

'We didn't start the fire!' – Who did?

More needs to be done to improve Indonesia's current integrated forest fire management system

By **THOMAS MENKHOFF**

*We didn't start the fire
 It was always burning
 Since the world's been turning*

SO sang Billy Joel in his 1989 No 1 hit. While I do not know what motivated the American songwriter to come up with these great lyrics (some sources allude that he got the idea when he was confronted with the end of the world anxieties of a youth he had met), they immediately came to my mind when I read the headlines in recent media reports about who is to be blamed for the haze problem.

About 20 years ago, I had the privilege to work as a consultant for the German Agency for Technical Cooperation (GTZ) in Indonesia to analyse some of the root causes of the re-occurring forest fires and associated haze problem.

In collaboration with numerous stakeholders, my task was to facilitate a participative project planning workshop aimed at designing an effective intervention approach via a pilot project to support Indonesia in further developing its integrated forest fire management system.

I recall how astonished I was when our fact-finding tour in a four-wheel drive, through what was then called the Suharto National Park in Kalimantan, was repeatedly interrupted because the road surface had been completely destroyed by the smouldering peat beneath it, including sporadic coal fires.

Smouldering is a form of combustion which is slow, flameless and potentially very dangerous. Besides peat and coal, there are many other materials which can start to smoulder such as plant litter, humus or biomass. Any type of smouldering is a potential fire hazard. Careless smoking, for example, can have a devastating impact.

Talking to planners, farmers, villagers, experts, plantation representatives, NGOs and others, it quickly became clear that the fire-induced haze issue is indeed a very complex phenomenon which requires (just like any other complex problem) a scientific analysis and multi-faceted solution.



In the aftermath: A helicopter drops water on burnt peatland in Siak district of Riau province on Monday. Other than peat and coal, materials that can start to smoulder include plant litter, humus and biomass. PHOTO: REUTERS

I worked closely with a German "Fire (Science) Professor" who shared with me how he had done research in real fires in Russia by flying into them with a fire-resistant helicopter (like the US tornado-chasing researchers who try to do research within the eye of such storms). Fire science, I learnt, is aimed at researching and preventing (or mitigating) the harmful effects of potentially devastating fires.

Fire ecologists take a keen interest in studying the behaviour of fires and flames, their varying intensity, spread or suppression. Forests in many parts of the world have become drier due to rising average temperatures which has led to an increase in severe fires.

A key insight which I gained in Kalimantan is that knowledge acquisition, capacity building and manpower development with special reference to fire science, forest fire management and fire prevention are critical intervention approaches if one wants to establish a truly sustainable forest fire management system (defined as required activities to protect burnable vegetation values from fire and the use of fire to meet land management objectives) in Asia.

Looking back at the German-funded project initiative in Kalimantan and the current haze originating from Sumatra, the question arises about why the problem persists although the complex root causes have been

systematically identified a long time ago.

As was reported by the local media, Indonesian officials in defending their response to the haze have argued that the government is educating farmers about alternatives to traditional slash-and-burn agriculture.

Others have blamed Singaporean and Malaysian companies involved in Indonesia's plantation industry. Both viewpoints are arguably incomplete. A key question which needs to be explored is this: Why is the fire risk so high?

Besides generally longer fire seasons, one may argue that there is insufficient knowledge about forecasting climatical fluctuations as a result of which officials have problems to

predict the appearance of dry spells. Experts have observed a significant change in vegetation from drought-resistant natural forests to drought-sensitive secondary forests resulting in the increasing accumulation of dry material to become fuel for combustion.

Another reason why there are more fire incidents is linked to the fact that more and more people in the forests are using fire, including migrants, shifting cultivators, land clearing contractors etc. Compared with the 1970s, forests are more easily accessible through logging roads. Others have stressed that "stakeholders" simply do not see the benefits from preventing forest fires.

As a consequence, there is insuffi-

cient commitment by some people charged with the enforcement of regulations, insufficient translation of regulations into operational procedures and diminishing preparedness of fire suppression forces between severe fire years.

Lack of fire management extension, insufficient awareness of the values of avoided forest fires, improper use of fire for land clearing as well as poor knowledge on safe and environmentally compatible techniques, including short-term land-use perspectives, represent other root causes.

So, what would you do if you were in charge of preventive forest fire (cum haze) management in Asia?

While it is easy to point to the challenging negative economic, environmental and social effects of too many unwanted fires (haze) in terms of costly traffic disturbance, loss of biodiversity, increased poverty or badly affected international relations between neighbouring countries, it is much more difficult to find a sustainable "real" solution.

More facilities

Improving Asia's forest fire management infrastructure in the form of building more facilities such as water tanks, water pipelines, mobile fire control teams, special equipment etc. (this in itself is a mammoth task given the vast land areas) in combination with public education is certainly a step into the right direction.

Experiences elsewhere suggest that there is also an urgent need to invest more resources into needs-based "strategic" human capital development measures with a focus on fire science, fire emergency (haze) management and effective governance of public-private partnership and trans-boundary haze prevention agreements.

As consumers of products that include palm oil as ingredient, we all have a role to play. We could then with some conviction join in Billy Joel's famous song and proclaim that "... we tried to fight it".

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