



FFA
FIRE FREE
ALLIANCE



**MEMBERS
REVIEW**

2017



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Our Fire Free Future

Bringing communities together to prevent forest fires in South East Asia



Executive Summary

The Fire Free Alliance (FFA) is a voluntary multi-stakeholder group made up primarily of forestry and agriculture companies with NGOs and other concerned collaborators and partners, who are committed to resolving Indonesia's persistent fires and haze problems arising from forest and land burning.

The current members of FFA are APRIL, Asian Agri, IOI, Musim Mas, Sime Darby, Wilmar International Limited, IDH and PM.Haze. Members collaborate to share information, and open source knowledge and resources to achieve lasting solutions that lead to a fire free Indonesia (See Appendix A for more information on FFA). Fire prevention through community engagement has proven to be a successful method to reduce the incidence of unmanaged fire and smoke haze in the landscape.

Fire Prevention is part of a broader fire management framework, which also includes Preparation, Suppression

and Recovery. Prevention is recognized widely as the most cost effective solution to reducing the impact of landscape fires.

This annual report covers the fire prevention efforts by our eight members in 2017. Our members engage in various components within the Fire Free Village (FFV) programme. In total, 468 villages were engaged in some form of fire prevention activity in 2017, up from 416 in 2016. Members of the FFA recognise that this engagement requires a long-term commitment, but value the role effective fire prevention programmes play in reducing the impact of fires across the landscape.

The FFA is open to new members who have the capacity to implement community-focused fire prevention programmes in line with the FFA Charter (see appendix A) and through respectful and collaborative community engagement.

Key components* of the various Fire Free Village (FFV) programmes



Fire Prevention and Monitoring

- Engaging with communities
- Developing fire risk maps for each site
- Adding monitoring of areas outside their boundaries.



Providing Mechanical Site Preparation

- Providing mechanical site preparation to the community as an alternative to burning (when required and when possible - clear land rights).



Supporting Community Development

- Supporting the development of activities that do not require burning and can provide an income to the community. e.g. sustainable agriculture, non-timber forest products, crafts, fish farm, waste management.



Raising Awareness and Training

- Raising awareness in the villages about the impact of fire and haze and alternatives to burning, e.g. school talks, movie screenings.
- Training community members and improving community firefighting capacity.



No-Burn-Village Reward

- Rewarding villages that have no forest fires in areas allocated to them



Haze Monitoring

- Monitoring haze levels and providing advice and assistance to communities impacted by haze events.

*Please note that the implementation of key components listed here varies among FFA members. Please refer to profiles of each companies below for details.

Summary - FFA Member's 2017 Achievements & 2018 Commitments

FFA Implementers



2017 Achievements	2018 Commitments
<p>In 2017, nine new villages were included in the programme. Out of 18 villages, 15 were given the whole reward. One village received half a reward while only two villages received no reward. The Fire Free Toolkit was also reviewed and updated by the APRIL team and shared with Fire Free Alliance partners at the Technical Workshop in November in Pekanbaru.</p>	<p>In 2018, our original nine programme villages will graduate from a successful year of being fire resilient. APRIL will look to consolidate our fire free village work with the existing villages in Pulau Padang.</p>
<p>The FFVP 2017/2018 involved additional seven villages from Riau & Jambi. The total 16 villages represent 343,276 ha of village land. The collaboration on fire prevention has increased the community awareness of the 16 villages involved. Nevertheless, while 10 villages were able to protect their areas, six villages reported fire incidents in 2017. One of Asian Agri's fire free awareness community had an opportunity to share their experience at the XV Pekan Nasional Kelompok Tani Nelayan Andalan (Penas-KTNA) in Banda Aceh.</p>	<p>Asian Agri will continue its commitment to expand the partnership to two more villages.</p> <p>Asian Agri will be implementing Resilience programmes for villages that have been able to manage fires independently.</p>
<p>In implementing the fire prevention & monitoring programme, the surrounding communities is a crucial partner for IOI's success. By establishing partnership and engagement with the communities, it enables IOI to understand their livelihood and social needs. In 2017, because of this approach, IOI received an appreciation certification for our involvement and collaboration with the companies and villagers in this programme.</p>	<p>In 2018, with the government's support in our landscape, IOI hopes to establish partnerships with local communities and identify potential livelihood programmes for them. In addition, despite IOI's less than 8% land presence in the South Ketapang Landscape, we aim to develop partnerships with at least seven villages, to raise awareness and empower them to further contribute to the fire prevention programme.</p>
<p>In 2017, 45 out of 70 villages, which have established memorandum of understanding (MoUs), successfully kept their areas free from fires. To acknowledge their achievements, Musim Mas awarded each village 25 Juta Rupiah that could fund village development projects. In 2017, Musim Mas was able to engage three additional villages to sign MoUs, making a total of 73 participating villages for 2018.</p>	<p>This programme will continue into 2018 and Musim Mas aims to increase the percentage of participating villages that successfully implement the Masyarakat Bebas Api Programme.</p>
<p>In 2017, the Community-based Fire Prevention Programme, has extended its coverage to nine more villages in Palembang and Jambi provinces. In total, there are 24 villages were covered since the programme started in 2014.</p>	<p>The collaboration with University Jambi (UNJA) for four villages was completed in April 2018. The programme with University of Sriwijaya (UNSRI) is still on going and expected to be completed by July 2018.</p>
<p>Wilmar established a monitoring system for hotspots in the radius of 5km outside boundaries. In 2017, the number of MoUs signed increased from 44 in 2016 to 62 villages. The number of socialisation of villages increased from 64 in 2016 to 75 in 2017.</p>	<p>Wilmar will be updating fire-risk map for 2018. Wilmar will continue monitoring fires within the boundary and a 5km radius outside the boundary; continue socialization of fire prevention, monitoring and suppression to all employees and the villages; and continue to provide fire-awareness to schools in our plantation.</p>



FFA Supporters



2017 Achievements

IDH supported the development of Government Regulation (Perda) of Jambi Province on Fires Control and Management, and the development of Government Regulation (Perda) of South Sumatra Province on Peat Land Ecosystem Control. IDH developed an integrated system among companies, villages and local government for monitoring and reporting the occurrence of forest and land fires in West Kalimantan. IDH built capacity and developed facilities for fire prevention, canal blocking, and peat restoration in Jambi. IDH developed the Center of Excellence in South Sumatra.

PM.Haze conducted educational trips to Indonesia and Malaysia, supported their local peat restoration projects and raised awareness in Singapore. PM.Haze carried out an advocacy and outreach campaign in Singapore to support the adoption of RSPO certified palm oil. This led to increased awareness and five companies switching to RSPO oil.

2018 Commitments

IDH will cooperate with other donor partners to execute the programmes of FFV in five villages and Center of Excellence in Muba District, South Sumatra. IDH will implement the program of Center of Excellence in Muba District, especially forest and land fires prevention. IDH will cooperate with the private sectors in South Sumatra and Jambi Provinces to implement FFV program by adopting one or two villages. IDH will cooperate with Sustainable District Forum (LTKL) in developing district-based fires prevention. Preparing FFA Secretariat in Indonesia.

PM.Haze will conduct at least one educational trip to Malaysia. PM.Haze will continue to campaign for eateries to switch to sustainable palm oil, and start a new campaign for responsible finance to support FFA-type of projects. PM.Haze will support community development in Sungai Tohor, Indonesia.

Fire Free Alliance Indicators

STAGE 1

Evaluate

The village has been approached but there is no signed agreement or awareness activity yet.

STAGE 2

Agreement

An agreement has been signed between the company and the village.

STAGE 3

Fire Free Awareness

There are awareness activities conducted at the village.

