

## Article

# “Not Even Hell Must Look like This”—Print Media Narratives about the October 2017 Wildfires in Portuguese Public-Managed Forests

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**Abstract:** The unprecedented wildfires of 2017 in Portugal, particularly affecting the Centre Region, resulted in more than 100 deaths and numerous other dramatic socioeconomic and environmental impacts. Due to the unparalleled magnitude of these events, the extent of the burned area, and the catastrophic consequences, forest and fire management were placed at the center stage of public and political concerns, receiving wide mass media attention and amplification likely to shape public opinion and influence policy decisions. Through a quasi-qualitative content analysis approach, this article focuses on the media narratives conveyed by the news issued over two years (N = 1056) by eight newspapers of different periodicities and geographical scopes regarding the wildfires of October 2017 in the *Matas do Litoral*—coastal public-managed forest areas located in the Centre Region of Portugal. The analysis focuses on three main dimensions: the agents and actors mentioned and their power-related positions, the geographical coverage of the newspapers, and the relevance ascribed to emotions and feelings in the media narratives about the wildfires. The results demonstrate the relevance attributed in media narratives to the views of institutional agents and the negligence of local people’s voices. When particularly highlighting the material impacts of the wildfires, media narratives tended to focus less on people’s emotions and other non-tangible issues. The variation in these narratives according to the geographical scope of the newspapers and the publication time of the news strongly points out the need to address the heterogeneous character of the media coverage of wildfires.

**Keywords:** content analysis; mass media coverage; mass media narratives; *Matas do Litoral*; Portugal; wildfires



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## 1. Introduction

As in other parts of the world, over the last few decades, Portugal has increasingly experienced mega-fire events [1,2]. Portugal stands out within the European Union (EU) as one of the countries most affected by wildfires [3], which are often considered to be one of its more challenging environmental problems [2,3]. Most of these wildfires are exacerbated by socioeconomic activities [2,3], namely, significant changes in land uses—especially the long-lasting processes of rural and agricultural abandonment—climate change, and the lack of adequate forest management and fire prevention policies [1,2]. Every year, wildfires are responsible for the destruction of more than one hundred thousand hectares of Portuguese forests [4].

Among recent mega-fires, the wildfires in June and October 2017 were unparalleled in terms of the magnitude of area burned and the damage inflicted [1,2,5]. These mega-fires,

which occurred outside the official fire season, destroyed more than five hundred thousand hectares [2,4], that is, five times the average annual area burned [4]. The wildfires of October 2017 alone destroyed half of the total area burned that year (more than two hundred thousand hectares). These fires were fueled not only by long-lasting rural land use changes, but also by extreme weather conditions (wind and dry), which were intensified by Hurricane Ophelia and caused the rapid progression and multiplication of these events [2]. Together, the wildfires of June and October 2017 resulted in 116 deaths, more than 1000 damaged or destroyed houses, and damage to more than 700 companies, energy and water supply, and communication and transportation infrastructures [1,5].

This article focuses on the October 2017 wildfires, considering the *Matas do Litoral*—the coastal forest areas located in the Centre region of Portugal—which were particularly affected by those events. The *Matas do Litoral* are part of the 3% of public forests in the country, and are managed by a Portuguese State agency—the ICNF (Institute for Nature and Forests Conservation). These areas play an important role in nature conservation, ensuring forest systems' functions, protecting high-conservation-value ecosystems, and promoting management-related public services [6]. Given the public character of these areas, the enormous impacts of the wildfires, and the prominence of forestry in Portugal (around 36% of the country's area), the events of October 2017 triggered extensive social and political controversies and debates about fire and forest management policies, the social valorization of forests, and citizens' involvement in management decision-making processes [1,6], echoed by extensive mass media coverage.

By examining the print media narratives on the wildfires of October 2017 in the *Matas do Litoral*, this article aims to analyze the content of these controversies and debates. Media narratives are understood here as storytelling structures allowing communication within society, forming persuasive accounts of events that can contribute to shaping public opinion and influencing political decisions [7]. Despite the increasing prevalence and magnitude of wildfires, the analysis of media narratives on this topic has been overlooked by the scientific literature dealing with the media coverage of disastrous events and forest issues [8–14]. This study aimed to contribute to filling this gap by analyzing an extensive set of news items (N = 1056) published during the two years following these fires. The news items were collected from eight newspapers of different periodicities and geographical scopes. By considering diverse newspaper profiles and publication dates, the article also aimed to unveil the heterogeneity of media narratives, which has often been ignored by the literature on these topics [12,13]. To this end, a quasi-qualitative content analysis approach, e.g., [15], was performed. Three main dimensions emerged as important in the media narratives analyzed: the voices and views of the central and peripheral agents and actors mentioned, the geographical scope of the narratives, and the relevance attributed to the emotions and feelings of the diverse agents, actors, and communities.

## 2. Mass Media Coverage of Wildfires

An abundant set of studies has been looking at the strong connection between mass media coverage and public attention to a given issue, concluding that media narratives may foster public opinions and understanding and promote social change [11,15–17]. Mass media are powerful tools in shaping opinions, attitudes, and behaviors [7,16], even despite conveying subjective and constructed versions of facts, instead of being just objective fact-telling devices [18]. These subjective accounts are, in turn, shaped by the features of particular types of media and their editorial choices and practices [8]. Mass media are not just the stages for displaying the views of different agents and actors, but can also act as 'political actors' [7,8,11] by constructing and deconstructing issues and controversies and by selecting which ones are newsworthy. Therefore, mass media also have the power to set, frame, and influence political narratives and decisions [7,15,16].

As Mangani [11] states, there has been, within the academic literature, a steady interest in mass media attention and its role in debating forest-related issues, especially regarding the use of mass media by different groups of agents to convey or legitimize their decisions;

to promote the confrontation of opinions and ideas [19]; to frame particular environmental and forestry matters [7,15]; and to directly or indirectly influence forest political decision-making processes. Contrary to other disastrous events, the media coverage on wildfires has been an overlooked research topic. Regarding disasters' coverage, mass media have been accused of publishing mainly negative news [15] that are generally driven by the unusual or dramatic character of these events. The media framing of disasters requires constant reporting and searching for newer developments [20] in line with the media 'amplification' strategies pointed out by Kaspersen et al. [21] about risk and the social perceptions of risk. While more commonly used by sensationalist media, amplification strategies are also utilized by conventional media when reporting on disasters of a larger magnitude and with significant impacts. Amplification strategies are generally based on a disproportionate use of visual elements (e.g., photos and videos), as well as on negative and shocking titles and headlines to further attract audiences, exacerbating related social (mis)perceptions [16]. Through these strategies, mass media also influence citizens' experiences, understanding, and subsequent social and political reorganization [7,8,22,23], which is particularly relevant in evaluating how governments respond and take responsibility [23,24].

The media coverage of wildfires (especially of mega-fires) aligns with these amplification strategies, often conveying negative and shocking narratives through images, news, headlines, and titles, turning wildfires into a media spectacle [24] by focusing on drama [12,23] and exacerbating narratives about deaths, injuries, and material damages [8]. The media coverage of wildfires also tends to be event-driven and episodic, producing what Morehouse and Sonnett [12] called 'dominant storylines'. Similarly, the coverage of wildfires is frequently centered on their causes and the attribution of responsibility. While socioeconomic and human causes are generally emphasized [2,3], in recent years, there has been an increase in media narratives focusing on climate change's influence on the frequency and magnitude of wildfires, accompanying the scientific evidence on the topic [8,14,23–26]. The growing media identification of the influence of climate change on wildfires' occurrence has contributed to politicizing both topics, as well as their connection, triggering further public concerns and debates. Other studies [10,15,22] have stated that wildfires' causes are more often attributed by the media to inadequate governmental policies and strategies regarding fire prevention and firefighting resources.

As in the media coverage of other disasters, narratives about wildfires often give voice to agents in positions of power (e.g., decision makers, government, and other state bodies at different levels), amplifying their views and portraying them as key experts [9,10,17]. This is particularly evident in the case of regional and local governments' representatives often being portrayed as 'experts in context' due to their more accurate views of local problems and solutions. These agents are commonly requested by the media to provide reports and updates on the fires' size, location, progression, impacts, and the resources employed in firefighting [9,17]. Other experts and expertise, such as firefighters and firefighting agencies, militaries, and scientists [9,17], are also valued by the media due to their primary function in protecting people and structures. Firefighters in particular often receive substantial media attention, being generally portrayed as 'brave' and 'heroic' in their fight against the flames [17,23,25]. On the contrary, national-level government members—generally responsible for designing policies and making resources available—are frequently portrayed as the 'villains', inefficient, and overtaken by fateful circumstances, as the study of Undurraga [23] about Chile's 2017 wildfires well demonstrates. Conversely, media narratives on disasters—including wildfires—tend to minimize or even exclude the local population's knowledge about the context, fires, firefighting, and needed recovery activities. These actors are often portrayed as non-experts and mainly as non-active victims that need to be guided and 'acted upon' [17].

