

Annex 12: Fieldwork test and input into indicator development

This annex contains the initial empirical analysis of the indicator categories using the first 5 transcripts as a test. The analysis helped ensure some empirical input into the development of the final indicators and categories used in the analysis of all interview transcripts in the four cases study sites. Names have been removed for anonymity purposes.

(1) Openness & Transparency

Sources & connections to empirical research:

Document	Segment	Analysis
Transcript I-1_X_Mayor Malborghetto 15_04_2013	Tess: and do you think the people want any more information about any... or do you think people are happy with the information they have)	There are limits to how 'open' the information should be. Specifically limits in terms of determining what is over information.
	It is difficult to say, but if he communicated everything that comes from Trieste then people would say stop it. (all: would be too much)	It is not easy to determine if people are happy with the information they have or if they want more information.
Transcript I-4_X_Community historian 15_4_2013	With the last event, they had to rely on the newspaper and TV. The local newspaper is very important, because people could see a representation of the precipitation with water drops. When there were 6 water drops this was maybe ok, but when 12 drops this is very worrying. It was like a code. But now they do not use this anymore. It was a communication code. This was for people who do not listen to the radio, verbal communication not as effective.	Multiple sources of information are important, especially as some members of the community do not listen to the radio, need alternatives aside from verbal communication.

(2) Accountability

Sources & connections to empirical research

Document	Segment	Analysis
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Transcript I-5_X_Fire Brigade Volunteer Valbru	<p>k, do you feel the distribution of the different responsibilities with your office, with other offices you work with. Are you comfortable with it, do you think it's a good distribution? Or would you change it?)</p> <p>His main responsibilities over his... (Alessandro intervenes) it depends (Alessandro in Italian). His responsibility depends on the intervention of other authorities. I mean, if they come then they are responsible for, as we said before.</p> <p>Ok, so the main authority is basically the national fire... (Alessandro talks). In case of accidents or fires etc. While if there is, for example, a fire in the forest, the authority, the forest protection or how you call it? (Tess: the forestry service). Yes, and they call them to help them. (Tess: ok). They call the volunteers to help them.</p> <p>(Tess: So it seems it works pretty well.)</p> <p>Si, si, yes, yes</p>	<p>Related to distribution of responsibilities. Question asked to determine if responsibilities are clear and if there are any overlaps. This is not asked directly but it is hoped that this will be touched upon within the response.</p> <p>Evidence from this dialogue indicates that the local level distribution of responsibilities works quite well, that it is understood who is responsible for what and in what situations.</p>
Transcript I-5_X_Fire Brigade Volunteer Valbru	<p>(Tess: Do you have any involvement in either checking or anything involved with the mitigation measures?)</p> <p>No. (Tess: Ok, and ahm) (Alessandro speaking) If someone has a first aid training, they can help out, but not in case of emergency and other things, no.</p>	<p>(similar to previous comment, also attempt to get at monitoring and evaluation processes)</p>
Transcript I-3_X_Fire Brigade Malborghetto 15_04_	<p>(Tess: ok, and then how would you, looking at different responsibilities, how would you compare your responsibilities with to those you have to work most closely with and the distribution you think a good one)</p> <p>He says that they have almost total responsibility because they are the first ones that comes and the first one that comes has the responsibility.</p> <p>(Tess: yes, first responder...)</p> <p>Ok, when other authorities come like police, like others then the responsibility is theirs but until that time, until that that moment its... uh (Tess: so it's understood, like if there is a problem or event and they, the fire department arrive, ok they, they are in charge, they're the first ones there. Then if the police come then they are in charge?)</p> <p>Yes, yes.</p>	<p>Similar to previous comment but in terms of general knowledge of responsibilities and application of the law (e.g. that they are liable for damages, they are held accountable for any damages)</p>
Transcript I-3_X_Fire Brigade Malborghetto 15_04_	<p>They have to be careful, yes they have to be careful because if they do any damages or whatever, they are responsible for that so they... (Tess: ah ok)</p>	<p>Similar to previous comment but in terms of general knowledge of responsibilities and application of the law (e.g. that they are liable for damages, they are held accountable for any damages)</p>

		incurred as a result of their actions)
Transcript I-3_X_Fire Brigade Malborghetto 15_04_	<p>(Tess: is there any like an update or evaluation of the procedures that they have to follow, do they ever change things?)</p> <p>Within the group, there are people who did a specific training so they already know how to...basically within the group they have specific roles. There are people who coordinate the activity, who stay in the fire house, who communicate the information, who communicate to others, etc. (Tess: ok)</p>	Response is related to the assignment of roles. Appears to be an indication that roles are understood.
Transcript I-3_X_Fire Brigade Malborghetto 15_04_	<p>(Tess: and then are they involved at all in terms of the mitigation measures, either in checking things or are they not involved at all?)</p> <p>No.</p>	(related to monitoring and evaluation processes)
Transcript I-2_X_Tecnician Malborghetto 15_04_	<p>(Kathrin: can he explain how this monitoring works? How they...) He doesn't know, he has a private company, he worked for the government or for the local authorities and basically the civil protection was involved in this.</p> <p>And he wishes, that they should organize a structure to monitor each river. In general, but also for the measures that were taken, the works that were done. So, he doesn't know how this is done.</p> <p>(Kathrin: because that's the civil protection?) At the national level, they should do this, they are in charge of that.</p>	(similar to previous comment)
Transcript I-2_X_Tecnician Malborghetto 15_04_	<p>Who managed the works that have to be done...Each project then had to be submitted to a specific commission. They had to evaluate the risk of... the environmental impact. The commission evaluated all these aspects. The commission didn't give the marks to him, like in school. For example, in 1976 there was this earthquake. A commission was set up that had to evaluate the specific works that need to be done. They prepare technical documentation to refer to. In this situation, the same thing was not done...in 2003, they didn't do the same things (Tess: the same works?) No. (agreement expressed).</p> <p>Let's say it was less accurate, because In his opinion, they did not think about it too much.</p> <p>(Tess: who makes up this commission?)</p> <p>There was a commission initially who should evaluate this work. In his opinion, this commission did not have the experience and the capacity to evaluate what has to be done.</p>	Examples of when roles are assigned, it is understood who has them, there is an evaluation process, yet there may be room for improvement with the output.

He says that good things were done but also things that were done not so well. In his opinion, things could have been done better.

It could be an occasion to do better.

Transcript I-1_X_Mayor Malborghetto 15_04_2013

Tess: and do you think the people want any more information about any... or do you think people are happy with the information they have)

This is more related to openness & transparency.

It is difficult to say, but if he communicated everything that comes from Trieste then people would say stop it. (all: would be too much)

Transcript I-1_X_Mayor Malborghetto 15_04_2013

Tess: and then, would you say that it is a very good distribution of responsibilities?)

Related to the distribution of responsibilities and the clarity of roles (who is accountable for what purpose).

(Laughter) In Italy you never know how sometimes. The main people involved in L'Aquila, they were judged because they couldn't foresee the earthquake, but how can you. (Tess: yeah, seeing the news and the articles...)

He says that in general the responsibilities are well distributed however the mayor has the main responsibilities (Tess: main responsibilities falls with the mayor?) Yes, yes.

Transcript I-1_X_Mayor Malborghetto 15_04_2013

He says that here you have the civil protection and the firefighters, you have two structures and they should integrate because they sometimes because they both do the same things when you get a crisis. But you have two structures. They should integrate because at the moment you have two... (Tess: but they do the same) Yes, but they should integrate their roles in this case.

Similar to the above, though interesting as evidence here suggests perception of a need for change.

