# DCR PILLARS













### **RESEARCH STATIONS**





**SCAN HERE** 



## **PARTNERS**



























# **DISASTER AND CLIMATE RESILIENCE (DCR)**

Disaster and Climate Resilience (DCR) is a crucial field that plays a significant role in ensuring the safety and sustainability of communities facing natural disasters and climate change impacts. DCR encompasses a wide range of strategies and measures to reduce disaster risks, enhance preparedness, and foster recovery and adaptation efforts.

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### **Current Publication:**

- Azhari D., Sagala S., Krismiyaningsih E., Zahra R., Arsy F., & Putra M. (2024) Catalysing Adaptive Social Protection for Sustainable Resilience of Southeast Asia: Gaps, Stakeholder, and Policy Mechanism. ASEAN Risk Monitor and Disaster Management Review (ARMOR) 4th Edition Book Chapter.
- Sagala, S., Azhari, D., Lutfiananda, F., & Salsabiela, I. (2023). Spatial pattern of COVID-19 positivity rates in Indonesia during local restriction phase: A case study of Jakarta and Surabaya City. In The Role of GIS in COVID-19 Management and Control (1st ed., p. 23). CRC Press. https://doi.org/9781003227106
- Sagala, S., Azhari, D., Putra, M., Avila, B. E., & Salsabiela, I. (2023). Local knowledge's roles for nature-based solutions as flood risk management at Pangpang Bay, Indonesia. In Handbook of Flood Risk Management and Community Action (1st ed., p. 12). Routledge. https://doi.org/9781003315247
- Fahmi, F. Z., Krismiyaningsih, E., Sagala, S. A. H., & Rustiadi, S. (2023). Creative industries and disaster resilience: A focus on arts- and culture-based industries in Indonesia. International Journal of Disaster Risk Reduction, 99, 104136. https://doi.org/10.1016/j.ijdrr.2023.104136
- Sutton, S. A., Paton, D., Buergelt, P., Sagala, S., & Meilianda, E. (2022). 'Village' as verb: Sustaining a transformation in disaster risk reduction from the bottom up. Environmental Science & Policy, 137, 40-52. https://doi.org/10.1016/j.envsci.2022.08.009

# **ROAD MAP**

As part of its vision to enhance research in disaster and climate resilience. RDI's road map focuses on specific areas that need further exploration. Climate change's impact on children is an emerging concern that requires attention, as children are often among the most vulnerable populations in disaster-prone regions. Understanding how climate change affects children's well-being and what measures can be taken to protect and support them is an essential step in building more resilient communities.

# **DCR ACTIVITIES**

Additionally, urban resilience is a critical aspect that the DCR cluster intends to delve deeper into. As urbanization accelerates and more people inhabit cities, understanding how to make urban centers resilient to natural disasters and climate change becomes imperative. By developing strategies for sustainable infrastructure, efficient emergency response, and community engagement, urban areas can become more prepared to withstand various challenges.

# **PROJECTS**

RDI has collaborated with various institutions for either projects or events. Some of the key collaboration include:

- World Food Programme (WFP): Assessing the Plausible Future Climate Impacts on Livelihoods and Food Security and Co-Production of Climate Adaptation Options for CLEAR+
- 2. AHA Centre: ASEAN Standards and Certification for Experts in Disaster Management (ASCEND) Toolboxes Implementation & Evaluation
- ASEAN Secretariat: Disaster Management Advisor for The ASEAN Socio-Cultural Community (ASCC) Research and Development Platform
- 4. UNDP: Disaster Risk Financing Insurance (DRFI) Strategy Review and Roadmap
- Center for Disaster Protection: Expanding and Improving Disaster Risk Financing Insurance (DRFI)

- 6. USIP: The Implications of Climate and Environmental Change on Migration and Displacement
- 7. IOM: Envision Climate Human Mobility in Sub-national and National Level of Indone-
- 8. UNICEF: Integration of Adaptive Social Protection Financing Strategy into The DRFI Strategy and Considerations for The Ministry of Finance Regulation on Disaster Pooling Fund
- 9. KONEKSI: Towards Future-Proof Society: Adaptive Social Protection Against Climate

2022

2023

2024

# **Community Resilience:**

- 1. Understanding the Complexity Displacement Risk
- 2. Partners for inclusion: Localising Inclusive Humanitarian Response
- 3. Localisation Approach of Inclusive Disaster Risk Reduction
- 4. Safe School in Disaster Risk Reduction
- 5. Enhance Food Security in the Disaster Crisis

