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# Lahaina Tragedy: Some Preliminary Lessons for Policymakers and Global Resilience

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## Introduction

It is not common for our trustees at Energy Policy Research to wade into policy debates, but perhaps as we mourn the tragic loss of life and property, the Maui fire should provide us with an opportunity to apply its painful lessons to similar circumstances globally. Jeff Kissel provides insights from a long and successful history managing complex infrastructure projects in both conventional and renewable energy, including a term as CEO of HawaiiGAS. More importantly, as a Hawai'i resident for over half a century, on this issue, he brings a lot of local knowledge. So we asked him for his perspective on how we might think about these events to prevent them from occurring elsewhere.

The haunting memory of the tragic fire that consumed Lahaina serves as a chilling reminder of the catastrophic outcomes stemming from more than a natural disaster, but a long list of missed opportunities over decades to shape public policy and as global trends in energy, food, and supply chain issues overwhelmed the ability of local planners to contend with the forces of nature. While the immediate trigger of the fire remains under investigation, the ongoing revelation of the root cause demonstrates the intricate web of circumstances that facilitated the calamity.



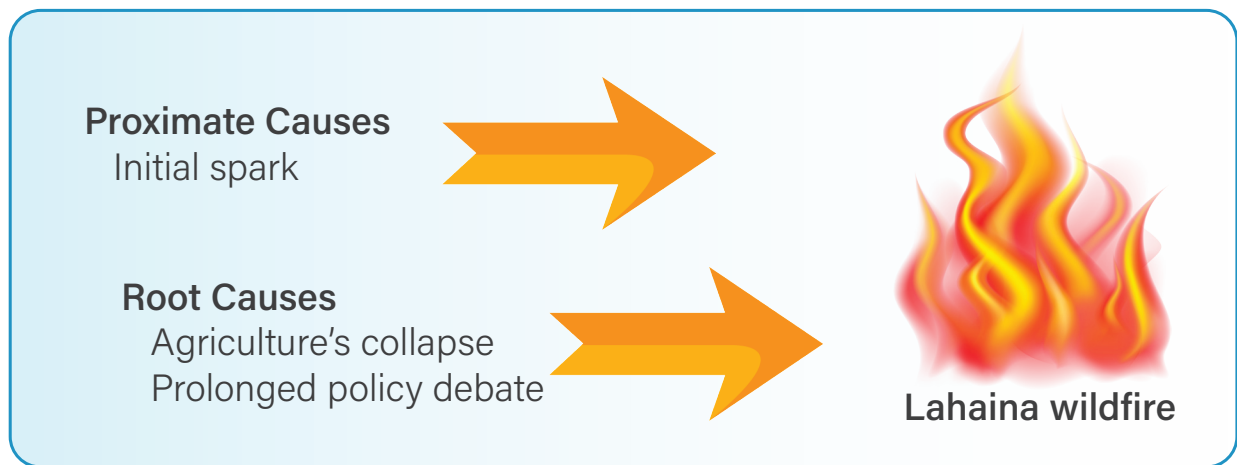
This short article explores the nuanced delineation between proximate and root causes, stressing the necessity for community and political leaders to acknowledge their pivotal role in preventing further tragedy rather than deflecting responsibility onto landowners, developers, and utilities. As was the case in the tragic California fires, the power company was a regulated entity and while there is plenty of blame to go around, the regulators should re-examine their roles so that they may appropriately address long standing and well understood risks, even if the result is politically challenging. Specifically on Maui, through an examination of the collapse of large-scale agriculture, systemic failures to unify around policies to redeploy acreage with enlightened land management consistent with the changing demographics, and the prioritization of transient gains, this analysis highlights the urgent need for accountable leadership to thwart similar disasters. Moreover, it broadens the scope to encompass other vulnerable Hawaiʻian communities like Haleiwa and Kona, emphasizing the global relevance of proactive governance in the face of multifaceted challenges.

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## Proximate and Root Causes: A Nexus of Influence

A comprehensive understanding of the lessons embedded within the Maui fire necessitates grappling with the differentiation between proximate and root causes. The proximate cause denotes the immediate trigger, whereas the root cause encompasses the underlying factors that foster an environment conducive to triggering events. In the context of the Maui fire, the initial spark serves as the proximate cause, while an intricate tapestry of interconnected elements constitutes the profound root cause.



