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## **Crisis communication and forest fires in northern Morocco: the public authority in residents' narratives**

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### ABSTRACT

The forest fires that struck northern Morocco in 2021 and 2022 triggered a major emergency response, yet the place of the public authority in the experience of affected populations remains understudied. This article examines the crisis communication of the National Agency for Water and Forests (ANEF) from the residents' point of view. It draws on

eighteen personal experience narratives collected in 2024 in the provinces of Chefchaouen, Larache and Al Hoceima, analysed through thematic content analysis. The findings show that the ANEF is never named by the narrators. Local authorities receive all of the institutional recognition, while village solidarity dominates the narratives. No narrative reports an institutional warning received before the fire reached the village, nor any psychological support after the crisis, even though the after-effects described are long-lasting.

We interpret this as a gap in the post-crisis phase: public communication, focused on mass prevention and technical intervention, leaves without a counterpart population whose foremost need is to be listened to. The article concludes with recommendations for a proximity-based communication that includes support for victims.

**Keywords:** crisis communication, public communication, forest fires, life narrative, ANEF, resilience, Morocco.

## 1. Introduction

Morocco has just over 9 million hectares of forest, para-forest and esparto grass formations, covering 12.7% of the national territory, with an effective forest cover of about 8%, well below the 15 to 20% generally considered necessary for ecological balance. This scarce heritage is exposed to a fire risk that the arid climate and human pressure have made chronic. According to data from the National Agency for Water and Forests (ANEF, 2024), the number of fires has been rising since 2021, and 2022 saw an exceptional peak in burnt area. The origin of 95% of fire outbreaks remains unknown, but human activity is presumed to be the main cause.

The north of the country concentrates a large share of this risk. The Rif and pre-Rif massifs are densely inhabited by populations whose livelihoods depend on olive groves, beekeeping, livestock and gathering (Naggar, 2013; Arioua, 2022). In 2021 and 2022, these areas experienced fires on a scale that the narrators in our study say they had never seen before. These events prompted a considerable response: evacuations, ground and aerial firefighting, intervention by territorial authorities, and subsequent compensation schemes.

The public body responsible for protecting the forest estate, the ANEF, which succeeded the High Commission for Water, Forests and the Fight against Desertification in 2021, relies on a fire-prevention communication strategy organised in three phases: agenda-setting, information, and public involvement (ANEF, 2024). This strategy is part of the broader Morocco Forests Strategy 2020-2030 (Ministry of Agriculture, 2024). It targets both the general public and a “core target” made up of people living in contact with the forest.

However, the crisis communication literature has been built largely from the sender’s side. It describes what an organisation should say, to whom and when, in order to protect its operations and reputation (Lagadec, 1991; Libaert, 2020; Coombs, 2007). Publics appear mainly as targets whose attitudes must be measured. What affected populations actually retain from institutional action, and how they put it

into narrative, is far less documented, particularly in the rural areas of the Maghreb.

This article addresses that gap. It asks the following question: what place do residents give to the public authority, and to the ANEF in particular, when they recount their experience of the fire, and what does this place reveal about the blind spots of crisis communication? We hypothesise that the ANEF, as the body responsible for awareness-raising and forest protection, would have deployed crisis communication visible to the population and supported victims beyond the emergency phase.

The article first presents the theoretical framework, then the methodology based on personal experience narratives. It goes on to set out the findings before discussing them in light of crisis communication and public communication models.

## 2. Theoretical framework

### 2.1. Crisis as a process rather than an event

The term crisis, from the Greek *krisis* (judgement, decision), originally referred to the decisive moment of an illness before being extended to any disruption of an established order (Serres, 2009). Morin (1976) offers a systemic reading: a crisis is not merely an external shock, it affects the very organisation of the system concerned and results in “a progression of disorder, instability and randomness” (p. 156). Lerbinger (1997), cited by Libaert (2020), defines it more operationally as an unexpected event that endangers the functioning of an organisation.

For Lagadec (1991) and Roux-Dufort (2000), crisis must be understood as a process extending well before and well after the triggering event. This conception is central to our subject. A forest fire may be extinguished in three days, but the crisis it opens for local populations continues through the loss of livelihoods, social disruption and psychological after-effects. Chevrou (2005) describes large forest fires as “dramatic” and stresses that they result from a chain of human and organisational failures, including communication failures.

