

A Pathway to Sustainability in Urban Sanitation for Developing Asian Countries

Kumudini Ranmali Abey Suriya

Institute for Sustainable Futures

University of Technology, Sydney

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Certificate of Authorship/Originality

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature of Candidate

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Relevant publications

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Abey Suriya, K., Mitchell, C. & Willetts, J., 2006. *Kuhn on sanitation: dignity, health and wealth for the children of the revolution.* Ninth Biennial Conference of the International Society for Ecological Economics, New Delhi, India.

Abey Suriya, K., Mitchell, C. & White, S., 2007. *Can Corporate Social Responsibility resolve the sanitation question in developing Asian countries?* Ecological Economics, vol. 62, no. 1, pp. 174-183.

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Abstract

Sanitation in rapidly growing cities of developing Asian countries is a complex problem that often appears intractable and unyielding to standard problem-solving approaches. In this thesis, I provide a conceptual foundation aligned with sustainability to provide fresh guidance towards resolving this problem.

I frame urban sanitation in developing Asian countries as a ‘messy’ planning-related problem, characterised by associations with multiple perspectives, key uncertainties and conflicting interests. In recognition that ‘messy’ problems cannot be confined within traditional disciplinary boundaries, the research uses transdisciplinarity as a guiding principle and methodology. It explores how new processes and complex systems ideas relevant for ‘messy’ problems can be applied to resolving urban sanitation. To ground the work in a real context, much of this work is explicated with reference to Colombo, Sri Lanka.

My research highlights the role of dominant perspectives and worldviews in the organisation of sanitation practice. A review of sanitation history exposes changing paradigms, and the potential for developing Asian countries to move to radically different practices aligned with sustainability. I demonstrate that conceptions of costs and cost recovery for sanitation depend on perspective, by comparing how neoclassical economics’, ecological economics’ and Buddhist economics’ perspectives indicate different approaches to these, with different alignments with sustainability. By arguing that these perspectives are complementary rather than mutually exclusive, I integrate them to propose necessary principles for sustainable sanitation, namely, that: arrangements for sanitation should emphasise cooperation between stakeholders; efficiency goals should include entropy considerations; society as a whole should live within its means; and ethics and ‘goodness’ should underpin decision processes and choices.

The thesis proposes a framework for participation to support decision-makers in resolving problematic sanitation. This supports the principle of cooperation between stakeholders, and the sustainability discourse’s emphasis of democracy and participation in decisions that affect them. It is a learning process based on soft systems methodology, bringing participants with specialist knowledge, stakeholder interests and broader societal values into dialogue that is explicitly designed to be deliberative, that can lead to a path to resolving the problem.

Finally, I explore how ethics and ‘goodness’ can be woven into the provision of sanitation services, particularly with private sector actors who can potentially play a key role. I propose that their representation as metaphorical persons within current legal structures be extended so their behaviour is guided by a moral framework like real people in society. I propose that Buddhist economics can provide such a framework, raising expectations of behaviour grounded in ethics and goodness.