Transcript I-1_X_Mayor Malborghetto 15_04_2013	<p>(Tess: we also wanted to ask about, so we know when there's an event you have to evaluate what are we doing and how do we change the procedures we follow, so the question would be, could you maybe describe how procedures that you follow are evaluated, if there is a change that takes place)</p> <p>There is no real procedures that they have. Through volunteers they...basically he says the volunteers work with the local police in case of an event and they, the first thing they do they check if people are...because when these things happen in that case in 4 hours, 400mm of water came down, so you don't really have time, you don't have time to prepare procedures.</p>	Related to evaluation of procedures.
Transcript I-1_X_Mayor Malborghetto 15_04_2013	<p>(Kathrin: last time we were here we also saw the structural measures, the mitigation measures that you have here in the valley. Can you describe the evaluation process for these mitigation measures, are they checked?)</p> <p>After 2003, the civil protection contacted the CNR in Padova to do a....(Tess: an assessment) An assessment, yes.</p> <p>They basically, evaluated all the critical areas and they also told to move some places, some areas into other parts. They wanted to move Cuco and also Ugovizza, close to the river there is a place that is really dangerous, so they wanted to move these two places. In the end they decided to leave the places there and to make them safe which cost more than they would have...yes it is more expensive but they decided to keep the places.</p>	Similar to previous comment
Transcript I-1_X_Mayor Malborghetto 15_04_2013	<p>Kathrin: do they check these measures every few years, if they serve their purpose?)</p> <p>They monitor, he says it is enough to monitor because basically the water brings but then it takes out, it doesn't stay there. Because, basically these barriers filter the water. In case the material accumulates, then they have a road they can go and take it away.</p>	Related to evaluation and monitoring.

(3) Participation

Sources & connections to empirical research:

Document	Segment	Analysis
Transcript I-1_X_Mayor Malborghetto 15_04_2013	<p>(Tess: and are there, is there anything that is communicated about what people can do in their own home to protect themselves?)</p> <p>Through the volunteers they do some things, some activities but they don't really involve</p>	Participation through volunteerism is very strong. (population dynamics helps enable this). This involvement

	<p>the whole community in something like this, they never really did something like that because there is 1000 people here, 100 volunteers. (Italian: says so 10% of population are volunteers). (Tess: so 10% of the population are volunteers?) Yes, so it's like they are already all informed. (Kathrin: the volunteers are 10%?) Yes, 10% of the 1000 people. (Tess: so 100 volunteers and 1000 people, so they have enough, that's good)</p>	<p>helps to keep the general population informed.</p>
<p>Transcript I-1_X_Mayor Malborghetto 15_04_2013</p>	<p>(Tess: maybe, ok, we had a question about how the public is involved in different management or assessment activities. Are there ways the public can be involved?)</p> <p>Those refer to the volunteers. They found some places in case of crises, of an issue, they found some places where they should move people in the event. They are usually places far away from rivers. This is case of flooding, because in earthquake it is difficult to know. In case of flooding they found some areas where people can move</p>	<p>The involvement of the public is found through the volunteers. (the volunteers are the being communicated as the 'involved public')</p>
<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>(Tess: do you think it is more helpful or not to have the public more involved in things related to risk management?)</p> <p>He says that the local community is already involved because like 50% of the people they have or someone in family that is involved in... (Tess: that they are well connected?) Yes, in the volunteering. There are many volunteers, as he said before.</p>	<p>Again, connection of family members (i.e. general public) to the volunteers provides a high level of involvement.</p>
<p>Transcript I-5_X_Fire Brigade Volunteer Valbru</p>	<p>(Tess: but there is not so much interaction with the public) (Translator: with them, with who? The authorities?) (Tess: no, so with the volunteers and with the public that is not involved in volunteering, do they give out information for things or is that not done?) (translator: oh ok)</p> <p>No. Yes, basically they are registered and they have this insurance policy. They are covered by this insurance policies and that's it. Other people cannot interact in these activities because they are not insured. And then they have the fireman's insurance.</p> <p>(Tess: that's a good reason to not have other people get involved if they are not insured)</p> <p>They cannot be part of it because of the insurance. Ok, they can only assist for</p>	<p>Public involvement can be limited by formal mechanisms (e.g. for response must have insurance to be involved in volunteer activities). Can be involved in other ways, e.g. cooking meals.</p>

	example in a cooking or something. They can get involved in little things.	
Transcript I-5_X_Fire Brigade Volunteer Valbru	<p>(Tess: oh wow, I was just going to ask how old someone has to be because I thought wow their quite, they look pretty young)</p> <p>They have to be 18 years old. They teach small, young children.</p>	Can have also children involved, and education programs for children and young volunteers.
Transcript I-1_X_Mayor Malborghetto 15_04_2013	<p>(Tess: and are there, is there anything that is communicated about what people can do in their own home to protect themselves?)</p> <p>Through the volunteers they do some things, some activities but they don't really involve the whole community in something like this, they never really did something like that because there is 1000 people here, 100 volunteers. (Italian: says so 10% of population are volunteers). (Tess: so 10% of the population are volunteers?) Yes, so it's like they are already all informed. (Kathrin: the volunteers are 10%?) Yes, 10% of the 1000 people. (Tess: so 100 volunteers and 1000 people, so they have enough, that's good)</p>	Not so much is communicated about personal protections but there is a good system of volunteerism and this enables a perception that the community is well-informed and involved.

(4) Strategic Vision

Sources & connections to empirical research:

Document	Segment	Analysis
<p>Transcript I-1_X_Mayor Malborghetto 15_04_2013</p>	<p>This is why they are worried because it is good to do the plans, but they can be too strict.</p> <p>(Kathrin: are they taking the mitigation measures into account when they make the plans)</p> <p>Yes, now they involved technicians to try to balance this, but you can still do until a certain point.</p> <p>(Kathrin: so this is ruling over the local plan, isn't it I mean you have to...) Yes, this is up top.</p> <p>If you have a P3 or P4 area you cannot build anything there and this plan is on top of the local</p> <p>(Tess: and this is from the geological survey?)</p> <p>No, the other one is more realistic, this one is too strict.</p> <p>(Kathrin: and then they also have the one for the avalanche) I didn't understand (Tess: for the snow) Oh, yes. For the winter avalanches.</p> <p>There is a plan for winter avalanches but it depends on the amount of snow.</p> <p>This is for the geological part in Malborghetto (shows map)</p> <p>Basically now one builds there anyway (Kathrin: yes, because we know that there is...)</p> <p>Maybe there are some little pieces to correct, but as he said before this is quite ok. Yes he said this one is too strict and that one is ok (Tess: and that the hydraulic thing and that's ...ok)</p> <p>(Tess: but that one supercedes this one yes?) (Kathrin: no they are both, but that one supercedes the local land use plan) Yes.</p> <p>Sometimes this one is too strict (referring to the hydraulic map) because it takes away the only places you could build.</p>	<p>Not as directly related, can see connection to limitations placed on goals or strategic vision of the territory (and plans for territory development) based on what is permitted according to the maps of the geological survey and the water authority.</p>
<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>(Tess: and if there was maybe, if you could describe if there is a longterm strategy you have with hazard management?)</p> <p>They have specific trainings, but don't have...so they have specific trainings, for example they have trainings on the ski... (Tess: the slopes) Yeah they have specific training on those ones, searching for people or fire... (Tess: like a search and rescue) Yes.</p>	<p>Trainings can be used in preparation, here the goal can be discussed as 'being prepared for search and rescue activities', and one can see what actions, e.g. trainings, are undertaken to reach this goal (or attempt to maintain it)</p>

