1. Record Nr. UNINA9910337898503321 Autore Bignami Daniele Fabrizio Titolo Flood Proofing in Urban Areas / / by Daniele Fabrizio Bignami, Renzo Rosso, Umberto Sanfilippo Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-05934-0 Edizione [1st ed. 2019.] 1 online resource (279 pages) Descrizione fisica Disciplina 627.4 Soggetti Climate change **Environmental sciences** Natural disasters Urban planning City planning Sustainable development Climate Change **Environmental Science and Engineering Natural Hazards** Urbanism Sustainable Development Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Chapter 1. Introduction -- Chapter 2. Flood Impact on Buildings --Nota di contenuto Chapter 3. Flood Impact on Human Beings Stability -- Chapter 4. Flood Impact on Mobilizable Objects -- Chapter 5. Global Criteria for Impact Estimation -- Chapter 6. Hydrodynamic Criteria for Impact Evaluation -- Chapter 7. Flood Proofing Methods -- Chapter 8. Temporary flood proofing techniques planning -- Chapter 9. Temporary flood proofing devices analysis -- Chapter 10. Tests, Guidelines and Norms. Flood control in urban areas can be feasibly and cost-effectively Sommario/riassunto enhanced by implementing flood proofing approaches to risk reduction in the context of environmental and land-use planning and

management. Indeed, flood proofing makes it possible to improve,

integrate and in some cases even replace traditional measures for flood control, reducing the vulnerability and increasing the resilience of buildings and infrastructures. This book begins by reviewing the physics of stability and instability of both human beings and buildings under flood conditions, together with criteria and models (both conventional and innovative) for assessing flood strains. In turn, it presents a range of flood proofing concepts and techniques, together with a complete and updated classification of related methods and devices. This provides a user-friendly tool to help identify appropriate solutions to real-world problems for each specific risk scenario. In particular, the book focuses on temporary flood proofing techniques. given their ability to deliver effective performance at low costs. Lastly, it features an overview of norms, guidelines and laboratory recommendations that are currently being adopted in various countries with regard to flood proofing devices and testing procedures. The purpose of this book is essentially to encourage authorities. stakeholders, technicians and end users to successfully develop flood proofing solutions that can reduce flood risk in a pragmatic manner. In addition, the authors hope to inspire researchers, manufacturers and designers (engineers, architects, urban planners and urban managers) to pursue further advances in this key sector of public and private safety in urban areas.