Assessing Resilience of Water Infrastructure Projects in Urban Areas

(A Case Study of Colombo Metropolitan Region - CMR)

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Declaration

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The above candidate has carried out research for the Masters Dissertation under my supervision.

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Abstract

In the Colombo Metropolitan Region (CMR), sustained productivity development is key to Sri Lanka's 2022 growth as a middle income economy. One of the most valuable growth engines in Sri Lanka is the increased productivity of the CMR or Western Province. However, the CMR must remain comparable with other Asian urban areas. Priority should also be given to reinforcing the most vibrant service industries such as Information Technology (IT), financial services and shifting from low to high value-added production opportunities. Urban sprawl is the consequence of legal and structural restrictions on land prices and insufficient resources for effective and productive land usage and property development.

Several underground water pipelines were built in the Colombo Metropolitan Region about fifty years ago. These pipes have reached the end of their useful life and require extensive repairs. Based on the literature review, it was identified that water and wastewater treatment systems require upgrades to meet contemporary environmental standards. However, as per the objectives of the research, it is to assess the resilience of water infrastructure projects in urban areas to examine the required level of policies for resilience of water infrastructure projects in urban areas and to examine the impact and externalities on the resilience of water infrastructure projects in urban areas.

The capacity utilization and requirements, policies, strategy, and capital accumulation to the resilience of water infrastructure projects in Colombo Metropolitan Region (CMR). Additionally, it implies that the impact and the corelation of the independent variables, capacity utilization and requirements, policies, strategy, capital accumulation to resilience of water infrastructure in Sri Lankan urban areas.

Key Words: Resilience, Water Infrastructure Projects**,** Urban areas, National Water Supply & Drainage Board

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Abbreviations

ADB - Asian Development Bank

CMR - Colombo Metropolitan Region

IUWM -Integrated Urban Water Management

KDI - Key Dimension Index

NWSDB - National Water Supply and Drainage Board

SDGG - Socially Disadvantaged Groups Grant

SDG - Sustainable Development Goal

UDA - Urban Development Authority

ULAs - Urban Local Authorities

UN - United Nations

WSS - Water Supply and Sanitation