STAGE 4

Fire Free Inclusion

Includes at least:

- Raising awareness
- Building fire response capacity
- Supporting community development

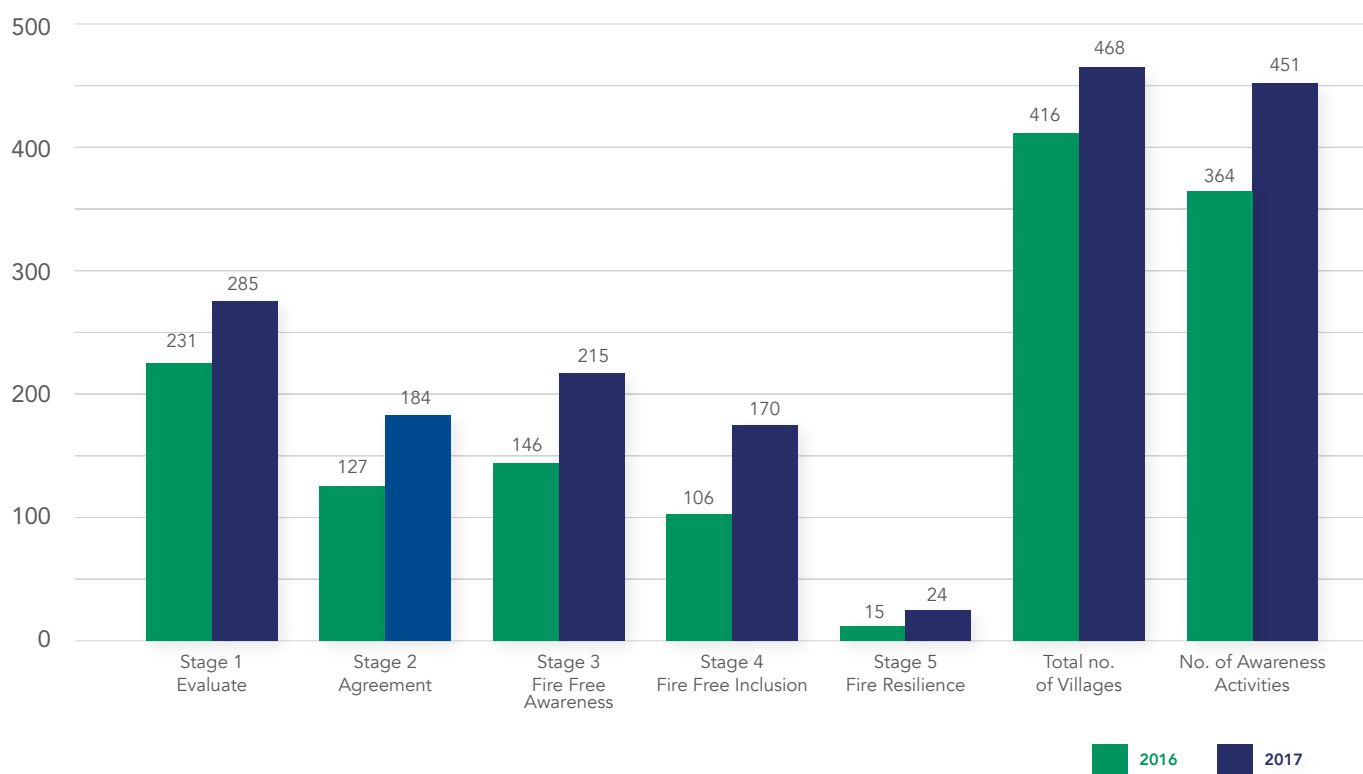
STAGE 5

Fire Resilience

No fire for 2 consecutive years.

The graph below reflects the progress of our members and their villages between Stage 1 to Stage 5 in 2016 and 2017.

FFA Indicators for 2016 and 2017



Conclusion and Learnings

The evidence presented in this report indicates an improvement in fire prevention efforts among FFA members. While every organization is at different stages towards fire resilience, they are actively engaging more villages to participate in fire prevention efforts, as can be seen in the graph above.

To prevent forest fires in South East Asia, the FFA is working closely with communities. In 2018, Implementer Members have committed to intensify their efforts by partnering more villages and Supporter Members have committed to increase their outreach programmes.

In this report, Implementer Members raised challenges faced in implementing fire prevention and awareness programmes.

They underscored the importance of the support from the local community, Indonesian government and other stakeholders, especially those companies with concessions near their own. It is essential that a “no burning” culture is created in villages to prevent village dependency on incentives given (No-burn-village rewards).

FFA will continue working towards our goals to increase the uptake of the fire-free programmes in areas where members operate. Collaboration with multi-stakeholders is crucial to scale-up the adoption of the fire-free programme across Indonesia. We are looking to engage FFA members, NGOs, and the local government and community in future plans to reduce the risk of forest fires.



Working with our original 9 communities from 2015 has been an important learning experience both for APRIL and the communities involved. Understanding that the haze was impacting all of our children and that we shared a common problem was an important first step. We wish them well on their continuing fire free journey.

- Sailal Arimi, Fire Prevention Manager

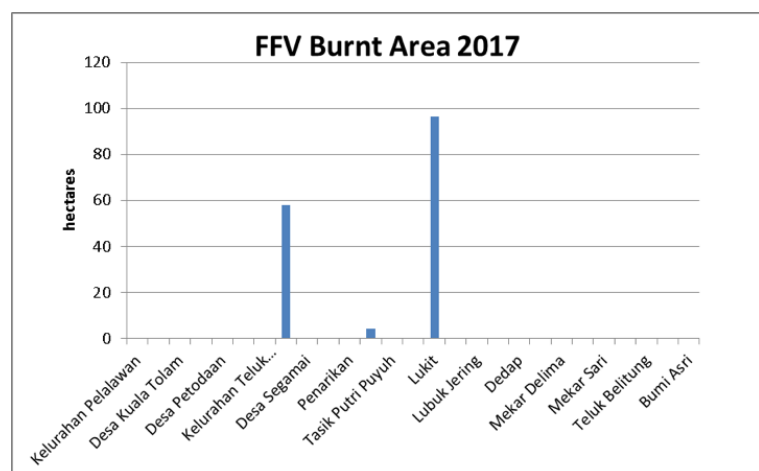
FFA Indicators for 2016 and 2017

Year	2015	2016	2017
Stage 1 Evaluate	0	50	50
Stage 2 Agreement	9	18	18
Stage 3 Fire Free Awareness	0	50	50
Stage 4 Fire Free Inclusion	9	18	18
Stage 5 Fire Resilience	0	0	9
Total no. of Villages	9	68	77
No. of Awareness Activities	9	68	77

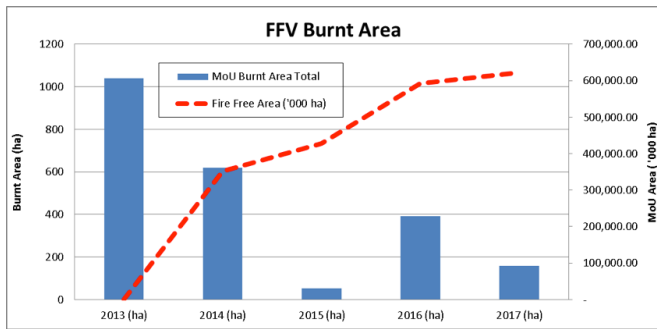
Overview of the programme

APRIL's fire prevention work formally started in late 2014 with the development of a landscape risk map. By early 2015, nine high fire risk villages neighbouring APRIL concession areas had been identified and engaged in discussions around fire prevention. By the end of 2015, after one of the worst fire seasons in Indonesia's recent history and several months of catastrophic haze levels in Riau, villages engaged in the fire free program had reduced their average burning by 90%.

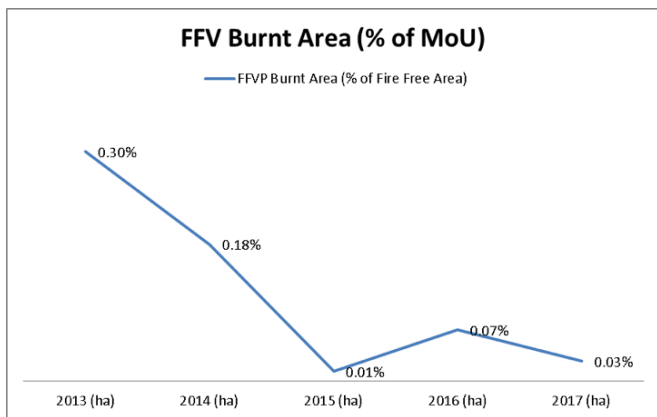
The Fire Free Village Program (FFVP) has grown since 2015 into the three separate strands of the current 2017 program – Fire Aware Communities (FAC: 50 villages), Fire Free Villages (FFV: 18 villages) and Fire Resilient Communities (FRC: the nine original villages) totalling engagement with 77 separate communities outside APRIL concession.



Graph 1. Villages results for 2017 (hectares)



Graph 2. MoU and Burnt Area (hectares)



Graph 3. Burnt Area as a proportion of MoU



Children at Teluk Belitung agree that Smoke Free is Cool



Crew leaders learn about sustainable agriculture

Fire Aware Community

Preliminary socialization and engagement before entering FFVP, focused on relationship building and initiatives such as the school awareness programme. Currently 50 villages across Riau are at this initial stage of engagement.

