



BEST PRACTICES MANUAL FOR NEWS COVERAGE OF FOREST FIRES IN PORTUGAL AND SPAIN

Guidance for Journalistic Practice in Galicia and Northern Portugal

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Introduction

The effectiveness of journalistic coverage in wildfire contexts does not depend only on describing risk, but on the ability to guide public action.

For journalism to function as part of Europe's disaster warning communication infrastructure, news framing must go beyond simply describing danger. It should connect urgency with practical guidance, translate official information into actionable recommendations, consistently indicate where to access reliable alerts, and clarify which protective actions are feasible, effective, and safe.

This manual provides newsroom guidance for journalists and editors covering forest fires in Portugal and Spain, with the aim of strengthening risk perception, public trust, and protective action during wildfire seasons. It is grounded in an empirical study of 250 wildfire-related news articles published in Público (PT) and La Voz de Galicia (ES) during the 2025 fire season, which examined how journalistic framing shapes threat appraisal and coping appraisal through the lens of Protection Motivation Theory (PMT).

The study identifies two broad communication patterns in wildfire reporting: a threat-centred narrative built around disaster salience, alarmist tone, and event intensity; and an efficacy-oriented narrative grounded in prevention, recommendations, and actionable responses. Prevention-oriented coverage is significantly associated with stronger response efficacy, while the presence of protective recommendations shows the strongest relationship with self-efficacy across the dataset. By contrast, alarmist coverage without recommendations is strongly associated with high-threat, low-efficacy communication — a pattern that can heighten fear while weakening the audience's sense that meaningful action is possible.

Taken together, these findings highlight the editorial importance of integrating risk information with clear, actionable guidance, reinforcing that the communicative value of wildfire reporting depends not only on conveying severity, but also on enabling perceived efficacy and informed public response.

Editorial Guidelines for Wildfire Risk Communication

1. Combine threat with efficacy

Forest-fire journalism should make risk visible, but it should also make safe response possible. Evidence indicates that high-threat communication becomes more adaptive when it is paired with recommendations, clear response options, and signals that protective action is effective.

Every story that emphasizes danger should therefore include at least one concrete coping element: what to do immediately, what to avoid, where to verify official updates, and why the recommended action matters. Stories that heighten urgency without offering actionable guidance are more likely to reproduce a high-threat/low-efficacy communication pattern.

2. Prioritize prevention-oriented framing

Prevention framing was the narrative approach most consistently associated with stronger response efficacy in the sample. This suggests that prevention should not be treated as secondary or episodic coverage, but as a core component of wildfire journalism.

Newsrooms should expand reporting on evacuation planning, landscape and fuel management, household mitigation, alert literacy, community preparedness, and recurring risk conditions in the wildland-urban interface. Such coverage helps audiences understand not only that wildfire risk is severe, but also that there are concrete and effective ways to reduce harm.

Editorial Guidelines for Wildfire Risk Communication

3. Use recommendations as a standard editorial element

Protective recommendations were the strongest predictor of self-efficacy in the study. Articles including at least one recommendation were significantly more likely to support the perception that individuals can act effectively.

Recommendations should be specific, feasible, and time-sensitive. Generic advice such as “be careful” or “stay informed” is less useful than explicit guidance such as following municipal evacuation orders, monitoring official civil protection channels, preparing essential kits with documents and medication, avoiding access to affected areas, or reducing exposure to smoke.

4. Limit alarmist language that lacks utility

Alarmist coverage without recommendations was consistently associated with demobilizing communication patterns. Emotional intensity may increase attention, but it does not necessarily support adaptive behaviour unless audiences are also provided with response pathways.

Headlines, leads, and live updates should therefore avoid dramatization that amplifies fear without adding decision-relevant information. Strong descriptions of danger are justified when factually warranted, but they should be immediately followed by practical guidance and verified public instructions.

Editorial Guidelines for Wildfire Risk Communication

5. Translate official information into public guidance

The study found no significant relationship between authority-dominant sourcing and prevention framing. This suggests that simply reproducing official statements is insufficient; journalists must interpret, contextualize, and organize information in ways that are usable for audiences.

This translation role is central to public trust. Trust is strengthened when audiences receive consistent, clear, and actionable reporting that explains what authorities know, what remains uncertain, what citizens should do, and where further updates will be available.

