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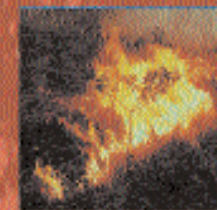
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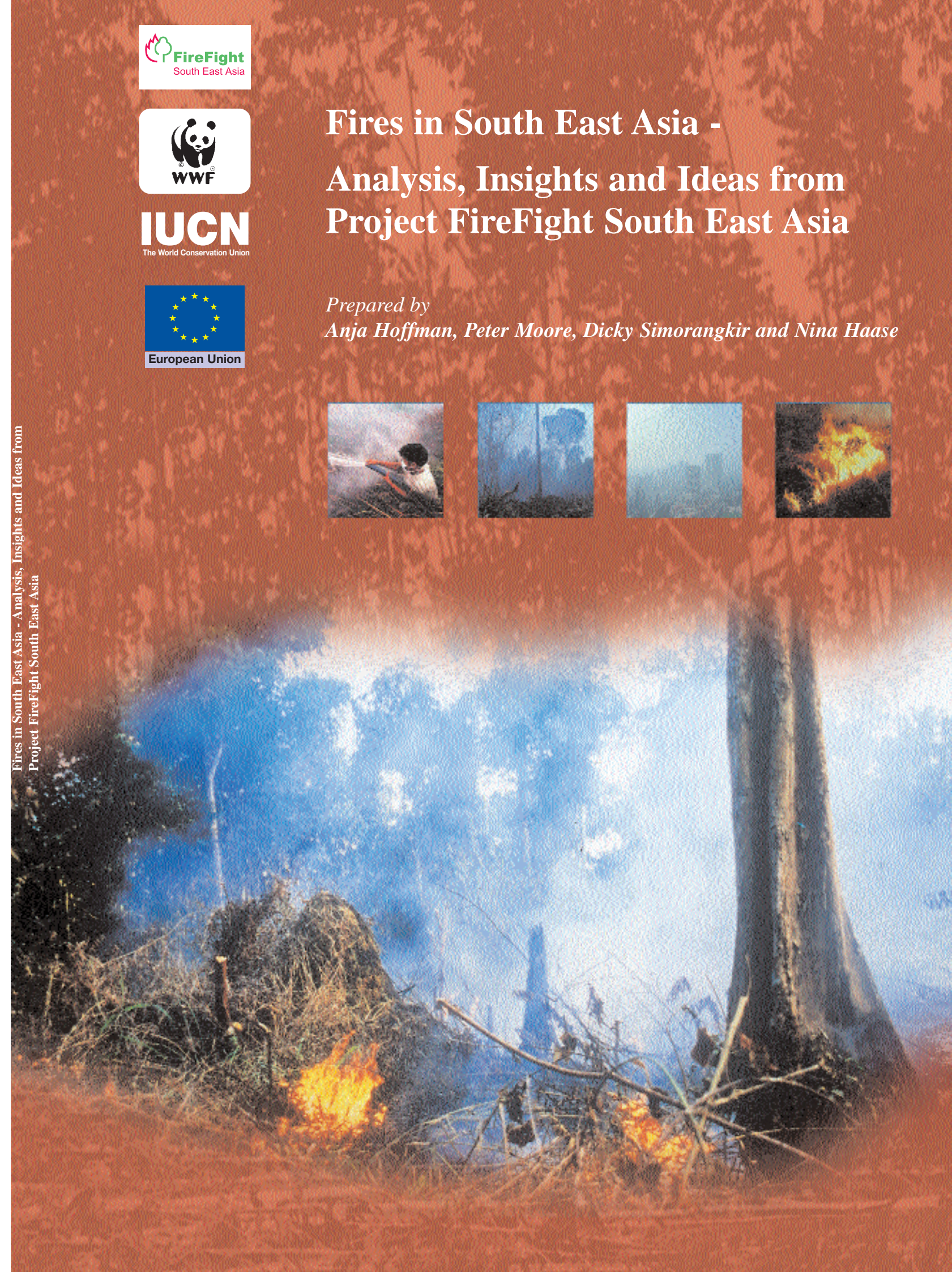