### 2.2. Communicating before, during and after

Libaert (2020) links crisis communication to an organisation’s overall communication: it “makes it possible, depending on how well it is managed, to overcome the crisis” (p. 1) and cannot be effective without a prior institutional strategy. Tixier (1991) emphasises its temporal dimension. In her words, “communication takes place with the public before the crisis to raise awareness of risks [...], during crises when they occur; and finally, communication accompanies the recovery

of activities after the crisis in order to secure public commitment” (p. 60). She adds that communication with the public must “continue beyond the crisis”, since the changes that follow it can generate particular stress.

Coombs (2007) formalises this requirement by distinguishing two types of content that any organisation must provide to those affected. Instructing information tells them how to protect themselves physically: instructions, evacuation, areas to avoid. Adjusting information helps them cope psychologically: expressions of sympathy, explanations of what happened, corrective measures and support. For Coombs, these two types of content form the foundation of any crisis response, ahead of reputation management.

### **2.3. Public communication and the responsibility of the state**

When the organisation in charge is a public body, crisis communication also falls within the scope of public communication. Zémor (2008) assigns it functions that go beyond informing: listening to citizens’ expectations, helping to sustain the social bond and supporting behavioural change. Ollivier-Yaniv (2001) shows, however, that the communicating state tends to favour top-down campaigns at the expense of dialogue. In extreme situations, Gilbert (1992) observes that disasters expose the ability of public authorities to be present among, and recognised by, the population.

This requirement has an ethical basis. Jonas (2013) places responsibility at the centre of ethics and associates it with the *res publica*. The Moroccan Forest, largely state-owned, is precisely a public good. The body in charge of it is therefore accountable not only for its protection but also, by extension, for the populations whose lives depend on it.

### **2.4. Vulnerability and community resilience**

Research on natural hazards has shown that the consequences of a hazard depend less on its intensity than on the social vulnerability of the exposed populations (Wisner et al., 2004; Beck, 2001). Resilience, defined as the capacity to overcome a shock and regain a taste for life (Pontier, in Cafarelli, 2023), is not a given individual quality. Norris et al. (2008) conceive of it as a set of community adaptive capacities, including social capital and access to reliable information and communication. Institutional communication thus becomes a resilience resource in its own right, and its absence a factor of vulnerability.

## **3. Methodology**

### **3.1. From questionnaire to experience narrative**

The research began with a preliminary survey of the institution. A twenty-item questionnaire, piloted with two ANEF regional directors (Agadir and Tetouan), was administered to twenty agency staff. It covered the causes of fires, intervention resources and the communication tools used. This instrument provided an overview of the institutional discourse but proved insufficient to capture the lived experience of the population. This finding led us to shift the focus from the sender to the receivers.

We therefore adopted the personal experience narrative, a form of the biographical method that relies not on a question-and-answer format but on “an initial instruction inviting the narrator to recount [...] their life or part of it” (Paugam, 2010, p. 83). This choice is consistent with our research question. A narrative does not reproduce events as they happened; it gives access to what the narrator selects, prioritises and remembers of them (Bertaux, 2016). The place an actor occupies in the narrative, or its absence, is thus an indicator of that actor’s salience in the lived experience.

The instruction read as follows: “You were a victim of the fires that affected not only the forest and its resources but also reached and transformed your living environment. Write in the first person (I), in one or two pages, about this ordeal, describing the shock you experienced and the suffering you endured. Then explain how you were able to overcome this experience.” It mentions no institutional actor. This point is methodologically important: any mention of the public authority in the narratives is spontaneous.

### **3.2. Fieldwork and corpus**

Fieldwork was carried out in 2024 in three provinces of northern Morocco, selected for their contrasting situations: Al Hoceima, severely affected in 2022; Chefchaouen, marked by recurrent fires; and Larache, relatively spared but hit by recent fires. Thirty narratives were expected; twenty-three were collected and eighteen retained after excluding incomplete or off-topic ones (Table 1).