Editorial standards for wildfire coverage



Headlines and leads

Headlines should combine urgency with orientation toward action. A strong wildfire headline identifies both the hazard and its relevant public consequence, while the lead should add the operational implications for residents, travelers, or affected communities.

Preferred headline structures include combinations of risk plus guidance, fire progression plus alert status, or impact plus recommended response. Avoid headlines that foreground devastation or panic when the story also includes public-service information that should be made immediately visible.

Story structure

The first third of the story should answer four key questions: what is happening, who is affected, what authorities are advising people to do, and where audiences can follow official updates. This structure reduces informational overload and increases usability under crisis conditions.

Subsequent sections may provide context on causes, territorial risk, weather conditions, accountability, environmental impacts, and social consequences. However, actionable guidance should not be buried beneath conflict framing or post hoc political reaction.



Editorial standards for wildfire coverage



Tone and language

Use clear, direct, and precise language. Explain technical terms, avoid sensational metaphors, and clearly distinguish between verified facts, forecasts, and uncertainty. In wildfire coverage, this also involves avoiding militarized expressions such as “fight against the fire,” “battle against the flames,” or “war on fire,” unless they are explicitly attributed or used as direct quotations. Such language can amplify alarm without improving public understanding.

An explanatory and appropriately reassuring tone is often more effective than an alarmist one when it helps audiences understand control measures, restrictions, and safe behaviours. Reassurance should never downplay risk, but it can reduce confusion when grounded in evidence and operational clarity.

Sourcing

Prioritize authoritative and expert sources for facts, alerts, fire behavior, and operational measures, while balancing them with affected-community perspectives when these add situational clarity. Citizens should not appear only as passive victims or witnesses; when appropriate, their accounts can help illustrate lived experience and perceived risk, enriching public understanding of the event.

At the same time, coverage should avoid romanticizing improvised civilian response. “Citizen as hero” narratives can restore agency, but may also normalize unsupported emergency action and obscure institutional responsibility.



Editorial standards for wildfire coverage



Visual and digital presentation

Maps, short checklists, verified alert links, geolocated service information, and boxed “what to do now” modules should be treated as core editorial assets in wildfire coverage. In digital formats, scannable presentation enhances usability for audiences following fast-moving events.

Images and video should inform rather than merely intensify emotion. Visual choices that overemphasize flames, destruction, or human distress without contextual information can reinforce threat salience without improving coping capacity or situational understanding.

This supports both response efficacy and self-efficacy by making actionable information visually accessible.

Frame-based editorial guidance

Disaster frame

Use the disaster frame when the severity of the event genuinely warrants it. Evidence shows that this frame is effective for communicating seriousness and vulnerability, but it should not stand alone.

Whenever disaster framing is used, it should be paired with immediate efficacy cues such as evacuation routes, shelter information, school or road closures, smoke precautions, and official channels for updates. This helps translate necessary urgency into actionable risk communication.

Prevention frame

Prevention stories should appear before, during, and after major wildfire events. They should explain how mitigation works, why preparedness matters, and what households, institutions, and communities can do throughout the fire season.

Because prevention framing was strongly associated with response efficacy, newsrooms should develop recurring prevention formats rather than relying exclusively on emergency-driven coverage peaks. Seasonal explainers, recurring public-service columns, and municipality-specific preparedness pieces can help sustain attention beyond acute crisis periods.

Response frame

Response-oriented stories should explain what emergency services are doing, what constraints they face, and what operational factors are relevant to the public. This type of coverage is particularly valuable when it clarifies timelines, access restrictions, alert escalation, and the continuity of local services.

The comparative analysis in this study suggests that La Voz de Galicia used response framing more frequently than Público. This indicates that response reporting can contribute to a more action-oriented public information environment.

Scientific-technical frame

Scientific and technical reporting should translate complexity into public understanding. Weather extremes, fuel conditions, topography, smoke exposure, and fire spread dynamics are all relevant, but they must be communicated in ways that support decision-making.

Scientific expertise should not be used only as retrospective explanation. Its greatest value lies in forward-looking service journalism that helps audiences interpret warnings and anticipate changes in risk conditions.

Frame-based editorial guidance

Responsibility and conflict frames

Accountability reporting remains essential, particularly after catastrophic events or institutional failure. However, conflict and blame-oriented framing should not displace immediate life-safety communication during active incidents.

When responsibility coverage is necessary, it should be clearly separated from urgent protective information. Audiences should not be required to extract evacuation or safety guidance from stories dominated by political confrontation.

