



**COMMUNITY RESILIENCE
IN DISASTER RISK
MANAGEMENT:**

**COMMUNICATION
GUIDELINES
FOR FIRST
RESPONDERS
AND AUTHORITIES**

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Funded by
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FOREWORD

As climate change accelerates and the frequency of global natural disasters rises, it's becoming increasingly crucial for communities to collaborate and face these challenges in a coordinated manner. In such high-stress situations, effective and empathetic communication isn't just a tool; it's a lifeline. It ensures people get timely, accurate, and actionable information, which can be the difference between life and death. The RESILIAGE Communication Guideline is designed to equip you with the essential skills to master crisis communication, shifting the focus from simply transmitting information to fostering a shared understanding and a sense of collective resilience.

The first section reviews the foundational theories of crisis communication, offering key principles, strategies, and frameworks to guide information delivery. Next, Section 2 addresses common "challenge areas" like public reluctance to evacuate or a fear of causing panic, providing practical solutions to overcome these issues. Finally, Section 3 offers tailored communication tips for specific vulnerable groups, including tourists, the elderly, children, and people with disabilities. Throughout this document, you'll find practical exercises to help you apply what you've learned and improve your skills in real-world scenarios.

We hope this guide empowers you to lead with clarity and compassion, forging stronger, more resilient communities.



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SECTION 1. COMMUNICATION IN TIMES OF CRISIS: A REVIEW OF THE STATE OF THE ART

Communication during a crisis is critical for ensuring that people receive timely, accurate, and actionable information to protect themselves and others. Effective crisis communication helps prevent panic, guides decision-making, and supports coordination among responders and the affected population. The first section of this document will introduce essential theories related to crisis communication, including key principles, strategies, and frameworks that guide how information should be delivered in such high-stress situations.

Read this section if you would like to know more about...

- Why communication is important in times of crisis.
- The characteristics of crisis communication.
- What vulnerability means when it comes to crisis communication.
- The role of culture in effective communication.
- The essential principles of crisis communication.

#1:

THE IMPORTANCE OF COMMUNICATION

In times of disaster, the public's need for information is paramount. People affected by emergencies often find themselves in high-stress situations, with limited access to resources or support. During emergencies, whether natural or man-made, the flow of accurate, timely information can be the difference between life and death.

On the individual level, disasters are strongly linked to uncertainty which can be overwhelming. As part of natural human behaviour, the affected public becomes **"hungry for information"** and engages itself in information seeking behaviour⁽¹²⁾. Without reliable information, individuals may panic, make poor decisions, or unknowingly put themselves in harm's way.

Whether it's knowing evacuation routes, shelter locations, or instructions on how to protect themselves from imminent dangers, the public relies heavily on first responders and authorities to provide guidance.

When disasters strike, the public often looks to first responders and authorities as trusted sources of information and guidance. Clear, calm, and concise communication can help prevent panic, direct people to safety, and ensure they understand critical safety measures.

Ultimately, a well-informed public is more likely to remain calm, follow instructions, and cooperate with emergency efforts, which are all crucial for an effective disaster response. Clear, timely, and accurate information helps them make critical decisions about their safety and well-being.



"During an emergency event, information is as critically important to people as food or water"⁽⁵⁾

#2:

CRISIS COMMUNICATION

In crisis management, communication is divided into two key types: **risk communication** and **crisis communication**. While risk communication focuses on raising awareness and promoting protective behaviours *before* a hazardous event occurs, crisis communication is about issuing warnings and prompting a specific response from people *during* an emergency⁽³⁾.

During an emergency, communication with the public differs from routine communications in several ways⁽⁵⁾:

- **The presence of barriers:** It is more difficult for people to hear messages during an emergency. Stress, change of routine, and lack of sleep all can be hurdles to overcome when communicating during emergencies.
- **Timeliness:** If official answers are not available, rumour and speculation quickly fill the information vacuum. Therefore, the dissemination of correct information as fast as possible is crucial during disasters.
- **Response required:** Emergency warnings differ from other kinds of messages because their purpose is to activate the public, and elicit a specific response, rather than merely raise awareness or provide knowledge.

Effective communication takes place when both the communicator and the audience interpret the message the same way, thus creating a shared understanding of the situation. To reach this, several aspects of the communication need to be carefully considered, such as⁽⁶⁾:

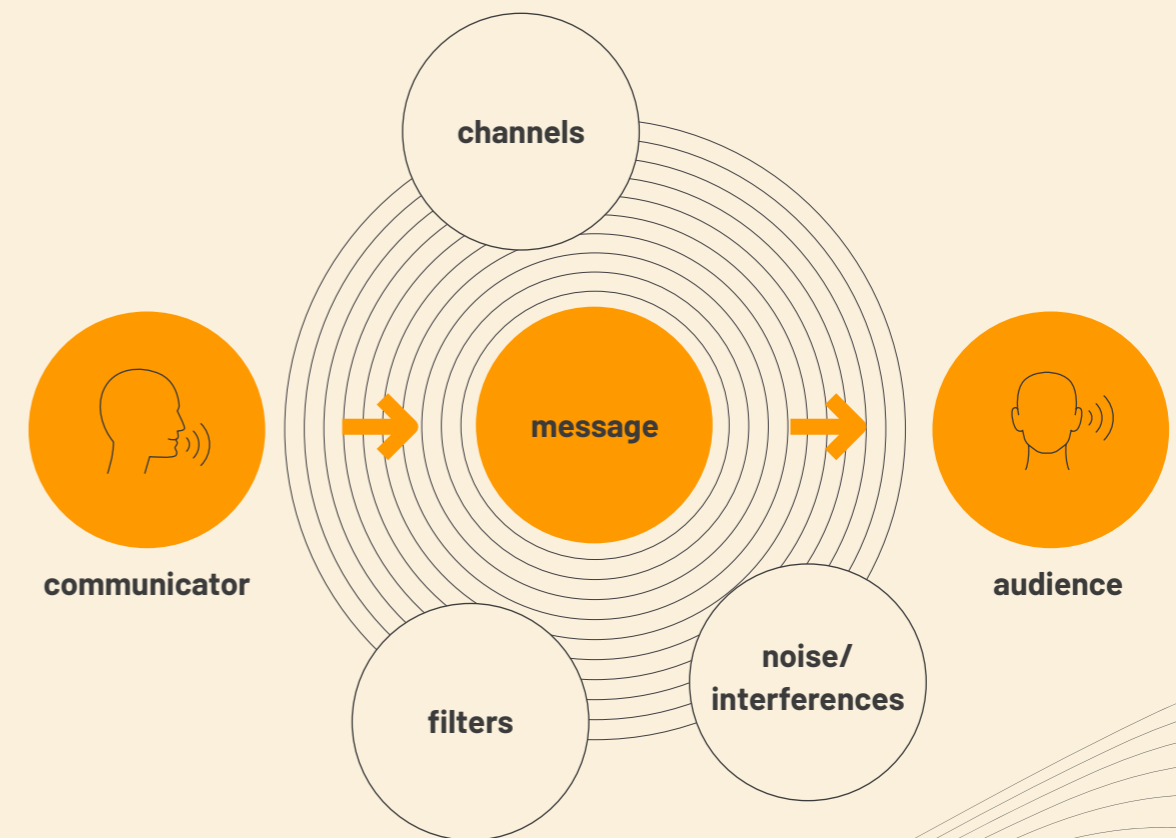
- **The communicator**, as the source of the information. In order to ensure successful communication, sources must be acknowledged as trusted and credible.
- **The audience** is the receiver of the message, decoding the information. This process refers to the interpretation of the message received which may be challenging due to characteristics of the communicator, the audience or the environment itself.
- **The message** is the information that is communicated. The most important requirement related to the message is keeping the balance between communicating the right amount of information without overloading the audience. Keep in mind that the message you communicate can also be a non-verbal one, conveyed by your body language and tone, volume and rhythm of your voice. Compared to verbal communication, these non-verbal

messages operate on a lower level of awareness. When communicating with citizens, make sure that your non-verbal and verbal messages are aligned.

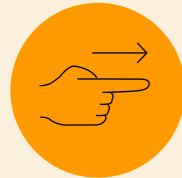
- **The channels** are the means of transmitting the message to the audience. While the traditional approach of crisis communication advocates for a one-way communication, a multi-channel approach is highly recommended in emergencies to share information with the public. For more information on the advantages of using multiple channels, take a look at Section 2.
- **The filters** can be characteristics of both the communicator and the audience which may have an effect on how people send and receive messages.

Filters include socio-cultural factors (e.g. cultural background or socio-demographic characteristics, spoken languages) and individual characteristics (e.g. personality, attitudes, or mental a physical state such as cognitive disability, visual impairment or use of drugs and alcohol).

- **The noise/interferences** are environmental factors that can inhibit individuals from rightly receiving emergency information. They include visual/audible pollution (noise), weather conditions (storm, wind, fog), environmental cues (smoke, flams, physical obstacles), and information overload.



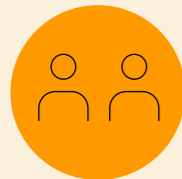
Non-verbal language is just as strong a means of communication as verbal elements. Make sure your body language always supports the conveyance of your verbal message. Here are some examples of how body language can be used:



Pointing and directing: when giving instructions or guiding people to safety, pointing or directing toward exits or evacuation routes can quickly communicate where people should go without needing to speak.



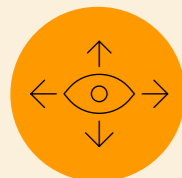
Calm and controlled demeanour: First responders should maintain a neutral or calm facial expression, even under stress, to avoid causing panic. A reassuring smile or a calm look can help people feel safer.



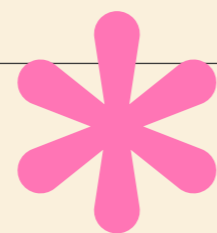
Body orientation: Turning the body toward individuals or groups when communicating non-verbally helps signal attentiveness and focus.



Direct eye contact: Establishing brief, direct eye contact can help build trust and understanding. It shows that the responder is engaged and attentive.



Avoiding rapid eye movement: Excessive or frantic eye movement can signal panic, which may heighten anxiety in others.



#3:

VULNERABILITY

Traditionally, vulnerability has been considered as a static “label”, often associated with certain individual and sociodemographic factors such as age, gender or disability. While this approach certainly helps to focus our attention on the importance of supporting individuals with special conditions, it is crucial to understand that is not something that we are born with or that is uniformly attached to us. In fact, vulnerability is situational and may vary as a result of the interaction between individual and contextual factors.

Therefore, vulnerability should not be viewed as a trait, but rather as the current status of the individuals in one specific context and specific time.

Consider a young and healthy adult from the United States going on vacation to the Canary Islands. While there, a major earthquake shakes the island, resulting in a serious damage in the infrastructure and many fatalities. Due to her lack of geographical orientation, absence of social network and her inability to speak the local language, an otherwise very capable individual quickly becomes very vulnerable to the situation, being exposed to serious danger.





Anyone can become vulnerable in certain circumstances. Communication is one of the variables that may either increase or decrease people's vulnerability to crises.

Vulnerability can be grouped into the following major clusters⁽³⁾:

1 Vulnerability related to a receiver's situation

- **Access to information:** Not everyone may have resources to purchase certain technical devices (e.g. a smartphone) or simply lacks the habit or skills to use them appropriately. Communication through these devices may therefore exclude certain individuals from receiving warning messages. Similarly, individuals who reside in more remote areas may not receive warning messages, or the rate at which the information is updated may be significantly slower. Access to information also includes the aspect of the messages tailored to the needs of individuals with sensory disabilities.

For example, using only flashing lights to indicate emergency would exclude visually impaired or blind individuals from perceiving this visual cue.

- **Understanding information:** When people receive information about a potential threat, their ability to process and understand this information can impact their level of preparedness. This aspect refers to tailoring the message to the situation and needs of the receiver, and to avoiding jargon, technical terms and complex messages.

For example, children may not be able to comprehend certain signals of environmental danger, unless the message is tailored to their level of understanding.

- **Acting upon information:** Even if citizens understand the threat, they may not automatically act upon them. Economically disadvantaged individuals may have less means to choose a safer area to live or to stockpile food and supplies. Young people and families with young children are usually quicker to respond to disaster warnings compared to older adults. In contrast, individuals dependent on medications or medical care are also dependent on assistance to react upon a warning message.

For example, an individual who has recently broken both his legs in a ski accident and is therefore bedridden may be perfectly able to access the information about a potential earthquake through multiple channels and understand it. Still, he remains dependent on the hospital personnel in being evacuated to a safe area.

2 Vulnerability related to the attributes of the communication

- **Presentation of information:** Messages on hazards need to be specific, consistent, clear and accurate. When a crisis communication contains details related to the exact location, time, magnitude and impact of the event, people tend to trust the information more. When it comes to the length of the message, people tend to have difficulties in assessing the content of very short messages such as tweets or wireless emergency alerts. These often result in confusion rather than understanding the situation.
- **Sources of information and levels of trust:** If the source of the information is not considered trustworthy, citizens will probably seek information from other sources. When it comes to disasters, the public usually prefers local rather than national sources, as they find them more accurate.

For example, a national TV channel may be considered less trustworthy after showing outdated videos and pictures about a wildfire and not informing the public about the spread of the fire in real-time, as compared to the local media with continuously updated, first hand visual materials.

3 Vulnerability to false information

- From an emergency management approach, people are vulnerable to false information if they have difficulties assessing the reliability of information. In general, individuals who do not use multiple news or sources and are least skilled in using internet search engines are the most vulnerable ones to false information.

For example, after the 2011 earthquake in Japan, citizens used Twitter to spread warnings, help requests and reports about themselves and the environment. Later, many users reported that they had difficulties identifying false information upon seeing emergency messages like "I am about to die"; "Can anybody help me"? Later on, some of these messages turned out to be false (1).

- In disaster situations the desire for relief and information is very high, resulting in false information spreading easily. A form of false information are rumours that are often viewed as negative aspects of a crisis, while some authors consider them as collective problem-solving mechanisms fuelled by anxiety and personal involvement in a disaster.

#4:

THE ROLE OF CULTURE IN COMMUNICATION

Culture is the shared collective knowledge, beliefs, skills, and traditions that allow a group of people to adapt successfully to their ecological contexts over multiple generations. Cultural value orientations are, in part, shaped by human acclimation to their environment and then guide the process of adaptation and response to that environment, including disasters ⁽¹¹⁾.

Risk communication has higher chances for success if rooted in the socio-cultural context in which the risk is understood. Cultural background has an impact on many crucial, disaster related aspects.

