### Eighth Meeting of the High-level Experts and Leaders Panel on Water and Disasters (HELP)

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Jakarta
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# Extreme weather events cause significant losses in ADB's developing member countries (DMCs)



#### 2006-2015:

220,000 lives lost

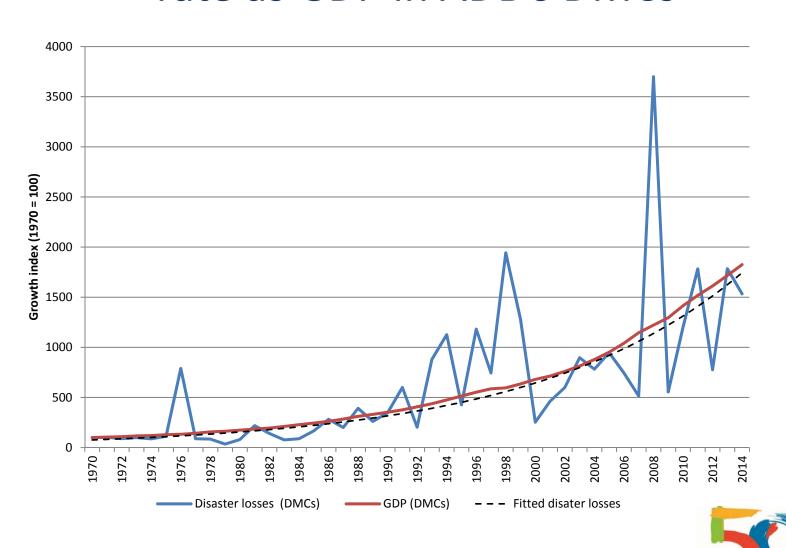
1.3 billion people affected

\$322 billion direct physical losses

\$88 million loss/day

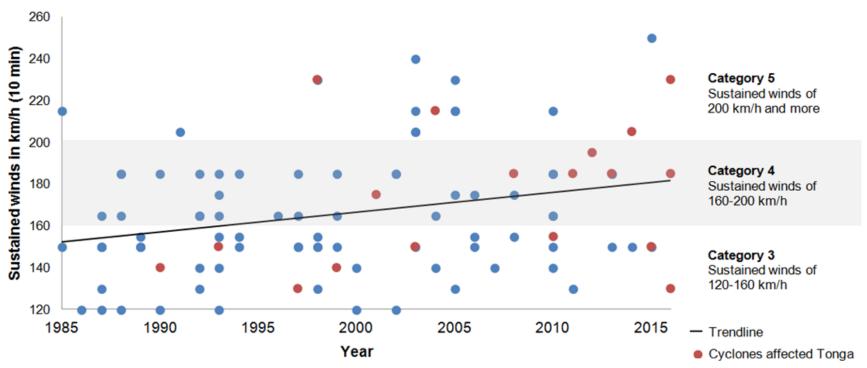


# Disaster losses are growing at the same rate as GDP in ADB's DMCs



# Potential increases in hazard intensity – evidence on tropical cyclones from the South Pacific





Data source: Meteorological Service of New Zealand, Regional Specialized Meteorological Center, Nadi, Fiji.



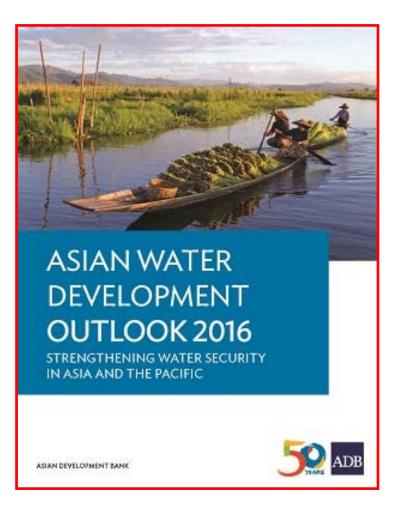
# Asian Water Development Outlook: key dimensions of water security

- Satisfy household water and sanitation needs in all communities
- 2. Support productive **economies** in agriculture and industry
- Develop vibrant, livable cities and towns
- 4. Restore healthy **rivers** and ecosystems
- 5. Build resilient **communities** that can adapt to change.