Recovery frame

Recovery reporting should continue after fires are extinguished. It should address displacement, health impacts, ecological recovery, psychosocial support, reconstruction, and lessons for future preparedness.

Recovery coverage also provides an opportunity to shift journalism from episodic disaster attention toward longer-term resilience communication. This is particularly important in regions where wildfire coverage is highly seasonal and event-driven.

Newsroom checklist



Editors and reporters should ensure that each wildfire story addresses the following questions before publication:

- What is happening, where is it happening, and what is the level of severity?
- Who is affected or potentially at risk?
- What are authorities or emergency services asking the public to do?
- Are the recommended actions specific, feasible, and relevant for non-specialist audiences?
- Does the story identify official channels for alerts and updates?
- Does the article clearly distinguish between what is known, what is uncertain, and when the next update is expected?
- Does the story avoid alarmist language that lacks practical value?
- Is essential guidance placed early enough in the story to remain visible under crisis reading conditions?

Ready-to-use newsroom recommendations



For reporters

- Verify the danger, then verify the appropriate public action.
- Include at least one explicit public recommendation in every high-threat story.
- Translate technical and official information into clear, accessible language.
- Distinguish immediate instructions from background or contextual explanation.
- Avoid framing that portrays the public only as passive victims or improvised heroes.

For editors

- Require a “what to do now” element in all active-fire coverage.
- Prioritize service information over secondary political reactions.
- Use prevention and explanatory formats outside emergency peaks.
- Standardize style guidelines for warning language, uncertainty, and verified alert references.
- Review headlines and visuals to avoid unnecessary dramatization.

Ready-to-use newsroom recommendations



For newsroom managers and media organizations

- Develop wildfire coverage protocols before the fire season begins.
- Build and maintain contact lists for civil protection, meteorological services, forestry agencies, municipal authorities, and health experts.
- Coordinate regional and local reporting capacity during high-risk periods.
- Invest in templates for alert boxes, maps, and mobile-first public service modules.
- Treat wildfire journalism as part of risk communication infrastructure, not solely as disaster-event reporting.

Contribution to European warning communication

The findings support a model of journalism in which news media act as multipliers of warning communication rather than passive relays of crisis information. In this model, journalistic value lies not only in describing threats, but in enhancing public understanding, strengthening trust, and supporting the translation of warnings into protective action.

This contribution aligns with the objectives of European disaster warning communication networks, as it promotes more usable risk communication, facilitates knowledge transfer, and supports cross-border learning in fire-prone regions. In countries such as Portugal and Spain, where wildfire risk is recurrent and socially embedded, the public value of journalism increases when urgency is consistently linked to efficacy, preparedness, and clear pathways for action.

Final guidance statement

Effective forest-fire journalism should not only ask whether a story reflects the scale of the danger. It should also ask whether it helps audiences understand what the risk means, whom to trust, and what actions to take next.

The empirical evidence from this study indicates that this shift—from threat-centred coverage to integrated threat-and-efficacy communication—is a key pathway toward more adaptive, trust-building, and socially useful wildfire journalism in Portugal and Spain.

Behind the analysis

The study's analytical framework, statistical procedures used to test the hypotheses, and underlying dataset are available through an open-access project website (<https://labgira.com/alerthub/>).

The platform also provides access to visualizations and full sets of study results. This open dissemination aims to promote transparency by making not only the findings, but also the methodological and analytical steps of the research process accessible to journalists, stakeholders, and researchers.

