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6.1 Non-preparation/implementation of sustainability measures

Para 3 under Guidelines for implementation of Sustainability (NRDWP guidelines) states that sustainability of drinking water sources ensures safe drinking water even during distress periods through conjunctive use of groundwater, surface water and roof water harvesting. This is achieved through construction of sustainability structures such as water harvesting systems, water recharging systems and surface water impounding systems aimed at improving rural drinking water supply.

During scrutiny of records¹, it was noticed that PHED set target² for construction of sustainability structures such as harvesting systems, water recharging systems and surface water impounding system etc. under NRDWP with water works which were unachieved. The department closed seven works which were administratively approved (May 2015) for amount of ₹ 111.81 lakh without incurring any expenditure. The reasons for closing the work was not furnished to audit.

Audit is of the view that sustainability structure should be incorporated for sustainability of water and sustainability plan should be made accordingly by the department in addition to adopting watershed principles for source recharging by convergence with other schemes.

6.2 Lack of departmental efforts to reduce dependency on Ground Water

NRDWP guidelines identified reduction in dependence on ground water and shift to surface water sources and conjunctive use of water from different sources as a critical issue to be addressed during the 12th plan period. The aim was to reduce pressure on ground water extraction and ensure potability of water. Ministry of Drinking Water & Sanitation (MDWS), Government of India also advised (February 2016) all states to take up more and more number of surface water based schemes in the interest of sustainability of service

¹ EIC, PHED.

² 2015-16: 3 and 2016-17: 10.

delivery and in preference to ground water based scheme. However, it was observed that PHED continues to launch more ground water based schemes as compared to canal water based schemes. It was observed that during the period 2016-17 to 2020-21, the ratio of newly commissioned canal based schemes to the number of newly commissioned tube-wells was continuously decreasing. Further, it was observed that the number of the new commissioned canal based schemes kept on decreasing from 2018-19 to 2020-21. The details are given in **Table 6.1** below:

Table 6.1: Details of Canal based and Tube well based schemes taken up during last five years

Year	Canal based schemes	T/well commissioned	Per cent of canal based water works to tubewells
2016-17	34	497	6.84
2017-18	28	412	6.80
2018-19	35	525	6.67
2019-20	24	528	4.55
2020-21	13	405	3.21
Total	134	2,367	5.66

In areas where water supply is solely ground water based viz. in Karnal, Kurukshetra, Panchkula, Faridabad (in four districts out of total eight selected districts) the department replied (May 2022) that no alternate options had ever been explored in previous five years (Karnal, Kurukshetra and Faridabad district). Panchkula divisional office did not respond despite issuing reminders. According to Block Wise Ground Water Resource assessment 2020 (available on website of CGWB as on July 2022), there were 16 over-exploited blocks in these four districts.

During exit conference (November 2022), PHED stated that at most of the places, ground water was sweet and people also preferred ground water based schemes. Further it was stated that a detailed reply would be furnished to audit. Reply is awaited as of December 2022.

6.3 Non-conducting of awareness programme

According to para 9.8.1 of CPHEEO Manual on O&M of Water Supply System published by Ministry of Housing and Urban Affairs (MoHUA), Community participation is an essential component of the monitoring and surveillance framework.

As per information provided by ULB and HSVP (April-May 2022) no such awareness programme had been organized by the entities.

Though the PHE department is stated to have carried out various support activities viz. training of VWSC members, Mass media programmes and activities, IEC in schools, targeted sampling etc. but no such annual calendar of organising the event and timing was available with the department. The department was issuing instructions to field offices as and when the said events

were to be organized. Thus, departments failed to generate awareness among public regarding good practices and surveillance activities.

6.4 Public Grievances/Complaints

PHE department and HSVP department had issued a toll free number for the citizens to lodge complaints related to water supply. Citizens can, however, lodge complaints on other platforms also viz. CM window, Twitter etc. The details of the complaints received and attended by the departments is shown in *Appendix 24*.

It was observed that 20451 complaints (13 *per cent*) were attended between 24 and 72 hours, 1,12,257 complaints (71 *per cent*) were attended beyond 72 hours by the PHED. The Department failed to produce relevant/supporting records in respect of these complaints. Audit could not ascertain the reasons/status of 2,403 unattended complaints due to non-maintenance of records.

In HSVP, it was observed that 1,898 complaints (58 *per cent*) were resolved within 24 hours to 72 hours and 141 complaints (four *per cent*) were resolved beyond 72 hours. It was noticed that no reasons were placed on record for attending 141 complaints beyond three days. The data indicating full details are not available on the online portal. In absence of full details, actual time taken to resolve the complaints could not be verified in audit.