What does our cultural background affect?

Interpretation of certain environmental cues as signals of an upcoming risk

Drawing on their observations of and past experiences with natural disasters, Native American communities developed folklore and passed down stories to future generations. For instance, some folktales describe how animals seeking lower ground could signal an approaching windstorm ⁽¹³⁾.

Interpretation of warning signs

A study on the interpretation of standard healthcare symbols has found that interpretation rates varied across cultural backgrounds. While pictograms with human figures and synthetic description of actions are better understood than abstract concepts, symbols referring to abstract concepts were the most misinterpreted. Research also suggests that hazard-related colours may possibly vary within different countries ⁽⁸⁾.

Disaster risk avoidance

For example, fatalism, a belief that all events are predetermined and unavoidable, is a dominant attitude in many Middle Eastern, South American, and Asian countries, but also to be found in the southern European region. This largely contributes to inadequate disaster preparedness ⁽²⁾.

Collaboration with authorities

In the Mount Merapi region of Java, a majority of people belong to the Javanese ethnic group and speak the Javanese language. Local community radio stations

play a significant role, often broadcasting content that reinforces local culture and a sense of fearlessness. This has led to a false sense of security about volcanic risks and a reluctance to heed official evacuation warnings ⁽⁴⁾.

Recovery from a disaster

Retaining collective memories and socio-cultural experiences of disasters and sharing them across generations through narrative or “storytelling” can be an extremely powerful means of recording, preserving and interpreting narrated memories within communities ⁽⁶⁾.

Culture plays a vital role in how communities respond to disaster risks. People often create their own stories and knowledge, rooted in their cultural beliefs, to cope with the gap between knowing a disaster could happen and not having the resources to prepare for it. This community-generated knowledge sometimes clashes with the scientific, top-down approach favoured by public authorities, who may overlook local feelings and interpretations of events. Research therefore suggests authorities to take cultural values into when planning communication with local communities in order to increase trust and collaboration ⁽¹⁰⁾.

What can you do when communicating with citizens of diverse cultural backgrounds?⁽⁸⁾

- Be aware of the broader social, cultural or political considerations that may influence communication with your audience.
- Translate written materials in the major languages before, during and after the event.
- Build partnership and networks with local cultural communities to get support in building trust and spreading the information in the local language.
- Identify bilingual/ multi-language employees who can communicate with multicultural citizens.
- Improve the recognisability of the main signs. Keep in mind: the less abstract, the better the interpretation.



#5:

THE ESSENTIALS OF EFFECTIVE COMMUNICATION

In order for any kind of risk and crisis communication to be successful, some basic principles need to be considered. Here is a collection of recommendations you may want to follow when building up your communication strategy throughout the Disaster Risk Management (DRM) Cycle ⁽⁹⁾:



Create awareness!

Use multiple communication channels and combine visuals and sound to ensure your message is seen, heard, and read by the public.



Influence risk perception!

Help people understand how a hazard could affect them personally and what the consequences might be. Using clear and specific language makes it easier for them to grasp the risk.



Secure people's trust!

For your message to be effective, people must trust you, your organisation, and the media outlet sharing the information.



Support people's sense of relevance!

Your audience needs to understand how the situation impacts them personally to take your advice seriously.



Be aware that confirmation is needed!

People often seek confirmation of warnings from other sources. Keep your message consistent across all channels to prevent confusion and distrust.



Motivate people to act and follow instructions!

Knowing a risk exists doesn't guarantee action. You must understand what motivates people and what barriers might stop them from following your instructions.



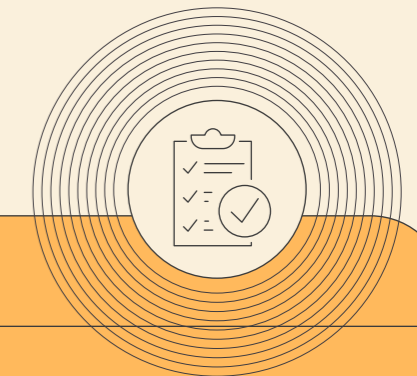
Balance your information!

During a disaster, people may experience "tunnel vision". Avoid overwhelming them with too much detail, but also ensure your message isn't so brief that it raises more questions. Provide clear, concise, and structured information that covers only the essentials.



Tell the same story several ways!

Use various formats like visuals, maps, pictures, and real-life examples to reinforce your message. This helps people remember the information and act accordingly.



Communication Checklist

When creating a message make sure it includes the following essentials ⁽⁵⁾⁽⁷⁾⁽⁹⁾:

- ✓ 1. Who is providing the message (communicator)?
- ✓ 2. What has happened?
- ✓ 3. Where is the emergency taking place? Describe the location so those without local knowledge can understand their risk.
- ✓ 4. What does this mean for the citizens?
- ✓ 5. What does the individual citizen need to do?
- ✓ 6. Why is the event or situation threatening, or potentially threatening?
- ✓ 7. When do people need to act?
- ✓ 8. When will it arrive at various locations? How long will the situation last?
- ✓ 9. What is the disaster management organisation doing?

PRACTICAL EXERCISE FOR SECTION 1.



Vulnerability Mapping: A Community Communication Compass

Consider a recent disaster or crisis that impacted your region. Think about the different groups within your community and identify those who were most vulnerable.

1. Identify vulnerable groups: List the social groups in your region that you consider vulnerable during a disaster or crisis.

2. Analyse their vulnerabilities: For each group, describe the specific factors that made them vulnerable. Focus on how communication played a role by asking yourself:

- What challenges did they face in accessing information? (E.g., lack of access to certain technologies, language barriers, or physical disabilities).
- What difficulties did they have in understanding the information they received? (E.g., information overload, complex jargon, or cultural differences in interpreting messages).
- What barriers prevented them from acting on the information? (E.g., mobility issues, socio-economic disadvantages, or a lack of trust in authorities).



Vulnerable groups	Accessing information	Understanding information	Acting upon information

TEST YOUR KNOWLEDGE!



Select all the aspects below that differentiate crisis communication from routine communication!

- a. Barriers to perceive and comprehend messages
- b. Channels to communicate
- c. Required speed of information
- d. Required response

True or false? Abstract symbols are recommended to use for a multicultural audience as it is easier to interpret for individuals with diverse cultural backgrounds.

- a. True
- b. False

Which of the following does not apply to the modern vulnerability concept in Disaster Risk Management?

- a. One's economic situation can be a significant source of vulnerability.
- b. Lacking precaution when using the internet search engines makes someone vulnerable to false information.
- c. Vulnerability is a stable trait attached to certain sociodemographic groups.
- d. Families with young children are usually quicker to act upon warnings.

Which of the following best describes the primary difference between risk communication and crisis communication?

- a. Risk communication happens after a disaster, while crisis communication happens before it.
- b. Risk communication focuses on raising awareness and preparation, while crisis communication focuses on immediate warnings and responses.
- c. Risk communication uses only traditional media, while crisis communication uses social media.
- d. Risk communication is for authorities, while crisis communication is for the public.

True or false? Fatalism, a belief that all events are predetermined and unavoidable, is a trait related to the elderly.

- a. True
- b. False



SOURCES

¹⁾Acar, A., & Muraki, Y. (2011). Twitter for crisis communication: Lessons learned from Japan's tsunami disaster. *International Journal of Web Based Communities*, 7(3), 392-402

²⁾Baytiyeh, H., & Naja, M. K. (2014). Can education reduce Middle Eastern fatalistic attitude regarding earthquake disasters? *Disaster Prevention and Management*, 23(4), 343-355.

³⁾BuildERS D1.4. (2019). Communication behaviour in Europe and Vulnerabilities

⁴⁾Donovan, K., Suryanto, A., & Utami, P. (2012). *Mapping cultural vulnerability in volcanic regions: The practical application of social volcanology at Mt Merapi, Indonesia*. *Environmental Hazards*, 11(4), 303-323.

⁵⁾FEMA. (2014). *Communicating in an Emergency: Effective Communication (IS-242.b) Student Manual*.

⁶⁾Hicks, A., Armijos, M. T., Barclay, J., Stone, J., Robertson, R., & Cortés, G. P. (2017). Risk communication films: Process, product and potential for improving preparedness and behaviour change. *International Journal of Disaster Risk Reduction*, 23, 138-151.

⁷⁾Kuligowski, E. D., & Omori, H. (2013). General Guidance on Emergency Communication Strategies for Buildings. US Department of Commerce, National Institute of Standards and Technology.

⁸⁾LETS-CROWD: How to Communicate with multicultural crowds in mass gatherings. Communication Toolkit.

⁹⁾LINKS (2021): Including Citizens Handbook

¹⁰⁾Moorthy, R., Benny, G., & Gill, S. S. (2018). Disaster Communication in Managing Vulnerabilities. *Jurnal Komunikasi: Malaysian Journal of Communication*, 34(2), 51-66.

¹¹⁾Rahmani, M., Muzwagi, A., & Pumariega, A. J. (2022). Cultural Factors in Disaster Response Among Diverse Children and Youth Around the World. *Current Psychiatry Reports*, 24(10), 481-491.

¹²⁾Tekeli-Yesil, S., Pfeiffer, C., & Tanner, M. (2020). The determinants of information seeking behaviour and paying attention to earthquake-related information. *International Journal of Disaster Risk Reduction*, 49, 101734.

¹³⁾U.S. Emergency Management Institute. course title: a social vulnerability approach to disasters. Session 45: emergency management for native Americans. 2021. [https:// training.fema.gov/hiedu/downloads/social%20vul%20approach%20to%20disasters%20-%20session%2045.doc](https://training.fema.gov/hiedu/downloads/social%20vul%20approach%20to%20disasters%20-%20session%2045.doc).



SECTION 2. CHALLENGE AREAS AND MISCONCEPTIONS

Crisis communication can be challenging due to the rapid flow of information, the need to reach diverse audiences, and the pressure to provide clear, accurate updates under stressful conditions. Additionally, there are several misconceptions, such as the belief that one-way communication from authorities is enough or that people will automatically understand the messages being conveyed. The second section will guide readers through the most frequent “challenge areas” in crisis communication and offer practical solutions to address these issues effectively.

Read this section if you would like to know more about...

- Why individuals may be reluctant towards evacuation orders and how you can overcome it.
- Why keeping the public fully informed is the best approach to take in communication.
- The difference between top-down and bottom-up communication with the public.
- The advantages and the challenges of different communication channels.
- The primary objectives (and added values) of communicating with the public throughout the whole disaster management cycle.
- The aspects to consider when integrating spontaneous volunteers in disaster management.



#1:

“ PEOPLE WON’T FOLLOW EVACUATION ORDERS ”

In situations like fires, floods, or severe storms, every second counts. First responders are working under extreme pressure, and every person who doesn’t follow evacuation orders increases the likelihood of chaos and danger. These individuals may need to be rescued later, which could drain resources and put more lives in danger, including the responders’ own. Establishing effective communication is therefore key to ensure people follow evacuation orders.

However, adequate information that has been appropriately communicated is only one side of the same coin. The top-down model of “I tell you to evacuate, and you leave” does not work anymore, as people tend to make their own judgments⁽¹⁴⁾. Therefore, the key is to understand how people interpret this information and render it meaningful in the context of their unique needs and expectations.

Accessibility of information

Children, older adults and individuals with special needs may not be able to receive or respond appropriately to alerts and warnings. Similarly, people who do not speak the local language may not understand evacuation messages, and they may also lack the knowledge of the area, and the information on the available shelters, therefore they may react differently. Finally, people who have taken the time to prepare for hazards (e.g. have a plan and a preparedness toolkit) are more likely to heed warnings and act appropriately⁽⁵⁾.



What can you do to ensure accessibility?

- Use several communication channels, including traditional media, social media and social networks as well.
- Use different modalities (visual, auditory, tactile) when communicating evacuation.
- Include all the key elements and prepare the body of your evacuation message in advance. Have it translated into different languages.

Socio-demographic factors in evacuation

There are several factors that are associated with taking precautionary measures upon risk communication⁽¹²⁾. In fact, following an evacuation order is a result of these factors interlinked with each other:

- Being a resident in areas of higher risk or being in the proximity of risk.
- Having a higher educational level.
- Having a higher income.
- Being of a younger age.
- Having previous experience with the hazard (collective memory of past disasters).
- Having social support.
- Having a higher perception of risk.
- Having a lower level of fatalism (belief that events are predetermined and inevitable).

Very often, a decision to evacuate is influenced by extended family and other members of the individual's social network. Responsibility for others may both facilitate and inhibit someone to comply with the official warnings. For example, families with young children tend to take immediate action once called upon, while individuals who take responsibility for elderly or frail family members are often unable to evacuate.



Previous studies have shown that people tend to evacuate as family units. Obligations to the extended family, especially the elderly who either resist or are unable to evacuate inhibit many individuals from evacuating⁽¹⁶⁾.

Interestingly, individuals who have pets may endanger their own lives by refusing to evacuate because many public shelters do not allow pets.

What can you do to consider socio-demographic factors in your communication?

- Adjust your language to the characteristics of the receiver: be as concise and clear as possible.
- Avoid overly complicated sentences and the use of jargon.
- Underline the fact that by following the instructions, harm is avoidable.
- Emphasise tangible elements and real-life examples in your communication that people can relate to.
- Map individuals with special needs regarding evacuation. Prepare the necessary logistics in advance for evacuating citizens who need support. Make sure you communicate the availability of this support: who, when and how will it be provided? Who is it for?
- Encourage citizens in your community to create family evacuation plans, including family members with special needs. Make sure you communicate in advance how they are supported in a potential disaster event. Making plans in advance will enhance the probability of accepting the evacuation fact.
- Encourage individuals with pets and domestic animals to prepare a plan for their animals. Make sure you communicate which shelters are pet-friendly and what are the alternative options for animals to be sheltered.

The role of biases in evacuation

Biases are preconceived ideas, judgments, or opinions that affect how we perceive and interpret information. They often happen unconsciously and can influence our decisions, behaviour, and interactions with others, even if we're not aware of them.

The following biases tend to prevent individuals from correctly assessing disaster risks:



1. Myopia: a tendency to focus on overly short future time horizons when appraising immediate costs and the potential benefits of protective investments.



4. Inertia: a tendency to maintain the status quo when there is uncertainty about the potential benefits of investing in alternative protective measures.



2. Amnesia: a tendency to forget too quickly the lessons of past disasters.



5. Simplification: a tendency to selectively attend to only a subset of the relevant facts to consider when making choices about a risk.



3. Optimism: a tendency to underestimate the likelihood that losses will occur from future hazards.



6. Herding: a tendency to base choices on the observed actions of others.



What can you do to overcome these biases?

