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Abbreviations

AGO	: Attorney General Office
CE	: Chief Engineer
DHSHRD	: Department of Housing Settlement and Human Resource Development
DOMH	: Department of Meteorology and Hydrology
FY	: Financial Year
Kyat (Ks.)	: Currency in Myanmar
MWSS	: Management of Water Supply System
NRW	: Non-Revenue Water
PRB	: Population Reference Bureau
RCDB	: Rangoon City Development Board
SLORC	: State Law and Order Restoration Council
SPDC	: State Peace and Development Council
WRR	: World Resource Report
WRM	: Water Resources Management
WSS	: Water Supply and Sanitation Department
WTP	: Willingness to Pay
YCDC	: Yangon City Development Committee

ABSTRACT

One of the major issues affecting water utilities in urban centers of the developing world is the considerable difference between the amount of water put into the distribution system and the amount of water billed to consumers or loss of water from the water distribution system, known as non-revenue water (NRW). NRW carries significant price tags, both economically and environmentally. NRW seriously affect the financial viability of water utilities and most important threaten water supply sustainability.

With rapidly increasing population, industrialization, and urbanization, Yangon city encounters critical urban water supply shortage caused by high non-revenue water (NRW). The findings from this study show that NRW in Yangon City water supply is as high as 74.8% of total water production. The estimated NRW ratio dramatically increased from 59% to 75% in the past half decade. Water demand also annually increased with growing population. The existing water supply system cannot afford to meet water demand needs to all citizens in Yangon without any control policy for NRW in water supply management. Thus, the study sought to examine urban water supply sustainability by reducing NRW in the future. The key question for the research is “*Would non-revenue water management promote water sustainability in Yangon City?*”

The study evaluated and analyzed the inefficiencies of current water supply management such as overall network management, water resource and water service situations, weaknesses of water institution, laws, regulations and insufficient financial resources management and water loss control practices, etc. At the same time, the study examined the potential improvement of existing water supply management by determining both people’s and water authority’s perceptions. This study found out that general people’s awareness on water loss control is high, and people’s willingness to pay for better water

services is high, although, NRW control policy is still absent. At present, City water authority set up a strategy to reduce into half of NRW.

City water authority has a plan to increase city water supply capacity. People's willingness to pay for better water supply services is high. It is a very good opportunity for NRW reduction. There is no mechanism for participation between the water authority and the private sector. NRW control policy in City water supply management is also absent. However, some NRW control activities, some regulations and people's awareness exist.

The study considered it urgent and prudent to formulate policies for reducing NRW in City water supply management. Implementation mechanisms would be based on guidelines that support NRW control strategy and international water balance adopted by International Water Association (IWA). Promoting NRW control also requires strengthening the city's water supply administrative capability and providing a supportive environment for the involvement of the city dwellers in water supply management. This study recommends further investigation into policies and other pre-conditions for NRW control in Yangon City.