

## ABSTRACT

Transition Analysis of Sanitary Niches: Dynamics of Purposive Transition Contexts within Sanitary Regimes in Indian Cities.

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Indian cities although possessing an entrenched techno-environmental regime are struggling to provide basic water and sanitary services to all its residents. These cities also possess a messy, often volatile, democratic political governance system that retains considerable resources for granting legitimacy, and for enrolling, coordinating and reviewing technical efforts in the public realm. The increasing incorporation of the 'brown' sustainability agenda (recently characterized as the United Nations (UN) Millennium Development Goals) has provided the impetus for system innovations in managing urban environments in India. These innovations have sought to develop novel socio-technical configurations within niche urban regions (such as slums, peri-urban sprawls) that were hitherto unserved by the incumbent regime. These endeavors, unlike in the past, seek to not just create niche-level environmentally-sound technologies but also alter the constitutive regimes and their member relationships in more sustainable ways. Partnerships comprised of a diverse mix of actors – industrial interests, civil society groups, & technical professionals – characterize these innovations. Conditioned by the incumbent sanitary regime and the urban governance system, critical actors in these partnerships attempt to sustain the viability of the coalition through twin strategies of ensuring effective resource coordination and conserving legitimacy. The central objective of this paper is developing Transition Analysis as a methodological tool for comprehending the sustainability of system innovations in the context of Indian urban sanitation. Three subsidiary objectives inform this larger effort – i) How does the representation of the transition arena by critical actors influence the role allocation to other actors; ii) Through what strategies did the coalition conduct resource (financial & governance) mobilization from the selection environment? And finally iii) what strategies allowed the coalition to maintain and sustain legitimacy of the effort? Using a quasi-evolutionary model of multi-level, socio-technical transitions, this paper frames these innovations as purposive transition contexts (Smith et al 2005) marked by deliberative intent and by external resource mobilization. This paper employs four cases of system innovations initiated in the late 1990's to the early 2000's from three cities – Ahmedabad, Bengaluru (Bangalore) 1 & 2 and Chennai (Madras) - in India in order to understand the dynamics of these contexts. Data for the case studies were gathered through a mixture of primary data sources - field interviews, media sources, news reports and official documents - and secondary data sources – existing literature on the case studies. The field study revealed that the innovative coalitions had collapsed in two cases (Ahmedabad and Bengaluru 1) while in two other cases (Bengaluru 2 and Chennai), regime transition was in process. Using Transition Analysis, this paper will inquire into the differential adaptations undertaken by the cases to their environments that allowed or hindered their

sustainability. The discussion of the cases reveals that coalitions that successfully mobilized “governance” resources were able to sustain their existence while others were disbanded.

Smith, A., Stirling, A. and Berkhout, F. (2005), “The governance of sustainable sociotechnical transitions”, *Research Policy*, 34, 1491-1510.