<p>Transcript I-4_X_Community historian 15_4_2013</p>	<p>Short vs. long term o He thinks it is something in between. It is not longterm because strategies change. The way to intervene changes, equipment also changes.</p>	<p>Can see that focuses can be long or short-term focused (sometimes a combination but often more short-term focused). However, there are reasons for this, e.g. here we see statement that there is change such as change in strategy, equipment and the way to intervene in general.</p>
<p>Transcript I-5_X_Fire Brigade Volunteer Valbru</p>	<p>(Tess: That makes sense. Would you say there is a certain strategy for like a long-term for the volunteers?)</p> <p>The whole area treated like a group volunteering together. They are starting now to.... (Alessandro talks, translator: si) just as volunteers, no civil protection, just the volunteers together. Now they are trying to do this agreement with the fire fighters on the national level. That they in case of an event, that they call them, to help them out.</p> <p>(Tess: So the local level would call the national level?)</p> <p>No, the other way around. So the national level calls the local level, so they call also intervene directly. (Tess: ah ok) Like a kind of agreement that they can also intervene directly.</p> <p>(Tess: And is this also for clarifying what they can do?)</p> <p>Yes, exactly. Because in Austria, or in Trentino they can intervene directly. They would like to do the same, you know? In case of a fire or an accident, they can't intervene by themselves, they can't intervene directly so they have to wait for them and they tell them what to do.</p>	<p>Sometimes the goal is something specific, such as the need to enable direct intervention of authorities (or in this case volunteer fire fighters) at the local level.</p>

(5) Effectiveness

Sources & connections to empirical research:

Document	Segment	Analysis
Transcript I-1_X_Mayor Malborghetto 15_04_2013	<p>Tess: maybe we skip...ok (Kathrin: ok), so we have a question, more an opinion question about... are there any existing regulations that directly affect your work that you think could be improved?)</p> <p>Yes. For his role, what he is doing? (Tess: yes)</p> <p>He says we have almost too many regulations. In Italy, the problem is they always do things after, when the event already happens (Tess: a reaction) Yeah, when the event already happens.</p> <p>They should invest more in the prevention of the event because they would spend less after... (Tess: for cleanup) Yes.</p>	<p>Can infer in terms of ideas for indicators that regulations can be less effective (less able to achieve their goals) when there are too many of them. Additionally, effectiveness must be timely in the sense that actions should be taken prior to a disaster. Effectiveness means investing also in prevention.</p>
Transcript I-2_X_Technician Malborghetto 15_04_	<p>He thinks, that in his opinion, that they could do...they could spread in a few more years... (Tess: they could have more time to...) Yes, in his opinion.</p> <p>Because you know, if you are in a hurry you don't always do so well. (Tess: ok)</p>	<p>Effectiveness can be stunted if there is not adequate time to perform actions toward meeting the objectives. (e.g. if actions are rushed)</p>
Transcript I-2_X_Technician Malborghetto 15_04_	<p>He says that you have to maintain this, you take these measures and you do this work but then you have to maintain them. You have to, you have to monitor. Because you have to verify if they work and how they react to the various events. Because sometimes they are meant for very critical events, but they cannot work for less critical events. (Kathrin: oh, ok that's interesting)</p> <p>(Tess: ok, I don't know if I understood, but for maintaining and monitoring is that about the utilities, the gas and these he talked about?) No, no (Kathrin: the mitigation measures) The measures (Tess: oh the measure themselves) The measures themselves, yes.</p> <p>(Tess: so they are good for the big events, but for the small events...) Yes, they can, they have to monitor because they can work for big events but</p>	<p>To ensure effective measures are taken, it is necessary to maintain measures (so that they continue to meet the purpose for which they were created) and to ensure that appropriate measures were taken in the first place. (e.g. here the perception is that the size of the structural measures meet the objectives for large-scale events but not for smaller events).</p>

	not for the small events, this is why you have to monitor.	
Transcript I-3_X_Fire Brigade Malborghetto 15_04_	(Tess: And then for the early warning systems in this area, could you maybe describe these and what you think of these?) The early warning? (Tess: yes, ...page three?) In his opinion this is good.	Statement here implying that the early warning system does not need to be improved.

(6) Efficiency

Sources & connections to empirical research:

Document	Segment	Analysis
Transcript I-1_X_Mayor Malborghetto 15_04_2013	(Tess: so issues happen at the local level and the mayor makes decisions at the local level...is this the best place, level to make the decisions?) Obviously if the municipality is big, then there are many people, there is a problem. But here, there is like 1000 people in a big area so it is easier to manage.	Need for most appropriate level (as local as possible) to be responsible, make decisions, and respond to the situation.

(7) Equity

Sources & connections to empirical research:

Document	Segment	Analysis
Transcript I-1_X_Mayor Malborghetto 15_04_2013	He says that the problem of snow is not as big as the other one but, as flooding, but he says that in some cases there can be some houses that get isolated. So, it becomes a problem. (Tess: you can't get to...) Yes, you can't get to them. Basically, he says that since this area is very big, in 2008 there was a lot of snow so it took like a week to get to the certain isolated areas...(brief pause)...to open the road, I mean because you can get to there but you have to clear the road and make it available. So it took a lot in 2008-2009 so this presented a problem.	Isolated areas are a problem; it can take a week to reach some places.

<p>Transcript I-1_X_Mayor Malborghetto 15_04_2013</p>	<p>It depends on the susceptibility of people, how they react. There are some people that get scared very quickly and some others that do not. Especially in Ugovizza, when you get this heavy rain, you feel safer, he says you can really see that the area is really safe. He says this is the perception of everyone, that everyone feels safer now</p> <p>(Tess: now after these measures) Yes. Now, after these measures</p>	<p>How vulnerable people, or groups, are depends on how they react. Measures can help ensure that those who are vulnerable feel safe (helps change the perception)</p>
<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>(Tess: so then, I guess in this area are there some people that would be more vulnerable than other people, either older people or...?)</p> <p>The most vulnerable are the ones that are not part of the volunteers. You have to be prepared, but you are never prepared enough. Basically the people that are not part of the volunteers are completely out of the situation (Tess: ok)</p> <p>He made an example that 2003 it happened that they lost a friend, because what happened that the bridge, they went to the church to make it safe and the bridge was stuck they couldn't go through and they decided to leave the van there and to go to the mountain to protect yourself. And if you are not a volunteer, perhaps you try anyway to cross the bridge, but in that case...(Tess: because you don't know how to do, how to react) Yes</p> <p>They, the first ones that intervene are the most affected by the risk, but if they look at who died in 2003, were ordinary people. Because they told them to move to the first or the second flood and they didn't listen and they remained downstairs and this water (Kathrin: debris flow) and materials arrived. He wanted to say that the local community is the one that is... (Tess: can be most vulnerable if they don't listen to them...) Yes</p>	<p>Distance from knowledge networks, e.g. volunteers, also makes some people more vulnerable than others. Some people do not have a connection to the volunteers and this makes them more vulnerable (they are not as readily privy to knowledge). People who do not know what to do are also at a disadvantage and can be more vulnerable (e.g. may take actions that put them at greater risk). Some people also do not listen to safety information and suffer negative consequences (are more vulnerable, and are more greatly impacted).</p>
<p>Transcript I-4_X_Community historian 15_4_2013</p>	<p>Are people in the community affected equally?</p> <p>o In Ugovizza (2003) all (or at least most) were evacuated, soldiers had to intervene in this action. Certain people who live on the mountains could not be evacuated, had to evacuate through Austria. Some were more isolated. The evacuation lasted for 20 days. All these families were brought to a community (this was not easy) families were not so open so to live together is not so easy and there were some small problems.</p>	<p>Isolated areas are a problem. (difficult to reach)</p>
<p>Transcript I-5_X_Fire Brigade Volunteer Valbru</p>	<p>(Tess: In your community, are there people who are more affected or less affected by...)</p> <p>More or less the same for everyone, because they are ready to intervene. He thinks the events can</p>	<p>All people can be affected. There is a certain level of vulnerability for all people. Some people are more</p>

