

Between June and October every year, thousands of forest and peatland fires rage across Indonesia. In exceptionally dry years such as 2015 they are devastating. Whilst the economic and environmental impacts are well documented less is known about the impact of both the fires and concomitant haze on the everyday lives of people living in these areas.

In September 2016, at the peak of 'fire season' RCA researchers stayed for several days and nights with thirty one families in Central Kalimantan, West Kalimantan, South Sumatra, Jambi, and Riau. During these extended immersions, they had informal and detailed conversations with over **1390 people** (including 460 children). Farmers, teachers, school children, health service providers, government officials, and others shared their personal experiences, perspectives, and insights of forest and peatland fires.

Study Brief: Perspectives of People Affected by Haze from Peatland and Forest Fires

December 2016



We didn't start the fire

'Fires are started by the companies but the community is blamed for it.'

Farmer, Riau

People told us the most frequent cause of wildfires was accident rather than their traditional practices of slash and burn.

People say 'nobody knows' how the more severe fires start. Adults constantly spoke of the risk of fires catching and spreading faster in dry seasons, particularly as a result of men carelessly throwing away lighted cigarettes or spontaneous combustion from the intense heat of the sun.

Almost all the farmers we chatted with stressed the particular dangers of clearing peatland by burning as the fires spread very fast and burn under the surface.

In the S Sumatra and Jambi study locations, people felt the intensity and frequency of fires had increased after palm oil companies came to the area. Farmers told us that the companies formerly opened new land by slash and burn but had become more cautious recently because of increased government enforcement to control burning. Some farmers we met thought that companies were getting around these regulations and avoiding the costs of mechanical means to open the land by paying local people to set fires to make it look like an accident. Many in peri-urban W Kalimantan suggested that the palm oil companies also drained peatland for planting and this has led to drying out leaving the land highly combustible.

Burning as a traditional agricultural practice

Farmers across all study locations say that burning the land to ensure its fertility and readiness for planting is a technique they 'have practiced for generations'. While people across the study locations acknowledge that mechanical means can be used to clear new land for farming, 'only companies can afford (this)'.

People say that land for rubber, palm oil and fruit trees is cleared by burning initially. Burning is also the main way in which land is prepared for re-planting paddy and vegetables. In the rural C Kalimantan, peri-urban S Sumatra and both W Kalimantan study locations farmers practice shifting cultivation for paddy because they think repeat planting reduces the yield. Farmers say they may spend days looking for fertile land (assessed as land with big trees and which has been left fallow for a few years) and that the process to find and clear land is both 'time consuming and tiring.'

Effects of the fires and haze

'If we're able to see, then it must be fine.'

People across locations

Annual 'fire seasons' are normal and people shared that they expect some inconvenience from fires. The most common concern was poor visibility and this trumped concerns related to livelihoods and health.

i. Poor visibility largely an 'inconvenience'

People of all ages shared that poor visibility from the haze was the biggest impact on their daily lives and if their visibility was unimpaired, they 'just ignored it'. Apart from increased motorbike accidents because of poor visibility, people also explained that severe haze might restrict mobility. Many families shared they needed to adjust their daily routine slightly on days when the haze was heavy by, for example, coming home from the fields earlier to avoid the worst of the evening haze or going to tap rubber earlier in the morning before the haze worsened.

ii. Livelihoods largely unaffected

Overall people told us that markets and kiosks usually remained open during periods of fires and haze. However, in addition to direct damage to their crops from out of control fires, some people attributed poor production to the haze;

- Families (peri-urban W Kalimantan and Jambi) said their last crop of long beans and chillies had failed



A child in Jambi, like others, made a body map. Yellow dots indicate where they felt pain during times of severe haze

- People (in Jambi and rural S Sumatra) said that palm oil production had been as low as '10% of normal' in 2016 and had only normalised recently
- Rubber farmers (rural S Sumatra) mentioned that if they went to the field after the haze cleared up mid-morning, the quantity they collected was lower as the ideal time to tap rubber is when the temperature is lower.

iii. Perceived effects on health

'We've been inhaling the haze since 1991 (when we moved here).'

Illness attributed to haze was not a particular concern for most adults we chatted with. Generally, people felt that:

- Haze mainly affects the health of adults who have pre-existing health issues (like lung disease and asthma); the elderly; and young children who are already ill
- Women who had been pregnant during the haze told us they had not been very worried and had no specific health complaints, though most told us they had stayed indoors when the haze was severe
- However, children of various ages across study locations, unlike their parents shared that they experienced some discomfort during the haze.

Preventative health measures

i. Access to information about fires and haze

People shared that the main channel for any information on the health effects of the haze was through television and this was limited.

In different study locations, only a few people we spoke with mentioned ISPA (Infeksi Saluran Pernapasan Akut, Acute Respiratory Infection) as a potential health risk but none of the adults or children we spoke with in any of the study locations said they had been diagnosed with ISPA.

Children in most study locations told us their schools had not given any health advice related to the haze. Where some advice was given it was limited to telling them to wear masks when the haze was severe. Some teachers noted they did not feel well enough informed to share information about haze.

ii. Distribution and use of face masks

'Children here are very strong. None of them wore a mask last year, whereas I myself was wearing one.'