Fires in South East Asia - Analysis, Insights and Ideas from Project FireFight South East Asia

Prepared by
Anja Hoffman, Peter Moore, Dicky Simorangkir and Nina Haase



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Preface

The forest fires of 1997 and 1998 created enormous ecological damage and human suffering and helped focus world attention on the problem of forest & land fires. There is a strong recognition within WWF - The World Wide Fund for Nature and IUCN - The World Conservation Union that action is needed to catalyse a strategic international response to forest fires. There are no 'magic bullets' or 'instant solutions'. The issues to be addressed are complex and cut across many interests, sectors, communities, nations and regions. WWF and IUCN believe that action only takes place when fires are burning, with little attempt to address the underlying causes.

This is why the two organisations have joined forces to initiate Project Firefight South East Asia to secure essential policy reform through a strategy of advocacy using syntheses and analyses of existing information and new outputs. More specifically, the project aims to enhance the knowledge and skills of key stakeholders with regard to forest fire prevention and management and, where necessary, to facilitate the adoption of new and/or improved options. The project works at the national and regional levels across South East Asia to support and advocate the creation of the legislative and economic bases for mitigating harmful anthropogenic forest fires.

As the problem of forest fires lies beyond the capacity of national governments and international organisations to handle alone, the project pursues a multiple stakeholder approach. By combining WWF's extensive network of National Organisations and Programme Offices in South East Asian, IUCN's broad-based membership, world renowned scientific commissions, and collaboration with ASEAN governments, UN agencies, EU projects, CIFOR, ICRAF, RECOFTC, universities and others, the project ensures popular participation, public awareness, policy outreach and programmatic impact in connection with fire-related issues.

Project FireFight South East Asia undertook studies focusing on three areas of fire management: community-based fire management, legal and regulatory aspects of forest fires, and the economics of fire use in South East Asia. The results of these studies are the identification of political, private sector and civil society stakeholders and the legal, financial and institutional mechanisms appropriate to South East Asia that can positively influence their fire-related behaviour.

This report is a compilation and distillation of insights and experiences from three and a half years of project work. The aim of this publication is not only to provide key technical insights, but also to share experiences on the concept and execution of a regional project. We anticipate this report will be a reference for future projects and contribute to Project FireFight's legacy, improving the balance of fire management.

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List of abbreviations

ADPC	Asian Disaster Preparedness Center
ASEAN	Association of South East Asian Nations
CBFiM	Community based fire management
CIFOR	Center for International Forestry Research
EC	European Commission
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
ICRAF	World Agroforestry Centre
ISDR	International Strategy for Disaster Reduction
ITTO	International Tropical Timber Organisation
IUCN	The World Conservation Union
NGOs	Non-governmental organisations
PPFSEA	Project FireFight South East Asia
RECOFTC	Regional Community Forestry Training Center for Asia and the Pacific
SEAFire Net	South East Asia Fire Net
SIIA	Singapore Institute of International Affairs
WWF	World Wide Fund for Nature
UN	United Nations
UNFF	United Nations Forum of Forests

Executive summary

To mitigate and prevent fire disasters similar to the 1997/98 outbreaks, the World Wide Fund for Nature (WWF) and The World Conservation Union (IUCN) joined forces in early 1998, developing Project FireFight South East Asia (PFFSEA) to catalyse a strategic international response to forest and land fires.

PFFSEA is among the first technical and policy efforts on natural resource management, particularly forest and fire management, to be established at the regional level. While this means that there is little experience at this scale to draw on, the lessons from the project are valuable and informative for regional-level projects, some of which are now being implemented in South East Asia. Connections with other regional-level actors are more readily forged and maintained.

The project, however, is not directly involved in field-level work. To create this connection and to access data, local-level projects of the EC, WWF, IUCN and others are specifically included in PFFSEA's network and focus.