Cox et al. [9], in their analysis of the media coverage of a wildfire in British Columbia, conclude that, because residents are rarely quoted, they become invisible and voiceless to the general public. Furthermore, as pointed out by [8,9,17], the experiences of more vulnerable and/or minority groups such as women, children, and indigenous populations

are frequently silenced. This silencing contributes to conveying disasters as ‘great equalizers’ [17], that is, as uniformly affecting communities and people. The media representation of local populations as non-active and in need of being guided also contributes to legitimizing the views of the agents in positions of power within decision-making processes, especially regarding post-fire recovery actions. This promotes the “erosion of local individual and collective empowerment” [9] (p. 474) by minimizing local actors’ demands and needs [8,9,17]. As economic recovery and ‘return to normal’ activities progress, another dominant and homogeneous narrative emerges, portraying local actors (especially males) as ‘good citizens’, brave enough—despite of their hardships—to carry on and meet decision makers’ expectations. Through sustaining the agents in positions of power and silencing the people outside those positions, media narratives reinforce the dichotomies between the ‘victims’ and the ‘heroes’, the men and the women, the adults and the children, the indigenous and the non-indigenous populations, and the decision makers and the decision-deprived, reinforcing social inequalities, stereotypes [8,9], and (dis)empowerment processes [17].

Like in other disastrous events, a great deal of the media attention on wildfires focuses on the extent of the negative socioeconomic impacts, while neglecting their ecological consequences. Although this may vary according to the newspapers’ geographical scope and the fires’ phase, media accounts of wildfires’ impact often highlight tangible damages, especially those related to property (e.g., businesses and family homes) and infrastructure (e.g., companies and public) [12,14,25] losses, deaths, and physical health injuries [9,12,13,17]. Not so much attention is paid to less tangible impacts, such as mental health issues, symbolic patrimony, local identity, and place attachment losses [17], which correlates with the quasi-absence of media narratives about emotions [9,14,17,25]. Despite [14,25] recently pointing out a new affective focus in the media coverage of disastrous events, identifying an increase in news describing dramatic personal emotions, for the most part, the media coverage of wildfires still lacks narratives about negative emotional states, such as populations’ suffering, grief, sadness, and despair. Cox et al. [9] (p. 475) refer to the “multiple eclipsing of emotion” precisely to describe the lack of media narratives about populations’ suffering, grief, sadness, and despair. According to the authors, this eclipsing of negative emotions must be further analyzed, as it contrasts with the dominant discourses that stress a return to economic functionality and, therefore, to normalcy. These discourses—inscribed in a more global neoliberal perspective of society—also emphasize the need for psychological functionality to return, as soon as possible, to ‘normal life and activity’, requiring what [9] (p. 475) call the ‘sequestering of suffering’, obscuring the “unique and complex psychological and social issues faced by those who lost their homes and livelihoods”. Therefore, while negative emotions related to loss and suffering are minimized, positive accounts of heroism, courage, and dignity are highlighted, trying to promote a collective responsibility of being ‘good’ community members and citizens. These accounts tend to emerge in post-fire contexts and are, as already mentioned, crucial to recovery actions and the return to normal activities. Similarly, narratives about what has been preserved or not lost to the fire are frequently emphasized as positive outcomes of such fires, namely by comparing them with past and perhaps more dramatic events. In this sense, governmental and community decisions, solutions, and activities to mitigate wildfires’ impacts and reestablish routines, as well as economic and social functionality, tend to be relevant dimensions of media narratives in post-fire contexts [17]. These dimensions are even more central in media narratives than governments’ strategies to tackle wildfire prevention, forest management, and planning issues, e.g., [5,10].

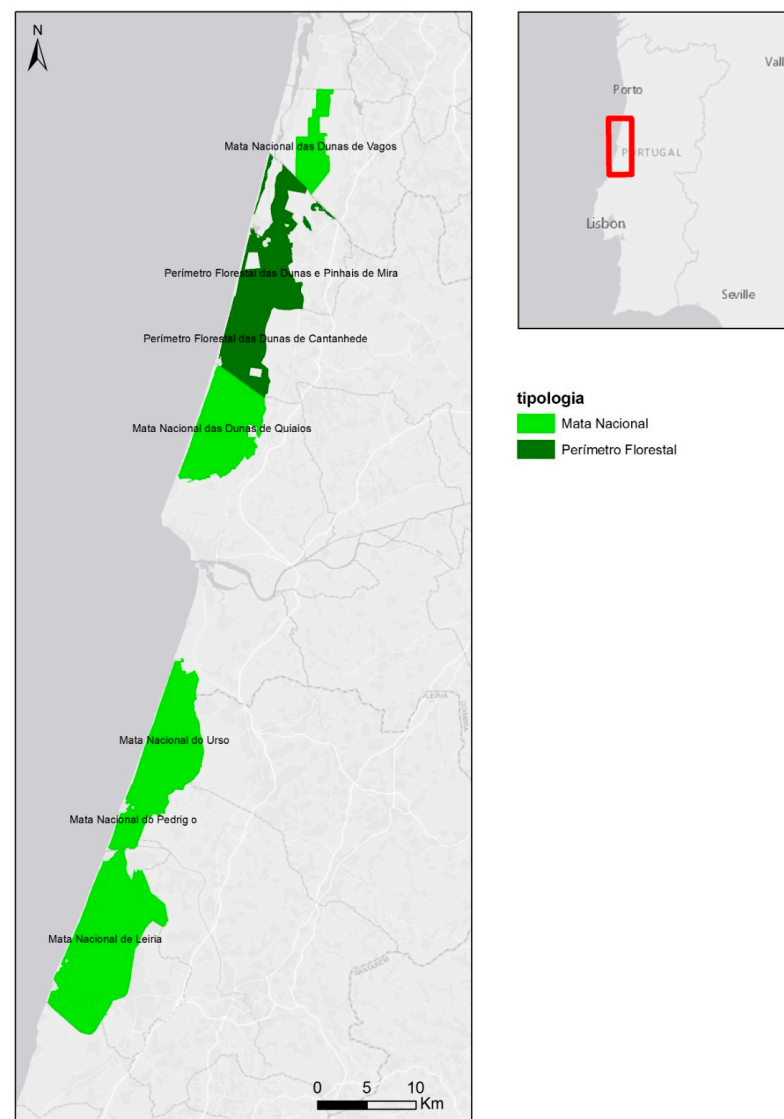
### 3. Methods

#### 3.1. Data Collection

This article explores the print media narratives around the dramatic wildfires that occurred in October 2017 in *Matas do Litoral*, coastal public-managed forest areas located in the Centre region of Portugal. Specifically, three main dimensions are explored in this

analysis: the voices and perspectives of more central and peripheral agents and actors; the geographical scopes of the narratives conveyed; and the relevance of emotions and feelings in the media accounts. Despite acknowledging the growing relevance and role of new media (e.g., blogs and social networks) as interactive spaces, the choice to focus on print media relates to its added effectiveness in aggregating and transmitting information and in influencing other media accounts [19].

This study analyzes the news published about the wildfires occurring in the most affected areas of *Matas do Litoral*: The National Forests (*Matas Nacionais*—MN) of Leiria, Pedrógão, Urso, Dunes of Vagos, and Dunes of Quiaios and the Forest Perimeters (*Perímetros Florestais*—PF) of the Dunes of Cantanhede and Dunes and Pinewoods of Mira (Figure 1). These areas are located in the coastal areas of the Centre Region of Portugal and cover an area of 36,124 hectares, distributed by 3 NUTS III, 7 municipalities, and 16 parishes.



**Figure 1.** Location of the *Matas do Litoral* analyzed. Source: Own elaboration, based on REFLOA. (<https://geocatalogo.icnf.pt/geovisualizador/refloa/>, accessed on 3 January 2024).

News items were collected by first identifying all the generalist newspapers published in Portugal at the national, regional, and local levels (within the regions of Aveiro, Coimbra, and Leiria where the analyzed MN and PF are located) and considering their different periodicities and geographical scopes. A total of 23 newspapers were identified (6 national,

9 regional, and 8 local). Secondly, the 23 newspapers' editorial groups were assessed to avoid repetitions in terms of coverage and obtain a broader range of news. Thirdly, the availability of the newspapers in digital and online formats was considered and all the newspapers published only in physical (paper) format were excluded due to the higher time consumption required for searching and collecting the news. Following these procedures, 8 newspapers were finally selected (Table 1), from which all the news related to the wildfires in the *Matas do Litoral* published between 15 October 2017 and 15 October 2019 were collected. To collect the news from the selected newspapers, keywords such as 'forest/s', 'forestry', 'fire/s', and 'burned area/s' were used, combined with the different designations of the analyzed MN and PF. A total of 1056 news items were collected and firstly registered considering several attributes, such as their date of publication, the newspaper geographical scope and section, news size, and the use (and number) of photos.