	<p>affect all in the same way more or less</p> <p>(Tess: I ask because I wonder if spatially there are some areas in the community that are more...people can have more risk or be more vulnerable.)</p> <p>For landslides, no. But for flooding there may be high level of water...Ok, so some areas that are more vulnerable, so people there are more vulnerable.</p>	<p>vulnerable depending on the areas in which they live (e.g. for flooding some areas are vulnerable, thus the people living there are also more vulnerable).</p>
<p>Transcript I-1_X_Mayor Malborghetto 15_04_2013</p>	<p>He says that the problem of snow is not as big as the other one but, as flooding, but he says that in some cases there can be some houses that get isolated. So, it becomes a problem.</p> <p>(Tess: you can't get to...) Yes, you can't get to them.</p> <p>Basically, he says that since this area is very big, in 2008 there was a lot of snow so it took like a week to get to the certain isolated areas...(brief pause)...to open the road, I mean because you can get to there but you have to clear the road and make it available. So it took a lot in 2008-2009 so this presented a problem.</p>	<p>Isolation of houses is a problem. The area is big and there are isolated areas that are difficult to reach (it may take a week or more to reach these areas).</p>

(8) Feasible & Sustainable **CATEGORY REALLOCATED**

Sources & connections to empirical research:

Document	Segment	Analysis
<p>Transcript I-1_X_Mayor Malborghetto 15_04_2013</p>	<p>(Kathrin: you would think that investing in prevention measures would have an economic benefit in the long term?)</p> <p>Yes, in the campaigns when they have to get voted everyone talks about it but then nobody does it</p>	<p>A long term perspective is often publically promoted; however, this not always put into practice (referring to campaigns).</p>
<p>Transcript I-1_X_Mayor Malborghetto 15_04_2013</p>	<p>(Tess: we have a question about what kind of resources he relies on...) For the prevention? (Tess: yes)</p> <p>Yes, there are national resources, but no one decides... they should decide they should say we put this amount of money into prevention but no one decides this. This is the problem.</p>	<p>It can be the case that decisions which promote prevention development are not made (e.g. no one deciding to put money in for prevention) which may create a problem for the feasibility of implementing preventative measures (actions).</p>

Transcript I-2_X_Technician Malborghetto 15_04_	They didn't think only about the big event but also they, they also take into consideration other kinds of events, you know small events. So they created the structure that could be... (Tess: used for...) Yeah, but could work and be maintained in the long term.	This dialogue provides evidence a framework created within a long-term perspective.
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(9) Trust

Sources & connections to empirical research

Document	Segment	Analysis
Transcript I-5_X_Fire Brigade Volunteer Valbru	<p>(Tess: When you work with different authorities, are there some examples you have where there is a strong level of trust?)</p> <p>For example when some events happen the mayor himself calls them up and says, "please check this area" or "can you check the other area". When there is a heavy rain, he calls them up and says to check the most risky areas.</p> <p>(Tess: So it's a good demonstration that the mayor has a lot of trust in them. (Yes.)</p>	A strong level of trust is demonstrated in the selective reliance of one authority on another.
Transcript I-3_X_Fire Brigade Malborghetto 15_04_	<p>(Tess: are there some examples in past events, in past emergencies were there is a strong level of trust?...with other authorities?)</p> <p>Yes, there is a trust because other authorities know they are present on the territory. Yes, the authorities are happy that they are here, you know about their presence because they know very well the territory because the one who knows the territory know how to act because if others from other areas intervene, they don't know so much the territory so it's more difficult for them (Tess: ah ok, they have a local knowledge) Yes (Tess: ok)</p>	<p>Evidence from past events can indicate whether or not there is a good foundation of trust between authorities.</p> <p>Confidence in the abilities of authorities is also a good sign of trust.</p>

Transcript I-1_X_Mayor Malborghetto 15_04_2013	<p>He says that now, at the national and regional level they warn for each heavy rain so he says I cannot you know warn people once or twice a month because it's... (Kathrin: not credible) (Tess: too much) Yes.</p> <p>He says that this problem is more an Italian thing because he says everyone says I don't want to feel responsible so at the end they warn and warn and the last person is the mayor so he is the one who has the responsibilities, so he gets all these warnings (all: laughter)</p> <p>He says then you lose credibility (Tess: the boy who cried wolf) Yes, the wolf story. Yeah you don't get credibility.</p>	<p>Trust is also connected with the supply of appropriate information. This is related explicitly with the confidence the public has in the ability of authorities to give them proper warning and information in general.</p>
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(10) Resources

Sources & connections to empirical research

Document	Segment	Analysis
Transcript I-1_X_Mayor Malborghetto 15_04_2013	<p>The main problem at that time was the communication, they could not communicate because the phones didn't work so that was the main problem.</p> <p>(Tess: and now do they have radio or something to fix the problem they had before)</p> <p>Yes, now they have these radios and they communicate with the regional level, at the local with the regional level.</p>	<p>Resources enabling communication are of key importance (esp. within the response phase). This was recognized and a problem solved for lack of communications equipment. Needed radio, phone network not as reliable.</p>

**Transcript I-
1_X_Mayor
Malborghetto
15_04_2013**

(Tess: ok, and then for when during an emergency and for when fixing things after, we want to ask do they feel they have what they need in terms of timing, finances, equipment...)

Local funds used to manage events. For major events, however, the municipal (local) level does not enough financial resources by itself and must rely on higher levels (incl. national and EU). Sometimes higher levels do not have the money and it is not possible for there to be enough financial resources. There is fear in terms of the lack financial resources in general related to global economic crisis.

At the instance, yes because they have local, they have their own funds available to manage this. But when, these events happen, like the events in 2003 they need the national level. 200 million euros were spent for this event. In 2003, this amount of money were needed to re-establish everything but obviously, the municipality does not have this amount of money.

In that time, they were lucky because they managed to get the resources needed. Last year in Lombardy for example, they didn't have enough money to manage the events (side note: from the recording it sounds like another place is mentioned but it is difficult to figure out what this place is)

(Tess: so sometimes you can't)

Yes, depends on how much money is available at the national level. If they used everything before then...

At the moment, Italy is quite... it's a global crisis but in Italy it is quite bad because now there is not much resources

**Transcript I-
2_X_Technician
Malborghetto
15_04_**

He says that this has certain consequences that we will see later on. The problem was that they took all this material from the places where people lived and they had nowhere to put anything, you know they had no place to put all this material (Tess: and material is it also things that were broken or damaged?)

An issue if what to do with the removed material and debris.

He treated 85,000 cubic meters of material. It was all kind of material. It was everything from usual material to rubbish, so was everythin.

(Tess: and it's not very safe, yes, this material?)

(Tess: I mean also with the sewerage...)

Yes, because they divided every kind of material and they analysed to see if it was dangerous. They removed all the plastic, they divided, they checked what kind of material it was in order to reuse it.

(Tess: sounds like quite a lot of work)

Yes. The area is quite small but there was a lot, even though the area is small there was a lot to do and you had to be very quick (Tess: you need to be very quick) Yes.

