

3 NABARD and the pro-public financing of water in India

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There is growing interest in revisiting the role of public banks in public water provisioning (Crespi Reghizzi et al. 2022; Marois & McDonald 2022). This growing interest can be attributed to the partial retreat of neoliberal water provisioning strategies across the world and the risk-averse behaviour of private and market-based financial institutions in financing water supply infrastructure (Head 2006; Alaerts 2019). In developing countries, market-oriented financial reforms since the 1990s have not been successful in attracting private investors to build or extend infrastructural facilities for providing public water services in ways that are socially equitable or affordable. In the context of uncertainties of climate change, emerging water scarcity, and barriers to the Sustainable Development Goals (SDGs), the massive needs for effective and inclusive infrastructural financing require an alternative. According to a World Health Organization assessment in 2022, nearly 3.5 billion people lack safely managed sanitation services, and 2.2 billion people do not have access to potable water across the globe (UNICEF & WHO 2023). SDG 6 on Clean Water and Sanitation requires a substantial amount of funding that the private sector will not be able—or willing—to meet. Public banks are seen as a stronger and more viable option to meet investment requirements (McDonald et al. 2021; Marois & McDonald 2023).

This article presents the case of India's National Bank for Agriculture and Rural Development (NABARD)—a public development bank (PDB) that has been financing public water supply infrastructure for more than two decades in India. Contrary to conventional debates that emphasize financial prudence through cost recovery, the case of NABARD shows a unique way of respecting the social needs of a developing country like India. The article argues that NABARD is an important example of a public bank playing a crucial role in extending pro-public public water services in ways that align with SDG 6. The article also illustrates the potential for public–public collaborations (PPCs) as viable alternatives to public–private partnerships (PPPs).

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The paper begins with an overview of public banks and their role in financing public water infrastructure. The second section provides an overview of water infrastructure financing in India. The third section describes the emergence of NABARD as a financier for water infrastructure, elaborating on the drivers and key policy changes that directed NABARD to enter the sector. This includes a financial profile of NABARD and the share of water infrastructure in overall lending. The fourth section describes the key features of the Mission *Bhagiratha*, comparing NABARD with other banks and consortia. The final section reflects on public bank collaboration in water provisioning. While Mission *Bhagiratha* has not been without challenges, the experience of NABARD funding public water and sanitation infrastructure provides important lessons for those seeking pro-public financing options.

The article is based on extensive secondary research as well as primary data collection. The author also conducted 15 interviews with NABARD officials in Mumbai and Hyderabad, officials in the Department of Drinking Water Supply of the Telangana government and various academics and policy researchers. This information was supplemented with an extensive literature review to cover academic material as well as formal and informal documents, including websites of public departments and NABARD, government orders, annual reports, data shared by department of Mission *Bhagiratha* and newspaper articles. The article has also benefitted from two earlier rounds of exploratory field work by the author on Mission *Bhagiratha*, first in May 2019 and the second in December 2021.

Public development banks and public water finance

Public banks are financial institutions that are majority-owned by the state or another public entity or are governed under public law or by public authorities and function according to a binding public mandate (or some combination of these characteristics) (Marois 2021). PDBs are a specific type of public bank that often focus on infrastructure and large-scale projects, playing a major role in development finance globally for decades (Marois 2024). In the context of climate change, the potential role of PDBs has undergone a renaissance (Griffith-Jones et al. 2023). PDBs are seen as critical in promoting resilience, both environmental and economic (Bilal 2021).

Public infrastructure projects at the municipal and regional scales have historically been beneficiaries of PDB financing (Marois 2021). Juuti et al. (2022) highlight the simple but effective contribution of public banks in Nordic countries. Schwartz and Marois (2022) describe the role that the Dutch “WaterBank” has historically played in financing water infrastructures. Public banks have also played an important role in financing public water operators in the context of the re-municipalization of water services, which appears to be a growing trend reversing decades of privatization (Butzbach & Spronk 2022).

PDBs are not inherently better at financing public water than private banks, but public banks do have real potential to operate differently by being policy-driven rather than profit-driven institutions (Clifton et al. 2021; Mertens et al. 2021; Marois 2024). In the economics literature, however, the potential of public banks has not always been properly accounted for. Mainstream economists have systematically argued that public banks are inherently less efficient than private banks (La Porta et al. 2002; Barth et al. 2008; Marcelin & Mathur 2015). More heterodox economists tend to assign contrasting but inherently positive characteristics to publicly owned banks (Andrianova et al. 2012; Marshall & Rochon 2019). In both approaches, public ownership tends to signify specific, if contrasting, economic qualities inherent to being public (Marois 2022). By contrast, political economy approaches are instead adopting a “dynamic” interpretation of public banks (Marois 2022; McBride 2022; McArthur 2024; Mikheeva 2024). In a dynamic approach, there is nothing inherently better or worse about being publicly owned. What is more important is to understand the socio-economic and historical forces shaping how public banks function, why and in whose benefit. This allows for more context-specific and time-bounded explanations of public bank effectiveness.