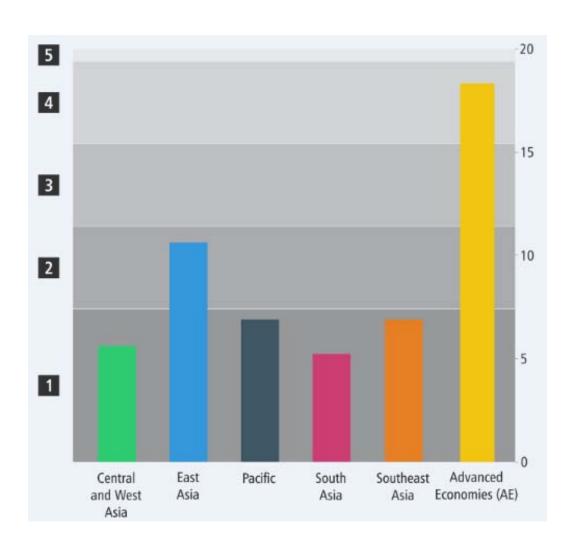
# Asian Water Development Outlook 2016



- Charts progress of water security in Asia Pacific
- Globally recognized
- Communication tool to highlight critical areas for investments
- Strengthening ADB as knowledge leader – link of science and practice



## Asian Water Development Outlook 2016: resilience to water-related disasters

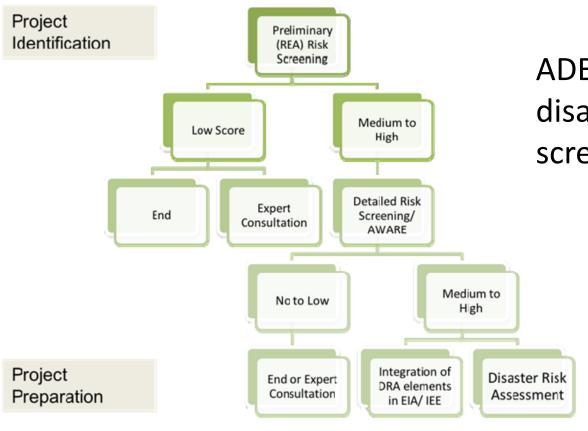


Note: The units on the right axis are the scores (1-20 scale). The ones on the left are the stages (1-5 scale) from hazardous to model.

Source: ADB, 2016



### 1. Embed disaster risk reduction into all development strategies and actions



ADB is enhancing its disaster and climate risk screening tools



#### 2. Apply structural and non-structural solutions

ADB has just approved a \$150 million flood risk management loan for Qinghai Province, People's Republic of China, including for flood defenses, greenbelt recreation areas, flood water storage areas, restoration of wetlands, reforestation





Pre-project photos



### 3. Address flood risk within the broader context of integrated water resources management

ADB is supporting improved water resources management in the Bagmati River Basin, Nepal, including by establishing a river basin organization, improving water storage, enhancing forecasting, installing an early warning system and improving community awareness and capacity



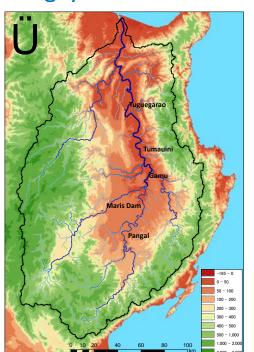
River cleaning campaign under the project



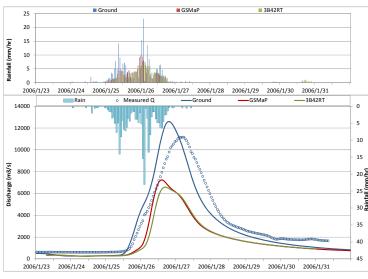
#### 4. Apply new technology

ADB is supporting the application of technology to improve flood forecasting and early warning systems in Bangladesh, Philippines and Viet Nam

Cagayan River Basin



Early Warning System



#### Water Level Monitoring





### 5. Recognize the dynamic, constantly evolving nature of disaster risk

Both current and future flood risk has been taken into account in been taken into account in a road project supported by a \$100 million loan in the Kyrgyz Republic



Example of landslide without retaining wall

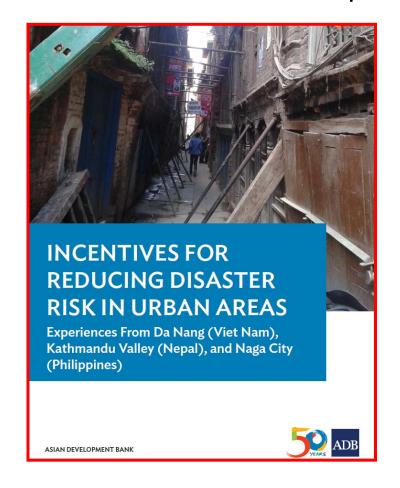


Gallenes protecting the road from landslides



#### 6. Incentivize resilience

Package disaster risk reduction investments with actions to enhance economic and social development







#### 7. Plan for disaster response

ADB is placing increasing emphasis on financial preparedness (e.g., via the development of disaster insurance options for cities in the Philippines, contingent credit loans, strengthening of post-disaster response capabilities)



#### 8. Act together

Coordinate efforts, leverage complementarities and synergies, address key gaps, learn from each other, maximize our collective achievements







Men and children creating a dike in a community in Bangladesh under an ADB Flood Rehabilitation (Flood Control and Irrigation) Project.

### Thank you

