



# Fish Pond

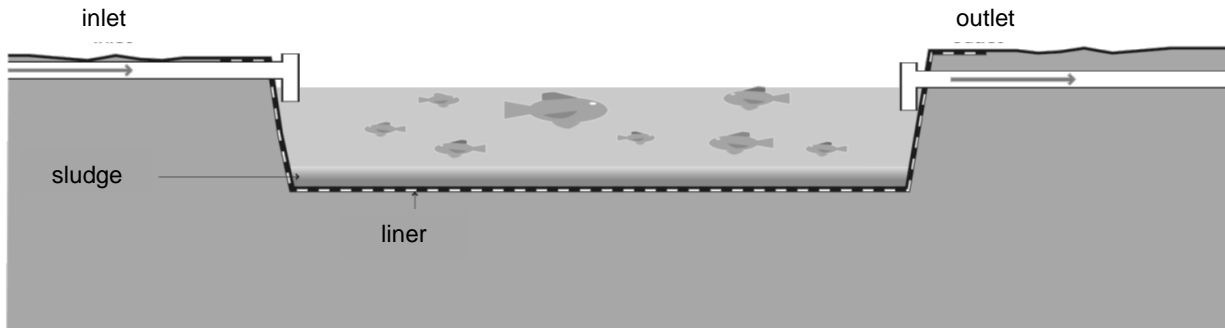
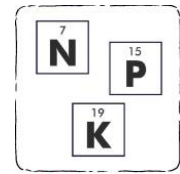


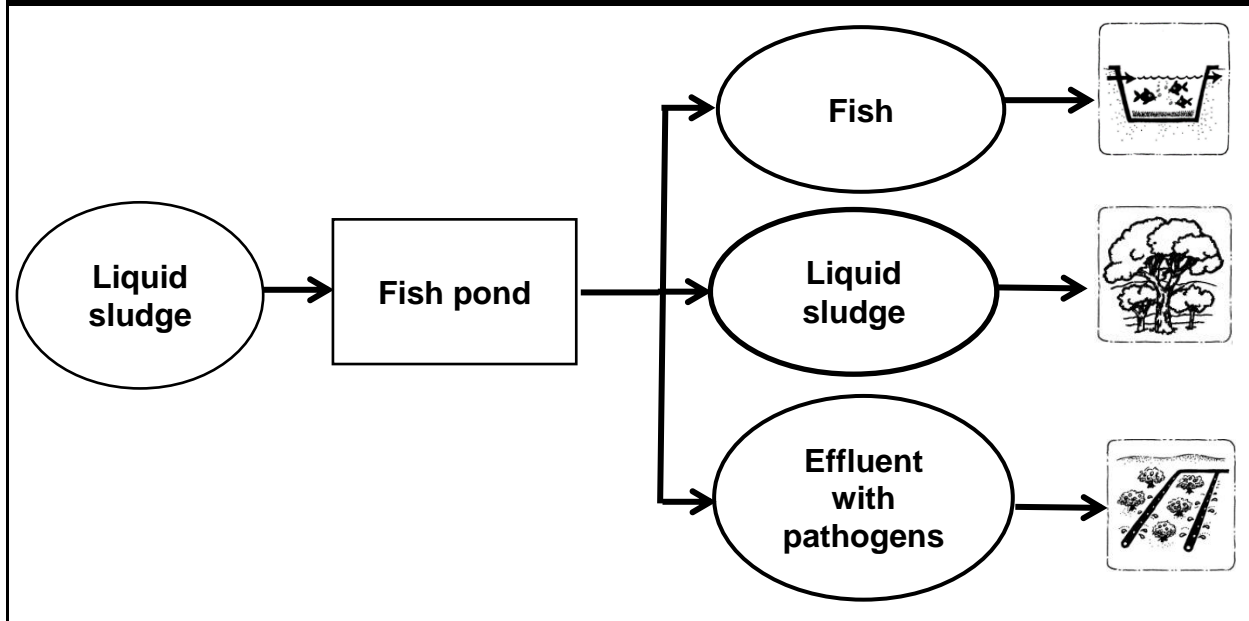
Diagram of a fish pond (Credit: Tilley et al., 2014)






Aquaculture ponds, Malawi (Credit: Jamie Oliver)

- **Design:** Fish ponds provide a rich habitat for fish, such as carp, to feed on aquatic plants and organisms. Solids settle to the bottom as the faecal sludge flows from one end of the pond or tank to the other. The liquid (effluent) flows through the outlet and requires further treatment.
- **Operation:** Fish ponds are lined to prevent groundwater contamination. The settled sludge is periodically pumped out for further treatment. Fish and aquatic plants are harvested frequently. The fish can be used as animal feed. Fish must be cooked well if used for human consumption.
- **Time and energy required:** The frequency of sludge removal depends on the amount of solids entering the pond. The fish are harvested when they reach an appropriate size.

## Treatment Technology Description



<b>Treatment Objectives</b>	Pathogen Inactivation	<b>Low</b>
	Dewatering	<b>Low</b>
	Stabilization/Nutrient Management	<b>Yes</b>
<b>Pathogen Inactivation</b>		<ul style="list-style-type: none"> <li>• The objective is to grow fish, not to reduce pathogens.</li> <li>• Some pathogens may be killed through storage, depending on the retention time.</li> <li>• The effluent requires further treatment before use for irrigation in agriculture.</li> </ul>
<b>Level of Development</b>	 	<ul style="list-style-type: none"> <li>• Fish ponds are used frequently and informally with wastewater and faecal sludge.</li> </ul>

### References

Strande, L., Ronteltap, M. & Brdjanovic, D. (2014). *Faecal sludge management: Systems approach for implementation and operation*. London, UK: IWA Publishing. Retrieved from: [www.sandec.ch/fsm\\_book](http://www.sandec.ch/fsm_book)

Tilley, E., Ulrich, L., Lüthi, C., Reymond, P. & C. Zurbrügg (2014). *Compendium of sanitation systems and technologies*, 2nd Revised Edition. Dübendorf, Switzerland: Swiss Federal Institute of Aquatic Science and Technology (Eawag). Retrieved from: [www.sandec.ch/compendium](http://www.sandec.ch/compendium)