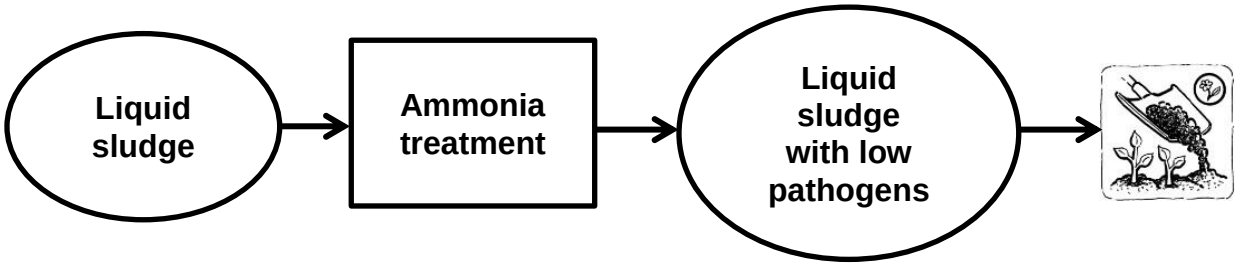
Ammonia Treatment

Urine collection in Burkina Faso (Credit: Sustainable Sanitation Alliance)

- **Design:** High ammonia concentrations are toxic for pathogens and inactivates them. Ammonia could be used from urine or fertilizer.
- **Operation:** Urea is mixed with faecal sludge in batches. Dosing depends on the required urea concentration, sludge water content, and total solids.
- **Time and energy required:** Faecal sludge and ammonia are mixed for a required period of time. Ammonia treatment needs low amounts of energy, but can also be expensive if fertilizer is purchased (the production of which is also very energy intensive).

Last Update: July 2016

Treatment Technology Description



Treatment Objectives	Pathogen Inactivation	More research is required
	Dewatering	
	Stabilization/Nutrient Management	No
Pathogen Inactivation	**?**	• Ammonia is a powerful disinfectant. It disturbs the functioning of pathogens. • More research is needed to understand how ammonia inactivates pathogens. • Dosing depends on the required urea concentration, sludge water content, and total solids.
Level of Development		• Ammonia treatment for faecal sludge treatment is innovative. Research is ongoing.

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