Teacher, Rural C Kalimantan

The distribution of free facemasks across study locations was haphazard. Either green hospital masks or heavy cloth ones were provided to adults through health centres (Riau and C Kalimantan), by sub-Village Heads and neighbourhood committees (rural C Kalimantan and Jambi). Some people, however, needed to buy them for themselves (W Kalimantan).

Schools provided masks to students except in the rural W Kalimantan locations. But sometimes these were provided late and **after** periods of severe haze (Riau and peri-urban W Kalimantan).

'Masks are suffocating' was the generally held view of people of all ages. Across all study locations parents told us that while they tried to make sure that children wore masks, they themselves did not.

Children in all study locations shared that even though their parents and teachers told them to wear masks, they did not like to wear them and mostly went without wearing them.

iii. School closures

Most schools across locations had closed at some point during the haze in 2015, but closures were sporadic and inconsistent:

District governments mostly determined when schools should close even though, as people pointed out haze levels were not uniform across a district.

In study locations where schools had closed on their own initiative, parents thought these decisions were based largely on the concern that schools might be held responsible if children became ill.

Despite district-wide decisions to close schools, primary, junior high, and senior high schools closed at different times and for different durations.

Most schools did not provide homework during the closures and children told us they spent their time playing (mostly outside) with friends or, as in W Kalimantan, helping their parents in the fields.



Apart from noting such things as fires can 'disrupt public health', these calendars distributed in S Sumatra did not provide other information or advice about the haze

What this means about prevention of health impacts

- People do not see the haze as having a long-term impact on their or their children's health
- Information, particularly about the long-term effects and preventive measures, is very limited, but mostly likely to be accessed through TV
- Face masks provided are inadequate protection for heavy particulate matter
- Decisions on school closures may be better left to local school authorities, who will assess current haze conditions and can adjust school schedules more appropriately
- Sending students home from concrete school buildings does not reduce exposure to haze as they play outside or inside their homes which are often unsealed wooden structures
- Children sent home from school are often left unsupervised at home.

Preventing and Dealing with Fires

i. Fire fighting

Overall people felt that it was impossible to do anything when fires were out of control and even if firefighters reached on time, they would be unable to fight the fires that were *'as big as our houses'*. All study locations (except rural W Kalimantan) had either a local task force or some form of monitoring to help prevent fires. Task forces were all under-resourced and, in general people felt they were unhelpful. They lacked basic and appropriate equipment and operating funds needed for fighting fires. No general training on fighting fires had been provided to the wider communities in any study location. Villagers felt that aerial water bombing was ineffectual as *'the wind just blew the water away'*.

ii. Enforcement of regulations

Since the haze in 2015, people felt that the enforcement of regulations related to burning land had become stricter across all eight study locations. Farmers felt that much of the enforcement amounted to intimidation and threat. But local officials shared that they too felt intimidated with threats *'from above'* of severe penalties for non-compliance. Echoing the sentiments of others, one Village Head shared *'The governor can threaten to sack the Bupati (district chief) if there are hotspots in his area. The Bupati will punish the camat (subdistrict chief) and the camat will then punish me'* (rural W Kalimantan).

Farmers shared their confusion about the regulations and were unsure whether some small-scale burning is allowed or if there is 'zero tolerance' for burning. Where the 'no burning' regulations are interpreted as zero tolerance, farmers repeatedly shared their frustrations at not being able to burn their land in preparation for planting this year. They feel unfairly targeted and noted that 'rich people' and companies have alternatives such as resources to hire people to manually clear land, to pay off people to set off 'accidental fires' or use heavy machinery to clear land.

What this means about dealing with fires

- Local fire-fighting task forces are ineffective
- Village Funds could be mobilized to better resource the local task forces, providing money for equipment and operating costs but local officials generally assumed these funds cannot be used in this way
- The pervasive use of threats and penalties has not led to a culture of collaboration to deal with the problems of fire and haze.
- Regulations are not uniform and not necessarily interpreted in a consistent way
- Regulations make no allowance for the tradition of slash and burn and that people may not have sufficient resources to take alternative action.

Looking forward

***'People will gradually change, but it is stupid to expect them to change overnight.'* – Sub-district chief, peri-urban W Kalimantan**

Although most people share that slash and burn is a traditional and tried and tested farming practice aimed at retaining soil fertility which has been passed down through generations, they are open to change provided they are supported in this change. People made a strong case for direct advice; people who will work with them and listen to them in their own communities, people who can demonstrate alternative solutions rather than simply tell them how or what they should change from a distance. Current solutions from the government will not work, people say, as they are top-down and do not take into account what farmers want.

What this means for the future

- People, including both farmers and many officials, feel emphasis should be on providing locally-relevant solutions
- People feel that practical hands-on advice is the only way to change entrenched practices.

Reality Check Approach

This is a qualitative approach to research which has been used in several countries since 2007. This study was commissioned by UNICEF and implemented by the RCA+ project in September 2016. RCA involves highly trained and experienced researchers staying in people's homes, joining in their everyday lives and chatting informally with all members of the family, their neighbours and others they come into contact with. This relaxed approach ensures that the power distances between researcher and study participants are minimised and provides enabling conditions for rich insights into people's context and reality to emerge.