Water infrastructure financing in India: an overview

In the post-independence era, the Indian government adopted a “welfare state” model, prioritizing social policy objectives across different economic sectors (Cullet & Gupta 2009). This approach shaped post-independence pro-public policies and institutional structures in the drinking water sector, which focused on three interrelated objectives: equal access, affordability and public control over water provisioning (Muralidhar 2006; Government of India [GOI] 1952).

The phrase “equal access” means that there would be no discrimination in access to water, and every citizen would get water for drinking and domestic purposes. The objective of equal access in adequate quantity and with appropriate quality was reflected in government five-year plans (GOI 1970; GOI 1985). The “affordability” objective emphasizes that access to water should not be denied due to the lack of purchasing power. The “public control” objective, which defined the “public” as the people or their representatives, was seen as instrumental to ensure that the other goals related to the availability of adequate and safe drinking water for all sections of the population in a reliable and sustainable manner would be achieved (Cullet 2012).

The financing of water supply infrastructure in India was dominated by substantial grants by the central government in the initial post-independence period of the 1950s. The main sources of finance included capital and maintenance grants as well as soft loans from the central fund to the state governments and the Urban Local Bodies. Financing was provided to meet the dual objectives of increasing coverage of water systems to connect urban households to water taps and keeping tariffs low (GOI 1952). However, due

to the growing needs of a rapidly increasing urban and rural population, competition over budgetary allocation increased, and funds were spread too thinly across contending water projects in various cities. Financing fell far short of requirements.

Water sector policies started changing gradually after 1975 (GOI 1985). State governments established special institutions, such as the Water Supply and Sewerage Boards (WSSBs), which were empowered to raise funds for building water infrastructure (GOI 1985). The central government leveraged funds for the sector from major publicly owned financial institutions, such as the Life Insurance Corporation of India and the Housing and Urban Development Corporation. These funds, channelled through WSSBs and Public Health Engineering Departments, were used by Urban Local Bodies to finance the expansion of urban water infrastructure (Chatterjee 2003).

Despite these efforts, the situation of water supply was not very encouraging in the 1980s. Urbanization in India was rapidly increasing. This put tremendous pressure on both the existing water resources and the infrastructure that was providing water to the cities. The coverage of the potentially served urban population in India was continuously fluctuating due to the constant increase in population. Although by the year 1974, 83 per cent of the urban population was covered by the urban water supply systems, the number dropped to 78 per cent by the end of 1981 (GOI 1985). (The government uses “coverage” as a term to assess the potential of infrastructure to serve certain number of people, but it does not necessarily mean access to water supply.)

Two causal factors emerged as an explanation for this situation: one, the inadequate allocation of financial resources by the government; and two, the fast-paced and significant increase in demand for water in urban areas due to increasing urbanization. The Urban Local Bodies, Public Health Engineering Departments and WSSBs did not have adequate funds for maintenance and upkeep of the water systems that were built with funds from the Life Insurance Corporation of India and the Housing and Urban Development Corporation of India (Bagchi & Chattopadhyay 2004). As a result, in the span of a few years, most of these systems were in a state of abject disrepair, raising serious concerns over the sustainability of these systems. Further, unable to overcome these difficulties, the Urban Local Bodies could not pay back loans to WSSBs and Public Health Engineering Departments, who, in turn, defaulted on the loans (Comptroller and Auditor General of India 2012).

These loan defaults put serious question marks on the financial health and creditworthiness of the Urban Local Bodies, WSSBs and Public Health Engineering Departments. This would have severely restricted future possibilities of improvement. Although some urban consumers have found innovative ways to deal with this situation (such as self-provisioning or private provisioning), the most severely affected victims of this situation have been the poor, who have remained deprived access to affordable water. Data published by the planning commission in the 10th Five-Year Plan (2002–07)

states that only 70 per cent of urban households were connected to the networks (GOI 2002, 634).

These problems generated demand for reforms in the water sector, with a particular focus on financing the efficient functioning of water supply and sanitation (WSS) systems. Despite the dominant model of state-funded WSS systems, the argument for financially self-sufficient WSS systems was not new. Ten years following independence, the Indian government proposed loan-based financing to Urban Local Bodies to construct WSS systems capable of recovering the investments through revenues (that is, a cost-recovery model). At the end of the 6th Five-Year Plan (1980–85) the government concluded that:

The poor quality of maintenance results mainly from the unwillingness of the local bodies to levy water rates and the inability of the State Governments to provide adequate non-plan grants for maintenance purposes. Urban water supply and sewerage schemes are highly capital intensive and there is a strong case for [cost] recovery from the beneficiaries, at least the interest and operation and maintenance charges to start with.