**Table 1.** Distribution of the corpus by province.

| Province     | Period       | Fieldwork duration | Narratives collected | Narratives retained |
|--------------|--------------|--------------------|----------------------|---------------------|
| Chefchaouen  | January 2024 | 10 days            | 6                    | 4                   |
| Larache      | March 2024   | 14 days            | 8                    | 7                   |
| Al Hoceima   | July 2024    | 10 days            | 9                    | 7                   |
| <b>Total</b> |              | <b>34 days</b>     | <b>23</b>            | <b>18</b>           |

Access to participants required mediation by local actors (civil society, local authorities and, in Al Hoceima, forest rangers). This mediation facilitated the fieldwork but may have steered selection towards certain profiles; we return to this in the limitations. Women's participation remained low, owing to restrictive social norms and the absence of a female interviewer. Participants were informed of the research objectives; their consent was obtained and their anonymity guaranteed. Several interviews were interrupted or shortened to avoid re-traumatisation. Narratives are identified by a code (R1 to R18) and, where relevant, by a pseudonym.

### 3.3. Analysis

The corpus was processed through thematic content analysis. Each narrative was coded along three dimensions derived from the theoretical framework. The first identifies the actors mentioned, whether institutional or community-based. The second places each mention within the crisis timeline: before, during or after the fire (Tixier, 1991). The third characterises the type of help referred to: physical protection and intervention, material aid, or psychological support and listening, in reference to Coombs's (2007) distinction between instructing and adjusting information. The expectations expressed by narrators were coded separately. Excerpts from the narratives and from French-language sources are given in our translation, with minimal corrections that do not alter their meaning.

## 4. Results

Table 2 summarises the actors that narrators mention spontaneously and the phase of the crisis in which they place them. It reveals a sharp contrast between an omnipresent

community, local authorities clearly identified during the emergency, and a forestry agency that is never named.

**Table 2.** Actors and elements spontaneously mentioned in the narratives (n = 18).

| Actor or element mentioned             | Narratives                                  | Number (out of 18) | Phase referred to                                            |
|----------------------------------------|---------------------------------------------|--------------------|--------------------------------------------------------------|
| Residents, neighbours, nearby villages | R1, R4, R5, R8, R9, R11, R13, R14, R15, R17 | 10                 | Warning, firefighting, evacuation, mutual aid after the fire |
| Local authorities                      | R3, R4, R8, R9, R10, R11, R15, R16, R18     | 9                  | Evacuation, then compensation (R10)                          |
| Firefighters, rescuers                 | R1, R8                                      | 2                  | Firefighting                                                 |
| Aerial resources                       | R2, R11                                     | 2                  | Firefighting                                                 |
| Charities and charitable actions       | R10, R15                                    | 2                  | Food aid after the fire                                      |
| Royal Gendarmerie, forest rangers      | R3                                          | 1                  | Firefighting                                                 |
| Royal support                          | R10                                         | 1                  | Moral and financial support                                  |
| ANEF (named)                           | none                                        | 0                  | —                                                            |
| Institutional warning before the fire  | none                                        | 0                  | —                                                            |
| Institutional psychological support    | none                                        | 0                  | —                                                            |

### 4.1. A crisis faced first by the community

In the narratives, the warning does not come from institutions. It is given by residents: "We were having lunch when we were surprised by the warning cries of the villagers" (R17). The first

responses are also community-based and improvised. Villagers fight the fire “using simple, traditional means” (R1), move their belongings “on the backs of donkeys” (R5) or open the taps to slow the flames (R16). People from nearby villages rush to help: “People left their villages and came from different areas to take part in these humanitarian operations to fight the fire” (R14).

This mobilisation is accompanied by a loss of bearings that narrators describe insistently. “We no longer knew how to react to evacuate people and put out the fires; we were extremely confused. And the residents lost their way,” reports R3. A mother recounts wandering for a week with her children “with no direction” (R2). One narrator notes that after an initial advance, “the fires stopped spreading for three hours; if someone had intervened at that moment, they might have been put out” (R5). The absence of instructions is thus experienced as a void that the community fills as best it can.

