UNIVERSITI TEKNOLOGI MARA

A MODEL IN REDUCING NON-REVENUE WATER

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ABSTRACT

Water is an important source of lives and we all aware of this. Globally, water resources are diminishing because of water leakages from the pipe network.

The increasing demand for water means that the minimization of water loss through leakage control is crucial in today's world. Generally all water pipe networks in the world suffer the same problem of water loss. It is only a matter of the amount of the water loss that varies globally. Many believe that, poor pipe network is to blame for the huge amount of loss. The combination of poor infrastructure, volume of water loss depends on the condition of the mains and service connections that make up the network, local factors such as the type of soil, the utility's operational practice, the level of trained manpower and standard of equipment applied to controlling the losses.

The result of poor infrastructure and leaking pipes are only part of the loss factors. Often, low tariff structures or inadequate metering policies resulted in misuse of waters, apparent loss and excessive use of water resources. The components of water loss need to be measured and understood before a reduction strategy can be developed and implemented. The International Water Association (IWA) has developed an accurate terminology, a standardized water balance and recommends a component-based methodology for calculating the losses from distribution networks. This paper discusses how training program, upgrade of technology and good communication relationship vital to the Non-Revenue Water operation.

Not surprisingly the city of Sandakan, Sabah has one of the highest levels of Non-Revenue Water in the country. It also but also suffers from a shortfall in its water resources. Once the losses had been assessed in Sandakan using the IWA methodology a strategy appropriate to the local situation was developed.

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