



Perspective

The Politically Possible and Wildland Fire Research

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Abstract: Often missing or underdeveloped in wildland fire research is a clear sense of the link between contemporaneous political possibility and the desired ecological or management outcomes. We examine the disconnect between desired outcomes and what we call the “politically possible”. Politically possible policy solutions are those that recognize how compromise, stakeholder engagement, and the distribution of costs and benefits combine to structure political acceptability. Better attending to the politically possible in wildland fire-related research can, in turn, inform our understanding of the cause, effect, and the potential solutions to fire management challenges. We observe how a lack of awareness and attention to the politically possible can create divisions or barriers to realistic action.

Keywords: policy; wildland fire; management; stakeholders; landscapes

1. Introduction

It is our observation that research on wildland fire management and policy has a tendency to explore how historic and contemporary choices have led to conditions that authors consider to be sub-optimal ecological outcomes. These contributions generally conclude with forceful, cogent arguments for policy changes that enhance ecological health, support sustainability of ecosystem resources, or promote restorative actions. Absent or underdeveloped in much of this research is a clear sense of the link between contemporaneous political possibility, that is what policy options can actually be enacted, and the desired ecological or management outcomes. Many studies, for example, suggest prescriptive solutions overlooking the political, cultural, or social dynamics that are influencing human behaviors and institutional responses—effectively oversimplifying the long-term connections between people and landscapes. The result is solutions to wildfire ecology and management challenges that associated social or political systems generally are ill-equipped or even perhaps incapable of producing.

We reflect on the disconnect between desired environmental outcomes and what we call the “politically possible” in the context of research and policy surrounding wildfire management in the United States. Politically possible solutions are those that recognize how compromise, stakeholder engagement, institutional realities, and an awareness of costs and benefits combine to structure political acceptability of policy choices. They recognize how the creation, evaluation, implementation, and measurable outcomes of policy responses require agreement among a variety of stakeholders having different and often conflicting values, benefits, or costs affected by a particular action. Our definition of the politically possible extends the notion of political feasibility, which is a central element of policy analysis and is generally conceived of as a criterion to evaluate alternatives at different stages of the policy process [1]. The evaluation of “preferred alternatives” in a management context focuses on specific objectives or desired future conditions. Failure to consider the support of constituents that are affected by the implementation of management actions, broader constraints, such as budgetary limitations and agency culture, or, in the case of wildland fire, scientific uncertainty about

the intensity of forest management actions can impede meaningful progress. Simply put, ecological imperatives may assume the opportunities, incentives, or structures created in policy responses will actually engender action from the constituents it intends to serve. This is not always the case. We argue that additional consideration of the politically possible would greatly influence the range of options and flavor of solutions considered in wildland fire research, as these same considerations will dictate implementation success or efficacy. This would help to identify (1) challenges associated with moving localized policy solutions through a regulatory/bureaucratic and legislative construct designed to address issues at a more macro level; (2) where national-level policymaking may require translation or flexibility at finer scales of government; and, (3) where there is a need for processes that allow for compromise or incremental actions in the pursuit of broader goals. Better attending to the politically possible in wildfire related research can, in turn, inform our understanding of the cause, effect, and potential solutions. We observe how a lack of awareness and attention to the politically possible can often create divisions or barriers to meaningful action.

2. Wildland Fire: Policy and Possibilities

Wildland fire management in the United States offers an example of contemporary research and policy foci defined by, and struggling with, the notion of political possibility. The history of wildfire management, and its continued emergence as a threat to people and the resources they value, has long been described as a series of policy failures. Early “failures” include the 10 a.m. Policy that promoted aggressive firefighting and eventually contributed to the buildup of fuels contributing to future fires. Later policy responses such as the National Fire Plan and Healthy Forests Restoration Act were considered “failures” by some for their inability to reverse trends of increasing spending, property losses, and government disruption via fire borrowing that was caused by each successive fire season [2]. Of course, there are many forces operating outside of the parameters of any given policy. For instance, state and federal agencies responsible for wildfire suppression are increasingly tasked with protecting private property, which is both a consequence and a contributor to the expansion of human settlements in proximity to the Wildland Urban Interface (WUI), where a great majority of those human values and subsequent losses occur [3,4]. Public lands policy has had little direct influence on the development of the WUI or on the decisions of private landowners. Those private property owners and community residents concerned about public lands are influential stakeholders in natural resource policymaking. Citizens’ diverse and often conflicting values or demands are critical to shaping the politically possible [5].

