

MONITORING SURVEY FRAMES

- Baseline measurement
- Pilot: **Denderleeuw**

Important:

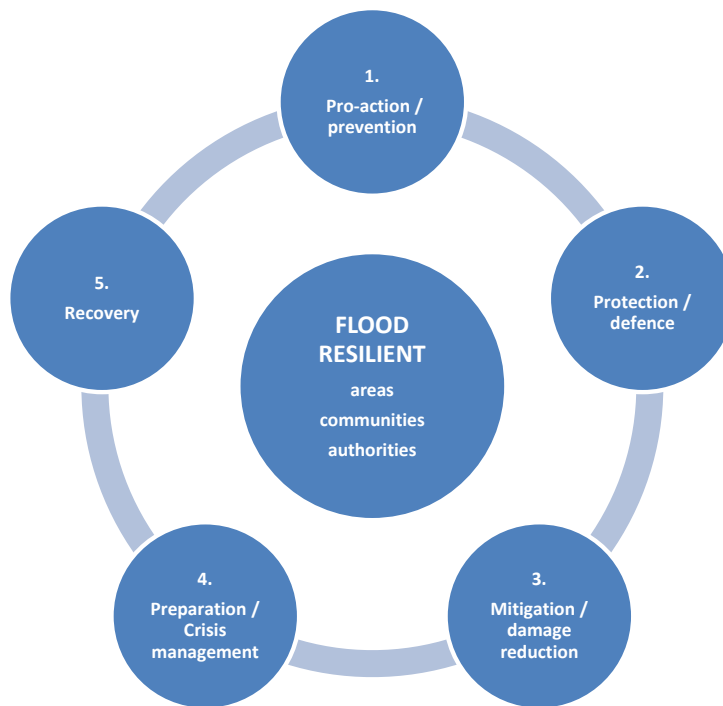
We kindly ask the pilot manager to complete this questionnaire in consultation **with relevant experts/stakeholders in the pilot/region**. The pilot manager can send this questionnaire and ask these experts/stakeholders to complete (certain) questions, or ask them to review answers. **Per pilot we would like to have 1 questionnaire returned.**

Who contributed to completing this questionnaire? Please provide names of persons and their organizations:

	Person	Organization
1	Hannelore Mees	Provincie Oost-Vlaanderen
2	Barbara Tempels	Ghent University
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Short explanation

FRAMES is about improving flood resilience by taking different types of actions. A common and well known typology in flood risk management is the disaster management cycle, as shown in the diagram below. This survey first focuses on the flood resilience of areas by considering the five elements proaction (1), protection (2), mitigation (3), preparation (4) and recovery (5). Hereafter, a few questions will be asked with regard to the flood resilience of communities and authorities.



1. Pro-action/prevention

Negative consequences of flooding can be avoided by pro-active spatial planning or land use policies (“keeping people away from water”), aimed at building only outside areas that are prone to flooding.

To what extent is proaction/prevention currently a strong characteristic of the pilot area?

Not at all 1 2 3 4 5 6 7 8 9 10 To a great extent

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Please shortly explain your answer:

In the past decade, important spatial planning initiatives have taken place in Flanders in relation to water management. One of them is the ‘water assessment’, which is compulsory for any building application which could have an impact on the water system. It assesses the negative impact of a proposed project on the water system and can include flood-related requirements, for example a certain level for the ground floor or infiltration of water. The water assessment has led to stricter requirements in building permits, though its implementation appears to be not always adequate. It is an often-heard complaint that the way the water advice is translated into specific requirements and how they are implemented in the field is insufficient.

In addition, Denderleeuw counts about 100 houses and enterprises in flood-prone areas, according to the Flemish flood risk maps (100-year return period). In the future, the flood vulnerability of these zones is expected to increase due to the urbanisation of the valley and climate change. In addition, there is one so-called signal area in Denderleeuw, where modifications on the land use maps are enforced due to a significant flood risk.

