

Wildland Fire Prevention and Community Involvement¹

Dr Peter F. Moore²

Abstract

There has been an increase in profile, attention, funding, discussion and research on wildland fires, fires that occur on forests and other lands, in the past two decades. There have been improvements in knowledge about fires, some technical efforts and significant research output. It seems that wildfires persist, may be increasing, large-scale fire events continue and wildfires are certainly still having negative impacts on ecosystems, landscapes and people. In part this may be due to a lack of understanding of what the 'fire problem' is persisting. Consequently what should be done to address them is not clear. At the 3rd International Wildland Fire Conference in Sydney David Kaimowitz, Luca Tacconi and I suggested changes in the way fires are characterised would clarify fire-related policies and initiatives. Firstly, fires must be considered a component of land management processes and secondly, not all fires are the same. These two things still stand. That being the case the key questions for Wildland Fire Prevention and Community Involvement become; What is it we are intending to 'prevent'? Where do we 'prevent' it? When do we 'prevent' it? and importantly Who does the 'preventing'?

In this paper I first review what 'prevention' is and why it might be 'prevention'. An emphasis on what is being prevented leads us to an examination of the reasons that the thing to be prevented, an ignition or a fire, takes place. This is critical as in most cases the reasons for fires starting, burning and impacting are not well understood. It may be that the 'prevention' paradigm is not fully appropriate, and may even have failed. We can not 'prevent' wildfires in most scenarios and the idea that we might tends to support the myth that fire is bad and should be 'prevented' when that is in effect impossible.

It is also true that the steps, activities and processes of preventing, preparing for, responding to and recovering from wildfires all take place at the local level, the community level. We do not fight fires from Sevilla, from Madrid, from Roma, Geneva, Sydney, Kumasi, Jakarta, Hanoi, New Delhi, Beijing, Brasilia, Tokyo, Paris, Athens, Singapore, Bangkok, Vientiane or Washington. This being the case the local level, the 'community' level, must be integral to the management of land and of fire and therefore of wildfire and its prevention. I examine the idea of a 'community' briefly in various contexts

With communities framed, conceptually and by example, it is possible to suggest how they might be involved in prevention, where communities are consistently present and interested in reducing the negative impacts of fires. Presently the concepts of prevention and protection have been viewed as standing alone to a degree. This is being confirmed in some countries where bigger and more expensive fire suppression and emergency services who have the responsibility for preventing loss of life and damage to human assets – buildings, crops and livestock - are being set up. There needs to be recognition of the continuum of wildfire management from Prevention to Recovery, as not being a series of discrete parts, and hence the focus logically moves to preventing negative impacts on the community from unwanted fires and how the community can be effectively involved. It also raises the question of how fire can be effectively managed if different aspects, Prevention, Preparedness, Response, Recovery and Analysis, are the responsibility of different actors as is the case in many countries at present.

¹ Keynote Lecture Wildfire 2007, 13 – 17 May, Sevilla, Spain.

² Principle, Forests and Environment, GHD Pty Ltd, Sydney Australia – pfmoore@ghd.com.au

Introduction

Firstly may I extend to the organisers of this conference my appreciation of the efforts they have made to organise it, gather us together again as old and new friends in fire management and hold it in such a wonderful place as Sevilla.

Thank you very much.

Secondly may I apologise to Mr William Gates and to Microsoft. This is a presentation about communities. Communities have power. Communities are the point. But communities do not often have PowerPoint so there isn't one.

My enthusiasm for the organisers of this conference is not boundless. They presented me with a problem. My concept has always been that “Keynote Speakers” are:

- ❖ Old blokes.
- ❖ Aged people who are nearly retired.
- ❖ Humans of advanced age.
- ❖ Men and Women with enough experience to know better but don't care anymore and so they won't shut up.
- ❖ Blokes - sitting in rocking chairs with a rug on their knees sipping hot chocolate and talking about the old days.

