NATURAL HAZARD EXPOSURE INFORMATION MODELLING FRAMEWORK

Krishna Nadimpalli
Geoscience Australia, Canberra
PROJECT TEAM

Research Manager: Michael Rumsewicz, BNHCRC

Lead User Representative: Matt Hayne, GA
Ralph Smith, WA-DFES

Lead Researcher: Michael Griffith, Uni. of Adelaide

Project Leader: Krishna Nadimpalli, GA

Research Team: Abbas Rajabifard, Uni. Of Melbourne
Mohsen Kalantari, Uni. Of Melbourne
Yogi Vidyattama, Uni. Of Canberra
Post Doc. GA

End Users: Elliott Simons, NSW-SES
Shane Turner, SA-DPTI
Corey Shackleton, NSW-Rural Fire Service
Greg Howard, SA Metropolitan Fire Service
PROBLEM STATEMENT

Nationally consistent exposure information framework is required to develop capabilities to address disaster preparedness, planning, response and recovery for use across all levels of governance (local, state and federal), industry and research.

Review the existing exposure information capabilities and practices to identify gaps and develop strategies in order to develop more robust, reliable and operational capabilities.
OBJECTIVES

1) To develop built environment exposure framework consists of buildings, infrastructure and population
2) To develop a business exposure framework to assess the business continuity measures, disruption, resilience and recovery
3) To develop national standards and data dictionaries for the exposure information to ensure consistency
4) To develop exposure data reliability assessment framework to assist the understanding of data reliability for various uses
OUTCOMES

1) Developed nationally consistent, standardised exposure information that supports scalability in vulnerability assessments for disaster risk reduction and socio-economic impact analysis to support policy making.

2) Framework forms the basis of exposure information capabilities describing key characteristics of the population, buildings assets, essential infrastructure and associated activities exposed to natural hazards and enables vulnerability assessments.

3) Provides pathways to develop exposure information capabilities and enable them in decentralised and open access of location based exposure information relevant for use at national, state and local government levels.
OUTCOMES - LINKAGES

Resilience
- D7. M. Jones
- D6. Handmer
- C6. Taylor
- C7. Baldaro
- B8. Setunge
- B7. Ginger
- B3. Nadimpalli

Governance
- D8. Barnes
- D9. Bearman
- B5. Morley
- B1.2 James
- B2. R. Jones
- A1. van den Hoorn
- A2. Mason
- A7. Maier
- A6. Pannell
- A8. Rajabifard

Risks
- C1. Nichol
- A5. Pattiaratchi
- C4. Bell
- D3. Thorpe
- D5. Eburn
- C3. Weir
- A1. van Dijk
- A4. S.Jones
- D1. Repert
- D1.1 Edwards
- D4. Dharssi
- D2. Pauwels

bnhcrc.com.au
DISCUSSION

Krishna Nadimpalli
Geoscience Australia, Canberra
Krishna.Nadimpalli@gmail.com

02 6249 9732