

# (Post)Colonial Pipes

## *Urban Water Supply in Colonial and Contemporary Jakarta*

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### Introduction

Like many megacities in the South, Jakarta's water supply system is highly fragmented. The formal water supply system reaches less than 50 per cent of the city's inhabitants; extending to mostly higher income areas of the city, the spatial distribution of the piped water supply system recalls a scattered archipelago rather than a homogeneous network (Bakker 2003). The majority of Jakarta's residents make use of a variety of highly differentiated sources – bottled water, vendor water, shallow and deep wells, public hydrants, network connections – to meet their daily water needs (Kooy 2008), often relying exclusively on water provided, managed, delivered outside of the network (Bakker et al. 2008; McGranahan et al. 2001; Surjadi et al. 1994). Indeed, a significant proportion of households with connections to the networked water supply system continue to rely primarily upon other sources of water supply given low water quality and low network pressure.

This fragmentation of access to water supply and sanitation has been characterized as one of the key development challenges for the South in the next century. Halving by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation is one of the Millennium Development Goals established by the international community at the World Summit on Sustainable Development in Johannesburg (2002). The World Health Organization estimates that 1.1 billion people worldwide do not have access to safe drinking water, and 2.4 billion are without access to adequate sanitation (WHO 2004). An increasing proportion of users without access to adequate water supplies live in urban areas; despite residing in a metropolitan

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area, poor families in large cities in the South frequently do not have networked water supply access.

Various authors have explored why this fragmentation has emerged, and attempted to explain why it has proved to be so generalized and persistent in cities in the South (see, for example, Balbo 1993; Graham and Marvin 2001; King 1990). However, many of these analyses are predicated on the assumption of a modern infrastructural ideal of universalized, homogeneous provision of networked utility services; their central concern is with the 'fragmentation' which these supposedly universal networks are experiencing. In addition to presuming the existence of this universal network, most of the analyses applied to interpret the conditions of water access in Jakarta also presume the goal of universal access through a centralized networked system (Graham and Marvin 2001).

In contrast, this chapter chronicles the historical construction of Jakarta's urban water supply system to illustrate how the city's water supply has always been fragmented. Our analysis of the absence of an urban infrastructural ideal in Jakarta explains the persistent fragmentation of access in Jakarta as the product of (contested and contradictory) colonial and postcolonial government. We assert that the flows of water in the contemporary city of Jakarta must be understood as a historical product, both of colonial infrastructure and discourses. We are wary of any simplistic comparisons between the colonial past and present, but – in agreement with other scholars (for example, Myers 2006) – we believe that a postcolonial optic is necessary to unlock crucial elements of colonial legacies. Specifically, we argue that the optic of postcolonialism provides the understanding required for dissecting the power relations which continue to structure access to water supply and urban space in Jakarta, a dynamic which complicates Northern-rooted narratives of urban infrastructure, and also the developmentalist narratives of international aid and multi-lateral financial organizations.

We employ a framework of (post)colonial governmentality to explore the interrelationships between urban governance and infrastructure in Jakarta. This analytical framework is operationalized to understand how power operated through discourse and material practice to shape access to water supply in Jakarta, from 1920–1960. Documenting how relations of power were materialized and contested via hydraulic networks through the project of colonial government in the early twentieth century, and through later attempts of postcolonial governments to modernize selected spaces in the city through the provision of large-scale water supply projects. The case study that follows uses this framework to demonstrate how (post)colonial relations of rule both shaped, and were shaped by the material and discursive