So I thought about it:

- ❖ I have been involved in fires and their management since 1981
- ❖ I am going grey
- ❖ I am losing my hair
- ❖ My children tell me what to wear
- ❖ My wife does not seem to be as unhappy as she used to be when I travelled

But

- ❖ I don't have a rocking chair
- ❖ I don't like rugs; and
- ❖ I don't like hot chocolate!

Then I did some further analysis, I checked the other keynote speakers at this conference, and the previous conference and other conferences and they were all YOUNG Blokes!

Apart from Johann Goldammer and Ricardo Velez who are of course eminent.

So I concluded my concept was wrong and I have adjusted it. Keynote speakers, colleagues are YOUNG GUNS not OLD BLOKES.

I have been asked to address this wonderful conference on a concept that I think we have wrong. As you follow me through my analysis I hope we will adjust our concept of communities and their role in preventing fires.

My first point - Context

My context, the context of Peter Francis Moore is limited:

- ❖ I speak only Australian as our poor translators trained in English are finding out; some bad Bahasa Indonesia, can order beer in Vietnamese and my French is restricted to food and rude words
- ❖ My field experience is limited geographically to South East Asia, the 10 ASEAN nations, Australia, Montana, China, Ghana and the United States
- ❖ I have paper knowledge of the Western Ghats, Bhutan, Nepal, Sikkim, Southern Africa, Miombo Woodlands, some Mediterranean countries, Mongolia and the far eastern part of Russia.

Why is this important? Two reasons

- 1 My ideas of community are restricted to my experience and that is limited by where I have lived and my time on this earth – remembering that I am now only a YOUNG GUN
- 2 There are undoubtedly very good examples, ideas and actions that I do not know of due to language or to location.

Those things about me limit this address and I can give you an example from this conference yesterday:

- 1 Francisco Salas from Chile and Durgadas Murkhopadhyay from India presented on aspects of fire and communities

Gentleman I was sitting in your audience and was greatly interested in your presentations – thank you.

My second point - Communities

Community - What is it? What are they? What are we? What are you? What am I? [a young gun of course]

There are three ways to identify community that are useful for this discussion, there are no doubt many more formulated by those who study and research communities. The three are:

- 1 Geographically – together in a location
 - a. This might be locality, village or suburb, city, state or province, nation, continent
- 2 Thematically or by interest –
 - a. Gathered or linked through a common interest or involvement in wildland fire.
 - b. Through a church, school, workplace, professional or other connection – Sevilla on Saturday it might have been football
- 3 By relationship –
 - a. By being family or joining a family.

I will not specifically consider family in our discussion though it can be seen that they are likely to be potential parts of either geographic or thematic elements that link a community. Families are of course most important. Communities in relation to fire management might perhaps be characterized into two extremes:

- ❖ Those disconnected from their landscape, who think milk comes from cartons, bread from packets, meat wrapped from shops and water from taps.
- ❖ Those embedded in their landscapes, who milk their own cows, grind flour from grain they harvest to make bread, grow or hunt, kill and cook animals and collect their own water from local streams or wells they have dug.

This is unfair but it will serve to illustrate aspects that contribute to the gulf between nations developed a long time ago and those developing now with respect to fire management.

This gulf is important as in my view it explains some of the wrong-headedness that has been undertaken as fire management assistance in the past.

The differences between two ends of the communities spectrum also makes it simpler to highlight the possible need for different forms of approach to be taken for different communities.

Communities disconnected from their landscape,

- ❖ Focus on other elements of their land or nation –
 - Economics, politics, infrastructure, manufacturing,
- ❖ Ignore the landscape because it has become irrelevant to them,
 - The daily processes of work, family and community do not rely on the landscape;
- ❖ Place the landscape in a box to be used from time to time when they wish
 - ski slopes, national parks, pleasant scenes or forest from the window.

To some extent this is the case in most developed countries. People in communities of this type will need a very different approach to engaging them in decisions, planning or permitting fire management activities on the landscape. The fire management related effort should be targeted to inform, engage, support their involvement and ensure their participation.

