



**Asia-Pacific  
Economic Cooperation**

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**2022/SOM3/EPWG/009**

Session 4.1.1 (1)

## **Regional Economic Integration Through the Lens of Disaster Resilience (2021-2022) (EPWG 01 2021S)**

Purpose: Information  
Submitted by: China



**18<sup>th</sup> Emergency Preparedness Working Group  
Meeting  
Chiang Mai, Thailand  
18 August 2022**

# **Regional Economic Integration through the Lens of Disaster Resilience (2021-2022)**

Self-funded by EPWG China

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# Research and Events

1. Research on existing risk assessment tools or methodologies and exploring the possibility of developing a regional standardized risk assessment methodology

2. Research on how to encourage a risk-smart business model to help enterprises build resilience against risks

3. A video on local DRR stories: to highlight the value of indigenous experience. Peer learning can serve as a source of knowledge and inspiration for member economies through which the localization of the Sendai Framework can be further advanced

4. Workshop on “From New Normal to Better Normal: Better Risk Monitoring and Assessment for A Risk-informed Regional Economic Integration”, 23-24 September 2021

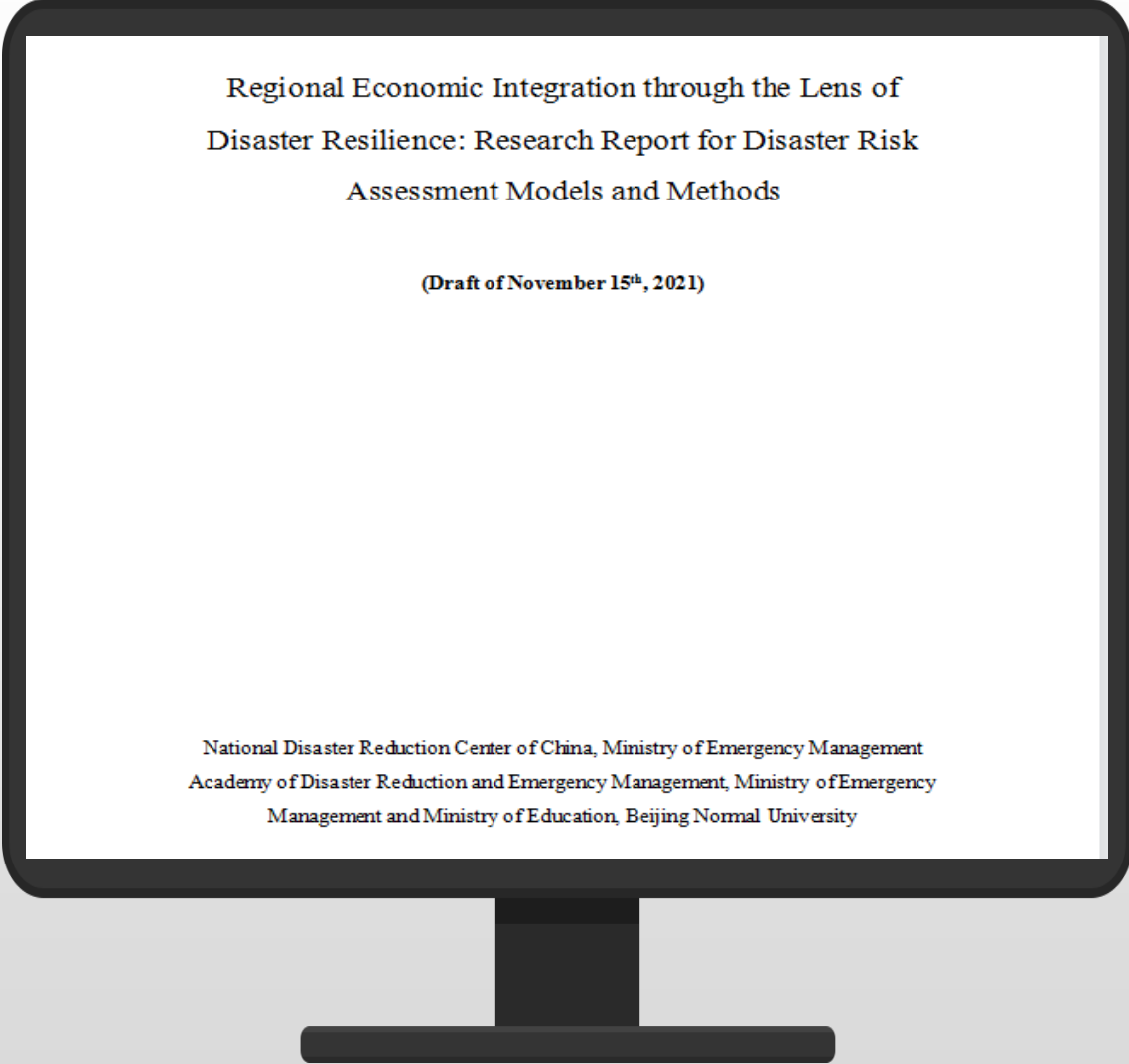


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## **Outputs and Outcomes**

## 1. Research Report on Regional Risk Assessment Tools and Methodologies

- a. Case study on existing/ available risk assessment tools or methodologies (global/ regional/ certain APEC economies)
- b. Analysis: advantages and limitations of existing risk assessment tools or methodologies; challenges faced by existing tools
- c. Recommendations: for APEC sub-fora/ APEC member economies/ technical agencies



Regional Economic Integration through the Lens of  
Disaster Resilience: Research Report for Disaster Risk  
Assessment Models and Methods

(Draft of November 15<sup>th</sup>, 2021)

National Disaster Reduction Center of China, Ministry of Emergency Management  
Academy of Disaster Reduction and Emergency Management, Ministry of Emergency  
Management and Ministry of Education, Beijing Normal University

# 1. Research Report on Regional Risk Assessment Tools and Methodologies

- Introduction

- a. Understanding Disaster Risk in the APEC Region
- b. Basic Socio-economic Characteristics of APEC Economies
- c. Disaster Impact on APEC Economies

- Case Studies on Existing Disaster Risk Assessment Models

