

BETTER Water-management for Advancing Resilient-communities in Europe

Action D4 – Assessment of socio-economic impact accounting for the hydrologic effectiveness of the interventions

Report about ex-ante data collection

Covering the project activities from 03/09/2018 to 31/05/2019

Project Data

Project location:	Veneto (Italy)
Project start date:	03/09/2018
Project end date:	30/06/2022
Total budget:	€ 2,103,964
EU contribution:	€ 1,188,160
(%) of eligible costs:	60%

Beneficiary Data

Name Beneficiary:	Comune di Santorso
Project manager:	Antonio De Martin
Postal address:	Piazza Aldo Moro 8 36014 Santorso (Italy)
Telephone:	+39 0445 649510
E-mail:	antonio.demartin@comune.santorso.vi.it
Project Website:	http://www.lifebeware.eu/

Data collection and report drafting

Partners involved:	TESAF and COMSAN
Scientific Project Head for TESAF:	Prof. Vincenzo D'Agostino
Action D4 Scientific Manager:	Prof.ssa Edi Defrancesco
Authors:	Edi Defrancesco, Giulia Roder, Vincenzo D'Agostino



Legnaro, 31/05/2019

Table of contents

1	Glossary, Abbreviations, Acronyms	5
2	Executive summary	7
3	Project overview	9
3.1	Background and justification	9
3.2	Project objectives	10
4	Survey strategy	13
5	Data collected	15
6	References	17
7	Annexes	19

1 Glossary, Abbreviations, Acronyms

BEWARE	BEtter Water-management for Advancing Resilient-communities in Europe
COMSAN	Municipality of Santorso
COMMAR	Municipality of Marano Vicentino
NWRMs	Natural Water Retention Measures as classified by the Office International de l'Eau (www.nwrm.eu)
SUDS	Sustainable Urban Drainage Systems
TESAF	Dipartimento Territorio e Sistemi Agro-Forestali, Università degli Studi di Padova
Floods	All events in which water inundates lands not normally covered by water (directive 2007/60/EC, 2007) (Salvati et al., 2014)

2 Executive summary

Action D4 focuses on the estimation on the analysis of socio-economic implications for the local communities and of the economic impacts of the interventions. A benefit-cost analysis is foreseen to economically evaluate the effects of the main actions of the project. In addition, social impacts of different actions will be analyzed.

One of the most important expected results of the project is the reduction of the hydraulic hazard and the risk for private and public infrastructures, with positive and diffuse impacts on the economy and the community welfare. In particular the following impacts will be tested:

- reduction in direct and indirect infrastructural damages due to flooding;
- increased flood risk awareness able to positively affect the preparedness actions at individual and local community level;
- increase in “environmentally friendly” behaviours aiming at mitigation of risk;
- increased yearly average income from farming due to water availability in case of water shortages (both in terms of quantity and quality) and a reduced risk connected to hydraulic hazards;
- increased and ameliorated recreational facilities;

These socio-economic effects will be evaluated at the project scale. However, the interventions cost and benefits may encourage their implementation in other EU Municipalities involved in the project, thanks to the dissemination activities.

The aim of this report is to describe the methodological approach adopted to collect data about the infrastructural damage due to heavy rainfall events in the public and private assets of Santorso and Marano Vicentino Municipalities. The period under investigation is a time span that covers ten years, from 2010 to 2019. The survey provides the data allowing us to define the without-the projected-interventions baseline scenario.

3 Project overview

3.1 Background and justification

The consequences of climate change are exacerbated by land-use changes which affect the control of rainfall-runoff relations, and the impact on flood risk. Effectively, urbanisation is steadily contributing to the increase of impervious areas and reducing the time-to-peak. This actual scenario is fostering the debate on sustainable climate-adaptation strategies in line with the requirements of the EU Strategy on adaptation to climate change, adopted by the European Commission in 04/2013. The pressure that European countries are facing is demonstrated by scientists' modelling disaster scenarios, which evidenced that, in absence of adaptation measures in place, river flooding could affect about 300,000 people per year in the EU by 2050 and 100,000 more by 2080 (doubling the affected people in the period 1961–1990) (Rojas R. et al., 2012). Scientists showed a consistent increase of flood risk in the British Isles, western Europe and northern Italy, mainly due to the population increase.