#### **4.2. Local authorities, the face of the state in the emergency**

Local authorities are the most frequently cited institutional actor: nine of the eighteen narratives mention them. Their role is almost always associated with evacuation: “Once informed, the local authorities came immediately to evacuate people” (R11). They receive explicit recognition: “We must pay tribute to the remarkable work carried out by the local authorities as a whole. They played an essential role in evacuating people from the risk areas [...], especially in a context of general confusion” (R18).

This recognition does not exclude nuances. The authorities arrive “a few hours later” (R8); together with the residents, they “failed to stop it immediately” (R4). Evacuation orders also clash with residents’ attachment to their homes: “The local authorities ordered us to evacuate the houses [...]. We preferred to stay and keep our houses because we had nowhere to go” (R16). The relationship with the state is thus built on the register of injunction and rescue, not explanation.

#### **4.3. The ANEF, an unnamed institution**

None of the eighteen narrators names the ANEF. The agency appears only indirectly, through the “forest rangers” mentioned once alongside the local authorities and the gendarmerie (R3). This narrative has a particular feature: its narrator describes himself as a forest ranger. The most explicit account of confusion within the response therefore comes from inside the institution: “As a forest ranger, we faced many obstacles.”

Prevention campaigns, although central to the agency’s strategy, leave no trace in the narratives. No narrator mentions

a television spot, a poster, a caravan or an awareness meeting. The causes of the fire are interpreted outside any institutional framework: divine will (“God tests our patience and the strength of our faith”, R5), heatwave (R15), a cigarette butt carried by the wind on market day (R11) or an electrical short circuit (R6). The only call for prevention comes from a resident: “I insist that strict precautions must be taken so that this never happens again” (R1).

#### **4.4. The post-crisis phase: partial material aid and silence about suffering**

Only one narrator refers to the institutional post-crisis phase. R10 thanks the King “for his moral and financial support” and acknowledges the compensation procedures implemented by the local authorities, while adding: “We were promised compensation for all the property destroyed by the fire, and yet I have received nothing except the royal support.” To feed itself, his family depended on “charities”.

Psychological after-effects, by contrast, run through at least ten narratives. They take the form of sleep disorders (“I suffered from sleep problems that persisted five months after the fire”, R10), fear reactivated by the slightest smoke (R9, R16, R17), and even pyrophobia: “My wife refuses to use cooking utensils that produce fire” (R4). For R17, “the fire left in our souls a deep wound that is hard to heal, even if decades pass.”

No narrative mentions any listening or follow-up service to address these after-effects. Yet narrators express precise expectations. R10 considers that these effects “require regular medical follow-up”. R15 calls for “smooth and effective means of coordination between residents and the authorities”. R8 sums up the deepest expectation in the corpus: “We ask for nothing after what has overwhelmed us; rather, we would like someone who wants to listen to us, to feel what we felt, to live even for a moment what we lived through.”

### **5. Discussion**

The initial hypothesis is not supported. The narratives reveal neither ANEF crisis communication perceived by the population nor support for victims beyond the emergency. This finding nonetheless calls for a nuanced reading, as it says less about the agency’s actual activity than about what residents retain of it.

#### **5.1. Communication reduced to instruction**

Measured against Coombs’s (2007) typology, the institutional content present in the narratives consists almost exclusively of instructing information: evacuation orders and the removal of

people from burnt areas. Adjusting information, which helps people understand what is happening to them and cope with it, is absent. No one explains the origin of the fire to the narrators, who construct their own interpretations, between divine fate and human carelessness. Nor does anyone tell them what will be done for the forest, for their property or for themselves.

This imbalance corresponds to what Tixier (1991) describes as the neglect of the third phase of crisis communication, the one that accompanies recovery after the event. The crisis is treated as an event to be extinguished, whereas for residents it is a process that continues long after the last fire is out (Lagadec, 1991; Roux-Dufort, 2000).

## 5.2. The visibility paradox

The ANEF has a structured communication strategy that explicitly designates people living in contact with the forest as its core target. That this target never names the agency is a paradox that requires explanation. Three factors can be put forward.