- a. Overview of Existing Disaster Risk Assessment Models
- b. Global Risk Assessment Models
  - Global Risk Assessment Platform (UNDRR)
  - Disaster Risk Index (UNDP)
  - Comprehensive Approach to Probabilistic Risk Assessment
  - World Risk Index (UNU)
  - Swiss Re Catnet

- c. Regional Risk Assessment Models

- Disaster Risk Assessment for Project Preparation: A Practical Guide (ADB)
- ASEAN Regional Risk and Vulnerability Assessment Guidelines (ASEAN)
- Risk Assessment and Mapping Guidelines for Disaster Management (European Union)
- INFORM Risk Index (Joint Research Center of European Commission)
- Americas Programme
- d. Disaster Risk Assessment Models for First Risk Survey in China
- e. Risk Assessment Models used in other APEC Economies
  - HAZUS (US)
  - All Hazards Risk Assessment (Canada)
  - InaSafe (Indonesia)
  - National Emergency Risk Assessment Guidelines (Australia)
  - Seismic Hazard Information Station (Japan)

# 1. Research Report on Regional Risk Assessment Tools and Methodologies

- Analysis: Model Comparison and Summary

- a. Model Advantages: Systematic, Integrated, Univesal and Simple

- b. Modeal Limitations: Localization, Difficulty in obtaining quantatitive risk, Poor regional comparability, Barriers between risk assessment and policy implementation, Model integration

- c. Model Challenges:

In the Post-pandemic Era - Risk Assessment Combining Public Health Events;

Synchronized and Cascading Disasters - Difficulties of Risk Assemment;

Risk-informed Approches and Their Application in Risk Assessment;

Dealing with Emerging Risks - New Ideas Needed for Risk Assessment

- Recommendations

For APEC Sub-fora (EPWG): Knowledge Sharing and Research on the Standardization of Risk Assessment Tools or Methodology

For APEC Member Economies: Localization of Risk Assessment Tools or Methodology; Demand-oriented Multiple Assessment Models; Cross-Discipline Knowledge Integration

For Technical Agencies/ From Technical Perspectives: Standardized Model Processes; Standardized Model Indicators; Model Indicators Localization; Information Sharing; Multi-hazard Risk Models; Model Integration Platform



## 2. Guidebook for Enterprises on Disaster Resilience Capacity Building

1. What are the impacts of disasters on businesses/ enterprises?
2. What does disaster resilience mean for enterprises? Key factors? Challenges? Going forward?
3. What are policy recommendations for enterprises themselves? for governments? for APEC?