<p>Transcript I-2_X_Technician Malborghetto 15_04_</p>	<p>They were involved in a general study of this area. There are three gas systems (Tess: gas systems, like the utilities for gas?) Yes. (Tess: ok)</p> <p>They had to protect these systems (Tess: oh yeah) so this sometimes had an impact on the river so this created some problems.</p>	<p>There is also a need to protect vital resources such as critical infrastructure (e.g. gas pipelines in this case).</p>
<p>Transcript I-2_X_Technician Malborghetto 15_04_</p>	<p>(Tess: we don't have so much time left, but we would like to ask about the resources... so the question I have is about the resources, and if you could elaborate on what kind of information or resources like equipment, exper...sorry, or financial resources you have to rely on)</p> <p>He needs to rely on financial resources that are given to him at the national level or...?</p> <p>(Tess: for him to do, to fulfil his responsibilities, what are the important resources...)</p> <p>For each work, for each project, they received certain financial resources (Tess: from?) from the government. Specific for the events that occur. (Tess: ah ok, so it happens after the event occurs?)</p> <p>Yes, after. He has to make, civil protection prepared an estimate based on the event. To restore the local places and the rivers after the event, you know to make them safe. (Tess: okay)</p> <p>(Tess: and does he feel he has, not just just finances, but in terms of equipment etc. Does he feel he has adequate, does he feel he has what he needs?)</p> <p>Personally? (Tess: yeah)</p> <p>He is...as a professional studio he doesn't have a problem with how to ...(Tess: do what he needs to do) Yeah and sometimes he relies to universities and institutions. (Tess: ok)</p>	<p>Projects receive financial resources from the state for making civil protection related estimations, e.g. for restoring the area to previous conditions after an event. Some resources are enabled through cooperations with other stakeholders, e.g. like universities and institutions.</p>
<p>Transcript I-2_X_Technician Malborghetto 15_04_</p>	<p>He says, as he said several times now at the end of his career, there is a lack of structure like an institution that could collect the data about the events. Because the important element to take the actions is to have the data available.</p> <p>To maintain to monitor the works that have been done, because otherwise you just work occassionally just you know you just do things... (Tess: reactively, like not so much on a regular...) Yes.</p>	<p>There is a need for a system or structure in which data is collected about events. This is also important (the gathering of information) for the maintenance and monitoring of works. Without this kind of data, the actions taken are more reactive.</p>

<p>Transcript I-2_X_Technician Malborghetto 15_04_</p>	<p>Tess: I think we just had one last question and that was about... (Kathrin: the uncertainty of the information you have, is that a problem that the models or the information itself, the data is...)(Tess: is not certain) (Kathrin: yes)?</p> <p>Through the research on the local, the whole area of the river, but not always is this enough. (Tess: there is not always enough information?)</p> <p>No, is not always enough, this kind of approach is not enough to face the...(Tess: it sounds like it's a bit difficult to overcome, it causes a problem and there is not enough information to overcome this problem?) (bell ringing in the background)</p> <p>It's important to have the information, it is important to know the story of the area but you know you don't have a register with everything include of what happens.</p> <p>There's no scientific approach to... This could be a solution that would reduce the risk.</p>	<p>There is a need for a place in which the information is gathered (e.g. information should be registered, or put together). This should include information on the story of the area and what has happened. There is a need to have a scientific approach for this gathering of information.</p>
<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>(Tess: and for the resources that..., you described about the personnel sometimes there's not enough, but in terms of information or equipment are you pretty happy with...)</p> <p>(Tess: in compared to other places?)</p> <p>He said it is good because in 2003, in the fire house all the materials... (Kathrin: they lost) yes, they lost everything, all the materials, so this is why...)(Tess: oh)</p> <p>Then the civil protection sent some financial resources and they managed to buy...(Tess: ok)</p>	<p>Financial resources are in cases sent by higher levels to restock equipment lost during an event at lower levels.</p>

<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>(Tess: ok, and I think the last...about the information, I guess the question here would be about what's the most important information you need to do your work, is it people call in and that's the information?... or receiving information from other authorities?)</p> <p>There is no difference, he knows he needs to do this, but there is no difference.</p> <p>(Tess: ok, but the information they receive, that they have to work with is the information they receive from people calling and from the authorities...that what they have to work with. I'm trying to ask about what information do they receive that they have to work with and if that is primarily the people who call in and from other authorities?) They receive information from people who call and from other authorities, this is what he says (Tess: yeah, ok) There is no difference.</p> <p>He says...ok, he says that sometimes they...basically he says that information they receive, it is quick and sometimes it could be quicker. And also, when they get to the place, they don't know, they don't have the information what they have to bring and how they have to intervene. For example, when they made the (unclear word) in Aquila this was the case. (Tess: ok)</p> <p>Because sometimes it happened, they arrived to a place and they are asked why didn't you bring this or that equipment. Or when they come to Aquila they didn't know, they didn't have where to sleep, it's a sleeping bag they could have with then so there is a lack of information in this way</p>	<p>Need to have information from both the public and authorities. Need to improve information to make ensure authorities know what resources need to be brought (management of resource deployment)</p>
<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>He says that it is very important that the presence of the local people in the territory because the civil protection warns them that there is a danger coming up. But they know where to go, they already know because they know the territory.</p>	<p>Importance of local knowledge and awareness. (local level people know where to go and where is safe)</p>
<p>Transcript I-4_X_Community historian 15_4_2013</p>	<p>Information for the public: are people interested in receiving more information? o The local community is well informed, it is natural for people, they feel it.</p>	<p>People seem to have their own feeling or intuition as a source of knowledge.</p>
<p>Transcript I-5_X_Fire Brigade Volunteer Valbru</p>	<p>(Tess: ok, and do you think, as a member of the public, do you feel you have enough information on the flooding and risks in your area?)</p> <p>Yes, he has enough information, yes.</p>	<p>People have enough information.</p>
<p>Transcript I-5_X_Fire Brigade Volunteer Valbru</p>	<p>(Tess: And to communicate is that via phone or email?)</p> <p>Telephone. They have this radio, they have their own line and then they have (unclear word) in Trieste and</p>	<p>Resources especially for communication and transport include: radio (own transmission line), helicopter.</p>

	Palmanova, and a helicopter. And if the helicopter intervenes, they can communicate with them, too.	
Transcript I-5_X_Fire Brigade Volunteer Valbru	<p>(Tess: I also wanted to ask about the resources they have available to them. What are their most important resources? Equipment, finances, timing?)</p> <p>With the equipment, they are ok. But they need some vehicles, because if there is many of them, they can't stay all together.</p> <p>(Tess: Compared to other areas, are the resources here pretty similar to what's available elsewhere?)</p> <p>For what they have to do, they are quite a... (Tess: fine) yeah, yeah, they are quite good). This is for the fires. But what considers the flooding...(Alessandro talking) For the flooding, the other areas, they have bigger equipment while here they didn't. So they're ok with the fires, but for the flooding, compared to other areas, they don't have big equipment. So then they have to ask private companies, you know, for this machines.</p>	Level of equipment is ok. Need for some vehicles. Needs for resources differ depending on the type of event. In general for transportation, it is important to have adequate transport to ensure that authorities and volunteers can all be where they need to be.

(11) Coordination

Sources & connections to empirical research

Document	Segment	Analysis
Transcript I-1_X_Mayor Malborghetto 15_04_2013	<p>Kathrin, but this is only for, this is specifically for early warning?)</p> <p>Yes, they are early warning. They transfer the information to Palmanova to you know warn if there is something. This system he was talking about is for the weather, for you know the rain. While for the earthquake, there is another system which is already in place at the regional level.</p>	Provides some information about the systems in place for communication of early warning information. Also provides an example of an input of information from the lower, more local to the higher, regional level.