The Italian Institute for Environmental Protection and Research (ISPRA), in a study published in June 2018, highlighted that 91% of the Italian municipalities is currently under risk of flooding, compared to the 88% in 2015. Nevertheless, in Northern Italy, the consumption of soil is higher than other Italian regions, worsening the already fragile hydrogeological conditions of the country. The effects of soil sealing and climate changes on the flood dynamics, in the Veneto Region (North-Eastern Italy), has been demonstrated in a recent paper published by TESAF (one of the project partners). The paper provides a regional screening of land-use, rainfall regime and flood dynamics in Veneto Region, covering the timeframe 1900–2010. This analysis suggests that both climate and land-use changes contributed (in synergy and individually) to a significant increase in the flood occurrence. Moreover, Sofia et al. (2017) demonstrated that floods are usually of short duration while the number of flooded areas is higher than in the past. In accordance, several flood events occurred in the region during the last decades and the most severe ones had been recorded in 1966, 1982 and in 2010, between October 30th and November 2nd (called the *All Saints* flood). During this last event, heavy rainfalls occurred in the lower mountain belt, between the provinces of Verona and Vicenza simultaneously, favoured by multiple negative atmospheric conditions (e.g. an increase of the temperatures melting the snow and southern winds contrasting the regular water down flow). 140 km² of roads were inundated, 130 municipalities and about 500,000 citizens were affected, 3 persons and more than 150,000 animals died. The economic burden reached up to 429 M€. Other moderate events occurred in the same area in 2011, 2012, 2013 and 2014 (the term "water bombs" was used by mass media to describe flood events triggered by intense rainfall events). However, effective disaster management needs an integrated approach to land planning, which promotes sustainable measures to restore the water storage capacity of the soil.

A previous research (Roder G., 2019) covering the overall Veneto Region shown that people has a medium-low perception of flood risk, neglecting the future probability of occurrence and undertaking few individual mitigation actions. The lack of knowledge of the inhabitants is the main cause of their lack of preparedness: in fact they usually delegate the responsibility of their safety to public authorities in charge.

Results justify the need of increasing citizen's awareness and good practices adoption for collective welfare. The study area of the present study is the upper Vicenza province, included in the Bacchiglione–Brenta river system. In this area, and in the rest of Veneto region, green solutions (like the ones promoted by the project) could play a key role in flood mitigation. However, at present time, NWRMs are poorly adopted in the region (and at the National level) and, until now, NWRMs have not been considered/included in the flood risk management plans, drafted by the the *Distretto Idrografico Delle Alpi Orientali* (www.alpiorientali.it). Currently, all the public investments are placed for structural measures without considering neither green solutions nor non-structural measures for people's empowerment. Moreover, Veneto region, with the law n. 3637 of 13/12/2002, asked for a compulsory 'evaluation of hydraulic compatibility' for all the new building regulations. This technical guidance provides methods for hydrologic evaluations but does not suggest NWRMs adoption to preserve the hydraulic invariance.

The individual's adoption of NWRMs is expected to provide positive benefits at the society level: i) under a bottom-down approach (the setting of new water regulations) and ii) under a bottom-up approach (the implementation of transferable measures in a participative context). In this regard, it is remarkable that the Flood Directive recommends a wide involvement of the civil society when defining the management plans: «The Member States shall encourage active involvement of interested parties in the production, review and updating of the flood risk management plans (...)» (Art. 10 p. 2).