## Unearthing the Root Cause: Agriculture's Collapse and Leadership Deficit

Hawai'i's unique geographical position places it as a bellwether for global trends, both positive and negative. As the world's most remote population center, Hawai'i often experiences cultural, social, and economic shifts ahead of more accessible regions. However, the Lahaina fire underscores the critical requirement for responsive leadership to pre-empt and address these trends. One pivotal challenge lies in the collapse of large-scale agriculture, leaving the land around Lahaina susceptible to invasive vegetation encroachment.



The fire’s harrowing tragedy traces back to a prolonged policy debate about land use resulting in an inability to chart viable ecological and economic alternatives for the thousands of acres that were once natural barriers to the kind of disaster that befell Lahaina. As the policy debate went on, invasive flora gained an upper hand, ultimately providing the combustible material fueling the catastrophic blaze. This narrative spotlights the indispensability of robust governance, cultural sensitivity, and holistic planning as essential defenses against such devastating events.

Cultural Losses and Preventive Costs

According to a [Moody’s estimate](#), the economic losses from the Lahaina and Kula wildfires reached \$4-6 billion. [Accuweather](#) estimated the total damage from the wildfires in Hawai’i at \$14-16 billion. However, the repercussions of disasters extend beyond physical destruction, encompassing cultural losses that resonate for generations. The Lahaina fire not only consumed structures, but also destroyed an irreplaceable cultural heritage, severing connections to history and tradition. Such losses emphasize the importance of robust governance and foresight in preventing such tragedies. Remarkably, the cost of prevention often pales in comparison to the staggering expenses incurred during post-disaster recovery and reconstruction efforts. This perspective underscores the imperative of investing in proactive measures, such as land management and infrastructure fortification, as a means to safeguard both lives and cultural legacies.

Maui Wildfires: Factsheet

Fatalities	97 persons (9/21/23, Maui County)
Area	Lahaina - 2,170 acres Olinda - 1,081 acres Kula - 202 acres (9/21/23, Maui County)
Estimated economic losses	\$4-6 billion (Moody’s) \$14-16 billion (Accuweather)

Sources: [Maui County](#), Moody’s, Accuweather

## Global Lessons: A Broader Canvas of Vulnerability

While the specifics of the Maui fire are unique, the underlying trends extend far beyond the island's confines. The challenges besieging Lahaina and its inhabitants resonate across Hawai'i and even beyond. A striking resonance is palpable in communities such as Haleiwa on O'ahu and Kona on Hawai'i Island, both grappling with long-standing issues of land management, shifting energy demands, and inadequate infrastructure readiness. As we delve deeper into the lessons gleaned from this disaster, it becomes evident that the threads of accountability and resilience are intricately interwoven with the fabric of every community.

### Wildland Fires in U.S. History with Most Fatalities

Name	Year	State	Fatalities
Peshtigo	1871	Wisconsin	1,152
Cloquet & Moose Lake Fires	1918	Minnesota & Wisconsin	453
Great Hinckley Fire	1894	Minnesota	418
Thumb Fire	1881	Michigan	282
Maui Fires	2023	Hawaii	97
Great Fire of 1910	1910	Idaho, Montana & Washington	87
Camp Fire	2018	California	86
Yacolt Burn	1902	Washington & Oregon	65
2017 October Fire Siege	2017	California	44
2020 Fire Siege	2020	California	31
Griffith Park	1933	California	29

Source: [National Fire Protection Association](#)

## Drawing Insights from Fire Disasters: California and Beyond

While the specifics of each fire disaster may vary, the lessons drawn from them are universal. Consider the catastrophic wildfires that have ravaged California in recent years. The Tubbs Fire of 2017, the Camp Fire of 2018, and the subsequent incidents have left a trail of destruction, loss, and sorrow. In many cases, these fires have been fueled by a combination of factors, including drought, dry vegetation, inadequate forest management, and poor urban planning.

The threat posed by wildfires is not confined to one region or era. Many will recall that in 2019, Sydney, Australia faced a similar peril to the destruction of 1975, when wildfires approached Australia's largest and most rapidly growing urban area. For decades, the growth in the urban footprint had been encroaching on nearby ranches and farmland. Sydney's leadership ignored the warning signs even after their devastating experience nearly half a century earlier.

The Sydney incident in particular serves as a historical precedent, illustrating the vulnerability of urban areas to the ravages of fire, and the importance of investing in prevention. The danger to a densely populated city highlighted the urgency of preparedness and underscored the need for comprehensive fire management strategies.