The first concerns the preferred mode of communication. Mass campaigns (television, radio, billboards) generate general visibility but create little relationship. Ollivier-Yaniv (2001) has shown the communicating state's tendency to favour top-down messages. In mountain villages where Amazigh is the main language spoken and access to the media is uneven, such messages are unlikely to take root.

The second concerns the organisation of the emergency response. During major fires, coordination on the ground falls largely to the territorial authorities. Residents then attribute public action to the actor they see and who speaks to them, which echoes Gilbert's (1992) observation that disasters reveal how power makes itself present. The ANEF takes part in firefighting, but it blends into a collective response whose public face is the local authorities.

The third factor calls for caution. Psychological support for victims does not necessarily fall within the remit of a forestry agency. The absence identified in the narratives therefore points less to a failure of the ANEF alone than to a blind spot in the public response as a whole: no institutional actor is identified as responsible for the human dimension of the post-crisis phase.

## 5.3. Listening as a resilience resource

The narratives show that residents mobilised the main resilience resource available to them: the community's social capital (Norris et al., 2008). Mutual aid between villages, the

evacuation of elderly people by their neighbours (R13), and later the help given to other villages during subsequent fires (R8) bear witness to this. This resource nevertheless remains insufficient in the face of after-effects that persist for months or years after the fire.

The expectation expressed by R8, to be listened to rather than given material help, relates directly to one of the functions that Zémor (2008) assigns to public communication: listening to expectations and contributing to the social bond. It also echoes the ethical requirement formulated by Jonas (2013), for whom responsibility towards the public good binds those in charge of it. When the forest sustains a community's life, protecting it cannot be limited to the trees.

## 5.4. Towards proximity-based communication

These findings suggest several directions for public action. The first is to build an explicit post-fire phase into the communication strategy, in partnership with health and social welfare actors, in order to organise listening spaces in affected villages. The second is to rely more on the intermediaries the ANEF already mobilises in its advocacy work, such as community elders, religious leaders and local associations, while favouring the residents' own language.

The third direction concerns post-crisis transparency. R10's testimony shows that a compensation promise left unfulfilled undermines trust more lastingly than no promise at all. Clear information on compensation procedures, timelines and criteria falls squarely within adjusting information. Finally, involving residents in lessons-learned exercises (Libaert, 2020) would acknowledge their actual role in firefighting and turn their experiential knowledge into a prevention resource.

## 6. Conclusion

This article has examined crisis communication related to forest fires in northern Morocco from the perspective of those who experienced them. The analysis of eighteen personal experience narratives shows that the ANEF, the public body responsible for awareness-raising and forest protection, is absent from residents' memories. Local authorities receive all the institutional recognition during the emergency, while the community takes on the warning, part of the firefighting and most of the support. After the fire, narrators describe lasting after-effects and a need to be listened to that no institutional actor meets.

The contribution of this study is twofold. Theoretically, it demonstrates the value of a reception-based approach to crisis communication, which brings to light what sender-centred models leave in the shadows: the post-crisis phase and the

psychological adjustment dimension. Practically, it calls for complementing a mass prevention strategy with proximity-based communication that makes listening to victims an integral part of fire management.

## 7. Limitations

Several limitations should be noted. The corpus is small and makes no claim to statistical representativeness; it aims to understand lived experience. Women's participation is low, even though several narratives indicate that women were particularly affected. Access to participants through institutional intermediaries may have influenced the selection of profiles. Finally, the language barrier limited the recruitment of Amazigh-speaking narrators.

Above all, the instruction invited participants to recount the shock and how they overcame it, without mentioning institutions. The absence of the ANEF from the narratives therefore measures its low salience in residents' experience; it does not, on its own, prove that the agency took no action. This caution is all the more necessary as the article did not compare the narratives with the content actually disseminated by the ANEF during the fires.

## 8. Future research

Three avenues emerge. The first is to gather the views of institutional actors (ANEF, territorial authorities, civil protection) on their role and communication strategies during and after the fires. The second would be to analyse the content published by the agency on its digital channels during the 2021 and 2022 fires, in order to compare it with the reception documented here. The third would focus on families, particularly women and children, whose narratives suggest a specific vulnerability that remains to be documented.

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