

Chapter-I

Introduction

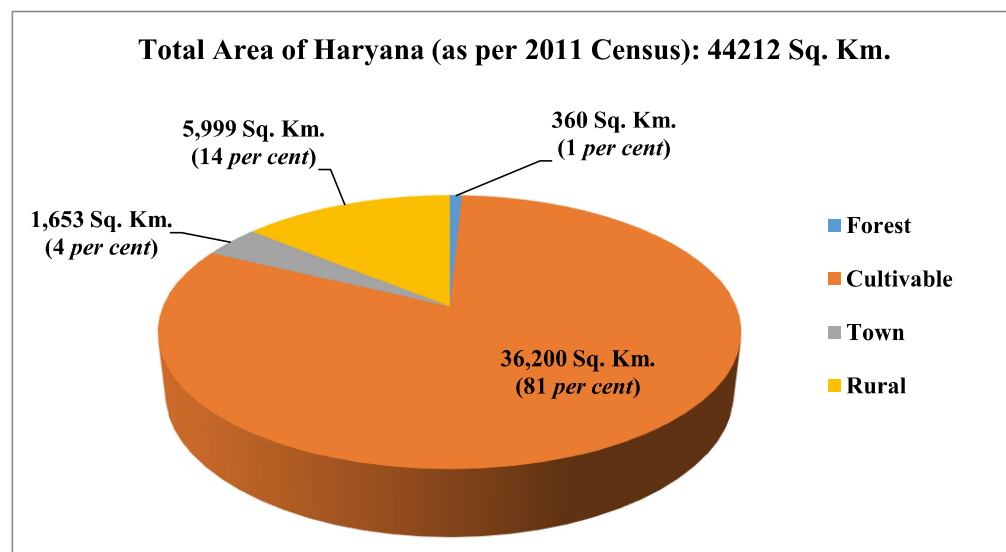
CHAPTER-I

1.1 Introduction

National Water Policy emphasizes on addressing important issues regarding availability of minimum quantity of potable water to all citizens and its fair pricing, improved water supply in rural area with proper sewerage facilities, efforts to provide water supply preferably from surface water in conjunction with ground water and rainwater. Besides these, it also emphasizes on management of ground water under public trust doctrine, publishing water accounts and water audit reports indicating leakage and pilferages, undertaking artificial recharging projects and rainwater harvesting.

Keeping in view the significance of the National Water Policy for providing adequate and potable water to all citizens, a Performance Audit of Rural and Urban Water Supply Schemes in the State of Haryana was conducted covering the period 2016-21.

Haryana is an agriculture State with approximately 81 *per cent* of the area (36,200¹ Sq.Km out of a total of 44,212 Sq. Km.) under cultivation. Town area is spread in an area of 1,653² Sq. Km. (approx. four *per cent*) leaving a balance of 5,999 Sq. Km. of rural area (excluding 360 Sq. Km forest area).



As per Census 2011, population of Haryana is 2.54 crore out of which Rural population is 1.65 crore and Urban population is 0.89 crore.

¹ Figures taken from Statistical Survey of Haryana 2018-19 issued by Department of Economic and Statistical Analysis, Haryana

² Figures taken from State Annual Action Plan prepared under Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme by Urban Local Bodies.

1.2 Rural Water Supply

In the State of Haryana, Rural Water Supply is under the jurisdiction of Public Health Engineering Department (PHED) which caters to water supply requirement of 1.65 crore rural population (as per census 2011). The norms of drinking water supply in rural areas are designed as per Jal Jeevan Mission (Centrally Sponsored Scheme) guidelines at 55 litre per capita per day (LPCD) for non-desert areas³ and 70 LPCD for desert areas⁴ and in NABARD⁵ funded projects.

