1. Record Nr. UNINA9910633924203321 Proceedings of the 4th Global Summit of Research Institutes for **Titolo** Disaster Risk Reduction: increasing the effectiveness and relevance of our institutes / / Hirokazu Tatano, Andrew E. Collins, editors Singapore:,: Springer,, [2023] Pubbl/distr/stampa ©2023 **ISBN** 981-19-5566-2 Descrizione fisica 1 online resource (337 pages) Disaster and Risk Research: GADRI Book series Collana Disciplina 363.348 Soggetti Disaster relief Hazard mitigation Lingua di pubblicazione Inglese **Formato** Materiale a stampa

Livello bibliografico Monografia

Nota di bibliografia Includes bibliographical references.

Nota di contenuto Intro -- GADRI Foreword -- Preface -- Acknowledgements --

Messages from the Opening Ceremony -- Contents -- Part I Report of Activity of the 4th Global Summit of GADRI -- 1 Report on the 4th Global Summit of Research Institutes for Disaster Risk Reduction (4thGSRIDRR2019) -- 1.1 Plenary I: Listening to Advice and Management of Science Knowledge by Various Stakeholders --1.1.1 Madame Setsuko Seya, Director, Disaster Management Bureau, Cabinet Office, Government of Japan, Japan -- 1.1.2 Mr. Soichiro Yasukawa, Coordinator, Natural Sciences Sector, UNESCO, France --1.1.3 Mr. Masato Miyazaki, Special Representative Japan, The World Bank Tokyo Office, Japan -- 1.1.4 Prof. Toshio Koike, Director, International Centre for Water Hazard and Risk Management (ICHARM) Under the Auspices of UNESCO, Japan -- 1.2 Plenary Session II: Fostering Uptake of Science in Governments and Industries -- 1.2.1 Ms. Shoko Arakaki, Chief of Branch, Partnerships, Inter-governmental Process and Inter-agency Cooperation, the United Nations Office for Disaster Risk Reduction (UNDRR), Switzerland -- 1.2.2 Dr. Jörgen Sparf, Mid Sweden University, Sweden, and the European Science and Technology Advisory Group (E-STAG) of the UNDRR -- 1.2.3 Prof. Virginia Murray, Global Health Disaster Risk, Public Health England, UK -- 1.2.4 Prof. Andrew Collins, Leader, Disaster and Development

