

# In the heat of the moment: A local narrative of the responses to a fire in Lærdal, Norway

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## **Abstract**

In the wake of a disaster, narratives about the event will be constructed. The paper presents the dominant local narrative of a major fire in Lærdal, Norway in 2014. Based on semi-structured interviews with residents in Lærdal, I argue that the construction of the dominant local narrative was influenced by three factors. First, the strong eastern wind during the night of the fire was blamed for the development of the fire, rather than individuals or organizations. Accordingly, people emphasize why the outcome of the fire was not worse rather than how it could have been avoided or mitigated. Second, as local people responded in terms of their appointed roles *and* as residents, communications and relations between responsible officials and affected parties were perceived as close and personal, again seen as a major strength in the efforts to combat the fire. Third, local social dynamics and capacities were highly important for the management of the fire. Particularly local knowledge was highlighted as an essential factor, especially as electricity supplies and telecommunications broke down during the night of the fire. Analyzing local narratives in the wake of a disaster can contribute to an understanding of the local social dynamics and capacities that are put into practice during a disaster, which otherwise may be difficult to identify.

**Keywords:** narratives, local responses, disaster, fire, Lærdal, Norway

## **1. Introduction**

Unlike other ancient elements, fire is not a substance but a reaction. It cannot be studied in itself; it is a profoundly interactive technology; it is what its context makes it (Pyne, 2009, p. 4).

On January 18, 2014, Lærdal, a small municipality with 2200 inhabitants, experienced the worst fire in Norway since World War II. The fire was particularly challenging due to strong winds, and during the night electricity and telecommunication broke down. Even though the community was not prepared for a disaster of this dimension, no lives were lost. In disaster literature, there is an increasing attention to and recognition of the crucial role that community involvement may play in disaster management (e.g., Bird, Gísladóttir, & Dominey-Howes, 2011; Davies et al., 2015; Scolobig, Prior, Schröter, Jörin, & Patt, 2015; Vallance and Carlton 2015). However, in the

case of Lærdal, the role of the community in the management of the fire is only to a limited degree acknowledged in the official reports that review the incident (Steen-Hansen et al. 2014) and the responses to them (DSB 2014; PwC 2014). Furthermore, local communities are generally recognized as most active in the pre-emptive and post-event phase of a disaster (Rogers 2015), and in social science research on fire the primary focus has been pre-fire mitigation and preparedness (see McCaffrey, Toman, Stidham, & Shindler, 2013 and McCaffrey et al., 2015).

The purpose of this paper is to analyze how the fire in 2014 and the responses to it was perceived and enacted in the local community. The paper focuses on narratives of the responses *during* the fire, and demonstrates how a local community may not only play a vital role in the pre-emptive and post-event phase of a disaster but also during the event. In doing so, the paper provides insight into the embodied experiences of disasters and the 'social nature of such happenings' (Quarantelli 2005, p. 342). I argue that this is as important as statistics and technical reports for understanding disasters and disaster management (Buckle 2005). Building on the notion of disasters as social constructions (Alexander, 2005; Oliver-Smith, 1999; Quarantelli, 2005), the paper argues that meaning ascribed to events should be investigated as situated in the contexts in which they occur (Buckle, 2005; Claus et al., 2015; Eiser et al., 2012).

Top-down approaches to disaster management have been criticized for being detached from the lived experiences in the local communities who are responsible for the implementation of disaster management policies (Gaillard and Mercer, 2013; Scolobig et al., 2015). Furthermore, the notion of 'once and for all' solutions with the ideal that 'one size fits all' dismisses the social dynamics and capacities that are activated in communities when disasters occur. In a post-disaster study of the earthquake in the Abruzzo region in Italy 2009, Imperiale and Vanclay (2016) found that the communities' self-organization and positive collective action immediately after the earthquake enhanced the ability to cope with the challenges that followed the disaster. People shared stories and strategies, experienced a common fate and sense of responsibility, and were driven by strong emotions. This had a ripple effect for community survival and wellbeing, and further reinforced "...people's sense of community, social cohesion and social capital" (Imperiale and Vanclay, 2016, p. 216). Disaster research, when attentive to

social dynamics, can identify and make visible local capacities important for improving disaster management.

A qualitative approach was chosen for the study in order to identify the local dominant narrative of the fire itself and the responses to it. Here, a *narrative* is understood as a story that people tell about an event or, in other words, the way certain views about a practice or an event are communicated (Roe 1991). The word *dominant* indicates an emphasis on the similarities between the stories rather than the differences (Benjaminsen & Svarstad 2010). Hence, my focus is on the shared narrative at the local level. A narrative-descriptive approach informed the analysis, which according to Tuan is used when “theories hover in the background while the complex phenomena themselves occupy the front stage” (Tuan 1991, p. 686). In doing so, the paper accounts for ways of actions that can bring us closer to developing disaster risk-management plans that are not separated from the “practice of affected people at risk” (Weichselgartner & Kelman, 2014, p. 9).

The analysis of the material presented in this paper revealed that three factors influenced the construction of the dominant narrative of the fire and the responses to it. The first is the complex and unpredictable dimension of the fire, of which the eastern wind was held responsible. Second, the local people responded in terms of their appointed roles *and* as residents. Lastly, local social dynamics and capacities were acknowledged as highly important in the management of the fire. The paper starts out by presenting the “official” narratives in three formal reports, since they provide relevant background information, followed by a review of the literature relating to the factors mentioned above that can influence the construction of a dominate narrative.

