NOTES

INTRODUCTION


1 For a public example of this, consider, for instance, the iconic film Mother India.

2 For instance, India’s economic growth has been largely spurred on by the services sector and industries such as IT, while traditional sectors, such as agriculture and manufacturing, have not fared as well.

3 Within the policy realm, the shift toward local governance was built into specific legislative frameworks that were designed to promote decentralization. The 1992 seventy-third and seventy-fourth constitutional amendments were specifically designed to strengthen both rural and urban governance in villages and small towns. Decentralization has had varying implications for restructuring state authority in postliberalization India. Such variations have been shaped by a range of factors, including the nature of local state governments, local political contexts, societal dynamics and elite capture, and the institutional capacity of local governments (see Manor 2016; S. Singh 2016; Singh and Sharma 2007).

4 Govind Gopakumar (2012), for instance, provides a rare and important analysis of the ways in which varying domestic political coalitions have shaped the trajectory of water reforms in urban cities in India.

5 There is also a distinctive stream of scholarship that is focused on the impact of states on social welfare rather than purely on the nature of reforms and investment (see Deshpande, Kailash, and Tillin 2017; P. Singh 2016).

This paradoxical nature of the Indian state is not new. One of the key features of the Indian state that scholars have long grappled with is the contradictory nature of what Lloyd and Susanne Rudolph called the paradox of the “weak-strong state” (1987).


I use the name Tamil Nadu in accordance with governmental and public conventions; note that the culturally specific linguistic name of the state is Tamilnadu.

The parties emerged out of the Dravidian movement in the state, which centered on conceptions of justice and equality that focused on caste hegemony (specifically Brahmans) and caste discrimination as well as cultural nationalist conceptions of ethnic-linguistic Tamil identities.


For a useful discussion of such organizations in Mumbai, see Anand (2017). For an example of the critique of privatization, see Urs and Whittell (2009).

1. FORMATION OF INDIA’S WATER BUREAUCRACY

Patel would famously passionately defend the Administrative Service as India in his speech to Parliament on October 10, 1949 (see Singh 2017, 247). This has become known in Indian public culture as Patel’s defense of the IAS as India’s “steel frame.”

Precolonial forms of social and political power were also fundamentally linked to the control and distribution of water resources (see Ludden 1985).

For a rich discussion of practical expertise in flood-prone Orissa and the deleterious effect of modern colonial technical projects, see D’Souza 2006.

For a more extensive discussion of the formation of the universalized science of irrigation that was taking root, see Gilmartin 1994 and Mosse 1999.

On this contrast, see Mosse 1999, 310.

Peter Mollinga, for instance, has argued that famine protection was a real objective. See his discussion of the famine commissions in 1880 and 1901–3 in Mollinga 2003.

Such laws included the 1873 Northern India Canal and Drainage Act, the 1882 Easement Act on groundwater, the 1920 United Provinces Minor Irrigation Works Act, the 1931 Madhya Pradesh Irrigation Act, and the 1935 Government of India Act that gave provinces rights over water.
The legal structure, as Philippe Cullet has noted, produced a significant linkage between land and water. The control of groundwater was connected to control of land. The result was that property rights developed around the ownership of water (2009, 28).

Sadr-ul-Mahan Political Department, His Exalted Highness the Nizam’s Government, Hyderabad-Deccan, to the Secretary to the Honourable the Resident at Hyderabad-Deccan, December 26, 1935, no. 3186.

Sadr-ul-Mahan to the Secretary.

PWD memorandum no. 2450-D/36-2, July 2, 1936. The conference took place on July 23, 1934.

PWD memorandum, 28.

This also extended to the PWD’s interpretation of riparian law.


For critical work on development and water politics, see Baviskar 2005; Agarwal and Narain 1997. For a discussion of this developmental model of political economy in the early decades of independence, see Frankel 2015; see also Gupta 1998. There is a very large amount of scholarship on dams in India. For a good overview of the literature, see Joy et al. 2008.

The weight of such institutional continuities that shaped the state’s approach to water in postindependence India does not of course mean that there were no significant changes. In the context of critiques of India’s developmental state, it is often too easy to forget the shift in state objectives. Thus, for instance, food security and self-sufficiency were central objects of the state in the early decades of independence.