**Table 1.** Characteristics of the selected newspapers.

Newspapers	Periodicity	Geographical Scope	Number of News	%
Público (PB)	Daily		218	20.6
Jornal de Notícias (JN)	Daily	National	138	13.1
Expresso (EX)	Weekly		24	2.3
Diário de Aveiro (DA)	Daily		147	13.9
Região de Leiria (RL)	Weekly	Regional	68	6.5
Jornal da Marinha Grande (JMG)	Weekly		330	31.2
Jornal Voz de Mira (JVM)	Biweekly	Local	106	10.4
Terras de Sícó (TS)	Biweekly		25	2.4
<b>Total</b>			<b>1056</b>	

### 3.2. Data Analysis

The news were analyzed through a content analysis using NVivo (version Release 1.6.1, Lumivero, Denver, CO, USA). A content analysis aims to identify who says (or writes) what, to whom, why, to what extent, and with what purposes and effects, e.g., [16]. Content analyses mainly focus on the internal characteristics of documents and their contextual meanings, e.g., [27]. In this study, a quasi-qualitative content analysis was used, e.g., [15] combining some simple quantification (e.g., the frequency of news and references by categories, subcategories, and attributes; word frequency) with a qualitative approach (including interpretation and contextualization of the news' content). To this end, a coding scheme was created based on a literature review, e.g., [7,12,15,16], and a preliminary assessment of the news collected. Thirteen main categories and corresponding sub-categories, attributes, and values were established to code, contextualize, and assess the content of the 1056 news items (Table 2). As these systematization procedures may sometimes result in losses regarding the richness of the narratives analyzed, some excerpts of the news were used to further illustrate those narratives and their underlying context following [27]. Media narratives were analyzed based on the newspapers' different geographical scopes and periodicities, as well as on the news' publication date.

**Table 2.** Number of categories, subcategories, attributes, and values in the coding frame.

Categories	Number of Subcategories	Number of Attributes	Number of Values
Agents and actors mentioned in the news	3	60	186
Expressions and feelings regarding the wildfires of 2017	6	46	125
Expressions and feelings regarding forests before the fires of 2017	4	19	60

Table 2. Cont.

Categories	Number of Subcategories	Number of Attributes	Number of Values
Expressions and feelings regarding forests after the fires of 2017	3	20	62
Fire occurrence	6	19	48
Wildfires' fighting	9	32	108
Wildfires' prevention	15	18	11
Geographical focus	2	18	230
Governance of the country regarding wildfires and forest future	4	30	46
Impacts of wildfires	2	20	238
Interviews and testimonials from agents and actors	6	21	104
Post-fire	3	4	83
Support to those affected by the wildfires	7	22	109
<b>Total</b>	<b>70</b>	<b>329</b>	<b>1410</b>

## 4. Results and Discussion

### 4.1. Brief Characterization of the News Collected

As shown in Table 1, JMG—a regional weekly newspaper—published the greatest amount of news regarding the wildfires of October 2017, followed by PB—a national daily newspaper—and DA—a regional daily newspaper. These news items were variable in size, from just a few lines to more than one thousand words, with the lengthier news mainly being published by PB and EX (a national weekly newspaper). In total, 56.1% of the news items included at least one photo, often representing specific sites during or immediately after the fires and mainly depicting the flames, firefighting, burned trees, landscapes, buildings, and infrastructure. Overall, 100% of the news published by RL (a regional weekly newspaper) and 99% of the news published by PB included at least one photo.

Unsurprisingly, the majority of the newspapers analyzed published the greatest amount of news in the first six months following the fires, especially during the events, and over the first month (Figure 2). Exceptions to this were the local biweekly newspapers JVM and TS, which published the greatest amount of news after six months after the fires. This may have been due to the local focus of the newspapers and their greater interest in covering the measures and strategies followed by national and local governments regarding recovery activities and support to those affected. Regardless of these exceptions, the data corroborate the conclusions of [10,12,16] on the event-driven and episodic nature of media coverage and its clear greater interest in emergency contexts. Furthermore, the greater exacerbation of the consequences of the fires, together with the material and symbolic relevance of the *Matas do Litoral* within the local, regional, and national contexts, during or immediately after the events [1,5,6], seem to be part of the amplification strategies often used by media when covering disastrous events, as pointed out by [15,20,21].

The 'Local' (18.5%), 'Society' (13.5%), 'National' (9.9%), and 'Wildfires' (9.6%) sections of the newspapers gathered the greatest amounts of news published, showing the general consideration of the fire events as a social problem, and the simultaneous local and national interest in the topic. Figure 3 shows the ten most repeated words in the news analyzed, from which 'Fire(s)', 'Leiria' (one of the municipalities where the MN of Leiria is located), and 'Pinhal' (pinewood, referring again to the Pinhal de Leiria, MN of Leiria's alternative designation) stand out. While showing that the majority of the newspapers analyzed repeated similar words (and narratives), these results also reveal interesting differences

between national and regional and local newspapers, as well as according to the news publication dates. Hence, the frequent references to the most affected municipalities and areas by regional and local newspapers and to the country and central government by national newspapers demonstrate the relevance—as noted by [9]—of considering diverse newspapers’ geographical coverages due to their different approaches and focus on the events.

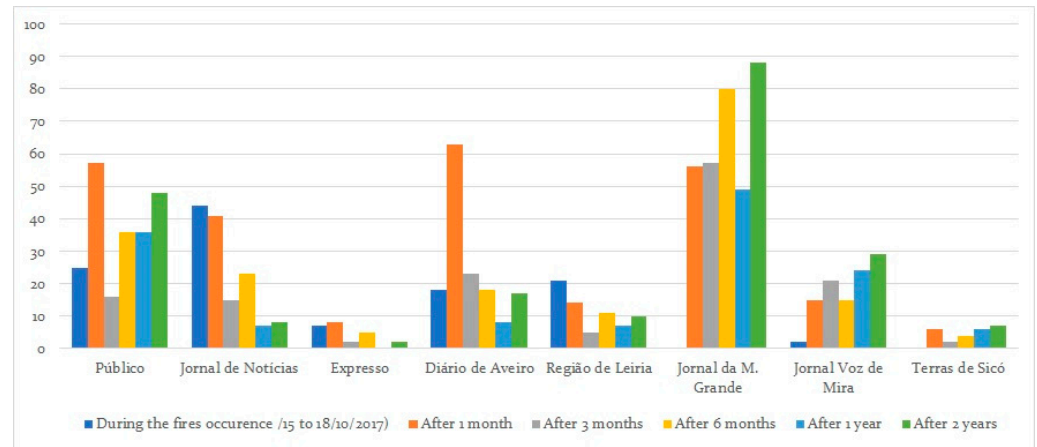


Figure 2. Number of news by newspaper and time of publication (counts).

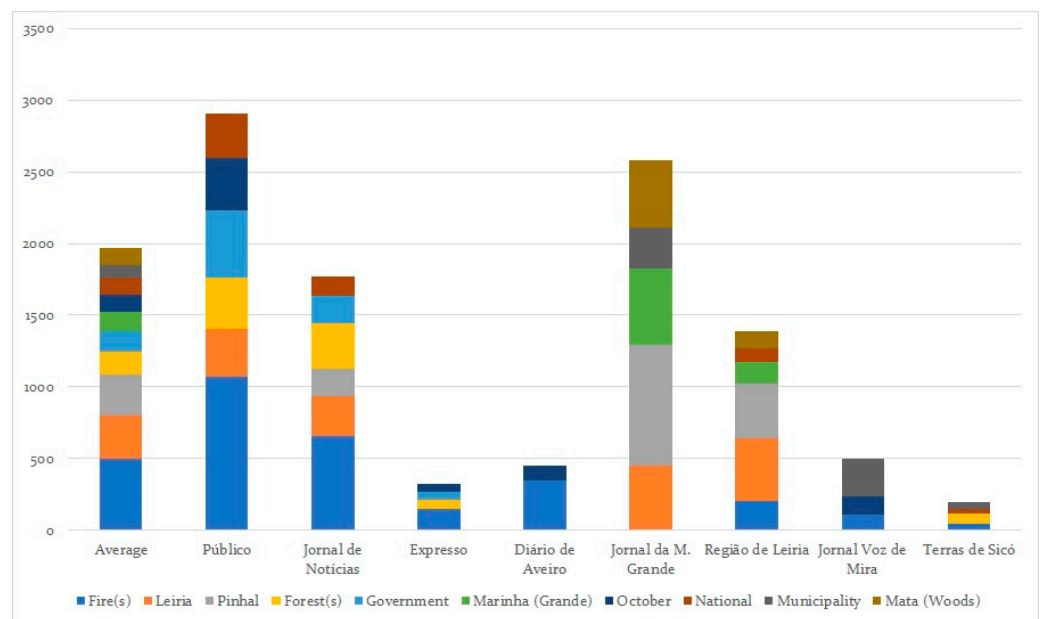
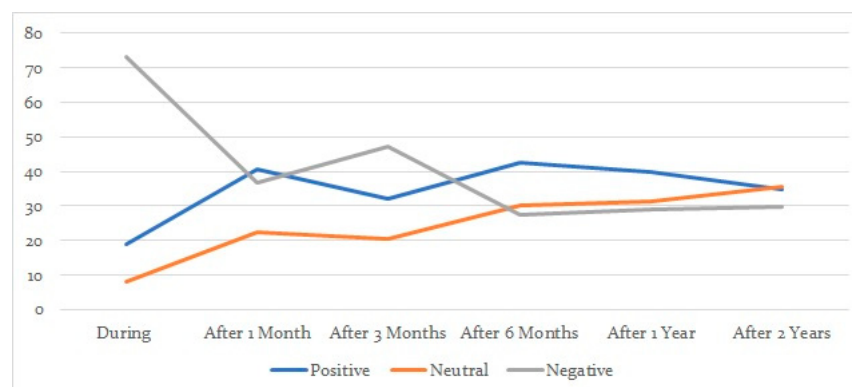


