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Indonesian peatland fires

Perceptions of solutions

Indonesia's recurrent peatland fires generate toxic haze and release globally significant amounts of greenhouse gases, with severe impacts on public health and economy within Indonesia and neighboring countries (e.g. Malaysia, Singapore). This flyer presents a collaborative research endeavor between CIFOR, the Lancaster Environment Centre and the University of Cambridge on diverse stakeholder perceptions of the costs and benefits of the peatland fires in Riau, and opinions on the effectiveness of prospective solutions.

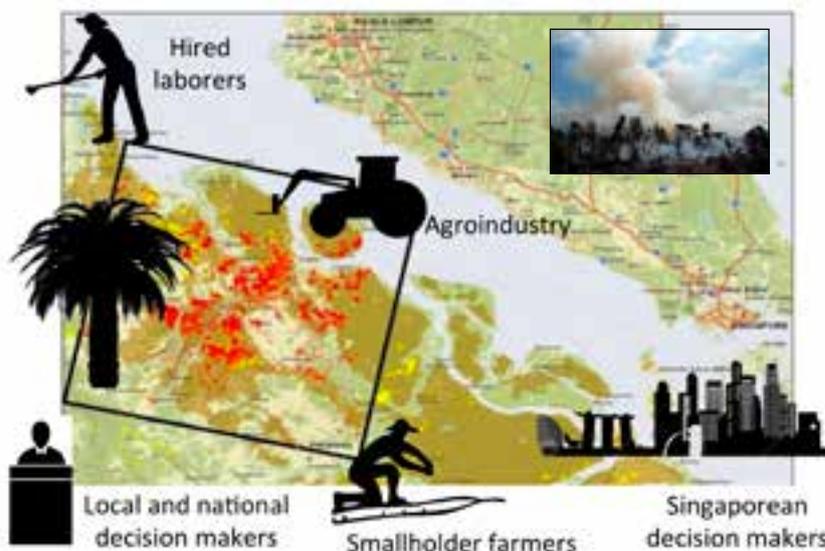
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Governance challenge of a complex system

In many respects, Indonesia's recurrent peatland fires present an intractable problem. The complexity of the phenomenon (e.g. multiscale impacts, drivers and governance) and the diversity of affected stakeholders, guarantee disagreement and conflicts of interest, and challenge effective communication. The region has seen over a decade of domestic and international debates over peatland and agricultural fires, and the associated haze.

Effective solutions rely on sound technical advice. But to be effective, they must also account for different stakeholders' attitudes towards the proposed interventions, from policy makers in Jakarta, to smallholders in Sumatra, to civil society in Singapore, to global oil palm companies. This is critical to ensuring effective implementation.

Our study provides new insights into the diverse perceptions and preferences associated with the peatland fires in Riau, Sumatra. We identify clusters of shared opinions held across diverse stakeholder groups, and highlight points of disagreement and consensus. Such analysis can help to identify preferences for solutions, diagnose concerns, and guide the focus of future efforts. Amid protracted, contentious policy debates, these data will also help to facilitate more constructive and directed negotiations and policy discussions, and help ensure that interventions are mindful of the realities of people on the ground.



A wide diversity of stakeholders are involved in shaping landscapes in places such as Riau, with multiple incentives for fire use and varying degrees of political power. A wide range of actors are affected by fire and haze. Capturing this diversity is at the core of our research project, which is measuring perceptions across 11 different actor groups.

What we are doing

In order to understand the different perspectives in the fire and haze arena, we use Q methodology. This approach consists of selecting a set of statements that are representative of the wide range of opinions held on a topic. Respondents are asked to rank these statements, which collectively reveal their perspective on the issue.

Our research involved two sets of 30–40 statements, each set covering one of two issues:

1. A range of *costs and benefits* that people may experience related to fire and haze. Ranked on a scale of "importance".
2. Different *possible solutions* for dealing with peatland fires, ranging from firefighting, to legal enforcement, to economic incentives, to improving peatland management. Ranked on a scale of effectiveness.

This report presents preliminary results: the average ranking of statements by all respondents.