2. Flood protection/defence

Keeping water away from people by (combinations of) hard infrastructural works (dikes, dams, etc.) or softer (nature based) solutions (dunes, retention in nature areas, etc.).

To what extent is flood protection/defence currently a strong characteristic of the pilot area?

Not at all 1 2 3 4 5 6 7 8 9 10 To a great extent

Please shortly explain your answer:

The flood of 2010 demonstrated that the current flood protection infrastructure at the Dender river and its tributaries is currently inadequate. Since this flood event, few measures have been taken to avoid future flooding of the Dender. At the Molenbeek and Wilde Beek, protective measures have been implemented in recent years, which are expected to have reduced the flood risk of riparian neighbourhoods significantly. The water manager for the Dender is preparing a comprehensive flood risk management plan, which should result in further protective measures, but execution of this plan will take most likely another 5 to 10 years.

3. Flood risk mitigation

Consequences of floods can be mitigated by a smart design of the flood-prone area including spatial orders, constructing flood compartments, or (regulations for) flood-proof building.

To what extent is flood risk mitigation a strong characteristic of the pilot area?

	1	2	3	4	5	6	7	8	9	10
Currently				4						
Expectation after Frames						6				

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What will be done in FRAMES with regard to flood risk mitigation, that improves the ... physical resilience in the pilot area?

While the first aim for this pilots is to increase the capacities of local organisations / institutions and communities (see below), the pilots might result in different physical actions on the ground. Residents and land users of flood-prone areas will be mobilised, for example by FRAMES intends to make residents of flood-prone areas in Denderleeuw aware of the flood risk they run and measures they can take. By stimulating residents to take property-level protection measures, which can result in an improved the physical resilience of existing buildings should be improved.

In addition, the project unites relevant local stakeholders to address the flood vulnerability of the entire neighbourhood, including the physical resilience of potential future building developments.

... capacities of local organisations / institutions in the pilot area?

The municipality of Denderleeuw will be involved intensively. The project intends to contribute to a better cooperation between local authorities, communities, enterprises and project developers, in order to increase local institutions' capacity to better mitigate the flood risks of future building developments, and to assist local communities to adapt existing buildings to flooding.

... capacities of local communities (citizens, businesses) in the pilot area?

As explained above, theThe project aims to increase residents' awareness on their flood risks and potential measures. By stimulating them to take property-level protection measures, the flood risks of existing buildings can be mitigated substantially.

4. Flood preparation

Consequences of floods can be mitigated by preparing for adequate response to a flood event. Measures include flood warning systems, disaster management and evacuation/rescue plans, and managing a flood when it occurs by taking last call emergency measures (e.g. sand bags).

To what extent is flood preparation a strong characteristic of the pilot area?

	<i>Not at all</i>										<i>To a great extent</i>									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
Currently						6														
Expectation after Frames						6		8												

What will be done in FRAMES with regard to flood preparation, that improves the ... physical resilience in the pilot area?

The FRAMES project will unite citizens from flood-prone neighbourhoods to discuss their flood risks and how to deal with them. Flood preparation will be one of the principal strategies addressed. Depending on the specific context of the neighbourhood, action will be encouraged, which should increase the community's resilience against flooding, e.g. community emergency plans, improved sand bag distribution, community warning systems, etc.

... capacities of local organisations / institutions in the pilot area?

The municipality of Denderleeuw and the fire brigade will be involved intensively. The project intends to contribute to a better cooperation and communication between local authorities, communities and enterprises, which should increase local institutions' capacity to respond to flood (alerts) adequately.

... capacities of local communities (citizens, businesses) in the pilot area?

The project will foster local communities to develop community-based emergency response to flooding. Depending on the specific context of the neighbourhood, actions will be fostered, which should increase the community's resilience against flooding, e.g. community emergency plans, improved sand bag distribution, community warning systems, etc.

5. Flood recovery

Facilitates a good and fast recovery after a flood event. Includes plans for draining / pumping away flood water and restoring safety and security, plans for reconstruction or rebuilding critical infrastructure, damage compensation/insurance systems, return of evacuated communities and social-psychological support.