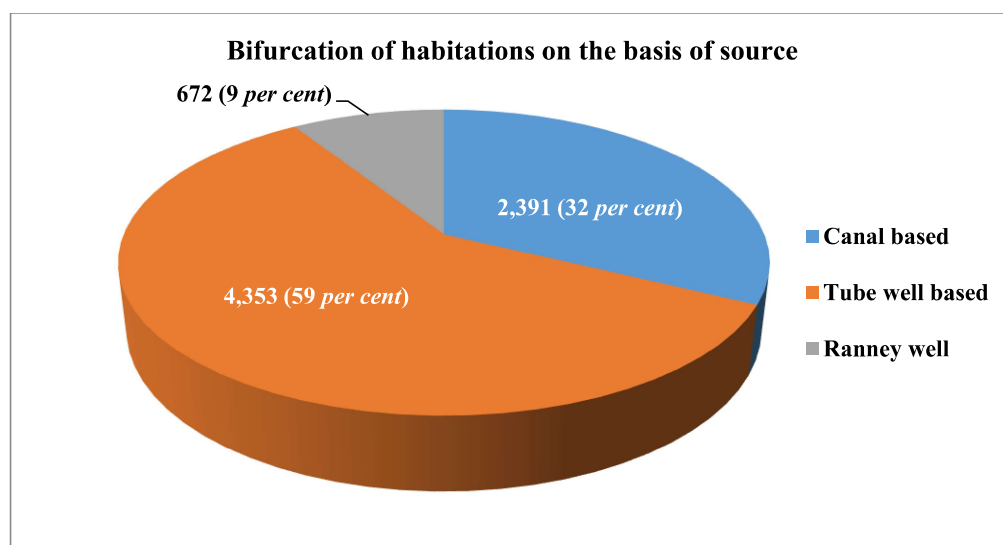
The position of water deficient habitations (below norms of 55 litre per capita per day (LPCD) is as under:

Table 1.1: Status of water deficient habitations

| Sr. No. | Status as on | Total Habitations | Total Water deficient habitations |
|---------|--------------|-------------------|-----------------------------------|
| 1. | April 2016 | 7,948 | 1,878 |
| 2. | July 2022 | 7,336 | 1,737 |

Source: Information supplied by PHED

In Haryana, water supply is based on three main sources i.e. canal based, tube well based and ranney well⁶ based. The status of different sources in respect of rural water supply as on May 2021 is as under:



³ Non-DDP areas: Ambala, Faridabad, Jind, Kaithal, Karnal, Kurukhestra, Panipat, Gurugram, Sonipat, Mewat, Yamuna Nagar, Panchkula, Rohtak and Palwal.

⁴ DDP areas: Hisar, Fatehabad, Sirsa, Bhiwani, Jhajjar, Mahendragarh, Rewari and Charkhi Dadri.

⁵ National Bank for Agricultural and Rural Development.

⁶ Ranney well means a water well or collection system including a central chamber with horizontal perforated pipes extending out into an aquifer. The perforated pipes may extend out under a surface water body such as a lake or river.

Rural Water Supply Schemes

Rural Water Supply is financed through various Centrally Sponsored Schemes and State Schemes, the details are given in **Table 1.2**:

Table 1.2: Rural Water Supply Schemes

| Scheme | Department | Funding |
|---|------------|--|
| Centrally Sponsored Schemes | | |
| National Rural Drinking Water Programme (NRDWP) now renamed as Jal Jeevan Mission (JJM) | PHED | Funding shared by Centre and State in the ratio of 50:50 (JJM) |
| National Institution for Transforming India (NITI) Aayog Assistance/Scheme. | PHED | A one-time assistance 100 per cent centrally sponsored. |
| State Plan Schemes | | |
| Augmentation Rural Water Supply Programme | PHED | 100 per cent State funded |
| National Bank for Agriculture and Rural Development (NABARD) Aided Projects/schemes | PHED | 85 per cent loan from NABARD and 15 per cent from State |
| Special Component Sub Plan (SCSP) (Rural) | PHED | State funded |
| Swaran Jayanti Maha Gram Yojana Rural Water Supply | PHED | 100 per cent State funded |
| Mahatma Gandhi Gramin Basti Yojana (MGGBY) | PHED | 100 per cent State funded |

The details of these schemes are given in **Appendix 1**.

1.3 Urban Water Supply

Water Supply in Urban areas is maintained and implemented by:

1. Public Health Engineering Department (PHED)
2. Municipal Corporations (ULBs)
3. Haryana Shehri Vikas Pradhikaran (HSVP).

The details of towns and area of their jurisdiction is given in **Appendix 2**.

As per census 2011, the Urban Population of Haryana is 0.89 crore. The PHED, ULBs and HSVP assess the total requirement of drinking water supply for Urban Areas on the basis of prospective population for next 30 years by taking into consideration the water allowance of 135 LPCD as per Central Public Health & Environmental Engineering Organisation (CPHEEO) Manual 1999.