## **2. Background**

### *2.1 Official narratives and literature review*

In the course of eleven days in January 2014, three fires broke out in three separate locations in Norway: Lærdal, Flatanger, and Frøya. All three fires have been characterized as major by Norwegian standards, either in terms of their complexity or impact, and are amongst the largest

fires Norway has experienced in modern times. The fire in Lærdal received the most attention from the media. In just 13 days, 4000 articles were written about the fire (Lavik & Lillesvangstu, 2014). In the following months, a number of in-depth media-coverage stories and documentaries were produced, and at the beginning of 2015 a documentary series was aired, following people that had been affected by the fire.<sup>1</sup>

In the aftermath of the three fires, three official reports were produced: one concentrating on an assessment of the fire spread in Lærdal (Steen-Hansen et al., 2014) and two reviewing and evaluating the responses to all three fires (at Lærdal, Flatanger, and Frøya) (DSB, 2014; PwC, 2014). In the report by the Norwegian Directorate for Civil Protection (DSB, 2014), the three municipalities are evaluated as being too small to lead and manage large and complicated events, especially since the fire chiefs in the municipalities work part-time. In particular, the municipalities were criticized for their lack of organization, leadership, and overview, as well as for not having updated emergency management plans. The report by PricewaterhouseCoopers AS (PwC), which was commissioned by the Norwegian Ministry of Justice and Public Security, the evaluation outcome differs from the DSB report. It concludes that no information had been provided that could give grounds to claim that the impact of the fire in Lærdal could have been limited or that the fire could have been put out sooner:

The scope of the fire surpassed what the local resources could handle. In a matter of hours, extensive mobilization of police, municipalities, healthcare, county, and others took place. In addition, residents, volunteer organizations and volunteers participated. Together, they succeeded in extinguishing the fire – without serious personal injuries. (PwC 2014, p. 38)<sup>2</sup>

The conclusion presented in the DSB report (2014) has created the most tension between local actors in the three municipalities and official representatives, and the report has been criticized for being too concerned with planning work and too little with what happened in practice (Felde, Oldeide, & Dalaker, 2014; Tveit & Løset, 2014). These official reports may have influenced the construction of a competing local narrative of the fire and the responses to it. Furthermore, I have identified three factors from disaster literature that may have influenced

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<sup>1</sup> “Bygd reis deg” [Village, rise up] broadcast on TV 2

<sup>2</sup> The quotations from Norwegian publications have been translated by the author

the construction of the narrative in the wake of the disaster. The first factor relates to the cause and outcome of a disaster. Kumagai, Edwards, and Carroll (2006, p. 107) argue: “what people believe about the cause of an event can have an impact on how they respond to and in some cases recover from the event.” This in turn shapes discussions of responsibility, or put simply; who is to blame for not being able to avoid or mitigate the disaster. Moreover, if the outcome of a fire is loss of lives, there will be an even stronger tendency to focus on individuals or organizations that can be held responsible for the tragedy (González-Hidalgo, Otero, & Kallis, 2014). Second, interactions between agency personnel and local residents can affect perceptions of whether a disaster was well-managed or not (McCaffrey et al. 2015, p. 13). For example, responsible officials’ communications to, and relations between, the affected parties matter in terms of how discussions of responsibility issues emerge in the aftermath of a disaster. The closer and more personal communication and relations are, the less blame is put on responsible officials for not being able to avoid or mitigate the disaster. Third, whether or not “local ways of doing things” have been acknowledged can affect the level of conflicts in the aftermath of a fire (Carroll, Higgins, Cohn, & Burchfield, 2006, p. 276). If local social dynamics and capacities are dismissed, particularly by non-local entities, social conflicts are more likely to arise on the local level (Carroll et al., 2006, p. 262).

## 2.2 Lærdal

The Lærdal Municipality is located on the south side of Sognefjorden in the county of Sogn & Fjordane (61°03'04" N, 07°35'52" E), in Western Norway. The municipality has a population of ca. 2100, of which around 1100 of them live in the administrative center, Lærdalsøyri (PwC, 2014). Lærdal ranks 66th in Norway in terms of area size (1342 km<sup>2</sup>) and has a low population density of 1.7 per km<sup>2</sup>. Its physical geography is characterized by mountain areas and valleys, and by the river, Lærdalselvi, which flows from the mountains in the east to Sognefjorden. The climate in Lærdal is dry and warm with annual precipitation of only 410 mm (Lærdal kommune, 2014). During winter, the winds can be strong. Especially the wind from the east (*austavinden*) is challenging, due to strong and erratic gusting. In the administrative center, Lærdalsøyri, is an old village, Old Lærdalsøyri. Old Lærdalsøyri is of national value and has 160 protected buildings,

and most of the wooden building structures have remained intact since the 1800s (Lindstrøm & Lindstrøm, 2005).

### **3. Materials and method**

The choice of a single case study was not made with the aim that it can be generalized, but rather with the aim to provide context-dependent knowledge as a means for learning (Flyvbjerg 2006). It is an unusual case. Although three fires occurred in Norway January 2014, fires of that dimension cannot be said to be typical in Norway. Additionally, it was only in Lærdal that electricity supplies and telecommunications broke down during the night of the fire.

