

*World Bank Group Report Launch:
Financial Protection of Critical Infrastructure Services*

IGNITE PRESENTATIONS **Pathway to Resilient Transport for Vietnam**

Dr. Jen JungEun Oh
Infrastructure Sector Leader, World Bank

11 March, 2021

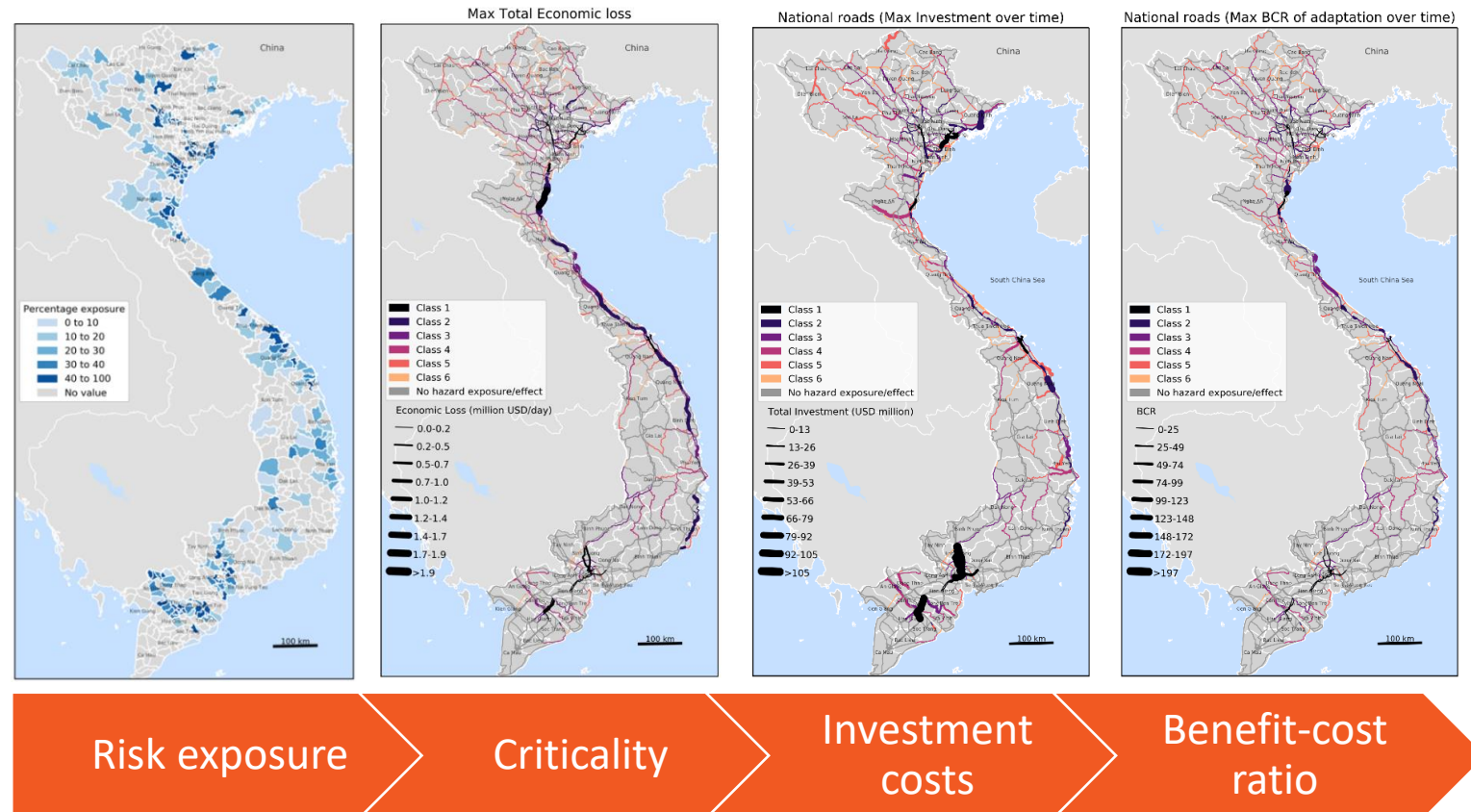


Data-Driven, Evidence-Based Decision-Making can Strengthen the Resilience of Critical Infrastructure

