

DEVELOPMENT OF THE INDONESIAN FIRE DANGER RATING SYSTEM

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ABSTRACT

In December 1997, Environmental Ministers in the Southeast Asia region, through the Haze Technical Task Force (HTTF), approved the Regional Haze Action Plan (RHAP). This action was in response to the recent fire crisis and to prevent future health, economic, and environmental losses from uncontrolled vegetation fires and associated smoke. Fire danger rating has been proposed as a monitoring tool to be implemented under the RHAP. In this capacity, a Fire Danger Rating System (FDRS) in Indonesia would be used as a forecasting tool to identify areas and time periods where there is potential for fire and smoke production problems. This information would be used to support an operational fire management action plan to restrict cultural burning practices and activate pre-suppression activities. The Indonesian FDRS adopts many features of the Canadian Forest Fire Danger Rating System. Ongoing FDRS project activities include historical fire climate assessment and relationship to El Niño–Southern Oscillation episodes, fuel characterization, and smoke production and dispersion studies. We present an overview of the design and development of the Indonesian FDRS.

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ESTABLISHMENT OF THE SOUTHEAST ASIA FIRE SCIENCE NETWORK

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ABSTRACT

Vegetation fires and their effects have become a serious problem in several countries in Southeast Asia. In Indonesia, the 1997–1998 vegetation fires destroyed an estimated 10 million ha of forest and land. Fires resulted in damages of around US\$10 billion and had other negative impacts on tourism, health, and relationships between countries due to trans-boundary haze pollution. There have been numerous projects and activities that focused on the operational aspects of fire control. Unfortunately, the scientific basis for fire management has received little attention.

Recognizing the need to strengthen fire science in the region, a group of local scientists met at Bogor Agricultural University in April 2001 to establish the Southeast Asia Fire Science Network (SEAFSN). Participants were from Brunei, Dar es Salaam, Cambodia, Indonesia, Laos, Malaysia, Philippines, Thailand, and Vietnam, and represented universities, research agencies, and government institutions. The SEAFSN was established with the understanding that forest fire is a growing problem in much of Southeast Asia, and it is intimately linked with communities and commercial activities. Forest fire science is an emerging field in this region and there is a wide variety of forest fire research interests. Forest fire research can also be locally or nationally unique, so it needs to address unique policy, institutional, environmental, and socio-economic issues.

The mission statement of the SEAFSN is “To increase our understanding and ability to manage forest fires in the Southeast Asia region within the context of sustainable forest management.” Specific objectives of the network are to strengthen capacity in forest fire science through scientific collaboration, to provide a common position on regional science issues, to optimize local resources through information exchange, to influence fire policy decisions, and to promote increased resources for forest fire research. We present an overview of the SEAFSN structure and activities.

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