

RISK PERCEPTION OF COASTAL FLOODING IN PRAIA DA VITÓRIA, AZORES*

Larize Lima

LNEC - Laboratório Nacional de Engenharia Civil (Portugal)
Núcleo de Portos e Estruturas Marítimas, Departamento de Hidráulica e Ambiente
llima@lneec.pt

Conceição Fortes

LNEC - Laboratório Nacional de Engenharia Civil (Portugal)
Núcleo de Portos e Estruturas Marítimas, Departamento de Hidráulica e Ambiente
jfortes@lneec.pt

Ana Catarina Zózimo

LNEC - Laboratório Nacional de Engenharia Civil (Portugal)
Núcleo de Portos e Estruturas Marítimas, Departamento de Hidráulica e Ambiente
aczozimo@lneec.pt

Liliana V. Pinheiro

LNEC - Laboratório Nacional de Engenharia Civil (Portugal)
Núcleo de Portos e Estruturas Marítimas, Departamento de Hidráulica e Ambiente
lpinheiro@lneec.pt

ABSTRACT

This communication describes the methodologies applied in the conception, implementation, and analysis of a set of surveys on the risk perception of coastal flooding, carried out in the community of Praia da Vitória (Azores, Terceira Island, Portugal).

This work is part of the project LIFE-GARACHICO* (LIFE20 CCA/ES/001641), whose objective is to create a Flexible Adaptation Strategic Framework for the coastal municipalities of Macaronesia, to increase the resilience of these areas in face of current and future (considering climate change impacts) coastal extreme events. The project follows a co-participatory approach, to promote awareness among the population and increase reliability in coastal risk management. Indeed, involving all the existent stakeholders is the first step in promoting a democratic risk management, which in the end, leads to a resilience increase, in the face of global warming conditions.

The surveys addressed 4 thematic dimensions: 1) Sociodemographic information; 2) Previous experiences with coastal flooding; 3) Information about coastal flooding in their daily lives; and 4) Resilience to cope with future flooding. 120 surveys were conducted in Praia da Vitória from February 5th to 7th, 2024, which corresponds to a representativeness of 6% and a margin of error of 8.67%. The results indicate reliability in the application of both soft adaptive measures (in order of preference: restriction of pedestrian access; use of an early warning and prediction system; restriction of vehicle access; closure of parking areas along the coast; flood drills with the population; and use of protective door and window equipment) and constructive adaptive measures (in order of preference: construction of breakwaters; construction of low-level walls; installation of benches along the promenade; and construction of high-level walls).

An Importance-Performance Analysis (IPA) showed that the community of Praia da Vitória ranks the installation of benches along the promenade and the construction of high-level walls as the least priority preventive measures and considers flood drills with the population and the use of doors and windows protection as less effective measures. The construction of high-level walls was highly rejected because they would restrict the sea view, which was considered unacceptable by most of the interviewees. All other measures are considered appropriate, emphasising restricting the circulation of people and vehicles along the coast (when necessary) and using an early warning and prediction system for floods.

Keywords: LIFE-GARACHICO, Praia da Vitória, risk perception.

*Acknowledgments: this work has been supported by the project LIFE-GARACHICO, which is part of the UE funded LIFE Programme (LIFE20 CCA/ES/001641).
