SEVENTH WORK PROGRAMME
THE PEOPLE PROGRAMME
Grant Agreement no.: 263953

Case study area Fella Basin
Final Workshop Report

"Workshop for the Evaluation of First Level Inspections:
Support tool for the management of check dams"
Malborghetto (Udine), Friuli Venezia Giulia, Italy
September 22-23/2014

Table of Contents

1. Coordinators of the workshop

The workshop was coordinated by the CNR – IRPI, Padova with the support of technical services and Civil Protection of Friuli Venezia Giulia region.
The research activities were part of the PhD work of:
V. Juliette Cortes Arevalo – First level inspection of hydraulic structures with volunteers
Zar-Chi Aye – A collaborative web-based decision support platform in risk management.

2. Workshop Objectives

First level inspection of hydraulic structures with volunteers

This workshop was the continuation of a data collection activity that was carried out in May/2013 for the first level inspection of hydraulic structures with volunteers.

Therefore, for this workshop, we prepared a decision support methodology to evaluate the first level inspections for the management of check dams. The methodology was implemented as a module of the prototype web-software for the management of first level inspections. Therefore, the workshop objectives were:

- To use the updated version of the inspection form for the field inspection of three check dams. The updated version of the form includes participants' feedback that was received in May/2013.
- To use the data collected in the inspection form to interact with the decision support methodology for the evaluation of available inspections.

- To compare among participants the synthesis recommendation of the inspection form.
- To discuss and provide feedback about the usability of the inspection form and decision support methodology for the intended purpose: prescreening of maintenance needs with the help of volunteers.

Participants filled in two feedback sheets to evaluate and discuss the form used in the field inspection (**feedback 1**) and the interaction with the decision support methodology (**feedback 2**).

A collaborative web-based decision support platform in risk management.

In addition to the above section, we presented a collaborative web-based decision support platform in risk management. The platform was presented to receive the feedback of potential users. One page feedback forms were given to the participants to collect their feedback and suggestions on particular aspects of the presented platform, such as usefulness, innovativeness, user-friendliness, practice and supporting collaborative ability. This collaborative platform is part of the decision support tools developed within the CHANGES project.

3. Program of the workshop

22 SET	MONDAY	23 SET	TUESDAY
10:30 - 11:00	Registration	09:00 - 9:30	Introduction to the activity
11:00 - 11:40	Introduction to the field inspection and the inspection form	09:30 -10:15	Interaction in the web-tool with data collected for Check dam 1 (Test1).
11:45 - 12:30	One individual and group inspection Group discussion	**10:15 - 10:30**	**Coffee**
12:30 - 13:00	**Lunch**	10:30 -12:00	Interaction in the web-tool with data collected for Check dam 1 Comparison of data collected for Check dam 3 (Test3). Group discussion and feedback about the interaction with the web-software (evaluation module).
13:15 - 15:00	Individual inspection in three check dams (Test1, 2 & 3)		
15:00 - 15:15	**Coffee**		
15:15 - 15:30	Feedback about the practical use of the inspection form (**feedback 1**)		
15:30 - 16:45	Laptop configuration to interact with the prototype web-software	12:00 -13:00	Presentation and feedback form about: “A collaborative web-based decision support platform in risk management
16:45 - 17:30	Introduction to the module for the evaluation of available inspections		
		13:00 -14:00	**Lunch**

