

WASTEWATER PROJECT OPPORTUNITY

Constructing/Operating a Waste Treatment Plant Hanoi, Vietnam

Hanoi University of Science and Technology

OVERVIEW OF WASTEWATER PROJECT:

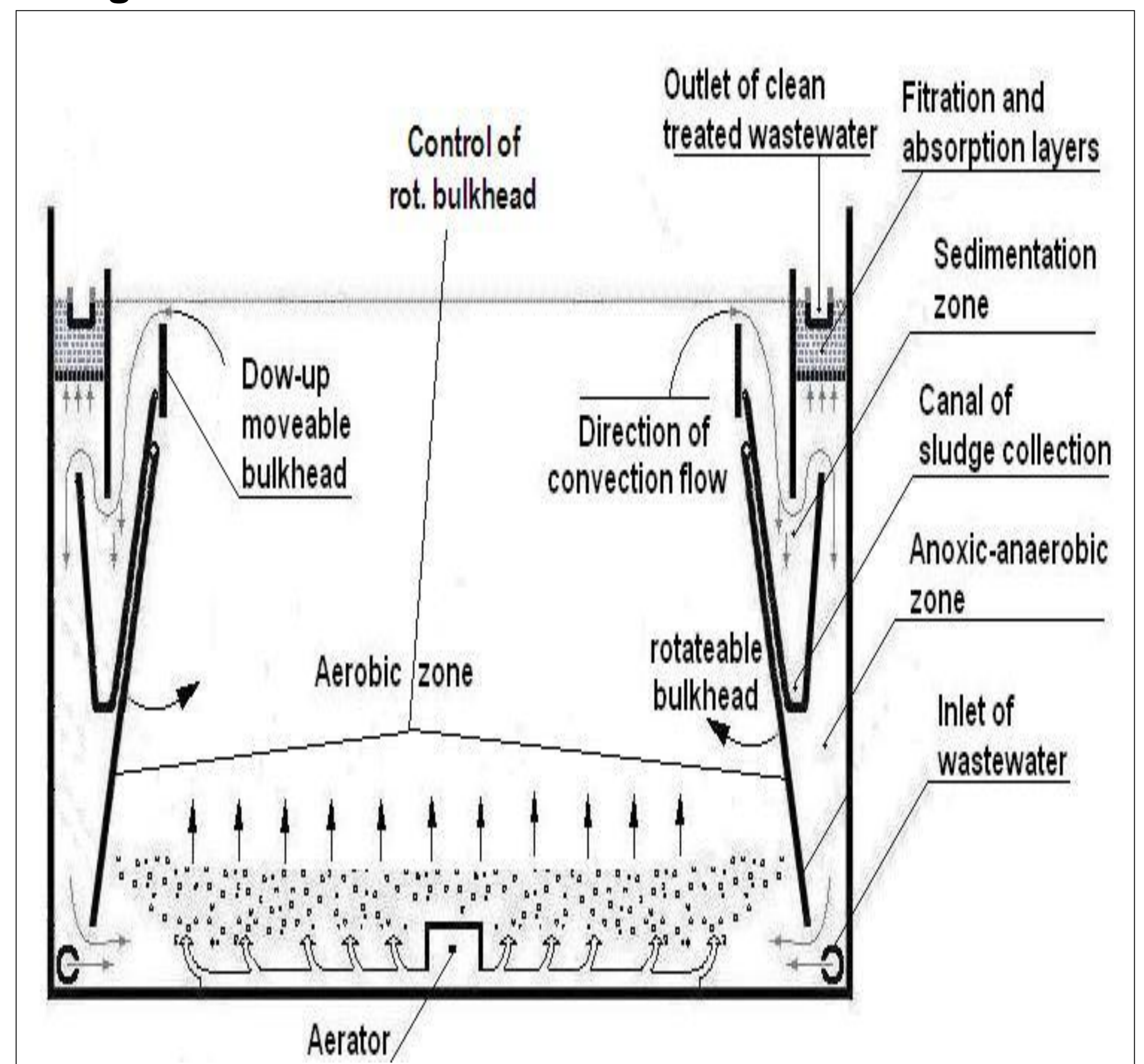
The proposed project aims at constructing and operating a municipal wastewater treatment plant (WWTP)—with an anticipated capacity of 1,000 cubic meters (m³) per day—for a population group of the Quang-an precinct in Hanoi (Vietnam). The proposed plant would reduce electrical consumption upon operation, avoid the use of coagulant chemicals for sludge removal, and provide a better opportunity for direct sludge digestion for biogas production. This would be achieved through the construction of two patented energy reducible solutions: “Adjustable tank incorporating five functions for biological treatment of wastewater” and a “Fluidization aeration mixing apparatus.” Exploration of waste-to-energy opportunities are in the feasibility phase.