The array of fire-related projects and activities in Indonesia provides readily available knowledge that can be shared and exchanged, to generate new and further refined products to address the fire problem, complementing the work of various agencies, institutions and donor-supported projects in forestry and fire management. Additional research was only carried out where existing knowledge and studies needed to be complemented or enhanced. Intensive networking and close contacts with colleagues, also helped to prevent duplication.

A broad range of materials has been produced – a web page, reports, newsletters and two documentaries – to address specific needs and scenarios identified through interactions with policy makers and other important stakeholders in the region. These project outputs, lessons and insights are accessible to the public on the project homepage (<http://www.pffsea.org>).

Recognising that prevention is the best, and in most cases the only, effective strategy for the long-term management of fires, PFFSEA has focused on three themes: Community Based Fire Management (CBFiM), legal and institutional frameworks for forest and land fires, and the economics of fire and fire use. Solutions advocated by PFFSEA include legal and institutional reforms, increased private-sector engagement in fire management and stronger incentives for the rural communities to manage local fires are crucial to prevent disastrous fires and resulting smoke/haze pollution in South East Asia. PFFSEA has also worked to improve the understanding of the fire problem and correct prevailing misconceptions.

Project insights

The lack of available information on the number, place, size and location of the fires, the influence of weather, and fuel characteristics contributes to an incomplete understanding of fire and its causes. This is a key reason why governments in the region react to fire events rather than address the underlying causes. The resulting lack of clarity is clearly reflected in laws, regulations and institutional arrangements that focus mainly on suppression. Confusion and conflicts within and between laws and objectives for forest management must be resolved.

The relevant authorities should restructure and streamline fire management, and enhance employees' knowledge of the law in general, and legislation and regulations relating to fires in particular. This is urgently required in particular for Indonesia. Ideally, a single-line fire management organisation should oversee and coordinate the tasks of all five fire management elements, engage all stakeholders and implement policy.

Currently, fire management in South East Asia, as in other parts of the world, is almost exclusively a government effort and focuses too much on fire suppression. Suppression of fire is expensive, difficult to implement and addresses only the symptoms. Instead, understanding the causes of fire will serve to explain why fires are lit and why large fires occur only during certain years. Proactive fire prevention can be implemented by addressing the underlying problems, in balance with the key five management elements; analysis (of the fire problem), preparedness (to respond to fires), response (suppression) and recovery (rehabilitation of ecosystems and repair of built assets). Efficient and effective fire management has to be holistic and balanced, and include all five components of fire management. The private sector and local communities must be engaged, and their capacities and human resources at local scale utilised.

Although local communities with their traditional knowledge are in the best position to manage or prevent fires in their neighbourhood, they are excluded from most management plans and actions. Their input becomes especially crucial considering the limited government capacity at the local level. Government agencies, in cooperation with the private sector, should create and support conditions and opportunities for community-based fire management (CBFiM). This includes capacity building based on existing community practice, materials supplemented by information (weather data, fire danger warnings and maps) and secure land rights.

To date, the private sector plays almost no role in forest fire management, although evidence suggests that it should be held accountable for many fire outbreaks. It has the necessary financial and intellectual resources to clearly address the problems, and therefore should assume its legal responsibility and be more proactive in research, development and implementation of other land-clearing methods.

Next Steps

A focus on long-term integrated fire management is still required. PFFSEA's experiences indicate that only long-term approaches have a sustained impact because of the inherent difficulty of dealing with fires and related smoke-haze problems. The action on fires mainly takes place when they are burning, after the fact, when it is too late to prevent the fires. Prevention requires consistent long-term focus not a short-term reaction to smoke and flames. Focusing on long-term fire management is the most appropriate approach and will enable the fire suppression focus to be re-balanced. Effective efforts towards harmonised fire management must fit the region's cultural/social perceptions, political paradigms, and level of knowledge and skills.

Project FireFight South East Asia, or an equivalent institutional arrangement, must continue to significantly add value through a regional approach of advocating fire policy reforms, in association with partners. Continuing to analyse and generate relevant policy, management and technical perspectives on fires, as well as obtain and disseminate information to where it is needed, remains a critical activity for improving fire management in South East Asia and building on the solid foundation Project FireFight South East Asia has laid in the past three and a half years.

