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Public Goods Provision in China and India

Nobody could think himself injured by the drinking of another man, though he took a good draught, who had a whole river of the same water left him to quench his thirst: and the case of land and water, where there is enough of both, is perfectly the same.

John Locke, *Two Treatises of Government* (1689)

All governments need to provide for their people in order to stay in power. But why do some governments produce a higher level of public goods and services than others? Under what conditions do governments provide a high level of public goods?

Studies have attributed the variation in public goods provision to regime type. Most of these studies show that democratic systems perform better than authoritarian ones in producing public goods. They explain that democracies produce more public goods because democratic political processes aggregate citizen preferences whereas authoritarian governments need only cater to the small group in power. According to Amartya Sen, the nature of political systems determines the incentives and interests of governments in formulating and implementing public policies. He reasons that democratic leaders have stronger incentives than authoritarian rulers to put in place public goods, such as disaster-prevention measures, because democratic leaders have to win elections and deal with public criticisms.¹ As a result, “It is not surprising that no famine has ever taken place in the history of the world in a functioning democracy – be it economically rich ... or relatively poor ...”² Comparing China and India, Sen points out that India has not suffered famine since independence in 1946 while China has undergone periods of

¹ Amartya Sen, *Development as Freedom* (Oxford: Oxford University Press, 1999), p. 16.

² Ibid.

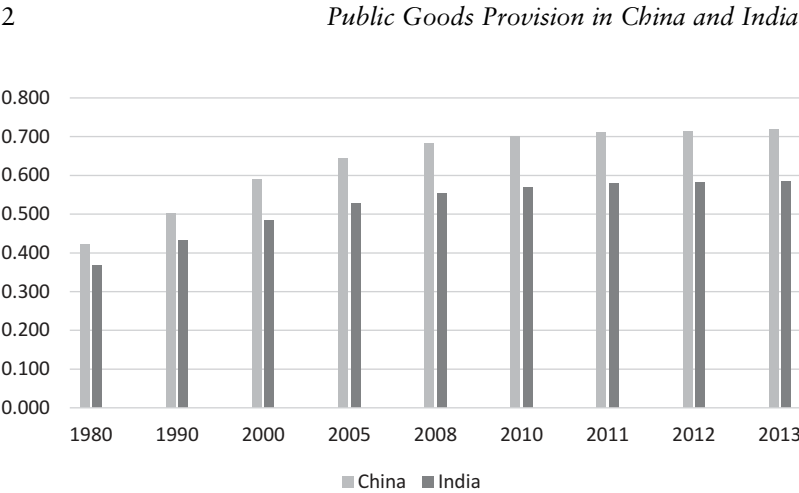


Figure 1.1 China’s and India’s Human Development Index, 1980–2013³

massive starvation and deaths since 1949, in particular during the Great Leap Forward from 1958 to 1961.⁴

However, contrary to the predictions of theories based on regime type, authoritarian China produces a higher level of public goods than India, the largest democracy in the world. The empirical evidence indicates that Chinese citizens enjoy a significantly higher level of government services than Indian citizens. According to the United Nations Development Program (UNDP), China’s Human Development Index (HDI) in 2014 was 0.719 while India’s was 0.586, ranking 91 (categorized as high HDI) and 135 (medium HDI), respectively.⁵ From 1980 to 2013, China’s ranking on the HDI jumped ten places, while India’s only moved up one place. Figure 1.1 traces China’s and India’s HDI from 1980 to 2013. It shows that China’s HDI has been consistently higher than India’s, and the gap between them has grown substantially, even though they were almost at the same level in 1980.

³ United Nations Development Programme (UNDP), “The 2014 Human Development Reports: China”; UNDP, “The 2014 Human Development Reports: India,” available from <http://hdr.undp.org/en/data#> (accessed May 23, 2015). The HDI comprises the following components: life expectancy at birth; mean years of schooling; expected years of schooling; and gross national income per capita.

⁴ Sen, *Development*, p. 16.

⁵ UNDP, “2014 Human Development Reports: China” and “2014 Human Development Reports: India.”