Network (DDN), Northumbria University, UK -- and Chair of the GADRI Board of Directors -- and Member of the Global Risk Assessment Framework (GRAF), UNDRR -- 1.3 Plenary Session III: Bridging Science and Decision-Making Through Sharing of Knowledge -- 1.3.1 Prof. Eiichi Nakakita, Disaster Prevention Research Institute (DPRI), Kyoto University, Japan -- 1.3.2 Dr. Jean-Paul Pinelli, Department of Mechanical and Civil Engineering at the Florida Institute of Technology (FIT), USA. 1.3.3 Dr. Elisabeth Krausmann, European Commission-Joint Research Centre (EC-JRC), Italy -- 1.3.4 Dr. Craig Davis, Founding Executive Committee Chairperson, Infrastructure Resilience, American Society of Civil Engineering (ASCE), USA -- 1.4 Plenary IV: New Scientific Challenges to DRR and DRM -- 1.4.1 Prof. Ortwin Renn, Scientific Director, Institute for Advanced Sustainability Studies (IASS), Germany -- 1.4.2 Prof. Mohsen Ghafory-Ashtiany. Earthquake Engineering and Risk Management, International Institute of Earthquake Engineering and Seismology (IIEES), I. R. Iran -- 1.4.3 Prof. Desmond Manatsa, Full Professor, Geography Department, Bindura University of Science Education, Zimbabwe -- 1.4.4 Prof. Rajib Shaw, Keio University, Japan -- and Chair, Scientific and Technical Advisory Group (STAG), UNDRR -- 1.5 Panel Session 1: Group Discussion Session I: Contributions to Increase the Effectiveness and Relevance of Our Institutes in DRR -- 1.5.1 Group 1-A: Water and Weather Related-Rapporteur Prof. Tetsuya Takemi, DPRI, Kyoto University, Japan -- 1.5.2 Group 1-B-Earthquakes and Volcanoes Group-Rapporteur Dr. Craig Davis, Founding Executive Committee Chairperson, ASCE Infrastructure Resilience Division. USA -- 1.5.3 Group I-C-Geohazards-Rapporteur Prof. Michel Jaboyedoff, University of Lausanne, Switzerland -- 1.5.4 Group I-D-I and II-Social Dimensions of Risk and Health in Disaster Risk Management-Rapporteurs Dr. Ram Sateesh Pasupuleti. Indian Institute of Technology, Roorkee, India -- and Ms. Robin Eve Miller, Northumbria University, Newcastle Upon Tyne, UK -- 1.5.5 Group I-E-Natech (Natural and Technological Accidents) and Cross-Cutting Issues-Rapporteur Dr. Maria Suarez from DPRI, Kyoto University, Japan -- 1.5.6 Recommendations and Wrap-Up from the Panel Chairs. 1.6 Panel II-Group Discussion II-Effectiveness and Relevance of Disaster Research Institutes in DRR-Contributions to World Stakeholders -- 1.6.1 Group II-A GADRI Contributions to the 2016 Science and Technology Roadmap-How Best Could GADRI Promote SFDRR 2030 Agenda?-Rapporteur, Dr. Annisa Trivanti, Postdoctoral Researcher, Utrecht University, the Netherlands -- 1.6.2 Group II-B-SDGs, Climate Change Adaptation-What Engagement Mechanisms and Research Linkages are Needed to Influence Research Directions Among Policy-Makers, Governments, Localities, Media, and Other Groups?-Rapporteur Prof. Yuichi Ono, IRIDeS, Tohoku University, Japan -- 1.6.3 Group II-C-Knowledge Management and Science Synthesis-Nation's Synthesis: Online Synthesis System and Pre-synthesis-Rapporteurs Dr. Rodrigo Cienfuegos, Centro de Investigación para la Gestión Integrada del Riesgo de Desastres (CIGIDEN), Chile -- and Dr. Indrajit Pal, Asian Institute of Technology (AIT), Thailand -- 1.6.4 Group II-D-Research Funding-Where is the Funding for Disaster Risk Reduction Activities Coming From and is this Invested to the Right Causes and the Areas that are Most Needing Support?-Rapporteur Dr. Subhajyoti Samaddar, DPRI, Kyoto University, Japan -- 1.6.5 Group II-E-Data Working Group-What are the Real Strengths and Weaknesses of Data and Risk Management? Rapporteur-Dr. Sameh Kantoush, DPRI, Kyoto University, Japan -- 1.6.6 Group II Panel Discussion Session --1.7 Wrap-Up Session -- 1.7.1 Resolution of the 4th GADRI Summit-15