The formal name of the ministry has undergone changes over time. The current name is Ministry of Jal Shakti. For the reader’s accessibility, I use the abbreviated name Ministry of Water Resources throughout the book.

Other significant water-related issues, such as governance over droughts and floods, were treated by distinct institutional structures and efforts. On problems with drought governance, see Jairath 2008.

See a similar discussion of the PWD in UP in Gould 2011.

2. THE REGULATORY WATER STATE

This has ranged from political discourses such as Arvind Kejriwal’s (then activist who would later become Delhi’s chief minister) campaign against the privatization of water in Delhi to NGO activities in Mumbai (see Anand 2017) to academic works (Shiva 2016).

The classic case of expanded privatization is Chile.

See, for example, the creation of specific procedures for such initiatives and the establishment of a PPP Approval Committee, F.No.2/10/2004-INF, Government of India Ministry of Finance Department of Economic Affairs, 2005.
Such centralizing tendencies are not limited to the water sector. For example, while the planning commission was disbanded, it was replaced by the NITI Aayog, which has been placed under the centralized authority of the prime minister. See Swenden and Saxena 2017.


The Sukthankar Committee recommended devolving responsibility to neighborhood/resident associations. The Ministry of Urban Development formulated the Pooled Finance Development Fund Guidelines for small and medium ULBs (see Hoque 2012)

The World Bank has been advocating this measure in the irrigation sector since 1998. See Koonan and Bhullar 2012 on this point and for an assessment of the WRA model.


Thus, for example, all interlinking projects are to be classified as “national projects” in order to speed up funding. Vishwa Mohan, “Linking of Rivers May Get National Tag,” Times of India, https://timesofindia.indiatimes.com/india/govt-may-declare-inter-state-river-linking-projects-as-national-projects/articleshow/62544432.cms.

For a critical discussion, see Iyer 2012.


ICICI Bank Limited (formerly ICICI Ltd), Housing Development Finance Corporation Limited and Infrastructure Leasing and Financial Services Limited (see TNUDF, n.d.).

These reforms were implemented in Tamil Nadu in 1994 (GTN 1994).

The act was amended in 2002 (GTN 2002).


3. Federalism and Interstate Negotiations

See, for example, Tamil Nadu’s attempt to compete with Andhra Pradesh for investment in the IT sector (Kennedy 2004).

The amendments still contain loopholes that allow delays. For instance, there is no time limit provided for publication of the tribunal decision in a gazette, which is a legal requirement for the implementation of an award (see Iyer 2002). I use Cauvery Tribunal or Cauvery Water Tribunal as abbreviated names for the full formal name, Cauvery Water Disputes Tribunal.


Chennai does not rely on the Cauvery resources for its drinking water supply. However, there are parallel patterns of strains on water resources through economic growth and both planned and unplanned urbanization.


R. Iyer had criticized the amendments for not incorporating an appeals process. This very lack of appeals process has in effect brought the Supreme Court back into the process as foreshadowed by Iyer. See Iyer 2002.


The newly independent state of Telangana is now a part of this process.


Renganathan, “Troubled Waters of Cauvery.”

This would eventually begin to change the dynamic of the Liaison Committee (Mohanakrishnan 2016b, 70).


The initial goal of fifteen TMC was modified to twelve TMC.


The most well known, of course, is the Narmada Bachao Andolan in Gujarat.


“TN Spy Found in Water Dispute with Kerala, Say Cops,” Indo Asian news service, April 26, 2013.
4. EXTRACTION, INEQUALITY, AND WATER BUREAUCRACY

2 This is one of the stated objectives of the Water Resources Organisation (see PWD, n.d.a.).
3 PWD Demand no. 38 Policy Note 2005–6, 2006, 45.
4 At the time of publication, Census 2021 data was not available, and the census was reported to have been delayed by the COVID-19 pandemic.
5 One professor of civil engineering in Chennai noted that bureaucrats were resistance to new ideas, such as using porous materials rather than concrete for sidewalks. Author’s interview, August 2017.
6 The Tamil Nadu government order was passed on November 11, 1991, and planning authorities require the permission of the Agricultural Department for the conversion of land. The order was also meant to protect wetlands.
9 Karen Coelho has illustrated the ways in which this conception of public by Metrowater engineers encodes exclusionary conceptions of class-based respectability. See Coelho 2005b.
For a critical discussion of the central government’s data on groundwater, see Dhawan 1995.


