

INDONESIA FDRS REPORT



Natural Resources Canada
Canadian Forest Service



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Project Introduction

For the past several decades fires and associated haze have increasingly affected the economies, health and environment in Brunei, Indonesia, Malaysia, and Singapore. During the most recent fire and haze disaster of 1997-98, conservative estimates report over nine billion US dollars damage.

Although large numbers of fire suppression personnel were mobilized during the recent fires, their effectiveness was limited due to a lack of reliable, current information on locations of the fires and the environmental conditions promoting their ignition and spread; and a lack of training, equipment and management infrastructure.

In response to the crisis situation and in an attempt to prevent losses of such magnitude from occurring again, the Environment Ministers in the region, through the Haze Technical Task Force (HTTF), approved the Regional Haze Action Plan (RHAP) in December 1997. The RHAP commits the countries to a regional approach to reducing the probability of fires and to combining fire suppression resources. One of the monitoring mechanisms proposed for implementation as part of RHAP, is a regional Fire Danger Rating System (FDRS).

Background

The purpose of the FDRS project is to enhance the capacity of resource management organizations in Southeast Asia to manage land and forest fires, and transboundary haze.

What is Fire Danger Rating?

Fire danger rating is the process of systematically evaluating the individual and combined factors influencing fire danger. The FDRS is a forecasting tool that measures the risk of wildfires starting and spreading. Forecasts are based on daily meteorological observations, which are modified by analysis of vegetation as potential fuel. Countries with extensive annual fire occurrence from natural, prescribed and accidental fires, such as Canada, have developed information systems to help managers reduce fire damage. These systems support the regulation of

activities with high risks for causing fire, and effective deployment of fire suppression resources.

Since the 1960's, Canada has been a leader in developing and operating FDRS as a cornerstone of integrated fire management programs. In 1995, the Canadian Forest Service became involved in the Southeast Asia fire issue by developing a prototype FDRS for the region, which continues to operate on a daily basis via the Internet [<http://fms.nofc.cfs.nrcan.gc.ca/asean/>].

Project Purpose

The project is aimed at enhancing regional cooperation in environment, including transboundary issues through four inter-related programs:

1. Adaptation Technical assistance to recalibrate the Canadian FDRS for local tropical conditions, supporting fire prediction, prevention and mitigation decision-making and action.
2. Operation Technology transfer and training activities to increase competence within national and local co-operating agencies to sustainably maintain and operate an FDRS.
3. Application Education and demonstration projects to increase capacity within national and local co-operating resource management agencies to understand and develop actions based on outputs of FDRS.
4. Regional Systems Focused collaboration to strengthen technical development, coordination, management and integration of fire systems in the region.

The FDRSs will be designed to support the most important and relevant decisions faced by fire control managers including those relating to land use activity and regulation; fire suppression resources planning and allocation; daily incident response; and broadcast burning planning and permits.

The expected results of the Southeast Asia FDRS project are as follows:

- Expanded application of FDRS in fire prone areas of Southeast Asia.
- Enhancement of land and forest fire information and management systems in the region, to complement FDRS.
- Enhanced awareness and capacity of regional networks to provide early warning for land and forest fire, and provide improved mechanisms to manage haze.

A cornerstone of the FDRS project is the creation of working partnerships, which will ensure the long-term sustainability of the FDRS. As a result, CIDA funds are dispersed in conjunction with partner contributions. The first partnership has been developed jointly with Indonesia (Indonesia Initiative). Other partnerships are currently being developed, using as a guide the expected results above.

Project Team: Activities and Main Events

The Indonesia Initiative commenced in April 2000 with a central system, to focus on the fire prone areas of Kalimantan and Sumatra. The FDRS is being designed to support Indonesian central agencies in monitoring fire conditions and in developing national level actions to support prevention, monitoring and mitigation activities at a provincial level.

- Office opening at BPPT
- First technical mission in November 2000 in Jakarta



In attendance at the wrap-up meeting:

Back row (L-R): Guswanto, Sally, Dave Watson, Robert Field

Middle row: Caren Dymond, Tien Sribimawati, Sulchan, Rivanda, Sadjuga, Rony Bisri

Front row: Marina Fredrick, Orbita Roswintiarti, Adi Sasitwarrah, Irma Irawati

(Missing: Michael Brady)

- In-house FDRS training
- Field visit to Sumatra
- FDRS calibration

Fire Science News

- Creation of the Southeast Asia Fire Science Network

Upcoming Events

- Fuel assessment study
- Fire climate assessment

New Publications

A draft training booklet has been prepared entitled: An Introduction to Fire Science and Fire Danger Rating Systems. The booklet is currently being translated into Indonesian and will be used to train FDRS developers and operators.

Current Fire Danger Conditions

Current information regarding hot spot and haze in the Southeast Asian region, can be obtained by linking to the ASEAN Haze Action Online website via [\[http://www.haze-online.or.id/main1.htm\]](http://www.haze-online.or.id/main1.htm).

The Global Fire Monitoring Center also provides information on meteorological conditions and fire monitoring in Southeast Asia, and current significant global fire events via [\[http://www.ruf.uni-freiburg.de/fireglobe/current/globalfire.htm\]](http://www.ruf.uni-freiburg.de/fireglobe/current/globalfire.htm) and [\[http://www.ruf.uni-freiburg.de/fireglobe/current/globalfire.htm\]](http://www.ruf.uni-freiburg.de/fireglobe/current/globalfire.htm)

Where to Find US

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