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Risk perception and social vulnerability of population in coastal areas subject to climate change in two Mediterranean regions

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Coastal areas are particularly sensitive to climate change. Owing to a significant increase in human activities and pressures, these areas have become particularly susceptible to extreme physical phenomena that increase the exposure and vulnerability of population. The Authorities ought to make strong efforts to: i) take the necessary measures and actions to reduce the negative impacts of the natural phenomena on the coastal areas, which are also due to the climate change; ii) investigate the factors that influence the communities' perception of natural hazards and the climate change. Indeed, in order to effectively manage the negative impacts of climate change both considerable scientific know-how and of people's perception of the risk associated to them is paramount.

Within this framework, a Research Project funded under the Agreement on Scientific Cooperation between CNR and the University of Malta (UoM) was developed. The Project is organized in order to synergistically combine the various scientific researches of the two partners (CNR-IRPI and University of Malta) in the context of natural hazards, public knowledge and perception of geo-hydrological risk and climate change. Calabria (Southern Italy) and Malta, the two Mediterranean regions considered as target areas for the Project, show different geomorphological and climatic settings but, although with different exposure levels, they are both affected by extreme physical phenomena and climate change.

The goals of the Project are the following: i) identify the population's awareness, perception and preparation concerning the effects that climate change has on coastal areas through online and face to face questionnaires; ii) assess the social vulnerability and develop a specific Index of Social Vulnerability in relation to natural hazards in the target areas (Calabria and Malta); iii) propose useful tools to local authorities and to responsible of territory planning and of risk prevision, prevention and management; iv) raise awareness among stakeholders and citizens around the issues linked to the effects of climate change on the increased frequency of extreme natural events. In the first half of the Project, a survey based on questionnaire for analysing population's perception of geo-hydrological risks and climate change was carried out and the obtained results

were analysed. At the end of the Project, the results will help to perform a wider and more thorough risk analysis that takes into account the potential increase in exposure and vulnerability of coastal areas population as a result of climate change in the two Mediterranean regions.