Figure 3. Ten most repeated words in the news items, on average and by newspaper (counts).

In view of their relevance in attracting readers’ attention and amplifying issues, e.g., [16], the positivity, neutrality, or negativity of the news titles were recorded, considering their variations during the two years analyzed (Figure 4). Negative titles were dominant during the fires, while neutral titles followed with a steadily growing path over time, and positive titles, although showing a more variable trend, tended to increase after 1 month.



**Figure 4.** Classification of the news' titles as positive, neutral, or negative (percentages).

Considered together with the number of news items published during the two years analyzed, these results demonstrate that, despite sustained media attention, there was a decrease in terms of coverage and in the tone of the narratives consistent with the media amplification strategies discussed, among others, by [21]. This decline in negative and shocking titles and storylines, as also described by [12], reveals that, from a certain point onwards, fires ceased to be considered as just a 'media spectacle' [24] and started to be seen as events whose consequences must be addressed. Notwithstanding, the broader contexts and causes of fire occurrence generally tended to be neglected in the media narratives [16].

Regional and local newspapers tended to use a more positive (or at least neutral) tone—even during a fires—suggesting that proximity to the affected communities underlined a more optimistic approach to encourage positive views and attitudes in their targeted audiences, particularly to influence their involvement and interest in recovery actions. On the contrary, national newspapers—being more distant from the contexts of the events and aimed at a wider audience—tended to adopt a more negative tone and convey shocking headlines over a longer period, as also concluded by [9,23].

#### 4.2. Print Media Narratives about the Wildfires

##### 4.2.1. Agents and Actors Mentioned

The print media narratives about the wildfires of October 2017 in the *Matas do Litoral* region revolved mainly around the actors and agents mentioned, the affected areas, and the expressions and feelings conveyed by the news (Table 3), that is, the three main dimensions analyzed here. Inversely, expressions and feelings regarding both the past and the future of *Matas do Litoral* and the post-fire and fire prevention activities were the categories gathering the lowest numbers of files and references. The relevance of the different categories was relatively uniform throughout the news analyzed, regardless of their publication date and the newspapers' geographical scope. Regarding the former, it is worthwhile to emphasize the slightly higher relevance of narratives about firefighting resources and challenges, as well as the emphasis on the geographical distribution of fires, during the fire events.

The category of 'agents and actors mentioned in the news' was mainly centered around three main subcategories: the type of agents or actors mentioned (56.8%); the level of personalization of agents or actors (23.5%); and the context in which the agents and actors were mentioned (19.7%). Despite the varied set of agents and actors mentioned, government-related agents were the most often referred to (Table 4), particularly government bodies such as ICNF (representing 34.5% within this attribute)—the agency responsible for public forests' management—and civil protection entities (25.9%). This was followed by local government representatives (mainly the mayors of the affected municipalities), central government members, and political parties' representatives, as well as 'other agents'. References to all these agents tended to be 'personalized' (23.5%), frequently mentioning their names and roles. Other actors such as members of the local population, social, cultural,

and civic movements' members, local entrepreneurs, and forest owners were much less referred and 'personalized' in the news.

**Table 3.** Number and percentage of files and references by category.

Category	Number of Files	%	Number of References	%
Agents and actors mentioned in the news	1013	95.9	15,938	32.7
Geographical focus	945	89.5	8613	17.7
Expressions and feelings regarding the wildfires of 2017	839	79.5	6654	13.7
Impacts of wildfires	538	50.9	3202	6.6
Fire occurrence	598	56.6	2843	5.8
Governance of the country regarding wildfires and forest future	473	44.8	2721	5.6
Interviews and testimonials from agents and actors	361	34.2	1006	2.1
Support to those affected by the wildfires	354	33.5	1743	3.6
Forest fire fighting	301	28.5	1296	2.7
Forest fire prevention	292	27.7	1156	2.4
Expressions and feelings regarding forests before the fires of 2017	291	27.6	1513	3.1
Post-fire strategies	291	27.6	1316	2.7
Expressions and feelings regarding forests after the fires of 2017	214	20.3	744	1.5
<b>Total</b>	<b>1056</b>		<b>48,745</b>	

Be the case as it may, references to all the agents and actors tended to focus on their specific roles and especially on their contexts of action (19.6%). These varied from being experts on fires or fires' impacts—"[Name of the expert] leads the installation commission, having already defined some of the main pillars of the Integrated Rural Fire Management System" (PB, 05/03/2018); those politically accountable for the events—"the State has to take responsibility for the victims" (JN, 21/10/2017); and those responsible for the management of forests to agents demanding action from the government regarding the fires' impacts, support to the victims, or post-fire recovery actions—"The government must do everything possible so that support may be giving to those who have been left with almost nothing" (mayor of a municipality to DA, 24/10/2017). In the majority of the items examined, agents and actors were just mentioned, while in other cases (especially concerning government members, members of parliament, political parties, and ICNF representatives), references were often based on testimonials and interviews, highlighting their key expert or expert-in-context positions. Notwithstanding the media coverage consensus, it is worthwhile to note that regional and local newspapers tended to highlight more often the accounts of local governments' members and—although much less—local populations, which may be, once more, explained by their proximity to the affected areas and populations.

The results presented here emphasize the enormous relevance attributed in these media narratives to a set of agents and actors, especially national and local government representatives responsible for forest and fire management, local decision-making processes, and civil protection, in line with the conclusions of, among others, [9,17]. Often referred to by their first names and recruited as key experts or experts-in-context, these agents are represented as active decision makers and, in some cases, as 'saviors'. Inversely, local actors (e.g., local population and entrepreneurs) are much less referred to and designated by their names, reinforcing their representation as non-active victims and non-experts needing to be guided in understanding and acting in response to the events. These results highlight—like in the studies conducted by [9,12,17]—a dichotomy in media approaches to fire-event-related agents and actors based on the overrepresentation and amplification of the views and voices of agents in powerful positions and the minimization or even