**Self-funded project of Emergency Preparedness  
Working Group(EPWG),APEC**

**Guidelines for Enterprises on Disaster Resilience  
Capacity Building  
(Draft of December 10th, 2021)**

National Disaster Reduction Center of China,Ministry of Emergency  
Management  
Xinxing Jihua Science &Technology  
Development Co.,Ltd.

## 2. Guidebook on Business Resilience and Capacity Building

- Introduction
- Impact of Disasters on Enterprises
  - a. Macro Socio-Economic Impact
  - b. Natural Hazards in the the Asia-Pacific Region
  - c. Impact of Disasters on Enterprises
  - d. Business Continuity in the Event of Disasters
  - e. Enterprises Participation in Disaster Risk Management
- Research on Current Situation of Enterprises Capacity Building on Disaster Resilience
  - a. Basic Concepts of Enterprises Disaster Resilience
  - b. Components of Enterprises Disaster Resilience and Capacity Building: Supply Chain, Market Demand, Investment and Financing, Technology, Organization, Corporate Culture
  - c. Challenges: COVID-19 and Disaster Resilience; Risk of Supply Chain Disruption after Natural Hazards; Long-lasting Impact of Mounting Systemic Hazards
  - d. Way Forward: Preparedness, Supply Chain, Digital Transformation, Inter-department Cooperation, Role of Government, and Innovations.
- Analysis on Influencing Factors of Disaster Resilience Capacity Building
  - a. Preparation: Laws and Regulations; Financial and Budgetary Methods; Contingency Planning; Emergency Training;
  - b. Early Warning: Risk Identification, assessment, emergency warning
  - c. Response: Decision-making, Coordinated Emergency Response, Equipment Support, Supply Chain Support, Financial Support, Transportation Support, Sales Channel Support
  - d. Recovery and Reconstruction: Loss Assessment, Reconstruction, Learning
- Policy Recommendations
  - a. For APEC Member Economies
  - b. For Governments
  - c. For Enterprises
  - d. Evaluation Tools

### 3. Video: Local DRR Stories

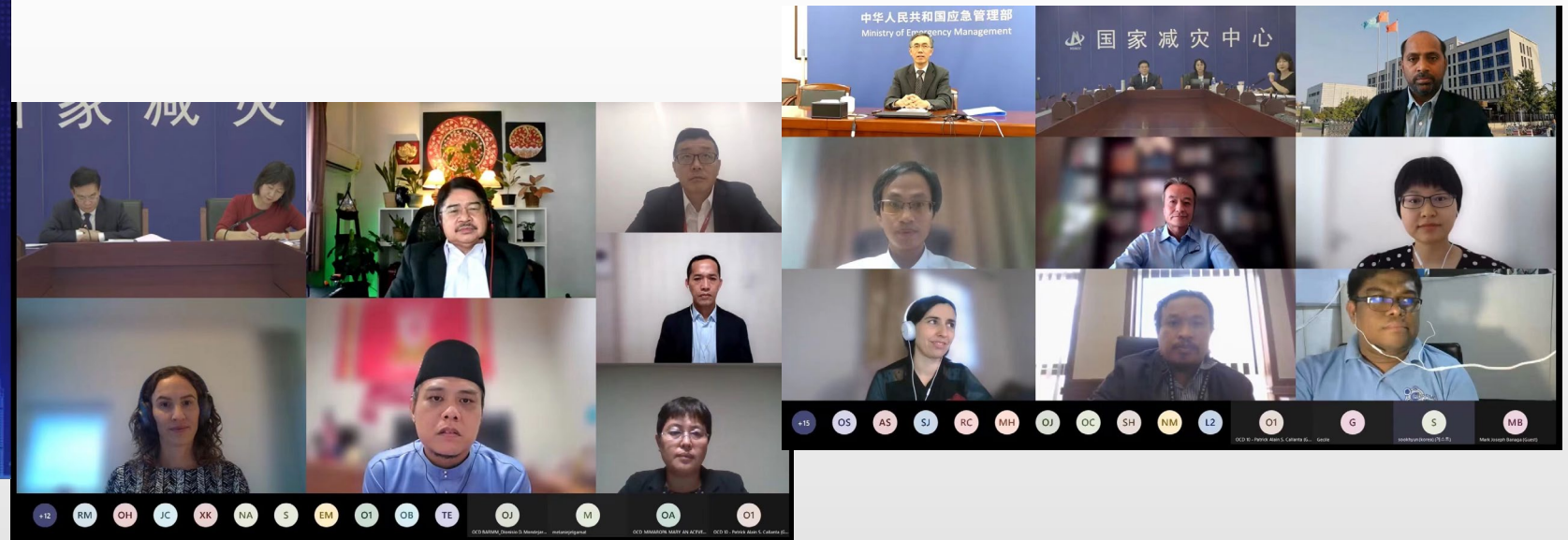
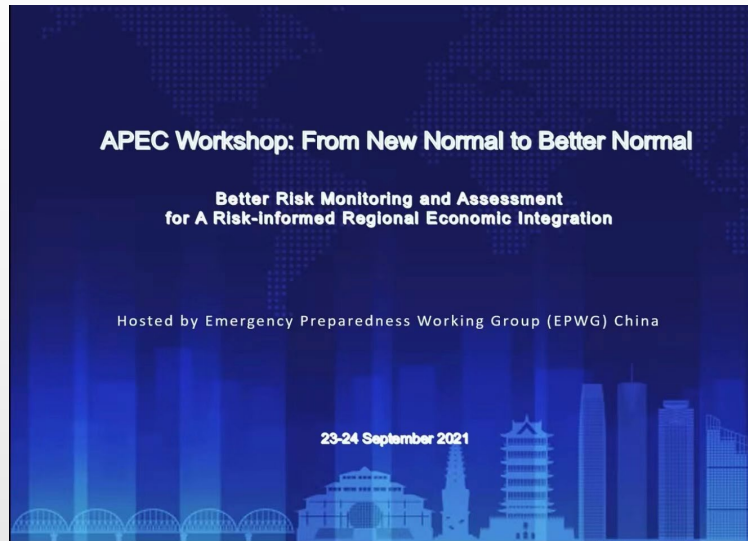