To what extent is flood recovery a strong characteristic of the pilot area?

	<i>Not at all</i>										<i>To a great extent</i>									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
Currently						6														
Expectation after Frames						6	7													

What will be done in FRAMES with regard to flood recovery, that improves the ... physical resilience in the pilot area?

FRAMES aims to develop a strong community in the flood-prone neighbourhoods in Denderleeuw, that is not only able to respond to flooding in times of emergency but also to recover from it afterwards. By increasing residents' knowledge of flood risks and their social network in the neighbourhood, citizens should be able to (mentally) recover from a flood event faster.

... capacities of local organisations / institutions in the pilot area?

By establishing good communication and cooperation between crisis service institutions and local citizens, the response to and physical recovery after a flooding is intended to improve.

... capacities of local communities (citizens, businesses) in the pilot area?

By increasing residents' knowledge of flood risks and their social network in the neighbourhood, citizens should be able to (mentally) recover from a flood event faster.

Flood resilience of authorities

Please name the organisations / stakeholders that will be involved in your pilot:

	Organization
1	Municipality of Denderleeuw
2	Fire Brigade of Denderleeuw
3	W&Z (watercourse manager)
4	Other actors that turn out to be relevant, depending on other spatial and social issues that are raised during the participation process
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In general, to what extent is flood risk mitigation embedded in policy and practice of these organisations, in your opinion?

	<i>Not at all</i>										<i>To a great extent</i>									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
Currently						6														
Expectation after Frames						6	7													

Please shortly explain your answer:

Water assessment & signal areas ([see above](#)) but impact is insufficient to realise a flood resilient community

In general, to what extent is flood preparation embedded in policy and practice of these organisations, in your opinion?

	<i>Not at all</i>										<i>To a great extent</i>									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
Currently							7													
Expectation after Frames							7	8												

Please shortly explain your answer:

Watercourse manager and local authorities are experienced with flood response, amongst others due to the flooding of 2010. In FRAMES we want to improve particularly on the cooperation and communication between authorities and citizens.

In general, to what extent is flood recovery embedded in policy and practice of these organisations, in your opinion?

	<i>Not at all</i>										<i>To a great extent</i>									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
Currently				4																
Expectation after Frames				4	5															

Please shortly explain your answer:

Due to long decision-making processes, recovery operations are often limited to taking some emergency measures, instead of a recovery approach aiming for a sustainable, resilient community. (Social-psychological) support from local authorities towards flood-affected citizens is limited.

Flood resilience of local communities

Please name the communities (e.g., neighbourhoods, municipalities) that will be involved in / informed about your pilot(s), and how many citizens they consist of:

	Community	Number of citizens (approximately)
1	Neighbourhood of Zandplaatstraat	200
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In general, to what extent is flood risk mitigation embedded in the behaviour of these communities, in your opinion?

	<i>Not at all</i>									<i>To a great extent</i>
Currently	1	2	3	4	5	6	7	8	9	10
Expectation after Frames	1	2	3	4	5	6	7	8	9	10

Please shortly explain your answer:

Very few residents have already taken individual measures.

In general, to what extent is flood preparation embedded in the behaviour of these communities, in your opinion?

	<i>Not at all</i>									<i>To a great extent</i>
Currently	1	2	3	4	5	6	7	8	9	10
Expectation after Frames	1	2	3	4	5	6	7	8	9	10

Please shortly explain your answer:

It is not structurally embedded, but entirely dependent on the spontaneous response during an event.

In general, to what extent is flood recovery embedded in the behaviour of these communities, in your opinion?

	<i>Not at all</i>									<i>To a great extent</i>
Currently	1	2	3	4	5	6	7	8	9	10
Expectation after Frames	1	2	3	4	5	6	7	8	9	10

Please shortly explain your answer:

After the 2010 flood, all affected residents and companies have been financially recovered through the insurance system. The insurance police covers flood damage to real estate and its content, but not to mobile goods (e.g. cars parked outside the house).

**END OF SURVEY
THANK YOU!**