(GOI 1980, paragraph 23.57)

Realizing on one hand the limitations in prioritizing adequate grant-in-aid for all urban areas for urban water systems and constraints arising out of Urban Local Bodies' unwillingness to recover the capital costs, the Government of India floated the idea of establishing an Urban Infrastructure Financing Corporation to meet the investment needs of the urban water systems of growing Indian cities at the end of the 7th Five-Year Plan (1985–90). But it never came to fruition. Instead, the government charged the Life Insurance Corporation of India (a public insurance company) and the Housing Development Corporation of India (a Government of India undertaking for public housing programmes) with the responsibility of financing the construction of urban water systems. However, the increasing number of non-performing assets (NPAs) of these two public financiers hampered their ability to provide sufficient financing.

The drafting and declaration of the first National Water Policy in 1987 enabled further reforms in the water sector. The National Water Policy mentioned the prioritized allocation of water for drinking purposes from the multipurpose water projects (that is, dams) but it also re-emphasized that water rates should not only convey the scarcity value of water but also cover the portion of fixed costs and annual operation and maintenance charges (GOI 1987). These developments prepared the ground for urban water reforms that were accelerated by India's decision to globalize and liberalize its economy in 1991.

In the 1990s, India began to adopt market-oriented neoliberal economic reforms and initiated their gradual rollout (Ahluwalia 2002). India's neoliberal transformation subsequently engulfed the infrastructural sector,

including WSS. Situated within the larger framework of neoliberal state and development strategies, the role of the state shifted from that of being “a provider of services” to “arbiter” and “facilitator” (Rufin et al. 2003). This shift can be traced through three changes: disinvestment policies and a shrinking public sector; adjusting sectoral policies for economic efficiency and market responsiveness; and simplifying the bureaucratic and legal constraints to encourage foreign direct and private investment (Grindle & Thomas 1989; Pradella & Marois 2015).

A direct reflection of neoliberal market-oriented economic reforms in the water sector was the search for private financing through the promotion of PPPs. However, knowing that the majority of the rural population in India would still largely depend on non-cash exchanges, PPPs were aimed towards the urban water sector. The Indian government, through elaborate institutional restructuring programmes, incentive policies and seed funding, attempted to promote PPPs across India. However, of the 1350 PPPs identified by the Indian government during last two-and-a-half decades, the urban water supply and sewerage projects count for only 53, or a mere 3.9 per cent (Deekshit & Wagle 2019). Out of these 53 projects, only a dozen or so were potentially viable and only one actually attracted any private funding at all. Eventually, all of the PPP water projects were withdrawn by the public and private bodies involved, either mutually, or through litigations, or due to resistance, both political and social (Deekshit 2019).

While PPPs collapsed, multilateral aid increased for the financing of water infrastructure in India. India has been the largest recipient of water-related official development aid (ODA), receiving approximately USD 275 million from 1990s to 2002 (Pacific Institute 2014), and a further USD 4.6 billion from 2002 to 2018 (OECD 2022). International financial institutions and development finance institutions such as the World Bank, the Asian Development Bank and the Japanese International Cooperation Agency had provided loans to Indian state-level governments for building and improving the water supply infrastructure across the country. Most of these loans are guaranteed by the central government and controlled by the Financial Restructuring and Budget Management Act of the respective subnational state government. The FRBM Act regulates the current and revenue account deficits of the state governments. The Act is part of wide-scale reforms meant to ensure financial austerity and it has put limits on the scale and volume of borrowings by the state governments in India.

India’s NABARD and rural water finance

Despite the Indian government opening the doors for private investors and multilateral financiers in the water sector, it also affirmed the role of public banks in national development finance. Following Independence in 1947, the Indian government nationalized 14 major private banks in India in 1969. Prior to this wave of nationalizations, the Indian government

had established the Industrial Finance Corporation of India in 1948, the Industrial Credit and Investment Corporation of India (ICICI) in 1955 and the Industrial Development Bank of India in 1964. Subsequently, the Indian government established additional specialized banks, such as a system of Regional Rural Banks to support rural development in 1975 (GOI n.d.) and the Small Industries Development Bank in 1990 to focus on micro-, small-, and medium-sized enterprises. Many state-level governments followed this pattern and began to open their own public banks. It is in this context that the Indian government established the NABARD in 1982 with a special agricultural and rural development mandate.

Marois (2021, 163–5) features NABARD as a public bank that has helped to definancialize development finance by adopting financial practices that slow and direct flows of finance towards the rural regions in India. The bank raises capital from domestic sources (thus eliminating foreign exchange rate risks) through domestic bonds, deposits from commercial banks and seed capital from government. It then lends money to governments primarily for rural agriculture and infrastructure projects in ways that hold capital in rural spaces in India.