Note that in many respects in the case of disconnected communities the structure and system of fire management is in effect taking responsibility for planning, protecting and maintaining communities in the face of fire. This transfer of at least the impression of whom is to do the work brings with it and identification of whom is to blame should damage or loss take place – the system. This too is unfair. The fire management system in most nations has little influence on land planning, economic development planning, may be constrained in carrying out its role by laws and regulation made for other purposes that are also applied to fire management activities or have its opportunities and activities restricted by objection and political responses to public concerns.

This situation leads to ‘the system’ dealing with what is readily possible and focussing on what they can do resulting in fire response being viewed as standing alone to a degree. Fire fighting is obviously necessary, highly visible and it is relatively easy to obtain support for it from civil society, politicians and agencies. Risk reduction which is on the whole dull, boring, repetitive, irritates many disconnected stakeholders and is not very photogenic suffers from unclear understanding and a mainly negative public profile. This is being confirmed in some countries where bigger and more expensive fire suppression and emergency services who have the responsibility for preventing loss of life and damage to human assets – buildings, crops and livestock - are evolving. This deals with the symptoms unwanted fires, about which there is little debate they must be suppressed. Suppressing fires does not deal with the underlying issues or problems that create the circumstances for fires to ignite, burn and impact. It is very dangerous to separate risk reduction, prevention, from response, the need to fight fires.

Response and risk reduction can not be dealt with as separate aspects they are part of a cycle a continuum.

Communities connected to their landscape:

- ❖ Focus on the land as it provides their livelihood
 -
 - Shelter, food, water and context;
- ❖ Do not ignore the landscape
 - It is their shopping centre, their home, their playground and their hospital;
- ❖ Are embedded in the landscape;
 - Since they have to be to live and may have no choice;

To an extent this has been the case in many developing countries. This is changing. The fire management related effort should be targeted to understanding the situation, linking connected communities with appropriate information and resources, supporting their planning and enabling their participation in land management including a sense of ownership and a role in decision making about fire management which is in effect land management.

My third point – involvement

Starting most formally at a conference in Bangkok in held by the Regional Community Forestry Training Centre (RECOFTC) in 1998 the idea that communities might have a role and a useful involvement in fire management was proposed. The idea has existed for many years and the practice for thousands of years. Subsequently through some more analysis, publications, a workshop and some conference papers and a subject specific conference in 2001 Community Based Fire Management took public shape and substance. IUCN and WWF in collaboration with FAO, RECOFTC, ASEAN secretariat and others worked on the concept and examined it leading to a definition for CBFiM now documented by FAO. CBFiM is a type of forest management in which a locally-resident community (with or without the collaboration of other stakeholders) has substantial involvement in deciding the objectives and practices involved in preventing, controlling or utilising fires (Ganz et al, 2003). This involvement has been identified as the major factor in communities being actively engaged in the management of their fire or not.

The key elements of CBFiM include (Moore P.F. et. al., 2002):.

- ❖ CBFiM is more than community labour in fire fighting.
- ❖ CBFiM identifies that it is important to focus attention on people and organising structures to facilitate CBFiM. Attention should focus on people not equipment or legal constructs.
- ❖ An absence of a “sense of ownership” erodes human interest and motivation to participate in CBFiM.
- ❖ Indigenous knowledge alone will not manage fire - application of knowledge is also required. Erosion of indigenous knowledge is taking place, resulting in a loss of some sustainable fire management systems.

This definition and its key elements very clearly evolved and were considered in the context of landscape embedded communities. That suggests the re-examination of the definition and key elements in a new context, communities no longer directly dependent on their landscapes. In my opinion it appears likely that most will apply though unlikely to be present or evident.

A point – it should be very clear that communities are not only a source of labour for fighting fires or carrying out hazard reduction under the control or direction of authorities. They may well do both but it should be in their context as responsible stewards for a landscape that they are connected with.

