



**PERFORMANCE AUDIT REPORT  
ON  
EFFECTIVENESS OF WATERSUPPLY  
SCHEMES OF LGE&RDD/TMA<sub>s</sub>/PHE<sub>s</sub>/  
WATER AND SANITATION  
SERVICES COMPANIES IN  
DISTRICT MARDAN**

**AUDIT YEAR 2019-20**

**AUDITOR GENERAL OF PAKISTAN**

## **PREFACE**

The Auditor General of Pakistan conducts audit in accordance with Articles 169 and 170 of the Constitution of the Islamic Republic of Pakistan 1973, read with Sections 8 and 12 of the Auditor General's (Functions, Powers and Terms and Conditions of Service) Ordinance 2001 and Section-37 of the Khyber Pakhtunkhwa Local Government Act 2013. The Performance Audit of "Effectiveness of Water Supply Schemes in Khyber Pakhtunkhwa" (District Mardan) was carried out accordingly.

The Directorate General Audit, District Governments, Khyber Pakhtunkhwa conducted performance audit of Effectiveness of water supply schemes in district Mardan, Khyber Pakhtunkhwa for the financial year 2018-19 with a view to report significant findings to stakeholders. Audit examined the economy, efficiency and effectiveness aspects of the services for provision of water supply facilities. Audit also assessed, on test check basis, whether the management complied with the applicable laws, rules and regulations in providing and managing the services for provision of effective water supply facilities. The Audit report indicates specific actions that, if taken, will help the management to realize the objectives of improved service delivery.

Most of the observations included in this report have been finalized in light of written replies of the management. DAC meetings were not convened despite repeated requests.

The Audit Report is submitted to the Governor of Khyber Pakhtunkhwa in pursuance of the Article 171 of the Constitution of the Islamic Republic of Pakistan 1973 read with Section 37 of Khyber Pakhtunkhwa Local Government Act 2013, for transmission to the appropriate legislative forum.

Islamabad  
Dated:

**(Javaid Jehangir)**  
**Auditor General of Pakistan**

## TABLE OF CONTENTS

ABBREVIATIONS AND ACRONYMS .....	i
EXECUTIVE SUMMARY .....	ii
1. INTRODUCTION.....	1
2. AUDIT OBJECTIVES .....	2
3. AUDIT SCOPE AND METHODOLOGY .....	3
4. AUDIT FINDINGS AND RECOMMENDATIONS .....	5
4.1 Organization and Management.....	5
4.2 Financial Management .....	11
4.3 Assets Management .....	13
4.4 Overall Assessment .....	14
5. CONCLUSION .....	15
ACKNOWLEDGEMENT .....	16
ANNEXURE.....	17

## **ABBREVIATIONS AND ACRONYMS**

AGP	Auditor General of Pakistan
BOD	Board of Directors
DG	Director General
DO	District Officer
INTOSAI	International Organization of Supreme Audit Institutions
KP	Khyber Pakhtunkhwa
KPI	Key Performance Indicators
LGA	Local Government Act
MOU	Memorandum of Understanding
NC	Neighborhood Council
PCRWR	Pakistan Council of Research in Water Resources
PCSIR	Pakistan Council of Scientific & Industrial Research
PHE	Public Health Engineering
PHED	Public Health Engineering Department
PC-1	Panning and Commmsion-1
TMA	Tehsil Municipal Administration
TMO	Tehsil Municipal Officer
VC	Village Council
WSSCM	Water and Sanitation Services Company Mardan
WAPDA	Water and Power Development Authority
XEN	Executive Engineer

## **EXECUTIVE SUMMARY**

The Director General Audit, District Governments, Khyber Pakhtunkhwa conducted performance audit titled “Effectiveness of water supply schemes in Khyber Pakhtunkhwa in selected districts (District Mardan) in February 2020. The main objectives of audit were to evaluate the status of water supply schemes being functional and dysfunctional, assets management while converting the working water supply schemes from electricity to solarization, steps taken to replace or repair the porous supply pipe lines. The audit was conducted in accordance with INTOSAI Auditing Standards as adopted by the Department of the Auditor General of Pakistan.