Two field visits were carried out in Lærdal: the first in August 2014 and the second in January and February 2015. During the first field visit time was spent on gaining an overview of the course and extent of the fire, and how people experienced the fire itself. Semi-structured interviews were conducted during both field visits, where the primary focus was on open-ended questions about important factors in the management of the fire. A pragmatic approach to resilience was used to “enter and structure” the interview guide and the following analysis. In this respect, resilience is broadly understood as a metaphor for how communities prepare for, act during, and recover after a crisis (Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008). Resilience therefore consists of a set of capacities and the relations between them, more than being a variable in itself. Thus, resilience was utilized as an analytical tool rather than a predefined and unified concept to be tested. As such, my approach was contextually sensitive rather than one trying to “measure resilience as an outcome” or to examine a “static state of being” (Rogers 2015, p. 2). This worked well as a guide to elaborate further on examples of responses *during* the fire, which is the phase in focus in this paper.

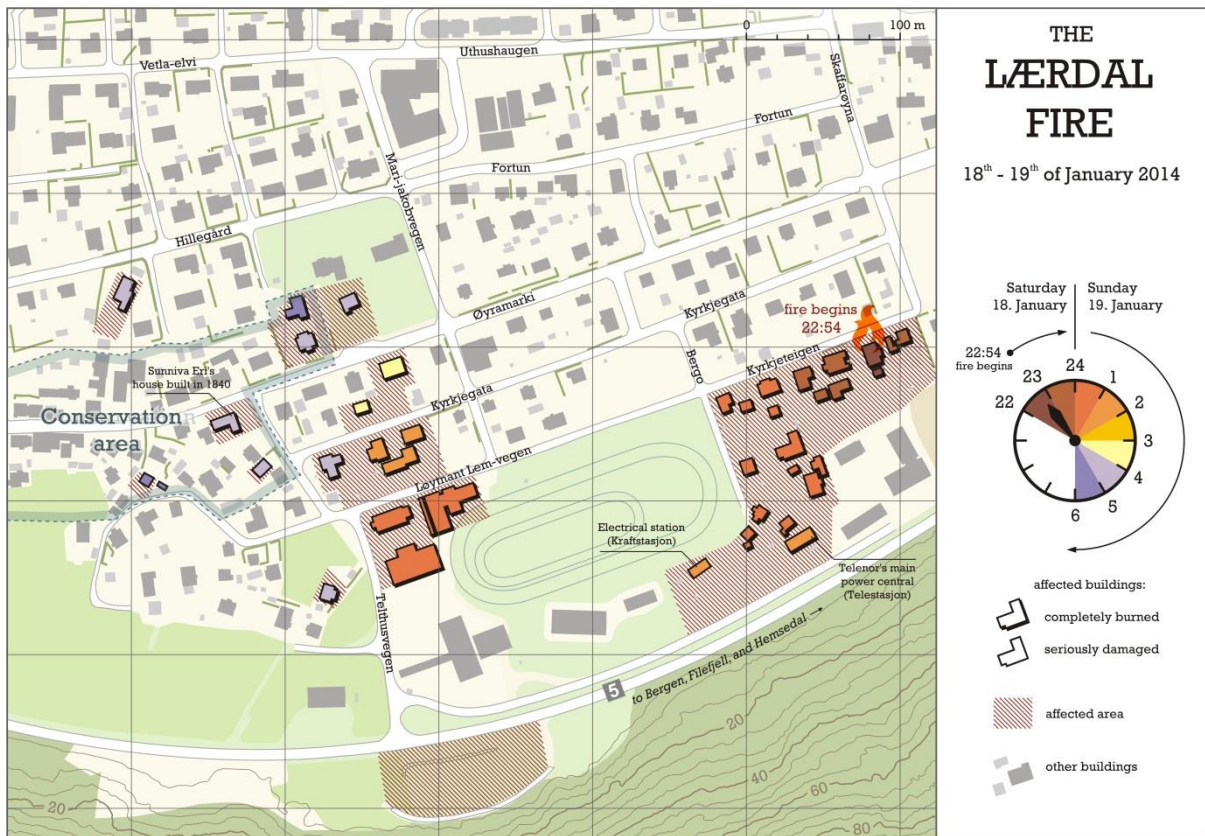
After the field visits, the audiotaped interviews were transcribed and thematically structured into topics that emerged from the material. The focus was not on analyzing the individual narratives by themselves (e.g. analyzing life stories), but rather on analyzing and categorizing aspects in each narrative that were shared. The latter approach is more typical when the researcher is interested in a phenomena shared by several (Lieblich, Tugal-Mashiach, & Zilber, 1998). It is important to bear in mind that many stories have been told about the Lærdal fire,

and other narratives exist in addition to those presented here as the dominant narrative. Nonetheless, the analysis of the material revealed that three factors influenced the collective construction of a dominant narrative in the wake of the fire.

I present the results of 15 interviews with 13 residents; two of the interviews were follow-up interviews with key informants. In total 12 of the 13 interviewees were present during the fire, and the other one owned a house that was threatened by the fire and also had an appointed role in the aftermath of the fire. Mostly the people interviewed work in the municipality sector, which is one of the biggest employers in Lærdal. Two of the interviewees did not have an appointed role during the fire. The remaining interviewees were employed in the health and care services, childcare, youth and culture services, technical services, hospital services, police services, or fire services. The interviewees were chosen on the basis of their involvement in the management of the fire. I chose not to approach those who were directly affected by the fire, which could be argued to be a limitation of this study. This choice was made on the basis of the extensive media attention after the fire. As an attempt to manage this limitation, I held an open meeting in Lærdal where I presented my research and people could approach me on their own terms, but unfortunately no one who was directly affected turned up.