Fire Free Village Program

Under five project areas (see below) for two years, this stage is focused on educating, equipping and supporting villages, initially via the offer of economic rewards and other assistance, to adopt No Burn agricultural practices. Currently 18 villages are actively participating in the FFVP.

Fire Resilient Community

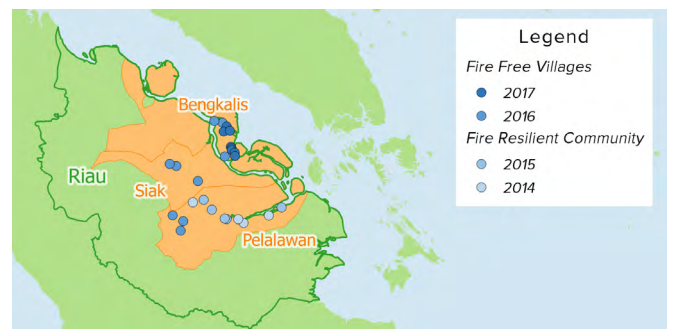
Villages that have 'graduated' from the FFVP and are no longer eligible for rewards but continue to have ongoing engagement with APRIL (including continued support for local Crew Leaders). For the first time, nine villages have now moved into the FRC stage of engagement.

The long-term success of the FFVP is a result of working in close partnership with those communities who have recognized the serious health implications of smoke haze from forest fires, particularly on infants and young children. Fire prevention relies on the actions of individuals and the dedicated work of the FFVP operations team who assist in delivering solutions that have been proven to reduce the communities' need to burn.



Sailal Arimi, Fire Prevention Manager, meets with Community Leaders

Villages location



Results, challenges and lesson learnt

In 2017, the nine new villages were all based on Pulau Padang, an area where unmanaged fires have played a key role in driving recent land use change. Working with a local NGO, Laskar Alam, FFVP engaged with communities who had little experience with alternative methods of land preparation and with access to limited resources. Results from 2017 showed that of the 18 villages eligible to receive the No Burn Infrastructure Reward, 15 will be given the whole reward while only two villages had a fire greater than the 2 ha. limit and will receive no reward. One village had a small fire incident less than 2ha and will receive half the reward.

There was also welcome return to average rainfall conditions for Riau in 2017. While this helped to lower the impact of large-scale landscape fires, the important role of fire prevention through community engagement should not be underestimated. Effective fire prevention programmes assist communities to move away from relying on fire as their only alternative for land preparation to being able to access and use a range of sustainable and effective options.

The Fire Free Toolkit was also reviewed and updated by the APRIL team and shared with Fire Free Alliance partners at the Technical Workshop in November in Pekanbaru.

Plans for 2018

In 2018, our original nine programme villages will graduate from a successful year of being fire resilient and APRIL will look to consolidate our fire free village work with the existing villages in Pulau Padang.



Forest and land fires have a major impact on the health, education and livelihoods of millions of people who live nearby. Working together has created synergies with other stakeholders, leading to positive outcomes in the last year of the program. By engaging with and empowering more local communities, we hope that awareness will increase. At the same time we help them to establish a well-managed fire system with a greater focus on prevention.

- Zubahri, Sustainability Manager

FFA Indicators for 2016 and 2017

Year	2016	2017
Stage 1 Evaluate	48	11
Stage 2 Agreement	9	7
Stage 3 Fire Free Awareness	11	7
Stage 4 Fire Free Inclusion	9	7
Stage 5 Fire Resilience	0	0
Total no. of Villages	9	16
No. of Awareness Activities	9	5

Overview of the programme

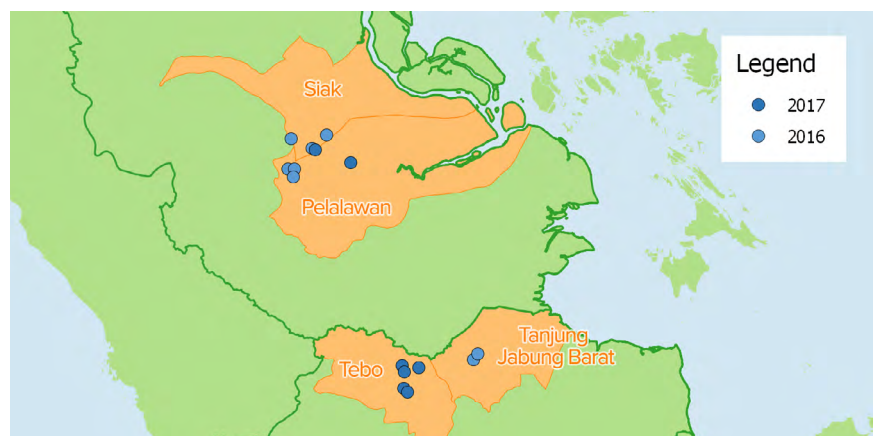
Asian Agri implemented a fire management programme in villages located near the border of its estates in 2014. However, the initial programme was temporary, as the company provided technical assistance only during the dry season.

A more structured program to mitigate forest and land fires began when Asian Agri officially launched Fire Free Village Program (FFVP) in April 2016, involving seven villages in Riau and two villages in Jambi.

In implementing the program, Asian Agri works with key stakeholders including community leaders, local government, police/national army, and other institutions to ensure that villagers are prepared for local fire prevention and mitigation.

In the second year of FFVP, Asian Agri expanded the program to engage seven more villages: two in Riau and five in Jambi. Those make a total of 16 villages under Asian Agri FFVP 2017/2018.

Villages location



Asian Agri's FFVP in Riau Province:

1. Lubuk Ogung Village
2. Rantau Baru Village
3. Delik Village
4. Lalang Kabung Village
5. Segati Village
6. Sotol Village
7. Tambak Village
8. Terusan Village
9. Bagan Limau Village

Asian Agri's FFVP in Jambi Province:

1. Lubuk Bernai Village
2. Lubuk Lawas Village
3. Tuo Sumay Village
4. Suo Suo Village
5. Semambu Village
6. Teriti Village
7. Muara Sekalo Village

5 PRINCIPLES OF FIRE FREE VILLAGE PROGRAM

ENHANCEMENT
COMMUNITY AWARENESS
Engage local communities to raise awareness on the hazards of fire and haze. Better community awareness is crucial to preventing fires.

EMPOWERMENT
COMMUNITY FIRE CREW LEADERS
Select Community Fire Crew Leaders from villages and train them as fire prevention advocates and fire suppression specialists.

ASSISTANCE
LAND-CLEARING ALTERNATIVES
Provide sustainable alternatives to slash-and-burn land-clearing techniques, such as the use of machinery.

REWARD
NO-BURN INCENTIVES
Reward fire-free villages with cash incentives. Incentives are used to improve village infrastructure and amenities.

DEVELOPMENT
OF LOCAL ECONOMY POTENTIAL
Explore local potential of the village to increase the welfare.

www.asianagri.com

Results, Challenges, and Lesson Learnt

In the second year of FFVP implementation, 10 villages were able to protect their areas from fire. Nevertheless, there are some challenges in running the program, such as limited technical facilities to support community awareness. Unclear borders remain an issue when it comes to protection, and law enforcement is still weak.

Community participation is the key to success in the programme. The crew leaders and fire free awareness community (MPA) play a significant role in preventing and controlling fire incidents in the village.

Plans for 2018

Asian Agri is planning to expand its partnership to two more villages in Riau and Jambi. The Resilience program will also be implemented in villages that have been able to prevent fires independently.



IOI GROUP



IOI's fire prevention and monitoring programme has been initiated actively since year 2016. We have been collaborating with several stakeholders and the surrounding communities. However, the most challenging effort in fire prevention and monitoring programme is to ensure that community can be empowered to enable them to be part of the solution.

- Dr. Surina Ismail, Group Head of Sustainability

FFA Indicators for 2016 and 2017

Year	2016	2017
Stage 1 Evaluate	1	1
Stage 2 Agreement	0	0
Stage 3 Fire Free Awareness	0	0
Stage 4 Fire Free Inclusion	0	0
Stage 5 Fire Resilience	0	0
Total no. of Villages	1	1
No. of Awareness Activities	1	1

Overview of the programme

Since 2016, IOI had organized Fire Awareness Training (FAT) through Manggala Agni Pontianak in order to improve the "Fire Prevention and Patrolling Program (FAT)" in our concession areas. Continuing on in 2018, more awareness programs were organized and supported by BKSDA and POLHUT in Desa Dusun Air Hitam and Desa Jambi.