Moreover, NABARD works as an inspection agency for cooperative and regional rural banks and plays a major role in building and disseminating development sector knowledge—of both developmental activities in rural areas as well as development financing in general. In addition to its role as a public financial institution, NABARD is also a public knowledge institution. These diverse institutional and policy functions reflect the unique characteristics of NABARD that qualitatively distance it from private, profit-maximizing “financialized” banking institutions, thus enabling it to potentially function in pro-public ways (see Table 3.1).

The Government of India directed NABARD to create a special instrument for lending in the WSS sector as a response to the United Nations declaration of the Water and Sanitation decade in the 1990s. While ODA financing kept increasing, flows could be unpredictable. NABARD launched the Rural Infrastructure Development Fund (RIDF) in 1995–6 (NABARD, n.d.-a) realizing that the rural economies would be slower to develop and require longer-term infrastructural financing. The RIDF targeted rural infrastructural projects that were already started by subnational state governments but were incomplete due to shortfalls in funding. The RIDF was seeded with approximately USD 570 million for lending in irrigation, soil conservation, watershed management and other forms of rural infrastructure. In the last 28 years, NABARD has cumulatively sanctioned the phenomenal amount of USD 60.48 billion under the RIDF through 28 tranches, of which USD 48 billion was disbursed by the end of March 2023.¹

The RIDF has three categories of priority lending in rural infrastructure: agriculture and related sectors (such as irrigation or cold-storages, dairy projects, etc.); social sector, which includes the drinking water and sanitation projects undertaken by subnational (state) governments; and

Table 3.1 NABARD financials for 2019–23

	2023	2022	2021	2020	2019
	USD = 82.21 INR	USD = 75.80 INR	USD = 73.50 INR	USD = 75.39 INR	USD = 69.17 INR
Total assets (USD billions)	97.5	100.0	89.5	70.6	70.5
Return on Average Assets (ROAA) (%)	0.71	0.74	0.73	0.76	0.75
Total Income (USD millions)	651.9	670.4	587.7	511.9	486.4
Credit ratings (by CRISIL – A Standard and Poor’s company)	Long-term rating: AAA (Stable) Short-term rating: A1+				
Number of employees	3205 (in 2023)				
Year of incorporation	1982				
Initial purpose of incorporation	Providing institutional credit to boost rural economy				
Current Mission/Mandate	Promote sustainable and equitable agriculture and rural development through participative financial and non-financial interventions, innovations, technology and institutional development for securing prosperity				
Type of Public Bank	Development Bank				
Ownership	Government of India				

Source: Fitch-Solutions, NABARD website, and CRISIL website.

rural connectivity sectors. The three sectors have differential proportions for lending. Agriculture, being the core focus of the bank, can receive loans of up to 95 per cent of eligible costs. Social sector projects including drinking water and sanitation are eligible for 85 per cent of the project costs. Projects in the rural connectivity category, which includes projects such as roads and bridges, receive up to 80 per cent of the costs. These criteria for northeastern states and hilly states in India are relaxed by 5 per cent under each of the categories. RIDF creates a substantial channel for financing water infrastructure in two ways: direct funding to the water and sanitation infrastructure and funding for water storage reservoirs for agricultural purposes, which indirectly serve as drinking water sources in situations of scarcity. By March 2016, NABARD had funded USD 3.07 billion worth of projects to various state governments in India for drinking water purposes (NABARD 2013, 2016).

NABARD has another significant lending arm, the NABARD Infrastructure Development Assistance (NIDA) initiative, which was created in 2011 to provide additional financing for rural infrastructure projects (see Figure 3.1). The distinctive feature of NIDA, as compared to RIDF, is the flexibility and customization of the terms and conditions of the loans as per the requirements of the borrowers, their risk profiles, and the nature of the projects. Loan

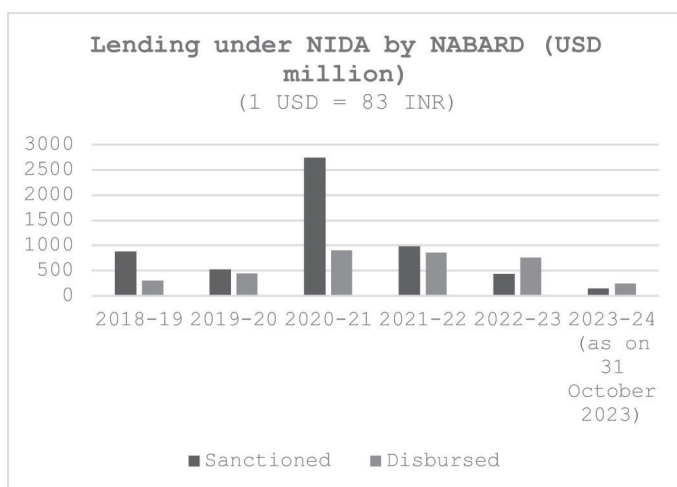


Figure 3.1 Loans disbursed under NIDA by NABARD.