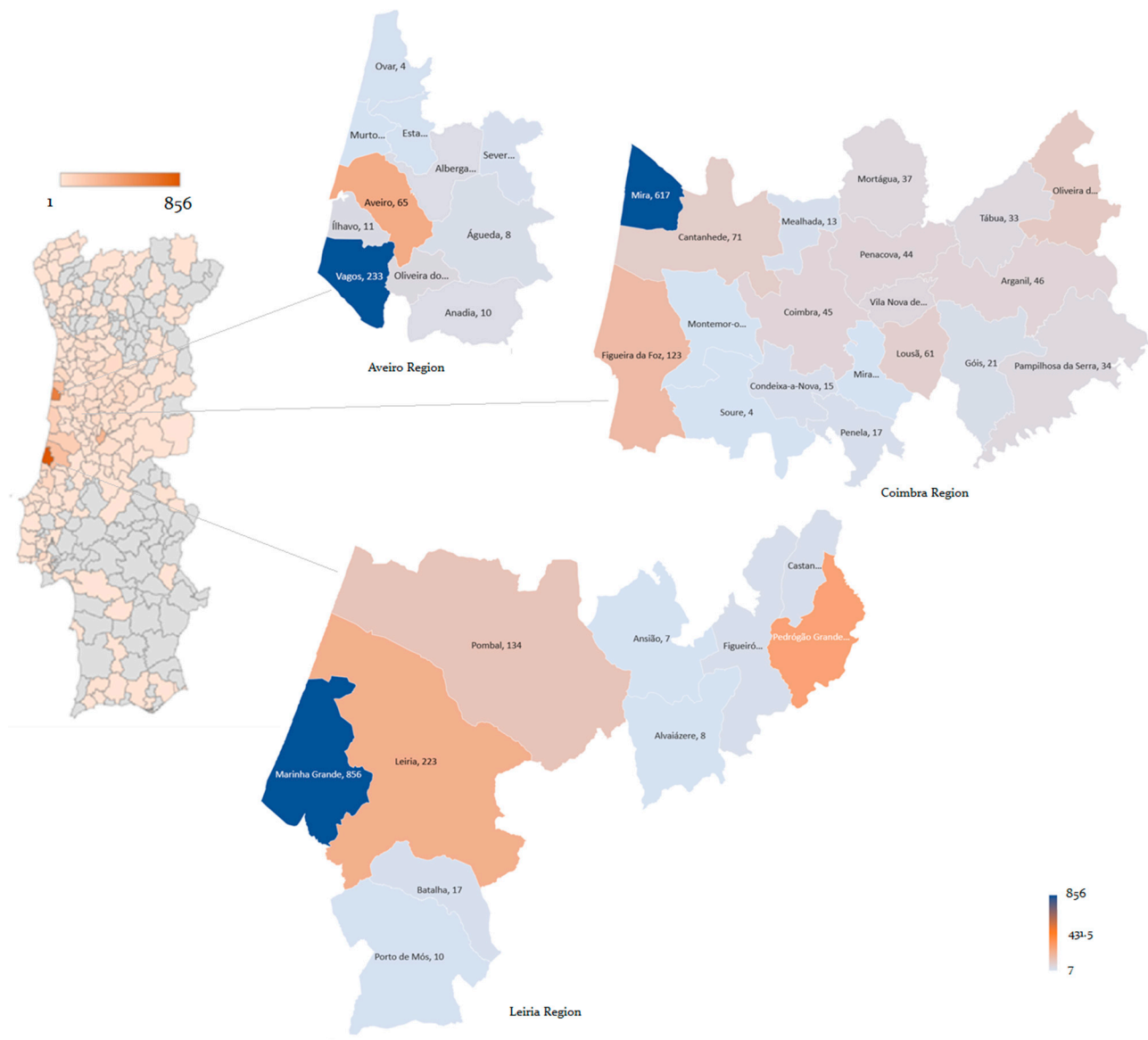
silencing of local actors without those positions but more affected by the disastrous circumstances. This dual approach conveys a dominant perception of fire events as uniformly affecting local people and communities (in line with [9,17] findings), which may lead to the erosion of local populations' empowerment and engagement, reinforcing stereotypes and social inequalities.

**Table 4.** Numbers and percentages of references in the subcategory 'type of agents or actors mentioned in the news', by attributes.

Type of Agents or Actors Mentioned (N = 9058)	Number of References	%
Government's bodies	2141	23.6
Local governments	1235	13.6
Other agents	956	10.6
Central Government	895	9.9
Political parties' representatives	890	9.8
Fire departments	622	6.9
State	408	4.5
Population	293	3.2
Civic movements	278	3.1
NGO's	212	2.3
Forest owners	207	2.3
Entrepreneurs	178	2.0
Parliament members	167	1.8
President of the Republic	133	1.5
International organizations	114	1.3
Intermunicipal communities	94	1.0
Newspapers and journalists	79	0.9
Universities and research centers	71	0.8
Students	37	0.4
Churches	31	0.3
Banks	9	0.1
Cultural institutions	8	0.1

#### 4.2.2. Geographical Focus

Given the focus of this study on the *Matas do Litoral*, it is not surprising that these areas gathered the highest number of references (Figure 5). Therefore, Vagos (Aveiro Region), Mira (Coimbra Region), and Marinha Grande and Leiria (Leiria Region) were the most often mentioned within the Centre Region and the country, reflecting both the dramatic situations experienced during the wildfires and their impacts. In fact, references to the MN of Leiria represented 87.8% of the total, which was due to the symbolic and material relevance of the MN of Leiria within the country, but especially at the regional and local levels, mainly due to the extent of its devastation caused by the fires of October 2017 (around 80%—9000 hectares—of this MN was destroyed)—“*More than 700 years of history almost disappeared in two days*” (PB, 21/10/2017); “*We witnessed the disappearance of the ‘Pinewood of Leiria’ and its remarkable trees, in addition to other heritage elements*” (RL, 29/11/2017).



**Figure 5.** Number of references in the news to municipalities within mainland Portugal (NUTS I) and to Aveiro, Coimbra, and Leiria Regions (NUTS III) (counts).

Besides the obvious references to the *Matas do Litoral* areas, other Portuguese municipalities and places were highlighted in the news. This news often focused on the simultaneity of the October 2017 wildfires—“*On the worst day of the year regarding wildfires*” (EX, 16/10/2017)—and on past fire events, from a comparative perspective, especially with the June 2017 fires in Pedrógão Grande—“*Less than four months after the tragedy that befell the people of Pedrógão Grande, (...) the nightmare of fires has once again hit the heart of Central Portugal*” (DA, 17/10/2017). Some news also referred to international contexts, especially to Spain due to its geographical proximity and similar forest characteristics, which sometimes even contribute to the occurrence of common wildfires in the border areas and the provision of mutual help and knowledge exchange regarding firefighting resources and strategies. References to other international contexts (e.g., Belgium, Denmark, Finland, France, Germany, Italy, Luxembourg, United Kingdom, and United States of America) are often made, especially due to the support provided with technical knowledge, resources, and means. References to these international and other national contexts were more likely to be present in the news published by national newspapers during and up to one month

after the fires. Regional and local newspapers mainly referred to *Matas do Litoral's* nearby communities and municipalities.

#### 4.2.3. Expressions and Feelings Conveyed

'Expressions and feelings regarding the wildfires of 2017' was the third most relevant category in the media narratives analyzed, representing 13.7% of the total references (Table 3). More than half of the references within this category (57.7%) referred to narratives of discouragement, followed by expressions of warmth and comfort (26.1%). As can be seen in Table 5 other dimensions, such as comparisons with other fire events (7.7%), agents and actors conveying the feelings and expressions (5.1%), and sensorial descriptors (colors, smells, and sounds) (2.9%) were much less relevant.

**Table 5.** References in the category 'expressions and feelings regarding the fires of October 2017' by subcategories and attributes.

<b>Expressions and Feelings Regarding the Fires of October 2017 (N = 6678)</b>	<b>Number of References</b>	<b>%</b>
<b>Words or expressions of discouragement</b>	<b>3853</b>	<b>57.7</b>
Regarding country's government	1384	35.9
Regarding fire prevention	135	3.5
Regarding firefighting	105	2.7
Regarding the fires	968	25.1
Regarding post-fire situation	185	4.8
Regarding the support to those affected by the fires	122	3.2
Regarding fires' impacts	954	24.8
<b>Words and expressions of warmth and comfort</b>	<b>1746</b>	<b>26.1</b>
Regarding the country's government	773	44.3
Regarding the scenario experienced during the fires	54	3.1
Regarding firefighting	183	10.5
Regarding the fires' impacts	489	28.0
Regarding the support to those affected by the fires	247	14.1
<b>Comparison with previous wildfires</b>	<b>516</b>	<b>7.7</b>
Support received	18	3.5
Burned area	77	14.9
Dates	53	10.3
Forest governance and management	20	3.9
Localities	61	11.8
Magnitude of the fires	89	17.2
Number of firefighters involved	9	1.7
Number of devices involved in firefighting	7	1.4
Number of dead and injured	83	16.1
Other comparison issues	81	15.7
Material damages and losses	18	3.5
<b>Agents that refer the expressions and feelings</b>	<b>342</b>	<b>5.1</b>
Farmers, livestock breeders, or beekeepers	2	0.6
Central government members	103	30.1

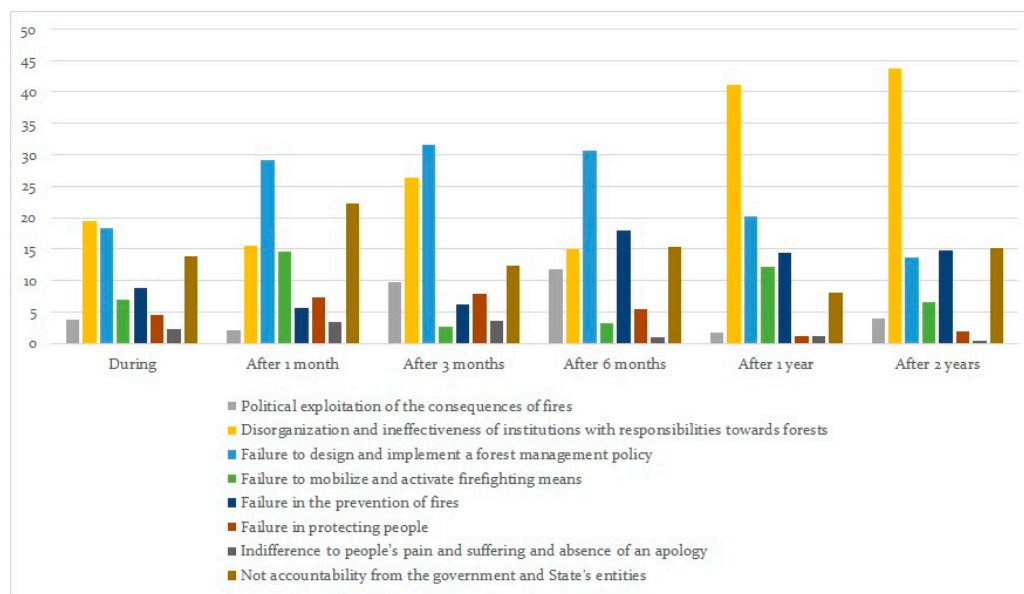
Table 5. Cont.