Analogous to the Lahaina fire, these fire disasters showcase the importance of understanding both the proximate and root causes. The proximate cause might be a downed power line, lightning, or an unattended campfire, while the root causes can encompass a lack of sustainable land management, deficient firefighting water and other resources, and fragmented coordination among authorities.

The Maui wildfire, with a death toll of 97 as of September 2023, ranks among the top 10 deadliest wildfires since 1871.



## A Resounding Call for Leadership and Preparedness

The devastating fires in Hawai'i, California, and beyond amplify the urgency of responsible leadership and community preparedness. Political leaders must transcend blame-shifting to utilities, landowners, or developers and take ownership of the decisions that shape their communities' vulnerability. In Hawai'i, the 'rush to renewables' likely diverted needed investment in grid strengthening. It left an outdated and fragile power distribution system unprepared for the tragedy that occurred. Amidst the aftermath of Lahaina's fire, the dire need to harden critical infrastructure against natural disasters emerges as a vital imperative.

Electric, water, and road systems are lifelines that sustain communities, and their vulnerability amplifies the impact of calamities. The importance of prioritizing infrastructure resilience cannot be overstated. Strengthening the electric grid, for instance, could prevent power outages and downed lines that exacerbate the spread of fires. This insight redirects the focus from solely investing in renewables to recognizing the fundamental importance of an unyielding infrastructure that can save both lives and property. Requiring development to include 'green belts' not only provides basic fire protection it also provides our coral reefs with essential protection from nonpoint source pollution from water runoff.

A proactive stance toward land management, urban planning, and infrastructure development can make the difference between catastrophe and resilience. Lahaina's tragedy reminds us that no community is immune to the forces of nature, and the consequences of delays in acting to resolve major demographic shifts in climate, land use, or the economy can be dire. The wildfires in California, the flooding in New Orleans after Hurricane Katrina, and similar disasters worldwide are stark reminders that the lessons from Maui hold universal significance.







## The Mandate of Accountability

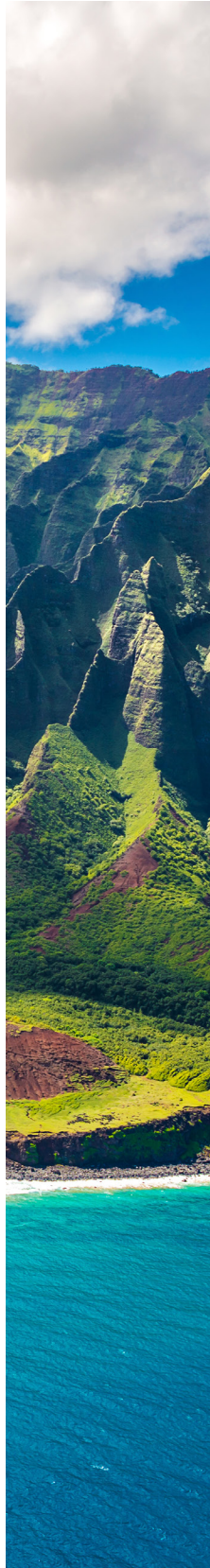
The conundrum raised by the Maui fire underscores the urgency of every aspect of our community leadership to assume a role in being accountable for the prevention of this kind of occurrence from happening again. We must rise above the tendency to apportion blame, and focus on taking the necessary actions, even to the extent there is a political cost to set a new example for enlightened leadership in Hawai'i and the nation. Governance and decision-making rest with our political leaders and they must have the unified support of our community, even at a cost to individual interests, to fulfill their assigned roles to govern. Clearly, we need a more effective governance regime to ensure political leadership recognizes the opportunity we now have, commit to communal welfare, and fortify crucial infrastructure to preempt future catastrophes.

Lahaina's tragedy illuminates the imperative of embracing demographic shifts, climate flux, and societal turbulence. This entails unequivocal action rather than placing blame. The necessity for adaptable, forward-looking governance extends beyond Hawai'i's territorial waters. If learned, the benefits will clearly outweigh the costs as we prevent loss of life and property.