### **Resilient Insfrastructure:**

- 1. Developing framework to upscale the implementation of Nature-based solutions
- 2. Identifying the potential of Nature-based Solution to address the impact of climate
- 3. Increasing public understanding of Nature-based Solutions value planning in pandemics
- 4. Early warning system to multi-hazard for community resilience

### **Risk Governance and Financing:**

- 1. Forest Fire Management: Transboundary Haze Pollution and effect in SEA
- 2. Formulating Adaptive Social Protection Roadmap
- 3. Ecological resilience of Nature for Sustainability
- 4. The Governance of Pandemic After-Effect
- Transboundary Hazards: 1. Roadmap, knowledge and data management
- for governance of geological hazard 2. Risk governance based on spatial analysis on COVID-19

- 1. Enhance Durable Solution to Address Disaster Displacement Risk
- 2. Strengthen the Governance in Inclusive Disaster Risk Reduction
- 3. Social Capital & Community Cohesion in the Disaster Management Phase
- 4. Integrating Human Rights for CCA-DRR

- 1. Integrating computational approach to modeling nature-based solutions
- Assessing local knowledge approach for leveraging
- 3. Resilient shelter and settlement for systemic risk
- 4. Adaptive & resilient infrastructure, including regional and transborder

- 1. Mainstreaming Disaster Risk Financing & Insurance
- 2. Mainstreaming Adaptive Social Protection in Indonesia
- 3. Reviewing Intervention of Resilience Impact
- 4. Environment and Forestry Resilience
- 5. Resilience Management in Aftermath of Pandemic
- 1. Data, Risk Assessment, Integrated Data Management for geohazard resilience
- 2. Bandung Seismic Cities3. Health Impact of Climate Change
- 4. Regional Disaster Management Expert Capacity Enhancement
- 5. Multi-Hazard Risk Management in ASEAN

- Disaster Management Enhancement Against Public Health Emergencies Operations
- 2. Making Innovative Disaster Risk Financing Work in
- 3. Disaster Loss and Damage from Climate-Induced
- 4. ASEAN Supply Chain Infrastructure Resilience

- 1. Strengthen the Governance in Disaster Displacement Risk Issues through Advocacy Initiatives on National
- 2. Disaster & Climate Change's Impact on Community
- Well Being and Livelihood

  3. Understanding Citizen Exposure on Multi-hazard
- 4. Deploying Resilience Measurement and Impact

- 1. Upscaling NBS practices to address disaster risk
- 2. Resilience in Codes, Standards and Regulations for Buildings, Infrastructure, and Land Use Systems
- 3. Critical Infrastructure Resilience and Knowledge of Emerging Technologies

- 1. Advocating Collaborative Governance to Achieve Climate Financing
- 2. Fostering ASP Roadmap Implementation in Indonesia
- Bridging The Gaps of Disaster Risk Insurance
   Strengthening Private Sector Engagement in Building
   Systemic and Sustainable Finance Governance
- 5. Deploying Resilience Measurement and Impact Assessment at Local level

- Multi Hazard Preparedness
  1. Analysis on multi-hazards interaction Multilayer impact of climate change
- 2. Technological approach for multi hazard early warning platform
- 3. A preparedness approach: establish database of potential non-tectonic tsunamigenic

- 1. Response strategy and capacity for emergency management in local, national, and regional level
- 2. Smart & systematic early actions in regional context 3. Temporary shelter plan and programme for the
- 4. Assessing the role of regional humanitarian response team in emergency management

- Well-Being and Livelihood Deploying Resilience Measures at Local level

- Strengthening Institutional Governance of NBS practices for DRR and the Enhancement of Private and Community
- 2. Building Strategies to Implement Codes, Standards and Regulations for Resilient Buildings, Housing,
- 3. Fostering Critical Infrastructure Resilience by Leveraging
- Knowledge of Emerging Technologies
  4. Deploying Resilient Infrastructure in Community Level
- sub-national, national, and global level
- 2. Promoting risk-informed decision-making process through institutional capacity and comprehensive monitoring and evaluation system
- 3. Fostering ASP Implementation
- 4. Bridging The Gaps of DRFI
- Strengthening Private and Informal Financing Schemes/Solutions for Resilience

- Analysis on multi-hazards interaction

  Forecast-based planning for multi-hazards preparedness
- 3. Upscaling MHEWS and integrate with early action

- Fostering the capacity of humanitarian actors in disaster management
- 2. Empowering post-disaster needs assessment in emergency response
- Managing Humanitarian Logistics and Supply Chain
- 4. Integrating EOC Schemes in National and Local Levels
- Shelter and settlement plan and programme for the affected community