Expressions and Feelings Regarding the Fires of October 2017 (N = 6678)	Number of References	%
Entrepreneurs	7	2.0
NGO representatives	17	5.0
International bodies	11	3.2
Other institutional agents	37	10.8
Population at risk	1	0.3
Affected non-resident population	0	0.0
Non-affected non-resident population	1	0.3
Affected resident population	22	6.4
Non-affected resident population	6	1.8
President of the Republic	17	5.0
Presidents of municipalities	62	18.1
Presidents of parishes	6	1.8
Forest owners	2	0.6
Inter-municipalities' community representatives	0	0.0
Political parties' representatives	48	14.0
<b>Colors described</b>	<b>147</b>	<b>2.2</b>
From the fire	19	12.9
In the post-fire period	128	87.1
<b>Sounds described</b>	<b>35</b>	<b>0.5</b>
During the fire	11	31.4
In the post-fire period	24	68.6
<b>Smells described</b>	<b>15</b>	<b>0.2</b>
During the fire	8	53.3
In the post-fire period	7	46.7

### Expressions and Feelings of Discouragement

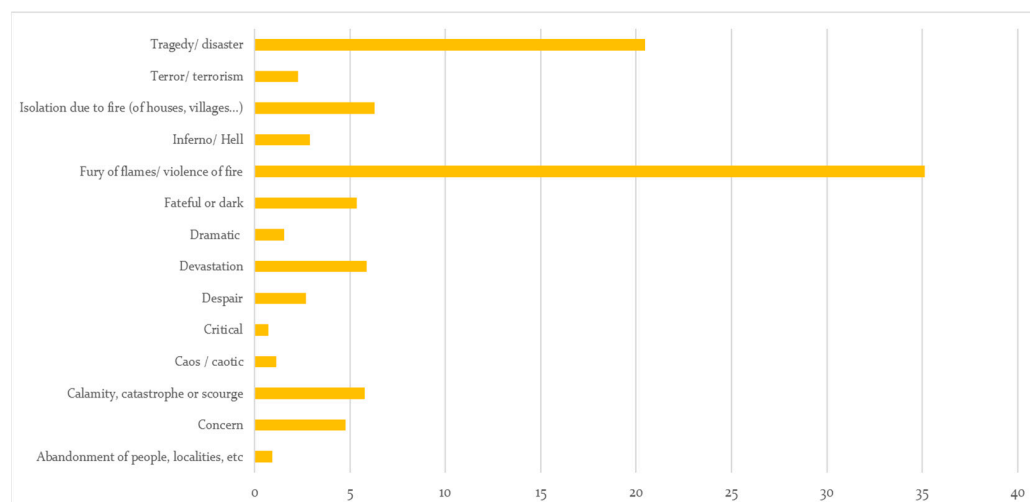
As shown in Table 5, the majority of the references regarding expressions and feelings of discouragement were related to the government's performance and action towards forest and fire management. The media narratives mainly conveyed accounts that discussed the long-lasting ineffectiveness of the fire prevention system in Portugal (as referred to, among others, by [1]) and the inaccurately oriented strategies to tackle wildfires and forest management problems over the years, in line with the conclusions of [2] (Figure 6). Therefore, the analyzed news emphasized the government's disorganization and ineffectiveness (24.9%)—"There has been a lot of words, but little action" (DA, 17/10/2017); "The municipality is still waiting for government support to recover and replace the public equipment destroyed by fire" (JVM, 16/09/2018)—the failure to design and implement forest management policies (23.6%)—"The obvious is evident throughout the region: The State has long abandoned the country's rural and forest areas" (EX, 21/10/2017); "The millions promised to clean the forests never reached the municipalities" (PB, 29/03/2019)—and its non-accountability regarding the fires' occurrence and consequences (17.6%)—"The irresponsibility with which all political powers have dealt with the safety of this patrimony! From the parishes, the municipalities and, finally, the government, no one did anything to avoid this disaster" (JMG, 02/11/2017); "The attitude of the government was shameful and selfish, showing no respect for those affected by the fires" (PB, 04/09/2018). Although these accounts were emphasized in the narratives conveyed by all

the newspapers analyzed throughout the two years, national newspapers (especially JN and PB) tended to focus more—particularly during the fires—on the failures in designing and implementing effective forest management policies. In turn, regional and local newspapers were more focused on conveying critiques of the government’s disorganization, ineffectiveness, and non-accountability—once more, especially during the events—together with the failure in promoting adequate fire prevention and population protection strategies (especially evident in RL). As also concluded by [23], these narratives often represented the government—especially at the national scale—as ineffective, as the main entity accountable for the events, and as the ‘villain’.



**Figure 6.** References to ‘words or expressions of discouragement regarding country’s government’ by publication date (percentages).

The scenario experienced during the fires was also a prominent topic within media narratives conveying expressions and feelings of discouragement (Table 5). In total, 95.9% of these references related to how diverse agents and actors experienced and lived the fires, while just 4.1% concerned what was not burned or was saved from the flames (such as houses, public infrastructure, and trees). In the first case, the ‘fury of the flames’ and the ‘violence of the fires’ were particularly salient in the news published during the fires (Figure 7), together with accounts of drama, tragedy, and disaster—“*It was a huge ball of fire*” (DA 17/10/2017); “*There were ‘winds of fire’ like never seen before*” (EX, 17/10/2017); “*Fire is everywhere*” (JN, 15/10/2017); “*It is a national tragedy*” (PB, 18/10/2017). Narratives of devastation, catastrophe, ‘inferno’, and the isolation of people and communities during the fires were common in the news—“*It is a horrible, dark and scary scenario*” (TS, 20/10/2017); “*The greatest catastrophe*” (JMG, 16/11/2017); “*Not even hell must look like this*” (PB, 18/10/2017). As these excerpts illustrate, discouragement narratives about the experiences lived during the fires often relied on exacerbated emotions that were used to amplify the fire events and their consequences. Although this type of narrative was used by all the newspapers analyzed, regional and local newspapers conveyed the strongest emotional discourses, again highlighting a closer and stronger connection (and concern) to local communities’ feelings and worries.



**Figure 7.** References to ‘words or expressions of discouragement regarding the scenario experienced during the fire’ (percentages).

Another important dimension of these discouragement narratives concerns the impacts of the fires, therefore unveiling accounts of destruction, damages, and losses of companies, family’ homes, and public infrastructure, as well as the forest itself, in line with previous studies on the media coverage of fires and other disastrous events [9,12,13,17]. Despite the similarity of these narratives, regardless of the newspapers’ geographical scope, the more dramatic accounts on the fires’ impacts were conveyed by regional and local media—“All the sadness he felt of having lost all the effort of a lifetime because of the fire” (JVM, 01/01/2018); “Viewed from the asphalt roads, before we enter the paths of gravel and sand, the forest seems to be alone” (DA, 25/10/2017); “There is no more fire, there are ashes, smoke and an economy destroyed by the flames” (EX, 21/10/2017). These accounts especially illustrated the central place of the economic and material losses, which is corroborated by the dominant role granted to government representatives by the media, as also concluded by [9,17]. These narratives were followed by discourses focusing on negative emotional states, such as shock, sadness, and pain (14.6%), death and mourning (6.4%), and the loss of memories (4.9%)—“People are crying while working because the darkness of the pinewood continues to hurt and to appeal to everyone’s sensitivity” (JMG, 08/02/2018); “The entire country is crying for the death of the pinewood of Leiria” (PB, 03/03/2018); “What shall we do with this dead forest?” (JVM, 16/02/2018); “Our memories are gone” (DA, 30/07/2019). Local and regional newspapers were, again, more likely to convey these narratives, particularly regarding feelings of sadness, grief, and the loss of memories.