It must be very clearly understood that the volunteer fire fighting services, such as those in Australia, are not community based fire management in the same form as found in developing or predominantly agricultural or rural societies. The Australian volunteer structures are externally sponsored, primarily externally funded (some local fund raising occurs), do have community input but community involvement in decision making is limited to how they arrange themselves for fire fighting.

My fourth point – “Prevention”

In handbook on fire management published in the 1960s FAO identified that the majority of investment in fire management should be on prevention. This makes very good sense – following an old saying used by my grandmother and I am sure many other people’s grandmothers and mothers but young guns can use it as well.

Prevention is better than cure.

There is a problem with prevention.

Prevention is not possible.

It is impossible.

We can not ‘prevent’ wildland fires. There have been fires on our landscapes for millennia. If we ‘prevent’ fires there is an implication that fires are bad. Some fires are bad fires some fire are good fires and intriguingly some fires are both good and bad and no fires at all can be both good and bad. As Ron Myers has suggested fire has two faces – a ‘good’ face and a ‘bad’ face.

So not only can we not ‘prevent’ wildland fires in many situations we do not want to. As Ayn Shlisky from the TNC and others said yesterday in many places we have fire regimes that are degraded and for most of those we need to put fire back into ecosystems.

Emerging in the last few years has been a set of terms for wildland fire management that take away some of the word confusion created by “prevention”. Most recently in Australia in a national report to Council of Australian Governments, that includes New Zealand a neighbouring country with a very very good rugby team, a wonderful landscape, lovely people and Lord of the Rings.

The term used in that report is RISK REDUCTION. What to reduce? The risk. Of what? What fires do. What do fires do? Simple really. Well sort of.

Recently for the Australian Capital Territory further clarification of fires was identified during the preparation of a Strategic Bushfire Management Plan (ACT Government 2004) and also identified in the development of the Canadian Wildfire Strategy. Fires ignite, THEN spread through fuels, THEN impact.

This suggests that we have opportunities to:

1. Reduce the likelihood of ignitions
2. Reduce the likelihood of fires spreading
3. Reduce the likelihood of negative impacts on natural or built assets

At the 3rd International Wildland Fire Conference in Sydney David Kaimowitz, Luca Tacconi and I suggested changes in the way fires are characterised would clarify fire-related policies and initiatives. Firstly, fires must be considered a component of landscapes and their management and secondly, not all fires are the same. These two things still stand.

So the key questions for Wildland Fire Risk Reduction and Community Involvement become:

- 1 What is it we are intending to ‘reduce’? Ignition, spread or impact
- 2 Where do we ‘reduce’ it?
- 3 When do we ‘reduce’ it? and importantly
- 4 Who does the ‘risk reduction’?

This emphasis on what we are trying to reduce leads requires us examine why the ignition, spread or impact takes place. This is critical as in most cases the reasons for fires starting, burning and impacting are not well understood. It is critical we know what risk, the combination of likelihood and consequence, that we are trying to reduce and why. Otherwise any effort, analysis, program or management may be less effective, fail or worse be effective but not the way we think it is being leading us to repeat a process or maintain a system beyond its effective time or space. Three words illustrate this point very well – “Smokey the Bear”.

Two other primary questions that must also be answered to assist in clarifying wildland fire risk reduction requirements as approximately 90% of fires or more are lit by people:

- 1 Who started the fire?
- 2 Why did they start the fire?

Hence we **MUST** consider people and people live in communities.

Let us consider where do we do the work of reducing the risk of fires?

The motivation will be most strongly with those who are impacted by fires. The strength of their response will be related to the degree to which they are impacted and the nature of that impact – fundamental, short term or an irritation. Impacts are felt and remembered at the local level. The ‘global’ impacts or impacts of ‘national’ significance no matter how real or measurable will still be addressed first and in a persistent way only at the point at which they occur – locally.

It is also true that the steps, activities and processes of preventing, preparing for, responding to and recovering from wildfires all take place at the local level, the community level.