Access to drinking water is a basic human need and it is the responsibility of the Government to ensure its provision to all its citizens. The Government of Khyber Pakhtunkhwa recognized access to potable water as a fundamental human right and expresses its commitment towards ensuring availability of adequate quality of portable water to entire population at door steps, at an affordable cost and in equitable, efficient and sustainable manner.

The main objective of the performance audit is to focus on effectiveness of water supply schemes in Khyber Pakhtunkhwa and evaluate the achievement of the desired goals.

### **Key audit findings:**

- i. Local departments failed to enhance Capacity building of staff in order to improve their service delivery.
- ii. Water quality testing laboratories were not established in order to provide safe water to the community. Moreover, no regular water quality tests were conducted from the external laboratories.

- iii. The large numbers of water supply schemes were dysfunctional in district Mardan and local community was deprived from clean drinking water.
- iv. Water treatment and solid waste management plants were dysfunctional
- v. The departments failed to initiate efforts regarding public awareness in the community about the safe hygiene practices.
- vi. The recovery system was ineffective because a huge amount of water charges were outstanding and no efforts being made to expedite recovery.
- vii. Poor management of WAPDA assets were noticed as local offices did not show detail and whereabouts of WAPDA assets, which were spared after solarization of the schemes.

**Recommendations:**

- i. Extensive training programs needs to be arranged for capacity building of staff in order to provide excellent services delivery to the community.
- ii. Efforts may be expedited for establishment of water quality testing laboratories.
- iii. Steps may be taken for immediate functionalization of non-functional tube wells and provision of clean drinking water to community
- iv. Immediate functionalization of water treatment and solid waste management plants in order to ensure clean water supply to the community and reduce per capita adverse environmental impact.
- v. Steps may be taken to initiate public awareness in community about safe hygiene practices and clean drinking water.
- vi. Establishment of effective recovery system for early recovery of outstanding water charges.
- vii. Complete record of WAPDA assets of those schemes which were solarized shall be maintained for scrutiny.

# **1. INTRODUCTION**

## **1.1 Background**

Tehsil Municipal Administration is an organization associated with each tehsil of District Mardan. TMAs are responsible for spatial planning and municipal services, and work closely with union councils. TMAs in Khyber Pakhtunkhwa must be carried out their business in accordance with Tehsil and Town Municipal Administration rules of business 2015. District Mardan has four Tehsils i.e. Mardan, Takht Bhai, Rustam and Katlang. The office of a Tehsil Municipal Administration is managed by the Tehsil Municipal Officer. The water and sanitation sectors in the urban area were physically took over by WSSCM in December 2016 from TMA Mardan. TMA Takht Bhai providing water supply through 08 tube wells serving the population for drinking purpose but due to lack of distribution network certain area are left un-served and due to non solarisation of tube wells, community facing problems for provision of uninterrupted supply of drinking water.

WSSCM has been established as a corporate sector company owned by the Khyber Pakhtunkhwa Government. WSSCM is governed by Board of Directors (BOD). They formulate the policies for adoption by the company. Currently the finances are catered by the government and the company also generates its revenue which is very nominal at present. WSSCM is providing services in 14 Urban Union Councils (projected population is Approx 500,000) out of 46, in Solid Waste Management, Waste Water Management and Water Supply Management. WSSCM physically took over the water and sanitation sectors from TMA Mardan on 1st December 2016. Water supply through 36 tube wells with 11 Overhead reservoirs is currently serving the population for drinking purpose but due to lack of distribution network certain area are left un-served. Source of providing drinking water is tube wells, open wells, shallow wells, domestic bore holes, hand pumps etc. are used by the local inhabitants on their own. Water is supplied in 3 shifts of 3-4 hours intervals per day in the operational areas for 3512 domestic registered consumers.