Key Words:

Extensive Public Engagement; Inclusiveness and Innovation; Awareness-Raising; Youth and Education; Solidarity and Support

This video advocates for a people-centered and people-oriented DRR philosophy with its key words determined as “humanity”, “human creativity” and “human wisdom”. By improving the narrative of indigenous DRR experience and wisdom, the video aims to call for APEC citizens to shoulder our common responsibility of addressing natural hazards, climate change, extreme weather and other related environmental challenges together, embrace the spirit of equal partnership, shared responsibility, mutual respect and common benefit, and make contributions to global efforts to build a sustainable planet.

## 4. Workshop on “From New Normal to Better Normal: Better Risk Monitoring and Assessment for A Risk-informed Regional Economic Integration”



Date: 23-24 September, 2021

Method: Virtual Panel Discussion

Speakers and Participants: APEC member economies, APEC sub-fora, UNDRR, UNDP, IFRC, UN-SPIDER, ADRC, private sector (altogether 50-60)

## 4. Workshop on “From New Normal to Better Normal: Better Risk Monitoring and Assessment for A Risk-informed Regional Economic Integration”

- Panel Discussion I: Better Disaster Risk Monitoring and Assessment
- Discussion points:
  - How does your organization promote and implement disaster risk management in the Asia-Pacific region?
  - What is the disaster risk assessment methodology used by your organization? Please briefly explain the major elements, steps and procedures.
  - What are the major successes and challenges in disaster risk management, especially in disaster risk monitoring and early warning?
  - What are the limitations of your organization’s current disaster risk assessment methodologies?
  - Do you see a need to formulate a user-friendly risk assessment and monitoring tool to facilitate risk-informed regional economic integration? If so, why and how?
  - What are your suggestions and recommendations on risk-informed regional economic integration?

- Panel Discussion II: Inclusive DRR for Resilience Building
- Discussion points:
  - Describe your organizations strategy and approach on inclusive DRR for resilience building. How does your organization promote inclusive DRR that leaves no one behind?
  - What are the priority areas and interventions for your organization to support building resilience.
  - What are the challenges you can cite? What are your suggestions for tackling these challenges?
  - How do science, technology and innovation (STI) support disaster risk reduction and resilience building? What are the challenges and what are your recommendations?
  - What are your suggestions for business continuity plan adaptive to the post COVID-19 landscape and how to promote a risk-smart and climate-resilient business model?
  - What are your suggestions to promote public-private partnership for DRR and resilience building, in particular complementarity and co-financing?
  - (Optional) How to build supply chain resilience and enhance the effectiveness of logistics system during emergencies?