1. Introduction

During the last two decades, fires have drastically increased in all types of ecosystems, negatively affecting as much as 20 million hectares of vegetation worldwide in 1997/98. While fire is a natural and regular ecological disturbance in boreal forests, it can cause severe damage to tropical forest ecosystems. In South East Asia, particularly in Indonesia, more than 10 million hectares of vegetation were destroyed in 1997/98 due to a combination of the El Niño phenomenon and non-sustainable forest and agricultural developments in recent years. The fires in South East Asia have caused enormous human, environmental and economic damage. Besides the negative impacts on biodiversity and ecosystem functioning, forest and land fires have caused loss of human lives and major health problems, disrupted livelihoods and adversely affected regional and national economies. They may also play a significant role as a source of greenhouse gas emissions and smoke-induced impacts on weather. These problems attracted the attention of governments, donors and non-governmental agencies (NGOs). Numerous projects and activities were initiated to address the issues. The efforts, focusing mainly on fire suppression instead of fire prevention, however, were ineffective. A more strategic approach to introduce and promote a balanced and integrated fire management system that involves the private sector and local communities is urgently needed.

2. Project FireFight South East Asia

2.1. From conception to implementation

To mitigate and prevent fire disasters similar to the 1997/98 outbreaks, the World Wide Fund for Nature (WWF) and The World Conservation Union (IUCN) joined forces in early 1998 to catalyse a strategic international response to (forest) fires. They implemented the *Global FireFight* Programme for “strengthening national, regional and international networks for forest fire prevention and management”, which is financially supported by the joint WWF and IUCN Forest Programme, with the United States Forest Service providing the interim funding.

Project FireFight South East Asia (PFFSEA) became the first regional module of *Global Firefight* in 2000. PFFSEA aims to provide technical expertise in fire management and fire-specific perspectives through the WWF and IUCN networks, and concentrates on efforts to mitigate harmful fires and related impacts in selected regions. The PFFSEA model is to be implemented in South and Central America, Russia, the Mediterranean and sub-Saharan Africa. The project is financially supported by the European Commission (EC) and jointly executed and implemented by WWF and IUCN. PFFSEA has three thematic focus areas: community involvement, economics of fire use and legal aspects of forest and land fires.

The overall objective of PFFSEA is to secure essential policy reform at the national and regional levels within South East Asia to provide a legislative and economic basis for controlling harmful anthropogenic forest fires. Its specific objective is to enhance key stakeholders’ knowledge and skills of fire prevention and management, and where necessary, to facilitate the adoption of new and/or improved options.

PFFSEA is guided by a Project Steering Committee, comprising members from the funding organisations and partners such as WWF Indonesia, WWF Malaysia, WWF Asia-Pacific, IUCN Regional Forest Programme and Centre for International Forestry Research (CIFOR). The project is located at CIFOR, Bogor, Indonesia. Although most of the project work focuses on Indonesia, where most of the fires broke out, the steering committee meets on a rotating schedule within the Association of Southeast Asian Nations (ASEAN) countries to ensure wider participation and a representation of each country’s unique concerns and conditions.

2.2. Work approach

PFFSEA is among the first technical and policy efforts on natural resource management to be established at the regional level. While this means that there is little experience at this scale to draw on, the lessons from the project are valuable and informative for regional-level projects, some of which are now being implemented in South East Asia. Connections with other regional-level actors, such as ASEAN and the Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC), are also more readily forged and maintained. Other regional-level networks and structures with international themes also share the scope and functional issues of PFFSEA.

PFFSEA aims to provide technical expertise in fire management and fire-specific perspectives through the WWF and IUCN networks, and concentrates on efforts to mitigate harmful fires and related impacts in selected regions.

The project, however, is not directly involved in community and field-level work. To offset this limitation and to access data, local-level projects of the EC, WWF, IUCN and others are specifically included in PFFSEA's network and focus. Strong working relationships are also established with EC-funded projects, such as the Forest Liaison Bureau, Forest Fire Prevention and Control Project in Palembang, Sumatra, and the CIFOR/World Agroforestry Centre (ICRAF) research into the underlying causes of fires in Indonesia.