The identities of all interviewees, except the mayor, who had an official role, are coded and anonymous. The interviewees who responded in terms of having an appointed role are coded as Municipal Worker A – J. The interviewees who did not have an appointed role during the fire are coded as Volunteer A and B. Secondary data resources, such as the official reports produced after the fire, were examined in order to identify the official narratives of the management of the fire and the outcome.





**Fig. 1: Overview over the affected area and fire spread. Based on information from Steen-Hansen et al. (2014) Topographic: Kartverket**

#### 4. The Lærdal fire

At 22:54 on Saturday, January 18, 2014, a fire was reported in the eastern part of Lærdalsøyri. Lærdal had experienced an unusually dry winter, with precipitation in January amounting to 25.9% of the monthly normal (25 mm), and temperatures in December and January were 4 °C higher than normal (DSB, 2014). In addition, there had been a longer than usual period with eastern winds, and on the night of the fire gusts of up to 22 m/s were recorded. The fire spread quickly and randomly (Fig. 1); it was just a matter of minutes from when the fire was reported in the first house (22:54) until it had spread to the next house (23:02). Large parts of the mountainside (Øyralii) behind the area where the fire started were burned up to 400–500 m a.s.l. One and a half hours after the fire was reported, the local electricity station (Lærdal Energi) was ignited and the whole of Lærdalsøyri was left without power. During this time, the fire had reached the sports arena and skating rink, ca. 200 meters length of open space and where the

firefighters thought they would be able to get it under control. Instead, the fire “jumped” this area and spread northwest. Some hours after the power had been cut, the fire reached Telenor’s<sup>3</sup> office in Lærdal, causing a breakdown in telecommunications both within Lærdal and the surrounding areas. At 03:30 it was reported that the fire had reached the protected heritage area, Lærdalsøyri, which is an area mainly consisting of old wooden houses with little distance in between them (DSB, 2014; Lærdal kommune, 2014). Between 05:00 and 06:00 the wind calmed down, and at 06:30 the fire was reported as stable. By 06:34, the last house to be destroyed had been reported. Still, it took 18 hours from when the fire had started, until they could report that the fire was under control. 40 buildings were burnt to the ground, 17 of them residential, leaving 70 people without a home. Four of the houses that had burnt down were in the protected area, and one of them was the protected Sunniva Eri’s house dating from the 1830s. The overall cost of damage cause by the fire was estimated as at least NOK 200 million (Lærdal kommune, 2014).

During the night of the fire 681 people—more than half the total in Lærdalsøyri—were evacuated to evacuation centers in Håbakken and Aurland. At Lærdal hospital, 446 persons were checked for smoke damage, and 270 of these were admitted for a shorter or longer period. No one was severely injured (Lærdal kommune, 2014). It is estimated that during the first six hours of the fire ca. 100 firefighters, 20 police officers, 30 personnel from the Norwegian Civil Defence (Sivilforvaret), 30 Red Cross personnel, and 12 members of Norwegian People’s Aid contributed to the extinguishing and rescue efforts, in addition to an unknown number of volunteers (DSB, 2014; PwC, 2014). The local fire brigade, consisting of 16 part-time firefighters, was on scene six minutes after the fire had been reported. They placed the first call for assistance at 23:12, to their neighboring municipality, Årdal, with which they also shared a fire chief. During the night they received assistance from fire departments in Aurland and Sogndal, and later also Vik, Flora, Førde, Bergen, and Voss. At 04:00 a foam truck from Haukåsen airport arrived and was put to work in Old Lærdalsøyri, foaming down houses to prevent them from catching fire. In addition to the organized emergency services, an unknown number of local volunteers participated during efforts to control the fire, among them local farmers with liquid

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<sup>3</sup> A Norwegian telecommunications company

manure spreaders. Five spreaders, which operated from midnight and onwards, were refilled with water from the harbor; their tanks could be filled at a rate of 6000–8000 liters per 2–3 minutes. It has been claimed that they not only prevented the fire from spreading farther, they also saved buildings from total destruction (Lærdal kommune, 2014). Due to the strong winds, the requested helicopters were initially prevented from reaching Lærdal and eventually arrived hours after the fire had started, by the time the Øyralii (mountainside) fire had extinguished itself, and they were therefore no longer required (DSB, 2014; Steen-Hansen et al., 2014).

## 5. Results

This section, in which the dominant local narrative of the Lærdal fire and the responses to it is presented, is thematically structured around the narratives of the fire itself and its rapid spread, local responses during the fire, the way people responded in the absence of electricity and telecommunications, and improvising in the case of the liquid manure spreaders.

