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## **FIRE PREVENTION THROUGH COMMUNITY ENGAGEMENT - THE FIRE FREE VILLAGE PROGRAM**

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### **SUMMARY**

Fire and smoke haze are issues high on the agenda currently largely as a result of catastrophic fires in 2015, associated with one of the strongest El Nino phenomena on record. Early indications are that fires during the 2015 El Nino damaged a larger area than 1997. APRIL, as a forest manager in Riau Province, Sumatra has an influential role across the Riau landscape and has developed an enviable reputation for their fire suppression capability. But even the best fire suppression capability is only reactive with little influence on the root causes behind forest and land fires. In late 2014 APRIL undertook a comprehensive root cause analysis and developed a range of programs designed to stop the fires before they start. This 'fire prevention through community engagement strategy', titled the Fire Free Village Program, has successfully reduced burnt area by 90%. This paper outlines that prevention strategy, the engagement framework and the processes that lead to a reduction in burnt area by more than 90% across the nine pilot villages.

**Keywords:** *Fire Management, Fire Prevention, Fire Free Village*

### **INTRODUCTION**

The concept of fire management has an important role in the ongoing discussion of forest and land fires that impact Indonesia and its neighbours each year. Fire management includes Prevention, Preparation, Suppression and Recovery. The focus until recently has been very strongly on Suppression but it is critical that the discussion be broadened to include the other three parts.

Fire Prevention is a critical first step – stopping the fires before they start. Key to developing a prevention framework is accepting, without fault, a number of the key challenges that are specific to the Indonesian context, namely:

- Fire is the cheapest and most accessible land preparation tool;
- Poverty and short term decisions play a significant role in community decision making;
- There is often not a viable, sustainable alternative to fire.

The Fire Free Village Program (FFVP) includes two broad aspects – Fire Aware Communities (FAC), an initial community engagement process and Fire Free Villages (FFV) which is focused on the delivery of operational capability.

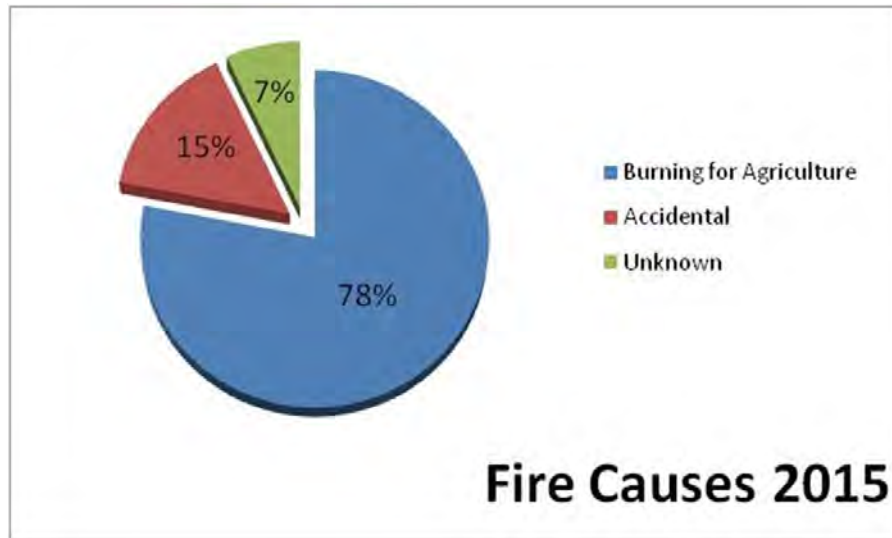
The ability to fine tune the program to meet local requirements, sharing control of the decision making process and taking a patient and open approach while engaging with communities appear to be making an important contribution to positive fire management outcomes. Working closely with communities on fire prevention has been a very successful strategy for APRIL. APRIL has rapidly expanded this prevention program in 2016 and is actively liaising with a range of other stakeholders to share this fire prevention process and on the broader implementation of the 'Fire Free Village' program.

### **METHODS**

The recent history of fire management in Indonesia has been very strongly focused on fire suppression rather than fire prevention. This is problematic because it tends to be reactive and as a result has little influence on the key causes of fire.