Going forward, IOI plans to expand the awareness program into another 4 different Desa in South Ketapang, in order to ensure all villagers that are living in and around our concessions are aware of the need to prevent any forest or land fire. In addition, we are in the process of evaluating opportunities to develop partnership programs related to fire prevention with communities, NGOs and other stakeholders. This program is also to provide a platform for IOI to socialize the fire prevention program in accordance with the FPIC process with all the relevant stakeholders.



IOI Fire Prevention and Control Team's effort in putting of the fire;



Drone's photo of the fire outside our plantation areas and working closely with other stakeholders to control the spreading of the fire.

IOI's Fire Prevention and Monitoring Program

As a member of FFA, IOI's efforts include the following four key strategies:

- (i) Emergency Response Program (ERP)
- (ii) Establishment of Fire Monitoring System;
 - a. Fire Alert Information System;
 - b. Fire Towers & Drones
 - c. Patrolling
- (iii) Training Programs on Fire Emergency & Simulation (Prevention and Control) to respond to the fire occurrences
- (iv) Socialization, Dialogue and Awareness program in forest and land fire prevention to encourage the participation of relevant stakeholders, ex. communities, neighboring companies, etc.

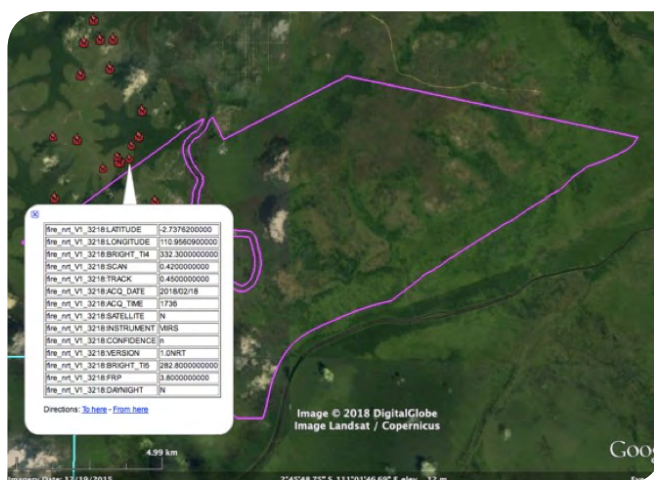
(i) Emergency Response Program

In order to be more effective in fire prevention and its preparedness, IOI have established fire management teams across our plantations and concessions in order to provide immediate response towards any fire occurrence. To ensure the effectiveness of our fire management team, IOI have a full range of equipment which includes early detection tools, fire-fighting machineries (where required), hand tools, personal protective equipment, communication devices and facilities such as fire towers, water sources as well as trained personnel. These initiatives are in line with our Standard Operating Procedures of Emergency Response Program.

(ii) Establishment of Fire Monitoring System

a. Fire Alert Information System

Monthly report on the Fire Alert Information System (for Sabah, Peninsular, and Kalimantan) is submitted to RSPO. Since January 2018, IOI-SNA Plantation has started the Fire Alert Information System as part of our efforts in monitoring fires within our concessions. The system is developed in order to provide our Fire Prevention and Control team real-time information once the alert is received by our team, the team will communicate with nearby communities and work together to control and put out fire.



Our Fire Alert Information System that shows the location of hotspots



Photos showing our effort (with the communities) to control the fire from spreading to other areas

(iii) Training Program on Fire Emergency & Simulation to respond to fire occurrences



Training on fire emergency for our workers (IOI-SNA Plantations)

b . Fire Towers & Drones



Drone monitoring in Ketapang area



Simulation training on fire control and prevention program in PT SKS



Aerial view of fire tower



Training on how to use fire-fighting equipment

c . Patrolling



Joint patrolling with Indonesia's local Natural Resources Conservation Agency (BKSDA) in IOI-SNA Group's concession

(iv) Socialization, Dialogue and Awareness program to encourage the participation of communities in forest and land fire prevention



Socialization program in Desa Air Hitam



Dialogue and consultation with local communities in Desa Jambi during fire prevention program

Plans for 2018

Moving forward, we aim to further communicate and engage with the adjacent communities. In addition, IOI will continuously seek collaborations and cooperation with relevant parties in developing and implementing various landscape approaches that can contribute to effective fire prevention and mitigation especially in peat and biodiversity area.



Awareness program on fire prevention in Cagar Alam



The multi-pronged approach of the programme has enabled a significant portion of our community neighbours to achieve success in meeting fire-free outcomes. We will continue working closely with them on the different aspects of training and awareness, especially with the communities who were very close to achieving the programme goals. We hope that at the end of this year, they will be able to receive the rewards and use it for meaningful community projects like their peers, and enjoy the many benefits brought about by staying fire-free.

- Lim Teong Kwee, Director of Strategy and Planning

FFA Indicators for 2016 and 2017

Year	2016	2017
Stage 1 Evaluate	71	71
Stage 2 Agreement	70	71
Stage 3 Fire Free Awareness	70	71
Stage 4 Fire Free Inclusion	0	45
Stage 5 Fire Resilience	0	0
Total no. of Villages	71	71
No. of Awareness Activities	121	138

Overview of the programme

Musim Mas' land fire management is focused on three (3) main programmes:

1. Fire Prevention

We conducted socialisation on the adverse impact of fire to the communities through direct engagement together with *Muspika*, *Muspida*, and other government office, erected posts to caution on fire danger, and sent letters on fire prevention.

Communities were also given free agricultural seedlings, agronomic training and counselling to raise awareness on zero burning. Musim Mas engaged villages to establish voluntary MOUs to keep their areas free from fires with support and assistance from the company. Rewards of 25 Juta Rupiah were offered to encourage success in achieving zero fire incidence over the period of one (1) year.



Award Ceremony

2. Fire Monitoring

In addition to ground patrolling and satellite monitoring (GFW, NOAA, MODIS and VIIRS), Musim Mas also deployed drones for monitoring, especially of the inaccessible areas. In 2017, Musim Mas collaborated with local telecommunications service provider (PT Telkom) and the local police department to install high resolution camera equipped with heat sensor on a tower 70 metres above ground to provide good vantage point. This camera can detect hotspots within a 5-km radius, and is linked directly to the company system and local police, allowing real time notification and fast response by the ground crew.



Use of camera and drone for early fire detection

3. Fire Control

Intensive fire suppression training as well as provision of firefighting equipment and tools were provided to the communities.



Fire suppression training

Results, challenges and lesson learnt

46 villages out of the 70 villages which established MoUs in 2016 have successfully kept their areas free from fires. To acknowledge their achievements, Musim Mas awarded each village 25 Juta Rupiah which could be used to fund village development projects. A reward of the same value will be given to the villages again in the following year if they successfully maintain their fire-free status. In 2017, Musim Mas was able to engage three (3) additional villages to sign MoUs, making a total of 73 participating villages for 2018.

As part of Musim Mas' efforts in providing agronomic training and counselling to the communities, Musim Mas established a partnership with the University of Riau to launch practical training on conducting land clearance without burning, and to impart knowledge and skills on the production of biological fertiliser (Tricho Kompos). At the same time, information was disseminated to explain the pivotal role that communities play in protecting the environment through implementing zero burning.

Plans for 2018

This programme will continue into 2018 and Musim Mas aims to increase the percentage of participating villages that successfully implement the *Masyarakat Bebas Api* Programme.



It is crucial to educate people about zero-burning practice at an early stage to create a good foundation in preventing land and forest fire to avoid a prolonged haze issue.

- Mr. Haryanto Tedjawijaja, President Director Minamas Plantation (Sime Darby Plantation Group)

FFA Indicators for 2016 and 2017

Year	2016	2017
Stage 1 Evaluate	57	66
Stage 2 Agreement	15	24
Stage 3 Fire Free Awareness	15	24
Stage 4 Fire Free Inclusion	15	24
Stage 5 Fire Resilience	15	15
Total no. of Villages	160	160
No. of Awareness Activities	57	66

Overview of the programme

Minamas' fire prevention at a glance

In 2017, the Community-based Fire Prevention Programme, has extended its coverage to 9 more villages in Palembang and Jambi provinces. In total, there are 24 villages were covered since the program started in 2014.

