



Thammarat Koottatep

Sanitation Specialist

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SUMMARY

- 20 years experience working for research & development and consulting organizations in Thailand, Southeast & South Asia and Africa.
- Experienced in sanitation systems and decentralized wastewater systems in developing countries projects. Well versed in sanitation systems, decentralized wastewater treatment processes and technologies, including; natural treatment processes, constructed wetlands, fecal sludge management/treatment. Have a strong understanding of strategic planning, stakeholder engagement, management practices, market-driven innovations (i.e. Material Flow Analysis, Quantitative Microbial Risk Assessment, Water Pinch Analysis).
- Solid business development and project management experience that has encompassed the full life-cycle of project management; i.e., proposal preparation, project costing, resourcing, scheduling, budget control and the management of small teams of technical professionals from various disciplines.

CORE COMPETENCIES

- Decentralized Wastewater and Waste Management
- Fecal Sludge Management and Treatment
- Innovative Sanitation Systems
- Environmental Monitoring and Modeling
- Environmental Project Management

EMPLOYMENT

- May 2011 – Present: **Asian Institute of Technology (AIT)** | Thailand | Associate Professor
- Sep 2002 – Apr 2011: **National Center of Competence in Research (NCCR) North-South** | Switzerland | Regional Coordinator & Assistant Professor
- May 1999 – Aug 2002: **Asian Institute of Technology (AIT)** | Thailand | Research Engineer

EDUCATION

- 1993 – 1999 **Asian Institute of Technology** (Thailand), D.Eng. in Water & Wastewater Engineering
- 1991 - 1993 **Asian Institute of Technology** (Thailand), M.Eng. in Water & Wastewater Engineering
- 1987 - 1991 **Chiang Mai University** (Thailand), B.Eng. in Environmental Engineering (1st Rank)

REGIONAL EXPERIENCE

Thailand, South East Asia (Vietnam, Cambodia, LaoPDR, the Philippines and Indonesia), South Asia (India, Nepal, Bangladesh, Sri Lanka), Africa (South Africa and Ethiopia)

SELECTED PUBLICATIONS

1. Koottatep, T., Chapagain, S.K., Watanatanachart, J., and Polprasert, C. (2015) Application of nano-silver coated granular activated carbon for inactivation of septic tank effluent, *Journal of Water, Sanitation and Hygiene for Development*, 5(4), Short Communication, doi: 10.2166/washdev.2015.022
2. Taweesan, A., Koottatep, T. and Kausi, D. (2015) Factors Influencing the Performance of Faecal Sludge Management Services: Case Study in Thailand municipalities, *J. Environment, Development and Sustainability*, DOI 10.1007/s10668-015-9719-x, Springer
3. Koottatep, T., Chapagain, SK., and Polprasert, C. (2015) Situation and Novel Approach for Sustainable Phosphorus Recovery: A case study of Thailand, *Global Environmental Research (GER)*, 19 (1): 105-111, Japan
4. Fakkaew, K., Koottatep, T., Passayanavin, T. and Polprasert, C. (2015) Hydrochar Production by Hydrothermal Carbonization of Faecal Sludge, *Journal of Water, Sanitation and Hygiene for Development*, 5(3), DOI: 10.2166/washdev.2015.017
5. Taweesan, A., Koottatep, T. and Polprasert, C. (2015) Effective Faecal Sludge Management Measures for Onsite Sanitation Systems, *Journal of Water, Sanitation and Hygiene for Development*, 5(3), DOI: 10.2166/washdev.2015.010
6. Koottatep, T., Chapagain, SK., Watanatanachart, J. and Polprasert, C. (2015) Application of nano-silver coated granular activated carbon for inactivation of septic tank effluent, *Journal of Water, Sanitation and Hygiene for Development*, Doi:doi:10.2166/washdev.2015.022
7. Koottatep T., Eamrat, R., Pussayanavin, T. and Polprasert C. (2014) Hydraulic Evaluation and Performance of On-Site Sanitation Systems in Central Thailand: *Environ Eng Res.* 2014;19(3):269-274. *Environmental Engineering Research* 2014; 19(3): 269-274. doi: <http://dx.doi.org/10.4491/eer.2014.S1.004>
8. Pussayanavin, T., Koottatep, T., Eamrat, R. and Polprasert, C. (2014) Enhanced sludge reduction in septic tanks by increasing temperature. *Journal of Environmental Science and Health, Part A* (2015) 50, 81–89, DOI: 10.1080/10934529.2015.964633
9. Polprasert, C., Panuvatvanich, A., Surinkul, N., and Koottatep, T. (2014) Novel Toilet and its Implications on Technology, Health and Environment, *Journal of Royal Society of Thailand*, 39(2) April - June (in Thai).
10. Chaosakul, T., Koottatep, T., and Polprasert, C. (2014) A Model for Methane Production in Sewers. *J. Environ. Sci. Health, Part A* 49, 1–6, ISSN: 1093-4529 (Print); 1532-4117 (Online) DOI: 10.1080/10934529.2014.910071
11. Sherpa, A.M., Koottatep, T., Zurbruegg, C. and Cissé, G. (2014) Vulnerability and adaptability of sanitation systems to climate change. *J. Water and Climate Change*, IWA Publishing, Vol. 5 No. 4, pp 487 - 495 doi:10.2166/wcc.2014.003
12. Shrestha A., Chaosakul T., Priyankara D.P.M.P., Chuyen L.H., Myat S.S., Syne N.K., Irvine K., Koottatep T. and Babel M.S. (2014) Application of PCSWMM to Explore Possible Climate Change Impacts on Surface Flooding in a Peri-Urban Area of Pathumthani, Thailand. *J. of Water Management Modeling, Computational Hydraulics International*, DOI: 10.14796/JWMM.C377
13. Koottatep, T., Phuphisith, S., Pussayanavin, T., Panuvatvanich, A. and Polprasert, C. (2014) Modeling of pathogen inactivation in thermal septic tanks. *J. of Water, Sanitation and Hygiene for Development*, IWA Publishing, Vol. 4 No. 1, doi:10.2166/washdev.2013.190
14. Danwittayakul, S., Jaisai, M., Koottatep, T., Dutta, J., (2013) Enhancement of photocatalytic degradation of methyl orange by supported zinc oxide nanorods/zinc stannate (ZnO/ZTO) on porous substrates, *Industrial & Engineering Chemistry Research*, doi: 10.1021/ie4019726
15. Thanh, B.X., Tina, N.T., Hai Van, P.T., Dieu Hien, V.T., Dan, N.P., Koottatep, T. (2013) Performance of wetland roof with *Melampodium paludosum* treating septic tank effluent. *Desalination and water treatment*, doi: 10.1080/19443994.2013.826323