PHED came into being in 1974 to provide clean drinking water, hygiene facilities and a healthy environment to the public. It was merged with Communication and Works Department in 2001. Public Health Engineering Department (PHED) Mardan presently managing water supply through 232 tube wells out of which 11 schemes are solarised, serving the population for drinking purpose in rural areas but due to lack of distribution network certain areas are left unserved. Water is supplied in 3 shifts for 3-4 hours intervals per day in the operational areas for 104,657 registered domestic consumers.

## **1.2 Organizational Structure**

TMA Mardan is managed by the Tehsil Municipal Officer. He is assisted by a Tehsil Officer (Finance), Tehsil Officer (Regulation) and Tehsil Officer (Infrastructure).

WSSC Mardan is managed by the Chief Executive Officer. He is assisted by General Manager, Manager Services, Chief Financial Officer, Manager Admin and Manager Technical. All managerial staffs are assisted by Assistant Manager Services, Assistant Manager Finance, Assistant Manager Admin.

PHE Department is managed by the Secretary PHE at Provincial level. He is assisted by Chief Engineer (South) and Chief Engineer (North). XEN PHE is responsible for managing department activities at district level. XEN PHE is assisted by Sub Divisional Officers at tehsil level.

## **2. AUDIT OBJECTIVES**

The main Objective of this audit is to evaluate the provision of safe drinking water facilities to the people of District Mardan in an efficient manner at an affordable cost without any discrimination and access of every citizen to potable water facilities for ensuring high standard of Public Health. To evaluate status of



water supply schemes being functional and dysfunctional, reasons for dysfunctional and effectiveness of water supply schemes after solarisation and to evaluate the steps taken by the management for replacement or repair the porous supply pipe line.

### **3. AUDIT SCOPE AND METHODOLOGY**

#### **Audit Scope**

The Provincial Government has allocated Rs 113.100 million for Solarization of water supply schemes and Rs 3.320 million on repair of porous & rusted pipes, in addition to the regular pay & allowances amounting to Rs 696.045 million in Mardan district of Khyber Pakhtunkhwa during financial year 2018-19.

#### **Documents Review**

Various documents were reviewed to gain an understanding regarding Effectiveness of Water Supply Schemes are as under; Laws, rules and regulations relevant to the subject audit. Documents includes Water Policy 2015, MOU of WSSCM ,funds Utilization report, budget and releases for solarisation of the water supply schemes., websites of WSSCM and PHE Department, progress reports/ Annual Performance Report.

#### **Audit Methodology**

The audit was conducted in accordance with International Organization of Supreme Audit Institutions (INTOSAI) Auditing Standards as adopted by the Department of the Auditor General of Pakistan. These standards require comprehensive planning to ensure that an audit of high quality is carried out in an economic, efficient and effective way within the planned time and cost. Data was collected as per methodology explained below:

## **Site Visits**

The selected sub offices of the Executive Engineer PHE, Chief Executive Officer WSSCM and Tehsil Municipal Officer Administration Mardan were visited by the audit team. The objectives of the inspection were to observe physically the effectiveness of water supply schemes.

## **Interviews**

A number of officers of PHE, WSSCM and TMA Takht Bhai were contacted and interviewed with a view to obtain information as to how they fulfilled their obligations.

The officers interviewed included:

- Chief Executive Officer WSSC Mardan
- Executive Engineer PHE
- TMO Takht Bhai

## **Analytical Review**

Analytical procedures were also performed on financial and non-financial data with a view of analyzing Effectiveness of Water Supply Schemes in LGE &RDD/TMAs/WSSC Mardan.

## **4. AUDIT FINDINGS AND RECOMMENDATIONS**

### **4.1 Organization and Management**

#### **4.1.1 Failure to enhance Capacity Building of Staff**

According to Para No.7.11 (i) of Khyber Pakhtunkhwa drinking Water Policy 2015, Comprehensive training needs to be arranged for enhancement of capacity building of water services providers.