The programme in villages in Riau was carried out in collaboration with the University of Riau (UNRI) while the programme in South Kalimantan was in collaboration with the University of Lambung Mangkurat (ULM). The coverage area was 45,500 ha and involving more than 85.594 people. Prior to the programme implementation, UNRI reported that 77% villagers burned their lands for farming. After the programme was implemented in 2014 at PT BNS the numbers of hotspots have reduced from 40 in 2013-2014 to 1 hotspot in 2015-2016. zero burning. Musim Mas engaged villages to establish voluntary MOUs to keep their areas free from fires with support and assistance from the company. Rewards of 25 Juta Rupiah were offered to encourage success in achieving zero fire incidence over the period of one (1) year.

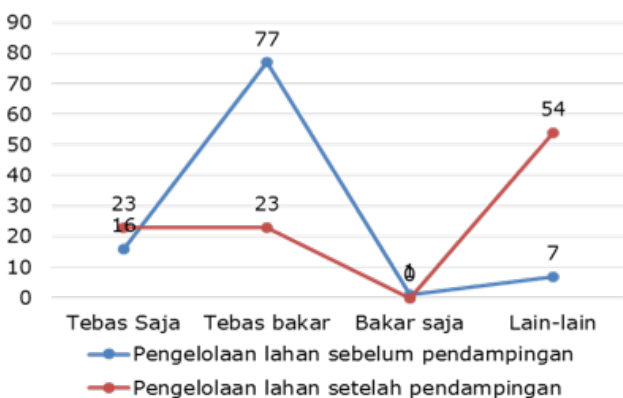


To ensure the program's effectiveness, we placed researchers to live in the villages among the villagers for 6 months.



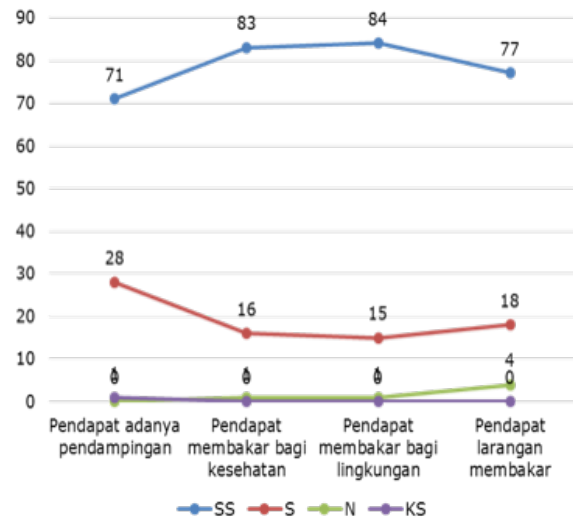
During that period the researchers will learn about the villagers' practices and farming habits which are related to land clearing and haze mitigation. This will enable the researchers to recommend them to eliminate land burning practices and replace them with environmentally friendly practices. At the same time it can generate additional income for the villagers. The researchers, village heads and committee members will work together to deliver best management practices to be applied to all villages.

The Pattern of burning the community before and after the program



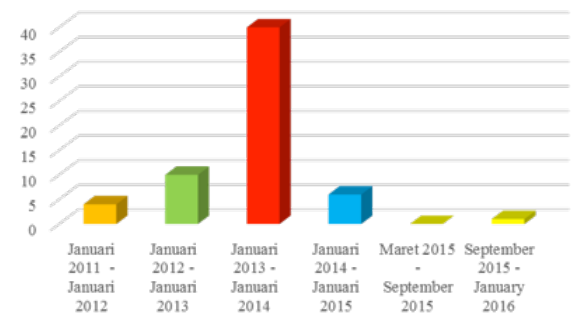
Behavioral changes in communities can be seen in terms of how to carry out agricultural practices before and after the mentoring. (UR Report Fire Prevention in Kab. Inhill for 4 Villages)

Behavioral Changes From The Results of Assistance



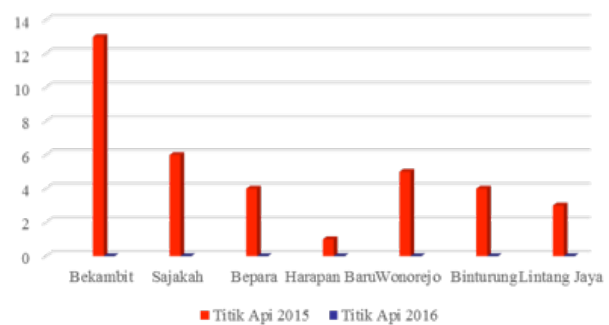
Behavioral and cultural changes to the fire problems can be also seen from the community's opinion of the program's results, where the community agrees that land burning destroys the environment, damage of health and prohibited by the government. (UR Fire Prevention Report in Kab. Inhill for 4 Villages)

Result of Assistance of Fire Programme
March 2015 – January 2018 Indragiri Hilir District-Riau



The fire prevention program which was assisted by the University of Riau (UNRI) has been done for 10 months starting from March 2015 until January 2016. As result, the fire incident was reduced and changed into zero hotspot. (UR Report Fire Prevention in Kab. Inhill for 4 Villages)

Number of Hotspot Before and After the Program



The fire prevention program was assisted by Lambung Mangkurat University (UNLAM) in 2016. As result, fire incident was reduced in 7 villages and changed into zero hotspot. (UNLAM Report Fire Prevention in Kab. Kotabaru- South Kalimantan for 7 Villages)

DESA MANDIRI CEGAH API

Metodologi

Sosial Engineering

- Mapping the social condition of the community
- Strengthen village institutions through village rules
- Train people to create groups
- Assistance in behavior change

Biophysical Engineering

- Conditioning the land remains wet
- Utilizing the rest of the bush
- Building the land specifically

Implemented Program

- Increased capacity of village communities
- Active institutions and organizations in the Village
- Increased village and community economy
- The establishment of partnerships between communities and companies

Desa Mandiri Cegah Api (DMCA) is a project to build people's behavioral change in land clearing process without burning (Zero Burning Concepts), aligned with Land Governance, Best Management Practices, and yet it is able to Increase institutional capacity, and improving community's livelihood.

Results, challenges and lesson learnt

Maintaining its tradition of engaging local university as the project implementer, the fourth and fifth installation of the programme saw the engagement of University of Jambi and University of Sriwijaya respectively. The signing of the collaboration agreement between PT Bahari Gembira Ria (BGR) with University Jambi took place on 9 August 2017, while signing of the agreement between PT Guthrie Peconnina Indonesia (GPI) with University of Sriwijaya was held on 13 September.

Four villages taking part in the programme in Jambi. Desa Gambut Jaya, Desa Sumber Agung, Desa Parit and Desa Arang-arang, are located around PT BGR. Meanwhile PT GPI- Palembang involved five villages taking part in the programme (Desa Rantau Panjang, Desa Karang Ringin II, Desa Gajah Mati, Desa Ulak Seberau and Desa Karang Anyar).

The Desa Mandiri Cegah Api (DMCA) program aims to build behavioural change among the communities on developing agriculture land with zero burning. This initiative program will provide other optional activities such as handy craft training for women, which may contribute additional income for the communities.

Villages location

DESA MANDIRI CEGAH API

Implementasi Program

Kalimantan

Kabupaten Kotabaru (7 Desa) : Universitas (4) :

1. Desa Binturung
2. Desa Wonorejo
3. Desa Lintang Jaya
4. Desa Bepara
5. Desa Harapan Baru
6. Desa Sejakah
7. Desa Bekambit

Sumatera

On Going Program

Kabupaten Muba 5 desa :

1. Desa Rantau Panjang
2. Desa Karang Ringin II
3. Desa Gajah Mati
4. Desa Karang Anyar
5. Desa Ulak Seberau

Program Starts 2014 - Now

45,500 Ha luas area

85.594 Jiwa Impact the Program

19 Villages + 5 Villages On going

Kabupaten INHIL 4 Desa binaan :

1. Desa Pelangiran
2. Desa Tekuk Bunian
3. Desa Penjuru
4. Desa Makmur Jaya

Kabupaten Siak 2 Desa Binaan :

1. Desa Tualang Timur
2. Desa Kuala Gasib

Kabupaten Rokan Hilir

1. Desa Pematang Damar
2. Desa Menggala Teladan

Kabupaten Muaro Jambi 4 desa :

1. Desa Gambut Jaya
2. Desa Sumber Agung
3. Desa Arang-arang
4. Desa Parit

Plans for 2018

The collaboration with University Jambi (UNJA) for four villages has been completed in April 2018. The program with University of Sriwijaya (UNSRI) still on going and expected to be completed by July 2018.

