

# **Roles and Challenges of Science and Technology in DRR in Indonesia**

Sugeng Triutomo  
Indonesia Defense University (UNHAN)  
IPSC, Bogor, Indonesia

# Science and Technology in Decision Making

- Science is stated as one of the principles in DM Law.
- Government of Indonesia in the Midterm Development Plan (RPJMN) 2014-2019, stated that the target of DRR is to reduce disaster risk index, mainly in the growth centers.
- Ministry for Research, Technology and Higher Education placed disaster as one topic of main research.
- BNPB has developed methodology for disaster risk assessment with 71 indicators to monitor disaster risk.
- Five of 9 members of BNPB steering group member has academicians background.

# Investment in Science and Technology

- Ministry of Research, Technology and Higher Education allocated budget for research in disaster reduction.
- BMKG has established of Ina-Tsunami Early Warning System (TEWS)
- Indonesia Institute of Sciences (LIPI) allocated budget for research in Disaster Mitigation and CCA
- BNPB has supported risk mapping to all 34 provinces and more 80 districts and municipals.
- Implementation of Safer School Program (BNPB with Ministry of Education & Culture).
- UGM has implemented Landslides Early Warning System in (LEWS) in disaster prone areas.

# Science link to People

- More than 40 universities has established disaster study centers, which has task to apply disaster sciences to the public. The study centers gather in the University Forum for DRR (Forum PT-PRB).
- Researchers, educators and practitioners in DRR has established Indonesian Disaster Expert Association (IABI) in 2014. IABI conducted Annual Scientific Meeting (seminar, workshop and exhibition) for public.
- Some universities practices “river school” to build safety culture to the people living in the riverside.
- Some universities deploy their students for real field work before they graduated. Community based disaster risk reduction is one option for this activity.

# Challenges

- Science based disaster risk management plan has been formulated, but has not enacted yet to become a master-plan for DRR.
- Indicators developed for disaster risk index is difficult to be fulfill, due to lack of data in local levels.
- Investment in science and technology in DRR mostly done by government, it is rarely done by private sectors.
- Investment in DRR is scattered in government institution, it is need to be integrated plan.
- State budget allocated for DRR investment is limited, it is imperative to be increased.

# Out of SFDRR Priority Areas

- Synchronizing SFDRR with ISO TC 292
  - Mirror Committee ISO TC 292 established
  - Integration to Indonesia National Standard (SNI), Technical Committee SNI 13-08
- Convergence DRR and CCA
  - still in progress done by BNPB in cooperation with Ministry of Forestry and Environment.
- Certificate of Competence in DM
  - Professional Certification Institute (LSP) in DM was established (46 core competences)
  - To be discussed for ASEAN DM Certification, in the ACDM WG Knowledge, Innovation and Management

striutomo@gmail.com

**THANK YOU**