During performance audit of Effectiveness of water supply schemes of LGE&RDD/TMA/PHE, it was observed that no training program was conducted by the TMA Takht Bhai and Public Health Engineering Department Mardan for capacity building of staff in order to enhance their skill and capabilities.

Failure to enhance of capacity building of staff occurred due to weak managerial and administrative controls, which resulted in non-achievement of objectives of effectiveness of water supply schemes.

When pointed out in February 2020, management stated that water supply staff of TMA Takht Bhai is trained and can operate the tube well motor pumps and other machinery. However, training program could be arranged when required. The management of PHE Department stated that trainings for Executive Engineer, Sub Divisional Officer and sub engineers on solarization of schemes, procurement procedure, E-bidding, water supply design, Google mapping etc have been conducted. Furthermore, clerical staff trainings have also been conducted by the Chief Engineer (North). Replies were not convincing as any documentary evidence i.e. detail of trainings, participants of trainings and other relevant material in support of replies were not provided.

Request for convening of DAC meeting was made in February 2020, however, meeting of DAC was not convened till finalization of this report.

Audit recommends extensive training programs needs to be arranged for capacity building of staff in order to provide excellent service delivery to the community.

#### **4.1.2 Failure to establish water Quality Testing Laboratories**

According to Khyber Pakhtunkhwa drinking Water Policy 2015, Para 7.10 (ii) each organization /department will establish water Quality Testing Laboratories and arrange required staff and equipment to ensure regular water quality monitoring and provision of safe water to the communities.

During the course of performance audit of Effectiveness of water supply schemes of LGE&RDD/TMAs/Water & Sanitation Services Company Mardan, it was observed that water quality testing laboratories were not established by the TMA Takht Bhai and WSSM Mardan in order to provide safe water to the community. Moreover, no regular water quality tests were conducted from the external laboratories.

Failure to establish water quality testing laboratories occurred due to weak managerial and administrative controls, which resulted in provision of unhygienic water to the local community.

When pointed out in February 2020, management stated that TMA Takht Bhai has established testing laboratory on direction of Provincial Government. Staffs along with necessary equipments have been provided and the laboratory will starts its functioning very soon. The management of WSSM stated that water quality tests of tube wells and distribution system conducted on semi-annual basis through a reputed laboratory PCRWR or PCSIR. All the physical, chemical and microbiological parameters were tested at source, mid and consumer level as per WHO guidelines. Replies of management are not convincing as locals offices are

failed to establish/functionalize water quality testing laboratories for conducting regular testes of the quality of water during the year 2018-19.

Request for convening of DAC meeting was made in February 2020, however, meeting of DAC was not convened till finalization of this report.

Audit recommends that efforts must be expedited for establishment of water quality testing laboratories.

#### **4.1.3 Non-functional tube wells**

Public Health Engineering Mardan has 13, TMA Takht Bhai has 04 and WSSC Mardan has 10 dysfunctional Water Supply Schemes.

During performance audit of effectiveness of water supply schemes of LGE&RDD/TMAs/PHEs/Water & Sanitation Services Company Mardan, it was noticed that 27 water supply schemes were non-functional and community was deprived from clean drinking water.

Non-functioning of tube wells occurred due to weak administrative and managerial controls, which resulted in depriving general public from provision of clean drinking water.

When pointed out in February 2020, management stated that water level in the area has gone very low due to which tube well became dysfunctional. In order to make these tube wells functional, a huge amount is required. Furthermore, existing tube wells are sufficient to provide drinking water to the community. The management of WSSM stated that tube wells were dysfunctional due to various reasons i.e electricity breakdown, site dispute etc and will be made functional shortly. PHE Division Mardan has made 13 Nos schemes functional in 2019. While remaining 15 Nos. schemes are in progress (under approval) which shall be made

functional. Most of the schemes have been completed. Replies of managements are not tenable as the departments failed to functionalize the non-functional water supply schemes in the District.

Request for convening of DAC meeting was made in February 2020, however, meeting of DAC was not convened till finalization of this report.

Audit recommends immediate functionalization of tube wells and provision of water supply to the community.