- Highlight tangible gains and potential losses to support citizens in making the right decision.
- If available, use examples from previous disasters to create a link with the current situation.
- Periodically communicate the estimated probability of a future potential disaster. When doing so, always link your message to the actions that citizens can do to avoid or reduce harm.
- Encourage people to prepare and practice the expected behaviours during a disaster event. Primed behaviours are less likely to fall victims to herding.



Evacuating with a sense of control

During life-threatening extreme events like natural disasters, individuals are contemplating the potential effects of the disaster on themselves, their loved ones and their property. As extreme events remind individuals of their own mortality, this results in existential anxiety and an increased desire for order and control. As literature highlights, **giving individuals more control over their decisions has the potential to increase compliance during crises.** For example, in a series of experiments, participants who were given the freedom to choose which available shelter they prefer to be evacuated, showed more compliance with orders ⁽¹⁴⁾.

What can you do to support a sense of control?

- If the circumstances allow, provide citizens with a minimal freedom in their decisions (e.g. choosing their shelter) to regain their sense of control over the situation.

Immobility due to stress

Specific emergency situations can produce a psychological trauma, resulting in the inability of a person to physically react to it or to communicate his/her needs. High levels of stress may often provoke a so-called “freeze reaction” in which individuals fail to mobilise themselves, to perceive and understand key information and to assess the consequences of their decisions.

What can you do to beat the “freeze reaction”?

- Encourage citizens to create their own individual or family evacuation plans.
- Encourage citizens to practice the evacuation plans and discuss it within their family. The more they are familiar with the plan, the more likely they will remember it under high stress.
- If possible, organise evacuation drills in the community to support citizens in imagining the situation in real life. This will reduce the probability of “freeze reactions”.
- Encourage individuals to include a template in their emergency family plan that walks them through the essential information to communicate when contacting a first responder.



Trustworthiness

If the evacuation order comes from a source of information (be it a person or the whole organisation behind) that is considered as less reliable and trustworthy, citizens will be less likely to act according to the instructions.

One way to enhance trustworthiness is to apply two-way communication and prioritize dialogues with citizens, as it is often the sign of transparency and credibility. Similarly, engaging with stakeholders and ambassadors to disseminate the same message will likely enhance its trustworthiness. As people have different attitudes towards the different media types and their credibility, disseminating the same message through a wide variety of platforms enhances the perception of being reliable⁽⁹⁾.

What can you do to enhance trustworthiness?

- Assess and understand the level of trust within the community towards your organisation.
- Enhance your trustworthiness by creating the opportunity for bi-directional communication with citizens. Whether they are in person events or social media communication, the most important thing is to be responsive.
- Use several different forms of media and platforms to communicate the same message.
- Find ambassadors to disseminate your messages (volunteers, community centres, social media influencers). A message that is disseminated by several different senders is perceived as more trustworthy.



The impact of familiarity on evacuation success

Even if people follow the instructions to evacuate, they sometimes fail to follow the suggested evacuation path. In fact, studies have shown that **individuals are likely to develop and follow scripts or schema for familiar places, move to familiar places and use routes they are most familiar with**⁽⁶⁾. In addition, a disaster can also have an effect on orientation: people may lose their usual point of reference since hazards can alter the appearance of both urban and natural scenarios⁽⁹⁾, and roads may become inaccessible, thus inhibiting citizens to follow the suggestions of official sources.

What can you do against the familiarity effect?

- Organise evacuation drills in the community to support citizens becoming familiar with the officially suggested evacuation routes.
- Give specific information on the location of the emergency shelters.
- When giving information and instructions, bear in mind that there may be individuals who lack geographical knowledge and familiarity with the area.
- Make sure to indicate alternative routes and give regular updates on them.
- Provide emergency evacuation maps in online and printed format as well.
- Provide a regularly updated list of shelters and their characteristics.

#2:

“PEOPLE WOULD PANIC. LET’S MINIMISE THE INFORMATION TO SHARE WITH THE PUBLIC”

The public has been often regarded as a nuisance or potential liability by emergency responders and government agencies, undervaluing its contribution.



In fact, how emergency responders and government agencies assume the public would respond in emergencies may have an impact on the way they communicate with them during disasters.

Sometimes authorities are afraid to scare or frighten people if they communicate what they know about a potential risk. Nevertheless, you should communicate what you know, without holding back information⁽⁹⁾⁽¹⁸⁾.

The added value of citizen’s involvement⁽¹⁸⁾:

- Research has shown that the public tends to show cooperative behaviour and provide help during emergencies. In fact, emergency situations often generate a sense of “common fate” among people that may rapidly form bonds with strangers to cope with the critical situation, creating an informal collective resilience⁽⁸⁾.

“An example is the sinking of the M/V Estonia in 1994 with over 800 deaths where the records of survivors and eyewitness testimonies detail numerous efforts among passengers to help each other. When the ship lifted severely and passengers fell, they managed to form a human chain to hold on to each other and pull people to a safer location⁽¹⁸⁾. ”

- The public is usually the first witness on the scene in emergencies or disasters before professional emergency responders arrive⁽¹⁸⁾.
- Citizens often have a very detailed knowledge and understanding of the geographical area, along with the local risks, as well as local communities that may be more difficult to reach. They are a very valuable source of information to utilise during crises.

If emergency responders believe the public will easily panic, they may choose to restrict information. However, **when the public perceive that information is being withheld, they are likely to feel anxiety and distress, while communication approaches which treat the public as active participants in the response effort are more effective, in comparison to using coercive, controlling approaches that may reflect misconceptions of “irrational” crowd behaviour⁽¹⁸⁾.**

What can you do to communicate effectively?

- When designing a crisis communication message, strike for a balance between providing enough information and not to overwhelm your audience with unnecessary details.
- Create your message in a way that allows citizens to gain a full understanding of the situation. Avoid communication strategies that would downplay the potential risk. By communicating the information you possess, you appear transparent, and this adds to the citizens’ trust in your organisation.
- Besides raising awareness, the purpose of your communication should also be to give clear and concise recommendations on how to respond to the risk.
- In your communication, you should always stress that the recommended actions will enhance citizen’s chances to successfully manage the crisis, to help themselves and others. By providing them with the correct information and recommendations, they can feel empowered and able to cope with the risk. In fact, the first step towards empowering communities is communicating the full picture.

#3:

“IN EMERGENCY, THE MOST EFFECTIVE WAY TO COMMUNICATE WITH THE PUBLIC IS ONE-WAY (TOP-DOWN) COMMUNICATION.”

Historically, communication during disasters has been a one-way exchange, with authorities transmitting information to the public, rather than a two-way interaction⁽¹⁵⁾. Emergency responders and government agencies often expect the public to follow instructions from authoritative voices in government. This suggests that they assume the public needs guidance from these responders to act rationally and adhere to their directives⁽¹⁸⁾.

In centralised, one-way communication, the audience has limited opportunities to respond to messages shared through traditional media such as TV, radio, newspapers, and magazines. With this method, authorities cannot effectively monitor public reactions or integrate the public's concerns into their crisis management strategies.



While this approach may be suitable during an emergency response, the command-and-control model often portrays leaders and agencies as the sole experts. This can lead to a diminished sense of shared responsibility, a depersonalised view of risk, and a more passive attitude among community members towards efforts to reduce harm.

Recent studies on crisis communication in emergencies and public resilience have highlighted a shift from a top-down approach to a more two-way flow of communication that includes information sharing from the public. The rise of social media has transformed crisis communication in recent years. Disaster response teams, once used to one-way, top-down communication, now face a large amount of information coming from the public, often before official notifications are made. These changes clearly call for a shift toward multidirectional information sharing that actively involves citizens⁽¹⁰⁾. In fact, authorities' willingness to engage in two-way communication often reflects their level of trust in the public. When emergency responders and government agencies trust the public to be helpful and act responsibly, they are likely to collaborate with them through direct two-way communication.

The following matrix describes the four communication types that can take place between authorities and citizens in times of crisis. The matrix creates four practical information flows: the inter-organisation level (between authorities and authorities), the public level (citizens to citizens), the citizens-generated content level, which is analysed by the authorities (citizens to authorities), and the level of informing the public (authorities to citizens level⁽¹⁷⁾). By using social media, citizens can share information among each other instantly which also increases the change of potentially false information being spread across the affected community. Being engaged in bottom-up, two-way communication with the public, on the other hand, ensures the perception of potentially false information in a timely manner, thus providing room to act upon it.



Communication matrix⁽²⁰⁾

#4:

“WE NEED ONE MAIN CHANNEL TO COMMUNICATE IN ORDER TO AVOID CONFUSION”

When communicating about risk, you need to get in touch with as many citizens as possible before, during and after disasters. People’s use of and preferences for media do however differ. This means that **your organisation needs to use a wide variety and combination of communication channels, to reach the largest audience possible in your community. Importantly, you need to understand the media consumption habits in your community to apply relevant media to reach citizens**⁽⁹⁾.

Despite the increase in the use of innovative communication channels (e.g. social media), traditional channels and mass media still play an essential role in the communication process in times of disaster. While there are important differences in functions, characteristics and uses of channels, all, in general, play a crucial role in building societal resilience⁽¹⁷⁾.

What can you do to use communication channels effectively?

- Investigate which communication channels are the most frequently used, preferred and considered as reliable by citizens in your community.
- Customise your communication according to the characteristics of the channel.
- Make sure your organisation has the skills and expertise to handle such media and is able to maintain responsive communication with citizens.
- Make a communication plan for the case of a power failure: be prepared to lose access to the internet and for people to lose connection to electronic and digital media⁽⁹⁾.

How to utilise the different communication channels?



Social media

In the last 10 years, several studies have illustrated the use of social media for gathering and disseminating information during disasters⁽²²⁾. The public’s role and participation in disaster or crisis

communication has become an inevitable part of disaster risk management. This is due to social media that enables them not only to passively receive official information, but also to initiate a two-way communication and bottom-up information sharing with first responders.

However, the extent to which the advantages of social media are exploited in two-way communication largely depends on **how officials decide to use this channel:**

One-way communication:

emergency responders use social media for sending messages to the public, e.g., to convey situational updates or advice on how to handle emergency situations. In this case, social media is used as a more traditional media, therefore its potential benefits are not fully utilized.

Passive two-way communication:

in this case, emergency responders use information from the public (e.g. they may track the engagement of the public and their responses to tweets), but they do not engage in dialogue with citizens.

Active two-way communication:

emergency responders reply to public tweets and act on information received from the public (e.g. replying to citizens who tweeted their emergency situation, asking whether they had been rescued)⁽³⁾

Using social media has many advantages from both the emergency responders' and the public's point of view, which make this communication media essential in disasters:

Advantages of social media use to first responders:

- Communication through social media channels is often the only mode of communication that survives disasters' impact⁽¹⁰⁾.
- Citizens can share their post, and secure an even better reach⁽⁹⁾.
- Citizens can ask questions and comment on the posts, and first responders have the possibility to get into dialogue with them to better understand their concerns⁽⁹⁾.
- Social media may be a powerful tool in locating people in need of assistance⁽²²⁾.

- Social media allows the rapid broadcasting of warnings and news of recovery missions when more traditional media is not available⁽²²⁾.
- Social media allows providing vital information on shelters and medical advice to those in need⁽²²⁾.
- Data and eyewitness reports of a disaster's impact can be collected in real time in order to disseminate this through social media and traditional media⁽²²⁾.
- Social media can be used for identifying, recruiting and coordinating volunteers to provide support and assistance in disaster⁽²²⁾.

In the July 2011 terrorist attack at the island of Utøya in Norway, the youths used mostly Twitter and Facebook to communicate with each other, with their parents, relatives and friends outside Utøya⁽²³⁾. The news about the massacre broke on Twitter before any other media⁽³⁾.

Advantages of social media use to citizens:

- Social media can be used to promote a sense of community in times of disasters⁽²²⁾.
- Social media provides individuals with a way to connect with loved ones, it provides reassurance, support, and routes to assistance⁽²²⁾.
- Collective coping mechanisms: the ability of social media to connect people through time and space enhances collaborative problem solving and citizens' ability to make sense of the situation and cope with it⁽³⁾.
- Social media allows emotional venting during crisis⁽³⁾.
- In a post-crisis recovery phase, social media provides a platform for emotional and psychological support⁽³⁾.
- Through social media use, vulnerable groups can build communities, get a voice and scandalise current shortcomings⁽³⁾.
- Social media allows citizens to learn insider perspectives, to follow the events on a real-time-basis and to get reactions from first-hand sources⁽³⁾.

It is important to note that **social media can complement but cannot replace more traditional methods of communication**, as not all people are actively involved in social media.

Common risks of social media use in crisis communication:

- The overall reach of the social media messages posted by emergency managers is still quite poor, as the public "appears to have limited interest in following emergency management agencies, especially prior to a major incident"⁽³⁾.
- Compared to traditional channels, social media provides a limited control once the message goes out.
- Potential overflow of information – you should undertake two-way communication only if you can guarantee responsiveness.
- Limits the circle of audience to those who consume social media news on a regular basis. Elderly and other social groups with limited digital access and literacy may be excluded from communication.

Have you heard about "social listening"?

Several digital solutions provide tools that scan social media platforms by using keywords to track relevant posts and discussions. By using social listening, you can figure out whether there is any incorrect information circulated in the community and engage in targeted dialogues to correct this distorted information⁽⁹⁾.



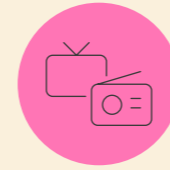
Interactive maps

By the use of interactive maps, people who are familiar with internet-navigation can search for specific locations and thereby get precise and targeted information about their own risk⁽⁹⁾. Using interactive maps are powerful solutions during and after the disaster to update geographical data. On the other hand, its use largely depends on factors, such as age, socioeconomic status and digital literacy.



Warning apps

Systems for public warning on cell phones represent an efficient way to alert people and give them an instant understanding that they have to pay attention. Many people like to get notified on their cell phones, and people with smartphones tend to prefer to be addressed directly. This does however require a technical setup, and individuals who cannot afford to have their own cell phones may be excluded from the information disseminated this way⁽⁹⁾. Furthermore, individuals with limited digital literacy may be sceptical to download and use the app.