Part of developing sustainable solutions is determining the root cause of the problem. In the case of landscape fires there has been a lack of analysis of root cause – either due to a lack of available data, lack of understanding of fire management or concerns relating to the political ramifications. However APRIL fire incident

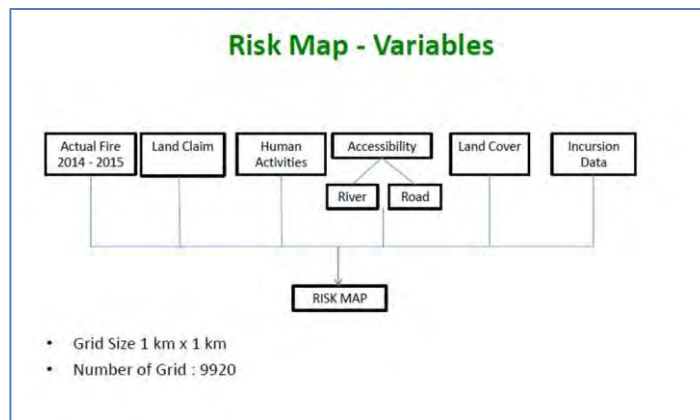
data leaves no room for doubt, nearly 80% of fires are related to burning for an agricultural outcome. The unfortunate reality is that local communities play a key role in this burning despite the limited long term viability of this as a large scale land preparation process.



Fire Causes for 2015, Source: APRIL2015

The project team developed a Project Manual that clearly structures a process for problem formulation, and assists in identifying causation as well as understanding impacts and effects. Once a clear root cause is established it is possible to start a constructive conversation around sustainable solutions and developing outputs that will assist in solving the problem. From this problem analysis it was immediately obvious that the solution must include a strategy to meet with and discuss the challenge of inappropriate fire use with local communities.

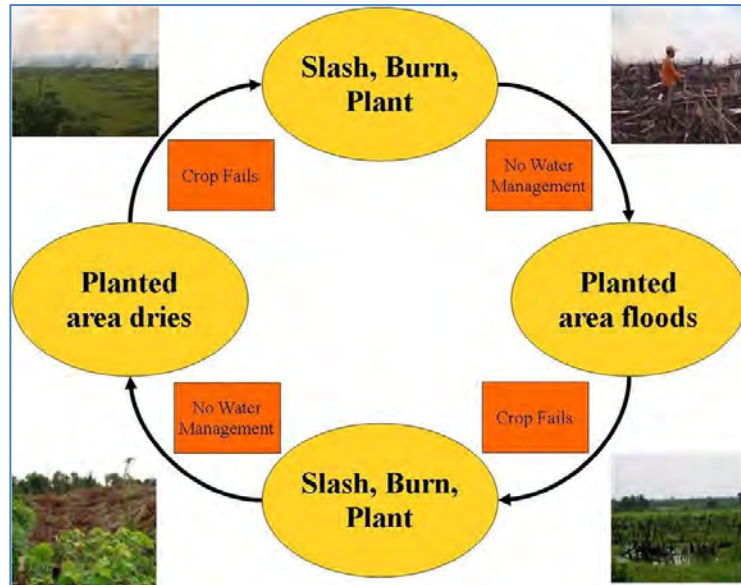
Given limited resources it was also important to prioritize locations where the risk of fire is highest. APRIL developed a Risk Map process that integrates information including recent fire history, village locations, roads and rivers as well areas where there is known land tenure conflict or other illegal forest activity (hunting and logging for example). A spatial Risk Map provides a clear indication not only of where the risk is highest and also some guidance on the underlying causation.