Currently Minamas Plantation is liaising with University Tanjung Pura (UPR) to carryout similar Desa Mandiri Cegah Api (DMCA) program in Kotawaringin Barat District and expected to sign the MOU & MOA with UPR by August 2018.



By participating in FFA, we hope to play a key role in raising awareness and change behaviour within the communities living around our plantations to stop using fire as a means to clear their land. Wilmar operates in some of the areas which were severely affected by fires and haze in 2015 and would be in the position in helping to ensure that history does not repeat itself.

- Gurcharan Singh, Plantation Head - Indonesia

FFA Indicators for 2016 and 2017

Year	2016	2017
Stage 1 Evaluate	4	75
Stage 2 Agreement	42	62
Stage 3 Fire Free Awareness	No data	61
Stage 4 Fire Free Inclusion	64	75
Stage 5 Fire Resilience	Not applicable	Not applicable
Total no. of Villages	107	137
No. of Awareness Activities	64	75

*Wilmar's programme does not depend on incentives to villages and so, the stage on fire resilience does not apply here.

Overview of the programme

Our programme aims to reduce fires within and around our plantation boundaries (within the 5km boundary). This was done through the approach of socialisation, training of communities and also our own workers. We also use a combination of manual patrolling and technology to monitor against any instance of fires.

Wilmar's fire prevention at a glance

Fires within concession boundaries	2016	2017
Number of fires incidences within concession	23	23
Total burnt area (ha) within concession	84.27	311.07
Number of fires incidences outside concession, within 5km radius	25	28

Fire-Fighting crew	2016	2017
Number of fire-fighting crew member	1,880	3,245
Number of training conducted on fire management	No data	72

Equipment	2016	2017
Number of watch towers	49	69
Number of water trucks/ Damkar	103	120
Number of Fire extinguishers	4,980	4,439
Number of fire-fighting sets for the crew member	298	443
Number of bore holes	454	79
Number of weirs (canal-block)	No data	401
Number of no burning signboards in plantations	254	325

Villages	2016	2017
Number of villages socialised	64	75
Number of villages with MoU	44	62

Fire Monitoring

To facilitate fire monitoring, patrol performed over the fire control tower so that the distance of vision is wider and used Drone to assist in identifying the location of the fire that is difficult to reach.



Fire Suppression and Management Training

Training on fire suppression and management for the firefighting team was organised by Wilmar with trainers from firefighting centers as well as local authorities together with 54 firefighters from 18 villages. The training included our staff and the surrounding communities on the handling and putting out of the fires as outlined in the MoU.



Awareness activities

We also conducted fire awareness and socialisation of the hazards of fire and its impact to health to the communities and school children who attend the schools in the estate. Cartoons are being used to raise the awareness of the children on the danger of forest and land fires.



Results, challenges and lesson learnt

There is still existing legislation that allows the use of fire for land clearance for land areas smaller than 2ha. This is a challenge to our outreach initiatives to ask communities to stop burning, as their actions are still supported by the law.

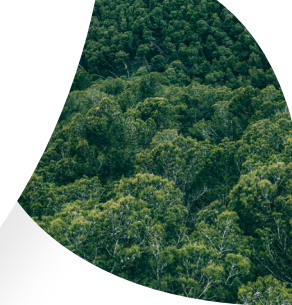
Governmental support on the “no burning” policy is a key component in the success of our no-fire initiatives. This was observed in South Sumatra, where due to the intervention from the government, the incidence of fires reduced to zero.

When we started monitoring fires within the 5km radius of our boundaries, we came across cases where the fires are in another company’s concessions. This raises the need for potential collaborations within a landscape to jointly implement fire prevention and awareness raising.

Long-term investment into changing behaviour is required to ensure that the “no burning” practices becomes a culture in the future.

Plans for 2018

We will be updating the fire-risk map for 2018, continuing the monitoring of fire within our boundaries and 5km radius outside boundaries. We will continue socialization of fire prevention, monitoring and suppression to all employees and the villages and continue to provide fire-awareness to schools in the villages around our plantation. We will also be developing targets for 2018.



IDH always addresses the special problem of natural resources protection in the network countries. In Indonesia, the special problem is forest and land fires. By FFA, IDH expects that the role of private sector, NGO and partner in fire prevention will be stronger and mainstreamed.

- Dedi Hariri, Fires Prevention Program Manager

FFA Indicators for 2016 and 2017

Year	2016	2017
Stage 1 Evaluate	No data	5
Stage 2 Agreement	No data	0
Stage 3 Fire Free Awareness	No data	0
Stage 4 Fire Free Inclusion	No data	0
Stage 5 Fire Resilience	No data	0
Total no. of Villages	No data	0
No. of Awareness Activities	No data	0

Overview of the programme

IDH's programme at a glance

Because of the complexity of the problem, IDH always cooperates with other parties (local NGO, private sector, and local government) in running Fire Prevention program. In the cooperation, IDH usually serves as a funding agency as well as supervisor, while the other parties can act as a co-funding agency or implementing partner.

There are 2 approaches done by IDH in running Fire Prevention Program, namely:

1. Policy Approach
2. Landscape Approach

1. Policy Approach

Support the developing Government Regulation (Perda) of Jambi Province on Fires Control and Management.

This activity is an IDH cooperation with the provincial government of Jambi and the coalition of local NGOs. The regulation is emphasized on fires prevention through land clearing without burning.



Support the developing Government Regulation (Perda) of South Sumatra Province on Peat Land Ecosystem Control.

This activity is an IDH cooperation with the provincial government of South Sumatra, the Local Team of Peat land Restoration (TRGD) and the coalition of NGOs. The Perda regulates the mechanism of protection and management of peat land in South Sumatra, consisting of several KHGs (peat hydrological areas). Peat protection from fires is an important part of this regulation.



2. Landscape Approach

West Kalimantan

In West Kalimantan landscape, IDH runs the Fires Prevention Program in partnership with Kemitraan Foundation, as an implementing partner. In addition to the Kemitraan, there is much potential for cooperation with private sectors (forestry and palm oil companies) in program site. Some activities in West Kalimantan landscape are still at the level of preparation, such as action research, coordination and enabling condition.

1. Integrated system development among companies, villages and local government for monitoring and reporting the occurrence of forest and land fires.
2. Preparation of 5 villages for Fire Free Village (FFV) program implementation based on the management of natural resources in Kubu-Ketapang landscape.
3. Explore the potential cooperation with companies for FFV Program implementation.



Jambi

In Jambi landscape, IDH runs Fire Prevention Program in collaboration with Belantara Foundation, as a co-funding agency, and Gita Buana, as an implementing partner. The location of the activities is the area of OKH (Orang Kayo Hitam) Forest Park (Tahura), which is part of the buffer zone of Berbak-Sembilang National Park. The location is dominated by degraded peat land, so it is prone to fire.

1. Capacity building and community development
2. Development of facilities and infrastructure for forest and land fires prevention
3. Rehabilitation of peat hydrology by canal blocking construction.
4. Restoration of peat ecosystem