### *5.1 Narratives of the fire and its rapid spread*

There is little doubt that the fire in Lærdal that started on January 18, 2014 made a deep impression on the people involved as well as those watching it on their television screens.<sup>4</sup> The dramatic sensory image of the fire in itself stands out among the material: the interviewees described it variously as an inferno, an extreme shock experience, or like a scene from World War II. A municipal worker, who was spending the weekend in a cabin in the mountains about an hour's drive away from Lærdal, described the scene that met her when she arrived at Lærdal:

... travelling from paradise to hell. It was so fantastically beautiful in the mountains with fresh snow and moonlight ... and then we came down here and were met by an orange inferno. The whole mountainside was on fire ... yes ... it was unreal ... it looked like a war zone. It was a shock to see how bad it was, and I immediately understood that this was a catastrophe. (Municipal Worker A)

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<sup>4</sup> A video of the fire can be seen here: <https://www.youtube.com/watch?v=P6FGzR2vcHc>  
BBC live footage from the fire: <http://www.bbc.com/news/world-europe-25799960>

A longer period with strong winds before the fire had made everything bone dry, and during the fire the gusts launched fireballs into the air:

You could see how the fire spread along ... the fireballs were like artillery. Millions of corns flying through the air. The flames were all over Lærdal. It was sick to watch [it]. And the propagation ... the mountainside was on fire. (Volunteer A)

The impact of the wind on the development of the fire is stressed in all of the official narratives, and was emphasized by the interviewees. Bushes, trees, and grass caught fire, and when the woodwork in houses caught fire it happened like an explosion; it was almost difficult to register that a house had caught fire before it had burned down (Municipal Worker B). The scale of the fire escalated quickly, and a volunteer described the moments before the fire “jumped” 200 m over the sports and skating rink, as follows:

While I’m trying to put out the spot fires in gardens I randomly take some photos. When I looked at the timing afterwards I see that it is exactly three minutes on the dot between two pictures. And, in those three minutes it goes from three to seven houses in flames. (Volunteer A)

Although emphasizing that the fire was a shock, the interviews revealed that after the fire elderly people had told other people that in the “old days,” during longer periods of strong eastern winds, they had implemented a heating ban, with no cooking and barely any heating, even when it was freezing cold. In addition, people patrolled the streets in case of fire. The eastern wind is known to be unpredictable and the combination of the eastern wind and fire was experienced as frightening. Municipal Worker E said:

In the old and dense settlement here, and we saw that now when it happened ... it’s impossible to control. If you have ever so many firefighters, it doesn’t matter ... it burned in the mountainsides, it burned everywhere. You would have had to have a thousand men, and even then you wouldn’t have managed.

The eastern wind was blamed for the development and complexity of the fire, and rather than talking about how it could have been managed better, the focus in the aftermath was on the fact that it was not worse, due to the efforts made by organized and unorganized personnel. As

such, the local narratives emphasized that individuals or organizations could not be held responsible for the outcome:

It's the wind that made it as bad as it was ... it's not the house owners who did something wrong.  
(Municipal Worker B)

When asked whether something could have been done to minimize the damage, the wind was brought up again, and Municipal Worker B tried to explain how the eastern wind works in Lærdal:

No ... I actually think not. It's hard to describe the wind ... it's not easy to understand when you don't live here. But, what happens is that, when it rains in eastern Norway, there will be wind in the valley, especially here in Lærdal. It travels down from the mountains, and then the wind stays and puffs and puffs and puffs ... it's never quiet ... constantly blowing.

One of the factors mentioned by the interviewees that helped them gain control of the fire is that the wind calmed down for one hour around 05:00 on Sunday, and changed direction, away from Old Lærdalsøyri (Volunteer A). This was considered an important factor in the fire not being worse than it was:

If you look back at it, then you will see there was a reason for ... that we managed. It was the right combination of luck and manic effort ... to put it bluntly. (Municipal Worker H)

### *5.2 Narratives of local responses during the fire*

Everyone was doing something, and it wasn't one [person] who ruled, and it wasn't a plan that governed, but things happened in a relatively right time all the time. (The Mayor)

Six minutes after the fire was reported, the first fire truck was on scene. On the evening of the fire only one firefighter from the local fire brigade was on call, which was in accordance with the required number for the number of inhabitants in a municipality. Nevertheless, 11 out of the 16 members of the fire brigade turned up when the alarm went off (Municipal Worker G). The first police patrol arrived on scene at 23:12. Two municipal workers recalled what a young police officer, not on duty that night, did try to warn people about what was going on. After first going from house to house in the nearest zone to get people out,

he got into his police car with blue lights and sirens and drove slowly slowly through the streets and just made as much noise as he could ... then he saw that people came to their windows and saw what was happening. (Municipal Worker B)

It was night ... and people had gone to bed ... imagine to come up with something like that ... people came to their windows to see what was going on. Yes, that was very well thought of, to notify people. (Municipal Worker D)

A municipal employee in health and care services recalled that although not many staff were on duty in the health sector on a Saturday night, people just showed up. She remembered when the wind changed direction and threatened the nursing home, and how it was after she arrived at the scene:

There were loads of people there, both people working in the services but also people from the Civil Defence ... sitting, ready to help get people out. And it felt safe and good. I grew calm as I came down there. I thought ... we can handle this [evacuating the nursing home] ... no matter what ... this ... can work in five minutes. (Municipal Worker A)

She particularly remembered a bus that was outside the nursing home. She had not requested one, and did not know why it was there, but she did know the bus driver, whose mother was in the nursing home. She also remembered feeling touched when he said:

I have a warm bus ready outside, so if we need to evacuate the others I'll take them on the bus.