References

- Agrawal, S., Ambury, H., Parida, D., & Joshi, N. (2022). Understanding risk communication in practice: Insights from municipalities in Alberta, Canada. *International Journal of Disaster Risk Reduction*, 79. <https://doi.org/10.1016/j.ijdr.2022.103175>
- Aminpour, P., Helgeson, J. F., & Ferraro, P. J. (2022). The choice of message and messenger to drive behavior change that averts the health impacts of wildfires: an online randomized controlled experiment. *BMC Public Health*, 22(1). <https://doi.org/10.1186/s12889-022-14801-6>
- Balbé, A. D., & Loose, E. B. (2020). Jornalismo, medo e alterações climáticas: articulações possíveis para pensar o enfrentamento dos riscos climáticos. *Observatorio (OBS*) Journal*, 14(2), 38–55. http://sciencepolicy.colorado.edu/media_coverage.
- Bartsch, A., Bürgel, C., Frey, F., Kretzschmar, S., & Wassink, V. (2026). Personal Testimonials and Empathy in Environmental Risk Communication—Their Effects on Reflective Thoughts, Risk Perception, and Behavioral Intentions. *International Journal of Communication*, 20, 744–767. <https://doi.org/10.65476/14ysga13>
- Bjørkheim, S., & Sætrevik, B. (2022). Manipulating risk of infection and appeal to public benefit increase compliance with infection control measures in a hypothetical pandemic scenario. *PLoS ONE*, 17(11 November). <https://doi.org/10.1371/journal.pone.0274024>
- Boykoff, M. T. (2011). *Who Speaks for the Climate? Making Sense of Media Reporting on Climate Change*. Cambridge University Press.
- Calvani, S., Foderi, C., Paoloni, R., Frassinelli, N., Neri, F., & Marchi, E. (2026). Media trends and public interest in wildfires in Tuscany, Italy. *Geographical Research*, 64(1). <https://doi.org/10.1111/1745-5871.70040>
- Carvalho, A. (2011). *As alterações climáticas, os media e os cidadãos* (1st ed.). Grácio Editor. www.ruigracio.com
- Castelló, E. (2024). The Mediatization of the Resilience Frame: A New Understanding of Wildfires in the Spanish Mainstream Media (2017–2021). In J. Rodrigo-Comino & L. Salvati (Eds.), *Fire Hazards: Socio-economic and Regional Issues* (pp. 137–151). Springer. <https://doi.org/10.1007/978-3-031-50446-4>
- Chas-Amil, M. L., García-Martínez, E., & Touza, J. (2020). Iberian Peninsula October 2017 wildfires: Burned area and population exposure in Galicia (NW of Spain). *International Journal of Disaster Risk Reduction*, 48. <https://doi.org/10.1016/j.ijdr.2020.101623>
- Chas-Amil, M. L., Nogueira-Moure, E., Prestemon, J. P., & Touza, J. (2022). Spatial patterns of social vulnerability in relation to wildfire risk and wildland-urban interface presence. *Landscape and Urban Planning*, 228. <https://doi.org/10.1016/j.landurbplan.2022.104577>
- Das, M., & Ramalingam, M. (2023). To praise or not to praise- Role of word of mouth in food delivery apps. *Journal of Retailing and Consumer Services*, 74. <https://doi.org/10.1016/j.jretconser.2023.103408>
- Druckman, J. N., & McDermott, R. (2008). Emotion and the framing of risky choice. *Political Behavior*, 30(3), 297–321. <https://doi.org/10.1007/s11109-008-9056-y>
- Entman, R. M. (1993). Framing: Toward Clarification of a Fractured Paradigm. *Journal of Communication*, 43(4).