Across a series of measures of well-being, such as health and education, China consistently performs better than India.⁶ In terms of the health index, measured as life expectancy at birth, China stands at 75.33 years while India stands at 66.41 years. Total expenditure in health [as a percentage of gross domestic product (GDP)] steadily increased in China from 4.6 percent in 2000 to 5.2 percent in 2011.⁷ The reverse has happened in India – total expenditure in health (as a percentage of GDP) decreased from 4.3 percent in 2000 to 3.9 percent in 2011.⁸ In terms of the education index, which measures mean years of schooling, China stands at 7.54 years while India stands at 4.43 years. The adult literacy rate in 2012, measured as percentage of the population aged 15 years and older, was 95.1 percent and 62.8 percent in China and India, respectively.⁹

This broad comparison between China and India¹⁰ does not in any way suggest that China is a redistributive state or a welfare state in the Northern European sense. Inadequate social services and large inequalities continue to be serious challenges for the Chinese state. Rather, the question is why does authoritarian China produce relatively more public goods than democratic India?

The Empirical Puzzle

This study examines one aspect of public goods provision – the supply of drinking water to urban residents. Why do most Chinese urban residents have uninterrupted access to drinking water while only a little more than half of Indian urban residents have access to two to three hours of piped water supply per day?

Data from the United Nations Children's Fund (UNICEF) and World Health Organization (WHO) show that total improved drinking water sources in urban areas are similar for both China and India:

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

¹⁰ The data in this section broadly compare China's and India's public goods provision on a national level. There are of course regional, provincial, and state-level differences. For work on subnational differences, see, for example, Perna Singh, *How Solidarity Works for Welfare: Subnationalism and Social Development in India* (New York: Cambridge University Press, 2015). Singh's study provides a cross-national level analysis of welfare provision across India.

access of population to improved drinking water sources in urban areas is 98 percent and 97 percent in 2012 for China and India, respectively.¹¹ However, there is a marked difference in terms of access to improved *piped* water. In China, the proportion of the urban population with access to improved piped water was 95 percent, while in India, only 51 percent of the urban population had access to improved piped water.¹²

India's urban population does not have continuous access to piped water (Table 1.1). In 2011, urban residents in India had access to piped water for only two hours per day. Coverage of water supply connections is only 66.6 percent and 53.5 percent in 2009 and 2011, respectively. According to the World Bank, "No Indian piped water supply serving either megacities or smaller towns distributes water more than a few hours per day; this occurs regardless of the quantity of water available for distribution."¹³ As a result of these deficiencies, Indian urban residents resort to private solutions to their water problems, such as installing water storage units at home, buying water from water tankers, and drilling borewells.

By every performance indicator in Table 1.1, it is clear that India has been performing below the service benchmark set by the Indian Ministry of Urban Development. The high proportion of nonrevenue water, 44.1 percent and 30 percent in 2009 and 2011, respectively, is the result of physical losses, commercial/apparent losses, unbilled consumption, and unauthorized consumption.¹⁴ What is even more significant is that the performance of India's urban water sector has deteriorated from 2009 to 2011; of the eight indicators in Table 1.1, India's performance has slid across seven categories.

China performs better than India in the urban water sector. Water coverage in urban areas is nearly 98 percent while the national average of proportion of water loss is relatively low at 13.09 percent (Table 1.2). Water production, water metering, and payment collection rate are relatively high. According to a citizen satisfaction survey, the

¹¹ United Nations Children's Fund, "Water and Sanitation," available from <http://data.unicef.org/topic/water-and-sanitation/drinking-water/> (accessed May 23, 2015).

¹² Ibid. This means that in India there are substantial portions of the population that are dependent on borewells and tankers for their water supply.

¹³ The World Bank, *India: Water Supply and Sanitation – Bridging the Gap between Infrastructure and Service* (Washington, DC: The World Bank, 2006), p. 15.

¹⁴ Ibid., p. 18.