But, there are a number of reasons why contemporary wildfire research may not fully embrace the politically possible. First, the various factors that combine to influence wildfire conditions—including decisions about forest management, land use development, and mitigation actions taken (or not) by private property owners—are difficult to integrate into any one effort given the complexity of their antecedents [6,7]. The result is research that focuses on a singular scale (e.g., temporally, spatially, or topically) or restrictive set of issues—cost-effectiveness of fuel reduction treatments, utility of specific options, or the adoption of private property mitigations. Moreover, the considerations or influences that limit the political possibility of all or part of these specific actions are oversimplified or identified as the most actionable option for change no matter how unlikely they may be politically.

Second, studies of fire ecology may conclude or focus on the ways federal and state policies should reprioritize ecological restoration and resilience, including the reintroduction of prescribed fire, in order to reduce the need for aggressive wildfire suppression tactics [8]. Studies arguing for more ecologically oriented objectives that implicitly focus on a need to change the attitudes of policymakers and “the public” who view fire as detrimental—and who dictate our unwillingness to make proper choices—fail to consider the complexity of how the public views wildfire threats. The difficulty with such oversimplifications is a wealth of social science research disproves the premise that simply “educating” the public will yield the desired policy responses. Studies have shown citizens in geographically disperse places understand the beneficial role of fire and support commensurate

restoration or management activities—provided that they are well suited to the local ecology and meet the needs of local residents [7,9,10].

Finally, a predominant focus of wildfire research and management has focused on the performance of fuel reduction treatments that mimic the role of fire in ecological systems, reduce future risks, and restore landscape health through a return to “natural” conditions. The sheer amount of treatments needed to reduce such risks, repeating those treatments over and over, and in close proximity to human populations, challenges the plausibility of that desired condition [11]. It suggests large-scale fuel treatments may stretch, if not exceed, the range of political possibility. Yet, much of the current research continues to explore the feasibility of restoration actions without acknowledging the social or political realities that may be better suited to human and ecological adaptation. At the local level, there may be differential economic impact or benefit of restoration actions, the ability to perform treatments on public lands where additional policies may dictate the parameters of management (e.g., wilderness or Roadless areas, riparian corridors, habitat for endangered species, etc.). Likewise, there may be limited or insufficient legislative funds to promote or invest in such efforts given other equality compelling national or state priorities.

More recent efforts to acknowledge the politically possible seek to prioritize wildfire treatments based on a wider range of criteria—reduced risk, cultural values, and landscape health [3,12]—embedded in the context-specific values of people who live in or use such landscapes [13]. Understanding how these efforts translate in different places is an area of critical need, as is understanding how policy prescriptions affect the economic or the social sustainability of landscape fuel reduction or restoration (adaptation) projects. Are there, for example, adequate forest products infrastructure and markets to enable biomass removal to support the scale of fuels reduction efforts desired [14]?

Wildfire social science is not immune to research and policy trajectories that fail to see the politically possible. Perhaps the most dominant example has long focused on promoting property specific actions that private citizens can take to reduce wildfire risk [15,16]. This is the predominant strategy in a larger trajectory that attempts to create shared private and public responsibility. While uncovering the factors that influence (or fail to influence) personal mitigations is important, such studies also make an implicit assumption there is one set of values that can explain such behavior among “the public”. They also assume, often through omission, there is one “formula” or a set of actions that collectively addresses wildfire risks in all areas [17]. Other research trajectories have long demonstrated how the diversity of populations at risk from wildfire—their unique histories, values, and functioning in a given environment—mean some types of mitigation are more likely to be supported and effective in reducing wildfire risk [6,18]. Ranchers and rural residents, for example, may not support restrictive land use planning, despite scientific findings pointing to its effectiveness in reducing risk.

3. Discussion

Collectively, our discussion of wildfire research and management indicates a set of preliminary suggestions that might guide consideration of the politically possible in related research. First, it is important to recognize historical legacies and trajectories of desired actions. Some solutions may happen quickly as a result of political opportunities being hastened by the alignment of relevant political interests and institutional arrangements, or policy windows, as they are called [19]. Most solutions, however, will be slow to materialize given the range of competing imperatives at different levels of government. The U.S. political process is intentionally incremental so as to limit extreme swings in policy [20,21]. In the case of wildfire, historic forest policy creates a legacy that constraints future actions that more often leads to incremental responses anchored in the initial framing of the problem. Aggressive wildfire suppression will continue so long as human values are imminently threatened, including personal safety as well as resource values tied to recreation use and timber production. Given the current political reality created by legacy forest policy, it is hard for us to conceive of ecosystems where we do not fight fire rather than finding opportunities to live with it. Part

of that current political reality has been the development and perpetuation of a highly professional and militaristic firefighting complex, whose financial future is likely unsustainable but whose societal utility is increasingly required [4,7,22]. Politically possible solutions should temper these unidirectional approaches by including ways to build personal responsibility into policy targets. It will require continued dialogue that forges compromise among the competing perspectives and offer a path towards incremental transformative change.