Most importantly, PFFSEA opts to advocate policy reforms, persuading key stakeholders and decision makers to adopt a more balanced fire management system involving government agencies and communities, and to explore options for more responsible fire management with the private sector. Since solving fire-related problems is beyond the capacity of individual national governments and international organisations, PFFSEA also pursues a multiple stakeholder approach. By combining WWF's extensive network of National Organisations and Programme Offices in South East Asia, IUCN's broad-based memberships, world-renowned scientific commissions and collaboration with ASEAN governments, United Nations (UN) agencies, European Union (EU) projects, CIFOR, ICRAF, RECOFTC, universities and other institutions, the project supports participation, public awareness and policy outreach in fire-related issues.

A major part of PFFSEA's efforts has been drawn to Indonesia because of its many devastating fires during the past twenty years. Several international organisations and governments have offered their assistance. Since 1982, no fewer than 40 projects and missions spending approximately US\$ 30 million have operated at various levels to address Indonesia's problems of unwanted fires. However, only a few projects were directed at developing long-term integrated fire management. Many efforts were focused on fire suppression rather than on the underlying causes and prevention of fire. Numerous missions, projects, workshops and conferences have analysed the major causes and characteristics of fires in Indonesia. Weak coordination amongst donor agencies as well as within the government meant that these efforts were poorly incorporated or activities were in part overlapping and redundant. In 1993, the Indonesian government established a National Fire Management Coordinating Committee to focus on long-term integrated fire management involving all relevant stakeholders, including the private sector, and to coordinate the international support to avoid duplication.

PFFSEA's work approach is aimed at addressing these problems, in association with partners, by synthesising and analysing existing information to provide new perspectives, insights and technical skills on fire management. The array of fire-related projects and activities in Indonesia provides readily available knowledge that can be shared and exchanged. Such an approach maximises synergies to generate new and refined products to address the fire problem, complementing the work of various agencies, institutions and donor-supported projects in forestry and fire management. An overview of community involvement, economics of fire use and legal aspects of forest fires in South East Asia was produced. Additional research was only carried out where existing knowledge and studies needed to be complemented or enhanced.

Close working relationships with ASEAN, the private sector and WWF/IUCN networks enhanced opportunities to access information and facilitated efforts to incorporate insights and key information. PFFSEA also maximises opportunities for positive change through constant consultation with partners and collaborators at many levels.

PFFSEA opts to advocate policy reforms, persuading key stakeholders and decision makers to adopt a more balanced fire management system involving government agencies and communities, and to explore options for more responsible fire management with the private sector.

3. Project insights

Efficient and effective fire management has to be holistic and balanced, and includes all five components: analysis, prevention, preparedness, response and restoration. It should involve the private sector and local communities, and utilise their capacities and human resources in their local areas.

Suppression of fire is expensive, difficult to implement and addresses only the symptoms. Instead, understanding the causes of fire will serve to explain why fires are lit and why large fires occur only during certain years. Proactive fire prevention can be implemented by addressing the underlying problems, complemented by other approaches such as analysis (of the fire problem), preparedness (to respond to fires), response (suppression) and recovery (rehabilitation of ecosystems and repair of built assets). Currently, fire management in South East Asia, as in other parts of the world, is exclusively a government effort and focuses too much on fire suppression. Efficient and effective fire management has to be holistic and balanced, and includes all five components: analysis, prevention, preparedness, response and restoration. It should involve the private sector and local communities, and utilise their capacities and human resources in their local areas.

The institutional arrangements for fire management – including mandates and responsibilities, roles and functions, interactions within the politico-administrative framework and among key stakeholders – have to be clear, and agreements on rules and regulations – about its prevention and responsible use – have to be identified. Ideally, a single-line fire management organisation that spans multiple government hierarchies should oversee and coordinate the tasks of all five elements, engage all stakeholders and implement the policies.