South Sumatra

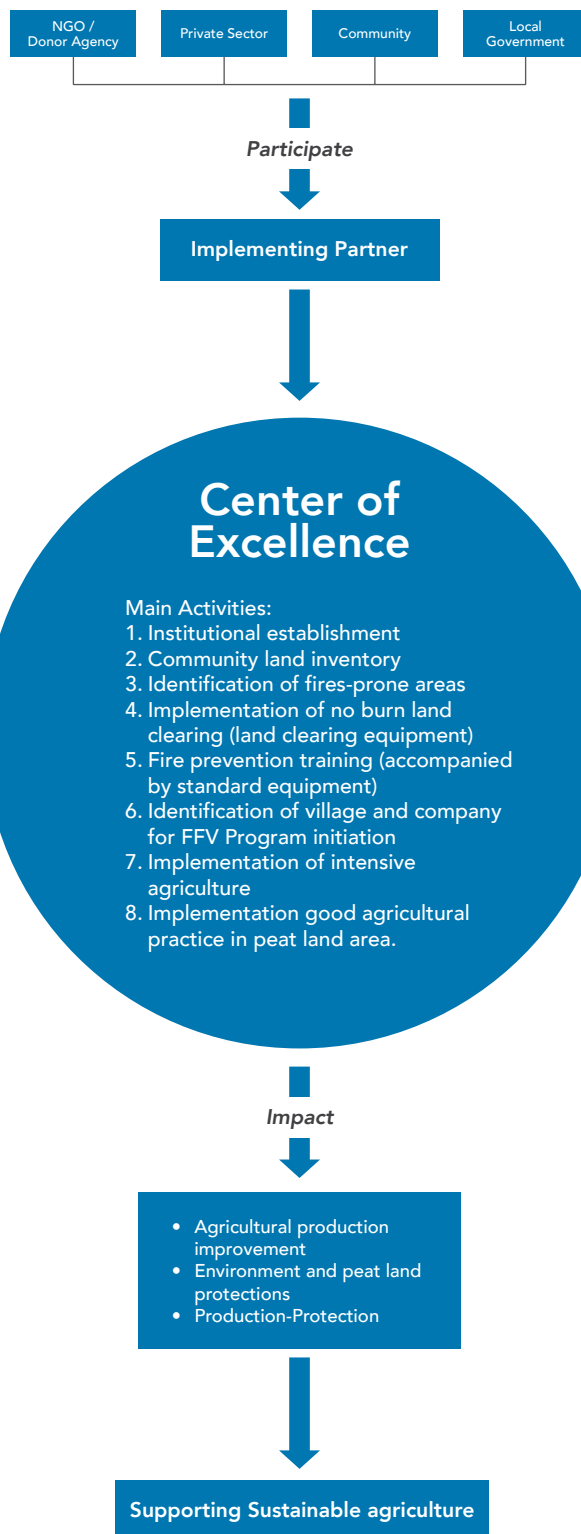
In South Sumatra landscape, IDH runs the Fire Prevention Programme in collaboration with the District Government of Musi Banyuasin (Muba), as a co-funding and local NGO, and as an implementing partner. The main activity is the development of the Center of Excellence. By 2017, the Center of Excellence is still in the institutional preparation stage, but there has been support from local governments and some companies in Muba District.

Center of Excellence (CoE) Development

CoE is an institution developed by IDH and local government of Musi Banyuasin (Muba) as a vehicle to prevent fires through the assistance of non-burning land clearing, capacity building (fire prevention training, education and awareness) and initiation of FFV programme.

Results, challenges and lesson learnt

Some activities of IDH are still in the preparation level, because the cooperative partners who are invited to work with IDH are facing some obstacles. The local governments still face limited funding, while private sector companies are not fully willing to adopt the FFV concept from another company.



Plans for 2018

We seek cooperation with other donor partners to execute the programs of FFV in five villages and Center of Excellence in Muba District, South Sumatra. Some donor partners have since committed. We are implementing the program of Center of Excellence in Muba District, especially forest and land fires prevention. Funding has been allocated, and the local government regulation is being prepared.

We are cooperating with the private sector companies in South Sumatra and Jambi Provinces to implement FFV programme by adopting one or two villages. The assessments have been made to the companies of oil palm, forest plantation, and ecosystem restoration. We are cooperating with Sustainable District Forum (LTKL) in developing district-based fires prevention. IDH is a member of LTKL and there have been previous cooperation. We are also preparing for the FFA Secretariat in Indonesia. This task is a mandate of the FFA member meeting in Pekanbaru.

PMHAZE



As a Singapore-based NGO, our scope is different from other FFA members. Our goal is to drive support from Singapore to community-focused fire prevention programmes in Indonesia and Malaysia.

- Aurelie CHARMEAU, Director of Research and Ground solutions

FFA Indicators for 2016 and 2017

Year	2016	2017
Stage 1 Evaluate	0	0
Stage 2 Agreement	0	0
Stage 3 Fire Free Awareness	0	0
Stage 4 Fire Free Inclusion	0	0
Stage 5 Fire Resilience	0	0
Total no. of Villages	0	0
No. of Awareness Activities	44	49

Overview of the programme

PM Haze (People's Movement to Stop Haze) was founded in February 2014 by a group of ordinary individuals in Singapore with the belief that everyone can play a part in ending transboundary haze in Southeast Asia. PM Haze aims to empower people in Singapore with the values, knowledge, and means to drive a movement to stop the haze and ultimately attain clean air for present and future generations.

PM Haze activities at a glance

Outreach	Ongoing social media campaign 33 talks and community outreach 8 roadshows 8 eatery outreach events (about 250 eateries reached)
Advocacy	Convinced 3 restaurants, 1 hotel and 1 soap manufacturer to switch to sustainable palm oil
Research	Contribution to UNESCO's programme to identify scalable solutions to the haze issue
Ground projects	1 trip + canal blocking at Raja Musa Forest Reserve 1 trip + canal blocking at Sungai Tohor

PM Haze conducts campaigns, talks and roadshows in Singapore to raise awareness about the haze. Those outreach activities aim to change consumer behaviour and increase demand for sustainable palm oil and paper products.

In 2017, there was a new edition of the #GoHazeFree! campaign which calls for local restaurants to use haze-free cooking oil. This year, the campaign included physical and online outreach to local restaurant. Through this engagement, PM Haze convinced three restaurants and one soap manufacturer to switch to sustainable palm oil.

PM Haze is organising trips called People's Expedition to Experience Peat. The goal is to bring Singaporean people to experience the ground situation in Indonesia and Malaysia as well as to support local projects that contribute to fire prevention. In 2017, there was one trip in May to Sungai Tohor village, in Indonesia and one trip in September to the Raja Musa Forest Reserve (RMFR), Malaysia.



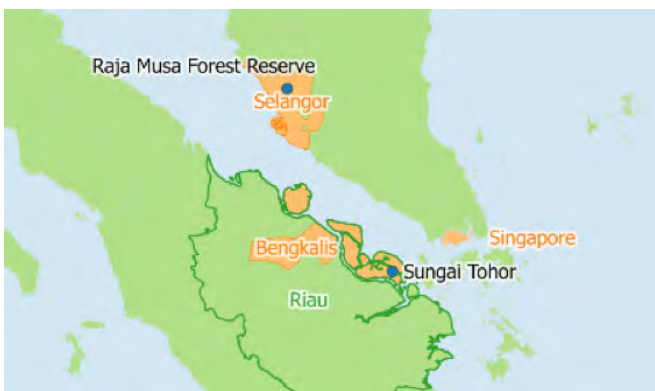
PM Haze made 4 short educational videos and SIIA produced a 20min documentary.



Raja Musa Forest Reserve (RMFR)

The RMFR is a peat swamp forest surrounded by agriculture land mainly consisting of rice paddy and oil palm plantations. PM Haze's local partner, Global Environment Center (GEC), has been supporting the Government of Selangor and the Selangor State Forestry Department to manage the reserve since 1998. One of the key challenges is the decrease of water level in the peat swamp caused by drainage of water by the oil palm plantations outside the reserve. To reduce the impact of the drainage, canals blocks are built to maintain the water level within the forest reserve, meanwhile supplying the excess water to the surrounding plantations.

Villages location



The canal-block built during the 2016 trip was moved because the location was not ideal. A challenge for the next trips will be to ensure the canal-block is properly located.

The 2017 trip was supposed to be in July but had to be postponed to September due to a fire outbreak in the reserve.

Results, challenges and lesson learnt

Sungai Tohor village

Since 2007, the peat has been drained by two companies (12m large and 5m deep canals). In 2014, massive fires ravaged the island. Last year, the government revoked the license of one of the two concessions. The Hydrological Restoration programme is led by the local community in collaboration with the Peat Restoration Agency (BRG) and Riau province. PM Haze's local partner, Walhi, is the facilitator.

In 2017, PM Haze organised a trip to Sungai Tohor village. They brought 16 volunteers, four videographers and four journalists. They learnt about the different components of the community project (canal-block, nursery, restoration area, sago plantation, sago mill) and how it contributes to peatland conservation and fire prevention. As a direct contribution to the community project PM Haze raised funds to build a canal-block. The volunteers also participated to the construction.

The trip was featured in the Straits Times and Lianhe Zaobao.

During the trip, the participants visited the conservation area, a natural peat swamp, a small-scale palm oil plantation and the local rice paddy that depended on the peat water. Those visits allowed them to deepen their understanding of how the Reserve and neighbouring farmers work hand-in-hand to protect the peat hydrogeological system. As a direct contribution to local projects, the volunteers planted trees in the conservation area and PM Haze raised funds to build a canal-block.

Plans for 2018

PM Haze intends to conduct more educational trips to RMFR, where there is at least one for PM Haze volunteers and potentially more for corporate partners.