#### **4.1.4 Non-functional Water Treatment and Solid Waste Management Plants**

According to Clause- 3(vii) of the agreement executed between WSSCM and TMA Mardan, WSSCM must take all the steps for effective management of the services in order to safeguard public health and ensured that municipal services is effectively managed, waste water and solid waste is reduced, recycled or disposed-off in environment friendly manner and promoting safety standards.

During performance audit of effectiveness of water supply schemes of WSSC Mardan, it was noticed that water treatment and solid waste management plants in District Mardan remained non-functional since long. No concrete efforts were made to functionalize the plants till date of audit i.e February, 2020 in order to ensure clean drinking water availability to residents of District Mardan.

Water Treatment and Solid Waste Management Plants were not functioning due to weak internal controls, which resulted in delay in supply of water. Reply is not convincing as no documentary proof in support of reply was provided.

When pointed out in February 2020, management stated the TMA has not handed over any filtration plant to WSSM as per Services and Assets Management

Agreement (SAMA). Reply of the department is not correct as per agreement the water treatment plant and solid waste management is the responsibility of WSSCM.

Request for convening of DAC meeting was made in February 2020, however, meeting of DAC was not convened till finalization of this report.

Audit recommends immediate installation and making functional Water Treatment Plant in order to ensure clean water supply to the community.

#### **4.1.5 Failure to initiate public awareness in community about safe hygiene practices**

According to Khyber Pakhtunkhwa drinking Water Policy 2015, Para 8.3 (i) mass information, education and communication campaigns shall be developed and implemented to promote safe hygiene practices.

During performance audit of effectiveness of water supply schemes of PHE Mardan and TMA Takht Bhai, it was noticed that local administration failed to initiate educational and communication campaign about safe hygiene water in the community and to arrange training programs to involve local community in operation and maintenance of water supply schemes.

Non awareness about the safe hygiene practices in the community was due to weak administrative and internal controls.

When pointed out in February 2020, management stated that with the collaboration of Public Health Engineering Department the mass informative education and communicative campaigns were initiated to promote the safe hygiene for drinking water. Public awareness campaigns and meetings are regularly conducted by the locals of the area by the concerned Sub Divisional Engineer in-charge during routine visits to each scheme. Committee for revenue collection has

also been constituted, who during the field visits take up number of issues related to drinking water with consumers of each water supply schemes. At departmental level a post of social organizer has also been created with the sole responsibility to educate and aware the locals regarding drinking water utilization and revenue. Campaigns on chlorination and cleaning of reservoir on the directions of Provincial Government and Honorable Supreme Court have also been conducted. Replies of managements are not tenable as no documentary evidence regarding any training/ workshop / any other material showing involvement of local community were provided in support of replies.

Request for convening of DAC meeting was made in February 2020, however, meeting of DAC was not convened till finalization of this report.

Audit recommends that steps regarding ensuring the safe hygiene be taken and also initiate public awareness in community about provision of clean drinking water and safe hygiene practices.



## **4.2 Financial Management**

### **4.2.1 In-effective recovery system & non-recovery of water charges – Rs 170.942 million**

According to Para 6 of TMA budget rules 2016, ensuring all sums due to the TMA are regularly and promptly assessed, realized and duly credited in the Tehsil Fund.

During the course of performance audit of effectiveness of water supply schemes of LGE&RDD/TMAs/PHEs/Water & Sanitation Services Company Mardan, it was noticed that a huge amount of Rs 170.492 million was outstanding to various domestic consumers of water supply schemes. The recovery system was weak in these offices which need to be strengthened. Detail as per Annexure-1.

Audit observed that ineffective recovery system occurred due to weak financial controls, which resulted in loss to the Government and TMA.