<p>Transcript I-1_X_Mayor Malborghetto 15_04_2013</p>	<p>(Tess: if we can ask, we have a few questions related to communication)</p> <p>Yes</p> <p>(Tess: the question we want to ask is if you can describe how you communicate some of the risk related information to the public and what kind of information you communicate)</p> <p>There is a civil protection at the national level which communicates with the regional level which concerns the raining, basically what you can foresee. For the earthquake you cannot foresee, but...</p> <p>And then the mayor gets the information, a message or an email about this warning, and the group from the civil protection at the local level. They all get this information.</p> <p>He says that now, at the national and regional level they warn for each heavy rain so he says I cannot you know warn people once or twice a month because it's... (Kathrin: not credible) (Tess: too much) Yes.</p>	<p>Information is communicated between different levels (national regional, local). At the local level, the mayor and local civil protection receives a message about the early warning. But every time there is rain there is a message, and this can be too much. They should not warn people too often.</p>
<p>Transcript I-1_X_Mayor Malborghetto 15_04_2013</p>	<p>He says there are these warnings, but he doesn't really communicate the warnings each time so basically this is the group of people who have some volunteers underneath and then they communicate to other people or else there are newspapers where they read because he said the page that they read the most is the one about the weather forecast. You know people look there directly.</p>	<p>Coordination at the local level especially operates with and benefits from volunteer systems. Volunteers as well as the media is where the information comes from. People are aware of this.</p>
<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>(Tess: ok, then maybe, and again maybe this is a broad question, but can you describe or do you communicate to any kind of risk related information to other authorities or to the public?) (comment: question asked sounds like it is just asking about the public)</p> <p>They are, as he said before, they are volunteers, but they have a kind of alarm in their main office, let's say in the structure... (interviewee says 'firehouse'). They basically communicate through these kind of signals and these alarms. People already know that if the alarm starts then there is a warning, then there is an emergency.</p> <p>(Tess: ok, so the communication is mainly just when there is an emergency, yes?)</p> <p>Exacto.</p>	<p>The volunteers coordinate the alarm and relaying of information.</p>

Transcript I-3_X_Fire Brigade Malborghetto 15_04_	<p>(Tess: ok, and could you maybe describe, some examples of how you work with, the coordination with other authorities, how that works?)</p> <p>They receive a phone call from a person. He warns them, the other fire volunteers by an alarm or by mobile. (Tess: ok)</p> <p>Now, he's talking about everything that happens locally. If it happens nationally they get a call from the civil protection.</p> <p>They receive the call and on the territory they should be there within 5 or 6 minutes in the event of the...</p> <p>While on a national level they have three hours time to be ready (Tess: ok)</p>	<p>A communication system within authorities (or in this case volunteer fire brigade) exists to transmit warning information. (use of mobile and alarm). This is in the case of a local situation. On a larger scale, notification comes from a higher level, (depends on scale at which event occurs). There are procedures for the time in which they must arrive.</p>
Transcript I-3_X_Fire Brigade Malborghetto 15_04_	<p>All the other things are managed by the civil protection. While, the Piano de Regolatore is just, is not in case of emergencies it is just for the buildings and... (Kathrin: yes, but they have to include for example, they have to take care that there are areas kept free for emergency response, so that the fire trucks or fire vans can...) Ah, ok</p> <p>He says there is a communication between them and who is making the piano...but there is occasional when, when events happen, but after events happen communication comes into place but for the rest of the time, no</p> <p>(Kathrin: would he like to have more information from them or would they...) Yes</p> <p>Yes, but not like they take a piece of paper and individuate the risky areas and the cross everything and they don't see each other again, not in this way.</p>	<p>There is a need for better coordination between emergency response services and those who make land use plans. Coordination at the moment occurs when events happen but does not occur outside of this. This should be remedied and coordination created in a more regular, personal way.</p>
Transcript I-4_X_Community historian 15_4_2013	<p>Information is received from the civil protection. It is very generic information.</p>	<p>People receive very generic information from the civil protection (implied in interview information too general)</p>
Transcript I-4_X_Community historian 15_4_2013	<p>The fire fighters focus on damage o The volunteers organize work for the community e.g. what people need, e.g. where to sleep, what needs to be done. All coordinate with the mayor and the local administration</p>	<p>The fire brigade volunteers coordinate with the mayor and local administration to organize a response to the needs of the community (e.g. shelter, tasks)</p>
Transcript I-5_X_Fire Brigade Volunteer Valbru	<p>(Tess: and ok, so they are involved in the civil protection. So then do you in what you do, do you communicate information that's related to these risks with other authorities or with the public?) (translation)</p> <p>Certainly. Yes. So with the municipality and with the civil protection in Palmanova (Tess: the regional level) Yes.</p>	<p>Information from the local fire brigade volunteers is communicated and coordination occurs with the other authorities (e.g. the municipality and civil protection at the regional level)</p>

	And for certain events they communicate with Austria and Slovenia also.	
Transcript I-5_X_Fire Brigade Volunteer Valbruna	<p>(Tess: Ok, and how would you describe your coordination with the people you have to work most directly with? How would you describe normal cooperations?)</p> <p>Ok, people call him. He calls people that he needs. He sends a SMS or he calls them. And if he's not here, there is a person that is underneath him. And if he doesn't have resources available, I mean as people, then he calls other communities like Camparosso and other places.</p> <p>(Tess: And that works pretty well?) Yes.</p>	There is a good coordination at the local level in terms of communication. People call directly to the volunteers. The volunteers can contact other volunteers in other areas in case they are in need (e.g. resources).
Transcript I-5_X_Fire Brigade Volunteer Valbru	<p>(Tess: If there is ever a disagreement between the volunteers and other authorities, how do they work out the disagreement?)</p> <p>There are not many problems. They try to solve the issues straight away and there are not many disagreements. Otherwise they don't intervene. Because they have to act quickly. In those times you can't really... (Tess: you can't make a disagreement) The first one that comes is always welcome.</p>	Coordination also functions well out of necessity. There is little room for argumentation in the case of an event. In practice, there are not many disagreements and effort is made to resolve issues straight away.
Transcript I-5_X_Fire Brigade Volunteer Valbru	<p>(Kathrin: Does he think he could provide planners with this information that he has of places that could be used (translator: to you?) No, to the people that make the plans?)</p> <p>Yes, he thinks so.</p> <p>(Kathrin: Has he been asked? Or is there a special...)(translator already asks)</p> <p>The mayor asked him. The mayor said: "You are the ones that know the area and what happens". So he asked them to get involved into this.</p> <p>(Kathrin: Is there also a vice-versa, that they receive information? Would they like to receive information when for example there is a new development.)</p> <p>They are still waiting for a plan, also in other areas. At least for this municipal it's here.</p>	There is room for improved coordination between emergency response groups and those who make the plans.

<p>Transcript I-5_X_Fire Brigade Volunteer Valbru</p>	<p>In this municipality, there are three groups of volunteers. This one, Ugovizza and Malborghetto. So also for the municipality it can be financially a little bit (all: yeah), because it is three of them.</p> <p>(Tess: But it's still necessary to have because you have a big territory.)</p> <p>In this way, it's quicker, you know, if you have to intervene it's quicker in this way. And each group knows their territory.</p> <p>(Tess: That's better for responding and intervening, yeah)</p> <p>In the past, almost every village had its own group of volunteers, because you didn't have the vehicles to move around. Walking, or with horses but now... (laughing)</p>	<p>Coordination between authorities for emergency response is managed through multiple groups in order to better cover the territory. The coverage of the territory is well coordinated, though sometimes it can be difficult to have enough financial resources for each place.</p>
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(12) Cooperation

Sources & connections to empirical research

Document	Segment	Analysis
<p>Transcript I-1_X_Mayor Malborghetto 15_04_2013</p>	<p>(Tess: And then is there anything that we didn't ask you that you feel is important to communicate?)</p> <p>He says that when this event happened, the collaboration with the neighbors was very important, with Austria and Slovenia.</p> <p>(Kathrin: and also with neighboring communities) Yes, yes. There was a good collaboration with Carinthia because they play together in the summer. The firefighters they do some games in the summer.</p> <p>Since they know each other, so in the case of this event, they came and helped a lot, so it was a good collaboration.</p> <p>Ugovizza has less than 400, so after the flooding were 400 volunteers. (laughter)</p> <p>(all: there were more volunteers than people)</p>	<p>Collaboration between neighboring communities is very strong. There is a very strong sense of solidarity. Sometimes more volunteers than people.</p>
<p>Transcript I-2_X_Technician Malborghetto 15_04_</p>	<p>He was in charge of removing all these materials. He was also involved in the smaller rivers. (brief pause) (Tess: and clearing things out of the rivers as well?)</p> <p>This kind of material, it was given to construction companies. It was like an exchange, we give you this materials and you do some work (Tess: oh).</p>	<p>Some collaboration is made with private companies (e.g. in this case in terms of use and removal of debris)</p>