Even if narratives focusing on the less tangible impacts were less prominent than discourses referring to material damages, the empirical evidence analyzed here differs from the conclusions of [9,14,17,25] about the general eclipsing emotion in the media coverage of wildfires. The analyzed news did mobilize and convey emotions related to the suffering, grief, despair, and sadness mainly of local populations but, to a certain extent, also of the Portuguese people in face of the magnitude of the fires and their consequences. This dissimilarity with previous findings may be explained precisely by the uniqueness—both in the Portuguese and European contexts [28]—of the October 2017 mega-fires due to their occurrence outside the official fire season, their magnitude, the simultaneity of the events, and the enormous extension of the area burned in just a few hours. This scale—never before seen in Portugal and Europe [28]—together with the total number of fatalities and the recent memory of the June 2017 also dramatic wildfires, contributed to exacerbating negative emotions and feelings that the media coverage could not ignore. Furthermore, these fires also affected one of the oldest public forests in Portugal—the *Mata Nacional de Leiria*—considered for long ‘the greatest monument’ of the country [29]. As mentioned,

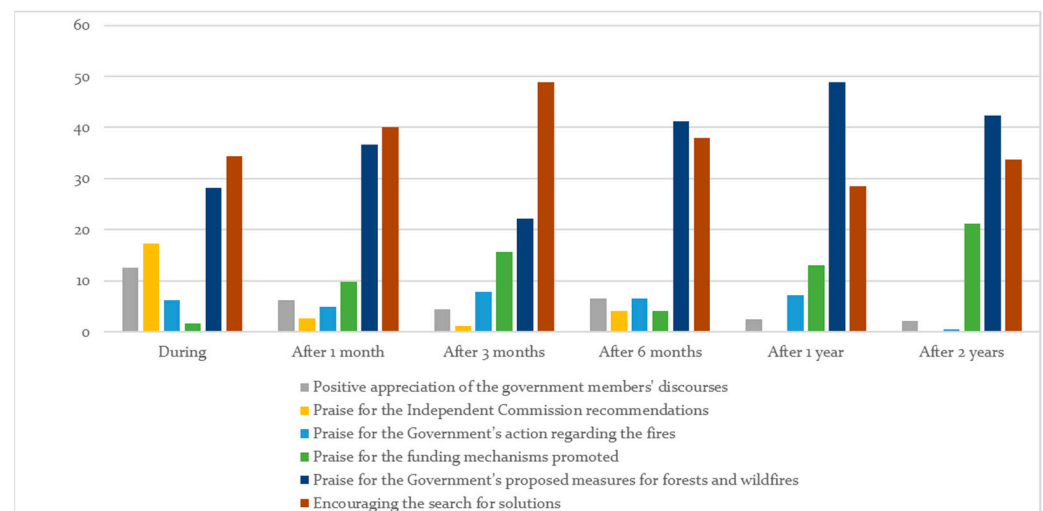
more than 80% of this forest area was devastated, destroying a rich patrimony and 700 years of history.

Emphasis on the tangible and economic-related impacts of the fires was more frequent in the national newspapers analyzed, whereas regional and local newspapers—even though they also referred to these types of consequences—conveyed emotional narratives more often, particularly during or immediately after the events. These findings demonstrate that media framing can vary across scales and proximity degrees to the events, and that media coverage is shaped by the locations of these events and targeted audiences, as also discussed in [9]. Post-fire strategies and contexts, as well as fire prevention activities' assessment, were much less prominent within discouragement narratives. Amongst the few narratives of discouragement addressing these topics, the lack of cleaning and the accumulation of flammable materials in the forests (37%)—*"If the forests were clean and properly managed, according to adequate planning (...) there would be no fuel for such big fires"* (JVM, 11/11/2018); the lack of fire prevention measures (27.4%)—*"Prevention must be reinvented"* (DA, 26/10/2017); and the excessive plantation of eucalyptus in the country, including in public forests (23%)—*"One can thus confirm the degree of success of the 'architects of the eucalyptus' in Portugal, and their power of contaminating political decisions"* (PB, 02/01/2019)—stand out. Again, some differences emerged from the geographical scopes of the newspapers analyzed here: while national newspapers tended to emphasize the excess of eucalyptus in Portuguese forests more, regional and local newspapers mainly focused on the lack of forest cleaning.

Media narratives of discouragement regarding the support provided to those affected by the fires were also scarce, mainly highlighting the discrimination of people, economic sectors, and communities in accessing that support (39.3%)—*"Apparently, criteria to access the supporting tools are not the same for everyone"* (TS, 16/03/2018)—the lack of timely response (27%)—*"No one ever asked me if I needed help, (...). There was not the slightest gesture that indicated that someone cared about us"* (JMG, 22/11/2018)—or its slowness (25.4%)—*"We cannot accept the slowness and the inability to repair the damages and heal the wounds"* (JMG, 16/11/2017). Firefighting resources and means were seldom described through narratives of discouragement that emphasized (mainly in regional and local newspapers) such difficulties (such as the fires' magnitude and simultaneity, lack of resources, weather conditions, and terrain characteristics)

#### Expressions and Feelings of Warmth and Comfort

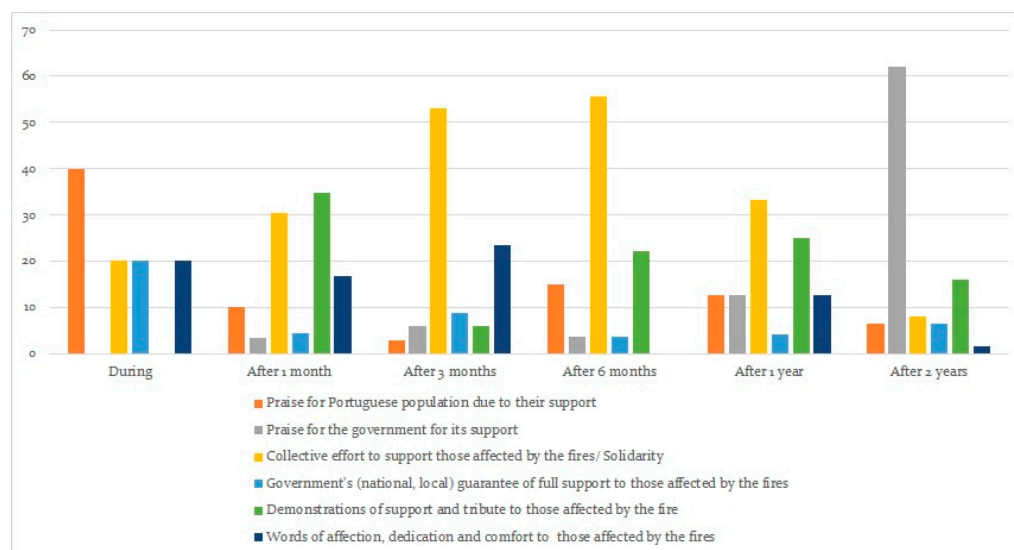
As shown in Table 5, the media narratives about the wildfires of October 2017 also revolved around expressions of warmth and comfort, especially regarding the post-fire context. The government's performance during the fires was the main target of these positive media accounts (44.3%)—especially in national newspapers such as PB—followed—mainly in regional and local newspapers—by comforting narratives related to the wildfires' impacts (28%), particularly to citizens' initiatives of support and solidarity. The strategies proposed to deal with forest and fire management (37.6%), together with the encouragement to search for adequate solutions (37.5%), were the most often addressed by the media accounts on the government's actions during the fires' occurrence:—*"After this year, nothing can stay as before"* (DA, 17/10/2017); *"The tragedy served as an opportunity to improve the way of acting"* (JN, 13/04/2018); *"This is a unique opportunity that the State gives to local agents to be part of the reforestation process"* (JMG, 15/02/2018). Some variations emerged according to the news publication date (Figure 8), as encouragement narratives were more likely to be conveyed during and immediately after the events, while praise for government-proposed strategies and funding mechanisms gained more relevance six months after the fires. Positive accounts regarding central government actions were more often conveyed by national newspapers, while regional and local newspapers more frequently presented comforting narratives regarding solidarity initiatives and citizens' support to those affected by the fires, together with encouraging discourses on searching for solutions and the involvement of local populations in the recovery actions.



**Figure 8.** References to ‘words and expressions of warmth and comfort regarding country’s government’ by publication date (percentages).

Post-fire situations were more often conveyed through the use of expressions and feelings of warmth and comfort when compared to the narratives of discouragement discussed above. Indeed, when focusing on post-fire recovery activities, regional and local newspapers clearly emphasized praise for entrepreneurs’ and the general population’s capacity to engage in such activities—*“One must underline the fact that no affected entrepreneur stopped his activity due to the wildfires, except for the days immediately after the fire”* (DA, 17/12/2017); *“Entrepreneurs and workers are already working to restore normalcy and save their companies”* (JVM, 11/11/2017). The encouragement of agents and individuals to become more involved in these recovery efforts was equally emphasized by the news—*“We can mobilize and think collectively, not limiting ourselves throwing the problems to the government”* (DA, 26/10/2017); *“This should deserve the collaboration and action of all, citizens and living forces of the municipality, in a union of efforts”* (JMG, 22/10/2017); *“The forest is not for everyone, but it is for many. It is essential to create incentives for the active participation of the population”* (PB, 02/12/2017). Regional and local newspapers were more likely to convey narratives of encouragement regarding the efforts and roles of the local population and entrepreneurs in rapid recovery after the fires. Once more, this seemed to be related to the local and regional newspapers’ greater focus on the areas affected by the wildfires and their closeness to the local population and communities’ problems, concerns, feelings, and expectations. Discourses on heroism, courage, dignity, and efforts and ability to cope with and recover from fires’ disastrous consequences are often related to the need to move on and return to normalcy and economic and social functionality, as also concluded by [8,9,12,17].