4. List of participants

No	Name:	Email:	DAY-1 Sep-22	DAY-2 Sep-23	Which of the following organization do you belong to?	Does your organization belong to the FVG?
1	Fabrizio Kranitz	fabrizio.kranitz@regione.fvg.it	X	X	Geological survey	Yes, FVG
2	Antonio Bratus	antonio.bratus@regione.fvg.it	X	X	Geological survey	Yes, FVG
3	Franco Liuzzi	franco.liuzzi@regione.fvg.it	X	X	Geological survey	Yes, FVG
4	Andrea Marpino	andrea.marpino@hotmail.it	X	X	Università degli studi di Trieste	Yes, FVG
5	Alessio Ranu	alessioranu@outlook.it	X	X	Università degli studi di Trieste	Yes, FVG
6	Edoardo Faganello	edoardo.faganello@regione.fvg.it	X	X	Hydraulic Service	Yes, FVG
7	Andrea Missio	andrea.missio@regione.fvg.it	X	X	Forestry Service	Yes, FVG
8	Fabio Giuriato	fabio.giuriato@adbve.it	X	---	Basin authority	No, national authority
9	Aldo Primiero	aldo.primiero@protezionecivile.fvg.it	X	---	Civil protection	Yes, FVG
10	Claudio Garlatti	claudio.garlatti@protezionecivile.fvg.it	X	---	Civil protection	Yes, FVG
11	Gabriele Peressi	gabriele.peressi@protezionecivile.fvg.it	X	X	Civil protection	Yes, FVG
12	Thomas Epis	thomas.epis@provincia.tn.it	X	X	Mountain services (Forestry and hydraulic services)	No, Trento province
13	Anthonio Izzo	antonio.izzo@provincia.tn.it	X	X	Mountain services (Forestry and hydraulic services)	No, Trento province
14	Fabio di Bernardo	fabio.dibernardo@protezionecivile.fvg.it	---	X	Civil protection	Yes, FVG

5. Final remarks

- For the first level inspection part and the interaction with the web-based tool, we collected 13 feedback responses in the first day and 9 feedback responses in the second day. The technicians consider the evaluation module useful and innovative. However, more effort should be done to simplify the user interface and to provide enough information (help content) for using the different components.

  Overall, technicians are willing to consider volunteers' inspections (i.e. inspection form) only to pre-screen potential problems that may require preventive maintenance. Findings highlight the importance of a culture of volunteer activities and the role of institutional frameworks in supporting volunteers' involvement. This is particularly relevant for the case of the study area (Fella basin in the Friuli Venezia Giulia).

  However, a wider test needs to be carried out. Such test should consider more structures in a sub-basin to be inspected with volunteers' involvement. Technicians considered as a pre-requirement before deciding about the applicability of the methodology (inspection form + web-software) in a long-term basis.

  In addition, the methodology should also comprise the inspection guidelines to support completeness and precision of volunteers' reports. Training strategies should also account for providing feedback to participants about the data-quality collected after every inspection campaign.

- For the collaborative decision support platform, out of 13 feedback responses obtained from the stakeholders, the *usefulness* and *supporting ability* of the platform achieved the best score out of the five categories rated as 3.8 (can be interpreted as Good Enough). In general, the participants found the platform useful and supportive enough while the remaining aspects of the prototype can be improved much better to apply in practice. During the discussion, it has also been mentioned to integrate cost-benefit and interactive spatial query tools to analyze the impact and consequences of hazard events in a certain area of interest.

6. Photo Record

Photo 1. Individual and Group inspection (Day 1)

Photo 2. Discussion about the Group inspection (Day 1)

Photo 3. Individual inspection Test 1 (Day 1)

Photo 4. Individual inspection Test 1 (Day 1)

Photo 5. Individual Inspection Test 2 (Day 1)

Photo 6. Individual Inspection Test 2 (Day 1)

Photo 7. Individual inspection Test 3 (Day 1)

Photo 8. Individual inspection Test 3 (Day 1)

7. Acknowledgements

This research was conducted in collaboration shareholders of the CHANGES project, particularly the civil protection, technical services and the local authorities of FVG, Italy. Students of the Università degli Studi di Trieste were also participants of the research. The authors would like to thank Ing. Claudio Garlatti of Civil Protection FVG for his valuable collaboration during the research. This research was funded by the European Commission within the Marie Curie Research and Training Network 'CHANGES: Changing Hydro-meteorological Risks as Analyzed by a New Generation of European Scientists' (2011-2014, Grant No. 263953) under 7th framework program.