Source: Compiled by author from NABARD Annual Reports from 2018 to 2024.

periods can be up to 25 years, including a moratorium of 2–4 years. Notably, interest rates for loans under NIDA are variable in nature, and it operates with two different interest policies. First, NIDA offers loans with floating interest rates that could change on an annual basis, which means higher risks (of gains or losses) for the borrower. Second, if the borrower wishes, NIDA can offer loans at fixed interest rates, which would be determined after a thorough risk assessment of the projects. Between 2010 and 2023, cumulative sanctioned and disbursed loans under NIDA stood at USD 9.61 billion and USD 5.21 billion, respectively. During COVID-19, the commitment of NABARD under NIDA was substantial, with a sanctioned amount of USD 3.1 billion (NABARD n.d.-b) against the background of pandemic-related economic instability and risks (see also McDonald et al. 2020). In terms of drinking water and sanitation projects, NIDA has financed projects worth USD 670.88 million to 2020–21.

By combining the amounts NABARD disbursed under RIDF (until 2015) with those under NIDA by 2021 for drinking water systems alone, NABARD provided USD 4.8 billion in water financing, which slightly surpasses the total USD 4.6 billion received via ODA. This highlights the important role that public banks play in public water provisioning (see Figure 3.2). Furthermore, under the RIDF, NABARD plays a significant role in supporting rural sanitation. To enhance efforts for the universalization of sanitation, in 2014, the government of India launched a village sanitation and toilet construction scheme called the Clean India Campaign (Swachh

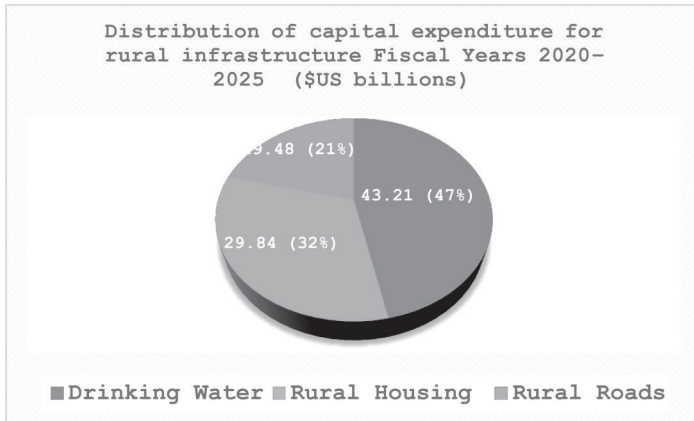


Figure 3.2 Distribution of capital expenditure for rural infrastructure Fiscal Years 2020–25.

Source: Reproduced and converted from NABARD Annual Report 2022–23.

Bharat Mission). NABARD sanctioned USD 2.04 billion for this campaign, of which USD 489.8 million was raised through “Government of India fully serviced bonds” in 2018–19 and 2019–20. This was in collaboration with a special purpose vehicle (SPV) established by the Government of India called the National Centre for Drinking Water, Sanitation & Quality (NABARD 2020, 81; 92). Further, to support the Open Defecation Free India mission, NABARD launched a pan-India sanitation literacy campaign, leveraging its reach in rural areas through its partner agencies.

NABARD not only directly lends to water and sanitation projects. It also on-lends to other banks to support their activities. In October 2020, NABARD introduced a special refinancing facility for other financial institutions including public and private banks, regional rural banks, small finance banks, Non-Banking Financial Companies and Micro-Finance Institutions against these financial institutions’ water, sanitation and hygiene portfolios.² In 2021, NABARD issued USD 10.88 million to this facility. This facility is expected to most notably benefit Non-Banking Financial Companies and Micro-Finance Institutions (Bandyopadhyay 2021).

NABARD loans are secured through various steps. There are initial risk assessments of the projects and regular checks and balances such as progress monitoring of the funded projects through the “project monitoring committee”. NABARD implements a policy of performance-based disbursement. After releasing an initial 20 per cent of the sanctioned loan, the next tranche of the loan is released after the initial money is spent. NABARD issues a repayment schedule and expects state-level governments to make budgetary provisions to ensure compliance to the repayment schedule. The most critical

aspect of this setup is that NABARD is legally empowered to request the Reserve Bank of India (India's central bank and regulatory authority for all banking services) to divert any lapsed repayments by state government back to NABARD. As the handbook on RIDF published by NABARD mentions:

If any installment of repayment of the principal or payment of interest remains unpaid on the due date, NABARD may issue notice to the State Government calling for payment of the same and if still it is not paid within the period of 15 days after receipt of such notice, NABARD shall be entitled to issue a requisition to the Reserve Bank of India/Principal Banker to the State Government as the case may be for recovering the sums in default. This shall, however, be without prejudice to any other legal remedies available to NABARD.