<p>Transcript I-2_X_Technician Malborghetto 15_04_</p>	<p>He was involved with Padova with the (undiscernable word) of the river but not in this area. (Mentions Di Marchi, we try to determin if this is Bruna Di Marchi)</p> <p>He was invovled in monitoring this river and the problems were often, a few times a year. He made some intervention to reduce the risk to the surrounding areas.</p> <p>Based on the experience that was done in that place, they used also for another area. He collaborated with CNR.</p>	<p>Also demonstrates collaboration with research institutions.</p>
<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>Exacto. And otherwise they just put, you know some... (Tess: like brochures of flyers) Yes, yes some brochures or flyers. Yes, and they communicate in this way.</p> <p>(Tess: and where do they put these?)</p> <p>Bars, shops. Or like in the municipality where there are some notices... (Tess: notice boards?) Yes. They put them there.</p>	<p>Information is communicated to the public via brochures and notices in public places (more related to the participation category though mildly related to collaboration, though this is a one-way communication example)</p>
<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>They have, as we said before they have these coordinated activities also with Austria and Slovenia because there might be some updates that they don't know, some new equipment, etc. So in this way, working together, doing these activities together they can get some updates. (Tess: ok)</p> <p>They all learn from each other and have a... (Tess: mutual learning) Yes (Tess: ok)</p> <p>(Tess: is that very common in the region or in other places in Italy?)</p> <p>Because they feel a partnership between these three countries, so they are all involved into this.</p> <p>Sometimes they organize this activity, sometimes Slovenia, sometimes Austria, so they... (Tess: they rotate) Yes. (Tess: ok)</p>	<p>There is some exchange of information, practices, equipment etc. with other communities.</p>
<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>He says they have this cooperation, as we said also with Slovenia, they helped each other, you know after 2003 they had 800 volunteers from Austria that came here to help them out, so this cooperation is... (Tess: 800 volunteers from Austria? wow, ok)</p>	<p>Good demonstration of solidarity in the 2003 event with neighboring communities.</p>
<p>Transcript I-4_X_Community historian 15_4_2013</p>	<p>They also have international activities and tournaments. There is a good connection.</p>	<p>Cooperation is maintained also through events and activities related to training (the activities and tournaments he describes are based on the type of work these services engage in and support)</p>

Transcript I-5_X_Fire Brigade Volunteer Valbru	When there was a flooding, the Austrian people came here to help out.	Example of solidarity with neighboring communities.
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(13) Risk Culture

Sources & connections to empirical research

Document	Segment	Analysis
Transcript I-1_X_Mayor Malborghetto 15_04_2013	<p>And then there is also a problem of ice on the roads. (Tess: ah ok)</p> <p>Basically there are some people who agree and some others who don't agree that they put salt on the streets. But so far there is really no other solution to this.</p> <p>(Tess: when he says some people agree and some people don't, are these people who live here or officials?)</p> <p>(laughter) The people who live here because the salt gets stuck on your shoes and then you come into the house you bring the salt with you, so the people who live here.</p>	Provides specific example of people's preferences (e.g. prefer not to have salt on roads) Risk behaviour example based on decision to have or not have ice on the roads. Value judgement in favour of not having salt on the shoes and in the house (seen as a nuisance).
Transcript I-1_X_Mayor Malborghetto 15_04_2013	and then they communicate to other people or else there are newspapers where they read because he said the page that they read the most is the one about the weather forecast. You know people look there directly.	Demonstrates a preferences of the people to read/place importance on paying attention to the weather forecast. Stresses here also importance of role of the media in informing the population. Provides evidence of that the public uses the material provided by the media (this being a cultural norm).
Transcript I-1_X_Mayor Malborghetto 15_04_2013	So the main procedure is the one to bring people into safe areas. So this is the real procedure.	Emphasizes priority of procedures (e.g. bringing people to a safe place) Highlights central purpose of strategy (totality of policies, decisions and actions, including measures), which is to keep people safe (safety of the population being the highest priority)
Transcript I-1_X_Mayor Malborghetto 15_04_2013	They basically, evaluated all the critical areas and they also told to move some places, some areas into other parts. They wanted to move Cuco and also Ugovizza, close to the river there is a place that is really dangerous, so they wanted to move these two places. In the end they decided to leave the places there and to make them safe which	Reflects decisions-making priorities where one can see decision to 'make safe' instead of 'remove' and 'relocate' pursued. Reflects decision to not relocate. This is connected to the attachment to place of the inhabitants and to the desire of

	cost more than they would have...yes it is more expensive but they decided to keep the places.	the officials to prevent a decline in the local population. (even at great costs)
Transcript I-1_X_Mayor Malborghetto 15_04_2013	In Cuco, they did some other works for what concerns the river and the forest. The measures taken made the area safer. The people that protect the environment because they used too much stone.	Expresses desire (at least by some people) to have more locally natural resources used for constructing measures. (similar also to previous analysis comment)
Transcript I-1_X_Mayor Malborghetto 15_04_2013	<p>Kathrin: what exactly do they do for the prevention, or are the...)(Tess: are they able to take actions for prevention?)</p> <p>Yes, there could be some prevention measures. But basically... (side note: the interviewee said in Italian that there is no political visibility for prevention) (Tess: people can't see it) No, it is about the politics. Not for the mayor but for other politicians. You don't see.</p> <p>(Tess: there's not an incentive to do it because it is not recognized?) Yes.</p> <p>In Italy, there is really a lack of prevention measures. (interviewee says in Italian: there is a lack of culture of prevention) (side note: very interesting this 'culture of prevention'. Personal thought: could connect this or be synonymous with building a 'culture of safety')</p> <p>We always take emergency, political, environmental, we always have emergencies in each area</p>	Directly relates to importance of prevention. Can see here that this importance is diminished due to the fact that efforts for prevention are not visible and therefore politically unattractive. Interviewee also specifically mentions that there is a lack of 'culture of prevention'. However, there is attention paid to that which is occurring in a time of emergency, that which is political and that which is environmental in nature. Furthermore, notion here that there needs to be more visibility for prevention. There is a preference to only to that which can be seen. This influences decision making and actions taken. There is also direct evidence with the statement from the interviewee (unsolicited) that there is a lack of a culture of prevention. This also supports the argument that the stakeholders describe in general a need for a 'culture of safety'.
Transcript I-1_X_Mayor Malborghetto 15_04_2013	<p>(Tess: we have a question about what kind of resources he relies on...) For the prevention? (Tess: yes)</p> <p>Yes, there are national resources, but no one decides... they should decide they should say we put this amount of money into prevention but no one decides this. This is the problem.</p>	Provides further evidence of lack of incentive or emphasis on prevention in relation to funding. Can see here suggestion that money is not spent on prevention and that this is problematic. There is a lack of decision making in terms of allocation of funds for prevention (an explicit issue acting as a reinforcement mechanism for the lack of emphasis on prevention).

