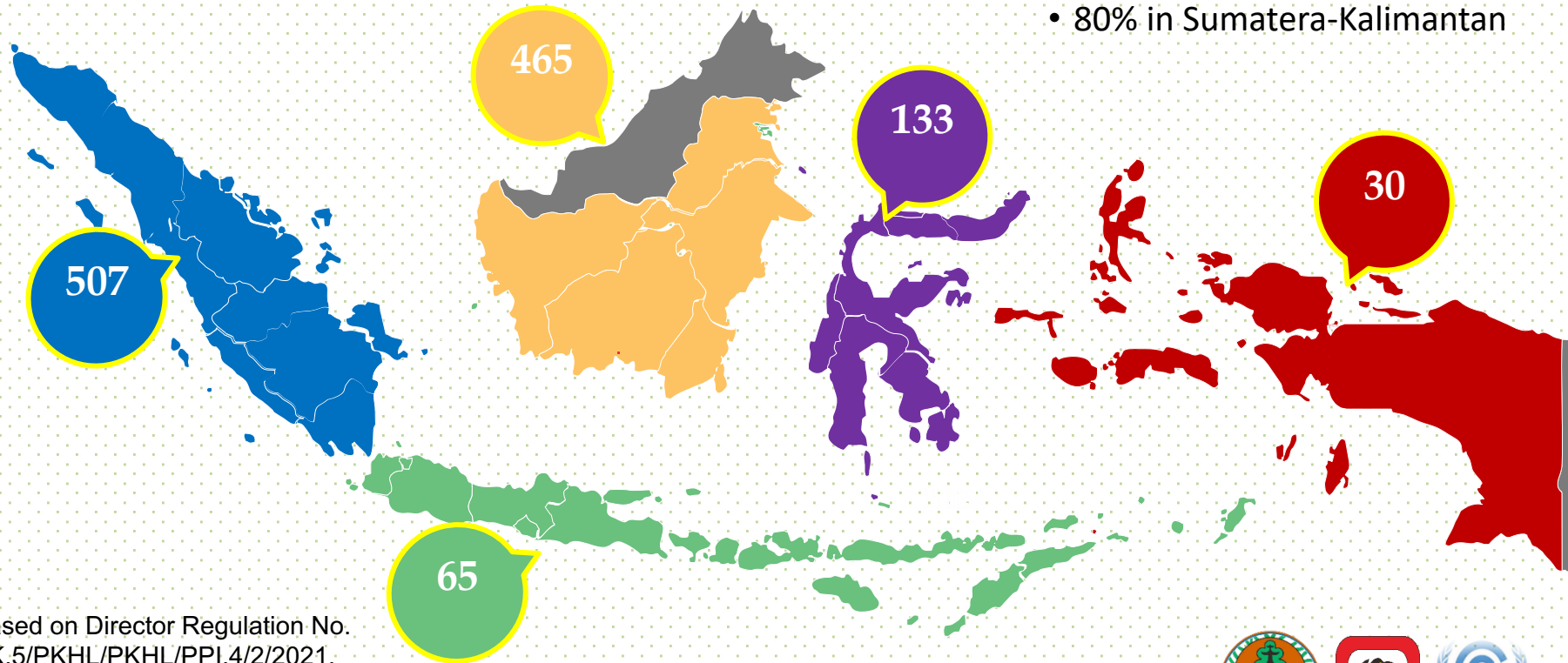


**1.875** Personels



# VILLAGE TARGET for PREVENTION

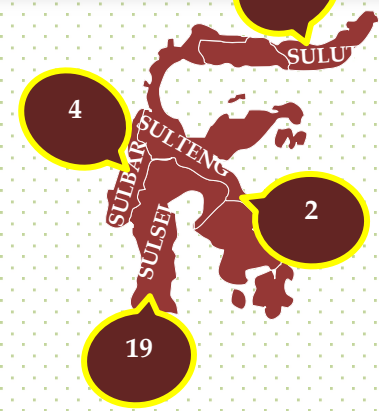
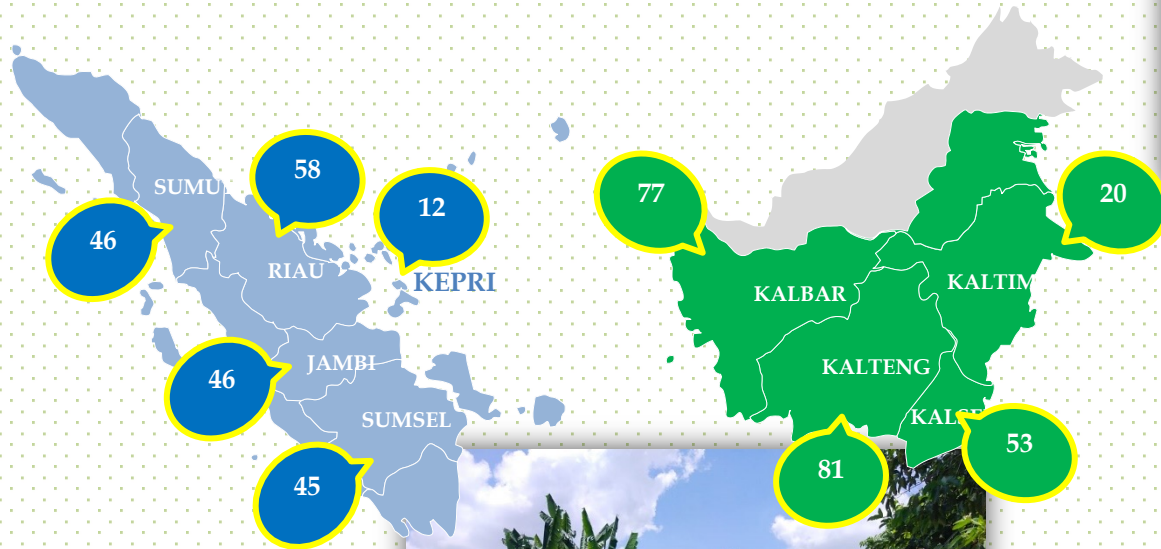
- 1,200 fire-prone villages
- 80% in Sumatera-Kalimantan



Based on Director Regulation No. SK.5/PKHL/PKHL/PPI.4/2/2021, Date 3th February 2021