Second, research into policy recommendations should avoid the temptation to suggest fault or blame for management problems rests with an inability of other disciplines to forecast or affect adequate solutions. Rather, explorations into the politically possible need to consider the interacting opportunities and barriers that occur at the intersection of science, culture, and politics. Social science does not have the overarching answer any more than engineering sciences or biology. Research into wildland fire management must recognize that broad solutions may be neither politically practicable nor economically feasible ways to address what more accurately are problems emerging from the unique characteristics of local contexts. This means focusing on case specific management approaches, such as reintroduction of controlled burns and effective land-use planning in concert with homeowner mitigations that collectively help to alleviate (not solve) the burden of wildfire management.

Bringing together interdisciplinary perspectives will require difficult conversations about the incompatibility of research methods, measurements, and process-based interventions that will be necessary to improve scientific ability to understand or promote “politically possible” solutions. For instance, modeling efforts that bring together wildfire risk simulation and fuels reduction or restoration treatments must also find ways to represent the capability of people to forge partnerships across landownerships, account for existing restrictions on restoration actions, and adequately reflect the perspectives of stakeholders invested in those landscapes. It is only then that efforts to model and evaluate the feasibility of management actions will have increased applicability to real world situations.

Third, possible solutions are more likely to be effective when they consider how place-based factors may require flexibility in design and administration. Historic wildland fire policy has tended towards “one-size-fits-all” solutions being applied across publics expected to see the same utility in their outcomes. There is growing attention in the literature to place-based considerations and the need to recognize how social diversity influences the development and implementation of wildfire management strategies before, during, and post fire. Relevant local characteristics may include the interactions and relationships among residents (e.g., communication networks, presence of local champions, etc.), access and ability to adapt scientific and technical information (e.g., land use or building standards, community fire organizations, etc.), place-based knowledge and experience (e.g., past experience with wildfire, local distrust of government, etc.), and demographic and structural elements (e.g., turnover rate, proximity and capacity of nearby timber mill facilities, etc.) [6,10,17].

The above discussion indicates how the state and national targets for reducing wildfire risk to human populations, promoting safe and effective firefighting response, or fostering healthy landscapes that benefit from periodic fires are likely to require variable “pathways” tailored to the conditions created by the intersection of people and landscapes. These pathways would explore various combinations of incentives, programs, actions, and policies that can be applied to achieve broader policy targets [23,24]. Any state national level policy surrounding wildfire, as well as the corresponding research, will likely need to allow for innovative, place-based implementation. It also will require some means to monitor how variable implementation helps to achieve those broader goals. The contours of these pathways, as with other issues competing for our attention, will be determined by what is politically possible given those competing, interconnected imperatives.

4. Conclusions

The American system of government, by design, will only produce certain types of outcomes. These outcomes are in broad terms recognizable and they reflect the inherent range of political possibility. Devised to encourage, if not force, compromise, this system of government is generally

incapable, except in rare circumstances, of producing sudden transformative shifts in public policy [20]. Rather, the central tendency defaults to limited change in the status quo and a process of incrementalism and policy segmentation [21]. The management of wildfire in the United States is an archetype of the predictable nature of policymaking and how ideas or claims that challenge the established process or status quo anchored in historic legacy will prove difficult to achieve.

Politically possible solutions to wildfire will most likely require incremental sustained change to deeper values and power dynamics shaping our approach to the challenge. Thus, the wildfire question to be answered will be the same as that for any other area of policymaking—can the American system of government produce the desired outcome? Or, do embedded political considerations, the tendency of the policymaking system to favor the status quo, systemic governance constraints, and the internalized and institutional imperatives of the land management agencies as political creations and actors in their own right, limit the possible solutions to outcomes whose broad contours are generally known in advance [25]?

“Failed” policies concerning wildfire management in the United States are often identified as the cause of ecological problems (forest health). Consequently, a common assumption about the political process is it contributes to or is the cause of related ecological challenges. No single policy or even collection of policies is responsible for the complexity of managing the “wildfire problem”. Nor does identifying policy failure suggest solutions or revisions to policies that have apparently “failed” in the eyes of some. Without a sense of what may be politically possible, how policy outcomes are a function of political inputs, we would suggest any progress will prove easier to conceptualize in theory than to achieve in practice. For these reasons, we comment on why wildfire research must better engage the notion of political possibility while seeking to understand the complex, interconnected challenge (and possible solutions) of wildfire policy.

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