<p>Transcript I-1_X_Mayor Malborghetto 15_04_2013</p>	<p>(Tess: we kind of have one last question, and it may be answered to some extent already, but just to ask. We wanted to know, compared to the other concerns in your municipality, what's the importance you would attach to prevention and preparedness and also what would be the most important topic at hand for the municipality?)</p> <p>The most important one, this is the first however at the moment there is a lot of unemployment now it's getting bad. There is a lot of unemployment and people are moving away from here because there are no jobs and when there are no jobs the people move away.</p> <p>(Tess: the very last thing then is, is there anything that you could describe as...we go to other places, we compare so we want to know if there are some things you are very proud of that you do here?)</p> <p>Yes, about the job that was discussed, in 2003. (Tess and Kathrin: yeah, yes definitely)</p>	<p>This statement provides evidence of the preferences and priorities of the local level. These influence the decision-making process and actions taken. Here importance is placed on unemployment. The priority is to reduce unemployment and to keep people from moving away as a result of this. Can see in terms of priorities of the community, unemployment and outmigration are of very high priority as compared to priorities placed on prevention.</p>
<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>(Tess: and then, we understand you've been here or this group has been here for over 100 years, there is a good connection with the people...) He says that yes, since they're, since it's part of tradition in the local community, people are more informed in the case of an event perhaps than in the city, because of this involvement (Tess: ah ok)</p>	<p>This statement reflects that which falls within the traditions of the local community. This tradition (the fire brigade and volunteers) is also connected to how well informed the community is. (e.g. there is a good integration of the fire brigade with the local community and because of this, people are more informed.)</p>
<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>(Tess: in general, does it seem that most of the population, especially because there are so many volunteers, that most of them listen to and take the advice?)</p> <p>Ok, so since the people are so...especially the older people they are very connected to this place, they don't want to listen (Tess: they have a strong connection) Yes, they don't want to listen sometimes, they sometimes think if we have to die we want to die in our home, we don't want to die outside so... this is a problem.</p> <p>There was a husband that was looking for his wife, but she was safe but he didn't know, but he was looking for his wife and he wanted to go inside the house and it was like 2 meters of water and they had to stop him to prevent he...(Tess: he doesn't die) Yes (Kathrin: because he didn't know what happened because there was no communication) Yes, because there was no communication because they couldn't call each other.</p> <p>There was another example of another person, a man, that wanted to go into his home and they told him not to go because it was dangerous for his life and also the police</p>	<p>Relates to the behaviour of the population. There is a strong connection between the people and the place in which they live, especially for the older population. Give some specific example in relation to this (e.g. that people sometimes think they would prefer to die in their home than die outside). Also exemplifies cooperation between people and police during case of emergency. This example is not necessarily common; it is just one example (e.g. in relation to the guy who punched the police). This statement reflects a perspective on the population (especially the elderly) that there is a very strong attachment of people to their physical place (their homes).</p>

intervened, they told him not to go but he didn't listen to anyone...He punched the police (Tess: oh) (all laugh)

**Transcript I-
3_X_Fire
Brigade
Malborghetto
15_04_**

He said that fortunately this flooding arrived earlier, at half past 5 and in 4 hours it brought 400mm of water, and basically this was good because if it had arrived later people would have gone to their homes because they didn't listen and they could not see everyone, in this case they put them in a safe place, but when they have more time, they start to walk around and go to... (Tess: ah so it was, faster...) (Kathrin: is was good) Yes, because otherwise more people would have... (Kathrin: they couldn't have reached all the people) Yes (Kathrin: and was it also that, were there are also a lot of people still at work, or not that late?) Yes, some were still at work.

He says that the people usually have an instinct to protect themselves and escape, but in this case is they don't follow this instinct, another instinct comes which is you think about your...(Kathrin: relatives) family and you go there and look for them (Tess and Kathrin: hmm) like the husband that was looking for his wife (Tess: ok)

(Tess: so some people follow and some people don't follow?) Yes (Kathrin: and it depends on the velocity of the event... like the...) (Tess: how fast) There is no historic memory of things, they tend to forget, you know they don't remember things because you know if you remember what happened in the past then... (Tess: so people forget that it is serious and that you should follow instructions... ok) (Kathrin: and this information is probably also not passed onwards, like people who lived in 1903...) Yes. (Tess: ok)

This segment relates to the concept of 'disaster memory'. There is a suggestion here that the disaster memory is short and people forget what you should do in the case of a disaster (e.g. instead they do not stay in the safe place, they look for relatives, and do not follow instructions in some cases). This statement reflects disaster memory loss and how this influences the actions of the population and individuals.

<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>(Tess: then, along with that, if I can ask, do you feel that then the responsibilities to manage and assess these risks are they very centralized?)</p> <p>Because at the regional level, basically because everything is at the regional level so it's centralized but not only them but also others, also the police, so everyone is coordinated at the regional level. (Tess: ok, so not just the civil protection, but the police and the...) also others yes. (Tess: ok, (side to Kathrin: do you have a question...))</p>	<p>Organization of activities is described here as centralized. Statement reflects the degree of centralization (implies that the responsibilities of authorities dealing with DRM is highly centralized in this case). The degree of centralization also reflects the decision-making abilities and influence that the local level has.</p>
<p>Transcript I-3_X_Fire Brigade Malborghetto 15_04_</p>	<p>(Tess: (side to Kathrin: did you have another thing you wanted to ask...(Kathrin: no that's all)) (Tess: ok, then I think we've taken so much of your time, then the only thing, the last thing is is there anything you are especially proud of because we want to compare...?) (Either in the past, a good example...)</p> <p>The volunteers is automatic that they go and help people... (Tess: they don't have to be told, it is just something that they do yes, they just...) Yes, they do because he said that it's normal for them</p>	<p>Reflects a cultural norm that tends to be very strong in the case of Italy and that is that of the volunteer system. The norm for the volunteers is that they automatically go and help people. This statement reflects characteristics of the volunteer system. It is an 'automatic' system (related to community norm).</p>
<p>Transcript I-4_X_Community historian 15_4_2013</p>	<p>In Italy we have a problem with information (e.g. wrong information such as in the case in Aquila). In Italy we are very careful with giving information because we don't want to be responsible. In the past we would look at hills and the sky and predict.</p>	<p>Here there is evidence of a political preferences to avoid responsibility for potentially negative consequences of giving information. Statement reflects a generalized cultural tendency with respect to information and responsibilities. (hints mildly at the principle of precaution, however with a slightly different twist than that of what is found in the French case).</p>
<p>Transcript I-4_X_Community historian 15_4_2013</p>	<p>Information for the public: are people interested in receiving more information? o The local community is well informed, it is natural for people, they feel it.</p>	<p>Statement reflects a generalized characteristic about the community. Further reflects in this case that the population has a natural feeling of their environment, and are well-informed.</p>
<p>Transcript I-5_X_Fire Brigade Volunteer Valbru</p>	<p>(Tess: And I have a question that was related to something before, but I just realized we've asked a few people for the population, well this is related to when people say ok you can't go in your home and people still go... Is the population very receptive to the commands given? About what they should do in an emergency.)</p> <p>They listen. You will always find an exception, but most of them listen.</p>	<p>In some contradiction to a previous statement, can see that in some cases people have a tendency to not follow instructions given an emergency. However, according to this interviewee, people in general will listen.</p> <p>Statement also reflects a generalized characteristic of the population (in this respect, this is</p>

related to adherence to the law and orders given by authorities).

**Transcript I-
5_X_Fire
Brigade
Volunteer
Valbru**

(Tess: The last question we had is: is there anything with the volunteers that you are particularly proud of?)

In 1982, they reestablished this group of the volunteers. More or less in the nineties, they built this house. They also participate with their money and with their work. So they all helped to build this building. Some money they just took out of their pocket and some from, they organized events in the summer, so then they received some money from that. They bought equipment from the money they got. They received some contributions from the municipality obviously, from the local and regional level they received some money as well.

(Tess: But they had quite a bit that they worked for themselves? To build that? (translator: if they felt that they worked for themselves?) No, I mean to build all of this, something they can be proud of, that they themselves worked for and earned money to build this (translator: Yes).

(Tess: That's very heartwarming to hear that people got together and cared that much.

Provides a demonstration of a localized example of close and good cooperation. (perhaps more related to the cooperation category). Can say that statement provides a good example of community involvement and working toward a common goal. This demonstrates the importance of working together as a community and the importance of the volunteer group as part of the community itself.