The comforting narratives related to support for those affected by the fires represent 14.1% of the total references in this subcategory, especially emphasizing collective (often national) initiatives and actions (Figure 9)—*“National charity emerged and the Portuguese people mobilize and act beyond words”* (DA, 20/10/2017); *“Solidary Portugal has emerged in all its splendor”* (PB, 10/08/2018)—public and civic demonstrations and tributes to the victims—*“We will only honor those who died by dealing with the quality of life of those who fortunately survived”* (JMG, 19/10/2017); *“A minute of silence to mourn the destruction of one of the jewels of the region’s natural heritage”* (RL, 19/10/2017)—and praise for the government’s strategies of support—*“Up to now, we had no reason to complain about the State support”* (JN, 02/07/2019); *“She was moved when receiving the keys to her new home, with a mix of happiness and tears”* (JVM, 01/02/2019). Again, demonstrations of support by the government and the general population were more likely to be conveyed by national newspapers during or immediately after the fires. Regional and local news tended to focus on the collective efforts and solidarity initiatives aimed towards those affected by the fires, especially at the local level.



**Figure 9.** References to ‘words and expressions of warmth and comfort regarding the support to those affected by the fire’, by publication date (percentages).

Our results also demonstrate that firefighting efforts and means were, although much less than the dimensions previously discussed, equally the object of narratives of warmth and comfort (10.5%). Firefighters, in particular, were almost always positively addressed, often portrayed as heroes deserving of respect and gratitude—“*Firefighters are heroes!*” (DA, 22/10/2017); “*They make us all very proud for their courage*” (JMG, 22/03/2018)—in line with the findings of [17,23,25]. The involvement of local populations in firefighting was also often praised by the media, highlighting their civility and efforts—“*In each community, people helped the firefighters as they could*” (JN, 16/10/2017); “*The dominant thought is of gratitude and it goes first to the people*” (JVM, 11/11/2018).

Both the efforts of firefighters and the population were positively addressed by all the newspapers, especially during and immediately after the fires, regardless of their geographic scope, which shows a high consensus regarding their role in coping with the events.

## 5. Conclusions

Despite the steady interest within the scientific literature in analyzing the mass media coverage of forest-related issues, media attention to wildfires has been, until recently, relatively overlooked by forestry- and disaster-related research. Through an examination of newspapers of diverse geographical scopes and periodicities, together with different news publication dates, this article will contribute to filling that gap, additionally addressing the heterogeneity of media narratives focusing on wildfires, an often-neglected topic, as according to [8,9,12]. Analyzing the media coverage of the dramatic mega-fire events of October 2017 in the Portuguese state-managed areas of *Matas do Litoral*, this article explored three main dimensions: the agents and actors mentioned, the geographical coverage, and the expressions and feelings conveyed by the media narratives.

The unprecedented and unique character of the wildfires of 2017, at the national and European levels [28], left behind a trail of dramatic material and immaterial damages [1,5,6]. The fires of October 2017 alone devastated half of the area burned that year, with the areas of the *Matas do Litoral* being severely affected. Due to the scale of these fires and their consequences (particularly regarding the number of dead and injured persons), they have been qualified as the worst environmental disasters in Portugal’s recent history [1]. For these reasons, they triggered unparalleled public and political debates that influenced and were influenced by mass media coverage.

The empirical evidence produced and discussed here corroborates previous findings regarding the media coverage of wildfires and other disastrous events, such as its event-driven and episodic character; the similarity of the amplification tactics used to attract public attention and create particular social perceptions and understanding; the overexploitation of immediate and dramatic situations; negligence of the broader contexts and causes of the fires' occurrence; the use of similar words and narratives; and changes over time in the narratives' focus. Likewise, a range of common themes emerged from our analysis, irrespective of the diversity regarding the newspapers' geographical scopes and news publication dates. Firstly, within the media attention toward the wildfires' direct causes, the absence of references to broader contextual causes, such as climate-change-related issues and the long-lasting processes of rural abandonment and land use changes, stands out. Even though not directly affecting the *Matas do Litoral* areas, rural abandonment and land use changes affected the surrounding privately managed forests, also impacting the public-managed areas. Instead, immediate socioeconomic causes related to the characteristics of the local areas and, in particular, the ineffectiveness and inadequacy of governmental forest and fire management strategies and actions were consistently emphasized by the news analyzed.

The enormous relevance attributed by the media narratives to a set of government and civil-protection-related agents and actors and the negligence of the voices and views of local populations and entrepreneurs are in line with previous studies, demonstrating an interesting dichotomy. In fact, by overrepresenting agents in powerful positions and silencing actors without power, media narratives contribute to conveying a dominant discourse and perception of such fire events and reinforcing social inequalities and stereotypes. The key role granted to government-related agents also contributes to framing wildfires as mainly a material and economic problem. This framing is carried out mainly through narratives of discouragement, whose analysis unveiled frequent accounts of damages and destruction to companies, family homes, public infrastructure, and forests. Interestingly, apart from references to the extent of the area burned, few narratives conveyed feelings and expressions of discouragement regarding ecological damage.

Less tangible impacts, such as people's emotional states of shock, sadness, pain, and mourning resulting in mental health issues, as well as losses in terms of memories and local identity symbols, were much less present in the media narratives. Nevertheless, our analysis unveiled an important difference regarding previous studies: the higher relevance of those emotions and feelings in the media narratives analyzed. This dissimilarity may have been related to cultural differences regarding the analyzed contexts that need further research. Additionally, only a few studies have focused on the (print) media coverage of wildfires in southern European countries. Furthermore, in these countries—Portugal included—wildfires have mainly been addressed from the perspectives of the natural sciences and (although less) management-related sciences, whose more pragmatic approaches may have contributed to minimizing the analysis of emotions. Finally, this dissimilarity with previous findings may also be explained by the previously mentioned uniqueness of the October 2017 mega-fire events and their dramatic consequences that contributed to amplifying emotional discourses within Portuguese society and media coverage.

Another salient conclusion of this study relates to our choices to focus on newspapers with different geographical coverage and to analyze an extended period, revealing, despite common themes and strategies, the heterogeneity of the media narratives. Contrary to previous studies that did not consider these variables in their analysis (as recommended, among others, by [9,16]) of the media coverage of wildfires, our study demonstrated the transformation of media content over time and, mainly, the different approaches of national and regional/local newspapers. Particularly evident within our findings was the power of regional and local newspapers to reinforce local communities' values and sense of belonging through their more often positive and encouraging narratives, particularly in the post-fire context. Compared with national newspapers, which often adopted broader narratives able to interest wider audiences, regional and local newspapers acted as a local

cultural resource for the affected people, helping them to undertake recovery actions and cope with the dramatic events. This conclusion confirms the recommendation of [16] that readers should consult more than one type of newspaper or other sources of information to become better informed over time about wildfires. Our analysis demonstrated that national, regional, and local newspapers convey complementary and evolving narratives that may contribute to a deeper understanding among the public about such events and their evolution.

The present article demonstrated that mass media analysis, particularly considering the heterogeneous and changing character of media coverage and narratives, provides an important contribution to better understanding not only fire events, but also the way they are conveyed (how and through what expressions, perspectives, and emotions) to the public, shaping social perceptions and political decisions. Further research is, however, still needed regarding the analysis of the multiple and complex intersections of these topics and their changes, considering not only the state-managed forests—as we did here—but also privately managed forests that are dominant in Portugal. Additionally, a broader analysis, considering different fire events with a distinct scale and magnitude, may also produce further evidence regarding media coverage and its heterogeneity. Inversely, a more detailed analysis of local newspapers and their readers could contribute not only to a deeper understanding of the mutual influence between media coverage and social concerns, but also to unveiling their influence on political and policy decisions regarding forest and fire management decisions and strategies.

Finally, our results demonstrated the underrepresentation of local actors in the media narratives about wildfires, suggesting the importance of further studying the voices and views of these individuals and why they are being silenced. As they are generally the most affected by the consequences of such events, their media invisibility contributes to reinforcing processes of social exclusion and disempowerment. Including their views (together with other perspectives from scientists, firefighters, and NGOs) will enrich media coverage and the value of news and subsequent public and political debates

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