To date, the private sector plays almost no role in forest fire management, although evidence suggests that it should be held accountable for many fire outbreaks. It has the necessary financial and intellectual resources to clearly address the problems, and therefore should assume its legal responsibility and be more proactive in research, development and implementation of other land-clearing methods.

Although local communities with their traditional knowledge are in the best position to manage or prevent fires in their neighbourhood, they are excluded from most management plans. Their input becomes especially crucial considering the limited government capacity at the local level. Government agencies, in cooperation with the private sector, should create and support conditions and opportunities for community based fire management (CBFiM). This includes capacity building based on existing community practice, materials supplemented by information (weather data, fire danger warnings and maps) and secure land rights.

The lack of available information on the number, place, size and location of the fires, the influence of weather, and fuel characteristics contributes to an incomplete understanding of fire and its causes. This is a key reason why governments in the region react to fire events rather than address the underlying causes. This deficiency is clearly reflected in legislation that focus mainly on suppression. Confusion and conflicts within and between laws and objectives for forest management must be resolved. The relevant authorities, particularly in Indonesia, should restructure and streamline fire management, and enhance employees' knowledge of the law in general, and legislation and regulations relating to fires in particular.

4. Impacts

4.1. Regional, national and international impacts

PPFSEA has contributed considerably to the development of fire policies in South East Asia. It has a strong working relationship with the ASEAN Secretariat and has a standing invitation to ASEAN meetings and events. The recommendations from the ASEAN World Land and Forest Fire Hazards conference to the environment ministers included all the major concerns and insights of PPFSEA. As a result of this positive cooperation, the project's input will continue to influence the discussions and deliberations of ASEAN ministers and senior officers.

Transboundary haze and pollution, by their very nature, are also challenges common to ASEAN member states. In a concerted effort to combat the negative consequences of forest fires, environment ministers of ASEAN signed an Agreement on Transboundary Haze Pollution in June 2002, to strengthen cooperation and reinforce preventive measures in the region. Its implementation will complement PPFSEA's efforts to address harmful fires through policy and law reforms.

The WWF and IUCN have a joint commitment to work with governments, international organisations and communities to address the underlying causes of forest fires and reduce the impacts of harmful fires. Under their global Forest Conservation Programme, PPFSEA contributes to WWF International's goal to conserve nature and protect ecological processes through national and international advocacy to establish appropriate policies, and international campaigns to highlight and demonstrate solutions to crucial environmental problems. PPFSEA's objectives are also consistent with IUCN's aim to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

The EC Indonesian Development (Forest) Programme – based on the need to protect, conserve and sustainably manage Indonesia's forest resources by taking account of the welfare of local populations, general development of the Indonesian economy and global concerns – has also benefited from PPFSEA's input. The Indonesian National Five Year Development Plan 1999-2003 (Repelita VII)'s policy and overall objectives towards sustainable development, and the forestry sector's objectives of sustainable forest management have linkages with PPFSEA. The project also played a role in a major governmental commitment given to the Consultative Group on Indonesia in February 2000 to combat forest and land fires. This was reconfirmed by the current Minister of Forestry as one of five priorities for forest policy development at the Consultative Group on Indonesian Forests meeting in 2001. PPFSEA's work – linking national and regional partners working on fire management and incorporating local knowledge – is an important part of the ASEAN Haze Action Plan and the ASEAN Response Strategy to Fire Smoke and Haze.

On a broader scale, PPFSEA's objectives support the international forest-related commitments of United Nations Conference on Environment and Development, AGENDA 21, Chapter 9 (Protection of the atmosphere), Chapter 11 (Combating

deforestation) and Chapter 15 (Conservation of biological diversity), and follow-up processes (Commission on sustainable development). PFFSEA notably contributed – through its innovative project concept, partnerships and linkages – to the international forestry and fire policy dialogues of United Nations Forum of Forests (UNFF). IUCN’s and CIFOR’s memberships in the Collaborative Partnerships on Forest channelled major findings, especially on the participation of local communities in fire management, to support UNFF’s objectives of conservation, management and sustainable development of all forest types worldwide. Under this umbrella, PFFSEA’s work complements the objectives of Indonesia’s National Forest Programme “to ensure the conservation, management and sustainable development of forests to meet local, national, regional and global needs and requirements, for the benefit of present and future generations”. The Indonesian government is currently formulating a National Forest Plan through the Indonesian Inter-Departmental Committee on Forestry.