National data on groundwater is also being tracked by NASA. See “Groundwater Gains in India,” NASA Earth Observatory, accessed December 7, 2021, https://earthobservatory.nasa.gov/images/91008/groun
dwater-gains-in-india.

groundwater-law/article5147072.ece.


This dominance is intensified both by the sociocultural power of larger cities and by the financial weakness of small urban areas (P. Mohanty 2016). Contestations within urban environments and between rural and urban contexts stand to deepen long-standing inequalities that structure access to water. David McKenzie and Isha Ray (2009, 443), for example, have demonstrated a national relationship between asset wealth and access to water. In Rajasthan, in one case, Rajputs in the village forced Dalits to pay, while in other villages, Dalits were excluded (see Cullet 2009, 167). Philippe Cullet also provides a useful analysis of the complex impact in terms of class inequality where the poorest are indirectly affected by cost-recovery principles.


See also Carolin Arul’s research, which confirms this practice, noting that the state is able to “withdraw slowly the irrigation supply to the command areas and allow urbanization to take place on its own, so that agriculture becomes defunct” (2008, 197).


For an extensive critical discussion of this model of urban financing, see Kundu 2001.

This funding structure in Tamil Nadu was used as a national model in India and was specifically designed to address the lack of government resources necessary for infrastructure development in small towns.

Ashwin Mahalingam, Ganesh Devkar, and Satyanarayana Kalidindi (2011) have analyzed the microdynamics of such initiatives and have shown that there are varying degrees of effectiveness in the implementation of water-related infrastructure projects (including delays in the ability of local governments to effectively take over and manage completed projects).

These reforms were first implemented in TN in 1994 (GTN 1994). The Tamil Nadu Farmers’ Management of Irrigation Systems Act, 2000 (TN Act 7 of 2001) was enacted on March 2001.


For example, the city experienced significant floods in 1943, 1976, and 1985.

5. State, Class, and the Agency of Bureaucrats

See, for example, Anna Hazare’s movement, which gained widespread publicity in 2011. This highly publicized movement did not focus on corporate corruption.


For an overview of such contemporary debates, see Vaishnav and Khosla 2016.

Government employees continue to resist this. See, for example, a 2017 strike by the Tamil Nadu Government Employees Association. The primary demand was a rollback of the new pension scheme. See “Government Employees Call Off Strike,” Hindu, April 27, 2017, www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/government-staff-call-off-strike/article18235867.ece.


Note that recent financial constraints have led the state government to try to cut back on such expenditures.


Lisa Björkman’s (2015) study provides useful insights into some of the challenges that technical workers face in Mumbai’s water sector.


Interviews were conducted with varying ranks of employees in January 2018.

The TNPWD Association of Engineers urged the state government to drop its plan to bifurcate PWD. See “Engineers against Bifurcation of Public Works Department,” Hindu, October 25, 2009. The bifurcation was tied to a World Bank loan of Rs. 2,500 crores. See “Government Urged to Drop Move to Split PWD,” Hindu, February 26, 2007.

There is a reservation of 30 percent for women in government jobs, provided for under section 21 of the Tamil Nadu State and Subordinate Service Rules.

The PWD does not publish data on its workforce. Estimates are based on interviews and field site discussions that I carried out in 2017.


For an exception, see A. Sinha’s (2011) work on bureaucratic agency drawing on a rational actor model of choice.

See, for example, E. N. Mangat Rai (1973) and Mohammed Ali Rafath (2012). David Potter’s (1996) work represents one of the few texts that has dealt in depth with similar memoirs, mainly in the colonial period and early decades of independence.
The book is not publicly for sale and is held within the offices of the PWD and within Anna University’s Centre for Water Resources.

Medha Patkar is a well-known antidam activist who spearheaded a national and then international campaign against the dam on the Narmada River.

CONCLUSION