3.2 Project objectives

The main project objective is the achievement of a global strategy for climate adaptation to flooding risk, increasing water infiltration and storage in urban and rural areas and involving the local communities actively. BEWARE project aims to increase knowledge, benefits and real implementation of NWRMs (Natural Water Retention Measures) both in the territory of COMSAN and COMMAR (Vicenza, Veneto Region, IT) and also in other EU municipalities, thanks to demonstrative interventions fully coordinated with information, communication and education activities. Specific objectives are:

1. To perform six urban NWRMs to reduce flood risk by increasing water infiltration and storage in COMSAN and COMMAR. Such measures are: i) undertrained bioretention, ii) infiltration trenches, iii) detention basin with an internal bioretention pond, iv) rainwater harvesting plus dry wells, v) rain gardens plus grass swales and vi) SUDS treatment train;
2. To perform one agricultural NWRM, in COMMAR, to reduce the flood risk and to partially solve the drought problems of some agricultural firms during the dry periods;
3. To promote a participative approach to implement local initiatives and measures on water-retention actions, facing climate change challenges;
4. To establish a local administrative, financial, and technical context, supporting the diffuse employment of NWRMs;
5. To enhance the link between European policies and local contexts, actively involving citizens and key-stakeholders, on the EU goals on climate change;

6. To demonstrate that small diffused works and the implementation of best practices can guarantee hydraulic safety, facing climate-change consequences effectively;
7. To favour the replication of the proposed actions in other geographic areas of Italy and Europe.

The project is innovative for the Communities because it aims to tackle the flood issue on a new participatory perspective. It promotes a set of low-cost measures that municipalities, farms or citizens can manage efficiently. In fact, although in several European Countries a sustainable water-retention approach is still developing, in Italy and in Veneto Region a substantial delay exists. Similar defective situations have been found in Europe (see collected letters of support), highlighting the need for modern water-retention techniques (Flood Directive, art.7) to be rapidly translated into practice, inside the EU territory.

The participation is the key to develop a favourable background for effective climate adaptations initiatives. Through active involvement, BEWARE aims to promote a public responsibility for facing hydraulic risks and proposes a set of best practices to be implemented in a wider context. Indeed, the strategy can also be a shortcut to ensure social acceptance of a more sustainable land-use planning. Although the NWRMs are technically mature, they are poorly spread in Veneto Region and other European countries. Therefore the action panel of BEWARE is a virtuous example, voted to trigger a positive trend in NWRMs employment.

In addition to the strong demonstrative character of the project, the involvement of all public and administrative authorities at local level that are considered by the Covenant of Mayor's framework (Mayors Adapt) is a real innovation, if considering such a wide area (the project will involve, in the definition of a common water strategy, all 33 municipalities - *Intesa Programmatica d'Area IPA Altovicentino*).

The project will provide insights for the building code's revision in the two involved municipalities; it will include mandatory norms for climate change adaptation that will improve the resilience of new buildings. New measures will be also taken to consider the buildings' renovation. Through the network provided by different stakeholders, the code will be proposed as a model; in particular, BEWARE will involve other Italian and European municipalities and local governments. A Permanent Centre for Resilient Communities will be launched by the Consortium and hosted by COMSAN; it will provide:

- training activities for local administrators, civil servants, farmers, technicians;
- educational activities for pupils.

Furthermore, in this Centre, seminars and workshops planned by BEWARE will be organized. The knowledge spread with these activities will help the dissemination and replication of such measures. In addition, the transformative impacts of the other actions will strongly contribute to the community awareness to cope with climate problems, taking individual practical actions both in private and public territory (e.g. contrasting the soil sealing).

BEWARE is supported by the Italian Ministry of the Environment and the Protection of the Territory and the Sea (see support letters). A specific agreement will be proposed to involve the Ministry as permanent observant; the agreement will foresee the national dissemination of the project's results.

