

GROUND SUPPRESSION

Indonesia's Effort on Handling Land And Forest Fire in 2015



The Principle of Land and Forest Fire Management

Land and forest fire management is a manifestation of an effort to protect the people and the country of Indonesia from fire hazard. This effort is a collaborative responsibility of all stakeholders which based on the participation and initiatives from the whole society and the government, either in national level or local level such as province, districts and cities. Haze disaster management is focused on the prior stage to the occurrence of fire that covers prevention, monitoring, and preparedness; these activities are conducted to mitigate and minimize the impact caused by the fire. Land and forest fire management is part of the climate change mitigation that aims to achieve the condition when the local community, national, regional and international are free from haze pollution which caused by land and forest fire. The principle of land and forest management is explained detail as follows:

I. Togetherness and volunteerism

Land and forest fire control are basically the duty and responsibility of all citizens of the Republic of Indonesia, which is conducted by all people voluntarily and together.



2. **Totality**
Forest and land fire control carried out by mobilize the entire nation and state capabilities that can be realized as a deterrent power.
3. **Prevention and preparedness**
Forest and land fire control put emphasis on activities to improve public welfare, awareness, risk reduction, improved monitoring, vigilance and preparedness which carried out at the prior stage to the occurrence of forest fires.
4. **Priority**
In the event of forest and land fire, this activity becomes the priority and precedence to rescue human life, conservation areas, protected areas, forest production, other cultivated areas, historic places and other public facilities.
5. **Independent**
In practice, land and forest fire control basically relies on independent strength of any regional stakeholder responsibilities
6. **Quick and exact**
Land and forest fire control should be implemented quickly at early stage of fire and appropriate to the circumstances demand so that the fire does not spread.
7. **Coordination, synchronization and integration**
In the case of certain circumstances, the forest fire control should be performed by a variety of sectors in a coordinated, synchronized and integrated way based on the principle of mutual trust, mutual benefit and mutual respect ;
8. **Globality**
Land and forest fire control become a concern and regional/international obligations to help either through bilateral or multilateral cooperation.

DIRECTORATE OF FOREST AND LAND FIRE MANAGEMENT
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- Suppression is an attack activity on burnt area which starts from the suppression planning to mop up and patrol. The scope of suppression as follows :
- Pre suppression. In this stage, personnel conduct physical exercise, active post, rehearsal / simulation, patrol.
- Early suppression stage (Initial Attack)
- Continuing Suppression
- Mobilization stage

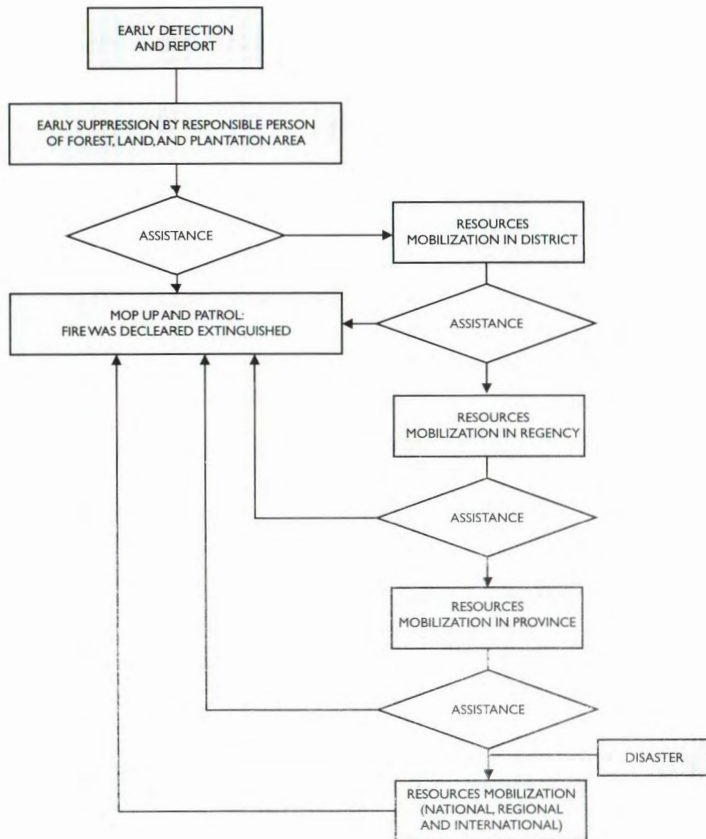
Ground Suppression

Land and forest fire suppression was carried out through 3 activities, i.e. ground suppression, artificial rain development/Weather Modification Technology, and water bombing.

In 2015, ground suppression operation was carried out by 1,758 personnels of Manggala Agni distributed at land and forest fire-prone provinces in cooperation with other institution and the community, as follow: Troops of Army (TNI) as many as 9,523 personnels; POLRI as many as 4.377 personnels; Government institutions as many as 1.972 personnels; Company Fire Fighter Brigade as many as 563 personnels and Community (including MPA, community member involved in fire-concerned association) as many as 3.953 orang persons. The operation of ground suppression involving TNI/POLRI has been conducted since August 2015.

used for ground suppression by Manggala Agni Personnels. In addition, there was a total of 2,000 liters of Miracle Foam Alpha Plus from Japan also used in these activities.

There were problems in conducting ground suppression operation in the field, which included the far distance between water source for suppression and fire location; low accessibility which requires more time and extra energy for personnel and equipment mobilization; repeated suppression due to fire occurred in peatland which is difficult to extinguish, fire occurred in many disperse locations but the human resources and equipment are limited; limited number of trained fire fighter and their physical and mental condition had decreased after long period of suppression operation; limited number of suppression equipment and currently some equipment are not in their optimum condition.



Various suppression efforts had been done to prevent the expansion of burnt area, including the use of environmentally-friendly chemical substance. A total of 1,000 liter (liquid) of flame freeze chemical substance and 581.4 kg peat fire X powder had been