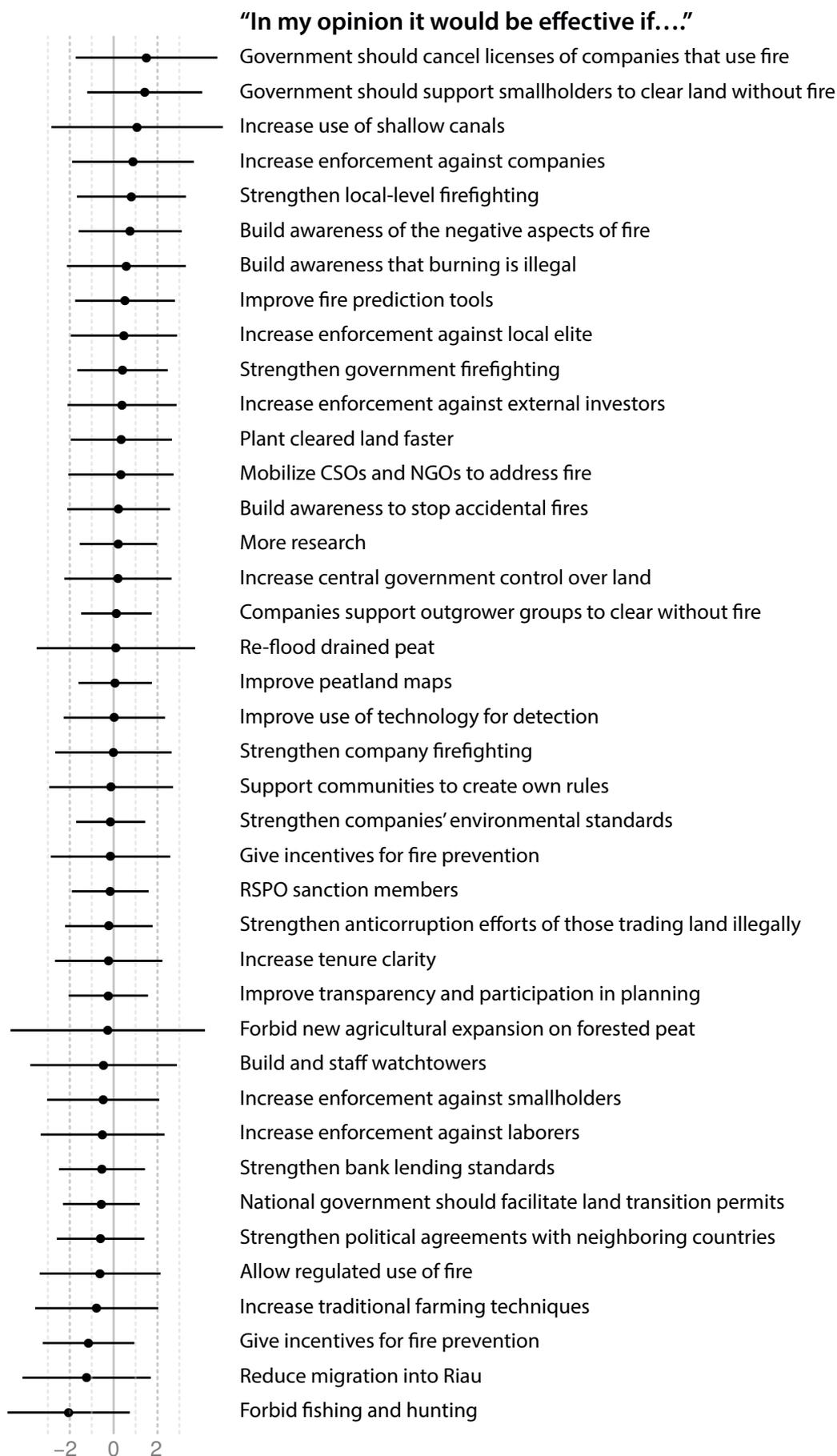
Respondents ranked statements into a forced distribution to represent their perspectives.

Who we interviewed

We selected people from a wide range of backgrounds: from smallholders in Riau to policy makers in Singapore. The aim of this non-random sample approach is to cover the widest range of opinions possible, rather than to identify the predominant opinions within the population.

Stakeholder perspectives on the effectiveness of solutions to peatland fires in Riau, Sumatra

This figure shows the average ranking of perceived effectiveness of solutions by all respondents, reflecting the diversity of opinions. Bars represent the variance, with wider bars indicating more controversial statements (i.e. more variability in the responses). The values indicate “least effective” (-2) to “most effective” (2) approaches (results of cost/benefits not shown).



Initial findings

Perceived effectiveness of solutions to peatland fires

- There is no consensus among stakeholders on which solutions are the most effective, nor on which are the least effective.
- Some solutions considered the most effective are also among the most controversial. For example, revoking licenses from companies that engage in burning and the use of shallow canals, were heavily supported by some, but rejected by others.
- Some solutions actively pursued by the government as short-term measures during the current crisis, are also among the most controversial.
- There is no agreement on which stakeholders (e.g. agro-industry, outside investors, smallholders) would be most effectively targeted by enforcement actions or with firefighting responsibilities.

Perceived costs and benefits of fires and haze

- On average, the cost of fire and haze on local health and income is prioritized over economic costs borne at the provincial, national or international level.
- Concerns about fire and haze are multiscale, and relate to both local (e.g. small and large landholder income loss, health) and remote impacts (e.g. GHG emissions, biodiversity loss).
- Several costs and benefits are particularly controversial, for example: that large landholders lose income as a result of fire, that fire is an inexpensive way of clearing land that enables smallholders to participate in agriculture, and that fire creates diplomatic tensions.
- Potential benefits of fire – for example, increasing access to fishing and hunting sites, the role of fire in enabling a transition to a better economy and public services – were, on average, least important.

What's coming next?

Further data analysis will highlight distinct shared perspectives on costs, benefits and prospective solutions, as well as how perspectives differ among stakeholder groups (e.g. farmers vs. policy makers), locations (e.g. Indonesia vs. Singapore) and gender, among other variables. It will show points of major disagreement and topics of consensus. It will also help identify which solutions deserve a deeper understanding in terms of their feasibility, costs and complexity of implementation, and reveal stakeholder preferences to inform future interventions.

For more information and news on this research and emerging analyses, visit:
<http://www.cifor.org/fire-and-haze> or contact: R.Carmenta@cgiar.org



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