





MEKONG ONE HEALTH INNOVATION PROGRAM (MOHIP) WEBINAR #7

Household Water Insecurity -Intersections between Humans and Livestock

Simple and Feasible Method for Swine wastewater Treatment Using **Intermittent Aeration**



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Dr. Pearson is a health geographer with a focus on social justice and intersections between spatial and social processes that bolster opportunities for a healthy life, often in the face of socioeconomic adversity. Her overall research goal is to inform efforts to improve health and well-being while paying careful attention to inequalities and environmental justice. Her research focuses water insecurity.

Tran Le Luu, Ph.D. Asso. Prof., Dept. of Water Technology, **Reuse and Management** Vietnamese German University, Vietnam



Dr. Le Luu is a Lecturer and he also coordinates the MS Program in Water Technology, Reuse and Management. He holds a Ph.D. in Chemical & Biological Engineering from the Seoul National University, South Korea. His research focuses on water and wastewater treatment technology, advanced oxidation processes, electrochemical water treatment, among others.

Topics: Introduction

Water insecurity includes a complex web of factors that affect households' ability to thrive and lead the life they wish. In many settings, water security for humans is intertwined with water security for other species. One example of this intersection is among pastoralists who rely on livestock, often in arid or semiarid ecosystems. Decades ago, many regions with pastoralists forcefully evicted them for competing land uses and to promote sedentary lifestyles. In Uganda, this history is tied with colonial ethnic privileged, shared water resources between humans, livestock, and wildlife, and implications for human health and wellbeing.

Swine wastewater contains high concentration of organic compounds, nutrients (nitrogen and phosphorus), heavy metals, and residual antibiotics, amongst others, that have negative impacts on the water environment. Dr. Luu conducted a research to remove nutrients from anaerobically digested swine wastewater using an intermittent cycle extended aeration system (ICEAS). Findings show that ICEAS is a promising technology for the removal of organic contaminants anaerobically and nutrients from digested swine wastewater.

Date/Time: July 18, 2023; 9 AM Eastern Time (New York Time); July 18, 8 PM Indochina Time

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