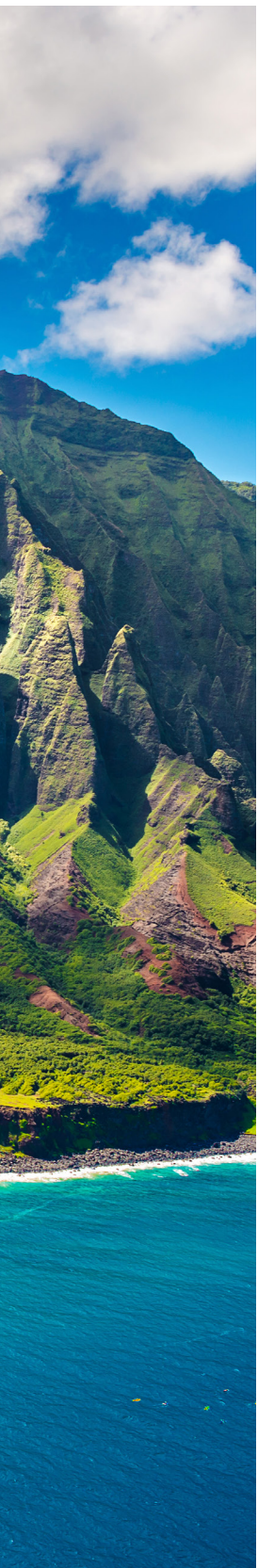
## Forging a Path Forward: Lessons as Catalysts

In the wake of the heart-wrenching Lahaina fire, we now need to carve out a new trajectory. The tragedy underscores the interconnectedness and vulnerability of our societies, accentuating the urgency for accountable leadership. The differentiation between proximate and root causes impels us to venture beyond immediate catalysts, focusing on the fundamental issues that clamor for attention.

The clarion call for all-encompassing planning, infrastructure fortification, and responsible leadership resounds beyond Lahaina's horizons. The vulnerabilities experienced by Hawai'ian communities are microcosms of global shifts that necessitate adaptable governance. The lessons emerging from the Lahaina fire beckon us to critically scrutinize our communities, anticipate transformations, and place resilience above complacency. As we strive towards the horizon, let us pay homage to the memory of







Lahaina's tragedy by pledging to materialize collective growth and progress. The lessons borne from this disaster are not bounded by geographical confines; they reverberate universally. It falls upon us to transform these lessons into tangible progress, ensuring that the echoes of such tragedies catalyze transformative change. By embracing the ideals of responsible leadership and fostering resilient communities, adding green belts, and natural fire and storm barriers, as well as requiring all of us to participate in the cost of hardening the infrastructure, we can channel these lessons into a future illuminated by hope and safeguarded against preventable calamities.

## From Lessons to Action and a Blueprint for Resilience

As the world grapples with the aftermath of the Lahaina fire and similar disasters, a crucial question emerges: How do we move forward? The answer lies in a holistic approach that encompasses political accountability, community collaboration, and global solidarity.

Communities must actively engage in fostering resilience. The aftermath of the Maui fire emphasizes the importance of robust governance, comprehensive urban planning, and sustainable land management. Just as Lahaina's fire could have been mitigated by proactive strategies such as green belt development, underground utilities, and upgraded first responders, communities must consider similar measures tailored to their unique circumstances.

The lessons from Lahaina and beyond extend an invitation to global cooperation. As climate change intensifies, disasters become more frequent and severe, disregarding geographic and political boundaries. Just as Hawai'i's challenges parallel those in California, Oregon, Washington, and beyond, so too does the call for accountable leadership and comprehensive planning.

By sharing experiences, strategies, and resources, communities worldwide can build a united front against disaster. Collaborative efforts, such as international forums for disaster response and preparedness, can foster knowledge exchange and mutual support.





## Conclusion

The flames that engulfed Lahaina, Maui, serve as a poignant reminder of the fragility of human settlements in the face of nature's wrath. As we unravel the complex interplay of proximate and root causes, the lessons reverberate across space and time. The fires in California, the floods in New Orleans, and countless other disasters highlight the shared vulnerabilities of communities worldwide.

The call for political accountability, community resilience, and global solidarity is unyielding. The memory of the Maui fire must galvanize action, spurring us to implement robust governance, sustainable urban planning, and comprehensive disaster preparedness. In this endeavor, communities must transcend borders and stand united in their commitment to safeguarding lives and preserving the environment.

As we learn the lessons from Maui, let us transform them into a global movement for change. Let us be the leaders who heed the warnings of the past to secure a safer, more resilient future. Through collaborative efforts, adaptable governance, and unwavering commitment, we can ensure that the tragedies of today become the catalysts for a brighter tomorrow.









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