March 2019 -- 1.8 In Conclusion -- References -- Part II Plenary Sessions -- 2 Enhancing Disaster Preparedness and Building Resilience: UNESCO's Multi-hazard, Multi-disciplinary, and Multi-stakeholder Approach on Disaster Risk Reduction -- 2.1 Introduction -- 2.2 The United Nations Educational Scientific and Cultural Organization and Its Role on Disaster Risk Reduction. 2.2.1 The Multi-hazard, Multi-stakeholder, and Multi-disciplinary Approach on Disaster Risk Management and Reduction -- 2.2.2 UNESCO's Main Contributions on DRR to Major Global Challenges -- 2.3 Conclusions -- Bibliographys -- 3 Presentation on "THE Sendai Framework and Science Advice to Governments to Support Implementation-Suggestion on What Works" by Prof. Virginia Murray, Head of Global Disaster Risk Reduction, Public Health England, UK --References -- 4 Presenting the "Global Risk Assessment Framework (GRAF), UNISDR-Emphasising the Relevance of Disaster Research Institutes" by Prof. Andrew Collins, Disaster and Development Network (DDN), Northumbria University, UK -- Chair of the GADRI Board of Directors -- Associate Member of the Global Risk Assessment Framework (GRAF), UNDRR -- References -- 5 Disaster Risk Management Knowledge Centre: A Collaborative Approach to Foster Resilience -- 5.1 Introduction -- 5.2 Developing Collective Knowledge and Innovative Tools to Enhance Resilience --5.2.1 The Projects Explorer -- 5.2.2 Science for DRM -- 5.2.3 Recommendations for National Risk Assessment in Disaster Risk Management in EU -- 5.3 Innovation as Key Engine to Face a New Era of Risks -- 5.3.1 DRMKC Risk Data Hub -- 5.3.2 DRMKC Going Global: INFORM SUITE -- 5.3.3 DRMKC Gaps Explorer -- 5.3.4 Global Conflict Risk Index -- 5.3.5 Natech Risk Assessment and Mapping -- 5.3.6 Natech Risk Management Performance Indicators -- 5.4 Conclusions --References -- 6 Infrastructure Resilience: A Framework for Assessment. Management and Governance -- 6.1 Introduction -- 6.2 Infrastructure Resilience Framework -- 6.2.1 Element 1: Infrastructure Resilience Domain -- 6.2.2 Element 2: Building and Lifeline System Performance or Functionality -- 6.2.3 Element 3: System Service Provision and Operability -- 6.2.4 Element 4: Continuity of Services. 6.2.5 Element 5: Social and Economic Activity -- 6.2.6 Element 6: Community -- 6.2.7 Element 7: Establish Community Performance Targets -- 6.2.8 Element 8: Define Infrastructure System Performance Targets -- 6.2.9 Feedback -- 6.3 Multidisciplinary -- 6.4 Conclusions -- 6.5 Appendix I: Review of Existing Resilience Frameworks -- 6.6 Appendix II: The Social, Built Infrastructure, and Natural Environment Systems Relationships -- 6.6.1 Definitions -- 6.6.2 System Relationships -- References -- 7 Harnessing Scientific Knowledge and Technological Innovation for Disaster Risk Reduction (DRR) in Sub-Saharan Africa-Case of Social Media -- 7.1 Introduction -- 7.2 Sendai Framework for DRR 2015-2030 on Technology Innovation for Sub-Saharan Africa -- 7.3 Current Vulnerabilities of Sub-Saharan Africa to Hydrometeological Hazards -- 7.4 Adoption of Social Media and Big Data Analytics by Sub-Saharan Africa -- 7.4.1 Social Media Approach Using Big Data Analytics and Data Mining -- 7.4.2 Challenges to the Effective Use of Social Media in DRR for Sub-Saharan Africa --7.5 Summary and Conclusion -- References -- Part III Group Discussion Sessions -- 8 Concept Notes for Group Discussion Sessions -- References -- Part IV Selected Presentation Papers (Arranged by Country Order) -- 9 Community Resilience Against Flood: The Case of the LIFE PRIMES Project -- 9.1 Introduction -- 9.2 The LIFE Funding Programme and the LIFE PRIMES Project -- 9.3 Methodology -- 9.4 Results and Discussion -- 9.5 Conclusion -- References -- 10

Yonmenkaigi System Method as an Educational Framework for Climate Change Within the United Kingdom: A Pilot Study -- 10.1 Introduction -- 10.1.1 Background -- 10.1.2 Climate Change Education -- 10.1.3 Attention Rates of Students -- 10.1.4 Aims of the Study -- 10.2 Methodology -- 10.2.1 A Brief Introduction to the Yonmenkaigi System Method -- 10.2.2 Sample. 10.2.3 Data Analysis.