

SUPPORTING MULTI-RISK ASSESSMENT OF GREATER MONROVIA

(Project Period: 02/03/2020-01/31/2022)



Credit: World Bank Group

CHALLENGES AND OBJECTIVES

Years of conflict and instability have made Liberia one of the poorest countries in the world. The Greater Monrovia region is home to a quarter of the country's population and half of the country's urban population, but its geographical features and socio-economic characteristics (fragility, poverty and informality) has caused it to be extremely vulnerable to floods, which are predicted to become more frequent and intense with climate change.

The technical assistance grant, "Supporting Multi-risk Assessment of Greater Monrovia", provided through the [Japan-World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries](#), aims to support improved knowledge and understanding of combined disaster and climate-change risks in Greater Monrovia. The technical assistance encompasses improved disaster risk assessment (flood modelling) and climate-change impact analysis, the development of risk-hot-spots maps, and site-specific disaster and climate-change adaption and mitigation policy recommendations for critical infrastructure. The technical assistance is expected to contribute to the integration of urban development and resilience strategy for the region, and to inform policies to minimize risks and maximize benefits of future investment opportunities.

JAPANESE EXPERIENCE LEVERAGED

A flood risk assessment was conducted through this technical assistance, the results of which have been published in "[Flood Risk Profile for Greater Monrovia: Risk Report](#)". A key contributor to this risk assessment was AW3D, the world's first global high-resolution 3D map provided by Japan's NTT DATA and Remote Sensing Technology Center of Japan (RESTEC). Flood hazard modelling requires a large amount of data, especially terrain data, and the high-quality AW3D dataset provided detailed terrain levels of up to 0.5-meter resolution, based on latest remote sensing technologies.

This technical assistance has also benefitted from and will further build on the "[Master Plan Study on Urban Facilities Rehabilitation and Improvement in Monrovia](#)", formulated by JICA in 2009.

MOVING FORWARD

The detailed flood risk assessment has supported the improved knowledge and understanding of flood risk in Greater Monrovia and contributes to the World Bank's integrated urban development and resilience strategy in the region. In particular, the risk assessment is informing the preparation of a World Bank investment, "[Monrovia Integrated Development Project](#)", which is expected to enhance urban living conditions and climate resilience in Greater Monrovia, and to strengthen municipal and institutional capacities for integrated urban management. The assessment conducted through this technical assistance will ensure that climate resilience is incorporated into the investment package, which will comprise of urban drainage infrastructure and urban upgrading interventions, such as street lighting, onsite sanitation, water supply, local market improvements, and public spaces in Greater Monrovia.