Table 1.1 Water Service Level Benchmarks (SLBs) in Indian Cities, 2009^a and 2011^b

Performance Indicator	Government of India (GOI) SLBs ^c	2009 Actual SLBs	2011 Actual SLBs
Coverage of water supply connections	100%	66.6%	53.3%
Per capita supply of water	135 liters/capita-day	126.4 liters/capita-day	70.0 liters/capita-day
Continuity of water supply	24 hours per day	3.3 hours per day	2.0 hours per day
Quality of water supplied	100%	67.2%	Not available
Extent of metering of water connections	100%	49.8%	20.0%
Extent of nonrevenue water	20%	44.1%	30.0%
Cost-recovery in water supply services	100%	67.2%	33.0%
Efficiency in collection of water supply related charges	90%	78.8%	65.0%

^a Survey of service benchmarks conducted by the Ministry of Urban Development in 2009 from 28 cities, spread across 14 states and different city sizes. Arslan Aziz and Saloni Ketan Shah, *Public Private Partnerships in Urban Water Supply: Potential and Strategies* (Athena Infonomics, May 2012), available from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/186992/PublicPrivatePartnershipsUrbanWaterSupply.pdf (accessed May 16, 2016), p. 13.

^b Data reported in March 2011 by 1,493 cities across 14 states. The World Bank, *India: Improving Urban Water Supply and Sanitation Services – Lessons from Business Plans for Maharashtra, Rajasthan, Haryana and International Good Practices* (Washington, DC: The World Bank, 2012), p. 51; The World Bank, *Running Water in India’s Cities: A Review of Five Recent Public-Private Partnership Initiatives* (Washington, DC: The World Bank, 2014), pp. 6–7.

^c These SLBs were introduced in 2008 by the Ministry of Urban Development followed by a mandatory requirement by the 13th Finance Commission that current performance levels and annual improvement targets were to be reported by different categories of cities in order to access performance grants from the Finance Commission.

Table 1.2 Performance of China’s Urban Water Sector^a

Performance Indicators	Current Performance ^b
Water coverage in urban areas	97.6% (2014)
Water production (liters per capita per day) ^c	344.3 liters/capita-day (2014)
Total urban water supply (cubic meters)	54.67 billion cubic meters (2014)
Water consumption (liters per capita per day)	173.7 liters/capita-day (2014)
Proportion of water loss ^d	13.09% (2014)
Water metering (% of connected population metered)	90% (2004)
Payment collection rate (%)	85% (2004)

^a Data from PRC Ministry of Housing and Urban-Rural Development, *China Urban-Rural Construction Statistical Yearbook 2014* (Beijing: China Statistics Press, 2015); Greg J. Browder, Shiqing Xie, Yoonhee Kim, Lixin Gu, Mingyuan Fan, and David Ehrhardt, *Stepping Up: Improving the Performance of China’s Urban Water Utilities* (Washington, DC: The World Bank, 2007), p. 12.

^b Wherever possible, 2014 data are used. Some data, namely water metering and payment collection rate, are based on 2004 data derived from Browder et al., *Stepping Up*, p. 12, as 2014 data are not available.

^c Water production (per capita per day) is calculated from dividing total urban water supply by urban population of 435 million and 365 days, and converted to liters. Data from *China Urban-Rural Construction Statistical Yearbook 2014*.

^d Percentage of water loss is calculated from total water loss divided by total quantity of water supply. Data from *China Urban-Rural Construction Statistical Yearbook 2014*.

satisfaction of Chinese citizens is highest with the provision of physical infrastructures among all categories of public goods.¹⁵ Such physical infrastructures include water and drainage systems, roads, railways, electricity, and gas. While public–private partnerships (PPPs) have had difficulty catching on in India, there has been a remarkable increase in PPPs in China. From 2001 to 2012, there were 237 PPPs in water and sanitation in China, accounting for 40 percent of the total number of PPP projects globally; the Chinese population served by private water companies increased from only 8 percent in 1989 to 38 percent in 2008.¹⁶

¹⁵ Cited in Tony Saich, *Providing Public Goods in Transitional China* (New York: Palgrave Macmillan, 2008), p. 191.