Traditional media: television and radio

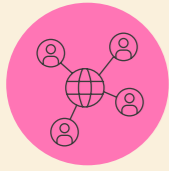
Using traditional media (for example, radio and television), especially local media sources is a good strategy for reaching as many affected citizens as possible, as television is the most dominant source for information in all stages of emergencies⁽⁵⁾⁽¹⁷⁾. It allows immediate broadcasting of urgent messages. Traditional media works specifically well in case of the elderly, thus making them the most reachable via television and radio. On the other hand, reporting may be less detailed, and messages may be filtered and reframed. Its major risks lie within its vulnerability to shortage of electricity and the potential damage of broadcast towers. Also, to convey the message, receivers must have traditional media at home, and they must choose to turn it on. Therefore, this type of communication is less efficient in case of citizens with limited access to television and radio.



Printed media: newspapers, flyers, posters, stickers

Printed media are useful solutions for older people who are less accustomed to reading information from a screen, for communities that suffer from frequent infrastructure malfunctions⁽¹⁷⁾, as well as for social groups with limited access to digital media. In addition, posters, flyers and stickers are powerful visual materials to create awareness and are accessible to individuals with limited access to or consumption of digital media. As compared to other types of channels, newspapers allow an in-depth understanding of the disaster event, with longer texts and informative figures included in the articles. The major risk in using printed media is related with the time it takes to get the message out, and thus, its limitations for incorporating quick updates of the situation. Printed media may therefore be a powerful tool in communicating with the public before or after the disaster.





Social network

Research shows that individuals tend to seek information about crises from friends, neighbours, and other personal sources. Even when official channels and mass media distribute information about warnings and crises, people often still rely on their own social circles for support and verification. Certain vulnerable populations, in particular, prefer to connect with trusted community members and depend on their social networks for updates. These networks could include neighbourhood groups, local community organisations, schools, sports clubs, housing associations, or religious institutions ⁽³⁾.

Studies also suggest that many minority groups do not engage with national news media as extensively as the majority population. This may be due to language barriers or established habits of gathering news from alternative sources. However, members of these groups often share information among themselves, both digitally and in person. Engaging with gatekeepers within minority communities can be an effective way to spread your message to groups not reached by traditional media. Social networks can connect with people who are often overlooked by professional emergency management efforts. For some, agreeing to evacuate during a crisis may depend on

seeing influential peers in the community taking similar action. Therefore, building relationships with peers who can act as “ambassadors” within their social networks is crucial for raising awareness about potential risks and during emergencies.

If you plan to leverage social networks, it’s important to establish connections and build trust before an incident occurs, particularly if you want to communicate about disaster preparedness. This is essential if you intend to use these networks during an emergency. Attending or organising local events, where informal conversations with citizens can take place, can be a valuable investment. This could involve meetings of homeowners’ associations, school functions, or local festivals—opportunities that foster trust and open dialogue.

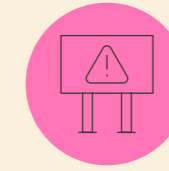
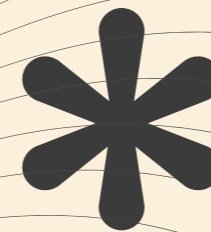
It’s also essential to consider those outside of strong networks and how to reach them. Several NGOs work with people who lack robust networks, such as those supporting homeless populations or marginalised groups. Partnering with these organisations can be beneficial as they can help disseminate your information, both for risk mitigation and during crises ⁽⁹⁾.



Face-to-face

Direct interaction between emergency responders and the public is a crucial communication channel, especially during emergencies. Staff involved in safety roles should be easily recognisable by wearing high-visibility clothing. This makes it easier for the public to approach them for assistance and to acknowledge their authority when needed ⁽⁸⁾. The key benefit of face-to-face communication is its interactive nature, which allows individuals to express their questions and concerns, providing responders the chance to address them directly.

Additionally, it can be focused on specific groups who may be harder to reach through other means. Effective face-to-face communication requires staying on message, even when the audience becomes vocal, and may involve dealing with challenging questions. When used before a disaster, it requires a suitable and accessible location ⁽⁵⁾.











Information display boards

Information display boards are useful tools for improving spatial awareness, especially during emergencies. Being easily visible, they can provide real-time directions, indicate the location of rescuers, and highlight safe areas. In an emergency, these boards can be updated quickly, and they can reinforce warning messages and offer information to people with hearing impairments or those who speak different languages ⁽⁸⁾.

On the other hand, as display boards often rely on electricity to function, they may become non-functional in disasters. In addition, as they are fixed in certain locations, they can only reach people within the vicinity. Finally, in stressful situations like disasters, people may struggle to quickly interpret the information displayed.

Due to its limited character numbers, when communicating through display boards, a specific attention must be given to the text to make it as clear and informative as possible. Display boards should be placed at strategic geographical points where many individuals can be reached.

Type of communication channel	Advantages	Challenges	Make sure that...
 Social media	<ul style="list-style-type: none"> Less vulnerable to infrastructural damages Wider audience through citizens' post sharing Interactive, allows dialogue between FRs and citizens Allows locating people who need help Allows rapid broadcasting of updates, shelters, medical advice Allows the collection of eyewitness reports in real-time Allows the recruitment and coordination of volunteers 	<ul style="list-style-type: none"> Poor reach of social media messages posted by emergency managers – individuals' limited interest in following emergency management agencies Limited control once the message goes out Potential overflow of information Elderly and people with limited use and access to social media may be excluded. 	<ul style="list-style-type: none"> Your organisation has the skills and expertise to handle social media platforms in a proficient way You build your audience before any disaster hits You apply social listening: use tools that scan social media discussions to identify incorrect, distorted information. You undertake dialogues with citizens only if you can guarantee your responsiveness. You use social media as a complementary channel to traditional media.
 Interactive maps	<ul style="list-style-type: none"> Allows the search of specific locations Allows individuals to receive precise and targeted information about their own risk. Allows quick update of geographical data 	<ul style="list-style-type: none"> Limited to audiences with digital literacy and access to interactive maps (elderly and individuals from lower socioeconomic groups may be excluded). 	<ul style="list-style-type: none"> You regularly update interactive maps to provide real-time information about risk. You use interactive maps as complementary tools to traditional media.
 Warning apps	<ul style="list-style-type: none"> Quick way to alert people Allows raising awareness instantly Fulfils citizens' preference to be addressed directly 	<ul style="list-style-type: none"> Requires technical setup Individuals without cell phones may be excluded Requires individuals to download the app Individuals with limited digital literacy may be sceptical to use it. 	<ul style="list-style-type: none"> You have the required technical background and infrastructure to use warning apps. You promote the app before any disaster event and encourage individuals to download and use it. If needed, you teach specific groups (e.g. elderly) how to use the app. You use an app with a simple and accessible interface.
 Television, radio	<ul style="list-style-type: none"> The most dominant source of information in all stages of emergencies. Allows immediate broadcasting of urgent messages Works specifically well with the elderly. Local media seems to be even more credited 	<ul style="list-style-type: none"> Reporting may be less detailed Messages may be filtered and reframed. Vulnerable to shortage of electricity and damage of broadcast towers May exclude individuals with no access to traditional media 	<ul style="list-style-type: none"> You build a relationship with local media before the disaster event. You explain clearly to spokespersons what specific information must be included in the report. You have a back-up plan (e.g. printed media or social media) in case infrastructure for traditional media are damaged.
 Printed media	<ul style="list-style-type: none"> Specifically useful for the elderly and for communities with frequent infrastructure malfunctions and limited access to digital media. Visual materials as powerful means to raise awareness Allows the in-depth understanding of the disaster event 	<ul style="list-style-type: none"> Slower information flow and limited opportunity to provide quick updates of the situation 	<ul style="list-style-type: none"> You place posters, flyers and stickers to strategic points (e.g. bus stops, waiting halls). You use visual materials that are eye-catching, and accessible (e.g. large and readable fonts, high colour contrasts). You apply printed media as a complementary channel to television or social media.
 Social network	<ul style="list-style-type: none"> Effective way to reach certain social groups who do not engage with national news media. Can connect with people who are overlooked by mainstream communication efforts. 	<ul style="list-style-type: none"> Based on a previously established relationship and trust between emergency respondents and target groups. Requires time and effort to build before the disaster. 	<ul style="list-style-type: none"> You engage with gatekeepers within minority communities before the disaster event, and ask them to act as "ambassadors" You attend or organize local events to foster trust. You contact and partner NGOs who work with people lacking robust networks (e.g. marginalized groups)
 Face-to-face	<ul style="list-style-type: none"> Allows direct interaction between FRs and the public Builds trust towards FRs Provides emotional reassurance Allows to address specific concerns and questions directly. Focused on specific groups who are difficult to reach any other way. 	<ul style="list-style-type: none"> Requires time and effort Not effective for large-scale or widespread communication. In fast-moving emergency situations, there is limited time to speak with everyone individually. Language differences can make face-to-face communication challenging, even when using interpreters. Some people may not be able to physically access face-to-face communication points. 	<ul style="list-style-type: none"> You stay calm and at the message, even if receiving difficult questions or comments. Your body language supports your words. You use this communication type as complementary to large-scale media (e.g. television or social media). Your appearance makes you recognizable for the public When used before the disaster, you provide a suitable and accessible venue for your communication.
 Information display boards	<ul style="list-style-type: none"> Provide real-time directions Improve spatial awareness Indicate the location of rescuers Highlight safe areas Reinforce warning messages Useful to offer information to people with hearing impairments or linguistic barriers 	<ul style="list-style-type: none"> Rely on electricity to function Can only reach people within the vicinity due to fixed locations Potential clarity issues due to stress and language barriers Provide no space for interaction 	<ul style="list-style-type: none"> You use clear and simple language and large fonts that are visible from a distance. You focus on essential information and instructions, yet you stay informative. You place display boards in high-traffic, easily accessible areas. You update the information displayed, preferably in multiple languages. You have a backup power source in case of power outages.

#5:

“COMMUNICATION IS ONLY IMPORTANT DURING CRISIS”

Many people mistakenly believe that communication is only important during a disaster, focusing solely on the immediate, high-stress moments. However, effective communication is just as critical before and after the event itself. Without communication before and after, the long-term resilience of a community can be compromised, leaving people vulnerable even after the immediate danger has passed. The following paragraphs contain the most important characteristics and objectives of communication before, during and after the crisis.

Communication before the crisis ⁽⁸⁾

In the pre-event phase, communication is usually carried out with no time pressure, targeting individuals who are involved in ordinary activities or routines. Due to its low-pressure, low-stress nature, psychological processes are not exposed to any particular constraints. More importantly, citizens who may present special needs have the possibility and the time to be identified, consulted and supported.

The objectives of the pre-event phase include:

- Identifying communication goals.
- Adopting a people-centred communication approach: identify target audiences to communicate with, and evaluate their information needs and communication preferences.
- Setting up a communication team.
- Identifying communication resources and channels that can be used to reach and influence the target audiences.
- Preparing a communication plan in which all the aspects listed above have to be included.
- Preparing communication templates (e.g. social media posts) in advance that are customized to the characteristics of the selected communication channels and to the needs of the targeted audience.
- Preparing communication templates in multiple languages.
- Identifying target groups with specific needs.
- Identifying and collaborating with stakeholders (e.g. gatekeepers, ambassadors) who may support you

in spreading the word to marginalized social groups.

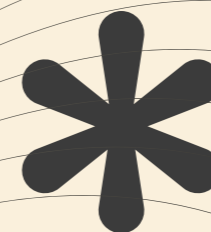
- Fostering emergency preparedness among citizens.
- Securing strong relationships with relevant news media before crises occur.
- Educating citizens in how to use different communication channels during emergencies.
- Educating, informing, and changing behaviour and attitudes through raising awareness to the risk.

Communication during the crisis ⁽⁸⁾

Communication during the crisis event is carried out under a great amount of stress and time pressure. In this phase, the communication targets an audience that is undergoing stressful and traumatic situations, and this represents a key burden in the harmonized and effective flow of information. In addition, individuals who present any special needs may not have the chance to be supported by relatives and may be incapacitated to ask for help.

The objectives of communication during crisis include:

- Alerting the public.
- Saving lives and minimizing injuries.
- Exploiting the communication strategies identified in the pre-event phase.
- Continuously updating the public on the evolution of the situation.
- Providing measures that the target groups should observe.
- Facilitating rescue response.
- Alerting the media and keeping it informed and updated.
- Monitoring and analysing what is happening on the field.
- Using information collected in advance on the target audience to frame adequate messages.
- Reaching vulnerable audiences according to the plan developed in the pre-event phase.
- Seeking the public's cooperation (e.g. activating and coordinating volunteers).
- Instructing individuals on how to behave, what to do and what not to do.
- Addressing people's concerns and showing empathy.
- Coordinating local, regional and national communication.



Communication after the crisis ⁽⁵⁾⁽⁹⁾⁽¹²⁾

Although communication after the crisis event is considered as less time-pressured, citizens are generally subject to a very high level of stress. Therefore, risk communication within this acute phase should include information about psychological support and personal crisis intervention. In addition, empirical research evidence supports the importance of learning from real life stories of successful survival rather than technical information. In addition, in the aftermath of a crisis or emergency, individuals become more receptive to information regarding mitigation and preparedness measures. As the acute post-disaster phases open a window of opportunity for preparedness, emergency responders should use this opportunity to engage in discussions on social media and disseminate information about mitigation and preparedness measures.

The objectives of communication after crisis include:

- Providing clear information about recovery efforts, available resources, and next steps.
- Managing public anxiety and emotions by providing reassurance, reducing panic, and helping the public cope with the emotional aftermath.
- Providing information to help families reunite (shelter message boards, survivor registries, etc).
- Educating citizens in risk reduction, mitigation and preparedness measures.
- Collecting lessons learned and best practices from the field.
- Communicating critical health and safety information (e.g. precautions against disease outbreaks, safe drinking water, or locations for medical assistance).
- Encouraging cooperation and community support by mobilising and coordinating volunteers and relief organisations.



#6:

“WE DON’T WANT TO INVOLVE VOLUNTEERS, BECAUSE THEY MAY CREATE CHAOS”

Spontaneous volunteers play a crucial role in disaster response, often stepping in when formal emergency systems are stretched thin or overwhelmed. These individuals, driven by a sense of urgency and compassion, provide immediate support in the form of manpower, supplies, and expertise. Their presence can significantly enhance the efficiency and reach of relief efforts, particularly in the chaotic initial stages of a disaster. While their actions may not always be coordinated, the sheer volume of spontaneous volunteers can help fill critical gaps, providing essential services like medical assistance, food distribution, and emotional support. Recognising and managing these volunteers effectively is vital to ensure their impact is maximised and resources are used efficiently during times of crisis ⁽⁹⁾.