The position of water deficient towns (below norms of 135 LPCD) is as under:

Table 1.3: Status of water deficient towns under the jurisdiction of PHED

| Sr. No. | Status as on | Total towns | Total Water deficient towns (below norms of 135 LPCD) |
|---------|--------------|-------------|---|
| 1. | April 2016 | 87 | 9 |
| 2. | March 2021 | 89 | 9 ⁷ |

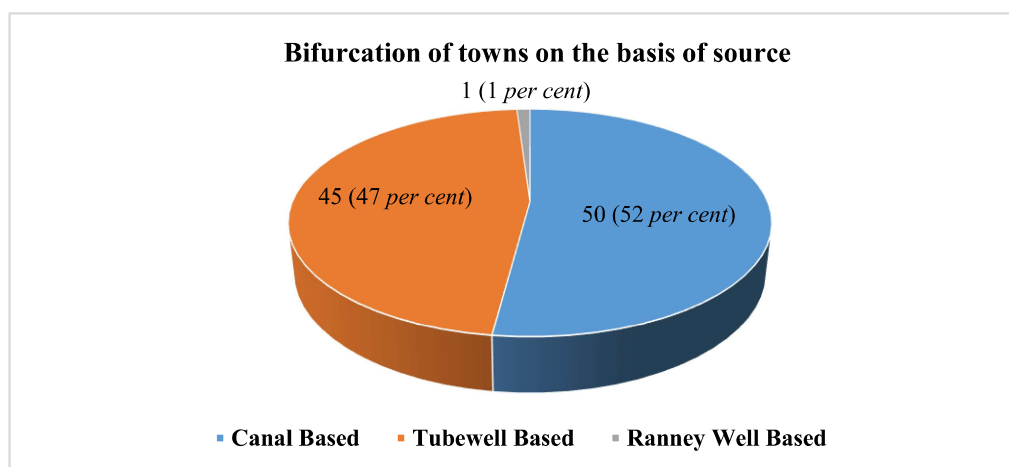
Source: Information provided by PHED

As on August 2022, there are 96 towns in Haryana and water supply is based on three main sources i.e. canal based, tube well based and Ranney well based. The

⁷ No. of towns with water supply < 110 LPCD: 5

No. of towns with water supply > 110 LPCD < 135 LPCD: 4

status of different sources in respect of Urban Water Supply as on August 2022 is as under:



Urban Water Supply schemes

Urban water supply is financed through various Centrally Sponsored Schemes and State Schemes, the details of various schemes are as follows:

Table 1.4: Urban Water Supply Schemes

| Scheme | Department | Funding |
|--|------------|--|
| Centrally Sponsored Schemes | | |
| Atal Mission for Rejuvenation and Urban Transformation (AMRUT) | ULBs | 1/3 rd and 1/2 nd of project cost as grant from centre for cities with population of above 10 lakh and upto 10 lakh respectively |
| State Sponsored Schemes | | |
| Urban Water Supply State Plan | PHED | 100 per cent State funded |
| Urban NCR (Water Supply) | PHED | 75 per cent loan and 25 per cent from State |

The details of these schemes are given in *Appendix 1*

Other funding components

1. In Urban Local Bodies, the expenditure incurred on water supply services by Municipal Corporations Karnal, Faridabad, Gurugram and Sonapat are met from their own resources viz. property tax, water charges, development charges, stamp duty etc.
2. The expenditure incurred on water supply including operation and maintenance under Haryana Shehri Vikas Pradhikaran (HSVP) is met from its own resources (sale of plots) and grants received from Town and Country Planning Department.

The financial management of Rural and Urban water supply schemes is discussed in Chapter III.

1.4 Departments/Entities involved in Water Supply

There are three departments/entities involved in providing water supply services in the state of Haryana which are as follows:

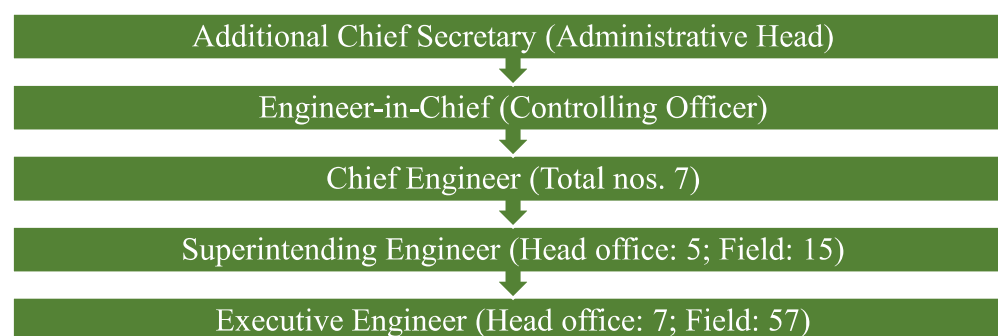
I. Public Health Engineering Department

The functions/activities of the PHED are:

- To plan, implement and monitor all Central and State funded programmes and schemes for safe drinking water in rural and urban areas,
- Construction & maintenance of Water Works, Boosting Stations and laying of pipe distribution system in the rural and urban areas,
- Recognizing and awarding Panchayats and organisations for excellent work in rural water supply sector,
- Providing inputs to other Departments/Ministries for formulation of policies impacting water issues.