¹⁶ Eduardo Araral and Wu Xun, “Comparing Water Resource Management in China and India: Policy Design, Institutional Structure and Governance,” *Water Policy* 18:S1 (December 2016), pp. 1–13, at p. 10.

China's urban water management framework is not problem-free: water scarcity and pollution remain serious problems. However, China's performance in delivering drinking water to its urban population is relatively better than India's and it is at least ahead of India in solving some of its water problems. Why is this the case?

The Argument

I argue that the different types of social contracts (independent variable) that exist in China and India explain the different levels of public goods provision (dependent variable) in the two countries. A social contract encapsulates a certain set of ideas, principles, and precepts that guide and inform the actions of state actors and ordinary citizens of a country, helping to explain the different outcomes in public goods provision. The types of goods that a government prioritizes and provides depend on which set of principles and precepts the government – whether authoritarian or democratic – bases its legitimacy, and whether they accord with the expectations of its citizens. A social contract is therefore based on reciprocity; it is not merely about the basis of legitimacy of a state, which is top-down, but also consists of a corresponding bottom-up set of expectations from the people. Unlike formal institutions, which are explicit and legally constituted, a social contract is an informal institution as it is often implicit and unwritten. It is nevertheless binding because it acts as a constraint on governments. There are consequences, sanctions, or punishments if a government deviates from the terms of the contract. Although the contract is unwritten, it is possible to infer its presence from a country's constitution, laws, and policies, government statements, political discourses and debates, as well as the narratives that governments create.

Based on the types of social contracts, governments create, design, and establish a corresponding set of formal institutions to help them govern and run the country with the goal of fulfilling their obligations to their people and hence ensuring their legitimacy and survival. They build the requisite formal institutions based on the priorities that are spelled out in their social contracts. Adapting Weberian definitions of an ideal bureaucracy,¹⁷ I argue that both high capacity and autonomy

¹⁷ Max Weber (1922), *Economy and Society*, eds. Guenther Roth and Claus Wittich (Berkeley: University of California Press, 2013), pp. 956–968. Weber's

are critical to the effectiveness of formal institutions in delivering public goods. Social contracts affect institutional capacity by determining how governments allocate resources across different institutions and priority areas. They affect institutional autonomy by circumscribing the space between state institutions, and societal and political interests.

In China, the Chinese Communist Party's (CCP) ability to deliver fast-paced economic growth, improve living standards, ensure that basic necessities are met, and maintain social stability accords with the expectations of the Chinese people, thus bolstering its legitimacy and enabling it to stay in power. China's performance-based social contract is, however, not merely about economic performance. There is a moral element in the Chinese social contract that can be traced to the traditional concept of the "mandate of heaven" that is rooted in Chinese history. The presence of a unitary state, albeit with brief periods of fragmentation, has allowed the Chinese concept of performance based on the "mandate of heaven" to perpetuate from the imperial period till today. In this concept of performance, the moral behavior of Chinese officials underpins the delivery of public goods. Chinese officials are deemed to have performed morally when they are benevolent and bring about benefits to the people. Hence, performance in the Chinese context has both material and normative dimensions.

Unlike China's social contract, which can be traced to the dynastic period, India's social contract was formed only when a unitary state was established after independence. Two key tenets underpin the Indian social contract. The first tenet is socialism, with emphasis on state ownership and a welfare state. Even though China and India regard themselves as socialist states, "socialism with Chinese characteristics" connotes a flexible and pragmatic approach, suggesting that China's social contract is better described as based on a concept of performance that has its roots in Chinese history and tradition. India's brand of socialism does not have the kind of flexibility that China's

definition of an ideal bureaucracy includes a clearly defined hierarchical structure; a mission defined by top officials; fixed areas of jurisdiction; management by rules, management by written documents; candidates who are chosen based on technical qualifications; impersonal and clear separation of the public and the private; the holding office as a vocation; and a fixed income for officeholders. These features of a well-functioning bureaucracy help ensure that institutions are strong and autonomous.

has: it has not been able to carry out large-scale reforms of state-owned enterprises as China has done to promote economic growth. Socialist principles bind the hands of political leaders who are not able to deviate from the principle of state ownership by introducing private sector participation. This points to the “stickiness” of socialism as a key tenet of the Indian social contract.

