

Resilience assessment of public treasury elementary school buildings

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Abstract The resilience of buildings and civil engineering infrastructures has increasingly attracted the attention of different stakeholders, including engineering professionals from different areas, scientists, standardization bodies, investors and financial institutions, regulatory agencies, different user groups, as well as national and regional administrative services. This interest has motivated the development of methods for classifying the resilience of built assets, to identify aspects that can be improved and establish investment priorities, to increase their resilience when facing extreme events or other types of risks. The paper presents contributions to improve a system for classifying the resilience of built assets organized in dimensions, indicators and parameters that cover not only the intrinsic characteristics of buildings, but also their exposure to natural and man-made hazards, with the community and with the users. The paper specifically focuses on the resilience of public treasury buildings elementary schools in the municipality of Lisbon, some of which have been object, throughout their life cycle, of different interventions carried out within the scope of different public investment programs.

1 Introduction

The urban resilience of built assets can be seen as the ability of these physical assets to withstand severe damage within acceptable degradation parameters and to recover within reasonable time intervals. No definition for this has yet been unified as strength, absorption and recovery characteristics are generally recognized as the basis of resilience systems. As marked advantages of increased relevance increasingly attract the attention of managers and design for their use in various resources specially allocated risk reduction and prioritizing the budget to animals specially allocated to the built resources that need to be preserved the closest (Falcão Silva et al, 2020; Burroughs, 2017; Rahi, 2017; VRS, 2017).

Some countries are already developing and implementing different types of classification models for quality management systems and governance methodologies for different buildings, based on different approaches. In Portugal, there is still a