Spontaneous volunteers are individuals who decide to volunteer periodically during a specific incident, either being independent in a self-organised group, or by volunteering for a specific organisation. Contrary to long term affiliated volunteering, they don’t remain with the same organisation for multiple years. As a result, there is often resistance from professionals and official agency volunteers to use spontaneous volunteers because they may be considered a nuisance rather than a help, which undervalues their efforts ⁽²²⁾.

Causes of resistance to include volunteers⁽⁹⁾ (21)(22)

- **Difficulty verifying identities:** the identities, qualifications, capabilities and motivations of spontaneous volunteers may not be easily verifiable.
- **Lack of training:** because of scarcity in human resources and time, onboarding for spontaneous resources is often overlooked. Hence, they are sometimes perceived as problematic due to the lack of training. Therefore, organisations may choose not to include spontaneous volunteers even though their resources would be useful.
- **Vague roles and responsibilities:** There is often a lack of awareness of the type of roles and responsibilities that would be required from volunteers. This makes their inclusion to the already existing recovery plans problematic.

The added value of volunteers⁽⁹⁾⁽²¹⁾⁽²²⁾

- **Faster recovery:** if organised well, the resource provided by spontaneous volunteers can significantly speed up community recovery.
- **Useful special skills:** spontaneous volunteers may have special skills and local knowledge which would be very beneficial for emergency management activities. By having enhanced knowledge linked to local geography and social networks, they may be able to identify and assist people in need of relief and support.
- **Legitimate stakeholders:** disaster-affected people, households and communities understand their needs better than any of the professional, government, nongovernment or corporate supporters. Especially if affected directly by the disaster, citizens may have the need to volunteer as part of their own personal recovery path.
- **Enhancing community resilience:** engaging affected people who want to help, provides communities with a means to shift away from encouraging passivity to fostering a proactive and connected community that assumes shared responsibility for emergency management.
- **Benefits for the organisation:** connecting with spontaneous volunteers may boost staff morale and productivity, as well as build relationships between the employees of the organisation and members of the community. It means a long-term benefit for future service delivery.

What can you do to ensure coordination with spontaneous volunteers?⁽⁹⁾⁽²¹⁾⁽²²⁾

While during disasters emergency organisations may be too overwhelmed to include volunteers into their work, a lot of activities can and should be done before the emergency, so that a smooth collaboration with spontaneous volunteers is ensured by the time it is needed. Here are some of the examples your organisation could do in the preparation phase:

- **Define your target group:** identify the potential volunteers your organisation would most likely need: e.g. can everyone serve as a volunteer for your purpose or only people with a certain profession? Establish a network with those stakeholders to mobilise potential volunteers through their channels (e.g. schools for pedagogic personnel, hospitals for medical staff, associations of mental health professionals).
- **Activate and boost your social media platforms:** as it provides a fast and real-time overview of citizens available and interested in helping the community, social media platforms may be powerful tools for your organisation to identify, recruit and coordinate spontaneous volunteers.
- **Set up volunteer onboarding hubs:** either repurposing an existing digital platform, or creating a new one, onboarding should start with creating a pool of potentially available volunteers, where individuals could indicate their availability, their skills, expertise and location. In addition, this hub could also serve the purpose of checking one's identity documents, thus enhancing safety, and filtering out applicants with questionable background. Bear in mind that the legal basis (GDPR) for data collection should always be ensured.
- **Management plan for roles & responsibilities:** set up an internal management plan whereby required tasks, roles and skills are matched. You can minimise the risk of engaging incompetent, underqualified or disruptive volunteers by applying a management plan whereby volunteers are assigned only to tasks they are assessed as being able to undertake. Bear in mind that after a disaster event, many essential activities may be required, and in many of them working directly with affected people can be avoided completely.

An example of tasks according to skills:

- **High-skill tasks:** search and rescue, medical aid, technical assistance (e.g. engineers, IT support)
- **Moderate-skill tasks:** logistics, resource distribution, communications
- **Low-skill tasks:** cleaning, laundry, catering, administrative duties, traffic management, basic support roles.

- **Interview applicants:** Conduct a brief interview or online assessment to gauge qualifications and suitability for various roles. Run basic background checks to ensure safety, especially for roles requiring direct interaction with vulnerable groups. Ensure volunteers are physically capable of undertaking assigned tasks, particularly those that require physical labour or fieldwork.
- **Training and orientation:** ensure volunteers are properly prepared for the tasks they are assigned to. Training for volunteers may include two consecutive steps:
 - **Basic disaster response training** to provide quick orientation on safety protocols, communication procedures, the organisational structure and disaster specific needs.
 - **Role-specific training** to offer short, focused training sessions for each role, emphasising the key responsibilities and tasks.
- **Adjust your organisational structures:** check your organisational procedures against their applicability in case of incorporating volunteers into your actions. If needed, modify them according to the requirements of collaboration.
 - Train your staff to work with spontaneous and unaffiliated volunteers.
 - Appoint specific liaison persons to connect volunteers and the organisation.
 - Appoint team leaders to guide volunteers during deployment.
 - Identify and state clearly what tasks spontaneous volunteers can conduct in emergency situations.
 - Indicate the form of deployment (e.g. volunteers can only work in pairs to ensure liability).

Communication with volunteers: the key to smooth coordination

Effective communication with volunteers during disasters is essential to ensure that relief efforts are coordinated, efficient, and safe. Clear communication helps ensure that volunteers understand their roles, the tasks at hand, and the protocols to follow, reducing the risk of errors and confusion. It also allows for quick updates on changing conditions, such as shifting disaster zones or evolving priorities, ensuring volunteers are always informed and can respond appropriately. Furthermore, maintaining open lines of communication fosters a sense of connection and support, helping to address concerns, manage stress, and maintain morale. In chaotic and high-pressure environments, strong communication is key to ensuring that volunteers are both productive and safe while working toward the overall success of the disaster response. Here are some practical tips to keep in mind when planning your communication with spontaneous volunteers.

- By stating roles, responsibilities and boundaries of spontaneous volunteers clearly, you are already one step closer to a smooth coordination with them. Make it clear how their task is linked to the ones of other volunteers and the overall emergency response procedure.

- Bear in mind that some of these individuals may have never volunteered before. By talking transparently about the tasks to undertake, you support volunteers in building clear and realistic expectations of what their contribution will be.
- Establishing steady communication channels is especially important for spontaneous volunteers before, during and after the disaster, thus keeping them in the loop of the quickly unfolding events.
- Make it clear who their contact(s) of reference will be, and how and when they can reach them.
- Supervision should be always available to spontaneous volunteers to ensure their alignment with the expectations as well as their support during the procedure.
- As volunteering during disasters may be emotionally very overwhelming, the possibility of mental health support should always be available to volunteers as well.
- After the disaster response, conduct a debriefing session with volunteers to evaluate task completion, challenges faced and any improvements to the management plan. Use this feedback to refine and improve the volunteer management plan for future disaster events.



PRACTICAL EXERCISE FOR SECTION 2.



Channelling communication: From Vulnerability to Action

This exercise builds on the “Vulnerability Mapping” you completed in Section 1. Now, we will shift our focus from identifying vulnerable groups to developing a strategy to effectively communicate with them.

1. Analyse your channels: Refer back to the vulnerable groups you identified for your region’s major natural hazard. For each group, consider the following questions based on the communication principles and channels discussed in this section:

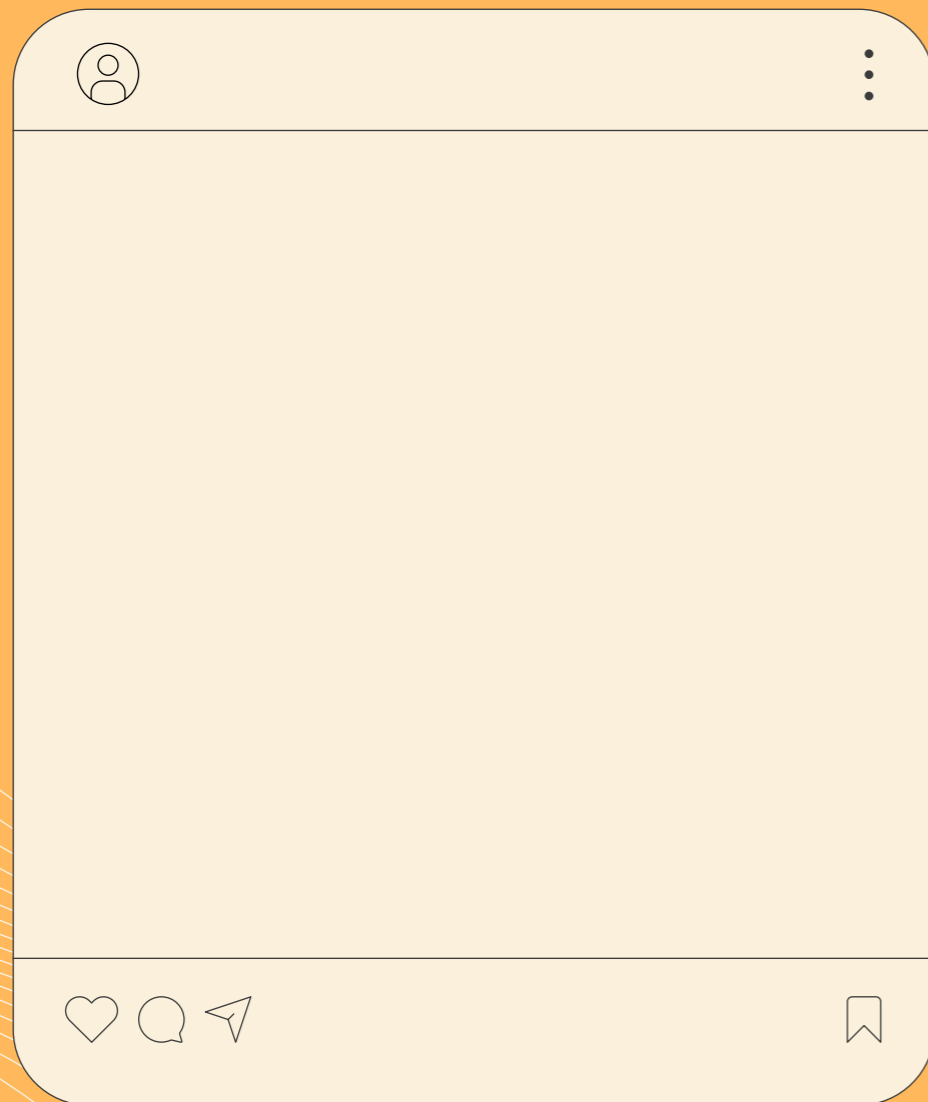
- **Channel selection:** Which communication channels (e.g., social media, traditional media, warning apps, social networks) would you use to reach them?

- **Timing:** For each selected channel, indicate whether you would use it **before, during, or after** the disaster to provide information.
- **Rationale:** Briefly explain why you chose those channels for each group. How do your choices address the specific “challenge areas” discussed in Section 2, such as lack of trust, fear of panic, or the need to provide a sense of control?

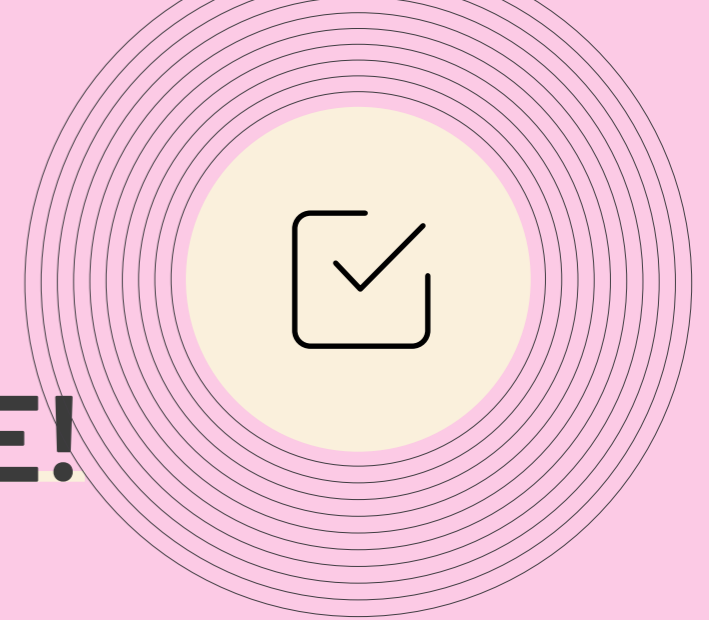


Vulnerable groups	Selected channels(s) to communicate	When to use this channel(s)? (before/during/after crisis)	Rationale behind using this channel(s)

2. Draft a warning message: Using the principles from Section 1's "Communication Checklist" and the information from this section, prepare a warning message for a social media channel. Your message should be specific to the natural hazard you chose and tailored to the needs of one of your identified vulnerable groups.



TEST YOUR KNOWLEDGE!



True or false? Withholding information from the public during a crisis can prevent panic and ensure people follow instructions without question.

- a. True
- b. False

True or false? The bias known as "herding" refers to a person's tendency to forget the lessons of past disasters.

- a. True
- b. False

A disaster management organisation wants to reach the widest possible audience during a crisis. According to the document, which of the following is the most effective approach?

- a. Use printed media like flyers and posters, as they are the most reliable in a power outage.
- b. Communicate only through mobile warning apps, as they are the fastest way to send alerts.
- c. Use a wide variety of channels, including social media, traditional media, and social networks, to maximise reach.
- d. Rely on a single, trusted channel like a national TV station to avoid confusing the public.

Which of the following is considered an added value of spontaneous volunteers during a disaster response?

- a. Their lack of training ensures they do not challenge professional methods.
- b. They are a nuisance to manage and always create chaos.
- c. They can provide useful special skills and local knowledge that professional responders may lack.
- d. Their presence decreases the resilience of the community.

Which of the following is a primary objective of the "after the crisis" communication phase?

- a. Preparing communication templates in multiple languages.
- b. Instructing individuals on how to behave during the event.
- c. Alerting the public about an imminent threat.
- d. Providing information on recovery efforts and offering psychological support.