Not only people with official duties responded to the fire that night. Volunteers have been attributed with having had a strong role in ensuring the fire did not get worse:

Everyone wanted to contribute. It was a problem for the police to keep them away ... they hid from them to get in [to the fire area] again. Of course, they were afraid for their belongings, but it was also that when it counts "we roll up our sleeves. We stand in it together." Even if you have had a quarrel with your neighbor the day before and can't stand his face ... you roll up your sleeves. And then we'll quarrel when it's over. (Municipal Worker G)

Not all of the residents listened to the police when they were told to evacuate. However, some interviewees said that disobeying evacuation orders was an important factor in the fire not

becoming any worse. One resident emphasized the importance of the effort put down by the volunteers who didn't evacuate:

There were many people out there that night, who struck down the smallest spot fires, the littlest bush burning, the hedge on fire, and on roofs extinguishing fires. Everyone who did that contributed, so that the scope of the fire wasn't bigger. (Volunteer A)

Volunteer A remembered people using what they had to hand, ranging from stomping to even urinating: he said that they mainly stomped, "as they had limited pee." The intensity of being present and the high levels of adrenalin were recalled by another volunteer, who put out fires in their garden and their neighbors' gardens. At one point, they had gathered some personal belongings—pictures and valuables— and put them in the car, and then cut down the hedge and driven the car to a field behind their house. He stayed behind, and especially remembered that,

... at five am in the morning I realized I was barefoot in my shoes. I hadn't had socks on all night, and there were degrees of frost ... then you know your adrenalin has been high ... no, that was special. (Volunteer B)

During my interview with the mayor, he reflected on how the community had handled the fire. He emphasized that it had been a community effort; it was a fire without spectators. He hoped this was the impression that people had gained through the media too:

... that it was honest and that we actually stood together and did something, all of us. I think that is what saved us ... that people exercised self-help or didn't abide according to police order to leave the place ... they made a difference ... and then we were lucky that none of them got hurt. (The Mayor)

At 03:30 the fire was reported as having reached the protected heritage area, the old village of Lærdalsøyri. One resident remembered thinking that what they had feared the most—losing old Lærdalsøyri—was going to happen. It would have been the worst catastrophe, and he dedicated his efforts solely towards ensuring that that would not happen. In his view, if the local people had lost this part of the village there would have been no point in being a Lærdøl anymore

(Volunteer A). The importance of the protected area as part of the identity of Lærdal was also stressed by a municipal worker, who was born and raised in Lærdal:

If all of old Lærdalsøyri had been lost in the fire, I would have moved from Lærdal ... Of that I am one hundred per cent certain. Everything that I associate with Lærdal would have been gone.  
(Municipal Worker I)

Together with the farmers who were called upon to use their liquid manure spreaders, the foam truck from the airport was remembered as important for saving Lærdalsøyri. The resident who dedicated himself to save Lærdalsøyri recalled the time when the foam truck arrived and the firefighters were ordered to fall back:

He [the firefighter] was about to leave but then his feet were frozen to the ground. Then he says: "damn it!" and everything [foam] falls over him. (Volunteer A)

The working conditions were extreme with embers and fire and loose bits flying in the air, and people put in more hours than advised by the health, safety and environment regulations. A municipal worker recalled a story that had been told to her by the fire chief, about a young firefighter and how people had put in extra effort to manage the fire:

He said that during the night he had seen one of his men standing there ... he was soaking wet in his uniform and it had frozen because it was so cold. So, he stood there watering down a house, and the fire chief told him that he had to get some dry clothes [and] he would replace him. Then the firefighter had said: "Hell, no! I'm not giving in!" And I think that was characteristic of all of us ... we were going to handle this. (Municipal Worker A)

A municipal worker in the technical services, who was also a member of the local fire brigade, said that the long-term effects for those involved in the fire were still not known. Also, the local firefighters had experience additional stresses that night, since they did not know whether their own houses were on fire or whether their families had been evacuated (Municipal Worker G). The mayor summarized the extreme efforts of organized and unorganized people that night as follows:



All HSE [health, safety and environment] rules were put aside during the Lærdal fire. Police, Civil Defence, and not at least the local firefighters ... were in place five minutes after the fire started, and the last ones came into the hospital at nine am in the morning. It is evident that they were put under extreme strain: they had been at it for ten hours. They had passed out, they had breathed toxic smoke ... they had done everything that wasn't in their manual. So, it's the consolidated effort and the mix between organized rescue personnel and the unorganized that made a difference.

### *5.3 Responding in the absence of electricity and telecommunications*

What is important to know is that it is completely impossible to plan for something like this. (Municipal Worker H)

When the local electricity station caught fire, Lærdalsøyri suffered a black out. A couple of hours later, the main telecommunications central burned down. Lærdalsøyri was then without electricity, access to the Internet, and any means of telecommunication. The residents were isolated from their surroundings and without means to communicate with each other except through satellite phones and the Red Cross analog emergency grid. However, the analog emergency grid had a limited geographical reach and therefore it was still challenging to notify people outside Lærdal of the need for more assistance. The media became an important and to some extent it was the only source of information for people outside Lærdal. Radio, TV, and newspaper reporters had found a place to stay close to the local hospital, ca. 2 km from the area where the fire was burning and from where they were able to report back to their stations.