# PREVENTION PATROL 2021 (Villages)

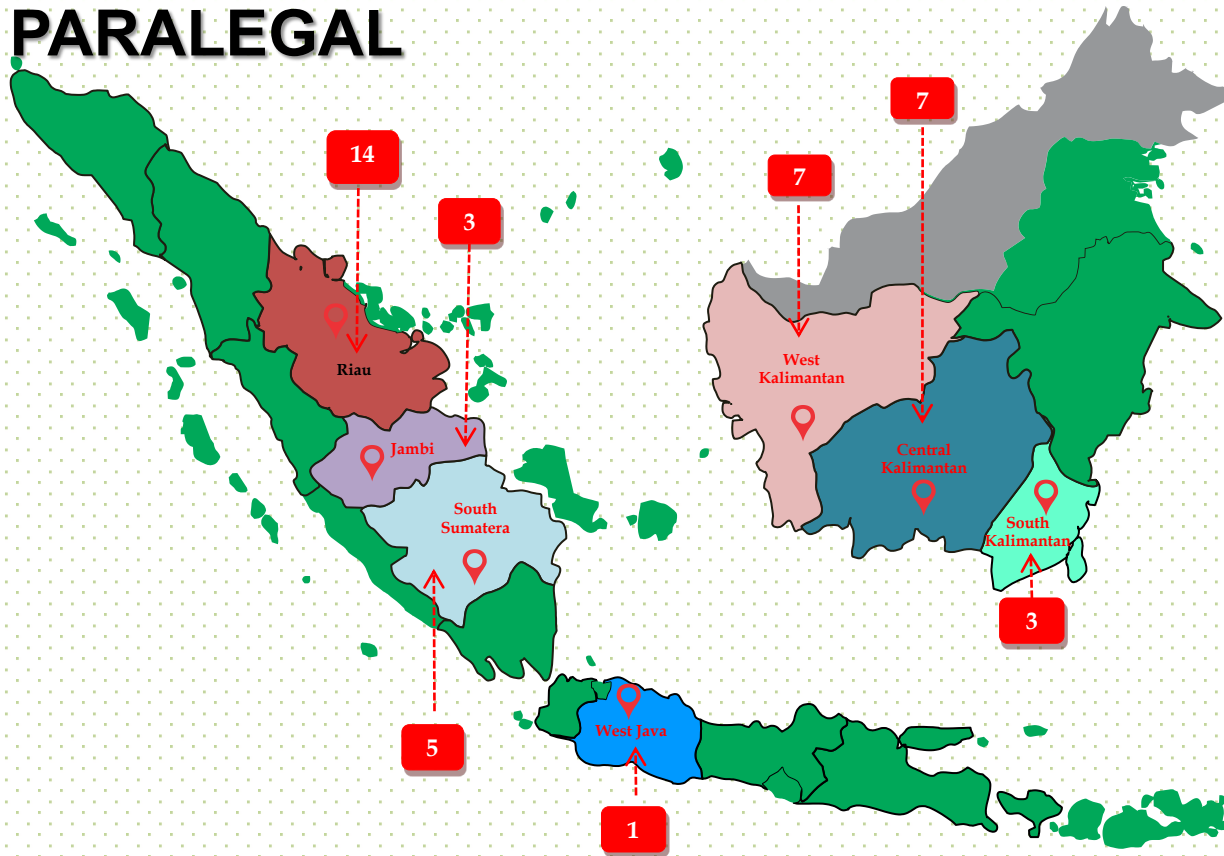


# FIRE CARE COMMUNITY IN INDONESIA

- 11,119 Fire Care Community
- Voluntary based



# FIRE CARE COMMUNITY- PARALEGAL



- Legal awareness community participation
- Voluntary based

No	Province	Villages
1	Riau	14
2	Jambi	3
3	South Sumatera	5
4	West Kalimantan	7
5	Central Kalimantan	7
6	South Kalimantan	3
7	West Java	1
	<b>Total</b>	<b>40</b>





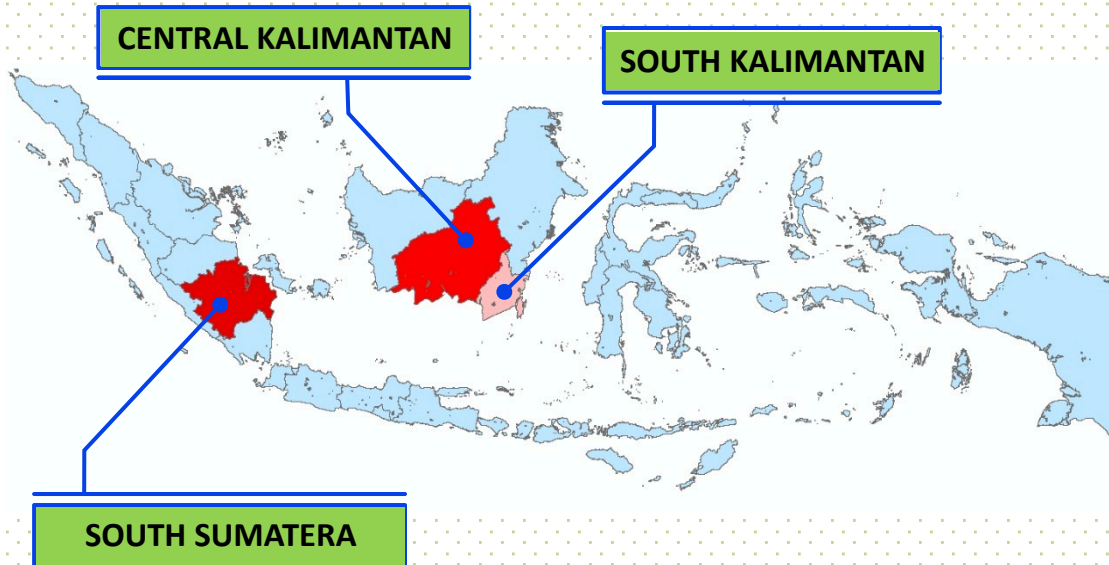
# Stakeholder Collaboration on Fire Management

- Fire management needs participations and responsibility all stakeholder



**MoEF-ITTO PP-A/56-340-1**

**Capacity Building of Forest and Land Fire Management in Indonesia**



## OBJECTIVE

To improve prevention of forest and land fire through strengthening management and technical capacity of stakeholders



# CLOSING

## The Ministry of Environment and Forestry prioritizing in:

- Preventing land and forest fires
- Analysing climate conditions regularly and using weather modification (cloud seeding) for intervention
- Improving operational management by synergising and collaborative actions among stakeholders
- Restoring and Managing peatlands
- Involving all stakeholders, especially local community as the frontline in prevention operations





MANGGALA AGNI



United Nations



# Directorate General of Climate Change Directorate of Land and Forest Fire Management

Gd. Mangala Wanabakti Blok VII Lt 12  
Jl. Jend. Gatot Subroto, Jakarta 10270



08131 62 3500



08131 00 3500



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