SOURCES

¹⁴⁾Atalay, S., & Meloy, M. G. (2020). Improving evacuation compliance through control: Implications for emergency management policy and disaster communications. *Journal of Nonprofit and Public Sector Marketing*, 32(4), 364–378. <https://doi.org/10.1080/10495142.2020.1764653>

¹⁵⁾Bradley, D. T., McFarland, M., & Clarke, M. (2014). The effectiveness of disaster risk communication: A systematic review of intervention studies. *PLoS Currents Disasters*, 6. <https://doi.org/10.1371/currents.dis.349062e0db1048bb9fc3a3fa67d8a4f8>

¹⁶⁾Eisenman, D. P., Wold, J. P., Tang, C. G., Shapiro, M., Pyle, K. G., Soliz, A., & Freedman, R. (2007). The psychological impact of Hurricane Katrina on an urban-dwelling, low-income, minority population. *Disaster Medicine and Public Health Preparedness*, 1(1), 16–25. <https://doi.org/10.1097/DMP.0b013e3180456108>

¹⁷⁾ENGAGE D1.3. (2021). Communication, social media and societal resilience.

¹⁸⁾Hinata, S., Rohde, H., & Templeton, A. (2024). Communicating with the public in emergencies: A systematic review of communication approaches in emergency response. *International Journal of Disaster Risk Reduction*, 111, 104719. <https://doi.org/10.1016/j.ijdrr.2024.104719>

¹⁹⁾Meyer, R. J., & Kunreuther, H. (2017). Risk perception and decision making. In B. Frattini (Ed.), *The handbook of behavioral economics: Foundations and applications 1* (pp. 371–386). Princeton University Press.

²⁰⁾Reuter, C., Marx, A., & Pipek, V. (2012). The communication matrix: A tool for evaluating and improving emergency management communication. In M. A. W. Quack (Ed.), *Crisis communication in the age of social media*. Springer.

²¹⁾Saaroni, L. (2015). The role of spontaneous volunteers in disaster response and recovery: An exploration of the challenges and opportunities. *Journal of Emergency Management*, 13(5), 455–463.

²²⁾Sharp, E. N., & Carter, H. (2020). Examination of how social media can inform the management of volunteers during a flood disaster. *Journal of Flood Risk Management*, 13(4), e12665. <https://doi.org/10.1111/jfr3.12665>

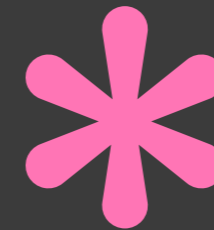
²³⁾Steensen, S., Solvoll, M. K., & Nølke, S. M. (2018). The Utøya Island Massacre and the use of social media by survivors. *Nordicom Review*, 39(2), 287–299. <https://doi.org/10.1515/nor-2018-0026>

SECTION 3.

COMMUNICATION

TIPS FOR SPECIFIC

GROUPS



In Section 3, you will find useful information and tips regarding how to communicate with certain groups that may require specific attention and care during disaster, as they may be considered as vulnerable to crisis. By developing a persona for each of these groups, we aim to provide a clear and relatable framework for taking these specific groups' perspective, understanding their needs, challenges in disaster and to support you in creating a communication style that resonates with their situation.

Read this section if you would like to know more about...

- How disasters are typically perceived by members of certain vulnerable groups.
- The challenge areas and specific needs of vulnerable groups in crisis communication.
- What communication channels are recommended to inform specific vulnerable groups about risk and crisis.
- How to make sure your message is customised to the needs of vulnerable groups.
- The primary objectives of communicating with specific vulnerable groups before, during and after a disaster.

#1:

COMMUNICATING WITH TOURISTS

Tourism plays a crucial role in enhancing both the economic and social dimensions of society. However, natural disasters can lead to substantial losses, damage tourism infrastructure, disrupt services, and pose risks to the safety and security of both travellers and local communities ⁽²⁷⁾.

Tourists often navigate unfamiliar environments, which presents several challenges, such as language barriers, unfamiliar signage and regulations, and limited connection with local communities. Additionally, since tourists are constantly moving, reaching them with timely and relevant information becomes even more difficult. Their inclination to focus on positive vacation-related content might also overshadow their receptiveness to hazard warnings. Furthermore, tourism providers may be hesitant to share security-related information with tourists, fearing it could influence travel decisions and negatively affect their business. In addition, compared to locals at a tourism destination, tourists from abroad typically employ different information-seeking

strategies. For instance, international travellers are more likely to rely on social media for updates during a crisis compared to domestic tourists ⁽²⁶⁾.

As a result, tourists are often ill-prepared for hazards and unaware of warning systems ⁽²⁴⁾. Travellers may perceive tourist destinations as controlled environments for leisure activities, but the natural areas they visit are not entirely predictable or safe, and they may become unsuitable or even hazardous. Even if tourists acknowledge the inherent risks of visiting such places, they may feel that they are not in control of the situation and that risk mitigation should fall to organisations or government authorities.



Tourist Persona: Olivia on vacation in Crete

Name:
Olivia Harris

Age:
23 years old

Context:
Olivia is a young British citizen, who just graduated from her master's at the University of Leeds. Looking for an opportunity to relax and celebrate, she decides to visit Crete, as it is famous for its spectacular beaches and vivid night life. While a seismic excitation in Crete

has been reported in the news related to high seismic risk, Olivia did not follow the news as she was busy with studying for her finals. Having her flight ticket and accommodation arranged, she is now ready to have a relaxing and carefree week of vacation.

User's perspective:

School is finally over! I can't wait to celebrate the beginning of this new chapter in my life with a relaxing week in Greece! I want to enjoy my holiday without worrying about anything, so that I can finally disconnect from the rest of the world. I saw some reels about Crete, and it looks just perfect, so I decided to travel around the island all week! Last night my Mom called me saying that there is a high

seismic risk in Crete right now, but I told her not to worry. I mean, if there was a real danger, I would have been warned by the hotel, right? I am sure it is only a matter of being overly cautious, and my Mom always worries too much. Anyway, luggage packed, let's get sun kissed!



Challenges, specific needs:

- Olivia does not speak Greek, nor is she able to read the Greek alphabet.
- Olivia does not have any geographical knowledge about the island.
- Olivia travels alone and she does not know anyone on the island.
- Olivia is in “vacation mode”, she disregards risk information that would ruin her mood.
- Olivia is not up-to-date as she did not follow the news lately and she does not follow local media.
- Olivia plans to travel around the island, making her location less predictable.
- Olivia may believe that risk mitigation measures are solely the responsibility of the hosting agencies.
- The hotel may decide to avoid communicating about their preparedness and evacuation plan, not to scare its tourists away and keep the business running.

Recommended channels to communicate:

- Social media
- Printed flyers brochures, posters
- QR codes to preparedness plans translated in several languages

Accessibility checklist:

- ✓ Messages available in several foreign languages
- ✓ Texts are accompanied by visual aids like infographics and maps
- ✓ Messages are simple, short and clear
- ✓ No local slang and complex technical terms are used
- ✓ The less abstract the warning signs, the better
- ✓ Colours are flashy, standing out from the environment
- ✓ Messages and signs are placed in popular, touristic, and visible areas

Useful tips:

- **Cultural sensitivity:** tourists may have different experiences and responses to disaster situations based on their backgrounds, so it’s important to communicate with empathy.
- **Messages prepared in advance:** to effectively communicate with tourists, prepare your message templates in advance, translated into several languages.
- **For information transfer, use the time when people do “nothing”:** Place your brochures, flyers or posters to public spaces where people have no specific thing to do (e.g. waiting halls, hotel lobbies, subways, taxi back seats).

Communication objectives with tourists throughout the disaster cycle

Before the disaster:	During the disaster:	After the disaster:
<ul style="list-style-type: none"> • Information accessibility: ensure that official websites and booking platforms include disaster preparedness information, such as the types of disasters, safety protocols and emergency contact information. • Digital campaigns: use digital campaigns on social media to share disaster preparedness tips • Use of travel agencies: partner up with travel agencies to include disaster preparedness information in their packages, ensuring tourists are informed from the start. • Clear and visible cues: provide clear and visible disaster preparedness information in hotel rooms, including evacuation plans, emergency exits, and contact numbers. • Multilingual information: place multilingual emergency signs in high-traffic areas (hotel lobbies, tourist spots, transport stations) that outline steps to take during specific disasters (e.g., earthquake, flood, fire). • Warning applications: create or partner up with existing disaster preparedness apps that tourists can download. These apps could provide alerts, maps, and real-time disaster information specific to the location. • Interactive maps: provide online maps or physical brochures showing the nearest shelters, emergency exits, hospitals, and evacuation routes. • Pre-arrival alerts: collaborate with embassies to send out pre-arrival disaster preparedness information to tourists, especially those traveling from countries prone to disasters. 	<ul style="list-style-type: none"> • Social media: use social media to reach tourists. As international travellers are more likely to adopt social media than domestic tourists, use this communication channel to keep them posted. • Calm and reassurance: in stressful situations, responders should remain calm and offer reassuring communication to avoid panic. • Step-by-step instructions: provide step-by-step instructions for evacuations, including specific routes, locations of shelters, and transportation options. Use visual signs and maps if possible. Bear in mind that you may need to navigate tourists who lack local knowledge of the area. • Managing stress: many tourists may be disoriented or fearful. Showing empathy and providing emotional support helps to maintain order and alleviate panic. • Tracking and registration: keep a record of tourists’ whereabouts and status, either through registration systems or visual identification, to ensure no one is left behind. 	<ul style="list-style-type: none"> • What’s next: provide clear updates on the recovery process, including when it will be safe to return to affected areas and where tourists can seek help. • Emotional support: recognise that tourists may be traumatised or distressed. Providing emotional support or access to counselling services is essential. • Continuous updates: continue to update tourists on the status of affected areas, transportation availability, and how to reach loved ones. • Support in logistics: offer guidance on how to rebook flights, contact embassies, and access consular services. • Share resources for tourists: including local disaster relief services, temporary accommodations, and any financial or medical support available.

#2:

COMMUNICATING WITH MINORITY/EXPATS

Studies have shown that many people from minority groups don't follow national news media as much as majority groups. This can be due to language barriers, or because they have other sources of news they rely on. Some people from minority groups may also distrust official institutions and their communication, which can lead them to follow misleading information.

Their vulnerability can also be linked to factors like not being able to afford phones, TVs, or a stable internet connection. Additionally, they may not know where to find shelters, medical help, or have unclear legal statuses (e.g., immigrants or undocumented workers), which makes it harder to access critical information.

Many people in minority groups share information with one another, either in person or online. Connecting with key figures in these communities can be an effective way to spread your message to groups that traditional media might not reach. Organising or participating in local events where informal conversations can take place is a good investment.

In some cases, people may only agree to evacuate if influential members of their community agree to do the same. That's why connecting with community leaders who can spread your message within their social networks is important. This is especially true during emergencies or times of crisis.

Non-governmental organizations (NGOs) that work with marginalised or isolated groups, such as the homeless, can also be valuable partners. These organisations can help share information about risk prevention and provide assistance during crises.

Minority Persona: Ahmed in Norway

Name:
Ahmed Ali Khan

Age:
40 years old

Context:

Ahmed, along with his wife, moved to Norway a year ago with the hope of building a better life. Currently, Ahmed and his wife rent a small, old apartment in Bakklundet, a charming neighbourhood in Trondheim. While the apartment is cozy, it is quite small and does not offer the modern amenities they had hoped for. Although Ahmed has a few Pakistani acquaintances in Trondheim,

he feels isolated. Their circle of friends remains small, and the language barrier remains a major obstacle. Ahmed and his wife feel disconnected from the wider Norwegian community. They are aware that learning the language is key to feeling more integrated, but they struggle to find the time and resources to improve their skills.

User's perspective:

It has been a year since my wife and I moved to Norway, full of hopes for a better life. But the reality has been harder than we imagined. I feel like I'm stuck between two worlds—trying to adjust to life here while still holding on to the familiar things from home. One of my biggest concerns has been the safety of our home. I don't have the resources to buy things like a fire alarm or a smoke detector—those things feel like luxuries we can't afford. There are many things I don't understand about how things work here, and fire safety is one of them. I can't help but think about what would happen if there was a

fire. I see the evacuation plans on the walls, but I don't know what they say. If there was an alarm, or if we had to evacuate, I wouldn't understand a word of the Norwegian instructions. How would I know where to go? How would I know what to do? How would I reach any place without a car? I would probably try to check with my Pakistani acquaintances in the neighbourhood or the Facebook group we have for expats in Trondheim. They might be able to help me understand, but they may not know exactly where to go either.



Challenges, specific needs:

- Ahmed does not speak the local language well enough to understand Norwegian warnings.
- Ahmed has some financial burdens that pose a challenge to equip his apartment with devices sensing the presence of fire.
- Ahmed is less mobile without having his own car.
- Ahmed does not follow the mainstream national and local media.
- Ahmed has a very limited social network, consisting mostly of other people from Pakistan.
- Ahmed is not aware of the evacuation plan of the city.

Recommended channels to communicate:

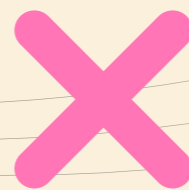
- Social network of the minority community (ambassadors, gatekeepers, and NGOs being in contact with them).
- Social media (specific groups for expat and minority communities).
- In-person events in the neighbourhood, assisted by translators.
- Printed flyers and brochures.
- QR codes to preparedness plans translated in several languages.

Accessibility checklist:

- ✓ Messages available in several foreign languages.
- ✓ Texts are accompanied by visual aids like infographics and maps.
- ✓ Messages are simple, short and clear.
- ✓ No local slang and complex technical terms are used.
- ✓ The less abstract the warning signs, the better.
- ✓ Colours are flashy, standing out from the environment.
- ✓ Messages and signs are placed in popular, central and visible areas.

Useful tips:

- **Cultural sensitivity:** People with different cultural backgrounds have different approaches to disaster, a different vocabulary and behaviour to express emotions, such as fear, grief and mourning loss. Showing patience and empathy towards them in disaster will earn reassurance, increased trust in your organisation and compliance with the instructions.