ESTIMATED ANNUAL EMISSION REDUCTIONS: More than 20 MTCO₂E

Treatment pilot plant of 93m³ treated municipal wastewater from Kim-Nguu canal in Hanoi



Construction and working principle of the patented adjustable tank incorporating five functions for biological wastewater treatment



BIOGAS INFORMATION

- Type of anaerobic digester used at plant should be as complete mix
- Biogas end use as thermal resource for this project and for electrical purposes in the next phase

PROJECT HIGHLIGHTS

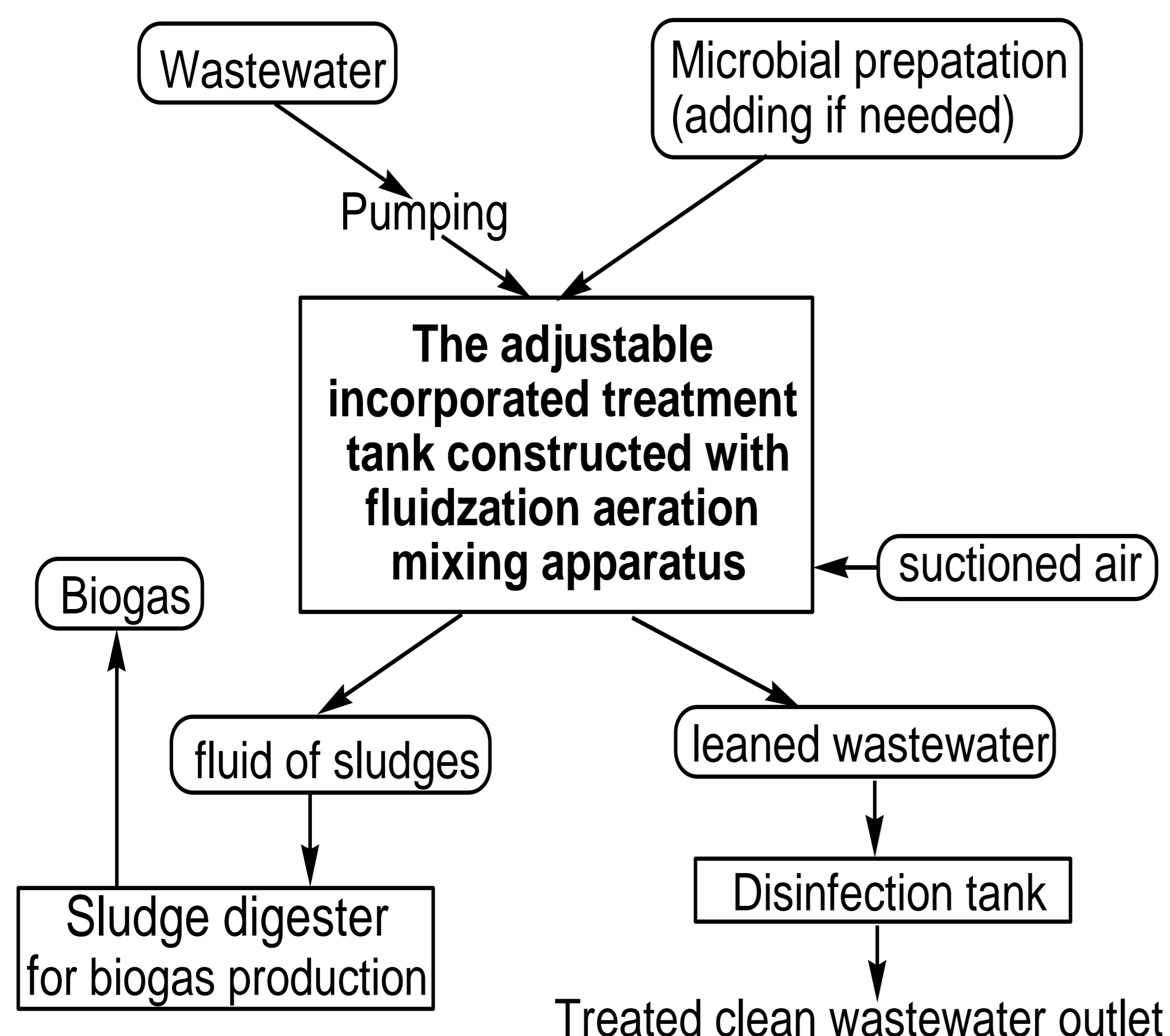
- The suggested plant for communal wastewater treatment works sustainably based on activation of local microbial ecosystem. This could be possessed of an improvement of working properties, as: fewer requirement of building land and initial invested capital, fewer electrical consumption on treatment operation, avoiding of coagulant chemicals for sludge removal and better possibility for direct sludge digestion for biogas production.
- This suggested treatment technique has advantage in early communal wastewater treatment at the initial location of the pollution emission and especially in villages in Vietnam as well as in other places in developing countries, because of simple installation as well as convenient operation and maintenance.