4 Survey strategy

This chapter shows the data collection strategy of the damage due to heavy rainfall events in the public and private assets of Santorso and Marano Vicentino Municipalities. The period under investigation is a time span that covers ten years, from 2010 to 2019. To obtain a whole picture of the situation in this period, we adopted two different data collection approaches:

1. The first approach consists in the consultation of the two municipalities databases, in which administrative data on heavy rainfall events damage had been archived. This type of documentation includes:
 - the date of the event,
 - the place where the damage occurred,
 - a short description of the event,
 - the quantification of the direct damage to public assets,
 - the number of workers, civil protection volunteers, or firefighters involved in the defensive intervention and the time spent for these operations,
 - a description of the defensive intervention and the mitigation action,
 - the quantification of the damage to private assets only when citizens asked for public support.

The sample survey covered not only Santorso and Marano Vicentino Municipalities, but also citizens living in the overall Altovicentino area.

2. The second approach consists of a “direct” data collection that was included in the ex-ante citizens awareness questionnaire-based sample survey (Project deliverable: Action D3 - Baseline Report). The administration method was mixed: online (the EU survey portal has been used for this purpose, <https://ec.europa.eu/eusurvey>) and face to face interviews.

The question about the suffered damage is the number two of the questionnaire administered to citizens (Annex 1): “In the last 10 years, have you ever had a flooding direct experience which caused damage to your property?”. In case of positive answer the interviewed person was asked to provide details about the damaged assets and the mitigation and restoration costs incurred.

The sample survey aimed at: *i)* covering the information gap of the administrative data sources in the target Municipalities and *ii)* providing a wide range of data to assess each type of damaged assets (garage, cellar, basement, ground floor, car, office, shop, or other) by considering the overall Altovicentino area.

Having used two different data sources, the double-counting risk exists. Consequently, the two datasets were carefully checked to identify overlapping cases.

5 Data collected

The first approach considers damage to public assets in the analyzed time span and the damage to the private assets that were recorded for public defensive interventions and/or public compensation. Table 5.1 reports the temporal distribution of the events recorded in the administrative databases of the two Municipalities.

Table 5.1. Number of events related to heavy rainfall recorded in the administrative databases of the two Municipalities of Santorso and Marano Vicentino that caused damage to public and private assets.

Municipality	Type of asset	Santorso			Marano Vicentino				
		Total	Only public	Only private	Public & private	Total	Only public	Only private	Public & private
Years	2010	2			2	4	3		1
	2011								
	2012	2			2	1			1
	2013	1			1				
	2014	2			2				
	2015	1		1					
	2016								
	2017					1			1
	2018								
	2019	1			1				
	frequent events	7		5	2				
	Total number of events	16	0	6	10	6	3	0	3

The damaging events occurred over the decade we considered, even if some defensive hydraulic works were implemented by the two local governments and citizens.

With regard to the sample survey, 173 questionnaires have been collected. Among the respondents, 24 citizens (13,9%) were affected by a flood event in the last ten years and reported damage to their assets. Citizen affected by floods were also asked to provide a short damage description and an estimate of monetary losses (direct expenses). These losses refers to defensive interventions and restoration of the damaged assets.

During the double counting check of the collected events only three overlapping cases were identified and will be threatened accordingly during the analysis.

The analysis of data collected is ongoing.

6 References

- Roder G. (2019). Flood dynamics, social vulnerability and risk perception: challenges for flood risk management. Tesi di dottorato, Scuola di dottorato "Land Environment Resources and Health", Università degli Studi di Padova. Supervisore: Prof. Paolo Tarolli.
- Rojas R. et al. (2012). Assessment of future flood hazard in Europe using a large ensemble of bias-corrected regional climate simulations. *Journal of Geophysical Research: Atmospheres*, 117(D17).
- Salvati et al. (2014), Perception of flood and landslide risk in Italy: a preliminary analysis, *Nat. Hazards Earth Syst. Sci.*, 14, 2589–2603.
- Sofia G. et al. (2017). Flood dynamics in urbanised landscapes: 100 years of climate and humans' interaction. *Scientific reports* 7: 40527