(NABARD 2021, 21)

This unique authority given to NABARD empowers it to maintain a low ratio of NPAs, between 0.27 and 0.32 per cent despite the fact that its business is conducted in many of the slowest-growing rural sectors of the Indian economy. This feature supports the strength and long-term sustainability of NABARD as a public financial institution, as well as its ability to lend to rural entities having higher risks. However, further research needs to explore whether the inability of state-level governments to default on NABARD loans may cause fiscal difficulties. That said, based on this arrangement, NABARD appears to be prepared to finance considerable amounts for drinking water projects in the near future. The projected requirements of capital expenditure for 2020–25 for drinking water is USD 48.97 billion.

As a powerful national-scale PDB, NABARD has been playing a strong role in India's development space. In recent years, its footprint in the water and sanitation sector has increased tremendously. NABARD not only funds the construction of piped water supply systems and development of water treatment plants but also supports the installation of hand pumps and bore wells. The bank has diversified from its core banking role in activities such as project planning and assistance, capacity building and training for sustainable water management, grant-in-aid support for innovations and pilot projects. Thus, NABARD's role in public drinking water infrastructure is comprehensive and multifaceted, encompassing funding, technical assistance, capacity building and policy advocacy. By addressing the critical issue of safe drinking water, NABARD helps to improve public health, enhance quality of life and support sustainable development in rural India.

Mission *Bhagiratha*: NABARD's support for drinking water in Telangana

Mission *Bhagiratha* is a drinking water scheme implemented between 2014 and 2019 by the newly formed subnational state of Telangana (established

in 2014). Mission *Bhagiratha* is one of the largest loans given by NABARD for drinking water, and in turn, one of the largest-scale projects of piped tap water, linking more than 4000 villages within a state-wide grid system.

Mission *Bhagiratha* has an ambitious goal to provide universal access to drinking water, which needs to be understood in the context of the politics of separation of the state of Telangana from the erstwhile state of Andhra Pradesh. Six decades after India's Independence, the region of Telangana had to cross tremendous hurdles to achieve statehood. The now 10-year-old state is the result of a strong student movement, political demands and lobbying and a national-scale struggle. Regional identity, caste politics and cultural distinctiveness were among the key reasons for the political struggle that ended in a successful decision in favour of Telangana.

The famous political slogan of the Telangana movement, “the *Neelu* (Water), *Nidhili* (Funds), and *Niyamakalu* (Jobs),” provided a powerful narrative and appeal to the people of Telangana. The erstwhile state of Andhra Pradesh has a large belt of coastal region in which two major rivers of India drain, the river Godavari and river Krishna. Due to the historical development of irrigation in the delta regions of the Krishna and Godavari rivers, the coastal communities in this region have been economically better off, and hence socially and politically better off. The political dominance of the coastal communities, however, was perceived as discriminatory by the people that have been living in the drought-ridden plateau of Telangana. This gave rise to the struggle for independence built around the three key messages: coastal communities are taking away our water; coastal communities are taking away our public funds; there is a lack of jobs. Against this background, Telangana state was formed—and water provisioning emerged as a major indicator of the performance of the political party that came into power, the Telangana Rashtra Samiti (Ram 2007; Vaddiraju 2017; Vaageeshan & Chitrapu 2021).

While the political ramifications of the water struggles were intense, equally strong were the aspirations of development through irrigated agriculture and the improvement of quality of life through basic amenities. In response, the chief minister of Telangana declared three mega projects in water: Mission *Bhagiratha*, the *Kaleswaram* irrigation project and the *Kakatiya Mission* for rejuvenating water tanks (by desilting and increasing storage capacity). The latter two were focused on irrigation facilities, while the Mission *Bhagiratha* focused on creating drinking water infrastructure in order to supply potable water.

Mission *Bhagiratha* is a grand project for expanding access to drinking water supply aimed at covering every household in the entire state of Telangana. By sourcing water from two perennial rivers, Krishna and Godavari, the *Mission Bhagiratha* claims to be able to provide drinking water to 23,890 habitations for a population of 20.57 million people across the state. In addition, the piped water supply has connected 22,882 rural schools and 27,310 *Anganwadies* (pre-schools and elementary schools) in

rural areas. In terms of the scale and reach of the project, Mission *Bhagiratha* is one of the most ambitious rural development projects, and it requires major funding. This was an important challenge for the government of a newly formed state with few resources. Only the capital city of Hyderabad boasts any substantial industries and urban population for revenue generation. In this context, Telangana's political leadership decided to go for debt-based financing for development. NABARD played a substantial role.