The media helped us a lot in getting out information, as we had no other way to do so than through radio or TV. This meant that the whole world knew more than those living in Lærdal ... family, relatives, others ... even China. (The Mayor)

The original meeting point for the crisis management team was the city hall, located in the center of Lærdalsøyri, but since it lacked electricity and means of communications, and was located close to the area of the fire it was not considered suitable. The local hospital became the main point from which the crisis management teams could operate. The hospital had a generator that provided enough electricity for basic needs. The loss of electricity and communications, in addition to the wind, was recalled as one of the most challenging aspects of

managing the fire, not only on the night of the fire itself but also the days afterwards. An ambulance driver recalled the challenges of losing communication as follows:

That night, we didn't have communication ... not with the Emergency Medical Communication Center [EMCC] ... not with anyone. People could have been dying and not able to call it. We had big challenges ... to alert people, to get in contact with people ... we were back to the Stone Age ... Lives could have been lost because we had no communication. (Municipal Worker I)

In such a situation, local knowledge and the ability to improvise were essential. Not only knowledge about the patients and their needs, but also knowing people in different services made it less challenging to operate without communication. The ambulance drivers also had some experience in improvising in situations without communication from when they had been called out to emergencies in the mountains, where mobile phone reception is poor:

We [ambulance drivers] are very used to improvising. We have some procedures on what to do; where to drive, and which hospitals to drive to. So, if we don't get in contact with those we are supposed to, then we know how to handle it. ... And we are, of course, dependent on working with other services ... to cooperate ... I think we have become quite good at that, and we learnt a lot from the fire. A lot of valuable knowledge, both on how vulnerable a local community like this is and how we can learn to improvise. That, we can't give up. If we put all good forces together we can find a way to solve it. (Municipal Worker I)

Another municipal worker said that one of the reasons they had managed the acute phase of the fire well, especially without electricity and telecommunications, had to do with being a small community. She elaborated on how being small mattered:

... resources just found each other.<sup>5</sup> All available resources came together very quickly ... and people knew what to do. And I think that has to do with local knowledge. That we can just look at each other ... we know each other so well and know what we stand for. I know what I can do, and I know what you can do. And then we can just look at each other. We don't have to say

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<sup>5</sup> Her point can be related to the report by the 22<sup>nd</sup> of July Commission, which reviewed the responses to the terror attack on the government quarters in Oslo and the massacre on Utøya on July 22, 2011. In the report, one of the conclusions is that the resources "did not find each other" (p. 134).

<https://www.regjeringen.no/contentassets/bb3dc76229c64735b4f6eb4dbfcdbe8/no/pdfs/nou201220120014000dddpdfs.pdf>

much. We just know that there's a job to do, and that we will bloody well manage ... no matter what. You have an ownership to everything. You own all the processes. There is nothing that you think you should leave to someone else. You have a fierce sense of responsibility for this to go well, and I think that has to do with that we are small ... and that's why we handled it. Of course, we were dependent on resources from outside, but we got that ... we found each other and it didn't develop into total chaos. (Municipal Worker A)

Knowing who lives where, who was home on the evening of the fire, and who were in need of extra assistance on the night of the fire, was essential for the evacuation. The mayor recalled breaking into a house to find an elderly woman asleep in a bedroom upstairs. He broke in because he knew she had hearing problems, and they both got out of the house in time. It was not only important to know where people lived, who was at home, or when the elderly went to bed, but also to know people in different services. As one resident said, in a small community people can "wear many hats," such as working in the technical services and being firefighters (Volunteer A). A municipal worker in the technical services recalled how that was especially important in a situation without telecommunications means:

We had a situation during the fire of getting enough water ... even the biggest waterworks wouldn't have had a sufficient amount of water for the consumption that we had. People have asked how we managed to reach those who work in the waterworks to utilize maximum ... well, [they were] exactly the same persons who were in the technical services and the fire services. (Municipal Worker G)

The mayor was clear on that they handled the fire well, not because they had a plan for how to deal with the situation, but rather because they managed to think differently in all areas:

we have to learn from this that we can't make a static plan ... If a person who acts according to plans was the first one to open the plans at the city hall ... well, then that person would have been sitting in the city hall. I'm mean when I say this ... but that person would have turned to page two: "Yes, city hall in Lærdal. That's where I'm supposed to be. In the fire track, without electricity, without telecommunications. But it's here we are supposed to be. It says so in the plans." We can't have such a plan. We need a plan that works ... no matter what kind of event, no matter where we are. We need to be so flexible that we can handle crisis, and then we need to be so solution-oriented that we think "new" all the time. And then, we should think that in all

crises we lose electricity and communication, and then what do we do? We can't build upon a crisis where we expect to have that.