We do not fight fires from Sevilla, from Madrid, from Roma, Geneva, Sydney, Kumasi, Jakarta, Hanoi, New Delhi, Beijing, Brasilia, Tokyo, Paris, Athens, Singapore, Bangkok, Vientiane or Washington. This being the case the local level, the ‘community’ level, must be central to the management of land and of fire and therefore of wildfire and its prevention.

This does not mean that communities should be left to fight large fires unsupported. There will always be large fires. We require structures and processes, training and organisation and policies and plans to deal with them. Once a fire exceeds the capacity at the local level then the part of fire management we are overwhelmingly best at, the part we have concentrated on almost to the exclusion of all the other parts of fire management – response, suppression, fire fighting has to be arranged and directed at appropriate levels.

A Thai colleague of mine, Siri Akkara, head of forest fire management for the Royal Forest Department, tells all his staff at training:

“There is no honour in fighting a fire that could have been prevented”

He is right.

That is why communities are pivotal.

My sixth point - How are we doing?

There are some things that perhaps don't reflect well:

A review of EC and North African legislation and policies (EU FIRE PARADOX project in process), Review of fire law in South East Asia and FAO updates to the global fire report in 2005 identified very little (NO!) inclusion or recognition of communities in the laws and regulations on fires and their prevention and management.

If we look at the papers for this conference there are 87 in all and 9 of them appear to be on risk reduction/prevention or on communities and little more than 10%. This seems to be a consistent theme – it has been said that 90% of expenditure is spent on fighting fires and much less, perhaps 10% on risk reduction or prevention. The papers of the conference also have 10% on communities or risk reduction though the other 90% are of course not only on fire fighting.

Major fire losses of houses in many parts of the world are due in large part to people moving into fire adapted areas with vegetation that then burns. Disconnected communities doing inappropriate things in dangerous places.

There are some things that reflect very well:

I learnt yesterday that forest fires in Bhutan are dealt with by a section in the Social Forestry Division. This has great merit but I suspect that in most developed nations we would first have to establish a Social Forestry Division before we could allocate fire management to it as a responsibility.

The 10-year comprehensive strategy for the United States. Has some very good things in it. It is “A collaborative approach for reducing wildland fire risks to communities and the environment”. The document notes the community many times and recognises that key decisions in priority setting should be made at the local level. A coordinated effort is identified and fires are noted as part of ecosystems. Goal 4 is to Promote Community Assistance. This document was prepared by a wide range of stakeholders but it appears only 2 of 28 in the preparation team and only 1 of 31 of those who commented were from the community and not representing an organisation or institution.

In this conference we have heard of work in Mexico, India, Bhutan, South Africa and a discussion of cultural landscapes by Ron Myers.

There are of course good examples in many places some of them documented by FAO and RECOFTC and others.

There are good things happening.

There are ideas and examples of what to do.

There are people in places of influence that are recognising a change, a re-balancing is need.

There are organisations that recognise this also.

There is yet much to be done.

It seems to me that at this conference I am hearing a recognition of the need for a change of emphasis, a shift in paradigm for fire management more than before and from all parts of fire management.

Appeal

This keynote address has not been an address it has been an appeal.

The President of Andalusia identified that we needed “thousands of eyes” in our landscapes, knowing what needs to be done and who is doing what. In some of our nations first we have to get thousands of eyes back into the landscape. In some of our nations we have them there already and need them to stay.

There is only one level at which “prevention”, risk reduction, can be effectively addressed – where fire start, burn and impact – at the community level. So analyse and identify your community and its needs and aspirations for that is where wildland fire risk reduction must be done, that is where thousands of eyes can be found and the community must be enabled and incorporated into fire for landscapes.

Oscar Wilde was correct we do learn how not to get burnt from playing with fire. We have been playing with fire far too long. We still get burnt.

Our communities can help us reduce the risk of wildland fires – ask them.

The involvement of communities in reducing the risk of wildland fire is THE role we need them to pursue.

Thank you very much.