

AQUACULTURE WASTE MANAGEMENT IN CHINA

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This review aims to identify the major cause, potential compromise and management strategies of aquaculture waste in current China. Aquaculture activities are well known to be the major contributor to the increasing level of organic waste and toxic compounds in the aquaculture industry. The main contaminants of the wastewater effluent are suspended solids, ammonium, organic nitrogen and phosphorus. Aquaculture wastewater discharges may cause many environmental problems to the receiving waters. Nutrient removal is essential for aquaculture waste treatment to protect receiving waters and for potential reuse of the treated water. Therefore, it is apparent that appropriate waste treatment processes are needed for sustaining aquaculture development. A number of physical, chemical, and biological methods used in waste treatment applied in aquaculture systems have been presented in this review. The principles, advantages and disadvantages of the commonly used waste treatment systems are examined. Among which biological treatment has been considered the most feasible approach for enabling water reuse. Besides, new approaches are introduced as references for the potential development of waste treatment system in China.