PM Haze will conduct more outreach/advocacy in Singapore. It will continue the campaign for eateries to switch to sustainable palm oil and start a new campaign for responsible finance to support FFA-type of projects.

PM Haze will be working on the peat restoration project in Sungai Tohor, Riau Province, Indonesia.

Appendix A: About Fire Free Alliance (FFA)



Background

FFA was launched in response to the devastating El Niño fire season which unfolded, causing massive damage to forested land with an estimated USD \$16 billion in economic losses and significantly impacting people's health, as estimated by the World Bank.

It is based on the Fire Free Village Program (FFVP), a fire management program focused on prevention through community engagement, initiated and officially launched by APRIL in July 2015 with support from local NGOs, local government, police, military and Riau's Disaster Mitigation Agency.

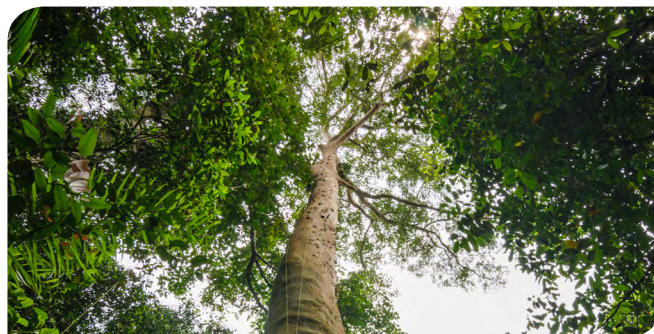
Based on the success of the program, in one of the most difficult fire seasons in Indonesia's history, APRIL co-founded an innovative alliance of agricultural companies to share experiences, knowledge and expand the FFVP via the Fire Free Alliance.

FFA was launched on 29 February 2016 in Jakarta and holds regular panel meetings and technical workshops in Indonesia and Singapore. FFA has created a new culture of sharing, trust and collaboration between its members and a members' based information sharing platform (www.FireFreeAlliance.org).

About Fire Free Alliance (FFA)

In recent years awareness of the catastrophic impact of forest and land fires during the dry season in Indonesia has intensified. In 2015, the fire season was worsened by the El Niño and was arguably a tipping point for the Regional issue of "Transboundary Haze". These fires release large amounts of greenhouse gases and particulate matter into the atmosphere, and pose a threat to local agriculture, community health and natural habitats, which ultimately affect community's income and livelihood. Given the magnitude of the problem, all stakeholders need to share positive learnings, failures and successes, future plans and support each other in scaling the best practice preventative actions to keep Indonesia fire free. To date, several fire prevention programmes have been successfully developed and piloted in collaboration with the local communities. Now is the time to scale these initiatives.

The Fire Free Alliance (FFA) is a voluntary multi-stakeholder group made up primarily of forestry and agriculture companies with NGOs and other concerned collaborators and partners, who are committed to resolving Indonesia's persistent fires and haze problems arising from forest and land burning.



Purpose

FFA is a platform where the members collaborate to share information, knowledge and resources to achieve lasting solutions that would lead to a fire and haze-free Indonesia, particularly within parts of the country where we operate.

Mission

Our mission is to implement innovative solutions and develop technical guidance to resolve persistent fires and haze for the benefit of people and the environment in the areas where we operate.

Goals

- Improve the effectiveness of the fire and haze-free efforts conducted by members
- Increase the uptake of the Fire-Free Programs in the areas where we operate
- Develop field tested technical guidance that is publicly available
- Collaborate with multi-stakeholders to scale-up adoption of the programme to other areas not yet covered by Fire-Free Programs

Member Roles

- FFA Members are organisations with existing Fire Free programs on the ground committed to collaborating with other members and stakeholders to develop innovative solutions and to implement them in the areas where they operate;
- Technical Matter Experts, Collaborators and Partners (defined below) are organisations with no Fire Free programs on the ground but are willing to support FFA and assist Members in developing innovative and collaborative solutions and partnerships through their networks and resources.

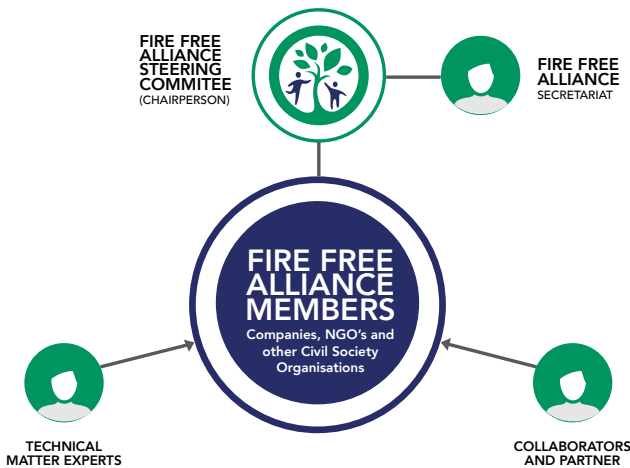
Guiding Principles

- Commit to foster collaboration, information sharing and synergies between all members.
- Place the villagers' and communities' improvement of health, livelihood and productivity while protecting the environment from fire and haze at the center of every discussion.
- Maintain open and respectful communication among members.

- Aim to create added value for the villagers, communities, and the business sectors - making the platform “greater than the sum of all its parts”.
- Respect members’ right to withhold “out-of-scope” or commercial in confidence information.

Structure

The FFA is made up of contributing member organisations directed by a Steering Committee. Additional membership and expertise can be engaged as detailed below.



Steering Committee

The FFA will be directed by a Steering Committee made up of invited senior management representatives from fully paid FFA member organisations. The Steering Committee will be supported by an independent secretariat that is not an FFA member and chaired on rotating basis by a Committee member for a period not longer than two years.

The Steering Committee will meet face-to-face at least once per year to communicate and discuss progress, and identify further areas of collaboration to strengthen the work of FFA. The Steering Committee will review and determine its own composition and structure, terms of reference, source and model of funding, and direct its own development.

The Steering Committee’s decision process works on the basis of consensus. Where consensus is not reached, individual FFA members will determine the best course of action for their own operations. However, if this action is not aligned with the FFA’s commitments, their membership may be reconsidered by the committee. Only fully paid members will be invited to participate in Steering Committee meetings and communications.

FFA Secretariat

The secretariat will provide administrative support to the Steering Committee and FFA members for FFA related activities. It will manage co-ordination matters amongst FFA members, including but not limited to: information sharing among members, reaching out to potential members, annual report updates, public communication, and any co-funding and activities that may arise. It will make recommendations and deliver research and reports to the FFA Steering

Committee that would inform its discussion, decisions and development. Additionally it will keep members informed of government regulation that will affect fire-management system in members’ operations.

Secretariat costs and agreed actions will be shared by all members through annual contributions and must report quarterly on financial status and budget to the Steering Committee. The secretariat will also manage engagement with and administration of any Technical Matter Experts as well as any agreed Collaborations or Partnerships.

FFA Members

FFA Membership is open to any organisation that is engaged in or is planning to engage in practical and operational solutions to the issue of Fire and Haze in Indonesia and SE Asia more broadly. Given the technical focus of the Alliance members must have demonstrated or planned commitment to in-field engagement with a focus on fire prevention.

The FFA Membership will meet at least once per year and provide a platform for members to exchange ideas, experiences and technical expertise with other members. Guidance notes, Toolkits and other technical material may result from these meetings and this will be publicly available. FFA members will be expected to make a contribution to the FFA either through a financial contribution (Company Members) or through a ‘contribution work plan’ approved by the Steering Committee (NGO’s and other Civil Society Organisations).

Technical Matter Experts

From time to time the FFA may invite specific organisations or individuals to assist or advise the FFA on technical matters. Acknowledging that membership requires operational engagement these organisations will not be members but be regarded as Technical Matter Experts (TME). With agreement from the Steering Committee, the TME may be paid for engagement and/or reasonable costs recovered. The specific terms of any engagement with a TME will be detailed in a separate agreement.

Collaborations and Partnerships

The FFA will review academic and technical collaborations and partnerships with specific organisations on a case by case basis. These collaborations and partnerships must be not for profit and cannot result in the FFA or any member organisation or individual receiving payment, except to recover reasonable costs. Unless approved by the Steering Committee, academic and technical collaborations and partnerships must have independent sources of funding. The outcome of the collaboration or partnership must clearly support the goals of the FFA and work within the Guiding Principles. The terms of any collaboration or partnership will be detailed in a separate agreement.