Risk Mapping Inputs, Source: APRIL2015

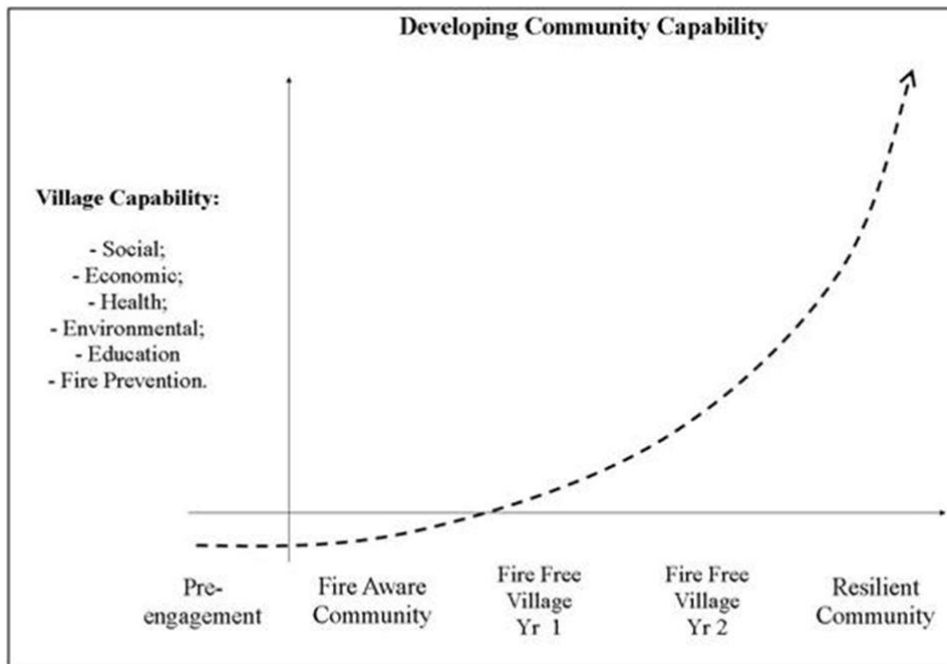
## RESULTS

Fire suppression is important in the fire management cycle but it is reactive – firefighting treats the symptoms of the problem. Only effective fire prevention can change the cycle of burning and it necessarily includes local communities as key stakeholders. The problem analysis revealed that one of the key issues was a lack of understanding of fire, its broader environmental impact as well as access to sustainable alternatives. The annual wet and dry seasons provided a very difficult environment for small scale farmers who were often working to prepare areas of 2 hectares or less. Unfortunately unmanaged fires, often associated with cheap slash and burn practices, routinely damage much larger areas than this.



A cycle of destruction, Source: APRIL2015

Identifying the destructive impact of this cycle of slash and burn is not new. However, it is not enough to identify the causes and lecture communities on what they need to do to prevent fires. Communities must be willing to be involved and take responsibility as a group for fire management. Engagement is destined to fail if government agencies and big companies do not share the decision making process with local people and allow communities to engage in developing their own solutions. The FFVP takes a respectful and patient approach to developing community capability, acknowledges that communities are not homogeneous and that peoples needs will develop and evolve over time.



Developing Community Capability, Source: APRIL2015

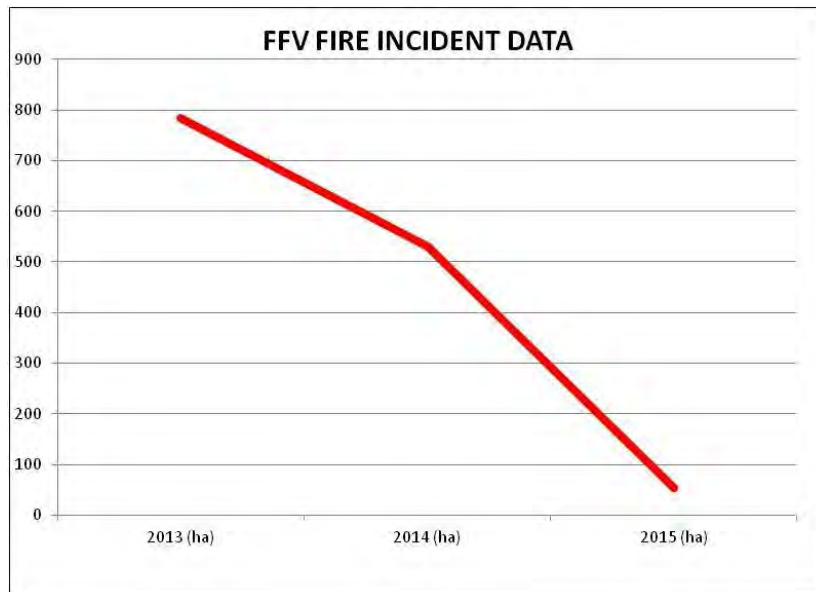
The concept of developing capability at the community level is a key part of the Fire Free Village Program and the initial results of the pilot program should provide optimism for other fire management activities. In a short period the Program was able to reduce burnt area within community controlled lands by 90% as well as provide a range of sustainable tools and alternatives to using unmanaged fire as a land preparation tool.

## DISCUSSION

The FFVP provides five key platforms to support the development of fire management in local communities:

- i. Incentive Rewards for No Burning;
- ii. Village Crew Leaders;
- iii. Agricultural Assistance (mechanical site preparation and agricultural education);
- iv. Community Awareness;
- v. Haze Monitoring.

Local communities play the lead role in determining how they will apply each of these with guidance and support from the APRIL Fire Prevention team.



Fire Free Village Incident Data, Source: APRIL2015

Some communities may not be ready for a sophisticated discussion around fire prevention and as a result may be introduced to the concept through the Fire Aware Communities (FAC) program which has developed a package of fire awareness programs for local schools and community groups.

## CONCLUSION

The FFVP has shown significant success in applying the 'prevention through engagement' strategy with local communities. APRIL is expanding their own program in 2016 as well as sharing the engagement process with a range of other landscape partners through the Fire Free Alliance – which allows companies and government agencies to develop their own community fire prevention programs based on the FFVP model.

It is important that the process understand and engage with the root causes behind landscape fires, in particular the lack of community access to sustainable agricultural alternatives. Success relies on an engagement process that is respectful of communities, is flexible enough to meet their unique challenges and can deliver prevention focused outputs without blame.