Communication objectives with minority groups throughout the disaster cycle

Before the disaster:	During the disaster:	After the disaster:
<ul style="list-style-type: none"> • Use multiple communication channels: share information through various platforms, such as social media, community centres, local gatherings, and trusted peer networks. • Translate materials: ensure emergency information is available in multiple languages, especially those spoken by the minority groups in the area. • Engage community leaders: build relationships with influential members within the minority groups, who can help relay messages effectively. • Provide clear and simple messaging: use straightforward language and visuals to explain risks and evacuation procedures. • Conduct outreach in person: organise local events, meetings, or workshops in familiar community spaces where minority groups gather, to increase trust and understanding. • Address cultural differences: be aware of and sensitive to cultural norms and values when communicating, ensuring the messaging resonates with different community groups. • Offer resources and support: provide information about shelters, healthcare services, and legal rights in accessible formats, and ensure that these resources are available in multiple languages. • Build trust: overcome distrust of official institutions by engaging in regular, transparent communication and showing commitment to the well-being of minority communities. 	<ul style="list-style-type: none"> • Activate trusted intermediaries: use community leaders, volunteers, or peers to share emergency updates and evacuation orders to the minority communities. • Ensure real-time translation: provide real-time, multilingual updates through accessible channels (e.g., radio, mobile apps, or text messages). • Simplify emergency instructions: use clear, concise, and visual communication to make sure people understand evacuation routes, shelters, and safety measures. • Leverage informal networks: make use of digital and face-to-face communication within minority communities to spread critical information. • Be flexible and adaptive: recognise that some members of minority groups may have limited access to communication technology or the internet, so provide alternative ways for them to receive information. • Be aware of language and literacy challenges: offer verbal updates in multiple languages and use interpreters or bilingual staff when necessary. 	<ul style="list-style-type: none"> • Continue engagement through trusted channels: maintain communication through community leaders or peer networks to ensure follow-up information reaches the affected groups. • Address emotional and social needs: offer psychological and emotional support, recognising the trauma that may disproportionately affect minority groups due to their vulnerable status. • Provide clear recovery information: ensure that all post-disaster recovery steps, such as claiming insurance, accessing healthcare, or rebuilding, are communicated clearly and in multiple languages. • Offer legal support: for immigrant or undocumented groups, provide clear, accessible information on their rights, available assistance, and steps to regularize their status if needed. • Ensure long-term community support: work with local NGOs to support the rebuilding of social networks and integration services for minorities who may still face challenges. • Evaluate and improve communication: collect feedback from minority communities about the effectiveness of communication strategies during the disaster to improve future preparedness.

#3:

COMMUNICATING WITH THE ELDERLY

Communicating with the elderly during disasters presents several challenges due to their unique needs and vulnerabilities. Many elderly individuals require care for various health conditions, including chronic diseases, which can make it difficult for them to respond quickly or follow evacuation instructions. Movement restrictions or physical limitations may hinder their ability to evacuate, and cognitive decline, including decreased memory and decision-making abilities, can impair their understanding of emergency information.

Additionally, hearing and visual impairments make it harder for them to receive and process crucial warnings. Some elderly people may also be reluctant to leave their homes due to fears about where they will be transported or concerns about their belongings. Furthermore, those who live alone or in isolated situations are particularly difficult to reach, which can delay or prevent timely communication, increasing their risk during a disaster⁽²⁵⁾.

Elderly Persona: Maria José and the fiery horizon

Name:

Maria José Pereira da Silva

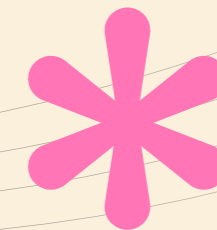
Age:

81 years old

Context:

Maria José Pereira da Silva is an 81-year-old retired woman living alone in Castelo Branco, a region in Portugal that is prone to wildfires nearly every year. She has spent most of her life in this town and is deeply connected to the local community. Maria is a widow, and her children and grandchildren live in Porto, making it difficult for her to have regular in-person contact with them. Despite the distance, she has a strong support network within her community, particularly through the church and friendships with other elderly residents. Maria's daily life is shaped by several physical challenges. Her hearing and vision are both impaired, making it harder for her to catch all the details from radio

broadcasts or TV programmes. She also struggles with osteoarthritis in her hips, which limits her mobility, and she often requires assistance when walking for longer distances. Despite these difficulties, she manages to stay independent and enjoys her routine, which includes spending time with her beloved cat, Blanca. Maria listens to the radio every day for news and enjoys watching television, which helps her stay connected to the world. However, her hearing difficulties sometimes prevent her from fully understanding news broadcasts, especially in emergencies, and her limited mobility means she might not be able to react quickly during an emergency situation like a wildfire.



User's perspective:

I've lived in Castelo Branco all my life, and I can't imagine calling anywhere else home. Every corner of this town holds a memory; every building tells a story. The church, where I've spent so many hours praying and speaking with friends, feels like a second home to me. And Blanca, my little cat, keeps me company on quiet days, curling up in my lap when the world feels still. But there's always a worry in the back of my mind, especially when summer comes, and the wind carries that dry, heavy air. The wildfires in the hills scare me, and every year, the news warns of the danger. I hear the sirens of emergency vehicles in the distance sometimes, but I know that with my hearing, I wouldn't catch the

warning in time. And with my hips—well, moving fast is no longer something I can do. If there's a fire, I won't make it to a shelter. I know that. Still, I don't worry too much. We all have our time to go, don't we? "One day we all die," my mother used to say, and I've accepted that. I'll leave when it's my time. What troubles me more than anything is the thought of Blanca. I can't bear the thought of her being alone if something happens. She's my little companion, my only family here now. I don't want to leave her behind, but I don't know how I could protect her if the flames come.

Challenges, specific needs:

- Maria's hearing impairment makes it difficult for her to perceive warning signals.
- Maria's problems with her hips limit her mobility.
- Maria lives alone with her immediate connection to the world being radio and television.
- Maria is reluctant to leave her house due to her approach to fate.
- Maria's decision to leave may be dependent on the wellbeing of her pet.

Recommended channels to communicate:

- Traditional media (radio, television).
- Face-to-face communication (also through local community and religious centres).
- Printed media (newspapers, brochures).

Accessibility checklist:

- ✓ Use simple, straightforward language.
- ✓ Avoid technical terms or jargon that may confuse elderly individuals.
- ✓ Keep sentences short and straight to the point.
- ✓ Print important information in large, easy-to-read fonts.
- ✓ Use high-contrast colours to ensure readability.
- ✓ Provide audio versions of important messages (e.g., recorded messages or phone calls), and use visual aids such as pictures, symbols, or videos to explain key points.

Useful tips:

- **Consider cognitive and memory needs:** repeat critical information multiple times and in different ways (verbally, in writing, visually). This reinforces memory and ensures they understand
- **Provide emotional support:** many elderly individuals may feel frightened or stressed during a crisis. Ensure that your tone is calm, gentle, and reassuring. Speak clearly and slowly to reduce confusion.
- **Be patient:** allow extra time for them to process information and ask questions if needed. Reassure them that it's okay to ask for clarification.
- **Involve family members or caretakers:** if available, include direct family members or caretakers of the elderly people in the communication, as they may have more trust in them to follow instructions.

Communication objectives with elderly throughout the disaster cycle

Before the disaster:	During the disaster:	After the disaster:
<ul style="list-style-type: none">• Clear and simple communication: use simple, clear language. Many elderly people may have hearing, cognitive, or language barriers, so it's essential to avoid jargon and speak slowly.• Provide written information: many seniors may not process spoken information as quickly. Providing written materials or visual aids, such as maps or checklists, can help them understand evacuation routes, emergency contacts, and preparedness steps.• Health considerations: take note of any medical conditions or medications they may need during or after a disaster. They may require special assistance or equipment like oxygen, and you should verify that this information is included in any disaster planning.	<ul style="list-style-type: none">• Calm, reassuring tone: speak in a calm and reassuring manner to prevent panic. Many elderly individuals may already be feeling vulnerable or anxious during a disaster.• Listen actively: listen to their concerns and validate their emotions. They may be anxious or confused and allowing them to express their worries can help them feel more in control.• Physical assistance: recognise that elderly individuals may have mobility issues or require additional physical assistance in evacuation, even if they are mentally alert.• Consider hearing and vision impairments: if they have hearing or vision impairments, ensure you are close enough for them to hear you or can communicate through gestures and written instructions.	<ul style="list-style-type: none">• Check for immediate needs: ensure that their immediate health, safety, and emotional needs are met. This could involve checking for injuries, providing access to medications, and addressing any shelter or food needs.• Provide clear follow-up instructions: give clear and actionable follow-up information on recovery steps, how to access aid, and any long-term recovery processes. Again, use written materials and repeat the instructions if necessary.• Support emotional well-being: the aftermath of a disaster can be emotionally overwhelming, especially for older adults who may have lost their homes or loved ones. Offer emotional support and help them access counselling or mental health services.• Maintain contact: elderly individuals may feel isolated or disconnected after a disaster. Ensure that they have ways to communicate with family members and services and check in on them regularly during the recovery process.

#4:

COMMUNICATING WITH CHILDREN

Experiencing a disaster can be especially challenging for children because they are more vulnerable to the emotional and psychological impacts of such events. Children often have a limited understanding of what's happening, which can make them feel confused, scared, and powerless.

Their sense of safety is typically rooted in their home, family, and routine, all of which can be disrupted during a disaster. This sudden loss of stability can lead to heightened anxiety, trauma, or even long-term mental health issues.

Furthermore, children may have difficulty expressing their emotions or understanding how to cope with the chaos, which can leave them feeling isolated or overwhelmed. The distressing sights, sounds, and

circumstances of a disaster can lead to fear, nightmares, or behavioural changes. For these reasons, it's essential to provide them with clear communication, emotional support, and a sense of security during and after a disaster.

If the disaster happens during daytime, it is also likely that children will be in separate locations from their parents (e.g. schools, kindergartens), which will leave them feeling even more vulnerable and scared. Therefore, a communication style that matches their needs is crucial to make them feel safe and cared for.



Child Persona: Emir and the shaking ground

Name:
Emir Can Yılmaz

Age:
8 years old

Context:

Emir lives with his parents and his newborn brother in the neighbourhood of Karşıyaka, a peaceful area of Izmir. One typical school day, while attending class, the ground beneath him begins to shake violently. The walls of the school tremble, and the whole room is filled with the terrifying sound of cracking and rumbling. Thanks to the quick thinking of his teacher, Emir and his classmates cover themselves under the desks and by the end of the quake they evacuate the building, but the shock of the event leaves him disoriented and frightened. The once-familiar streets of his neighbourhood are unrecognisable, with destroyed buildings, collapsed roads, and broken infrastructure everywhere. Sounds

of sirens, distant cries, and the aftershocks make Emir's heart race with fear. Emir is transferred to the nearest official shelter along with other students, but the environment is unfamiliar. Surrounded by strangers, some in distress and others equally lost, Emir feels alone and fragile. He clutches his backpack tightly, looking for his parents or any familiar face, but the overwhelming sense of loss and confusion paralyses him. His mind races with thoughts of his newborn brother, his parents, and whether they are okay. Amid the confusion, Emir feels small and helpless, desperately hoping someone will help him find his way back to the people who love him.

User's perspective:

I'm sitting on the floor with the other kids. A man in a uniform comes over to me. He looks nice. He asks me if I'm okay. I don't really know how to answer. My chest feels tight, and my hands are shaking. I'm too scared to talk. The man says we're going to go to a safe place, an official shelter. But all I can think about is my mom and dad. What if they don't find me? What if they're looking for me and can't see me? What if I never get to go home again? The more I think, the more scared I get. Everything feels weird, like I'm

floating or something. The man says everything will be okay, but I don't understand. How can everything be okay when I don't know where my family is? The streets are broken and everything is so loud. I don't see them anywhere. I don't know if they're safe, and I'm really scared. I just want my mom to hold my hand and my dad to pick me up and say everything's fine. But instead, I'm sitting here, and I feel so little. What will happen next?



Challenges, specific needs:

- Emir is isolated from his family.
- Emir is traumatised, not being responsive to questions.
- Emir lost his sense of physical orientation.
- Emir may not be able to read yet.

Recommended channels to communicate:

- Face-to-face communication.
- Printed visual materials.

Accessibility checklist:

- ✓ Use language that is easy for children to understand. Avoid complex or technical terms. Keep sentences short and direct.
- ✓ If you must use difficult words (like “evacuation” or “shelter”), make sure to explain them in a way children can grasp, using simple definitions or examples.
- ✓ Children respond well to visual cues. Use pictures, drawings, and universally recognised symbols to convey key messages (e.g., emergency exits, safe areas, “fire” symbols).

Useful tips:

- **Repeat key messages:** children may need to hear important information multiple times to remember and understand it.
- **Calming voice:** speak in a calm, friendly, and reassuring tone. Children are sensitive to the emotions of adults around them, so it’s important to remain composed and offer comfort.
- **Empathy:** acknowledge their feelings (e.g., “I know you’re scared, but we’re going to stay safe together”).
- **Storytelling:** sometimes telling a simple story about safety can help children process and understand a disaster scenario. For example, use a story to explain the steps of evacuation.
- **Tactile feedback:** for younger children or those with sensory issues, consider using tactile cues, like gently guiding them by the hand or offering comforting objects, to help them feel grounded.
- **Provide emotional support:** offer comfort and distraction when needed, such as telling a calming story, offering a toy, or simply being present with them. Just saying that he shouldn’t be afraid or worried may not work. It is necessary to give the message to the child that he is safe.

Communication objectives with children throughout the disaster cycle

Before the disaster:	During the disaster:	After the disaster:
<ul style="list-style-type: none">• Prepare with clear, simple messaging: before a disaster happens, communicate emergency plans in language children can understand. Use stories, cartoons, or simple visuals to explain what to do in case of an emergency. For example, explain evacuation routes and safe spots using colourful maps and images.• Practice drills: engage children in drills to help them feel familiar with what will happen. Let them know that these drills are to help them stay safe and teach them to follow adults’ instructions. It can reduce fear when a real disaster occurs.• Promote safety and control: help children understand that while disasters are scary, adults have plans to keep them safe. Explain their role in staying calm and following instructions.• Encourage questions: allow children to ask questions about what could happen during a disaster, and answer them with simple, honest information.	<ul style="list-style-type: none">• Give instructions step-by-step: children need clear, actionable instructions. Break tasks into simple steps—like, “Hold my hand,” “Follow the line,” or “Get to the door.” Repeating key instructions helps reinforce them.• Help children focus on simple tasks: in a chaotic environment, children can feel overwhelmed. Engage them in tasks they can manage, such as holding a small bag or helping guide others. This can give them a sense of control.• Keep your voice calm and steady: children pick up on the emotions of adults, so it’s important to stay calm, even if you’re feeling anxious. A soothing, steady voice will help them stay calm too.• Distractions: if possible, offer comforting items (like a favourite toy) or simple activities (such as drawing or listening to calming music) to help them focus and calm down.	<ul style="list-style-type: none">• Reassure that they’re safe: after the disaster, children may still feel uncertain or frightened. Reassure them that they are safe now and that there are people who will take care of them.• Create a sense of normalcy: after a disaster, children crave routine and stability. Offer predictable schedules for eating, sleeping, and other daily activities. This helps them feel secure even in difficult circumstances.• Familiar faces: keep children with familiar adults or caregivers as much as possible. Being with trusted people can reduce their anxiety and help them feel safe.• Explain what happens next: let children know what to expect in the upcoming days—whether it’s staying at a shelter, being with family, or returning home—and explain any changes in their environment (e.g., “We’re going to stay here for a little while to be safe”).• Encourage play: play is essential for children’s emotional recovery. Provide opportunities for children to engage in age-appropriate games and activities that allow them to express feelings in a safe way.• Ongoing support: if necessary, involve counsellors or mental health professionals to help children cope with trauma. Let children know that it’s okay to ask for help and talk about their feelings.• Offer reassurance during the search: while assisting in the reunion process, reassure children that their family members are being looked for and will be with them soon. Keep them informed about the steps being taken to reunite them with their loved ones.