Organisational Structure of Public Health Engineering Department

The Additional Chief Secretary to Government of Haryana (ACS), PHED is the administrative head at Government level and is responsible for implementation of policies, programmes and schemes. The Organisational structure is as under:



II. Urban Local Bodies (i.e. Municipal Corporations)

Section 277-A⁸ of HM Act, 1973 provides that the State Government may entrust the duties and responsibilities relating to water supply and sewerage in municipal area to PHED. Accordingly, the State Government transferred (April 1993) the core functions of municipalities related to water supply and sewerage to PHED except Municipal Corporation, Faridabad. Subsequently, the State Government transferred the core functions of water supply and sewerage back to three other Municipal Corporations i.e. Gurugram (w.e.f. 2013), Karnal and Sonapat (w.e.f. 2018). Thus, presently four out of 92 ULBs are performing water supply and sewerage activities in their respective municipal areas and in rest of the municipalities, these activities including collection of water and sewerage charges are performed by PHED.

⁸ Inserted by Haryana Municipal Act 6 of 1993.

III. Haryana Shehri Vikas Pradhikaran (HSVP)

The main functions of the HSVP are to promote and secure development of urban areas (including municipal areas) by acquiring undeveloped land. Water supply is being maintained by HSVP in the sector/area maintained by them.

The organisational structure of ULBs/HSVP is given at *Appendix 3*.

In addition to above, the authorities/agencies involved in planning/decision making and for conservation, management and regulation activities are as under:

1. Haryana State Water Supply and Sewerage Board (WSSB), under the Chairmanship of the Chief Minister (CM), accords approval for sewerage and water supply schemes and provides funds for their implementation.
2. Haryana Water Resources (Conservation, Regulation and Management) Authority notified in December 2020.

1.5 Audit Objective

Performance audit was taken to assess whether:

- i. Proper policies/ plans in line with National Water Policy were formulated, based on assessment of requirement and availability of water to provide safe and adequate quantity of drinking water to rural and urban population as per norms;
- ii. Financial management was effective and funds were provided in a timely manner and schemes were executed and implemented within the stipulated time and cost;
- iii. Adequate attention was accorded to ensure sustainability of water sources and environmental issues were suitably addressed;
- iv. Repairs and maintenance of the existing water supply assets were effective for ensuring uninterrupted water supply; and
- v. Mechanism for monitoring of quality of water supply and surveillance was adequate and effective.

1.6 Audit Criteria

Audit criteria were derived from the following sources:

- Guidelines for implementation of the scheme/programme- National Rural Drinking Water Programme (NRDWP), Jal Jeevan Mission (JJM), Uniform Drinking Water Quality Monitoring Protocol (UDWQMP), Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Mahatma Gandhi Gramin Basti Yojana (MGGBY), Mahagram Yojana.

- Detailed Project Reports (DPRs) and Feasibility Study Reports (FSRs) of various projects.
- Haryana Public Works Department Code (PWD Code).
- Central Public Health & Environmental Engineering Organisation (CPHEEO) Manual on Water Supply and Treatment, 1999 and CPHEEO Manual on Operation and Maintenance, 2013.
- National Water Policy 2012, Haryana State Rural and Urban Water Policy 2012.
- Other orders and Instructions of Centre/State Government.

1.7 Audit scope and methodology

Performance audit was conducted covering Rural and Urban Water Supply in Haryana for the period 2016-21. The field study was conducted in eight districts out of 22 districts. The detailed methodology of the audit and offices visited are detailed in *Appendix 4*.

Entry conference was held in May 2022 under the chairmanship of Additional Chief Secretary, Finance & Planning Department along with representatives of PHED, Town and Country Planning Department (TCPD), Urban Local Bodies Department (ULB) wherein the audit objectives, criteria and selection of units were discussed. The exit conference was held in November 2022 under the chairmanship of Special Secretary Finance & Planning Department along with representatives of PHED, TCPD & ULB wherein audit observations were discussed in detail. The deliberations of exit conference have been appropriately incorporated in the report.

1.8 Organisation of Audit findings

The audit was conducted keeping above stated audit objectives in mind. However, while compiling the audit findings, it emerged that these findings conversed broadly under these areas viz. Planning, Financial management, Inadequacy and Poor Quality of water, deficient emphasis on Sustainability and insufficient monitoring. Therefore, the audit observations are presented in following chapters:

Chapter-II- Inadequate Planning

Chapter-III- Improper Financial Management

Chapter-IV- Inadequate Supply of Water

Chapter-V- Poor Quality of Water Supplied

Chapter-VI- Deficient emphasis on Sustainability and insufficient Monitoring.