In MCs³ (*Appendix 24*), it was noticed that all complaints were shown resolved within time period of 24 hours to 72 hours but no record was maintained to ascertain the actual time taken by the divisional office to resolve the complaints.

Though, timeline was fixed for resolving complaints based on their category, however, there was no basis/system in place for categorisation of the received complaints with the departments/entities. In absence of categorisation of complaints and relevant record, audit could not verify the authenticity of the data provided by the department/entities.

Beneficiary survey: Only 66 out of 685 beneficiaries (10 *per cent*) submitted their grievances on toll free numbers. 96 out of 541 beneficiaries (17 *per cent*) stated that their complaints were resolved after a gap of three or more than three days. Three beneficiaries replied that their complaints were not attended by departmental representatives.

³ MC Divisions- Faridabad and Karnal.

6.5 Water Quality Monitoring and Surveillance (WQM&S)

According to para 4.5 read with Para 10.1 of JJM guidelines GP and/ or its sub-committee, i.e. VWSC/Paani Samiti/User Group, etc. will ensure to test 100 *per cent* drinking water sources including private sources and sanitary inspection⁴ under its jurisdiction using FTKs. The provision for sanitary inspection and testing of water sources by FTKs were also mentioned in NRDWP guidelines.

During scrutiny of records in the office of the EIC, PHED, Haryana, Panchkula for the period 2016-17 to 2020-21 following observations were noticed:

1. **Sanitary Inspection:** No sanitary inspection had been carried out during 2016-21. No reasons were placed on record for not carrying out Sanitary Inspection.
2. **Non-coverage of all the sources:** It was observed that source testing ranged between 10.84 *per cent* to 35.33 *per cent* (**Appendix 25**). Thus, department failed to adhere to the guidelines of 100 *per cent* source testing. In this way, providing potable water to every household could not be ensured.

6.6 Delay in completion of Swaran Jayanti Mahagram Yojana works

Government of Haryana initiated (November 2015) a new scheme “*Swaran Jayanti Maha Gram Vikas Yojana*” for the planned development of the villages having population of 10,000 or more as per census. From the financial year 2018-19 onwards, provision of budget for this scheme has been made in the budget of PHE Department by the Finance Department. Total 132 villages having population of around 10,000 persons were planned to be provided with water supply and sewerage facility at par with urban area by PHED (WSSB). Under this scheme water supply @ 135 LPCD is to be provided in the selected villages. This was to be done in three phases.

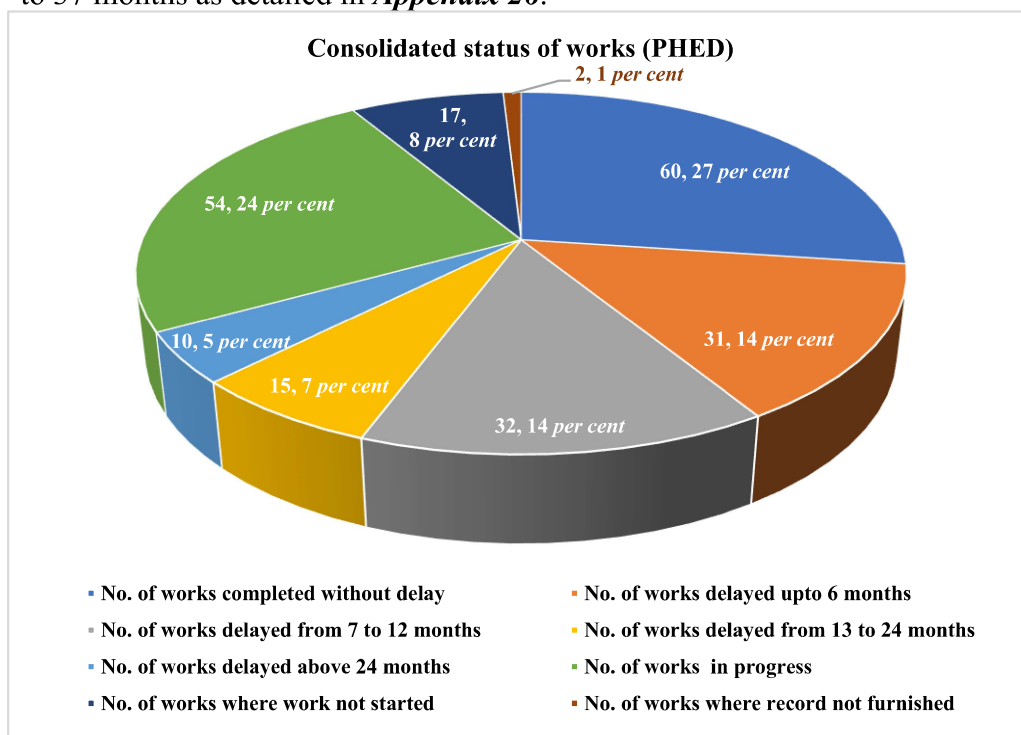
As per information furnished by PHED (August 2022) it was noticed that out of 20 villages of Phase-1 (target completion date of 31st March 2021) work of providing water supply and sewerage facility was completed in only two villages (Sotai-Faridabad, Naharpur-Gurugram). Of the remaining 18 villages of Phase-1, in 16 villages works were in progress, in one village tendering of work was in progress as on August 2022. In one village, it was declared that work was not feasible. This indicated delays in passing on the benefits of water supply to the to the villages.

