Sustainable Management of “Aqua” for Resilient 21st Century (SMART) Communities

**Grantee:** De La Salle University (DLSU)

**Principal Investigator:** Dr. Aileen Orbecido

**Collaborating Partners:** Polytechnic University of the Philippines–Mulanay Quezon Campus (PUP-MQ)

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**Contract Amount:** Php 3,760,000 (approximately USD80,000)

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**Improving water supply**

Water is a basic necessity of life, and having access to it is recognized as a fundamental human right. With rapid urbanization and growing populations, cities and towns of the 21st century face water management challenges more complex than ever before, as climate change threatens to cause disruptive changes to the hydrological cycle. In response to water shortages, polluted waterways, and climate change, water sectors are questioning traditional water management approaches that look at the design, operation, and management of supply and sanitation in isolation.

These issues are particularly relevant to countries with emerging economies like the Philippines, as water is not only an environmental resource but also an economic commodity for progress and development. Water scarcity and water pollution create imminent crises in the country, not only in major cities but also in rural areas over the coming decade. According to the World Bank, there are still approximately 7.5 million Filipinos without access to improved water supply and 24 million without access to improved sanitation.

*Dr. Renan Tanhueco presents the concept of sustainable flood and drainage management that can be useful to local setting to the local community of Mulanay, Quezon*
Potential application and benefits

Mulanay, Quezon, would be the pilot municipality to test the proposed integrated systems, since the local government unit of Mulanay has been a long-time partner of DLSU in many of its “green-initiative” projects. It has also been reported that more than 80% of the households in many of Mulanay’s rural areas, including coastal barangays, still do not have access to clean and potable water. The local state college in the area, PUP-MQ, will also be a collaborator on capacity building. PUP-MQ will assist in the installation, monitoring, and maintenance of the facility in the chosen site. In addition, social acceptability will be a major factor for sustainability.

Several focus group discussions and workshops will be conducted to increase awareness and engage the local government, pilot community, and stakeholders in each phase of the project. The implication of this research project would even extend to public policy making in promoting off-the-grid or decentralized integrated water management systems as a low-impact development in the Philippines.