

# RESILIENT URBAN MOBILITY DIAGNOSTICS FOR INDONESIAN CITIES

(Project Period: 2020/02/08–2021/09/30)



Credit: UN Women / Ryan Brown

## CHALLENGES AND OBJECTIVES

Indonesia is one of the most disaster-prone countries in the world; over 60 percent of Indonesia's districts are exposed to a high risk of flooding. Despite these vulnerabilities, urban transportation systems and infrastructure have not been designed to cope adequately with natural hazards and the effects of climate change. Therefore, future investments in this sector need to be planned and designed to better respond to disaster and climate-related shocks and stresses.

The technical assistance grant, "Resilient Urban Mobility Diagnostics for Indonesian Cities", funded by the [Japan-World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries](#), supported the development and dissemination of national-level technical guidelines on resilience-building standards for the proposed [Indonesia Mass Transit Project](#) and increased the technical capacity of government officials of Ministry of Transportation and the Ministry of Public Works and Housing to make risk-informed decisions on mass transit investments. Furthermore, the grant implemented technical assessments of mass transit proposals in two selected cities (Bandung and Medan) by reviewing infrastructure and rolling stock design and current urban resilience policies, in order to develop corridor-level natural hazard and risk mitigation measures.

## JAPANESE EXPERIENCE LEVERAGED

With a view of sharing operational experiences on planning and designing resilient mass transit systems, a Japanese expert of one of the prominent Japanese railway companies was invited to a virtual knowledge exchange in April, 2021. The Japanese expert presented the company's latest practices and innovations such as engineering techniques for heavy rainfall events and early warning systems for earthquakes at the national-level knowledge exchange which over 100 government officials attended.

Since Japan has long addressed to strengthen the resilience of mass transit systems, given Japan's vulnerabilities to natural disasters, Indonesia especially learned the importance of operational plans for mitigation of flooding and earthquakes. A senior representative in JICA Indonesia was also invited to provide opening remarks at the knowledge exchange. He explained JICA's assistance with design of the MRT in Jakarta, which included flood resistance measures where water stop panels were installed to prevent flood water at station entrances from reaching the platforms. This design feature will be relevant for mass transit station design in other metropolitan cities in Indonesia.

## MOVING FORWARD

Japanese expertise and technologies shared at the knowledge exchange in April, 2021 will inform system design and operational planning for Bus Rapid Transit systems in Bandung and Medan under proposed World Bank support to the Indonesian Government for the first phase of roll-out of the [Indonesia Mass Transit Project](#).