OTHER BENEFITS

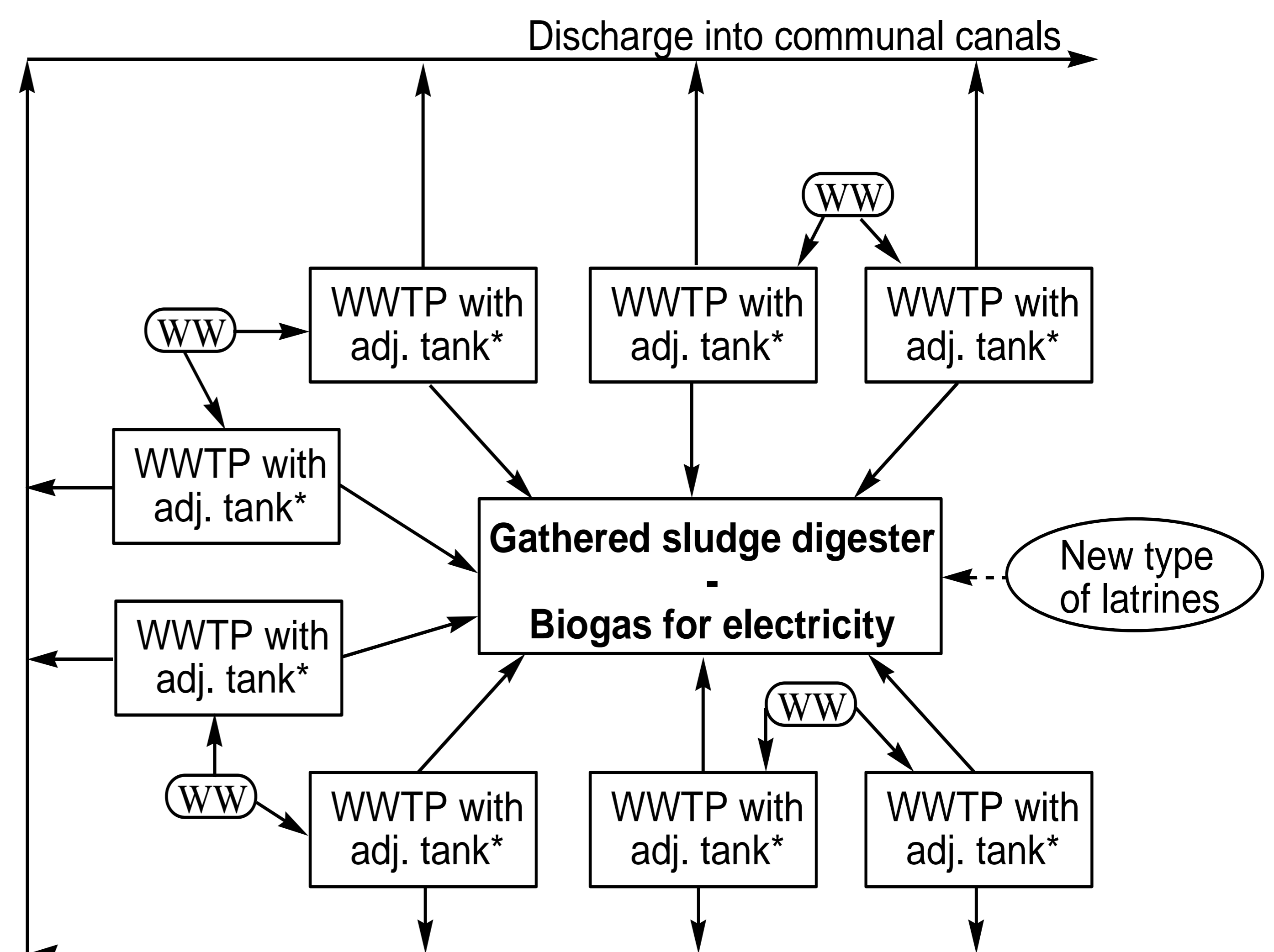
- **Job creation (e.g., number of positions):** Reduced requirements for working staff.
- **Enhanced wastewater treatment:** Yes, through the application of environmentally friendly technology
- **Educational opportunity for students (e.g., facility tours):** Yes, could be tied closely with education and research activities

PROPOSED SYSTEM DIAGRAMS/PHOTOGRAPHS

Currently



Next phase



TYPES OF COOPERATION SOUGHT

- Partnership
- Financial Assistance

FOR MORE INFORMATION

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