7 Annexes

- Annex 1. Questionnaire administered to citizens

Annex 1

Questionnaire administered to citizens



TESAF

Dipartimento Territorio
e Sistemi Agro-Forestali
Università di Padova



European Association for Local Democracy
Promoting good governance and citizen participation at the local level in Europe and its Neighbourhood

Allagamenti e misure di mitigazione sostenibile

Questo questionario è stato redatto esclusivamente per finalità di ricerca scientifica e per la verifica dell'efficacia delle attività intraprese dal progetto. Tale questionario non ha alcuna finalità collegata alla valutazione, di qualsiasi tipo, delle persone per la commercializzazione di prodotti finanziari. I risultati saranno elaborati in forma anonima e nel rispetto del nuovo "Codice in materia di protezione dei dati personali" D. Lgs. 196/03 e all'art. 13 GDPR 679/16. Tutte le informazioni individuali saranno trattate in maniera aggregata in modo che i dati elaborati nell'ambito del sondaggio non possano essere associati ad interessati identificati o identificabili

Dichiaro di aver letto l'informativa privacy "Codice in materia di protezione dei dati personali" D. Lgs. 196/03 e all'art. 13 GDPR 679/16 e acconsento al trattamento dei miei dati personali per le finalità di ricerca scientifica e di valutazione del progetto LIFE BEWARE con la possibilità di revocare tale consenso in qualsiasi momento rivolgendosi al Prof. Vincenzo D'Agostino (Università degli Studi di Padova) tramite email: beware.tesaf@unipd.it.

Acconsento Non acconsento

1. Riguardo ad allagamenti dovuti ad eventi meteorici:

(a) In che misura pensa che tali eventi costituiscano un problema per la sua casa?

Per nulla	Poco	Abbastanza	Molto	Moltissimo	Non so
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) In che misura pensa che tali eventi costituiscano un problema per il suo Comune (vicini, parenti, amici, edifici pubblici, zone industriali, zone agricole)?

Per nulla	Poco	Abbastanza	Molto	Moltissimo	Non so
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Negli ultimi 10 anni, ha avuto esperienza diretta di un allagamento che ha provocato danni alla sua proprietà?

- Sì (se ha spuntato questa casella, per favore compili la tabella)
 No
 Non so

Piccoli fossati	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tetti verdi (verde pensile)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sistemi di bioritenzione (giardini pluviali, strisce filtranti: aiuole con piante, zone anche allagabili per brevi periodi)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pozzetti a perdere (pozzi drenanti)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bacini/zone di infiltrazione: superfici a quote più basse nel giardino che raccolgono l'acqua piovana e favoriscono l'infiltrazione	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Piccole aree verdi di vaso (es. laghetti/vasche che raccolgono l'acqua piovana)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strisce drenanti	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Ha mai acquistato/investito (o lo ha fatto il condominio in cui abita) in opere per la prevenzione o riduzione di danni da allagamenti a protezione della sua proprietà?

Sì (Se ha spuntato questa casella, per favore compili la seguente tabella)

No

Tipo di intervento di propria iniziativa	Quanti interventi (numero)	Anno di progettazione (es.2010; es.2010,2018)	Costo medio unitario per intervento (€)*	Dimensione media dell'intervento **
<input type="checkbox"/> Pompe				.....l/h .....W
<input type="checkbox"/> Chiusure temporanee (paratie) o permanenti (muretti)				.....m
<input type="checkbox"/> Cisterne di raccolta acqua piovana fuori terra o interrata (con acqua anche riutilizzabile)				.....l
<input type="checkbox"/> Ampie cisterne/grandi serbatoi interrati (vasche volano)				.....m ³
<input type="checkbox"/> Pavimentazione permeabile o semi-permeabile (es. zone parcheggio), cortili/strade non pavimentati ricoperti con ghiaio				.....m ²
<input type="checkbox"/> Piccoli fossati				.....m lineari
<input type="checkbox"/> Tetti verdi (verde pensile)				.....m ²
<input type="checkbox"/> Sistemi di bioritenzione (giardini pluviali, strisce filtranti: aiuole con piante, zone anche allagabili per brevi periodi)				.....m ²
<input type="checkbox"/> Pozzetti a perdere (pozzi drenanti)				.....Ø esterno m
<input type="checkbox"/> Bacini/zone di infiltrazione: superfici a quote più basse nel giardino che raccolgono l'acqua piovana e favoriscono l'infiltrazione				.....m ²