#### *5.4 Improvising: the case of the liquid manure spreaders*

A small community is said to be an advantage in a crisis situation such as the fire in Lærdal, in that people have a good overview over existing resources in their community. As such, making use of resources other than the obvious ones to manage the fire—like farmers with their liquid manure spreaders—was emphasized in many of the interviews:

When it came to the fire, we improvised with the liquid manure spreaders. We used all kinds of things, and that's because we know what's there, what opportunities we have, and what we should do. (Municipal Worker E)

At one point, the office building for the fire station was itself on fire, and a municipal worker in the technical services recalled how the building was saved:

It was almost burning down ... I ripped the key cabinet off the wall and then I picked up the defibrillator and the flags [for the public flagpole] ... because we might need them ... and then I sprinted for the door. I had called in the first farmer with liquid manure spreaders, and he came and emptied a spreader on the house ... he just managed to save it. (Municipal Worker E)

Liquid manure spreaders have since gained a new status in Lærdal as a resource with multiple uses that should be included in disaster management plans. One municipal worker who was not in Lærdal during the fire reflected on the altered perception of the liquid manure spreaders after the fire:

Volunteering still has a place in rescue, like with the farmers and their liquid manure spreaders. I didn't think I was going to be moved by manure smell ... but that's what saved our houses. It wasn't just that the wind changed directions; it was also those who sprayed water, this muddy brown water that froze to the wall and protected our houses. (Municipal Worker J)

## **6. Discussion and conclusion**

In this paper I have analyzed how the fire in Lærdal January 2014, and the responses to it, was perceived and enacted in the local community. The analysis revealed that three factors influenced the construction of the dominant local narrative. The first is linked to the perceptions of the cause and outcome of the fire. Rather than emphasizing what could have been done better, the emphasis was on the fact that it could have gone much worse due to what was perceived as the complex and unpredictable dimension of the fire. In fact, discussions on responsibility and who should be blamed for the outcome of the fire were not prominent in the local narrative. Rather, the eastern wind was held responsible for the development and outcome of the fire. That no lives were lost was extremely fortunate, and is attributed to the massive efforts put in by organized and unorganized personnel, and that the wind changed direction and calmed down during the night. If lives had been lost, particularly among the unorganized personnel who disobeyed evacuation orders from the police, the dominant narrative in the wake of the fire and discussions about responsibility could have been very different. This was the case after the fire in Horta de Sant Joan (Catalonia), where five firefighters lost their lives. Here, the focus was on identifying who should be blamed for the tragedy, resulting in less attention given to the possibility for learning (González-Hidalgo et al., 2014). By contrast, there has been a lot of focus on what can be learned from the management of the fire in Lærdal.

Second, the dominant local narrative analyzed in this paper was mainly communicated by people who responded in terms of their appointed roles *and* as residents. This influenced discussions on responsibility and levels of conflict in the aftermath of the fire; since communications and relations between the affected parties and responsible officials often were close and personal, this decreased the chance of responsible officials being blamed for not being able to mitigate or avoid the disaster. In other words, responsible officials shared the same experience as the affected parties: their own village was under threat. There is a growing recognition that people-centered approaches to disaster management should be preferred over top-down approaches. For example, Scolobig et al. (2015) argue that with people-centered approaches knowledge and input from all stakeholders, including citizens, would be valued more equally. However, this case study serves as a reminder that the distinction that is made

between the different stakeholders (i.e. responsible official and resident) in disaster literature is not always as clear-cut in practice. Furthermore, it is not uncommon for people to have dual roles in smaller communities in Norway; rather than being specialized, people “wear many hats.” For example, people working in the technical services also worked in the fire department. In a situation without electricity and means of communication, challenges such as utilizing the waterworks to the maximum were solved because the people working in the waterworks were already on scene as firefighters.

Lastly, the acknowledgement of local social dynamics and capacities and the important role this played in that the fire did not get worse is evident in the dominant local narrative. For example, local knowledge was stressed as essential for handling a complex and unpredictable disaster. In fact, local knowledge was highlighted as being something particular for smaller communities, as people know each other. The interviewees emphasized that local people in Lærdal knew who was at home or had gone to bed on Saturday night, and they had an overview of alternative resources that could be put to use, such as the liquid manure spreaders. As one interviewee said, the “resources just found each other,” which was crucial in a situation without electricity and communication. People also had a clear sense of value for what they were fighting for; one interviewee said that if old Lærdalsøyri had been lost to the fire there would not have been any point in continuing to live there. Acknowledging “local ways of doing things” decreases the possibility for conflicts in the aftermath of a disaster (Carroll et al., 2006, p. 276), and can explain why the dominant local narrative focused on how the fire did not get worse rather than on what could have been better.

It is important to bear in mind that living in a small community in which people respond in terms of their appointed roles and as residents does not come without challenges. People managing the fire were put under additional stress because they did not know whether their own homes were on fire or whether their families had been evacuated. Moreover, the long-term effects of working under such extreme conditions for a longer period than advised by health, safety, and environmental regulations are yet not known. Resources in a smaller community also risk being exhausted, since a crisis is not over once “the smoke” has cleared. For example, people working in the crisis management teams in Lærdal were still in charge of everyday tasks in the

community. As such, they had to handle the acute phase of the crisis and then catch up with what had been put aside during the crisis. For a long period, they risked having to manage both the crisis and the everyday tasks in their jobs. In the long run, this could be difficult without exhausting local resources.

Analyzing narratives in the wake of a disaster can help make visible the local social dynamics and capacities that are put into practice during a disaster, which otherwise may be difficult to identify. Furthermore, an analysis of the *construction* of narratives can help us understand better which factors may decrease or increase levels of conflicts and community cohesion, which in turn can be important for how a community recovers from a disaster. Although further research is needed on the matter, it seems as the lack of conflicts and blame-gaming after the Lærdal fire facilitated a focus on learning, also outside the borders of Lærdal. Particularly, there has been a focus on learning about the factors that became crucial for disaster management in a situation where electricity and telecommunications broke down.

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