The second tenet is populism, which grew from how democratic participation evolved in India. Building a democratic system on top of a largely rural society led to the growth of populism. Universal franchise was granted in India before an industrial revolution has occurred; as a result, competitive politics led to traditional patronage networks (previously confined to the local rural areas) rising to the state and national levels of government.¹⁸ More often than not, Indian politicians who wish to win elections and stay in power need to implement populist policies that are at odds with genuine economic reforms. They rely on personal power and charisma to rule.

Intuitively, a social contract that is based on socialism and democratic principles should result in higher levels of public goods provision. After all, governments run the risk of getting voted out of power if they do not mobilize resources, both financial and manpower, to ensure basic standards of living and the well-being of their people. However, India’s experience shows that socialism and populism, by reducing institutional autonomy and capacity, could be hindrances to public goods provision. India has been more successful in implementing the principle of state ownership than in becoming a welfare state. This is where the contradictions between socialism and populism within the Indian social contract become apparent. In order to create a welfare state and implement redistributive policies, strong and autonomous institutions are needed. However, populist leaders, in amassing power for themselves and their personal network, bypass and weaken institutions.

With the Indian state unable to keep its socialist promises of delivering a welfare state, populist policies become useful stopgap measures to stave off popular discontent, acting as substitutes for the welfare aspects of the social contract. These populist measures have a profoundly negative impact on long-term economic development and the

¹⁸ For in-depth discussion, see Atul Kohli, *Democracy and Development in India: From Socialism to Pro-Business* (New Delhi: Oxford University Press, 2009).

delivery of public goods: "... populism limits long-term economic growth ... leads to repeated crises and market gyrations, which in turn reduce spending on infrastructure, education, and health care – the building blocks of prosperity."¹⁹ Specifically in this study, the New Delhi and Hyderabad state governments were constrained by the populist mandate to give in to demands and protests from a coalition of vested interests that prevented the water utilities in both cities from carrying out unpopular but critical reforms that would help strengthen capacity and autonomy. In addition, socialism, with its emphasis on state ownership, prevents government leaders from tapping into private investments and expertise in reforming public utilities.²⁰

By contrast, the emphasis on performance in China's social contract demands that the government creates the necessary institutions, and carries out policies and reforms that ensure a strong capacity for delivering public goods. Chinese institutions also have autonomy from societal influence and operational autonomy. To help fulfill the mandate of performance in the social contract, Deng Xiaoping began a process of administrative and financial decentralization when he came into power. Decentralization has substantially empowered city governments, which are responsible for the delivery of public goods and services. Unlike the difficulties that the local governments in New Delhi and Hyderabad face in carrying out reforms to their respective water utilities, the case studies on Beijing and Shenzhen demonstrate the capacity and autonomy that both the Beijing and Shenzhen municipal governments have in creating dedicated agencies for managing and coordinating their urban water systems, which helped improve the performance of public utilities. In fact, the Shenzhen Water Affairs

¹⁹ Shannon K. O'Neil, "Latin America's Populist Hangover: What to Do When the People's Party Ends," *Foreign Affairs* 95:6 (November/December 2016), pp. 31–38, at p. 38.

²⁰ The references to private sector participation in reforming water utilities in this book do not suggest that privatization or PPPs is a panacea to the woes of the urban water sector. Rather, the emphasis is on whether reforms, including PPPs, can be instituted. PPPs have been controversial. Even in China, there are widespread concerns among the public that the involvement of multinational companies, such as Veolia and Suez, could lead to water tariff hikes and loss of government control over the vital water industry. However, proponents of PPPs argue that if implemented correctly with strong government oversight, PPPs bring substantial benefits to the public sector by providing an important source of investments, technologies, and management skills that could increase the capacity and autonomy of public utilities.