It is important to recognize that while the financing of the *Bhagiratha* Mission emerges as a positive example of public banks financing public water in a developing country, ground-level implementation has been controversial for two reasons. First, despite the fact that the finances were almost entirely public (except from the private ICICI bank), the institutional mechanisms chosen to facilitate financial disbursement and to implement the scheme were friendly to private commercial firms. In particular, the engineering companies that were given the mandate to maintain the infrastructural components built by them for a period of five years after they were commissioned profited from this arrangement by charging high fees. Second, the scheme did not deliver on its promise to bring water to every household. Several newspapers have reported that the taps are running dry in the villages (Srinivas 2024), forcing villagers to buy drinking water from local vendors (Satheesh 2019). Critical water resource experts from the state label this scheme an example of megalomaniac ideas and a waste of money, but also highlight that the state is not delivering the promise of potable water (Menon 2018).

Nevertheless, the critiques do not undermine NABARD's commitment to financing public water infrastructure. NABARD loans have facilitated some important and positive changes in the institutional structure in Telangana government. As a preliminary step towards financial prudence, the implementation of the Mission *Bhagiratha* entailed reforms aiming at institutional ringfencing. The Telangana state government established a SPV called Telangana Drinking Water Supply Corporation Limited (TDWSCL) to mobilize the finance needed for the drinking water programme. The loans were routed through the TDWSCL, including those from NABARD and the other banks.

The TDWSCL raised a large amount of finance for Mission *Bhagiratha*, amounting to USD 3.34 billion from 19 different banks, out of which 18 are public banks (see Table 3.2).³ Only the ICICI is a private bank. NABARD alone contributed USD 548 million, which is approximately one fifth of the total finance sought for Mission *Bhagiratha*. While NABARD contributes substantially to water infrastructure, its commitment encouraged the other public sector banks to come forward and support the cause of public water provisioning.

Since NABARD lent money from both of its loan instruments, the loan terms are different for the chunks of loans under RIDF and NIDA. As discussed, RIDF has a standard terms of reference in which the NABARD disburses money on a "reimbursement" basis, that is, after spending the initial grant.

Table 3.2 Contributions of different public banks in financing Mission Bhagiratha

Sr. No.	<i>Financial Institution</i>	<i>Interest Rate (p.a.)</i>	<i>Loan component Approved (in USD million)</i>	<i>Amount released</i>
			<i>1 USD = 83.31 Rupees</i>	
1	NABARD Phase 1	Loans	183.24	183.24
2	NABARD Phase 2	under	127.71	126.26
3	NABARD Phase 3	NIDA	72.96	73.22
4	NABARD Phase 4	from	29.02	29.87
5	NABARD Phase 4 (round 2)	9.5% to	60.60	58.66
6	NABARD Phase 5	10%	74.88	64.02
7	UCO Bank	8.95%	39.25	36.01
8	Bank of Baroda Consortium 1 [Members: Bank of Baroda, Indian Bank, Indian Overseas Bank, Union Bank of India]	9.2% and 10%	74.88	64.02
9	Bank of Baroda consortium – 2		232.87	186.59
10	Bank of Baroda – Phase 1		25.52	25.52
11	Bank of Baroda – Phase 2		75.86	63.73
12	Bank of Baroda – Phase 3		27.37	24.01
13	HUDCO Phase 1	10.15%	48.88	46.81
14	HUDCO Phase 2		300.08	300.08
15	Consortium led by Andhra Bank (Tranche) 1 [Andhra Bank, Allahabad Bank, Indian Bank, Syndicate Bank, Bank of Baroda, Punjab and Sind Bank, Bank of Maharashtra, and Oriental Bank of Commerce]	10%	270.08	265.87
16	Andhra Bank Consortium (Tranche) 2		675.19	463.05
17	Corporation Bank – Term loan-2	9.95% &	181.25	142.84
18	Corporation Bank – Term loan-1	10%	146.92	116.16
19	Canara Bank – 1 (9.20%)	9.2% &	146.92	116.16
20	Canara Bank – 2	10%	291.44	256.87
21	Bank of India – 1	Not Known	44.05	36.01
22	Bank of India – 2		217.98	188.85
23	Consortium led by Punjab National Bank [Punjab National Bank, Indian Bank, Union Bank of India]	9% & 10%	66.41	59.41
24	Punjab & Sindh Bank (8.95%)	10%	297.20	273.18
25	ICICI Bank [Private Bank]	Not Known	79.51	68.42
	Total 3832.31			3341.54

Source: Compiled by author based on data provided by Department of Mission Bhagiratha, Government of Telangana.

RIDF loans have a standard policy of repaying in equal annual instalments within a period of seven years, which is extendable for up to two years. While interest rates under RIDF could not be known, the NIDA loans (which are of higher risks) have been given at 9.5 and 10 per cent per annum (in different phases). As mentioned, all NABARD loans are government secured, which means NABARD has the right to access central governments grant-in-aid to recover the loan. Thus, the risk in financing for NABARD is nil.

