



Indonesia

Applicant: Jakarta Research Council
National Designated Entity: Ms. Nur Masripatin, Ministry of Environment and Forestry
Duration: 12 months
Status: Under implementation
Budget: 240,000 USD
Technical Assistance Planned by: UNEP DHI Partnership
Implemented by: DHI Indonesia and Jakarta Research Council

Hydrodynamic modelling for flood reduction and climate resilient infrastructure development in Jakarta

CONNECTING COUNTRIES TO CLIMATE TECHNOLOGY SOLUTIONS

The Climate Technology Centre and Network promotes the transfer of climate technologies at the request of developing countries for energy efficient, low-carbon and climate resilient development.

By connecting stakeholders with technology experts from around the world, the CTCN delivers customized capacity building and technical assistance aligned with national climate objectives.

CHALLENGE

Jakarta is increasingly threatened by flooding due to a combination of rising sea levels, land subsidence, and higher river levels due to extreme weather. Government agencies need to identify proven flood prevention policies and technologies for urban areas.

CTCN Assistance

- Develop a hydrodynamic model to evaluate hard and soft engineering solutions that reduce flooding risks
- Conduct a socio-cultural survey to identify impacts of different adaptation options on inhabitants and the local economy
- Produce recommendations for climate resilience urban infrastructure development to reduce flooding risks
- Organize technology transfer workshops to strengthen local expertise in hydrological modelling and climate infrastructure urban infrastructure options

INTENDED IMPACT

- Strengthened expertise of government agencies to formulate policy and action plans to reduce flooding and advance climate resilient city planning in Jakarta.
- If implemented, a reduction in loss of life and property.



THIS PROJECT ADVANCES

Indonesia's Nationally Determined Contribution to:

- Improved knowledge management and convergent policy on climate change adaptation and disaster risk reduction (reduce risks on all development sectors by 2030)
- Develop key measures on coastal and flood protection

SUSTAINABLE DEVELOPMENT GOALS



What is climate technology?

Any equipment, technique, practical knowledge or skills needed to reduce greenhouse gas emissions and/or adapt to climate change. This includes traditional, modern and high tech technologies.

THE STORY

The objectives of this CTCN technical assistance are to strengthen the expertise of national and urban planners in Jakarta to assess flood risks and hazards, and to design climate-resilient solutions to reduce the magnitude and scale of the impacts from increased urban flooding.

CTCN's technical assistance in Indonesia is led by the UNEP DHI Partnership and includes crucial in-country partners such as the Jakarta Research Council, Badan Pengkajian dan Penerapan Teknologi, Universitas Gadjah Mada, Lembaga Ilmu Pengetahuan Indonesia, Universitas Indonesia, Institut Teknologi Bandung and Bogor Agricultural University.

The feasibility and impacts of soft/hard climate resilient infrastructure solutions will be assessed through flood risk mapping, trend analysis and cost-benefit analysis.

The use of the resulting hydrodynamic model, together with the results of the sociocultural study and training workshops, will help relevant agencies to better plan for hazards and reduce vulnerabilities associated with urban flooding.

Furthermore, the CTCN will produce a good practices report based on this technical assistance and seek to establish South-South cooperation to facilitate sharing of Jakarta's experience with other cities facing similar challenges.

Learn more about CTCN technology transfer

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The CTCN is the operational arm of the UNFCCC's Technology Mechanism and is hosted by the United Nations Environment Programme (UNEP) and the United Nations Industrial Development Organization (UNIDO).

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