Having a “foothold” in a fire- and smoke-sensitive region, PFFSEA has the opportunity not only to channel its findings and experience to the policy processes at the global level but also to the field activities.

IUCN is engaged in a partnership with the United Nations International Strategy for Disaster Reduction (ISDR) and is a member of the ISDR Inter-Agency Task Force Working Group 4 on Wildland Fire. The aim of the ISDR is to mobilise governments, UN agencies, regional bodies, private sector and civil society to unite efforts in building resilient societies by developing a culture of prevention and preparedness. The Working Group on Wildland Fire provides an international, inter-sectoral and interdisciplinary platform for policy makers, scientists and managers to address wildland fire issues at the global level. PFFSEA with its insights and policies of fire management at the regional level is bridging the “macro” (global) policy and “micro” field activity levels. Having a “foothold” in a fire- and smoke-sensitive region, PFFSEA has the opportunity not only to channel its findings and experience to the policy processes at the global level but also to the field activities.

4.2. Direct benefit and sustainability

The significant resources and experiences of IUCN and WWF – on various issues and effective tools/mechanisms of facilitation, publication and communication – have created a model framework with a sound basis and background for PFFSEA, and contributed considerably to the high quality products of the project. These outputs complement not only IUCN’s and WWF’s global fire programme, but also provide valuable insights for other key areas of their forest programme, such as “community involvement in forest management” and “environmental law”. The WWF and IUCN networks and regional offices are crucial in internalising and transferring the major messages and insights of PFFSEA to target and local groups throughout South East Asia.

Through the network and platform provided by the ISDR Inter-Agency Task Force for Disaster Reduction and its Working Group on Wildland Fire, PFFSEA’s outputs are supported by their members, and in particular by the Global Fire Monitoring Centre that provides a fire documentation, information and monitoring system accessible through its homepage.

In cooperation with the ASEAN secretariat, PFFSEA is exploring options and possibilities to launch a free web-based one-stop fire management information clearinghouse providing key papers and articles that are often difficult to access or out of print. This would ensure the availability of PFFSEA publications after project termination.

5. Project activities and products

The project has facilitated a variety of multi-stakeholder and ongoing public consultation processes, and organised and participated in several workshops and conferences. These have involved national, regional and international organisations and agencies dealing with various aspects of fires. A common and better understanding about balanced fire management, problems and solutions has been established. Through intensive networking and close contacts with colleagues, duplication or unnecessary data collection was forestalled. A broad range of materials has been produced – a web page, reports, newsletters and two documentaries – to address specific needs and scenarios identified through interactions with policy makers and other important stakeholders in the region. Based on these project outputs, lessons and advice are accessible to the public on the project homepage (<http://www.pffsea.org>).

A broad range of materials has been produced – a web page, reports, newsletters and two documentaries – to address specific needs and scenarios identified through interactions with policy makers and other important stakeholders in the region.

5.1. Networks and collaborations

Networking is a central tool of PFFSEA. Tapping into the existing networks of WWF and IUCN, the project has further established significant contacts and networks with many key actors in the region. These provide PFFSEA with opportunities to gather and compile information, and share knowledge and insights through ongoing consultations amongst concerned policy makers and key people from academia, civil society and the public sector. PFFSEA is the content editor for the WWF and IUCN intranets and websites on fires and related issues. All the project materials are available, and will continue to be available, to interested audiences.

5.2. Published reports

Based on PFFSEA's approach of analysing and using existing information, several major reports focusing on CBFiM, legal and regulatory aspects of forest fires, and the economics of fire use in South East Asia have been published. Some of the reports were jointly published in partnership with other organisations such as the Food and Agriculture Organization of the United Nations (FAO). All publications can be downloaded from the project's website or hardcopies are provided on request. Some are translated into local languages (Indonesian, Thai and Vietnamese). These studies assist identify political, private sector and civil society stakeholders, and the appropriate legal, financial and institutional mechanisms that can positively influence fire-related behaviour in South East Asia. In addition, national and international policies, which promote, or fail to discourage, forest fires are highlighted.