NABARD's loans under NIDA expect a quarterly settlement with 2 per cent penalty interest in case of lapses of repayment with a payback period of 7–9 years. Interestingly, most other public banks have lent money with interest rates ranging between 9.05 and 10 per cent, while the Housing and Urban Development Corporation of India charged the highest of 10.15 per cent interest rates with similar repayment terms ranging from 8 to 10 years.

Thanks to this financing, the drinking water department of the Telangana government was able to build the state-wide pipe grid supplied by over 150 water treatment plants. The pipe-grid was designed to supply water to the villages, while the intra-village distribution was handed over to the Gram-Panchayats, that is, the local governing bodies in the villages. The government officially declared that the scheme was completed in 2020 (ETV Bharat 2020).

Thus, Mission *Bhagiratha* emerges as an important case of public banks financing public water infrastructure in which NABARD played a key role. The case, set within the context of long-term support for public water by public banks, demonstrates the commitment of India's public banks such as NABARD (as well as commercial public banks) to support public drinking water projects. While there are debates over engineering designs, operational challenges, seasonality and the politicization of the projects, these critical issues do not overshadow the need for predictable and accessible financing to fulfil the capital needs to build water supply infrastructure. The case of Mission *Bhagiratha* is a noteworthy example of a stable and long-term financing option for drinking water projects, which are often capital-intensive and require significant upfront investments.

It is true that the financing made by public banks, especially the NABARD, is directly secured via official guarantees and is quite contrary to the market-based logic of financial prudence through cost recovery. For a developing country like India, characterized by high levels of social inequality and poverty, cost recovery in the provision of water services is a distant dream. In order to build drinking water infrastructure, instead of looking to make projects "bankable" by increasing user fees, policymakers should aim to distribute the risk of investment amongst a larger number of partners and dedicate financing from state budgets. In this regard, NABARD deserves special mention for its pro-public loans that help to promote substantial social objectives.

Moreover, the loans have facilitated the establishment of specialized institutions such as SPVs, which have encouraged financial prudence in

terms of independent accounting of loans and their repayment. This step can be seen as a beginning of financial reform, not necessarily in a sense of the corporatization of the public institutions, but in a way where prudent accounting practices, declaration of funds, linked functions to the funds and allocation of funds to targeted (drinking water) objectives are better coordinated. Such initiatives may have the potential to serve social objectives while reminding state governments that financial discipline may also be needed for social development (as not everything can be achieved through grant-in-aid). Further research on this topic is needed.

Conclusion

Because public banks are located within the public spheres of states, they have the potential to be less influenced by market fluctuations and profit imperatives. This can enable public banks to provide consistent funding over extended periods, which can help support the completion and maintenance of essential water infrastructure. The story of India's public banks, and NABARD in particular, alongside the case of Mission *Bhagiratha* demonstrates this point. Furthermore, the Mission highlights the potential for tapping public bank–public bank collaborations to support large-scale public infrastructure (that is, public policy-driven collaboration between PDBs, like NABARD and public commercial banks). Such collaborations can effectively support other public sector services.

This PPC showcases the often-untapped possibilities of viable public alternatives to market-based PPP arguments, in which private, profit-seeking investments are advocated and then guaranteed by public resources and revenues. Rather than a pro-private strategy, PPC offers pro-public ones. At the same time, public banks disbursements of loans in domestic currencies protect the public service providers from the risks of currency devaluation or upward revisions of currency exchange rates in the international markets. This offers substantive benefits over foreign currency loans.

More broadly, domestic PDBs such as NABARD can align their financing with national development policies and strategies. PDBs often have a deeper understanding of local conditions, needs and priorities. PDB localized knowledge allows for more tailored and context-specific financing solutions for water projects, ensuring that they are more effective and relevant to the community's needs. In the case of Mission *Bhagiratha*, Telangana was a newly formed state devoid of substantial resources and represented an arid region requiring substantial investments. Easy access to credit was key to providing a push to development, undoubtedly with a risk of overborrowing and the burden of repaying. However, PDB and public commercial bank understanding of local developmental needs and policy alignment ensured that the water project is integrated into broader policy plans for economic growth, social development and environmental sustainability.

Notes

- 1 As explained further below, the sanctioned or approved figures are different than the figures of money disbursed because NABARD implements a policy of performance-based disbursement. An instalment is released only after a tranche of money has been spent. The term “sanctioning” is interchangeably used with “approving” because loans are subject to conditions; hence, the term “sanction” denotes both the conditional approval and authorization of a loan.
- 2 NABARD does this through “women+water alliance” in which a range of non-government institutions such as USAID, Gap Inc., Care, International Center for Research on Women, WaterAid and Water.org are included.
- 3 Out of the 18 public sector banks listed in the table, 6 banks (Andhra Bank, Indian Bank, Corporation Bank, Syndicate Bank, Oriental Bank of Commerce and Allahabad Bank) have now been merged with one of the remaining 12 banks in recent times. However, the loans were negotiated while they were all existing independently between 2015 and 2019.

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