⁴ A sanitary inspection is an on-site inspection of a water supply facility to identify actual and potential sources of microbiological contamination for evaluation of the physical structure and operation of the system and external environmental factors.

6.7 Delay in completion of work

Para 16.37.1 of Haryana PWD code states that time over runs is likely to result in higher projects cost, contractual claims, delay in the use of facility and possible loss of revenue. Further Para 16.38.1 stipulates that cost over-runs can be avoided to a large extent by proper planning, commitment and ingenuity.

6.7.1 Scrutiny of records of selected water supply works (10 per cent of total 2236 works in these selected divisions) pertaining to the period 2016 to 2021 from data dump of PHED revealed that there were delays in completion of works/projects. Out of 221 selected works, only 60 works (27 per cent) were completed on time. The delays in completion were ranging between one month to 37 months as detailed in *Appendix 26*.



From the above, it could be seen that works got delayed due to which actual benefit from these schemes could not transferred to the inhabitants of these areas.

6.7.2 During scrutiny of records in divisions of HSVP and ULBs for the period 2016-2021, it was seen that there were delays in completion of 17 works/projects (*Appendices 27 & 28*).

The delay of works in PHED was mainly due to wrong selection of site, non-availability of pipes etc. whereas in HSVP and MCs, the works got delayed due to non-availability of clear land for laying pipe lines, issue of payments, non-obtaining of No Objection Certificates from concerned departments, delayed supply of material etc. Thus, delay in completion of work is indicative of poor planning and lack of monitoring mechanism for timely completion of projects/work which leads to non-providing of envisaged benefits to the public.

6.8 Absence of Management Information System (MIS) in ULBs and HSVP

Management Information System (MIS) is defined as a formal system of making available to the management accurate, timely, sufficient and relevant information to facilitate the decision making process to enable the organisation to carry out the specific function effectively and efficiently in the tune with organisation's objectives. As far as water supply system is concerned, the performance of the system depends upon reducing and controlling leakage, undertake measurement of flows and pressure and ensuring the quality control of water supply system. It is the responsibility of operational management to generate data on MIS from subordinate offices for processing. As per Central Public Health & Environmental Engineering Organisation (CPHEEO), it is essential to develop information system in this regard.

It was observed that PHED had maintained the data on different modules on their departmental website.

However, during scrutiny of records in selected offices of HSVP and ULBs department, it was observed that the information system related to human resources, training profile of the staff at divisional level, data related to leakage detection and attended, routine operation maintenance, e- information, regular check of data related to water test reports was not in existence. Resultantly, management control as well as outcomes of efficient and effective water supply system could not be assessed.

Conclusion

Target set for construction of sustainability structures, rain water harvesting systems, water recharging systems under NRDWP remained unachieved. There was lack of efforts by the department to reduce dependency on ground water. Monitoring mechanism was poor as delays were noticed in completion of water supply works, non-maintenance of record related to consumer complaints.

Recommendations

In view of the above findings

11. *The Department should ensure construction of sustainability structures as envisaged and explore options for reducing dependence on ground water in the overexploited blocks.*
12. *The Departments/entities should ensure proper planning for timely execution and completion of works/projects for benefit of the inhabitants.*

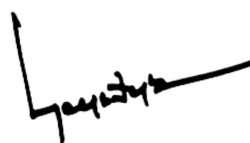
13. *The Department should strengthen its monitoring mechanism and proper documentation should be done for each and every activity viz. awareness programme, complaints, survey reports, procurement data so that proper monitoring may be ensured at each level.*
14. *It is recommended that a common portal may be devised for State level capturing of data.*



Chandigarh
Dated:28 April 2023

(NAVNEET GUPTA)
Principal Accountant General (Audit), Haryana

Countersigned



New Delhi
Dated:04 May 2023

(GIRISH CHANDRA MURMU)
Comptroller and Auditor General of India