- 60% of the land area and 71% of the population are exposed to two or more multi-hazard events
- This could result in annual average asset losses amounting to 1.5% of GDP and loss in consumption amounting to 2% of GDP



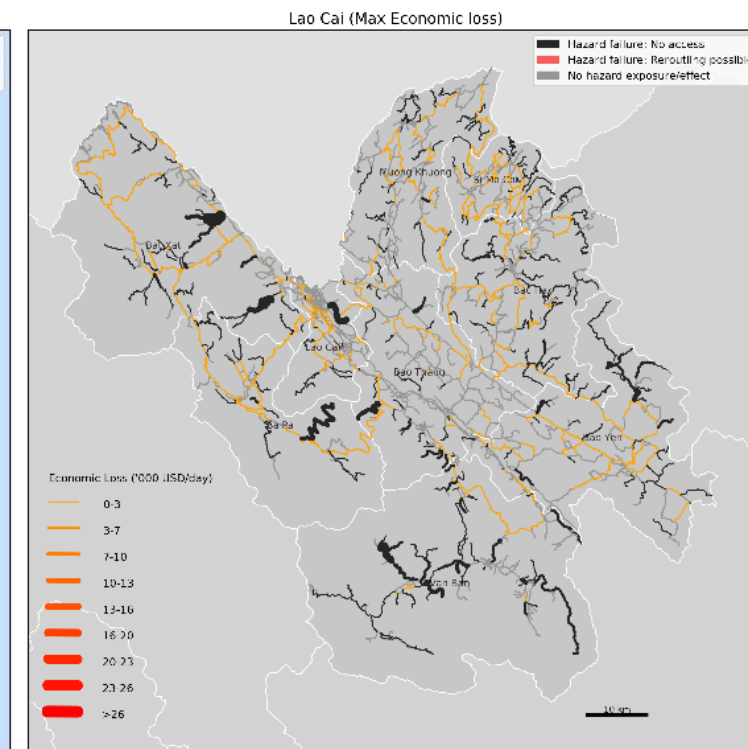
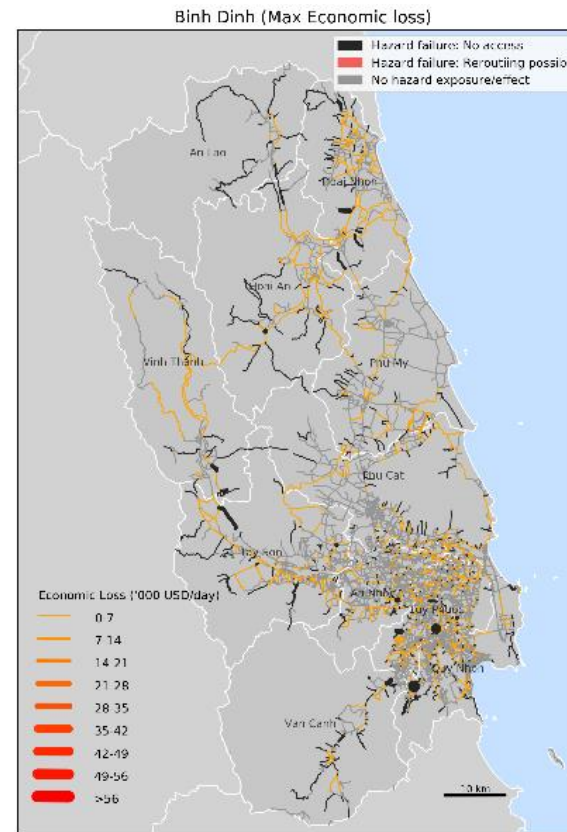
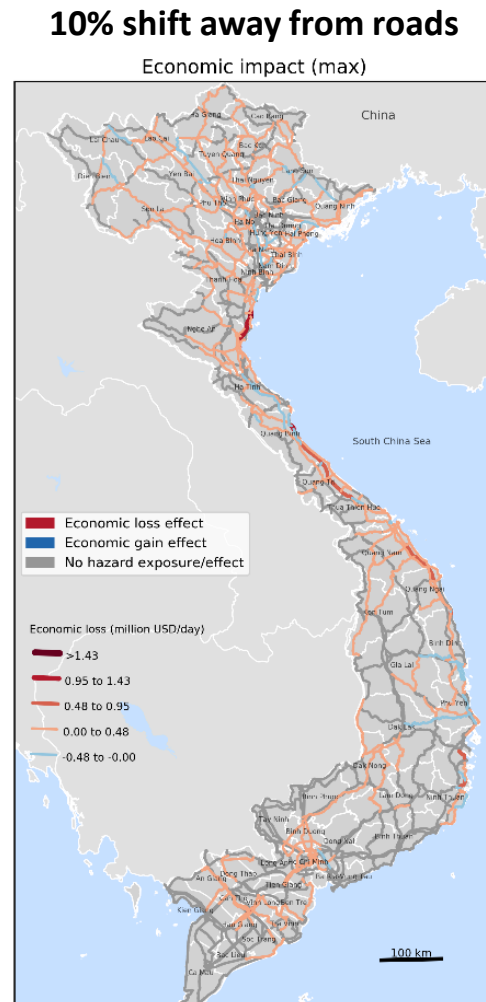
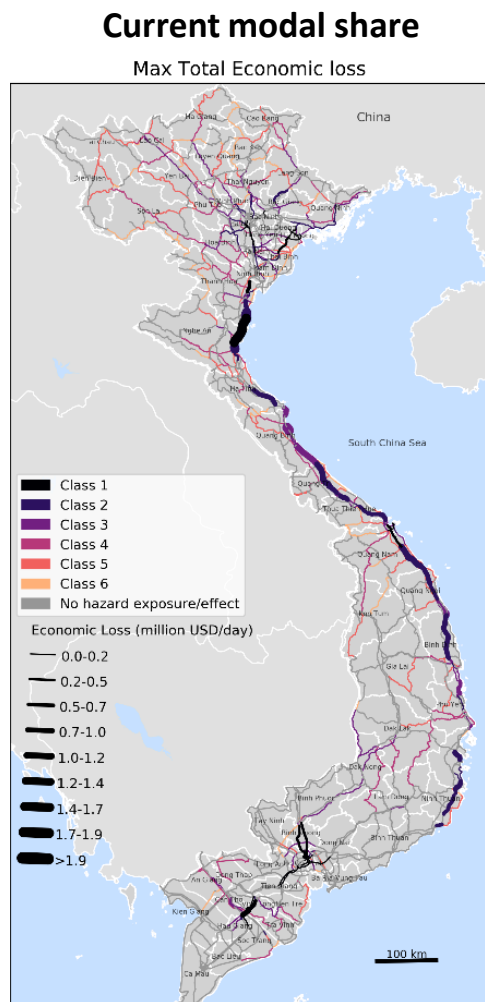
Decision-Making under Uncertainty *System-of-systems methodology for geospatial analysis*



Evidence-Based Investment Planning and Multi-Modal Strategy can bring Significant Economic Benefits

- A 10% shift from roads to other modes shows: substantial decrease in expected economic losses by ~25%

- Provincial-level application to maximize the returns on investments under tight fiscal conditions



Significant increase in upfront public investments are called for, through stronger institutional foundation and coordination



The project informed:

Decision-makers of the importance and usefulness of criticality analysis in prioritizing adaptation measures

Government's Socio-Economic Development Strategy and 5-year Implementation Plan

Key Findings

Transport network in Vietnam is under significant risk due to exposure to various natural hazards

Climate change increases likelihood of catastrophic events and expected economic loss, thus, making more investments economically justified

Beyond national corridors, secondary roads and rural roads are backbone of resilience, providing redundancy

Next Steps

Institutional coordination on data standards and sharing needs to be strengthened, to improve quality and coverage of infrastructure location and quality data, hazard exposure data, socio-economic data

Coordination between infrastructure asset management and budget allocation functions

Engineering research on climate adaptation interventions to transport is a priority to enhance rural resilience