#5:

COMMUNICATING WITH PEOPLE WITH DISABILITIES

Disaster communication with people with disabilities presents several unique challenges that require special attention. For individuals with visual, auditory, or cognitive impairments, receiving timely and clear information can be difficult, especially when emergency messages rely heavily on sight or sound. People with mobility impairments may face obstacles in evacuating or reaching safe areas if accessibility is not considered in the planning of emergency responses. Additionally, individuals with cognitive or developmental disabilities may struggle to process complex information during

high-stress situations, making it harder for them to follow evacuation instructions or understand the severity of the disaster. To overcome these challenges, disaster communication must be inclusive, offering alternative formats such as sign language interpreters, written text, audio descriptions, and easy-to-understand visual aids. Ensuring that emergency plans and shelters are fully accessible and that responders are trained to assist those with disabilities is essential to improving the safety and well-being of all individuals during a disaster. The following user story represents the situation of a blind person.



Visually impaired Persona: Thomas and the rising river

Name:
Thomas Dupont

Age:
52 years old

Context:

Thomas Dupont is a 52-year-old freelancer who lives in Marche-en-Famenne, a small town in Wallonia. He's blind, but that hasn't stopped him from living a fulfilling life. He's independent, works from home, and has a close-knit circle of friends in the town who help him navigate life when needed. He enjoys his daily routines and feels supported by the people around him. This spring, however, things take an unexpected turn. The weather takes a drastic change, and there's a week of intense rainfall that causes the river near his home to rise rapidly. Thomas hears the

news reports about the rising water levels and the possibility of flooding. Although he appreciates the updates, he feels uncertain about what actions he should take in case of evacuation.

His blindness makes him dependent on others for specific details and information, and he starts to feel anxious. Thomas wonders how he would be able to evacuate safely if needed, especially since his usual methods of getting around may not be effective in a flood.

User's perspective:

I'm sitting at my desk, working on my freelance projects, when I hear the news on the radio. It's a steady stream of updates about the rain that's been pouring nonstop for days. The river's getting higher, the water's rising fast, and now they're warning people about the risk of flooding. I know that flooding can be serious. The thing is, being blind makes it hard to know exactly how to react. I can't see the water creeping up or the street signs changing. I can't just look out the window to judge how bad things are. Instead, I rely on the sounds around me—the trickle of the river, the people walking by—but now, that might not be enough. What if the streets get

flooded? What if the usual landmarks that guide me through the town are gone or blocked? How will I know when I'm getting too close to danger? How will I tell if the water's rising, or if I'm in a safe area or not? I've walked these streets a thousand times, but everything could change in an instant, and I won't be able to see any of it. I feel stuck between wanting to take action and being unsure about what that action should be. It's not like I can just get in a car or follow signs or see the evacuation routes like everyone else. I need to depend on others, but I'm not sure who to turn to or how to make sure I'm ready when the time comes.



Challenges, specific needs:

- Thomas cannot visually assess the rising water levels or the condition of the streets, making it difficult for him to gauge the severity of the situation.
- Without sight, he may be unaware of which routes are safe or impassable due to flooding, making navigation difficult.
- Thomas relies on these environmental cues, but flooding may obscure or distort them, complicating his ability to orient himself.
- Thomas worries about how he would find the shelter, particularly if it's in a location he isn't familiar with.
- The combination of uncertainty, fear of being trapped, and reliance on others for support adds emotional stress, which can impair his ability to make decisions or take action when needed.

Recommended channels to communicate:

- Radio (AM/FM or digital)
- Emergency sirens
- Mobile apps with voice integration
- Text messaging services
- Tactile maps about the layout of safe zones
- Accessible social media alerts

Accessibility checklist:

- ✓ Providing important disaster updates and alerts via voice messages, whether through radio, automated phone systems, or emergency sirens with voice capability, ensures blind individuals can receive information without needing to read visual cues.
- ✓ Websites and apps should offer voice-controlled features and text-to-speech capabilities so that information can be read aloud to users.

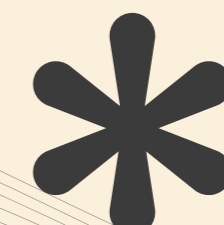
- ✓ In public spaces, using braille on signs or tactile maps enables blind individuals to navigate safely, whether they are in shelters or on evacuation routes. These materials should be in common public areas and easy to access.
- ✓ Physical, touchable guides can help blind people understand emergency procedures or evacuation plans by providing clear tactile cues, like raised lines or symbols.
- ✓ Websites, apps, and digital communications must be compatible with screen readers (software that reads aloud text displayed on screens).
- ✓ Crisis communication should use simple, direct language to ensure that blind individuals (and others with disabilities) can easily understand the message.

Useful tips:

- **Buddy systems or trusted contacts:** implement buddy systems to ensure that trusted contacts are available to check in on blind individuals during a crisis ensures that they receive the information they need.
- **Be respectful and patient:** show understanding and patience when communicating, especially during high-stress situations. It's important to respect the individual's autonomy and avoid talking down to them.
- **Consistency and reliability:** provide consistent updates through reliable channels, such as telephone, radio, and designated emergency apps. Blind individuals need to feel they can trust the information they are receiving.

Communication objectives with visually impaired individuals throughout the disaster cycle

Before the disaster:	During the disaster:	After the disaster:
<ul style="list-style-type: none"> • Personalised emergency plans: provide blind individuals with personalised plans that include specific evacuation routes, locations of accessible shelters, and contact information for trusted individuals who can assist them during a disaster. • Audio alerts: use radio, TV, and emergency alert systems to send out audio warnings about potential disasters (e.g., storms, floods, fires) well in advance. The alerts should include clear instructions on what actions to take and any important safety tips. • Community outreach: local organisations for the blind and disability advocacy groups should be included in community awareness efforts. Emergency responders should collaborate with these groups to ensure blind individuals are informed in advance. 	<ul style="list-style-type: none"> • Audio alerts and announcements: use loudspeakers, emergency sirens with voice capabilities, or automated voice services to provide critical updates during an ongoing disaster. The messages should include instructions on evacuation, shelter locations, and where to seek assistance. • Telephone hotlines: set up dedicated phone lines for individuals with disabilities, where trained operators can give specific, real-time, accessible information over the phone, ensuring blind individuals understand the steps they need to take. • Personal assistance and check-ins: ensure that emergency responders and volunteers are trained to help blind individuals. Responders should offer assistance in navigating evacuation routes, identifying shelters, and ensuring blind individuals are informed about the status of the disaster. • Use of voice prompts: implement technology that uses voice prompts to guide blind individuals. For instance, mobile apps that offer real-time updates, accessible routes, and specific instructions can be used to provide timely and accurate information. • Direct communication: emergency responders should prioritise verbal communication, speaking directly to the individual. The message should be concise, calm, and clear to avoid confusion, with step-by-step instructions. 	<ul style="list-style-type: none"> • Accessible shelter information: emergency shelters should be accessible to blind individuals. Responders should provide verbal directions to accessible shelters, offer guidance on the nearest shelter's location, and ensure that blind individuals know where to go when they arrive. Additionally, shelters should be prepared with braille signage, tactile maps, and trained staff who can assist. • Follow-up communication: responders should continue to use accessible communication methods (radio, SMS, and phone calls) to keep blind individuals updated on the situation, including new hazards, evacuation orders, and changes to safety procedures. • Assisting in family reunification: after the disaster, emergency responders should assist blind individuals in reuniting with family members. This might involve helping them locate their family in shelters or providing support for communication with loved ones. Verbal updates about the status of loved ones can also be shared via phone or direct communication. • Emotional and psychological support: offer appropriate emotional support through voice communication. Blind individuals may be especially vulnerable after a disaster, and ensuring they feel safe, connected, and informed is crucial.



TEST YOUR KNOWLEDGE!



What is the most effective approach to communicate with children during a disaster, as outlined in the provided text?

- a. Use complex, technical language to show authority
- b. Provide long, detailed explanations to help them understand the situation fully
- c. Give clear, step-by-step instructions and use a calm voice
- d. Withhold information to avoid scaring them

True or False? The document suggests that warning apps with voice integration can be an effective channel for communicating with visually impaired individuals.

- a. True
- b. False

Based on the tourist persona, what is a key reason tourists may be difficult to reach with emergency information?

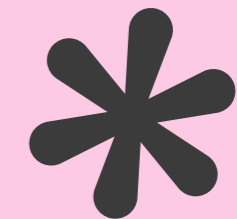
- a. They don't have mobile phones
- b. They are in 'vacation mode' and disregard risks
- c. They only trust information from their home country
- d. They do not speak any foreign languages

True or False? According to the document, an elderly person's decision to evacuate may be influenced by their emotional attachment to their belongings or their pets.

- a. True
- b. False

Which of the following is a recommended strategy for overcoming the challenge of distrust towards official institutions when communicating with minority groups?

- a. Only use national news media.
- b. Conduct door-to-door check-ins only
- c. Build relationships with community leaders and NGOs
- d. Withhold information until the disaster is over



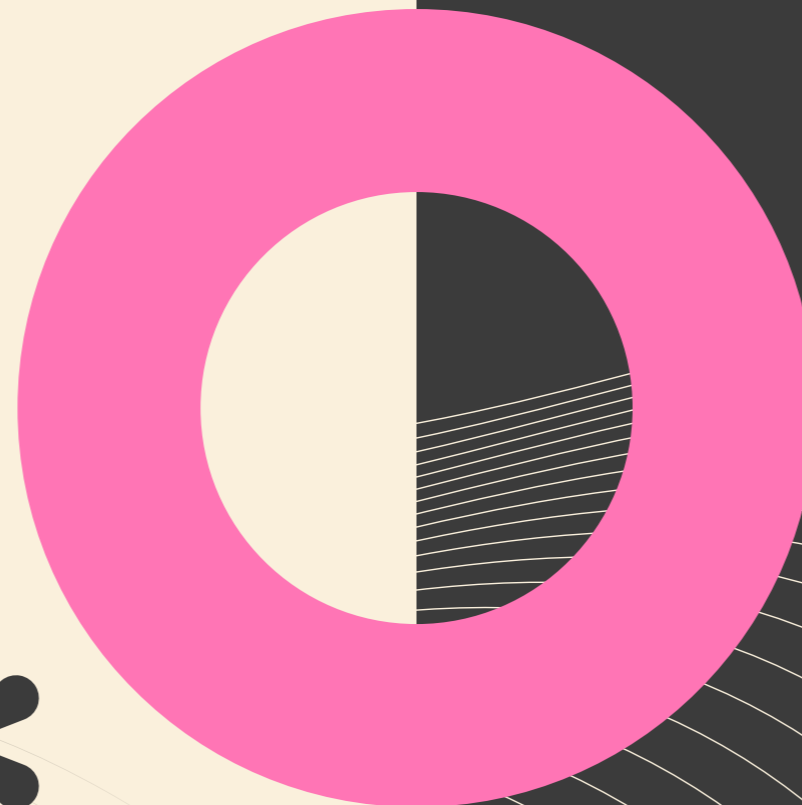
SOURCES

²⁴⁾ Aliperti, G., & Cruz, A. M. (2018). Risk communication to tourists: Towards the definition of a research agenda for a more effective disaster preparedness in Japan. *Almatourism - Journal of Tourism, Culture and Territorial Development*, 9(17), 1-12. <https://doi.org/10.6092/issn.2036-5195/8267>

²⁵⁾ Bekircan, E., & Usta, G. (2023). Disaster communication strategies and risk perception in the context of the 2023 Türkiye earthquakes. *Journal of Disaster and Risk*, 6(1), 10-22. <https://doi.org/10.37038/jdr.2023.01.002>

²⁶⁾ Liu, T., Yang, Y., Li, Q., Li, J., Ma, C., & Zhang, W. (2023). Travel risk communication on social media during COVID-19. *Journal of Hospitality and Tourism Management*, 55, 126-134. <https://doi.org/10.1016/j.jhtm.2023.03.012>

²⁷⁾ Nuriman, D. A., & Hidayat, M. (2025). Risk communication strategies in the tourism industry in disaster prone areas. *IOP Conference Series: Earth and Environmental Science*, 1438(1), 012028. doi:10.1088/1755-1315/1438/1/012028



CHECK OUT THE CORRECT ANSWERS FOR THE QUIZZES HERE!



Section 1

- | | |
|---|---------------------|
| Select all the aspects below that differentiate crisis communication from routine communication! | a) c) and d) |
| True or false? Abstract symbols are recommended to use for a multicultural audience as it is easier to interpret for individuals with diverse cultural backgrounds. | b) |
| Which of the following does not apply to the modern vulnerability concept in Disaster Risk Management? | c) |
| Which of the following best describes the primary difference between risk communication and crisis communication? | b) |
| True or false? Fatalism, a belief that all events are predetermined and unavoidable, is a trait related to the elderly. | b) |

Section 2

- | | |
|---|-----------|
| True or false? Withholding information from the public during a crisis can prevent panic and ensure people follow instructions without question. | b) |
| True or false? The bias known as “herding” refers to a person’s tendency to forget the lessons of past disasters. | b) |
| A disaster management organization wants to reach the widest possible audience during a crisis. According to the document, which of the following is the most effective approach? | c) |
| Which of the following is considered an added value of spontaneous volunteers during a disaster response? | c) |
| Which of the following is a primary objective of the “after the crisis” communication phase? | d) |

Section 3

- | | |
|---|-----------|
| What is the most effective approach to communicate with children during a disaster, as outlined in the provided text? | c) |
| True or False? The document suggests that warning apps with voice integration can be an effective channel for communicating with visually impaired individuals. | a) |
| Based on the tourist persona, what is a key reason tourists may be difficult to reach with emergency information? | b) |
| True or False? According to the document, an elderly person’s decision to evacuate may be influenced by their emotional attachment to their belongings or their pets. | a) |
| Which of the following is a recommended strategy for overcoming the challenge of distrust towards official institutions when communicating with minority groups? | c) |

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