5.3. Periodical info-brief: “*Burning ISSUES*”

PFFSEA publishes “*Burning ISSUES*”, a periodical info-brief, to explain and clarify fire management topics, which are often discussed but not necessarily understood. The factual and concise information contained in the brief is based on analysis and synthesis of existing research as well as project outputs, and is targeted at policy makers and key actors whose decisions are critical for improving forest and fire management.

The innovative mix of succinct information, sound argument addressing key and interesting fire management issues, and the attractive layout has been very well received. The *Burning ISSUES* has often been cited and generated interest in the project and its findings.

5.4. Workshops and conferences

PPFSEA has organised several workshops and a major international conference. Workshops facilitate the discussion of specific topics and identification of key elements of project focus with a select group of people. Concepts and strategies can then be formulated and reviewed. “Communities in flames: an international conference on community involvement in fire management” is the first conference that focuses on the topic and sets the basis for a structured process towards a framework for CBFiM.

6. Communication strategy and dissemination of findings and products

To disseminate PFFSEA messages and findings effectively, a communication strategy (Table 1) was developed. The target groups and stakeholders were clearly identified. Based on a comprehensive stakeholder analysis, effective and appropriate means to reach each group were formulated. The communication strategy defines *who* the project targets are, notes *what* messages are relevant to each target, sets out *how* best to deliver the messages and address concerns, and develops timelines for *where* and *when* the project needs to communicate. The strategy emphasises the need to launch the project messages before the onset of the dry season, and to steadily and persistently release short, clear and consistent messages that would be accepted and adopted through focused repetition.

Table 1: Matrix of communication strategy

Elements of communication	National governments	Agency officials	Private sector business/industry	Donors and development banks	Research institutions and universities	Local and national NGO
Reasons for concern over the fires	Public image, response to pressure	Public image, response to pressure, duty to address issues	Public image and the bottom line	Environmental and socio-economic impacts	Environmental and socio-economic impacts, academic interests	Environmental and socio-economic impacts
Language	National language - Thai, Indonesian	National language - Thai, Indonesian	English	English	English - simple and plain	Local language - Sundanese, Javanese
Tone of the message	Demonstrative, inspirational	Practical, emphatic	Measured, structured	Rational, scientific, intellectual and persuasive	Rational, intellectual	Simple, vivid
Format of presentation	Formal presentations, print media	Face to face, informal presentations	Verbal interactions	Print media, verbal interactions	Print media	Verbal interactions, audio-visual and print media
Tools/delivery mechanisms	High-profile and other events Website Short video Radio and television releases Magazines	Regular two-way networking and contacts High-profile and other events Project reports, information/briefing notes Website CD-ROM/FireFight "tool kit" Information clearinghouse	Communication workshop Information/briefing notes CD-ROM/FireFight "tool kit" Magazines	High-profile campaign/events Project reports Information/briefing notes Website E-mail/press release CD-ROM/FireFight "tool kit"	High-profile and other events Project reports Information/briefing notes Website E-mail/press release Information clearinghouse	High-profile and other events Communication workshop Information/briefing notes Website Short video Radio and television releases CD-ROM/FireFight "tool kit"
Potential partners, leaders or conduits of communication	Donors, projects, CIFOR, ICRAF, WWF, IUCN, FAO, ITTO*	Projects, agency contacts, SEAFire Net,** WWF, IUCN, CIFOR, ICRAF	WWF, IUCN, SIIA,** CIFOR, ICRAF, Haze Prevention Group	WWF, IUCN, CIFOR, ICRAF, ITTO	CIFOR, ICRAF, SEAFire Net, IUCN, SIIA, FAO, ITTO	National NGOs, WWF

* International Tropical Timber Organisation; ** South East Asia Fire Research Net work; *** Singapore Institute of International Affairs