



**Hungarian University of Agriculture and Life
Sciences Szent István Campus
Institute of Environmental Sciences**

**Assessment of Water Management Strategies in Vientiane Capital of Lao
PDR**

Insider consultant: Ernő Gábor Halupka
Dr. János Grósz

Insider consultant's Institute/department:
Institute of Environmental
Sciences

Created by: Nitiphone Thephachanh

Szent István Campus, Gödöllő

2024

Title of thesis: **Assessment of Water Management Strategies in Vientiane Capital of Lao PDR**

Student author of the thesis: **Nitiphone Thephachanh**

Institute of Environmental Sciences

Insider subject leader: **Ernő Gábor Halupka**

Dr. János Grósz

Institute of Environmental Sciences

The research shows the plants demonstrating positive impacts on water quality in the city where applied water treatment technology results to clearer water in Vientiane. Both analyzed indicators, i.e. turbidity, color, pH value, and microbial content, indicate very significant change after the treatment, so we can assume the efficiency of the plants.

According to the researches, there are certain actions proposed for improving water quality and treatment in Vientiane. This implies that the institutions should monitor water quality parameters such as clarity and color for safe use. Constant monitoring and calibration of the laboratory apparatus should be done to attain precision. The treatment water should be optimized to lower the presence of undesirable ions such as iron, manganese, and aluminum and to monitor the emerging contaminants coming from the Mekong and Nam Ngum Rivers. By working together with locally elected representatives and community members, they can promote water quality improvement and conservation and thus educate the residents to be water savers and ensure a future safe drinking water for the capital.