Regenerative Sanitation: A New Paradigm For Sanitation 4.0

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This book proposes Regenerative Sanitation as the next era of sanitation management and attempts to provide a foundation for the study of sanitation on the premise that sanitation is a complex and dynamic system that comprises of social-ecological, technological and resource systems. The preconception is that sanitation will deliver maximal benefits to society only when there exists a cyclical integration of the three subsystems to enable appropriate linkages between ‘technological design’ and the ‘delivery platform’ so as to achieve optimal and sustained sani-solutions. It also calls for the rethinking of sanitation to change the narrative towards more progressive trajectories such as resource recovery and reuse rather than just amelioration. It explores the contributions to food security, livelihood support, urban regeneration, rural development and even local economies.

A new paradigm, theory and ten principles for ensuring practical and effective sanitation solutions and management is presented. In addition is a unique conceptual framework applicable to both developed and developing countries, and to all stages, processes and cycles of delivering sanitation solutions that could critically evaluate, analyse and provide credible, adequate and appropriate sanitation solutions. All of which culminates in a strategic and practical application platform called ‘Sanitation 4.0’ that advocates for total rejuvenation and comprehensive overhaul with eight key strategic considerations for the implementation.

Regenerative Sanitation: A New Paradigm For Sanitation 4.0 is inter and trans-disciplinary and encourages collaboration between engineers, scientists, technologists, social scientists and others to provide effective and practical user-centred solutions. It includes relevant case studies, examples, exercise and future research recommendations. It is written as both a textbook for researchers and students as well as a practitioners’ guide for policymakers and professionals.