When pointed out in February 2020, the management stated that as per this office record the arrears of water supply charges amounting to Rs 68,350 have been recovered from the defaulters. WSSM stated that efforts will be made for recovery of outstanding water charges by giving notices to all defaulters. 100% recovery is uphill task which has not been achieved by any utility in Pakistan. Therefore, the arrears of current quarter always rolled over to next quarter and so forth. The water rate cell will increase their efforts to decrease the arrears and increase the recovery of the current demand. Effective recovery may not be possible without the involvement of enforcement of district administration. Revenue committee has been constituted to enhance revenue collection. Remarkable improvement in revenue collection has been noticed. However a number of hurdles during the visits of revenue committee have been observed and reported to the higher authorities and district administrations. In light of these reports Secretary vide notification SO (G)/PHED/Notification/2019 dated 05.02.2019 has constituted committee comprising Deputy Commissioner

(Chairman) DPO, District Naib Nazim, Additional Commissioner District officer (F&P) District prosecutor and XEN PHED. Replies of managements are not convincing as huge amount of arrears are outstanding against defaulters. Moreover, no concrete steps were taken to ensure timely recovery of water charges.

Request for convening of DAC meeting was made in February 2020, however, meeting of DAC was not convened till finalization of this report.

Audit recommends establishment of effective recovery system for early recovery of outstanding water charges.

### **4.3 Assets Management**

#### **4.3.1 Poor management of WAPDA Assets**

Public Health Engineering Mardan has converted 11 water supply schemes from electricity to solarization in rural areas at a cost of Rs 113.100 million.

During the course of performance audit of effectiveness of water supply schemes of LGE&RDD/TMAs/PHEs/Water & Sanitation Services Company Mardan, it was noticed that PHE Mardan converted 11 water supply schemes from electricity to solarization in rural areas at a cost of Rs 113.100 million. However, the local office did not show/maintain stock register and no detail and whereabouts of assets was provided, which were spared after solarization of these schemes.

Poor assets management was occurred due to weak administrative controls, which may cause misappropriation of assets.

When pointed out in February 2020, the management stated that electrical components of those water supply schemes converted to the solar system are in the custody of PHE Division Mardan and shifting of same to other schemes where required. Stock register of the said items/materials is maintained at Sub divisional level. Reply is not convincing as neither stock register nor any other documentary material were provided to audit in support of reply.

Request for convening of DAC meeting was made in February 2020, however, meeting of DAC was not convened till finalization of this report.

Audit recommends justification in the matter/provision of WAPDA assets detail.

#### **4.4 Overall Assessment**

Effectiveness of water supply schemes of LGE&RDD/TMAs/PHEs/Water & Sanitation Services Company Mardan was not achieved as large number of water supply schemes were dysfunctional and local community was deprived from clean drinking water.

Local departments failed to enhance Capacity building of staff in order to improve their skills and capabilities to improve their service delivery. Water quality testing laboratories were not established in order to provide safe and clean water to the community. Moreover, no regular water quality tests were conducted from the external laboratories.

The recovery system for water charges was ineffective as huge amount of water charges were outstanding and no efforts being made to expedite recovery of outstanding water charges.

Poor management of WAPDA Assets as record was not available to show detail and whereabouts of WAPDA assets, which were spared after solarization of the schemes.

## **5. CONCLUSION**

In view of the foregoing Para, it may be concluded that effectiveness of water supply schemes of LGE&RDD/TMAs/PHEs/Water & Sanitation Services Companies did not achieve its objective of making functional all water supply schemes and Assets management while converting the working water supply schemes from WAPDA to solarizations.

## **ACKNOWLEDGEMENT**

We wish to express our appreciation to the management and staff of LGE&RDD/TMAs/PHEs/Water & Sanitation Services Company Mardan for the assistance and cooperation with the auditors during this assignment.

## ANNEXURE

### Annexure-1

#### 4.2.1 Detail of in-effective recovery system for water charges

S.No	Department	Collected water charges (Rs)	Outstanding water charges (Rs)
1	WSSM	5,477,375	2,249,115
2	PHE	5,077,200	168,624,622
3	TMA Takht bai	1640,200	68,350
<b>Total</b>			<b>170,942,087</b>