References

- Figueiredo, E., Ribeiro, C., & Fernandes, M. E. (2024). "Not Even Hell Must Look like This"—Print Media Narratives about the October 2017 Wildfires in Portuguese Public-Managed Forests. *Fire*, 7(7). <https://doi.org/10.3390/fire7070236>
- Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. In *Frame analysis: An essay on the organization of experience*. Harvard University Press.
- Henrich, L., McClure, J., & Crozier, M. (2015). Effects of risk framing on earthquake risk perception: Life-time frequencies enhance recognition of the risk. *International Journal of Disaster Risk Reduction*, 13, 145–150. <https://doi.org/10.1016/j.ijdr.2015.05.003>
- Huangfu, G. (2014). The influence of social cues on framing effect. *Social Behavior and Personality*, 42(3), 371–378. <https://doi.org/10.2224/sbp.2014.42.3.371>
- Li, R., Li, Y. N., Wei, J., & Yao, W. (2023). How goal-framing of risk-coping slogans impacts protective behavior: an experimental study. *Journal of Data, Information and Management*, 5(3), 115–124. <https://doi.org/10.1007/s42488-023-00097-7>
- Loureiro, M. L., Alló, M., & Coello, P. (2022). Hot in Twitter: Assessing the emotional impacts of wildfires with sentiment analysis. *Ecological Economics*, 200. <https://doi.org/10.1016/j.ecolecon.2022.107502>
- Miller, D., & Sardais, C. (2013). How our Frames Direct Us: A Poker Experiment. *Organization Studies*, 34(9), 1381–1405. <https://doi.org/10.1177/0170840612470231>
- Nilsson, S., & Enander, A. (2020). "Damned if you do, damned if you don't": Media frames of responsibility and accountability in handling a wildfire. *Journal of Contingencies and Crisis Management*, 28(1), 69–82. <https://doi.org/10.1111/1468-5973.12284>
- Nisbet, M. (2009). Communicating climate change: Why frames matter for public engagement. *Environment*, 51(2), 12–23. <https://doi.org/10.3200/ENV.51.2.12-23>
- Oliveira, R., Oliveira, S., Zêzere, J. L., & Viegas, D. X. (2020). Uncovering the perception regarding wildfires of residents with different characteristics. *International Journal of Disaster Risk Reduction*, 43. <https://doi.org/10.1016/j.ijdr.2019.101370>
- Psathas, G. (2014). Goffman and Schutz on Multiple Realities. In *Schutzian Phenomenology and Hermeneutic Traditions* (Vol. 68, pp. 201–221). Springer Nature. https://doi.org/10.1007/978-94-007-6034-9_13
- Rodríguez Fernández-Blanco, C., Górriz-Mifsud, E., Prokofieva, I., Muys, B., & Novoa, C. P. (2022). Blazing the trail: Social innovation supporting wildfire-resilient territories in Catalonia (Spain). *Forest Policy and Economics*, 138. <https://doi.org/10.1016/j.forpol.2022.102719>
- Rodríguez-Teijeiro, A., & Román-Masedo, L. (2023). The Role of Media in Risk Management Processes—Analysis of the News Coverage of the Forest Fires in Spain. *Social Sciences*, 12(12). <https://doi.org/10.3390/socsci12120688>
- Rogers, R. W. (1975). A Protection Motivation Theory of Fear Appeals and Attitude Change¹. *The Journal of Psychology*, 91(1), 93–114. <https://doi.org/10.1080/00223980.1975.9915803>
- Santín, C., Moustakas, A., & Doerr, S. H. (2023). Searching the flames: Trends in global and regional public interest in wildfires. *Environmental Science and Policy*, 146, 151–161. <https://doi.org/10.1016/j.envsci.2023.05.008>

References

Slavik, C. E., Chapman, D. A., Cohen, A. S., Bendefaa, N., & Peters, E. (2024). Clearing the air: evaluating institutions' social media health messaging on wildfire and smoke risks in the US Pacific Northwest. *BMC Public Health*, 24(1). <https://doi.org/10.1186/s12889-024-17907-1>

Sousa, J. C. (2024). Anatomia de uma Catástrofe Mediática: Pedrogão Grande e a política da invisibilidade. *Estudos Em Comunicacao*, 2(39), 44–59. <https://doi.org/10.25768/1646-4974n39v2a03>

van der Linden, S. (2015). The social-psychological determinants of climate change risk perceptions: Towards a comprehensive model. *Journal of Environmental Psychology*, 41, 112–124. <https://doi.org/10.1016/j.jenvp.2014.11.012>

Wiedemann, P. M., Kirsch, F., Lohmann, M., Böhl, G. F., & Freudenstein, F. (2022). Effects of as-if risk framing of hazards on risk perception and its rebuttal. *Regulatory Toxicology and Pharmacology*, 136. <https://doi.org/10.1016/j.yrtph.2022.105282>

References

Slavik, C. E., Chapman, D. A., Cohen, A. S., Bendefaa, N., & Peters, E. (2024). Clearing the air: evaluating institutions' social media health messaging on wildfire and smoke risks in the US Pacific Northwest. *BMC Public Health*, 24(1). <https://doi.org/10.1186/s12889-024-17907-1>

Sousa, J. C. (2024). Anatomia de uma Catástrofe Mediática: Pedrogão Grande e a política da invisibilidade. *Estudos Em Comunicacao*, 2(39), 44–59. <https://doi.org/10.25768/1646-4974n39v2a03>

van der Linden, S. (2015). The social-psychological determinants of climate change risk perceptions: Towards a comprehensive model. *Journal of Environmental Psychology*, 41, 112–124. <https://doi.org/10.1016/j.jenvp.2014.11.012>

Wiedemann, P. M., Kirsch, F., Lohmann, M., Böhl, G. F., & Freudenstein, F. (2022). Effects of as-if risk framing of hazards on risk perception and its rebuttal. *Regulatory Toxicology and Pharmacology*, 136. <https://doi.org/10.1016/j.yrtph.2022.105282>



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