ABSTRACT

The water cycle (raw water resources, production, distribution, water consumption and wastewater collection and treatment) plays an integral part of the urban system, affecting every pillar of the urban community and its functions. Smart water which is an area of Smart City, if applied will greatly assist city managers in urban management especially water management, both clean water and waste water and flood control. To measure the application of smart water needs to set **dimensions and measurement indicators**. Based on the literature review, to date there is no comprehensive dimension and indicators that can be used to measure smart water suitable to be applied in Indonesia.

Method used in this research uses **qualitative research**. The study of some literature related to smart water to be the reference selection of dimensions and indicators. These dimensions and indicators are **tested with in-depth interviews and focus group discussions to government, business players, users / customers, and researcher / observer / expert**. Then data of the respondents are **analyzed by reduction method** and **triangulation**. Then we get the dimension and indicator that can be the basis of measurement of smar water application in Indonesia.

First dimension is **Integrated Water Resource Management** with its indicators are : **Management and Action by Government**, **Public Participation**, and **Smart Water Grid (SWG) Implementation**. Second dimension is **Water Distibution & Leak Detection System** with its indicators are **Smart Water Grid (SWG) Implementation**, **Distribution Platform Implementation**, and **Dashboard Implementation**. Third dimension is **Water Consumption** with its indicators are **Water system leakages**, **Water efficiency**, **Water Consumption and Water Quality**. Fourth dimension is **Wastewater & Pollution** with its indicatora are **Percentage of urban population served by wastewater storage** and **Percentage of waste water without treatment**. Fifth dimension is **Urban flooding** with its indicatora are **Flood warning system, Flood damage index** and **Dam protection**. Finally, sixth dimension is **ICT on Smart Water** with its indicatora are **Smart Water Grid (SWG) Implementation**, **Distribution Platform Implementation**, **Dashboard Implementation** and **Smart Metering Implementation**.