<input type="checkbox"/> Piccole aree verdi di vaso (es. laghetti/vasche che raccolgono l'acqua piovana)				.....m ²
<input type="checkbox"/> Strisce drenanti				.....m lineari
<input type="checkbox"/> Altro				
<input type="checkbox"/> Altro				

* es. se acquistate n.2 pompe indicarne costo totale diviso 2

** l/h=litri/ora; W=Watt; m=metri; m²=metri quadrati; m³=metri cubi; Ø=diametro

8. Sarebbe disposto ad adottare nella sua proprietà*, oppure ha già in programma, delle opere per limitare i danni da allagamenti nei prossimi 5 anni?

**Se in affitto ma con la prospettiva di comprare casa prossimamente*

- Sì (se ha spuntato questa casella, per favore compili la tabella)
- No
- Non so (se ha spuntato questa casella, per favore compili la tabella)

<i>Specificare il tipo di intervento che intende adottare nel prossimo futuro:</i>
<input type="checkbox"/> Pompe
<input type="checkbox"/> Chiusure temporanee (paratie) o permanenti (muretti)
<input type="checkbox"/> Cisterne di raccolta acqua piovana fuori terra o interrata (con acqua anche riutilizzabile)
<input type="checkbox"/> Ampie cisterne/grandi serbatoi interrati (vasche volano)
<input type="checkbox"/> Pavimentazione permeabile o semi-permeabile (es. zone parcheggio), cortili/strade non pavimentati ricoperti con ghiaio
<input type="checkbox"/> Piccoli fossati
<input type="checkbox"/> Tetti verdi (verde pensile)
<input type="checkbox"/> Sistemi di bioritenzione (giardini pluviali, strisce filtranti: aiuole con piante, zone anche allagabili per brevi periodi)
<input type="checkbox"/> Pozzetti a perdere (pozzi drenanti)
<input type="checkbox"/> Bacini di infiltrazione: superfici a quote più basse nel giardino che raccolgono l'acqua piovana e favoriscono l'infiltrazione
<input type="checkbox"/> Piccole aree verdi di vaso (es. laghetti/vasche che raccolgono l'acqua piovana)
<input type="checkbox"/> Strisce drenanti
<input type="checkbox"/> Altro.....
<input type="checkbox"/> Altro.....

9. In caso negativo, potrebbe giustificare la sua risposta?

Può fornire massimo 3 risposte

- Non conosco tali interventi e non ne comprendo il beneficio
- Lo ritengo inutile, poiché ritengo nessuna azione del singolo possa ridurre l'esposizione al rischio
- Ritengo di non essere esposto personalmente al rischio da allagamenti
- Non ritengo di essere io in prima persona a dover gestire tale problematica
- Non sono io che posso prendere queste decisioni (es. sono in affitto)
- Sono interessato ma non ne conosco i costi
- Sono interessato ma i costi sono troppo elevati
- Altro
- Altro

10. Se interessato, in che misura ritiene che tali opere possano risolvere il problema degli allagamenti nella sua proprietà?

Per nulla Poco Abbastanza Molto Moltissimo Non so

11. In che misura ritiene che opere adottate individualmente nella sua proprietà per la riduzione dal rischio di allagamenti possano essere un beneficio per l'intera collettività?

Per nulla Poco Abbastanza Molto Moltissimo Non so

DATI GENERALI

12. Indichi il suo genere Femmina Maschio

13. Indichi il suo anno di nascita.....

14. Quale è il Suo titolo di studio?

Licenza elementare o nessun titolo Licenza media inferiore Diploma di scuola superiore

Laurea o altro titolo universitario/specializzazione

15. Per favore, indichi il suo Comune di residenza

- | | | |
|---|--|---|
| <input type="checkbox"/> Arsiero | <input type="checkbox"/> Malo | <input type="checkbox"/> Schio |
| <input type="checkbox"/> Breganze | <input type="checkbox"/> Marano Vicentino | <input type="checkbox"/> Thiene |
| <input type="checkbox"/> Caltrano | <input type="checkbox"/> Montecchio Precalcino | <input type="checkbox"/> Tonezza del Cimone |
| <input type="checkbox"/> Calvene | <input type="checkbox"/> Monte di Malo | <input type="checkbox"/> Torrebelvicino |
| <input type="checkbox"/> Carrè | <input type="checkbox"/> Pedemonte | <input type="checkbox"/> Valdagno |
| <input type="checkbox"/> Chiuppano | <input type="checkbox"/> Piovene Rocchette | <input type="checkbox"/> Valdastico |
| <input type="checkbox"/> Cogollo del Cengio | <input type="checkbox"/> Posina | <input type="checkbox"/> Valli del Pasubio |
| <input type="checkbox"/> Fara Vicentino | <input type="checkbox"/> Recoaro Terme | <input type="checkbox"/> Velo d'Astico |
| <input type="checkbox"/> Isola Vicentina | <input type="checkbox"/> Salcedo | <input type="checkbox"/> Zanè |
| <input type="checkbox"/> Laghi | <input type="checkbox"/> San Vito di Leguzzano | <input type="checkbox"/> Altro..... |
| <input type="checkbox"/> Lastebasse | <input type="checkbox"/> Sarcedo | |
| <input type="checkbox"/> Lugo di Vicenza | <input type="checkbox"/> Santorso | |

16. Qual è la sua posizione lavorativa?

Occupato In cerca di occupazione Studente Casalinga Pensionato Altra condizione
(specificare.....)

17. Svolge qualcuna di queste attività come professione?

Tecnico/Professionista/Ingegnere/Architetto comprese altre figure professionali che si occupano di problemi del territorio (es. edilizia, ambiente) Protezione Civile Vigili del Fuoco Nessuna delle precedenti

18. Svolge qualcuna di queste attività come volontario?

Protezione Civile Vigili del Fuoco Nessuna delle precedenti

19. Quante persone lavorano nel suo nucleo familiare?

20. Quanti bambini o ragazzi fino a 18 anni di età ci sono nel suo nucleo familiare?

21. Quante sono le persone con più di 65 anni di età?

22. È iscritto a qualche associazione per la protezione dell'ambiente?

Sì No

23. A che titolo occupa l'abitazione in cui vive?

Proprietà Affitto Titolo gratuito

24. La casa/appartamento in cui vive comprende:

(a) Un piano terra Sì No

(b) Un piano sotto terra Sì No

25. Come descriverebbe la situazione finanziaria della sua famiglia?

<u>Difficile</u>	<u>Modesta</u>	<u>Stiamo abbastanza bene</u>	<u>Stiamo molto bene</u>	<u>Non so</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTATTI

Siamo interessati a ricontattarla alla conclusione del progetto (nel 2022) allo scopo di valutare il cambiamento della percezione individuale del rischio da allagamento a seguito delle attività di sensibilizzazione e informazione condotte durante il progetto. Le chiediamo quindi la cortesia di indicarci il suo numero telefonico o la sua email al fine di ricontattarla per proporle nuovamente tale questionario. **Le ricordiamo che i risultati delle rilevazioni potranno essere diffusi soltanto in forma anonima.**

Contatto (numero di telefono o e-mail)

Se vuole lasciare un commento riguardo il tema trattato o raccontarci la sua esperienza, prego scriva qui:

.....
.....
.....

GRAZIE per aver partecipato al sondaggio!